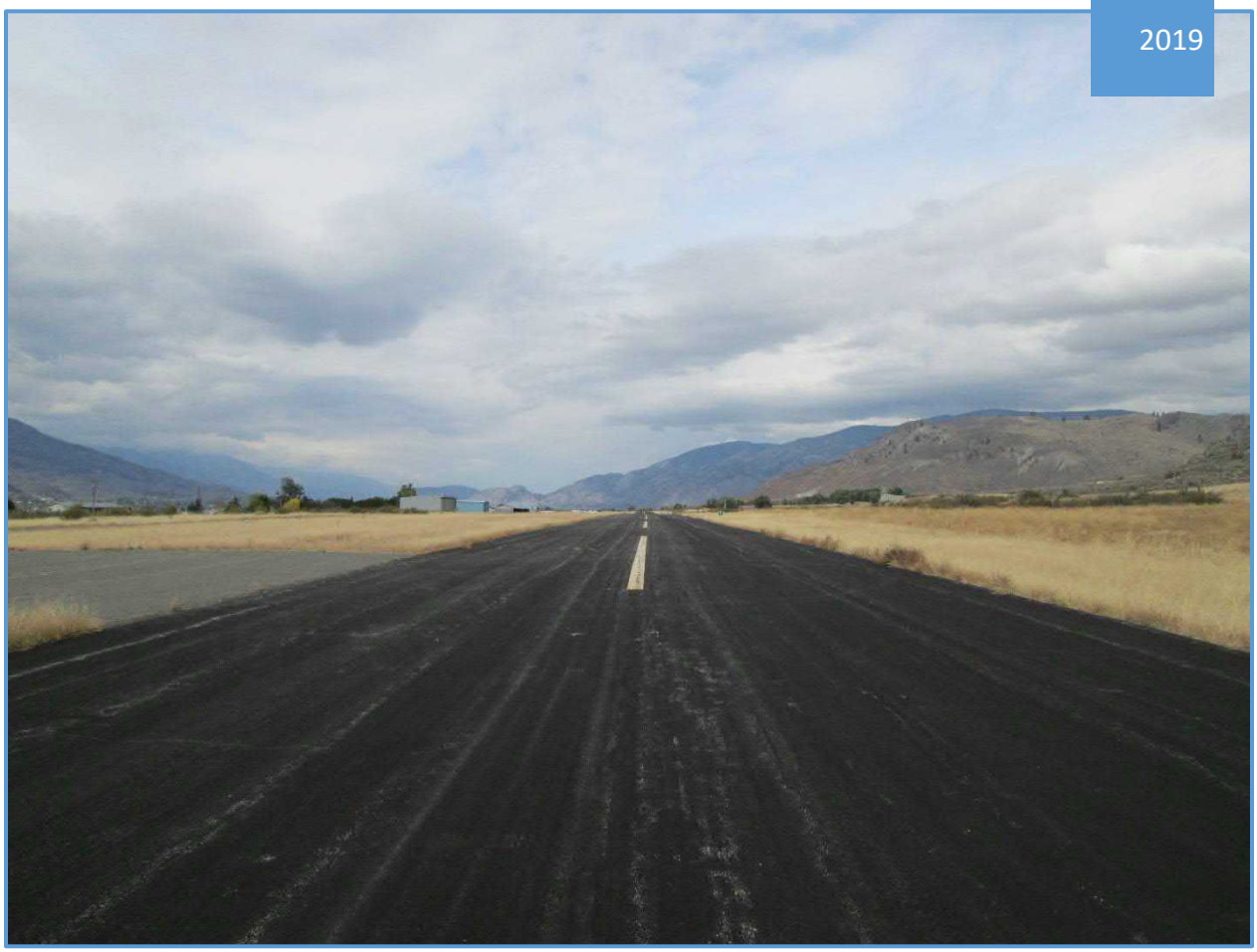
2019



Draft Environmental Assessment

For the Dorothy Scott Airport Improvements
Oroville, Washington

PREPARED BY J-U-B ENGINEERS, INC.

DECEMBER 2019

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Draft
Environmental Assessment
For the
Dorothy Scott Airport Improvements at Dorothy Scott Airport

Oroville, Washington

December 2019

This Environmental Assessment becomes a Federal document when evaluated and signed by the responsible FAA official

_____ _____

Responsible FAA Official Date

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List of Acronyms and Abbreviations

Airport	Dorothy Scott Airport
AC	Advisory Circular
AGIS	Airports Geographic Information System
DAHP	Department of Archaeology & Historic Preservation
ACS	American Community Survey
AIP	Airport Improvement Program
ALP	Airport Layout Plan
APE	Area of Potential Effects
BE	Biological Evaluation
BGEPA	Bald Eagle and Golden Eagle Protection Act of 1940
BLM	Bureau of Land Management
BMPs	Best Management Practices
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CIP	Capital Improvement Program
CO	Carbon Monoxide
dB	Decibel
DNL	Day Night Average Sound Level
DNR	Washington Department of Natural Resources
DOE	Washington Department of Ecology
DOT	Department of Transportation
EA	Environmental Assessment
EFH	Essential Fish Habitat
E.O.	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act of 1973
ESD	Employment Security Department of Washington State
FAA	Federal Aviation Administration
FBO	Fixed Base Operator
FEMA	Federal Emergency Management Agency
FIRMs	Flood Insurance Rate Maps
FPPA	Federal Farmland Protection Policy Act
GA	General Aviation
GHGs	Greenhouse gases
LUST	Leaking Underground Storage Tanks
MBTA	Migratory Bird Treaty Act of 1918
MPU	Master Plan Update
MSA	Magnuson-Stevens Act
NAAQS	National Ambient Air Quality Standards
NAVAIDS	Navigational Aids
NAVD 88	North American Vertical Datum of 1988
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program

NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NO_2	Nitrogen Dioxide
NPDES	National Pollutant Discharge System
NPL	National Priorities List
NPS	National Parks Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
O_3	Ozone
OFZ	Obstacle Free Zone
PAPI	Precision Approach Path Indicator
PCI	Per Capita Income
PM	Particulate Matter
Pb	Lead
RCRA	Resource Conservation and Recovery Act
RDC	Runway Design Code
REIL	Runway End Identifier Light
ROFA	Runway Object Free Area
ROW	Right of way
RPZ	Runway Protection Zone
RSA	Runway Safety Area
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
SPCC	Spill Prevention, Control, and Countermeasure
SWG	Single Wheel Gear
TAF	Terminal Area Forecast
TEC	Temporary Erosion Control
THPO	Tribal Historic Preservation Officer
TMDL	Total Maximum Daily Load
TOFA	Taxiway Object Free Area
TRI	Toxic Release Inventory
TSS	Threshold Siting Surface
Uniform Act	Uniform Relocation Assistance and Real Property Acquisition Policies Act
U.S.C	United States Code
USDA	United States Department of Agriculture
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
UST	Underground Storage Tanks
VOCs	Volatile Organic Compounds
VRCP	Voluntary Release Cleanup Program
WDFW	Washington Department of Fish and Wildlife
WSDOT	Washington State Department of Transportation

Chapter 1 - Background and Proposed Action

1.1 Introduction

The Dorothy Scott Airport (referred to as the "Airport," or "0S7") is located in north central Washington within Okanogan County (**Figure 1-1)**. The City of Oroville (Airport Sponsor), is proposing the relocation of the existing runway and a number of other improvements in order to meet existing and future Airport design standards. The primary proposed improvements include: 1.) Acquiring two (2) parcels in fee within Runway Protection Zone (RPZ) limits at both ends of the runway. Collectively, the proposed acquisitions encompass a total of approximately 0.87 acres; 2.) Shifting and constructing a new runway approximately 103.5' to the east and 155' to the south. The new runway centerline would also be rotated 1.2° east. The shift would include new edge lighting, PAPIs, signs, electrical vault, and segmented circle and lighted wind cone; 3.) Constructing a parallel taxiway with four connectors along the west side of the runway; 4.) Removing an existing septic drain field obstruction and installing approximately 1,825 linear feet of sewer, which would be connected to City sewer west of the Airport; 5.) Relocation of approximately 3,000 linear feet of Airport perimeter fencing on the east side of the Airport; and, 6.) Apron and hangar build-out along the west side of the runway in accordance with the current Airport Layout Plan (ALP). The Proposed Action is described in detail in **Section 1.5** of this document.

NEPA and the Council on Environmental Quality (CEQ) Regulations have established a broad national policy to protect and enhance the quality of the human environment, and require Federal agencies to develop programs and measures to meet national environmental goals. This Environmental Assessment (EA) has been prepared by the Airport Sponsor in coordination with the Federal Aviation Administration (FAA) to both identify the potential environmental impacts associated with the Proposed Action and explain how any identified impacts can be eliminated or mitigated. The implementation of the Proposed Action is contingent upon the approval of this EA in accordance with 40 CFR § 1500.1(a), 1500.3, and 1507 CEQ Regulations, the FAA's National Environmental Policy Act (NEPA) implementing orders and regulations (Order 1050.1F, *Environmental Impacts: Policies and Procedures*), the FAA's approval of grant applications, and the availability of funding. If approved and funded, construction of the Proposed Action is anticipated to commence in 2020.

1.2 Background and Existing Facilities

Dorothy Scott Airport lies in north central Washington in Okanogan County, which is bordered by British Columbia, Canada to the north, the Cascade Mountain Range to the west, and the Columbia River Basin and Lake Roosevelt to the south and east (see **Figure 1.1**). The Airport itself lies two miles northeast of downtown Oroville, encompasses approximately 150 acres, and is surrounded by an area of high desert and mountainous terrain (see **Figure 1.2**). The Canadian Border runs approximately 4 miles north of the City of Oroville, and the City is served by U.S. Highway 97. The land the Airport is situated on was purchased by the City of Oroville in 1934, and it is assumed that the Airport operated as a turf airstrip until it was paved in 1985. The Airport is situated less than one mile away from Lake Osoyoos, a popular summer destination for tourists from both the United States and Canada. Because the Airport sits close to the Canadian border, it receives a relatively high percentage of transient traffic as it is located on a major route for air traffic traveling between Alaska, Canada, and the lower 48 states. Thus, it is important that the Airport make improvements to safely accommodate both current operations as well as forecasted increases in future operations.

The airport reference code (ARC) is a standard that determines the critical airport dimensions based on an airport's critical aircraft. Specifically, the ARC is defined by the approach category and the design group of the aircraft. At Dorothy Scott, the Airport's current and forecasted Airport Reference Code (ARC) is B-I (small) based on the operational and physical characteristics of the aircraft currently in operation and/or intended to operate at the Airport. Aircraft at Dorothy Scott generally have an approach speed of less than 121, and a wingspan up to but not including 49 feet. Currently, some aspects of the current Airport facility fail to meet the B-I (small) safety and design standards; correcting these deficiencies and developing a safer Airport is the primary rationale behind the Proposed Action presented in this EA.

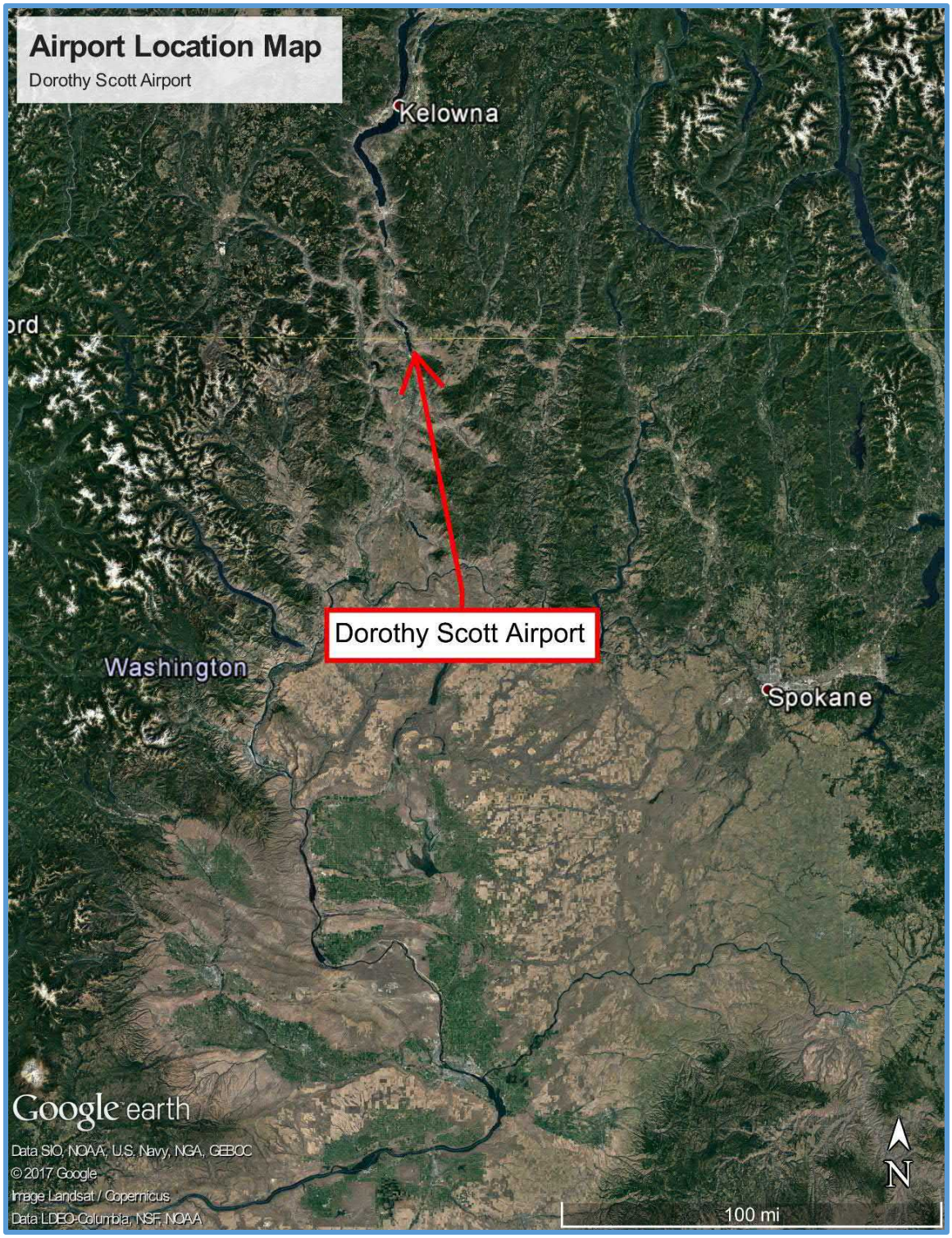

Figure 1.1. Airport Location Map

Figure 1.2. Airport Vicinity Map.

The Airport currently operates with one paved, asphalt runway (Runway 15/33), and an aircraft parking apron connected to Runway 15/33 by a partial parallel taxiway (Taxiway A). Runway 15/33 is currently a visual approach runway measuring 50 feet wide and 4,020 feet long with medium intensity runway lights (MIRLs). The runway has a partial parallel taxiway along the west side (Taxiway A; approximately 3,070

feet in length), and four connector taxiways, identified as Taxiway B (north midfield), the south midfield connector taxiway (unnamed), Taxiway C (north end), and Taxiway D (south end), respectively. The aircraft parking apron is approximately 60,800 square feet in size and contains ten aircraft tie-down positions. Two helipads are located immediately north of the aircraft parking apron.

Existing uses surrounding Runway 15/33 consists mostly of on-Airport components, such as the parking apron, 10 hangar buildings, and a pilots' lounge and Fixed Base Operator (FBO); and a few off-Airport developments, such as a City owned industrial building and two water storage tanks. A six-foot chain-link fence surrounds the Airport property.

Two privately owned hangar buildings operate under a ground lease through the City of Oroville (a 70-foot by 70-foot FBO building and a 40-foot by 77-foot executive hangar). The City owns the remaining buildings on the Airport property, including an open T-hangar with bays for eight aircraft, and several other hangars of various size. A pilots' lounge, equipped with a restroom and a telephone, sits adjacent to the hangar buildings, and functions as a U.S. customs agent's checkpoint when air traffic arrives from Canada. Vehicular traffic uses Airport Road to access the Airport's facilities, and automobile parking is available adjacent to the pilot's lounge.

Other components of the Airport's existing infrastructure include the City of Oroville-operated, self-service fueling facilities; a water pump station near Westlund Drive; various navigational aids, airport lighting and signing; a segmented circle, and a lighted windsock.

1.3 Existing Operations

Initial evaluation of existing Airport operations and based aircraft occurred during the development of the 2007 Dorothy Scott Master Plan Update (MPU), with updates occurring periodically during the following years. This evaluation utilized information from various sources including the FAA Terminal Area Forecast (TAF), fueling records, the Washington Aviation System Plan, the State of Washington Office of Financial Management Population Forecasts, and the British Columbia Thompson-Okanogan Population Forecasts. According to the 2007 MPU, 25 based aircraft currently reside at the Airport, while a total of 12,600 general aviation (GA) operations occur annually; 2,100 are local GA operations and 10,500 are itinerant GA operations. The MPU also states that Airport management believes the number of based aircraft and overall aircraft activity is slowly increasing based on the increasing numbers of aviation fuel sales. Due to its location, the Airport receives a high percentage of transient traffic, as it is a port of entry into the U.S. and located on a major route for air traffic traveling between Alaska, Canada, and the Lower 48 states.

No significant Airport Service Area studies were conducted in the formation of the MPU, however the estimated service area for the Airport consists of the City of Oroville and other small communities in the northern portion of Okanogan County and the southern portion of the Thompson-Okanogan Development Region in British Columbia, Canada.

Recently, J-U-B Engineers, Inc. completed an Airports Geographic Information System (AGIS) study in 2018 to make modifications to the MPU Preferred Alternative as necessary to assure that FAA design standards would be met, that all obstructions would be cleared, and that all operational needs would be addressed. This study is mentioned in **Section 1.5** and further detailed in **Section 3.2.2.**

1.4 Airport Forecasts

The 2007 MPU also provides future (forecasted) estimates for the Airport's based aircraft and annual operations anticipated to occur over a 20-year planning period. Existing Airport activity, socioeconomic information, and national GA trends all provided the base for the MPU forecasting, which indicates that the number of based aircraft is expected to increase to 38, while annual operations are forecasted to increase to 17,210, by the year 2025. As discussed in **Section 1.3**, the Airport expects the number of transient aircraft to increase as well, evidenced by the increased number of aviation gasoline sales occurring over recent years. The Airport Manager also believes that more transient aircraft would use the airport if jet fuel sales were available. Recent review of the WSDOT Aviation 2012 Airport Economic Profile and the 2018 Airport Facilities and Services Report for Dorothy Scott states that the Airport has 30 based aircraft, and averages 15,180 annual operations, which is consistent with the MPU forecasts. **Table 1.1** exhibits past and future Airport aviation demands depicted in the 2007 MPU.

Table 1.1. Dorothy Scott Airport Aviation Demand forecasts (Past and Future)

Based Aircraft						Aircraft Operations			
Year	**Single Engine**	**Turbo-prop**	**Helicopter**	**Light Sport**	**Total Based Aircraft**	**Air Taxi**	**Itinerant GA**	**Local GA**	**Total Operations**
2005	26	0	2	1	29	50	10668	2185	12600
2010	27	1	2	1	31	58	11642	2384	14084
2015	29	1	2	2	34	66	12584	2577	15227
2020	30	1	3	2	36	76	13405	2745	16226
2025	32	1	3	2	38	87	14212	2911	17210

The majority of growth at the Airport is expected to arise from an increased interest in light sport aviation, air taxi operations, and a growing population within the Airport service area. The MPU states that according to the FAA, itinerant operations as a whole are expected to increase over the course of the next 7 years (2025).

1.5 Proposed Action

The Proposed Action evaluated in this EA is indicated on the FAA-approved Airport Layout Plan (ALP) completed during the development of the 2007 MPU. Per the 2018 AGIS study (described in **Section 3.2.2**), this ALP has recently been updated by J-U-B Engineers, Inc. (2019) and this updated ALP is included within this EA as **Appendix A**.

The components of the Proposed Action evaluated in this EA are described below and include improvements that will meet the Purpose and Need described in Chapter 2. The specific components being evaluated include:

1) Acquisition of two (2) parcels in fee within the RPZ limits at both ends of Runway 15/33, encompassing a total of 0.87 acres (see **Table 1.2**, **Figures 1.3 and 1.4**). The extent of the acquisitions within the RPZs relates to the area where the Part 77 Approach Surface is 20 feet or less above the ground surface. No tree removal is proposed in this project since the trees do not penetrate the threshold siting surface (TSS). Control over these areas would allow the Airport to trim/remove orchard trees or other obstructions in the future, if necessary.

Table 1.2. Property and Easement Acquisitions

Legal Parcel ID#	Acquisition Type	Purpose of Acquisition	Acreage	Current Property Owner
4027150020	Fee	RPZ Control	0.10	Okanogan Land Co. LLC.
4950010102	Fee	RPZ Control	0.77	Capote Etal

2) Runway reconstruction with a 1.2° rotation east along with a shift 103.5 feet east and 155 feet south while maintaining the existing runway length (see **Figure 1.3**). This realignment and shift would relocate the RSA and ROFA to exclude Westlund Drive and would shift the RPZ so that it would no longer include a residence on the north side of the Airport. The shift and reconstruction would also involve new edge lighting, PAPIs, REILs, signs, electrical vault, and segmented circle and wind cone in order to both replace and enhance the existing Airport facilities.
3) Construction of a parallel taxiway and four connectors on the west side of the runway.
4) Removal of a septic drain field obstruction and consequent installation of approximately 1,825 linear feet of sewer. A septic drain field exists directly to the east of the northern portion of the runway. The proposed runway rotation and reconstruction would occur where the drain field is located, meaning its removal would be necessary in order to perform the required runway construction activities. The drain field would be replaced by new sewer line, which would be connected to the City sewer west of the Airport.
5) Relocation of approximately 3,000 linear feet of perimeter fencing on the east side of the Airport. The perimeter fencing east of the runway is located within the Building Restriction Line (BRL) of the revised runway alignment. In order to clear the BRL for the proposed runway (and meet applicable FAA standards), the perimeter fencing would need to be relocated further to the east.
6) Apron and hangar build-out along the west side of the Airport in accordance with the current ALP (2018 update). This build out is what was projected as the ultimate build out in the MPU.

Collectively, these proposed improvements (**Figure 1.3 and 1.4**) would increase safety for all Airport users and the general public in the vicinity of the Airport, bring all Airport facilities to current B-I (small) design standards, and would be used to meet Airport needs as Airport use gradually increases. The following chapter addresses the specific purpose for the Proposed Action and describes the specific Airport needs addressed by the Proposed Action.

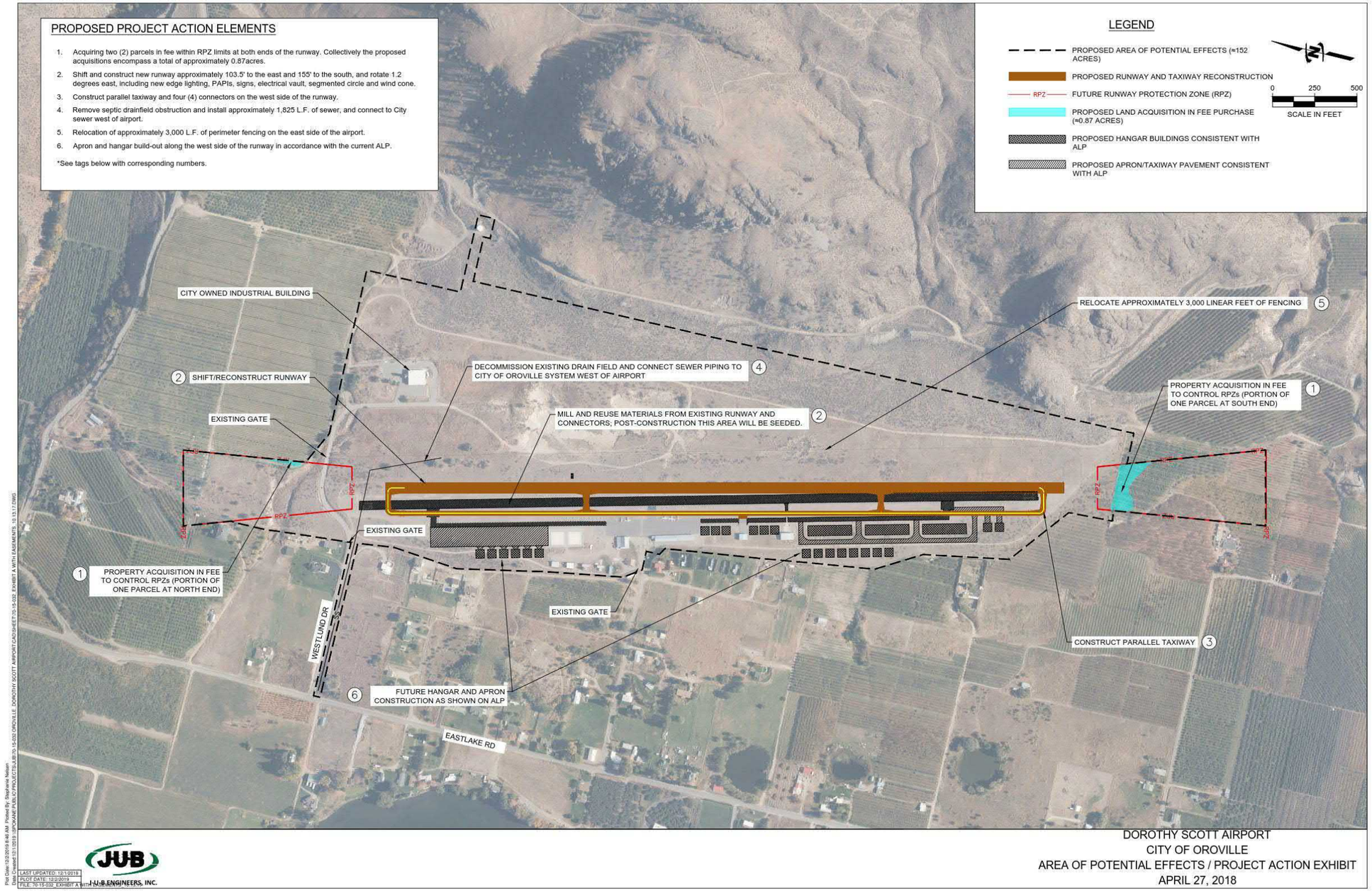

Figure 1.3. Area of Potential Effects/Project Action Exhibit.

EXISTING AIRPORT PROPERTY

ID #	COUNTY PARCEL #	LOT/BLOCK DESC.	ACREAGE	DATE ACQUIRED	FAA GRANT NO.	INTEREST TYPE
I	4027150007	TAX 7 PT LOT 3 (E1/2 NW SE) E/CANAL	11.65	UNKNOWN	NA - NON FAA FUNDED	FEE
II	4027150021	TAX 21 PT N1/2 NE SE SW/RD	0.36	8/22/1995	NA - NON FAA FUNDED	FEE
III	4027150024	TAX 24 S1/2 NE SE L/E80' N570'	58.95	UNKNOWN	NA - NON FAA FUNDED	FEE
IV	4027150004	TAX 4 PT LOT 4 (E1/2 SW SE) E/CANAL	8.30	UNKNOWN	NA - NON FAA FUNDED	FEE
V	4027140018	TAX 18 PT W1/2 SW W/ABANDONED RR/RW	0.65	8/22/1995	NA - NON FAA FUNDED	FEE
VI	4027220018	TAX 18 PT NE NE	37.00	UNKNOWN	NA - NON FAA FUNDED	FEE
VII	4027220004	TAX 4 PT SE NE	25.21	UNKNOWN	NA - NON FAA FUNDED	FEE

FUTURE AIRPORT PROPERTY

ID #	COUNTY PARCEL #	LOT/BLOCK DESC.	ACREAGE	GRANTOR	ACQUISITION TYPE	PURPOSE
8	4027150020	TAX 20 PT N1/2 NE SE L/SW RD	0.10	OKANOGAN LAND CO LLC	FEE	RPZ CONTROL
9	4950010102	TX 2 BLK 1 & 2 L/E10' LOT 2 BLK 2, E81.64' LOT 2 BLK 3, LOT 1&2 BLK 4 L/E10' LOT 2 ELLISFORDE LAKEVIEW TRACTS	0.77	CAPOTE ETAL	FEE	RPZ CONTROL

OKANOGAN COUNTY CODE CHAPTER 17A.301 IDENTIFIES AN AIRPORT SAFETY OVERLAY WHICH IS INTENDED TO PREVENT THE ESTABLISHMENT OF AIRSPACE OBSTRUCTIONS AND PROHIBIT LAND USE WHICH WOULD CREATE ASSEMBLIES OF PEOPLE OR OBSTRUCTIONS TO THE APPROACH/DEPARTURE SURFACE. THE OKANOGAN COUNTY AIRPORT SAFETY OVERLAY FORMS A PART OF THE OKANOGAN COUNTY CODE TITLE 17A. THE COUNTY AIRPORT SAFETY OVERLAY PROTECTS THE AIRPORT FROM OBSTRUCTIONS EXTENDING INTO THE APPROACH SURFACE TO ITS EXISTING OR FUTURE RUNWAY ENDS, AS WELL AS THE RIGHT TO PREVENT THE CREATION OF FUTURE OBSTRUCTIONS, AND PREVENTS ASSEMBLY OF LARGE GROUPS, ELECTRICAL INTERFERENCE, INCREASED BIRD POPULATION, STRUCTURES IN CLEAR ZONES, STORAGE OF FLAMMABLE SUBSTANCES, AIR POLLUTION, AND GLARE.

LEGEND

EXISTING	FUTURE	DESCRIPTION
		AIRPORT PROPERTY
		AIRPORT OWNED EASEMENTS
		RUNWAY/TAXIWAY PAVEMENT
	RPZ	RUNWAY PROTECTION ZONES
	RSA	RUNWAY SAFETY AREAS
	ROFA	RUNWAY OBJECT FREE AREAS
	TSA	TAXIWAY SAFETY AREAS
	TOFA	TAXIWAY OBJECT FREE AREAS
		FAR PART 77 20:1 APPROACH SURFACE
		20:1 THRESHOLD SITING SURFACE
— x — — — — — x — —		AIRPORT FENCING
		FLIGHT LINE DEVELOPMENT AREA

0 300 600
SCALE IN FEET

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SPONSOR APPROVAL

CITY OF OROVILLE DATE

BASE MAP SOURCE: OKANOGAN COUNTY, TITLE REPORT

Auditor File No.	Year Recorded	Easement Type
705461	1983	Perpetual Water Pipeline
832344	1995	Roadway Easement
705338	1983	Perpetual Water Pipeline
706105	1983	Perpetual Water Pipeline
3031394	2001	10' Waterline Easement
709360	1984	Perpetual Water Pipeline

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PRELIMINARY PLANS

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REUSE OF DRAWINGS

NO.	DESCRIPTION	BY	APR	DATE

REVISION

DOROTHY SCOTT AIRPORT
CITY OF OROVILLE

EXHIBIT "A" AIRPORT PROPERTY INVENTORY MAP

FILE : 70-15-032 EXHIBIT A WITH EA
JUB PROJ. # : 70-15-032
DRAWN BY: SLS
DESIGN BY: SLS
CHECKED BY: TDI
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY.
LAST UPDATED: 12/2/2019

SHEET NUMBER:
EX. A

Figure 1.4. Airport Property Inventory map

Chapter 2 - Purpose and Need

2.1 Purpose of the Proposed Action

The purpose of the Proposed Action is to improve the overall safety and quality of the Airport by providing facilities that meet the FAA B-I (small) design standards for the airfield infrastructure and to meet the ongoing and future needs for airside facilities.

2.2 Need for the Proposed Action

The necessity behind the proposed improvements described in this EA can be divided into two categories, both of which correlate to improving Airport safety and functionality. First, the proposed improvements related to FAA design standards are necessary to correct operational and geometric deficiencies at the Airport. A discussion of these deficiencies will appear in detail in the subsequent sections. Second, the proposed improvements related to airport capacity are essential because the existing infrastructure does not sufficiently support the existing operational activity at the Airport. **Sections 2.2.1** through **2.2.6** outline justifications for each of the specific improvements associated with the Proposed Action.

Before addressing the justifications for the specific proposed improvements in the following subsections, it should be noted that many deficiencies exist at the Airport because the existing features of the Airport do not meet all of the FAA B-I (small) design standards. **Table 2.1** highlights the B-I (small) design standards and the existing deficiencies at the Airport. Correcting these deficiencies is the major focus of the Proposed Action presented in this EA.

Table 2.1. Comparison of FAA B-I (small) Design Standards and Existing Airport Conditions

Design Standard	B-I (small) Standard	Is Runway 15/33 in Compliance?
Runway Width	60’	**No – Runway Width is only 50’.**
Shoulder Width	10’	**Yes**
Runway OFZ Width and Length[1]	250’ x 200‘	**Yes**
RSA Width and Length[1]	120’ x 240’	**No – Runway 15 RSA length is only 110’; Runway 33 RSA length is 180’.**
ROFA Width and Length[1]	250’ x 240’	**No – Runway 15 OFA length is 150’; Runway 33 OFA length is 180’.**
Runway Centerline to Taxiway Centerline	150’	**No – Runway Centerline to Parallel Taxiway Centerline is only 125’.**
Centerline to Aircraft Parking Area	125’	**No – Runway Centerline to Aircraft Parking Area is only 100’.**
Centerline to Holdline	125’	**No – Runway Centerline to Holdline is only 50’.**
Crosswind Component	95% wind coverage at 10.5 knots	**Yes[2]**
RPZ Dimensions	250’ x 1,000’ x 450’	**No – The Airport does not control portions of RPZ with elevations within 20 feet of approach surface.**
Approach Surface	20:1 Slope	**No – there are obstructions (trees) in the Runway 33 approach**

1. Length beyond Runway End.
2. The Airport does not have a wind rose. According to the 2007 MPU, Crosswind data was gathered from the Osoyoos Airport, which is the nearest airport to Dorothy Scott.

Note: Design standards shown are for existing approach minimums of one statute mile or greater. More demanding standards may apply if approach minimums of less than one statute mile are implemented.

OFZ: Obstacle Free Zone RSA: Runway Safety Area ROFA: Runway Object Free Area RPZ: Runway Protection Zone

Source: 2007 Dorothy Scott Airport Master Plan Update

2.2.1 Justification for Property Acquisitions

To proceed with the proposed Runway 15/33 shift (which would directly address the need for Airport safety improvements), fee purchases of two parcels located within the Airport’s Runway Protection Zones (RPZ) would be required in order to comply with FAA Advisory Circular (AC) 150/5300-13A change 1, *Airport Design Change 1*, Section 310. According to the FAA, RPZs are trapezoidal areas “off the end of the runway end that serve to enhance the protection of people and property on the ground” (AC 150/5300-13 *Airport Design*). Under FAA criteria, “the airport must own the landing area…[and] the airport owner must have sufficient interest in the Runway Protection Zones to protect the Runway Protection Zones from both obstructions and incompatible land use” (FAA AC 150/5300-13 *Airport Design*). **Table 1.2** provides details regarding the proposed property acquisitions, and **Figure 1.4** displays the locations of the proposed property acquisitions.

The acquisitions within the RPZs was reduced to contain portions of the RPZs where the Part 77 Approach Surface is 20 feet or less above the ground surface, rather than the entire RPZ, because zoning restrictions already exist for the area surrounding the Airport that regulate building height requirements and land uses in the Airport vicinity. The Proposed Action is needed so that the City can purchase the parcels within the RPZs to allow the Airport control over the TSS, granting the Airport the capability to trim/remove orchard trees in the future, if necessary. No tree removal is proposed in this project since the trees do not currently penetrate the TSS.

2.2.2 Justification for Runway Reconstruction, Rotation, and Shift

The existing Runway 15/33 is 50 feet wide and 4,020 feet long, constructed of asphalt, and holds a published gross weight bearing capacity of 5,000 lbs. single wheel gear (SWG). According to the MPU, the existing and forecasted critical aircraft weight (for the King Air B-100) is listed as 11,800 lbs. SWG. The MPU recommends that Runway 15/33 be strengthened to provide a strength rating of 12,500 lbs. The reconstruction discussed in the Proposed Action is necessary due to both the age of the asphalt and associated deterioration, and to bring the weight bearing capacity up to Airport standards.

While the current runway length of 4,020 feet is adequate for the Airport, the Proposed Action would provide a proper RSA, OFA, OFZ, and RPZ in order to bring the Airport up to standards for the B-I (small) classification. As listed in the 2007 MPU and summarized in **Table 2.1**, several of these existing dimensions fail to meet the B-I (small) standards. Rotating and shifting Runway 15/33's position would mitigate some terrain and vegetation issues, relocating the RSA to exclude Westlund Drive, increasing the width between the Runway Centerline and the future Taxiway Centerline, and the width between the Runway Centerline and Aircraft Parking Area, would bring the Airport into the standards listed under the B-I (small) classification (see **Figure 1.3**).

New edge lighting, Precision Approach Path Indicators (PAPIs), Runway End Identification Lights (REILs), signs, an electrical vault, and a segmented circle and wind cone would accompany the Runway 15/33 reconstruction and southeastern shift. The existing visual aids and lighting would be out of position and would not meet FAA standards after the completion of the runway shift due. Therefore, this new lighting would both replace and enhance the existing lighting and signage at the Airport, shift the visual aids to the proper positions that align with FAA standards, and improve pilot awareness as they navigate the airport facilities.

2.2.3 Justification for Construction of Parallel Taxiway and Four Connectors on West Side of the Runway

The Proposed Action is needed to construct a parallel taxiway on the west side of Runway 15/33. The current parallel taxiway does not meet FAA standards for taxiway design, and requires aircraft to back-taxi due to its short length. The existing pavement is also failing and needs to be replaced.

A new parallel taxiway would eliminate the need for back taxiing, while allowing the Airport to comply with FAA standards for taxiway design described in FAA AC 150/5300 13A, *Airport Design, Change 1*, Section 413. As required in the FAA AC, each runway end would be served by an entrance taxiway that would also serve as the exit taxiway for operations in the opposite direction. The new parallel taxiway would utilize right-angle intersections where it connects with the relocated runway, and would avoid high

energy intersections in the middle third of the runway, increasing overall pilot awareness and increasing airport safety. The new parallel taxiway would also replace the failing pavement of the existing taxiway, increasing overall safety levels at the Airport.

2.2.4 Justification for Removal of the Septic Drain Field Obstruction and Installation of 1,825 Linear Feet of Sewer

If Runway 15/33 is shifted, the Proposed Action would need to remove an existing septic drain field situated within the prism of the proposed runway pavement. Currently, this drain field lies directly east of the existing Runway 15 end, and the reconstruction measures in the Proposed Action for the relocated and shifted runway would require earth moving and grading activities directly within the area where the drain field is located to construct the new runway. The current drain field would be directly under the new runway pavement, potentially compromising the integrity of the new pavement. Removing the drain field would place the Airport in compliance with FAA standards and would help retain the integrity of the new runway pavement.

The connection of Airport sewer piping to the City of Oroville sewer system would accompany the removal of the drain field. The sewer piping is a more economical alternative to replacing/relocating the drain field.

2.2.5 Justification for Relocation of Perimeter Fencing

While the existing perimeter fencing is not encroaching upon the existing ROFA (i.e. more than 250 feet away from the Runway 15/33 centerline), the proposed 100-foot shift east and 150-foot shift south would cause the fence to intrude into the relocated ROFA. Safe operation of the Airport requires that the ROFA be kept clear of all objects not necessary for air navigation or aircraft ground maneuvering, therefore, the perimeter fencing around the runway would need to be relocated in order to satisfy the FAA ROFA requirements.

2.2.6 Justification for Apron and Hangar Build-Out along the West Side of the Runway

Currently, there is only one aircraft apron area at the Airport. The apron is 95 feet by 640 feet and contains 10 aircraft tie-down positions. The FAA recommends that tie-down space be provided for all based aircraft not stored in hangars, and 6 of the 25 based aircraft at the Airport are currently using tie-downs. According to the 2007 MPU, the City has not maintained a waiting list for hangars, however it is assumed that the owners of these aircraft would like to have hangar space if it were available, meaning that the ratio of tied down aircraft to aircraft stored in hangars is expected to change during the planning period. The MPU recommends that the Airport maintain 6 tie-downs for based aircraft, and the FAA suggests that the Airport should have sufficient tie-down space for 10 transient aircraft by 2025. Overall, the Airport needs to increase the number of tie-downs to at least 16 total spaces by 2025. Per the recent 2018 WSDOT data for the Airport, this increase of tie-downs remains a necessity to meet current Airport operational needs.

Hangars provide storage and protection for both based and transient aircraft (especially during winter months for protection from harsh weather conditions). The requirements for sufficient amounts of hangar buildings are linked to FAA AC 150/5070-6B *Airport Layout Plans*, Section 807. All of the existing hangars at the Airport are currently occupied. According to the 2007 MPU, the City owns an open hangar that contains eight aircraft, and the forecasts indicate an increase of nine based aircraft throughout the

planning period. In order to meet the existing and future demands of the Airport as recommended by the 2007 MPU, the Proposed Action would expand the amount of apron space on the northwest and southwest sides of the runway and construct new hangars to house the expected increase in based aircraft. The Proposed Action would also accommodate a higher portion of the current based aircraft as well as the additional based aircraft anticipated in the forecasts. The additional hangar and apron space represent full build out of the Airport per the MPU, and represents the conservative amount of potential future development at the Airport.

2.3 Requested Federal Actions

The requested federal actions associated with this EA include the unconditional approval of the Proposed Action on the Airport Layout Plan (ALP) and any future AIP funding applications associated with the Proposed Action have been fulfilled pursuant to 49 U.S.C. §47101.

Chapter 3 - Alternatives

3.1 Overview and 2007 Master Plan Update

The 2007 Master Plan Update (MPU) identified the need for Airport and facility development to bring the Airport into compliance with FAA standards. The MPU considered three alternatives to address the standards compliance, enhance aircraft storage needs, and update safety measures for Airport patrons and the general public. The most recent changes to the Airport occurred in 2008, and focused on the construction of the parking apron and the installation of perimeter fencing. While these changes enhanced the existing Airport conditions, various improvements are still required to bring the Airport into compliance with FAA standards and into accordance with the existing ALP.

3.1.1 Development Alternatives Considered

The three MPU alternatives summarized below contained three main components for each alternative: (1) runway reconstruction and shift; (2) updating dimensional standards to RDC B-I (small); and, (3) safety and landside development.

- **Alternative 1 –** 7.5 acres on the south end of the Airport and 2 acres on the north of the Airport would be acquired for the RPZs (part of the acquisitions would be avigation easements). Runway 15/33 would be reconstructed to increase the strength rating and shifted 180 feet to the south to allow for standard Runway Safety Area (RSA) and Object Free Area (OFA) dimensions on the north end. Rerouting the gravel road at the south end of the Airport property would allow for RSA and OFA dimensional standards on the southern end of the runway. The parallel taxiway would be relocated 21 feet to the west and reconstructed at 25-feet wide along the full length of the runway. Each connecting taxiway would be widened to 25-feet.
- **Alternative 2 –** 7 acres on the south end of the Airport and 2 acres on the north would be acquired for the RPZs (part of the acquisitions may be avigation easements). Runway 15/33 would be reconstructed to increase the pavement strength rating, and shifted 75 feet east and 110 feet south to allow for nested T-hangars with a taxi lane to access the back side of the hangars. Rerouting the gravel road at the south end of the Airport property would allow for standard RSA and OFA dimensions at the southern end of the runway. 4 acres of orchard trees would be removed to clear the southern approach to the Airport, and the parallel taxiway would be widened and extended to the full length of the runway.
- **Alternative 3 –** 5 acres on the south end of the Airport and 2 acres on the north end of the Airport would be acquired for the RPZs (part of the acquisitions may be avigation easements). The Runway 15 threshold would be relocated 180 feet south and the Runway 33 threshold would be relocated 200 feet to the north to allow for RSA and OFA standard dimensions. The runway and other aircraft movement area pavement would be strengthened and the parallel taxiway would be widened and extended to the full length of the runway.

3.2 Evaluation of Development Alternatives

Each of the 2007 development alternatives contain the same landside elements. The landside developments include:

- Construction of a new tie-down apron with space for 16 tie downs.
- Construction of 2 new 12-foot x 20-foot helicopter pads near the north end of Taxiway A.
- Construction of an automobile parking lot for 20 vehicles. This would modify the access to the ramp area. The parking area would have a drive through lane to access parking and the ramp area, with parking spaces on each side of the drive through lane.
- Construction of new hangars.
- Construction of a new pilots' lounge.
- Installation/rehabilitation of the perimeter fence.

The three alternatives were evaluated relative to each other during development of the 2007 MPU. Any development alternatives that did not meet the Airport's needs, or that were considered impractical from a technical standpoint during the planning process were eliminated from further consideration. Impractical development alternatives were those that required extensive land acquisitions, road relocations, or changes to nearby lands that would negatively impact landowners or existing roads. A description of this analysis is provided in the following sections.

3.2.1 Alternatives Eliminated from Consideration

The three development alternatives were narrowed during the MPU process to one Preferred Alternative based on whether or not the alternative had the ability to meet FAA design standards, provide long term flexibility to the Airport, maintain the current runway length, provide for future aircraft tiedown locations, provide for future helicopter parking locations, and allow the Airport the greatest amount of landside expansion. Alternative 1 and Alternative 3 were dismissed, leaving only Alternative 2 to continue on as the Preferred Alternative. **Table 3.1** (page 17) illustrates the MPU criteria used when evaluating the three alternatives.

Table 3.1. Development Alternatives Evaluated in the 2007 Master Plan Update

Alternative Name	Alternative Description	Does it meet FAA standards, maintain runway length, and allow for future aircraft tiedowns and parking?	Impacts to Adjacent Lands?	Alternative carried forward in this EA?
Alternative 1	Alternative 1 would shift Runway 15/33 180-feet south, which would be conducive to the development of RSA and OFA standards for B-I (small) classifications on Runway 15. This option would allow the runway length to remain at 4,020 linear feet, which would still accommodate 100% of the small airplanes with less than 10 passengers. The runway would be reconstructed, strengthened, and widened to 60 feet, and the existing aircraft movement area pavement that would be left in place would be reconstructed to increase the strength rating to 12,500 lbs. The gravel road at the south end of the runway would be rerouted, allowing standard RSA and OFA dimensions on Runway 33. The water tank in the orchard at the south end of the runway would be relocated, and 2 acres on the southwest side of the runway would be acquired along with 7.5 acres on the northern end of the runway to allow for taxiway extension and proper RPZs. Approximately 3.25 acres of orchard trees would be removed to clear the approach at the south end of the Airport. The parallel taxiway would be relocated 21 feet west to provide the standard 150-foot separation between the runway and the taxiway. This new taxiway would be the full, 25-foot width and along the full length of the runway. Each connecting taxiway would be widened to 25 feet to meet FAA specifications. It is estimated that this development alternative would require a total of 9.5 acres of land or easement acquisitions.	Yes. The FAA design standards would be met, runway length would be maintained, and would provide for flexibility in future Airport developments.	9.5 acres of land acquisitions or easements, along with the removal of 3.25 acres of orchard trees.	No
Alternative 2*	Alternative 2 would shift Runway 15/33 75-feet east and 110-feet south, which would allow the existing runway length of 4,020 linear feet to be maintained and creates the necessary space for RSA and OFA standard dimensions on the Runway 15 end. The reconstruction and shift also allows room for nested T-hangars with a taxilane to access the back side of the hangars. Pavement reconstruction and strengthening would occur within all existing and reconstructed aircraft movement areas to increase the strength rating to 12,500 lbs. The gravel road at the south end of the runway would be rerouted to allow for standard RSA and OFA dimensions at the Runway 33 end. The water tank in the orchard at the south end of the runway would be relocated. Approximately 7 acres at the south end of the Airport and 2 acres on the north end of the Airport would be acquired to accommodate for the taxiway extension and proper RPZs. Roughly 4 acres of orchard trees would be removed to clear the southern approach. Taxiway A would be relocated 54 feet east to allow for the standard 150-foot separation between the runway and the taxiway, and the parallel taxiway would be extended to the full length of the runway. All connecting taxiways would be widened to 25 feet. It is estimated that this development alternative would require a total of 9 acres of land or easement acquisitions.	Yes. The FAA design standards would be met, the current runway length would be maintained, future aircraft tie-down positions would be provided, future helicopter parking would be provided, and the Alternative would allow for landside expansion.	9 acres of land acquisitions	**Yes**
Alternative 3	Alternative 3 would shift the Runway 15 threshold 180 feet south and the Runway 33 threshold 200 feet north in order to allow for standard RSA and OFA dimensions on Runway 15 and 33 ends. With this option, the runway length would change from 4,020 linear feet to 3,640 linear feet, which would accommodate for 95% of the small airplanes with less than 10 passengers. All pavement would be reconstructed and existing aircraft movement areas would be strengthened to a rating of 12,500 lbs. The parallel taxiway would be widened and extended to the full length of the runway, while connecting taxiways would be widened to 25 feet. It is estimated that this development alternative would require a total of 7 acres of property acquisitions or easements, however this development alternative does not provide standard runway-taxiway separation and therefore would affect the Airport's ability to obtain funding from the FAA to maintain the viability of the facility.	No. While the Alternative would meet RSA and OFA standard dimensions, it would not provide standard runway/taxiway separation; therefore, if this option is selected, it would affect the Airport's ability to obtain funding from the FAA to maintain the Airport and associated facilities.	7 acres of land acquisitions or easements	No

* Alternative 2 was further developed before it was finalized. The final version of Alternative 2 is described in **Section 3.2.2** as the Proposed Action.

While all three development alternatives address the needs of the Airport, Alternative 2 was chosen as the Preferred Alternative during the MPU process because it conforms to FAA standards, improves safety, and has relatively low impacts to adjacent land areas.

3.2.2 Refined Alternative 2 - Proposed Action

Prior to the preparation of this Environmental Assessment, a study involving acquisition of Airports Geographic Information Systems (AGIS) data and refinement of the MPU Preferred Alternative was conducted. The purpose of the study was to make modifications to the MPU Preferred Alternative as necessary to assure that FAA design standards would be met and that all obstructions were cleared. These revisions have resulted in the Proposed Action of this EA, and are described in detail in **Section 3.3.2**

The refined Alternative 2 carried forward hereby is referred to as the Proposed Action and is discussed in detail in the following section. This revised Proposed Action meets design standards for the B-I (small) classification and addresses current and forecasted Airport needs as defined in Chapter 2 of this EA.

3.3 Alternatives Being Evaluated

Two alternatives are being carried forward in this EA for a more detailed analysis. The alternatives are:

1. No Action Alternative
2. Proposed Action

3.3.1 Alternative 1 – No Action Alternative

The No Action Alternative is defined by the Council on Environmental Quality (CEQ) as the alternative that "considers the environmental consequences of not undertaking the action or proposed project." Within this EA, the No Action Alternative would not include any improvements to the Airport and would maintain all existing facilities in their current condition. The Airport would continue to operate with insufficient aircraft storage space and surface pavement in poor condition. Runway 15/33 would not comply with the FAA B-I (small) RDC classification.

The No Action Alternative would not address the need to correct necessary FAA design standards nor would it address necessary functional improvements at the Airport needed for existing and future operations. The aircraft currently operating and projected to operate at the Airport require a wider runway, greater runway-taxiway separation, and wider taxiways than what currently exist, and the RSA and ROFA are non-standard. These deficiencies represent a number of safety concerns and the potential for accidents and incidents would continue because of these deficiencies. While the No Action Alternative does not meet the project's purpose or need, the National Environmental Policy Act (NEPA) requires its consideration. The environmental effects will be considered as a baseline for evaluation of the Proposed Action.

3.3.2 Alternative 2 – Proposed Action

The Proposed Action would consist of reconstruction and improvements that would correct Airport deficiencies with regard to FAA B-I (small) design standards. Key features of the Proposed Action are:

1) Acquisition of two parcels in fee within RPZ limits at both ends of the runway. The total amount of proposed acquisitions is approximately 0.87 acres. This acquisition allows the Airport to control the TSS, allowing the Airport to trim/remove orchard trees in the future, if necessary.
2) The Runway 15/33 length would be maintained at 4,020 feet. The Runway 15/33 width would be increase from 50 feet to 60 feet. The runway would remain Visual.
3) Runway 33 would be elevated approximately 8 feet to avoid obstructions. Runway 15 would be elevated approximately 3 feet to match surrounding terrain.
4) Runway reconstruction with a rotation 1.2°, a 103.5-foot shift east, and a 155-foot shift south. The reconstruction would involve the installation of new edge lighting, PAPIs, signs, an electrical vault, and a segmented circle and wind cone.
5) Construct a parallel taxiway on the west side of the runway, along with the construction of four connector taxiways.
6) Removal of a septic drain field obstruction and consequent installation of 1,825 linear feet of sewer connected to the City sewer west of the Airport.
7) Relocation of approximately 3,000 linear feet of perimeter fencing on the east side of the Airport.
8) Apron and hangar build out on the west side of the Airport in accordance with the most current ALP.

The Proposed Action would meet the project purpose and need (described in Chapter 2) by upgrading the existing Airport facilities and complying with the FAA's B-I (small) design standards. The Proposed Action has been selected for further analysis based on its ability to meet the project's current and forecasted needs.

Chapter 4 - Affected Environment and Environmental Consequences

4.1 Introduction

This chapter evaluates potential impacts related to the Proposed Action on each of the Environmental Impact Categories defined by FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*. The evaluation of each Environmental Impact Category includes: (1) the Affected Environment, which describes the existing natural, ecological, cultural, and economic conditions that could be impacted by the Proposed Action; (2) the Regulatory Guidelines, which outlines the regulatory requirements and describes the methodology used to evaluate resource impacts; (3) the Environmental Consequences, which assess the human and environmental consequences of the No Action Alternative and the Proposed Action for each environmental resource; and, (4) Mitigation, which describes the measures related to the anticipated Proposed Action impacts.

FAA Order 1050.1F provides guidance for developing airport projects in compliance with the National Environmental Policy Act (NEPA). This guidance document requires consideration of the following environmental impact categories in this EA:

- Air Quality
- Biological Resources
- Climate
- Coastal Resources
- Department of Transportation Act, Section 4(f)
- Farmlands
- Hazardous Materials, Solid Waste, and Pollution Prevention
- Historical, Architectural, Archeological, and Cultural Resources
- Land Use
- Natural Resources and Energy Supply
- Noise and Compatible Land Use
- Socioeconomics, Environmental Justice, and Children's Environmental Health and Safety Risks
- Visual Effects
- Water Resources
- Cumulative Impacts

This chapter examines areas where physical changes, such as the relocated and rotated runway, taxiway construction, apron expansion, drain field removal, and relocated fencing, would occur, while also reviewing some lands beyond the Airport property extents due to the potential effects associated with the environmental impact categories reviewed in this EA.

The Dorothy Scott Airport is a small, general aviation airport that encompasses approximately 152 acres near the City of Oroville in Okanogan County, Washington. The Airport is located in north central Washington, surrounded by high desert, and is approximately 4 miles south of the Canadian Border. The Airport is situated at approximately 1,607 feet above mean sea level. The land surrounding the airport consists almost entirely of orchards and small residential properties to the north, west, and south, while mountainous foothills rise up to the east. Lake Osoyoos, a popular tourist destination for visitors from both Canada and the U.S., lies approximately 0.25 miles west from the Airport at its closest point.

The study area associated with the No Action Alternative correlates to the existing Airport property boundaries. The study area for the Proposed Action is defined as the existing Airport property and planned property acquisitions, totaling 152 acres (see **Figures 1.3** and **1.4**).

4.2 Air Quality

4.2.1 Affected Environment

The Environmental Protection Agency (EPA) has established National Ambient Air Quality Standards (NAAQS) to defend public health and environmental welfare against the negative effects of outdoor air pollution. Primary NAAQS are health-based and geared toward protecting sensitive or at-risk portions of the population. Secondary NAAQS are welfare oriented and designed to prevent decreased visibility and damage to animals, vegetation, and physical structures. NAAQS have been established for the following criteria pollutants: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), sulfur dioxide (SO_2), particulate matter (PM), and lead (Pb).

The Clean Air Act (CAA) sets the overall policy for managing air quality across the nation. Under the CAA, air quality conditions within all areas of a state are required to be designated with respect to the NAAQS as Attainment, Nonattainment, or Maintenance. Areas that do not exceed the NAAQS are designated as Attainment, while areas that exceed the standards are designated as Nonattainment. Once a Nonattainment area meets the NAAQS and requirements in the CAA, the site may be designated as a Maintenance area by the EPA.

After reviewing the EPA Green Book reports and the Washington State Department of Ecology (DOE) database, no Nonattainment or Maintenance areas exist near Dorothy Scott Airport. The Airport is located within an EPA-designated Attainment area, and all NAAQS air quality standards are currently met and upheld. There are no applicable *de minimis* thresholds for the any of the criteria pollutants because the area surrounding the Airport is within Attainment.

4.2.1.1 Regulatory Guidelines

Section 176(c) of the CAA, as amended in 1990, requires that federal actions conform to the appropriate federal and state air quality plans in order to attain the CAA's air quality goals. Concurrently, Section 110 of the CAA, 42 U.S.C. §7410, requires that state and local air pollution control agencies adopt federally approved control strategies to minimize air pollution. The resulting body of regulations is known as a State Implementation Plan (SIP). SIPs generally establish limits and standards to minimize emissions of criteria air pollutants.

The FAA's *Aviation Emissions and Air Quality Handbook* (Version 3, Update 1, dated January 2015) states that both the rules and requirements described in the CAA and NEPA mandate that air quality impacts associated with federal actions and projects do not cause, or worsen, violations of relevant air quality standards. Essentially, an assessment or study of air quality, either qualitative or quantitative, is always necessary under NEPA or the CAA.

The General Conformity Rule of the CAA ensures that actions occurring in EPA-designated NAAQS nonattainment or maintenance areas that receive federal funding, support, approval, or permitting are accounted within, or do not in any way interfere with, the attainment strategy of an EPA-approved SIP. Because the Dorothy Scott Airport is situated within an Attainment area, the proposed improvement project is not subject to the General Conformity rule, but the Project Action would need to conform to the current Washington State SIP.

4.2.2 Environmental Consequences

No Action Alternative

Under the No Action Alternative, no development and no resulting changes in air quality or air emissions would occur, and Airport operations would continue at levels similar to existing operations. Therefore, the No Action Alternative would pose no effect to air quality.

Proposed Action

The Proposed Action should be considered exempt from the General Conformity Rule because Dorothy Scott Airport is not situated within a Nonattainment or Maintenance area.

The purpose of the Proposed Action is to improve the overall safety of the Airport by providing facilities that meet FAA B-I (small) design standards for airfield infrastructure and to meet ongoing and future needs of the airside facilities. However, rather than cause an increase in the overall number of Airport operations, the Proposed Action would instead allow the Airport to safely maintain its current (and forecasted) level of operations. No changes in aircraft fleet mix or taxiing times would occur.

The Proposed Action would reconstruct the runway in a manner and size that matches the existing runway; the runway would support the same class of aircraft, and the reconstruction would primarily rectify non-standard conditions (i.e. taxiway separations and approach obstructions). The most intensive element of the Proposed Action Alternative would be the construction associated with the runway. Overall, the runway and taxiway construction is anticipated to occur over the course of 30 to 60 consecutive days. Equipment expected to be utilized for the Project Action consists of heavy loaders, excavators, dump trucks, compactors, bulldozers, graders, pavers, backhoes, water trucks, rollers, and other construction support equipment. However, due to the small size of the Airport, and the relatively small size of the proposed construction elements, it is unlikely that a significant amount of criteria pollutants would be produced. Given that there are no applicable *de minimis* levels for criteria pollutants within the project area, due to the fact that the Airport is located within an Attainment area. There would be no significant impacts to air quality as a result of the Proposed Action.

4.2.3 Mitigation

No mitigation is required, as the Proposed Action would not result in any significant increase in the levels of each of the established criteria pollutants.

The project specifications would include temporary erosion control (TEC) measures to minimize the effects on air quality during construction activities. TEC measures would include implementation of Best Management Practices (BMPs) to minimize airborne dust resulting from ground disturbing activities. Project specifications would also include operations necessary to meet permitting requirements for the general construction as well as state and federal air quality requirements.

4.3 Biological Resources

4.3.1 Affected Environment

Federal agencies are required to follow the guidelines set forth in the Endangered Species Act of 1973 (ESA) (16 U.S.C. 1531-1543), the Migratory Bird Treaty Act of 1918 (MBTA) (16 U.S.C. 703-712), the Bald Eagle and Golden Eagle Protection Act of 1940 (BGEPA), and the Magnuson-Stevens Act of 1976 (16 U.S.C

1801). This section evaluates the impact of the Proposed Action on the biological resources in the study area, including those resources protected under the ESA, the MBTA and the BGEPA. Per the FAA-approved project scope, a Biological Evaluation (BE) was completed by J-U-B ENGINEERS, Inc. in September 2018 (see **Appendix B**).

The BE determined that:

- There is no Essential Fish Habitat (EFH) protected under the Magnuson-Stevens Act within the study area.
- There are no ESA-listed plants within the Proposed Action Area.
- The United States Fish and Wildlife Service (USFWS) lists four ESA-listed species as potentially occurring within the Proposed Action Area; namely, yellow-billed cuckoo, bull trout, Canada lynx, and North American wolverine.

The close proximity of the airport to the surrounding agricultural areas, transportation corridors, and established residences creates a less than ideal habitat for most terrestrial and aquatic plant and animal species. The BE did not identify any documented occurrences of any of the four identified ESA-listed species within the Proposed Action Area. Additional coordination occurred with the USFWS and the Washington Department of Fish and Wildlife (WDFW), and no comments were received (see **Appendix B**).

Recent review (on November 19, 2019) of the USFWS Information for Planning and Consultation (IPaC) database indicated the addition of gray wolf to the list of ESA-listed species with the potential to occur at the Airport.

The evaluation also included a review focusing on the existence or potential existence of threatened or endangered plant and animal species, and a review of the existence of plant and animal species of special concern. The BE specifically addressed the potential impacts to yellow-billed cuckoo, bull trout, Canada lynx, North American wolverine, and gray wolf.

The species were either listed as "threatened" (defined by the ESA as "any species which is likely to become endangered within the foreseeable future throughout all or a significant portion of its range,"), "proposed threatened" (defined by the ESA as "any species currently proposed for official listing as threatened), or "proposed endangered" (defined by the ESA as "any species currently proposed for official listing as endangered" because the species is in danger of extinction within the foreseeable future throughout all or a significant portion of its range). **Table 4.1** summarizes the potential ESA-listed species at the Airport.

Table 4.1. Potential ESA-Listed Species at Dorothy Scott Airport.

ESA-listed Species or Critical Habitat	Scientific Name	ESA Status
Yellow-billed cuckoo	*Coccyzus americanus*	Threatened
Bull trout	*Salvelinus confluentus*	Threatened
Canada lynx	*Lynx Canadensis*	Threatened

North American wolverine	*Gulo gulo luscus*	Proposed Threatened
Gray wolf	*Canis Lupus*	Proposed Endangered

The following information summarizes the potential impacts to the ESA-listed species that may exist at the Airport. A more detailed account of the species and effects determination is documented in the BE (see **Appendix B**).

Yellow-billed cuckoo

Suitable habitat characteristics for cuckoo include dense stands of tall cottonwoods and willow riparian woodland habitat. Several residential lots near the Airport contain one or two cottonwoods within their manicured landscapes; however, the Proposed Action Area lacks dense stands of tall cottonwood or willow trees. The lack of viable habitat in the Proposed Action Area makes it highly unlikely that the yellow-billed cuckoo would be present.

Bull trout

Suitable habitat characteristics for bull trout include oligotrophic lakes and deep pools of pristine, cold water in mountainous regions (Sternberg 1996). While the Airport lies near the shore of Lake Osoyoos, no lakes or streams exist on or adjacent to Airport property (approximately 0.25 miles away from Lake Osoyoos), therefore, the occurrence of bull trout within the Proposed Project Area is unlikely.

Canada lynx

Suitable habitat characteristics for lynx include conifer forests above 4,000 feet, such as lodge pole pine or Engelmann spruce-subalpine fir forests, and rarely dry lowland forests. Optimal lynx habitat is vegetated with dense young stands or lodge pole pine that support high numbers of snowshoe hares (WDFW 2012). Lynx populations are known not to occur within the project study area, and there are no documented occurrences in the vicinity of the Airport. Furthermore, suitable habitat conditions do not exist within the Proposed Project Area because it is not within a subalpine coniferous forest and is well below 4,000 feet in elevation.

North American wolverine

Suitable habitat characteristics for wolverine includes remote, high alpine areas near the tree line where conditions are cold year-round and snow cover persists well into the month of May. Typically, their mean elevation range exists between 4,500 and 9,500 feet above sea level (Copeland 1996). No remote high alpine habitat exists on Airport property. Given the established human activity and development surrounding the Airport, the prevalence of North American wolverine within the proposed project area is unlikely.

Gray Wolf

Suitable habitat characteristics for gray wolf includes vast forests and mountain foothills with abundant prey for hunting. Generally, wolf populations thrive in areas away from human populations and activity.

In the Proposed Project Area, a lack of suitable habitat conditions, high amount of human disturbance, and wildlife deterrent measures utilized by the Airport, renders the presence of gray wolf highly unlikely.

4.3.1.1 Regulatory Guidelines

According to FAA Order 1050.1F, a project would have significant impacts on biotic communities when USFWS or the National Marine Fisheries Service (NMFS) determines that the action would be likely to jeopardize the continued existence of a federally listed threatened or endangered species, or would result in the destruction or adverse modification of federally designated critical habitat. To determine whether or not the Proposed Action Alternative would impact biological resources, the factors considered for analysis are whether the action would have the potential for:

- A long-term or permanent loss of unlisted plant or wildlife species, i.e., extirpation of the species from a large project area;
- Adverse impacts to special status species (e.g. state species of concern, species proposed for listing, migratory birds, bald and golden eagles) or their habitats;
- Substantial loss, reduction, degradation, disturbance, or fragmentation of native species' habitats or their populations; or
- Adverse impacts on a species' reproductive success rates, natural mortality rates, non-natural mortality (e.g. road kills and hunting), or ability to sustain the minimum population levels required for population maintenance.

Order 1050.1F also describes that the project would have adverse effects on special status species when the USFWS determines that the proposed action would be likely to jeopardize the continued existence of federally listed endangered or threatened species potentially resulting in extinction or extirpation, or when the proposed action would result in the destruction or adverse modification of federally-designated critical habitat in the affected area.

4.3.2 Environmental Consequences

No Action Alternative

The No Action Alternative would have no effect on federally-listed threatened, endangered, or proposed species as no development would occur to existing Airport facilities.

Proposed Action

Due to the prevalence of suitable habitats in the vicinity of the Airport, there is the potential for short-term impacts to general wildlife and plants as a result of construction of the Proposed Action. However, these impacts would no longer occur after completion of the project, and there would be no effect on any federally-listed threatened or endangered species (fish, wildlife, or plants). The Proposed Action activities would have no effect on yellow-billed cuckoo because neither the species, nor its habitat, is found on Airport property. The Proposed Action activities would have no effect on bull trout because neither the species, nor its habitat is found on Airport property. The Proposed Action activities would have no effect on Canada lynx because neither the species, nor its habitat, is found on Airport property. The Proposed Action would have no effect on North American wolverine because neither the species, nor suitable habitat, is found on Airport property. The Proposed Action would have no effect on gray wolf because neither the species, nor its habitat, is found on Airport property.

4.3.3 Mitigation

The Proposed Action would have no effect on biological resources and therefore, no mitigation is required.

4.4 Climate

4.4.1 Affected Environment

The Airport is located at an average elevation of 1,607 feet (NAVD 88) above sea level and experiences a typical four season climate with both hot summers and cold winters. According to the 2007 MPU, winter temperatures generally range from 28 to 50 degrees Fahrenheit with the coolest temperatures typically occurring in January. Summer temperatures generally range from 70 to 85 degrees Fahrenheit with the warmest days occurring in the month of July. Average precipitation averages about 12.4 inches, and June is typically the wettest month of the year.

4.4.1.1 Regulatory Guidelines

The CEQ has indicated that climate and greenhouse gases (GHGs) should be considered in NEPA analysis due to the established effects of GHG emissions on climate. GHGs primarily result from the combustion of fuels. Factors that could potentially increase the combustion of fuel and subsequent GHG emissions are an increase of airport capacity, an increase in the number of operations, or alteration of operational characteristics that increase aircraft fuel burn.

There is a considerable amount of ongoing scientific research to improve understanding of global climate change and how airport activities influence the global climate. However, there are currently no accepted methods of determining significance or impacts to climate with regard to aviation given the small percentage of emissions aircraft and airports produce.

Construction impacts also have the potential to contribute to GHG emissions due to the use of combustible fuel in a wide range of construction equipment. While the Proposed Action has the potential to contribute to GHG emissions levels in the Oroville area, the construction fleet size and timing would not significantly increase overall emissions.

The principle GHGs that enter the atmosphere because of human activities are carbon dioxide, methane, nitrous oxide, and fluorinated gases. GHGs result primarily from the combustion of fuels. Increases in airport capacity, increases in the number of operations, or changes in the operation characteristics of the airport are all factors that could potentially increase the combustion of fuel and overall GHG emissions.

4.4.2 Environmental Consequences

No Action Alternative

The No Action Alternative would not cause an increase in GHG emissions. The increase in Airport operations forecasted in the 2007 MPU is not anticipated to increase Airport operations to a level that would impact GHGs or climate change.

Proposed Action

The Proposed Action's primary purpose is to rectify design standard deficiencies and improve overall airport safety. The Proposed Action would not increase Airport capacity or increase the overall number of operations. The proposed runway/taxiway modifications would not have a significant impact on aircraft

fuel consumption, and therefore, the Proposed Action would not affect air quality, operations, or climate conditions in the vicinity of the Airport.

4.4.3 Mitigation

The Proposed Action Alternative would not cause any increases in GHG emissions or significant impacts to climate change, and therefore, no mitigation is required.

4.5 Coastal Resources

Activities involving coastal resources are governed by the Coastal Barriers Resource Act and the Coastal Zone Management Act. There are no coastal barrier islands or designated coastal zones in Okanogan County. Therefore, none of the alternatives carried forward would affect coastal resources.

4.6 Department of Transportation Act, Section 4(f) Resources

4.6.1 Affected Environment

The federal statute that regulates impacts in this category is commonly known as the Department of Transportation (DOT) Act, Section 4(f) provisions. Section 4(f) necessitates the evaluation of a transportation program or project requiring the use of publicly-owned land of a park, recreational area, or wildlife and waterfowl refuge of natural, state, or local importance; or publicly or privately owned land from a historic site of national, state, or local significance.

The proposed action Area of Potential Effect (APE) for Section 4(f) resources was defined as the general area that contains all runway improvements, property acquisitions, and landside improvements at the Airport that would be subject to construction, demolition, or development activities. The nearest Section 4(f) resources to the APE are the several public parks and public areas that exist within the City of Oroville. The nearest public area is Osoyoos Lake Veteran's Memorial Park, which is located approximately 0.8 miles west of the Airport and outside of the APE for the Proposed Action.

4.6.1.1 Regulatory Guidelines

According to FAA Order 1050.1F, significant impacts for Section 4(f) resources would occur when the Proposed Action Alternative would involve more than a minimal physical use of Section 4(f) property, or would be deemed a constructive use that substantially impairs the 4(f) property, and when mitigation measures do not eliminate or reduce the effects of the proposed Action Alternative below the threshold of significant impacts. FAA Order 1050.1F states that "substantial impairment occurs when the activities, features, or attributes of the resource that contributes to its significance or enjoyment are substantially diminished."

4.6.2. Environmental Consequences

No Action Alternative

Under the No Action Alternative, no changes to the existing study area would take place, and therefore, there would be no physical or constructive uses of Section 4(f) resources.

Proposed Action

There are no Section 4(f) resources within or near the Airport property. No parks or public areas within the City of Oroville would be impacted by the Proposed Action. Therefore, there would be no physical or constructive uses of or significant impacts to Section 4(f) resources as a result of the Proposed Action.

4.6.3 Mitigation

The Proposed Action would not result in physical or constructive uses of Section 4(f) resources, so no mitigation is required.

4.7 Farmlands

4.7.1 Affected Environment

The Federal Farmland Protection Policy Act (FPPA) [Subtitled I of Title XV, Section 1539-1549 of the Agricultural and Food Act of 1981 (Public Law 97-98)] requires federal agencies to "minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses, and assure that federal programs are administered in a manner that, to the extent practicable, will be compatible with state, unit of local government, and private programs and policies to protect farmland." Federal agencies are required to develop and review their policies and procedures to implement the FPPA. The FPPA does not authorize the federal government to regulate the use of private or nonfederal land or, in any way, affect the property rights of owners. For the purpose of FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. Farmland that is subject to FPPA requirements does not have to be currently in agricultural production. It can be forestland, pastureland, cropland, or other land, but not water or urban built-up land [US Department of Agriculture (USDA) 2016].

As defined by the United States Department of Agriculture (USDA), prime farmland is defined as land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, oilseed and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor (USDA 2016).

Unique farmland is land other than prime farmland that is used for production of specific high-value food and fiber crops. It has favorable soil and climatic conditions and adequate moisture supply to produce economically sustainable yields of high quality crops when treated and managed according to acceptable farming methods (USDA 2016).

Farmland of statewide or local importance is land other than prime or unique farmland that is determined and designated as such by state or local governments (USDA 2016).

Table 4.2 lists the soils on or near the Airport property and the associated farmland classification.

Some of the mapped soils within the Airport property meet the criteria for "Prime farmland if irrigated," "Farmland of unique importance," and "Farmland of statewide importance," but that land has already been developed for Airport use, meaning no agricultural lands exist within the existing Airport property. However, the entirety of the 0.87 acres of proposed property acquisition also meets the criteria for farmland of statewide importance.

Table 4.2. List of Mapped Soils on or near the Airport Property.

Map Unit Name	Farmland Classification
Aeneas fine sandy loam, 0 to 10 percent slopes	Prime farmland if irrigated
Cashmere fine sandy loam, 0 to 3 percent slopes	Prime farmland if irrigated
Cashmere fine sandy loam, 8 to 15 percent slopes	Farmland of unique importance
Cashmere fine sandy loam, 15 to 25 percent slopes	Farmland of unique importance
Cashmont sandy loam, 3 to 8 percent slopes	Prime farmland if irrigated
Cashmont sandy loam, 0 to 25 percent slopes, extremely stony	Not prime farmland
Cashmont sandy loam, 25 to 45 percent slopes, extremely stony	Not prime farmland
Conconully gravelly ashy loam, 0 to 25 percent slopes, extremely stony	Not prime farmland
Ewall loamy fine sand, 0 to 15 percent slopes	Farmland of statewide importance
Ewall loamy fine sand, 15 to 25 percent slopes	Farmland of unique importance
Lithic Haploxerepts-Cashmont complex, 15 to 45 percent slopes	Not prime farmland
Lithic Haploxerept-Conconully complex, 15 to 45 percent slopes	Not prime farmland
Pogue fine sandy loam, 3 to 8 percent slopes	Prime farmland if irrigated
Skaha gravelly loamy sand, 8 to 25 percent slopes	Farmland of unique importance
Tonasket silt loam, 3 to 8 percent slopes	Farmland of statewide importance
Tonasket silt loam, 15 to 25 percent slopes	Farmland of statewide importance

4.7.1.1 Regulatory Guidelines

Pursuant to FAA Order 1050.1F, Section 4-3.3, the FAA is required to prepare and submit Form AD-1006 "Farmland Conversion Impact Rating" and initiate formal coordination with USDA/ NRCS when FPPA regulated farmlands will be converted to nonagricultural use. The form utilizes points that are assigned based on numerous site assessment criteria and farmland's relative value. Site assessment scores are assigned between 0 and 160 points, with farmland's relative value for agricultural production assigned between 0 and 100 points. If the total score on Form AD-1006 exceeds 200 points, a significant impact would occur pursuant to NEPA. Scores between 161 and 200 show the potential to adversely affect important farmlands, and require mitigation to reduce the acreage of converted farmland. Sites receiving a total score of less than 160 need not be given further consideration for protection and no additional sites need to be evaluated. Sites receiving scores totaling 160 or more need to be given increasingly higher levels of consideration for protection. The USDA recommends the following be considered:

- Use of land that is not farmland or use of existing structures.

- Alternative sites, locations and designs that would serve the proposed purpose but convert either fewer acres of farmland or other farmland that has a lower relative value.
- Special siting requirements of the proposed project and the extent to which an alternative site fails to satisfy the special siting requirements along with the originally selected site.

The Farmland Protection Policy Act (FPPA) PL-97-98 authorizes the USDA to develop criteria for identifying the effects of federal programs on the conversion of farmland to nonagricultural uses. Federal agencies are directed to use the developed criteria below:

- Identify and take into account the adverse effects of federal programs on the preservation of farmland/forestland.
- Consider appropriate alternative actions that could lessen adverse effects.
- Ensure that such federal programs, to the extent practicable, are compatible with state and local governments, and private programs and policies to protect farmland.

Approximately 0.87 acres of total land acquisition would be acquired for the RPZs as result of the Proposed Action. According to the USDA/NRCS, the entirety of the land acquisitions would occur on farmland of statewide of importance.

Form AD-1006 was completed to assess the proposed property acquisitions and to determine their relative value. Overall, the combined sites scored a total of 143 points, meaning that no further consideration for protection is necessary, and that no additional sites need to be evaluated. NRCS concurred with the finding and completed the Farmland Evaluation form on November 8, 2018 (see **Appendix C**, NRCS Form AD-1006).

4.7.2 Environmental Consequences

No Action Alternative

While there is agricultural land in the vicinity of the airport, no development would occur, and the farmland would continue to be utilized in its current condition. Therefore, the No Action Alternative would have no effect on farmland.

Proposed Action

There is agricultural land in the vicinity of the Airport, and within the proposed land acquisition areas (RPZs and Taxiway OFA). Approximately 0.87 acres of farmland would be acquired in order to control obstructions within the Runway 15/33 RPZs. While the farmland would be acquired by the airport, the existing trees would remain in their existing state, and would not be removed as long as they remain under the Threshold Siting Surface. The acquisitions scored a total of 143 points, and no further evaluation is necessary. Therefore, there would be no significant impacts to farmlands as a result of the Proposed Action.

4.7.3 Mitigation

There would be no impacts to farmlands as a result of the Proposed Action. Therefore, no mitigation measures are required.

4.8 Hazardous Materials, Solid Waste, and Pollution Prevention

4.8.1 Affected Environment

The Washington State Department of Ecology (DOE) maintains environmental databases on sites with known contamination and sites that are regulated according to the requirements of state or federal laws. The following is a list of environmental databases maintained by the DOE:

- Superfund Sites, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
- National Priorities List (NPL), priority CERCLA sites
- Underground Storage Tanks (UST)
- Leaking Underground Storage Tanks (LUST)
- Brownfield Projects
- Toxic Release Inventory (TRI)
- Voluntary Release Cleanup Program (VRCP)

A Phase I Environmental Site Assessment was prepared by Budinger and Associates, Inc. for the study area in September 2018 (see **Appendix D**). The investigation found no evidence of major environmental conditions, but instead found the following evidence of the following minor environmental conditions:

- A helicopter washing area was observed just north of the main entrance to the Airport and has been used for many years to wash pesticides off helicopters after crop-dusting. The gravel surrounding the concrete pad is assumed to contain residual pesticide and herbicides. Two red storage tanks are also located adjacent to the helicopter wash pad, which are assumed to contain pesticides used for crop dusting. No signs of cracks, dents, or leaks were observed.
- The north patio area of Airmotive (an aircraft maintenance company) has thirteen 55-gallon drums of waste oil. Most of these drums were full or partially full of waste oil that Mr. Nicholson (Airmotive) uses for heating his shop. There were obvious signs of oil being spilled from a couple of these drums as the concrete pad had spilled oil with the surrounding vegetation showing signs of distresses. Mr. Nicholson said he was aware of the minor spill and was going to clean up the area. This area would not be affected by the Proposed Action.
- A burn tank was observed adjacent to the pesticide storage tanks and helicopter washing pad. The tank incinerator is in poor condition with significant amounts of corrosion and rust. The interior of the tank is full of burned debris and recent trash items. The tanks was reported to be used by the crop-dusting business to dispose of the pesticide chemical containers.

The storage, use, and transport of hazardous materials at the Airport is controlled by a framework of federal, state, and local regulations. Best Management Practices (BMPs) have been established, and would remain in place, to ensure that fuel and other hazardous materials are properly dispersed and stored, and that necessary mitigation measures remain in place to address potential spills.

None of the data uncovered during the Phase 1 Environmental Site Assessment revealed the potential for negative effects from hazardous waste. All of the recorded observations at the Airport were considered minor environmental conditions, and would not be impacted by the Proposed Action. However, due to the ground disturbance that would accompany the future apron and hangar build out, care would be

utilized during any excavation or construction activities, and any instances of hazardous materials, solid waste, or pollution would be reported immediately.

4.7.1.1 Regulatory Guidelines

FAA Order 1050.1F provides the NEPA requirements for the analysis of impacts. According to FAA Order 1050.1F, there is no established significance threshold for hazardous materials, solid waste, and pollution prevention. Factors to consider, however, would be if the Proposed Action would have the potential to:

- Violate applicable federal, state, tribal, or local laws or regulations regarding hazardous materials and/or solid waste management;
- Involve a contaminated site listed on the NPL;
- Produce an appreciably different quantity or type of hazardous waste;
- Generate an appreciably different quantity or type of solid waste or use a different method of collection or disposal and/or would exceed local capacity; or,
- Adversely affect human health and the environment.

4.8.2 Environmental Consequences

No Action Alternative

The No Action Alternative would not result in the creation or disturbance of any hazardous materials; therefore, there would be no effects on hazardous waste.

Proposed Action

While there is no known hazardous waste contamination within the study area (only a minor recorded spill that poses no risk), the proposed project improvements have the potential to cause short-term, temporary impacts regarding hazardous materials, pollutions prevention, and solid waste. Construction, renovation, or demolition of most projects produces debris, and proper disposal must be utilized. New or building renovation projects also produce debris that can have impacts on the solid waste collection/treatment system. Minor demolition would occur as part of the Proposed Action Alternative, and demolished and waste materials produced as a result are not anticipated to be of a volume that would produce significant impacts to standard solid waste handling facilities.

Site grading would be required to meet the necessary grades for the Proposed Action Alternative. The majority of material would remain on Airport property, either in debris piles to house the excavated/graded material, as part of shoulder fill, or, if the excavation produces adequate gravels, as part of the base for the Proposed Action. Any excess material not able to be stored on Airport property would be disposed of by the contractor at one of the local gravel pits permitted to receive such material. Other waste materials would arise from concrete forms and temporary structures, packaging waste and food from construction workers, and other materials used for construction. These materials would be recycled by the contractor or would be placed in an approved collection area for non-recyclable waste and removed when appropriate. Mitigation measures and BMPs would be in place to reduce the overall potential for impacts during demolition, construction, and apron and hangar expansion. Therefore, no significant impacts are expected to arise due to the Proposed Action.

4.8.3 Mitigation

Construction activities associated with Proposed Action have the potential to create solid waste material, therefore the Airport Sponsor and contractor would follow all federal, state, and local regulations addressing hazardous waste while completing construction activities that have the potential to generate hazardous waste. Any waste generated through proposed project improvements would be disposed of in compliance with all federal, state, and local regulations.

4.9 Historical, Architectural, Archaeological, and Cultural Resources

4.9.1 Affected Environment

There are a number of Federal statutes and Executive Orders that guide the protection of historic and cultural resources. This section discusses the known historic, archaeological, and paleontological resources within the study area. NEPA requires agencies to consider the effects of a planned federal undertaking upon the cultural environment, including historical, archaeological, and paleontological resources. In addition to NEPA, planned federal actions must also comply with the NHPA (16 USC 470, as amended). Section 106 of the NHPA and its implementing regulations (36 CFR 800) require federal agencies to take into account the effects of their undertakings on historic properties. According to these regulations, a historic property is defined as "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places ..." (36 CFR 800.16

Plateau Archeological Investigations, LLC. prepared a Cultural Resources Survey for the study area in October 2018 (see **Appendix E**). The APE for historic, architectural and cultural resources was defined as the general area that contains all runway and taxiway improvements, property acquisitions, and landside improvements at the Airport that would be subject to construction activities. The APE for archaeological resources included all property that would result in a disturbance to the surface or sub-surface ground that has the potential to contain archaeological sites. A field survey was conducted to determine whether any cultural resources exist within the APE.

4.9.1.1 Regulatory Guidelines

The responsible FAA Official determines whether the proposed action is an "undertaking," as defined in 36 CFR 800.16(y) (and not an undertaking that is merely subject to state or local regulation administered pursuant to a delegation or approval by a federal agency), and whether it is a type of activity that has the potential to cause adverse effects on historic properties eligible for or listed on the NRHP. If an undertaking may have an adverse effect, the first step is to identify the APE and the historical or cultural resources within it.

If an NRHP-eligible property occurs within the undertaking's APE and the proposed action may affect the property's historic characteristics, the responsible FAA Official must apply the criteria of effect listed in 36 CFR 800.5(a). The Official must examine the potential effects in consultation with the SHPO/THPO and any Tribe or Native Hawaiian organization attaching religious or cultural importance to the identified property. 36 CFR 800.5(a) (3) suggests utilizing a phased process in applying an assessment of effects when alternatives the agency is considering involve corridors, large land areas, or when access to property is restricted. The FAA Official may propose a "finding of no adverse effect" after determining that the undertaking would not:

- Physically destroy the property;
- Alter the property, but, if alterations were to occur, they would meet the requirements of the Secretary of the Interior's "Standards for Treatment of Historic Properties" (36 CFR part 68);
- Remove the property from its historic location;
- Introduce an atmospheric, audible, or visual feature to the area that would diminish the integrity of the property's setting, provided the setting contributes to the property's historical significance; or,
- Through transfer, sale, or lease, diminish the long-term preservation of the property's historic significance that federal ownership or control would otherwise ensure.

4.9.2 Environmental Consequences

No Action Alternative

No changes to the existing study area would take place. There would be no effect on cultural or historical resources.

Proposed Action

The cultural resources survey determined that there were no recognized historic, architectural, or cultural resources within the APE. While there is one previously recorded site (irrigation flume; 450K1035) located within the APE, the survey did not locate any cultural materials that could be associated with the site, and the route of the irrigation flume within the APE has been previously converted to a city utility corridor (see **Appendix E**).

The FAA initiated consultation with the Department of Archaeology and Historic Preservation (DAHP) and the Confederated Tribes of the Colville Reservation (Tribes) in December 2019, with the recommendation of "No Historic Properties Affected." The DAHP concurred with the FAA's finding on January 10, 2019 (see **Appendix E**). Therefore, there are no historical, architectural, archaeological, or cultural resources within the study area, and there would be no significant impacts to those resources as a result of the Proposed Action.

4.9.3 Mitigation

If construction activities uncover materials such as stone tools, shell, bone, fire-cracked rock, charcoal, pottery, glass, brick, or metal, work in the immediate vicinity will stop at once and the SHPO will be notified. If any human remains, suspected human remains, or items related to human burial are encountered during any part of the project, the Okanogan County Sheriff and the SHPO will be contacted at once, and the area around the discovery would be secured immediately.

4.10 Land Use

4.10.1 Affected Environment

The Airport is located within the jurisdictional boundaries of the City of Oroville and is situated within the Airport District Zone. The Airport District Zone designation allows development space for airports and associated activities. The purpose of the zone is to reduce the potential for airport hazards by providing development standards for areas within the Airport District Zone.

The land use analysis identified the existing and likely planned land uses within the general study area. Considerations include potential changes in land use acreage and land use intensity of each land use type occurring from the Proposed Action and the No Action Alternative.

4.10.1.1 Regulatory Guidelines

FAA Order 1050.1F states that "the compatibility of existing and planned land uses in the vicinity of an airport is usually associated with the extent of noise impacts related to that airport."

4.10.2 Environmental Consequences

No Action Alternative

Existing land uses are expected to continue to be consistent and compatible with relevant City of Oroville land use plans and policies. Therefore, the No Action Alternative would have no effect on land use.

Proposed Action

The Proposed Action would require runway reconstruction, runway shift, and construction of a new apron and taxiway. Approximately 0.87 acres of land and easement acquisitions would be necessary for the Proposed Action. **Figures 1.3** and **1.4** identify the locations and extents of the proposed property acquisitions. For the acquisition of private property, the property owner(s) would be compensated at fair market value for the appraised property. An independent property appraisal would be conducted to determine the fair market value of the property. The acquisition of property would be conducted in conformance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Act) [42 USC 4601 et seq.].

The property acquisitions would not create incompatibility between land uses. The majority of the future Airport property would be contained within the existing City of Oroville Airport District Zone. Furthermore, the Proposed Action is not anticipated to cause increased noise impacts to adjacent receptors and all proposed improvements would comply with existing noise ordinances and regulations. Therefore, the Proposed Action would not impact land uses within the study area.

4.10.3 Mitigation

The Proposed Action would not result in significant impacts to land use. Therefore, no mitigation is required.

4.11 Natural Resources and Energy Supply

4.11.1 Affected Environment

Okanogan County covers a total of 5,281 square miles, making it the largest county in Washington State. Roughly 30% of the land within the county is privately owned due to the large amounts of state and federally owned land, approximately 1,100 square miles is occupied by the Colville Indian Reservation, and the remainder is publicly owned and managed by either the U.S. Forest Service (USFS), Bureau of Land Management (BLM), National Park Service (NPS), USFWS, Washington DOT, Washington Department of Natural Resources (DNR), and various local governments. Power and natural gas for the study area is provided by Bonneville Power Administration, Wells Dam, and Energy Northwest.

4.11.1.1 Regulatory Guidelines

According to FAA Order 1050.1F, the FAA has not established a significance threshold for Natural Resources and Energy Supply. Factors to consider, however, include the Proposed Action Alternative's potential to cause natural resource or energy demands to exceed available or future supplies of these resources.

4.11.2 Environmental Consequences

No Action Alternative

The No Action Alternative would not result in an increase in energy or natural resource consumption. Therefore, there would be no effect on energy supply or natural resources.

Proposed Action

Energy requirements associated with airport improvements generally consist of either those related to existing facilities (terminal and airfield lighting requirements), or air/ground vehicle movement requiring fuel consumption. The energy required for the Proposed Action Alternative would have no measurable impact on the local energy supply. The increase in energy demand at the Airport would primarily be related to the electricity required from upgraded airport lighting. The demands of the new runway lighting would be comparable to what currently exists, and newly constructed Airport infrastructure would likely cause a moderate increase in energy demands but would not negatively impact the overall energy supply or nearby natural resources. Fuel would also be required during the construction of the proposed improvements; however, because project construction activities are a temporary impact, the impact to fuel consumption related to construction activities would also be temporary and should be considered limited. The supply of materials needed for construction is readily available in Okanogan County. While resources would be utilized in the construction of the Proposed Action, the overall quantity is not expected to cause demands to exceed available or future resource supplies. No natural resources in short supply would be needed for the construction of the Proposed Action. Therefore, there would be no effect on energy supply or natural resources.

4.11.3 Mitigation

Impacts resulting from the Proposed Action would be temporary and limited, and there would be no significant impact to natural resources or energy supply caused by the Proposed Action. Therefore, no mitigation is required.

4.12 Noise and Compatible Land Use

4.12.1 Affected Environment

Airport noise is often measured in Day Night Average Sound Level (DNL). DNL represents the average total accumulation of all noise, measured in decibels (dB), over a 24-hour period. This average is derived from all aircraft operations during a 24-hour period that represents an airport's average annual operation day. It is important to note that due to the logarithmic nature of noise, the loudest noise levels control the 24-hour average. In the DNL metric, any operation that occurs between 10 p.m. and 7 a.m. is considered more intrusive and is weighted by a factor of 10 dB to compensate for individuals' heightened sensitivity to noise during this period.

The 2007 MPU indicates that annual Airport operations are not anticipated to exceed the noise operations threshold through 2025. The total operations expected by 2025 increases to 17,210 operations, and while the estimate represents an increase over the past number of operations, it is still well below the 90,000 annual propeller operations required by the FAA for noise analysis. Therefore, no noise analysis was prepared for this EA. Both the current and projected airport classifications fall into Design Group I and Approach Category B, and because of the low number of overall Airport operations, no significant increases in noise levels are expected as a result of the proposed project.

4.12.1.1 Regulatory Guidelines

FAA Order 1050.1F, Appendix B, Section B-1 identifies specific language for projects not requiring a Noise Analysis. Under this definition, it states: "No noise analysis is needed for proposals involving Design Group I and II airplanes (wingspan less than 79 feet) in Approach Categories A through D (landing speed less than 166 knots) operating at airports whose forecast operations in the period covered by the EA do not exceed 90,000 annual propeller operations (247 average daily operations) or 700 jet operations (2 average daily operations)."

4.12.2 Environmental Consequences

No Action Alternative

The No Action Alternative would not result in any activities that would cause an increase to the existing noise conditions within the study area, and therefore, no changes in noise levels would occur.

Proposed Action

The Proposed Action would not increase the number of operations at the Airport above the operation threshold levels outlined in Order 1050.1F Appendix B, Section B-1 (90,000 annual propeller operations or 700 jet operations) requiring a noise analysis. The Proposed Action is not anticipated to significantly increase the existing noise conditions. There would be no effect on noise as a result of the Proposed Action.

4.12.3 Mitigation

No mitigation is required because the Proposed Action would not result in a significant impact to noise sensitive receptors.

4.13 Socioeconomic, Environmental Justice, and Children's Health and Safety Risks

4.13.1 Affected Environment

Socioeconomic impacts include extensive relocation of residents and community businesses, disruption of local traffic patterns, and substantial losses in the community tax base. Environmental justice evaluates project effects on low-income or minority populations. Children's environmental health and safety risks evaluate impacts to the environment that have the potential to lead to disproportionate health and safety risks to children. Factors used to evaluate the social environment throughout the study area include the composition of nearby residential communities, community social interaction, neighborhood travel patterns and accessibility, and public facilities and services.

This section addresses the federal requirements to consider environmental justice for low-income and minority populations in programs and activities with federal involvement in compliance with Title VI of

the 1964 Civil Rights Act and E.O. 12898: Federal Actions to Address Environmental Justice in Minority and Low-Income Populations that was enacted in 1994. The purpose of the environmental justice consideration is to determine whether the No Action and Proposed Action Alternatives would have disproportionately high or adverse effects on minorities and/or low-income populations within the study area (**Table 4.3**, Okanogan County Population Data).

Table 4.3. Okanogan County Population Data.

Population	2016 Census Estimates
White, Caucasian	65.5%
Hispanic or Latino, any race	19.5%
American Indian, Alaskan Native	12.9%
Asian, Native Hawaiian, Other Pacific Islander	0.3%
Black	1.0%
Persons Reporting Two or More Races	3.0%

Source: US Census Bureau V2016. Total percentage is slightly greater than 100 due to rounding.

Between 2010 and 2015, the growth rate for Okanogan County was estimated at 1.0%, a relatively low increase when compared to the rest of Washington State (6.6%). According to the U.S. Census Bureau, the median household income of Okanogan County from 2010 to 2014 was $39,665, approximately 65.8% of the state's median household income at $60,294. In the period between 2012 and 2014, approximately 23.2% of the county's population was living below poverty level.

A review of the EPA's EJSCREEN Database of American Community Survey (ACS) five-year estimates (from 2012-2016) indicates that approximately 7% of the overall population surrounding the Airport is a minority population, well below the 50% required by the CEQ minority population definition (EPA EJSCREEN 2016). Due to the defined extents of the Proposed Action, the presence of either minority of low-income populations residing in the immediate project area is unlikely.

4.13.1.1 Employment and Income

As reflected by the Employment Security Department of Washington State (ESD), the breakdown of employment in Okanogan County is depicted in **Table 4.4**.

Table 4.4. Okanogan County Employment Sectors (2016)

Sector	Number of jobs	Share of employment
1. Agriculture, forestry and fishing	5,947	32.1%
2. Local government	4,152	22.4%
3. Retail trade	1,837	9.9%
4. Health Services	1,533	8.3%
5. Accommodation and food services	1,213	6.5%
All other industries	3,842	20.7%
Total covered payrolls	**18,524**	**100%**

Source: Employment Security Department of Washington State 2018

Okanogan County contains a significant amount of outdoor recreation, forestry and timber, and tourism opportunities, which is why labor in those areas makes up the majority of the local economy.

The ESD also tabulated unemployment data for Okanogan County over the last three years (shown in the following **Table 4.5**). The fluctuation between the months of June and July arises from the large amounts of seasonal labor as it becomes available during the summer months.

Table 4.5. Okanogan County Employment and Unemployment (Not Seasonally Adjusted)

	2018		2017		2016
	July	June	July	June	July
Civilian Labor Force	24,266	21,119	25,150	21,724	24,331
Employment	23,6209	19,983	23,933	20,449	23,115
Unemployment	1,057	1,136	1,217	1,275	1,216
Unemployment Rate	4.4%	5.4%	4.8%	5.9%	5.0%

Source: Employment Security Department of Washington State 2018

According to the ESD, the Per Capita Income (PCI) in Okanogan County was $37,934 in 2015, which was considerably below the state figure of $51,898. Generally speaking, a growing trend in Okanogan County is that a growing percentage of residents' personal income is coming from transfer payments, whereas the percent of personal income coming from earnings is decreasing.

4.13.1.2 Children's Environment

The Oroville High School and Elementary School are the nearest children's environmental resources, and are located approximately 2 miles southwest of the Airport, while the nearest park, the Osoyoos Lake Veteran's Memorial Park, is located across Lake Osoyoos approximately 1 mile from the Airport.

4.13.2 Regulatory Guidelines

4.13.2.1 Socioeconomic Impacts

According to FAA Order 1050.1F, the FAA has not established a significance threshold for Socioeconomics. However, consideration should be placed on whether the action would have the potential to:

- Induce substantial economic growth in the area, either directly or indirectly (e.g. through establishing projects in an undeveloped area);
- Disrupt or divide the physical arrangement of an established community;
- Cause extensive relocation when sufficient replacement housing is unavailable;
- Cause extensive relocation of community businesses that would cause severe economic hardship for affected communities;
- Disrupt local traffic patterns and substantially reduce the levels of service of roads serving an airport and its surrounding communities; or,
- Produce a substantial change in the community tax base.

4.13.2.2 Environmental Justice

According to FAA Order 1050.1F, the FAA has not established a significance threshold for Environmental Justice. Factors to consider include if the federal action has the potential to lead to a disproportionately high and adverse impact to an environmental justice population (low-income and/or minority population) due to significant impacts to other environmental impact categories, or impacts to the physical or natural environment that affect an environmental justice population in a way that the FAA determines is unique

to the environmental justice population and significant to that population. The CEQ defines a low-income population as "any readily identifiable group of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons who will be similarly affected by a proposed program, policy, or activity." The CEQ also defines a minority population as "one that exceeds 50 percent of an affected area, or the population percentage is meaningfully greater than the minority population percentage in the general population or other appropriate geographic analysis."

4.13.2.3 Children's Environmental Health and Safety

According to FAA 1050.1F, the FAA has not established a significance threshold for Children's Environmental Health and Safety. Instead, consideration should be placed on whether or not the action would have the potential to lead to a disproportionate health or safety risk to children. This includes risks to health or safety that are attributable to products or substances that a child is likely to come into contact with or ingest, such as air, food, drinking or recreational water, soil, or other products to which they might be exposed.

4.13.3 Environmental Consequences

No Action Alternative

The No Action Alternative would not result in any changes to the existing social conditions. Therefore, no changes to socioeconomic, environmental justice, or children's health and safety risks would occur.

Proposed Action

The FAA has not established a significance threshold for socioeconomics, environmental justice, or children's environmental health and safety, and analysis did not identify any significant impacts to socioeconomic impacts, environmental justice, or children's environmental health and safety risks that would occur from the Proposed Action Alternative. Economic impacts from the Proposed Action include consideration of the required capital associated with all of the required construction improvements. Operation and maintenance costs would increase with the additional pavements and electrical systems, but not to a level beyond the capability of the Airport. Overall, the Proposed Action would likely result in positive economic impacts to the community because of its ability to bring in increased business activity and other support services. The majority of this activity would occur during the temporary construction period, however, increases in economy would likely follow the increased use of the Airport.

The Proposed Action is not projected to induce substantial economic growth in the area as construction impacts would be temporary, and the improvements are not being made to accommodate additional air traffic but rather to accommodate existing aircraft and bring the Airport fully into compliance with existing FAA standards. The reduction in delays should result in savings to operators of aircraft due to reduced fuel, maintenance, and crew costs. These savings could potentially be applied throughout the local economy. The Proposed Action Alternative does not disrupt or divide the physical arrangement of an established community, or displace persons or businesses, as all improvements would occur on Airport property, and no required acquisitions would involve residential relocations or community facilities.

The Proposed Action Alternative is not projected to introduce any new physical hazards into the existing environment. As environmental impacts are not expected to exceed significance thresholds as identified in FAA Order 1050.1F for air quality, noise, and water quality, and there are no other environmental impacts noted that would negatively impact the health and safety of children, no significant impacts to children's environmental health and safety are expected from either alternative.

4.13.4 Mitigation

The Proposed Action Alternative would not result in a significant impact to socioeconomics, environmental justice, and children's health and safety risks; and, therefore, no mitigation is required.

4.14 Visual Effects

4.14.1 Affected Environment

Light emissions on Airport property may originate from ground-based lighting and aircraft lighting from approach lights. Existing lighting at the Airport includes lighting for runways, taxiways, and other NAVAIDS, and area lighting. Visual impacts can include contrasts between a specific area, its existing environment, and the general perception of the community concerning new changes. Existing visual impacts are those associated with the operation of the Airport, including arriving and departing aircraft, and existing Airport facilities.

4.14.1.1 Regulatory Guidelines

According to FAA Order 1050.1F, the FAA has not established a significance threshold for light emissions or visual resources/visual character. Factors to consider include the potential of a federal action to annoy or interfere with normal activities due to light emissions; affect the nature and/or visual character of the area due to light emissions, including the importance, uniqueness, and aesthetic value of the affected visual resources; contrast with the visual resources and/or visual character in the study area; and/or, blocking or obstructing the views of visual resources, including whether these resources would still be viewable from other locations. Because of the relatively low levels of light intensity compared to background levels associated with most air navigation facilities (NAVAIDS) and other airport development actions, changes in light emissions levels at Airports generally are unlikely to have an adverse impact on human activity or the use or characteristics of the protected properties.

Visual quality impacts deal more broadly with the extent that the development contrasts with the existing environment and whether or not the jurisdictional agency considers this contrast objectionable.

4.14.2 Environmental Consequences

No Action Alternative

The No Action Alternative would not alter the existing light emissions and visual quality of the study area. Therefore, there would be no effect on light emissions and visual impacts.

Proposed Action Alternative

The lighting system associated with the runway reconstruction would be placed in accordance with FAA regulations. The proposed improvements would include upgrades and minor modifications to the existing lighting systems. Any new/modified/upgraded lighting would be specifically designed to illuminate the Airport property (and to provide visual information to pilots) and would be consistent with the plans shown on the existing ALP.

The Airport has existed for many years with lighting features comparable to the Proposed Action. The new installations associated with the Proposed Action (e.g. edge lighting and NAVAIDS) are not anticipated to create an annoyance among people or interfere with normal activities. Additionally, the Proposed Action would not include vertical improvements, nor is it expected to have the potential to create any of the

factors listed in the previous paragraphs. While the FAA has not established a significance threshold for light emissions or visual resources/visual character, changes in light emissions levels and Airport lighting are unlikely to cause a significant impact on human activity or the characteristics of nearby properties.

4.14.3 Mitigation

The Proposed Action would not result in a significant impact to light emissions or visual quality and therefore, no mitigation is required.

4.15 Water Resources

4.15.1 Wetlands

4.15.1.1 Affected Environment

This section describes wetland areas in and adjacent to the study area. Wetlands are a subset of Waters of the U.S., and are complex ecosystems that contain a number of important functions, such as food control, ground water recharge, water filtration and purification, erosion control, wildlife habitat, recreation, research and education, and promoting regional economic vitality.

A site visit was performed by J-U-B Engineers, Inc. on October 6, 2016. No wetland areas or open water features (i.e. open irrigation canals or laterals, ponds, streams, or lakes) were observed within the study area. Along the western portion of the study area, there is a piped irrigation line, which delivers water through the project study area to nearby orchards.

The existing irrigation pipe lies where fill for the new runway safety area (RSA) would need to be placed over the existing pipe. Coordination with the Oroville-Tonasket Irrigation District (OTID) began on September 14, 2018 with regard to the placement of runway safety area fill. OTID subsequently provided a letter stating their concerns that no pavement be placed over the pipeline ROW, and that fill placement within the ROW does not cause damage to the pipeline. The City has provided a reply letter stating the proposed parallel taxiway pavement layout will be beyond the ROW and that the City will work with the OTID and FAA during the design phase to find an acceptable method for placement of the RSA fill.

4.15.1.2 Regulatory Guidelines

FAA Order 1050.1F and E.O. 11990, *Protection of Wetlands*, both contain significance criteria relating to wetlands. FAA Order 1050.1F states that a significant impact would occur if the Proposed Action would:

- Adversely affect a wetland's function to protect the quality or quantity of municipal water supplies, including surface waters and sole source and other aquifers;
- Substantially alter the hydrology needed to sustain the affected wetland system's values and functions or those of a wetland to which it is connected;
- Substantially reduce the affected wetland's ability to retain floodwaters or storm runoff, thereby threatening public health, safety, or welfare;
- Adversely affect the maintenance of natural systems supporting wildlife and fish habitat or economically important time, food, or fiber resources of the affected or surrounding wetlands;
- Promote development of secondary activities or services that would cause the circumstances listed above to occur; or,
- Be inconsistent with applicable state wetland strategies

Pursuant to E.O. 11990, a public review of any plans or proposals for new construction in wetlands would also be required.

4.15.1.3 Environmental Consequences

No Action Alternative

The No Action Alternative would not result in any changes to the existing Airport facilities. Therefore, no impacts to wetlands would occur.

Proposed Action

There are no wetland areas within the study area, and no wetland areas that would be impacted as a result of the Proposed Action. Therefore, no impacts to wetlands would occur as a result of the Proposed Action.

4.15.1.4 Mitigation

There are no wetland areas within the study area, and no wetland areas that would be impacted as a result of the Proposed Action. Therefore, no impacts to wetlands would occur as a result of the Proposed Action, and no mitigation is required.

4.15.2 Floodplains

4.15.2.1 Affected Environment

E.O. 11988 defines a floodplain as "lowland and relatively flat areas adjoining inland and coastal waters including flood prone areas of offshore islands, including at a minimum, that area subject to a one percent or greater chance of flooding in any given year. Encroachment onto floodplains can reduce the flood-carrying capacity of the floodplain and extend the flooding hazard beyond the encroachment area."

Floodplain Management (E.O. 11988; dated May 24, 1977) established federal policy for each agency to take action to "…reduce the risk of flood loss, to minimize the impact of floods on human safety, health and welfare, and to restore and preserve the natural and beneficial values served by floodplains in carrying out its responsibilities for (1) acquiring, managing and disposing of federal lands and facilities; (2) providing federally undertaken, financed, or assisted construction and improvements; and (3) conducting federal activities and programs affecting land use, including but not limited to water and related resources planning, regulating, and licensing activities" (42 CFR 26951).

Congress established the National Flood Insurance Program (NFIP) in 1968. The NFIP is administered at the local level. It is a voluntary mitigation program made available to state and local governments by the Federal Emergency Management Agency (FEMA). FEMA makes flood insurance, grants and loans available in those communities that utilize proper floodplain management practices.

FEMA conducts hydrologic and hydraulic studies through the NFIP, and publishes flood insurance rate maps (FIRMs) that identify and delineate flood hazard risks for land use planning.

These FIRMs identify three zones of flood hazard risks:

- Flood Zone A corresponds to the 100-year floodplain that is determined by approximate methods. Detailed hydraulic analyses are not performed for such areas. No Base Flood Elevations or depths are shown within this zone. Mandatory flood insurance purchase requirements may apply.
- Flood Zone B corresponds to areas between the limits of the 100-year flood and the 500-year flood or certain areas subject to 100-year flooding with average depths less than one foot or where the contributing drainage area is less than one square mile, or areas protected by levees from the base flood.
- Flood Zone C corresponds to areas of minimal flood potential (500-plus year flood).

According to the FIRM produced through the NFIP (i.e. map #530117 0150 C), no portions of the study area are within any of the flood hazard zones.

4.15.2.2 Regulatory Guidelines

According to FAA Order 5050.4B, if an Action Alternative occurs within the 100-year floodplain, it is considered to be a floodplain encroachment. However, impacts to the 100-year floodplain can also occur from project components located outside the floodplain. Such impacts would include impacts on natural and beneficial floodplain values, water pollution, increased runoff from impermeable surfaces, changes in hydrologic patterns, or induced secondary development.

FAA Order 1050.1F states that floodplain impacts would be significant pursuant to NEPA if they result in notable adverse impacts on natural and beneficial floodplain values as defined in Paragraph 4.k of DOT Order 5650.2, *Floodplain Management and Protection*.

4.15.2.3 Environmental Consequences

No Action Alternative

Under the No Action Alternative, no changes to floodplains would occur. Therefore, there would be no effect on floodplains.

Proposed Action

No actions associated with the Proposed Action area anticipated to occur within the mapped floodplains surrounding the Airport. Therefore, there would be no impacts to floodplains from the Proposed Action.

4.15.2.4 Mitigation

The Proposed Action Alternative would not result in an impact to floodplains. Therefore, no mitigation is required.

4.15.3 Surface Waters

4.15.3.1 Affected Environment

There is broad legislation that addresses the development and management of water quality standards to protect surface water supplies. This section discusses the existing surface water quality conditions within the study area.

Currently, no stormwater management system exists at the Airport. The Airport is relatively flat, and any spills or erosion issues are expected to be contained within the Airport property. The nearest surface

waters to the Airport are two small, privately-owned ponds located approximately 0.21 miles west of the Airport, and Lake Osoyoos, which is approximately 0.25 miles from the Airport at its closest point.

The Proposed Action does not involve the acquisition of any new water rights. The City of Oroville draws water from the Oroville Aquifer, which encompasses approximately 600 acres beneath the City and adjacent areas, and stores the water in four water reservoirs spread throughout the area. Generally, the water quality in the vicinity of the Airport is considered high.

4.15.3.2 Regulatory Guidelines

According to FAA Order 1050.1F, surface water significance thresholds would occur if water quality standards established by federal, state, local, and/or tribal regulatory agencies were exceeded; or, if public drinking water supplies were contaminated such that public health was adversely affected. Other factors that should be considered are whether the action would have the potential to:

- Adversely affect natural and beneficial water resource values to a degree that substantially diminishes or destroys such values;
- Adversely aft surface waters such that the beneficial uses and values of such waters are appreciably diminished or can no longer be maintained and such impairment cannot be avoided or satisfactorily mitigated; or,
- Present difficulties based on water quality impacts when obtaining a permit or authorization.

When disturbed soil comes into contact with rainwater, there is a potential for sediment-related pollution in surface waters. Stormwater runoff can be a substantial nonpoint source of pollutants, including sediment, nutrients, metals, and salts, oils, gas, and hydrocarbons. Stormwater runoff from construction sites is regulated by the Washington DOE, and would require a Construction Stormwater General Permit.

4.15.3.3 Environmental Consequences

No Action Alternative

The No Action Alternative would not result in any increase in impervious surface area or change the existing conditions at the Airport. Therefore, no impacts to water quality would occur.

Proposed Action

The Proposed Action would increase the impervious surface area at the Airport as a direct result of new pavement and hangar construction. An increase in overall impervious surface area could result in the potential for increased stormwater runoff at the Airport. Increased stormwater runoff would likely contribute to higher concentrations of pollutants being introduced into surface waters in at or near the Airport. Turbidity and total suspended solids would increase if sediment transported by stormwater were not controlled. Increases in sediment loads could result in a stream being designated as 303(d), thus requiring a Total Maximum Daily Load (TMDL) analysis as a consequence of failing to meet water quality standards. Due to the increase in the amount of paved surface at the Airport, there would be an increase in the overall amount of impervious surface as a result of the Proposed Action. Despite the increases in impervious surfaces, the majority of the Airport property would remain as pervious ground (i.e. grassy/sandy areas). The defined grades for the runway and safety areas would allow water run-off to be diverted away from the runway. Increases in stormwater flows would be addressed through similar means currently present at the Airport. A site specific stormwater management plan would be developed in compliance with the *Stormwater Management Manual for Eastern Washington* so that existing

stormwater retention systems are not overloaded during storm events, and the contractor would be required to document the erosion, sediment, and pollution controls intended for use on the project prior to discharge of stormwater.

4.15.3.4 Mitigation

A National Pollutant Discharge Elimination System (NPDES) and State Waste Discharge General Permit for Stormwater Discharges would be required for activities associated with construction. Designs and BMPs from the *Stormwater Management Manual for Eastern Washington* would be implemented to minimize potential impacts from increased stormwater flows.

4.15.4 Groundwater

4.15.4.1 Affected Environment

There is broad legislation that addresses the development of water quality standards and management thereof to protect groundwater supplies. As discussed in **Section 4.7**, Ewall loamy fine sand is the primary mapped soil type on and around the Airport property. In areas where this soil is present, the seasonal high water table is usually located at more than 72 inches (minimum depth).

There is currently no stormwater management system at the Airport due to the excessive permeability of soils and the large amount of vegetative areas on Airport property. As discussed in **Section 4.15.3**, because the Airport is relatively flat, any spills or erosion issues are expected to be contained within Airport property.

In general, the water quality in Oroville and in the vicinity of the Airport is considered high, and the Oroville aquifer relies on precipitation and runoff from surrounding areas to recharge its water supply. Testing of the municipal water supply and private water company supplies would continue to be required in accordance with the DOE. As stated in the previous section, the Proposed Action does not involve acquiring any new water rights or drilling new wells.

4.15.4.2 Regulatory Guidelines

According to FAA Order 1050.1F, significant impacts to groundwater would arise if the Proposed Action would either exceed groundwater quality standards established by Federal, state, local, and tribal regulatory agencies; or, contaminate an aquifer used for public water supply such that public health may be adversely affected. Other factors that should be considered are whether the Proposed Action would have the potential to:

- Adversely affect natural and beneficial groundwater values to a degree that substantially diminishes or destroys such values;
- Adversely affect groundwater quantities that the beneficial uses and values of such groundwater are appreciably diminished or can no longer be maintained and such impairment cannot be avoided or satisfactorily mitigated; or,
- Present difficulties based on water quality impacts when obtaining a permit or authorization.

In Washington, groundwater is specifically regulated by Chapter 173-200 Washington Administrative Code (WAC), *Water Quality Standards for Groundwaters of the State of Washington*.

4.15.4.3 Environmental Consequences

No Action Alternative

The No Action Alternative would not result in any increase in impervious surface area or change the existing conditions at the Airport. Therefore, no significant impacts to groundwater would occur.

Proposed Action

The Proposed Action does not involve acquiring any new water rights or drilling new wells. After completion of the Proposed Action, the amount of impervious surface (resulting from pavement and hangar buildout) would increase. The new pavement has the potential to influence groundwater quality due to a decrease in the Airports ability to infiltrate runoff. The quality of runoff from pavements is impacted by vehicle and aircraft-related contaminants, such as motor oil, grease, and tire rubber. Groundwater is also impacted by herbicides and pesticides that might be used in maintained areas along the pavements. Other activities that could potentially lead to groundwater pollution include leaking hydraulic fluids, fuel, and lubrication systems associated with the use of construction equipment.

The likelihood for any of the pollutants listed above entering a groundwater body is low due to the existing site gradient, distance to the Oroville aquifer, and significant depth to the groundwater table. The Proposed Action Alternative would not be expected to significantly impact groundwater or groundwater flows in the project area, and despite the increases in impervious surfaces, the majority of the Airport property would remain as pervious ground (i.e. grassy areas). Runoff from the new airfield pavements would generally infiltrate on Airport property. Any new modifications and designs for stormwater detention would be provided consistent with the types and methods described in the *Stormwater Management Manual for Eastern Washington*. The mitigation techniques discussed in the following section would greatly minimize the potential for contaminates to come into contact with groundwater and cause water quality degradation.

An NPDES and Construction Stormwater General Permit would be required for activities associated with construction. An erosion and sediment control plan would be required prior to any site clearing, excavation, grading, or other development activity, and grading plans and stormwater design would follow FAA standards for airfield construction (FAA AC 150/5370-10, *Standards for Specifying Construction of Airports*). Groundwater would be protected by implementing performance standards, designs, and BMPs from the *Stormwater Management Manual for Eastern Washington*, which would be implemented during construction to minimize potential impacts from infiltration. The project would be seeded with an established seed mixture once final grading is completed to promote regrowth of vegetation. The contractor would also inspect construction equipment daily during active construction for leaks. The contractor would have a SPCC plan in place, as well as maintain a supply of absorbent materials onsite in the event that a spill occurs. With the aforementioned permits and BMPs in place, there would be no significant impacts to groundwater as a result of the Proposed Action

4.15.4.4 Mitigation

There would be no significant impacts to groundwater as a result of the Proposed Action provided the proper permits are obtained. A NPDES Permit and Construction Stormwater General Permit would be required for activities associated with construction, and designs and BMPs from the *Stormwater*

Management Manual for Eastern Washington would be implemented throughout the project. No additional mitigation is required.

4.15.5 Wild and Scenic Rivers

According to the National Wild and Scenic Rivers System, "Washington has approximately 70,439 miles of river, of which 197 miles are designated as wild and scenic—less than 3/10ths of 1% of the state's river miles." There are currently no wild and scenic rivers within Okanogan County; the nearest listed Wild and Scenic River is the Skagit River, which is located over 90 miles away to the southwest. Therefore, none of the Alternatives carried forward would significantly impact wild and scenic rivers.

4.16 Cumulative Impacts

A cumulative impact analysis provides information on impacts resulting from other actions that have occurred or that will occur within a defined time and geographic area. A cumulative impact is an effect on the environment that results from incremental action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes other such actions.

Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. In determining whether a Proposed Action would have a significant impact, the environmental evaluation shall include considerations of whether the action is related to other actions with individually insignificant but cumulatively significant impacts. This analysis shall include identification and consideration of the cumulative impacts of ongoing, proposed, and reasonably foreseeable future actions and may include information garnered from the FAA, Airport Sponsor, and NEPA process.

For the purpose of this EA, the cumulative impacts analysis considers the possible impacts of the Proposed Action and the other development both on and off the Airport. This information is used to decide if a proposed airport project's impact to a specific resource would cause a significant impact on that resource when added to past, present, and reasonably foreseeable actions within a specific geographic area or designated time frame. The analysis identified whether any of the following actions are planned to occur within the vicinity of the Proposed Action: development by local government or planning agencies, land development projects, other development or improvements at the Airport, roadway improvements, and public infrastructure projects.

4.16.1 Past, Current, and Future Projects

The following section will address past, current, and future project at the Airport, as well as developments in the vicinity of the Airport.

Past Projects

The taxiways were slurry sealed in 1992, however, according to the 2007 MPU, all taxiways were in poor condition and had weeds growing through the cracks. Additional perimeter fencing and apron expansion occurred at the Airport in 2008. The runway was sealed in 2014.

Current Projects

The City of Oroville is currently in the process of updating the current Comprehensive Plan. This plan focuses on the setting the development goals for the city, and regulates public policies on transportation, utilities, land use, recreation, and housing.

Reasonably Foreseeable Projects

The current Capital Improvement Plan (CIP) for the airport describes improvements to the taxiways, pilots' lounge, hangar buildings, and Airport lighting. The proposed projects in the CIP are scheduled through the year 2025.

4.16.2 Environmental Impact Category Analysis

This cumulative impact analysis focuses on those resources either directly or indirectly impacted by the proposed Action. If the Proposed Action would not cause a direct or indirect impact on a resource, then it would not contribute to a cumulative impact on that resources.

As noted earlier in this chapter, Coastal Resources and Wild and Scenic Rivers do not exist within the EA study area and therefore would not contribute to cumulative impacts. Additionally, the following resources are not impacted by the Proposed Action, and are therefore not considered in the cumulative impacts analysis:

- Air Quality
- Biological Resources
- Climate
- Department of Transportation Section 4(f) Resources
- Farmlands
- Hazardous Materials, Solid Waste, and Pollution Prevention
- Historical, Architectural, and Cultural Resources
- Land Use
- Natural Resources and Energy Supply
- Noise
- Socioeconomics, Environmental Justice, and Children's Health and Safety
- Visual Effects
- Wetlands
- Floodplains

Cumulative Impacts to Water Resources

Cumulative Impacts to Surface Water

The Proposed Action would increase the overall impervious surface at the Airport. Impacts from the Proposed Action and foreseeable on-site Airport projects would be minimized through BMPs specifically designed to meet local, state, and Federal requirements for water quality. Any new modifications to stormwater management systems would adhere to FAA standards for airfield construction and the *Stormwater Management Manual for Eastern Washington*. As long as those standards are met and proper BMP and mitigation measures are utilized, no significant cumulative impacts to water quality would occur with regard to stormwater and surface water quality.

Cumulative Impacts to Groundwater

The Proposed Action would increase the overall impervious surface at the Airport, thereby decreasing the Airport's ability to allow water to infiltrate into the ground. To help negate potential impacts to groundwater quality, BMPs and designs from Chapter 173-200 Washington Administrative Code (WAC), *Water Quality Standards for Groundwaters of the State of Washington*, would be utilized throughout

construction of the Proposed Action Alternative. Any new modifications to the existing system would adhere to FAA standards for airfield construction.

Generally, groundwater impacts are mitigated on an individual basis, meaning that each project deals with groundwater impacts differently depending on project needs or requirements. Within the City of Oroville, all past, current, and future projects are required to meet the standards discussed Chapter 173-200 Washington Administrative Code (WAC), *Water Quality Standards for Groundwaters of the State of Washington*. As long as those standards are met and proper BMPs and mitigation measures are utilized, no significant cumulative impacts are anticipated with regard to stormwater and water quality.

4.17 Conclusion

This EA has been developed consistent with the existing national environmental policies and objects of Section 101(a) of the NEPA and meets the CEQ Requirements. The Proposed Action Alternative meets the purpose and need as described in Chapter 1, would address existing design and operational deficiencies, and increase the overall ability of the Airport to support its current level of activity. After careful review and consideration, it has been determined that the Proposed Action would not yield any significant impacts to either the natural or human environment. Mitigation measures have been outlined as environmental commitments to offset the project related impacts described herein.

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Chapter 6 – List of Preparers

J-U-B ENGINEERS, Inc. (JUB), located in Spokane, Washington was responsible for providing the analysis contained in this Environmental Assessment (EA). Below are the staff members who were responsible for the preparation of this EA.

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The qualifications for the personnel from JUB directly responsible for preparing this EA are as follows:

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Chapter 7 – List of Agencies and Persons Consulted

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City of Oroville
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Stephen Johnston, Service Manager
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City of Oroville
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Oroville, WA 98844

Oroville City Council
City of Oroville,
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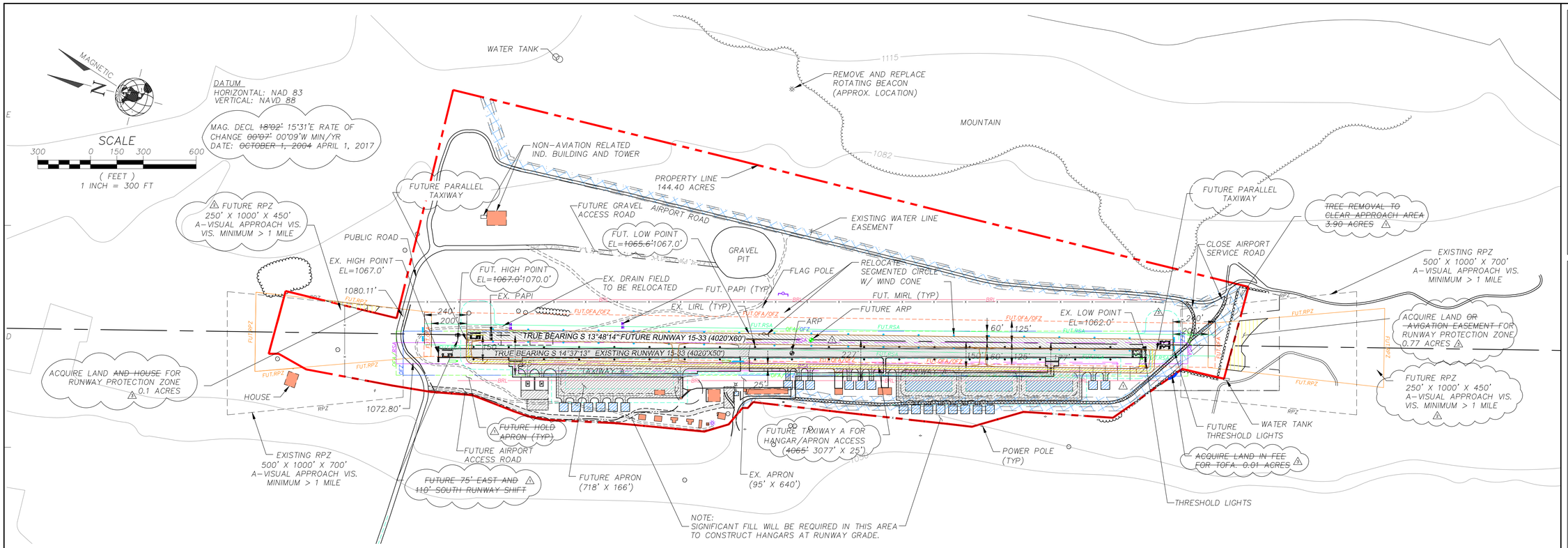
Oroville, WA 98844

APPENDIX

Appendix A: Airport Layout Plan

DWG INDEX:
32103-XREF-BM01
32103-XREF-DE01



RUNWAY DATA	EXISTING R/W 15	EXISTING R/W 33	FUTURE R/W 15	FUTURE R/W 33
ARC	B-I (SMALL)		SAME	
CRITICAL AIRCRAFT	BEECH KING AIR B100		SAME	
WINGSPAN (FEET)	45.8		SAME	
MAX. TAKE OFF WEIGHT	11,800 LBS		SAME	
CRITICAL AIRCRAFT APPROACH SPEED	111 MPH		SAME	
RUNWAY DIMENSIONS (L/W)	4020 x 50'		4020' X 60'	
PAVEMENT TYPE	ASPHALT		SAME	
PAVEMENT DESIGN STRENGTH	SW-5,000LBS		12,500 LBS	
RUNWAY LIGHTING	LIRL		MIRL	
RUNWAY MARKING	BASIC		SAME	
EFFECTIVE GRADIENT (%)	.12		~~.03~~ 0.1	
LINE OF SIGHT REQUIREMENTS	MEETS REQUIREMENTS		SAME	
APPROACH CATEGORY	VISUAL	VISUAL	SAME	SAME
VISUAL APPROACH AIDS	PAPI	NONE	PAPI/REIL	PAPI/REIL
INSTRUMENTAL APPROACH AIDS	NONE	NONE	NONE	NONE
APPROACH VISIBILITY MINIMUMS	> 1 MILE	> 1 MILE	SAME	SAME

	EXISTING R/W 15 ACTUAL	EXISTING R/W 15 STANDARD	EXISTING R/W 33 ACTUAL	EXISTING R/W 33 STANDARD	FUTURE R/W 15 ACTUAL	FUTURE R/W 15 STANDARD	FUTURE R/W 33 ACTUAL	FUTURE R/W 33 STANDARD
RSA SAFETY AREA WIDTH	120'	120'	120'	120'	120'	120'	120'	120'
LENGTH BEYOND ROLLOUT RUNWAY END	110'	240'	180'	240'	240'	240'	240'	240'
OFA DIMENSIONS WIDTH	400'	250'	400'	250'	400'	250'	400'	250'
LENGTH BEYOND ROLLOUT RUNWAY END	150'	240'	180'	240'	240'	240'	240'	240'
OFZ DIMENSIONS WIDTH	250'	250'	250'	250'	250'	250'	250'	250'
LENGTH BEYOND ROLLOUT RUNWAY END	200'	200'	200'	200'	200'	200'	200'	200'
RUNWAY END COORDINATES NAD 83	N 48° 57' 51.56" W 119° 24' 50.17"		N 48° 57' 13.01" W 119° 24' 36.05"		~~N 48° 57' 51.56" W 119° 24' 50.17"~~ N 48° 57' 50.27" W 119° 24' 48.09"		~~N 48° 57' 13.01" W 119° 24' 36.05"~~ N 48° 57' 11.59" W 119° 24' 34.80"	
RUNWAY END ELEVATIONS	1067.0'		1062.0'		~~1067.0'~~ 1070.0'		~~1065.6'~~ 1070.5'	
APPROACH SLOPES FAR PART77	20:1		20:1		SAME		SAME	
APPROACH SLOPES ACTUAL	0:1		7:1		20:1		20:1	
DECLARED DISTANCES TORA	4020'		SAME		4020'		SAME	
DECLARED DISTANCES TODA	4020'		SAME		4020'		SAME	
DECLARED DISTANCES ASDA	4020'		SAME		4020'		SAME	
DECLARED DISTANCES LDA	4020'		SAME		4020'		SAME	

LEGEND	EXISTING	FUTURE
AIRFIELD PAVEMENT		
ROADWAY		
GRAVEL ROADWAY		
BUILDINGS		
TREE REMOVAL	N/A	
LAND ACQUISTION	N/A	
~~AVIGATION~~ EASEMENT		
PROPERTY LINE		
R/W OBJECT FREE AREA	OFA	FUT. OFA
R/W SAFETY AREA	RSA	FUT. RSA
R/W OBSTACLE FREE ZONE	OFZ	FUT. OFZ
RUNWAY PROTECTION ZONE	RPZ	FUT. RPZ
T/W OBJECT FREE AREA	N/A	FUT. TOFA
15' BUILDING RESTRICTION LINE	BRL	BRL
AIRPORT REFERENCE POINT	ARP	FUT.ARP
RUNWAY LIGHTS		
AIRPORT FENCE		N/A
BEACON		
PAPI		
HOLD LINES		
SIGNS	N/A	
MOUNTAIN		SAME
CONTOURS	1050	SAME
HELICOPTER PAD	N/A	

NON-STANDARD CONDITIONS & DISPOSITION

1. EXISTING RSA AND OFA LENGTHS BEYOND RUNWAY 15 END ARE 110' AND 150', RESPECTIVELY FAA STANDARD FOR B-1 (SMALL) IS 240'. RUNWAY WILL BE SHIFTED ~~25~~ 103.5' TO THE EAST AND ~~110'~~ 155' TO THE SOUTH TO ACHIEVE STANDARD RSA AND OFA.
2. EXISTING RSA AND OFA LENGTH BEYOND RUNWAY 33 END ARE 180', FAA STANDARD FOR B-I (SMALL) IS 240'. RUNWAY WILL BE SHIFTED ~~25'~~ 48' TO THE EAST AND ~~110'~~ 155' TO THE SOUTH AND EXISTING DIRT ROAD TO BE CLOSED TO ACHIEVE STANDARD RSA AND OFA.

AIRPORT DATA	EXISTING	FUTURE
AIRPORT ELEVATION (NAVD 88)	1067'	~~1067'~~ 1084.3'
AIRPORT REFERENCE POINT (ARP)	N 48° 57' 32.29" W 119° 24' 43.11"	~~N 48° 57' 31.40" W 119° 24' 41.64"~~ N 48° 57' 30.95" W 119° 24' 41.45"
MEAN DAILY MAXIMUM TEMPERATURE	86° (JULY)	SAME
AIRPORT REFERENCE CODE	B-I (SMALL)	SAME
AIRPORT MAGNETIC VARIATION & DATE	N18°02'E OCTOBER 1, 2004	SAME
NPIAS SERVICE LEVEL	GA	SAME
TAXIWAY LIGHTING	REFLECTORS	SAME
TERMINAL NAVAID	ROTATING BEACON	SAME

NOTES:

1. NO WIND DATA AVAILABLE FOR DOROTHY SCOTT, DATA FROM OSOYOOS USED, WIND COVERAGE OF 95% IS EXCEEDED.
2. NO OFZ OBJECT PENETRATIONS.
3. DETAILS ON BUILDINGS CAN BE FOUND ON SHEET 3.
4. AIRPORT OWNER PLANS TO SHIFT RUNWAY TO MEET DECLARED DISTANCE STANDARD IN LIEU OF USING DISPLACED THRESHOLD MARKINGS.

APPROVAL BLOCK

AIRPORT SPONSOR:

Signature

Title Date

FEDERAL AVIATION ADMINISTRATION:

Signature

Title Date

Approval letter dated _____

"THE PREPARATION OF THESE DOCUMENTS MAY HAVE BEEN SUPPORTED, IN PART THOUGH THE AIRPORT IMPROVEMENT PROGRAM FINANCIAL ASSISTANCE FROM THE FEDERAL AVIATION ADMINISTRATION (PROJECT NUMBER 3-53-5300-03) AS PROVIDED UNDER TITLE 49, UNITED STATES CODE, SECTION 47104. THE CONTENTS DO NOT NECESSARILY REFLECT THE OFFICIAL VIEWS OR POLICY OF THE FAA. ACCEPTANCE OF THESE DOCUMENTS BY THE FAA DOES NOT IN ANY WAY CONSTITUTE A COMMITMENT ON THE PART OF THE UNITED STATES TO PARTICIPATE IN ANY DEVELOPMENT DEPICTED HEREIN NOR DOES IT INDICATE THAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE IN ACCORDANCE WITH APPROPRIATE PUBLIC LAWS."

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WSDOT AVIATION DIVISION
DOROTHY SCOTT AIRPORT
AIRPORT LAYOUT PLAN

OROVILLE WASHINGTON

SCALE: 1"=300'

PROJECT NO. 32103

DRAWING FILE NAME: 32103-AIRP-LP01

DESIGNED BY: RMW CHECKED BY: DSW
DRAWN BY: CMB APPROVED BY:
LAST EDIT: 02/5/18 PLOT DATE: 2/5/18

DATE	BY	REV#	REVISION	CK'D	APPR.
03/07/18	JUB	1	RW ALIGNMENT	AAD	MIN
3/27/18	JUB	2	RPZ RELOCATION	AAD	MIN
9/6/19	JUB	3	PARALLEL TAXIWAY CONFIG.	SLS	MIN

SHEET 2

Appendix B: Biological Evaluation

J-U-B ENGINEERS, INC.

J-U-B COMPANIES THE LANGDON GROUP GATEWAY MAPPING INC.

MEMORANDUM

DATE:	12-3-2019
TO:	Cayla Morgan, Environmental Protection Specialist (Federal Aviation Administration)
CC:	Mark Napier, Project Manager (J-U-B ENGINEERS, Inc.); Marti Hoge, Senior Environmental Specialist (J-U-B ENGINEERS, Inc.)
FROM:	Autumn Foushee, Senior Biologist (J-U-B ENGINEERS, Inc.)
SUBJECT:	Amendment to the No Effects Biological Assessment for Oroville (Dorothy Scott) Airport Runway Realignment Project

This amendment has been prepared as an update for the 2018 Biological Assessment (BA) completed for the proposed Oroville (Dorothy Scott) Airport Runway Realignment Project (Proposed Project), as required by Section 7(c) of the Endangered Species Act (ESA). This amendment is included with the 2018 BA in light of an updated Proposed Project Action as well as an updated U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) Report species listing, which identifies the gray wolf (*Canis lupus*) as having potential to occur within the proposed project area. According to the Washington Department of Fish and Wildlife (WDFW), the gray wolf is endangered in the western 2/3rds of Washington, west of U.S. Highway 97, State Route 17, and U.S. 395, and WDFW has primary management authority east of that line. The updated species listing is likely due to the proposed project area's location east of Highway 97.

Proposed Project Action Update

The Proposed Project Action has been updated in the time following the finalization of the original BA document. Instead of turnarounds at both runway ends as discussed in the original BA, the updated Proposed Project Action would reconstruct a parallel taxiway along the west side of the runway. While this change alters construction, the Proposed Project Action would remain entirely contained on Airport property, and the construction impacts would occur only within areas disturbed by previous Airport activities.

Previous Effects Determinations

Despite the changes to the Proposed Project Action, the original "no effect" determinations for bull trout (*Salvelinus confluentus*), Canada lynx (*Lynx canadensis*), North American wolverine (*Gulo gulo luscus*), and yellow-billed cuckoo (*Coccyzus americanus*), remain accurate for the Proposed Project due to an absence of suitable habitat for each of the species within the proposed project area.

Gray Wolf Species Description and Habitat Requirements

The gray wolf (*Canis lupus*) was once abundant across many parts of North America from coast to coast and from Alaska to Mexico. Government-sponsored predation control programs and a decline in available

prey due to human overharvest caused a significant decline across the continent in the early 1900s, driving wolf populations to near extinction (USFWS 2011).

In 1973, wolves in the lower 48, except for populations in Minnesota, were listed as endangered under the ESA. Minnesota populations were listed as threatened under the ESA, and Alaska populations were not included under the ESA protections (USFWS 2011). In 1995, the USFWS reintroduced 35 wolves into central Idaho and 31 wolves in Yellowstone National Park (IDFG 2017) with the goal of reestablishing sustainable wolf populations in the Northern Rocky Mountains (NRM). By 2002, wolf populations in the NRM states of Montana, Idaho, and Wyoming had all met recovery metrics for delisting, and in 2011, NRM wolves were removed from the ESA endangered list (MFWP 2018). Since delisting, wolf populations have remained relatively steady.

Wolves have evolved to avoid people due to many centuries of wolf hunting and predator control (Maas 1997). The gray wolf requires vast forests and mountain foothills with abundant prey for hunting (Maas 1997). They show little preference for special habitats as long as food is available. A wolf's diet consists mainly of large ungulates (deer, elk, and moose) as well as small mammals (rabbits and beavers) and carrion. Wolves generally travel in packs averaging 6-9 individuals but can be as large as 25 (WGFD 2017). The dominant male (alpha male) and dominant female (alpha female) in each pack (i.e., the breeding pair) will typically produce one litter of four to ten pups each spring (UDWR 2018). The breeding pair makes all the decisions for the pack, including when and where they hunt (Maas 1997). A single territory for a pack ranges between 100 to 600 square miles. On a single hunt they may travel over 50 miles in pursuit of food.

Determination of Effect

According to the WDFW Wolf Observations GIS database, the most recent civilian reported occurrence of gray wolf took place on March 29, 2019 approximately five miles east of the proposed project area (WDFW 2019). While the reported occurrence demonstrates that the species may be present near the proposed project area, the presence of gray wolf in the proposed project area is unlikely. The proposed project would be contained entirely within the established airport property.

Generally, wolf populations thrive in areas away from human populations and activity. As discussed in the BA, the habitat within the proposed project area is highly disturbed by existing human activity and airport infrastructure, and consists primarily of sandy soils, arid shrubs, upland bunch grasses, and annual weeds. The entire Airport is fenced and actively maintained to reduce the likelihood of wildlife strikes and large ungulate incursions (i.e. deer, etc.) onto the property. While the WDFW Wolf Observations GIS database lists a record of occurrence within 5 miles, no WDFW Priority Habitats and Species (PHS) data exists in the proposed project area for the species. Habitat for gray wolf within the proposed project area is poor to marginal based on the level of human disturbance and management of wildlife within the Airport property. Due to a lack of suitable habitat, a high level of human disturbance, and the use of wildlife deterrent measures by the Airport, the Proposed Project would be anticipated to have no effect on the gray wolf.

Conclusion

After reviewing the available scientific information regarding the biological requirements of the ESA-listed species considered in this Amendment as related to the environmental baseline for the Proposed Project and its potential impacts, a “no effect” determination was made for gray wolf. This determination arose due to the lack of suitable habitat, a high amount of human disturbance, and the use of wildlife deterrent measures within the proposed project area.

If additional species are listed or proposed, or if critical habitat is designated prior to completion of construction, and the species or critical habitat occurs within the proposed project area, or may be affected by the project, construction activities would be paused, and a species evaluation would be prepared. Species for which a no effect determination has been previously prepared would not be readdressed. It should be noted that the final authority regarding species effect determinations rests with the appropriate regulatory agencies.

Enclosed following Original BA Documents:

- Updated USFWS IPaC Report (dated 11-13-2019)
- Updated WDFW PHS Report (dated 11-18-2019)
- Updated APE/Project Action Exhibit

NO EFFECTS
BIOLOGICAL ASSESSMENT
FOR
OROVILLE (DOROTHY SCOTT) AIRPORT RUNWAY REALIGNMENT PROJECT
(OKANOGAN COUNTY, WASHINGTON)

This biological assessment (BA) has been prepared as a technical report for the proposed Oroville (Dorothy Scott) Airport Runway Realignment Project, as required by Section 7(c) of the Endangered Species Act (ESA). This technical report is intended to be included within the Appendix of the Environmental Assessment (EA), which is being developed in accordance with the National Environmental Policy Act (NEPA). The defined project study area correlated to the BA encompasses 152 acres (see Project Study Area Exhibit, Attachment 1). Vincent Barthels, a Qualified Biologist, conducted a site review and pedestrian survey of the project study area on October 6, 2016. This technical report will serve as the effects analysis linked to potential impacts associated with species listed as endangered, threatened, proposed or candidate, and designated or proposed critical habitat protected under the ESA.

On October 3, 2016, a project-specific species list was obtained from the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation (IPaC) System. Four ESA species (bull trout, Canada lynx, North American wolverine and yellow-billed cuckoo) were identified by the USFWS IPaC report for the defined project footprint (Attachment 2). This report was updated on January 31, 2019; and, there was no change in the listed species. There is no designated or proposed critical habitat within the defined project study area for any of the four identified species. Table 1 summarizes the obtained IPaC information.

Table 1: Summary of ESA listed species identified in the IPaC report (updated 1-31-2019).

Common Name	Scientific Name	ESA Status	Critical Habitat
Bull trout	Salvelinus confluentus	Threatened	No
Canada lynx	Lynx canadensis	Threatened	No
North American wolverine	Gulo gulo luscus	Proposed Threatened	No
Yellow-billed cuckoo	Coccyzus americanus	Threatened	No

To complement the IPaC ESA species listing, an information search was completed on October 6, 2016, using the Washington Department of Fish and Wildlife (WDFW) Priority Habitat and Species (PHS) database. The PHS database report was then updated on August 20, 2018 (Attachment 3), and referenced to determine if any of the aforementioned ESA species have a documented presence within the defined project study area. The PHS database report did not yield any records of species occurrence associated with the species listed in Table 1.

Description of Proposed Action

Airport Location

The Dorothy Scott Airport (the Airport) is located in Oroville, Okanogan County, Washington in Sections 14, 15, 22, and 23, Township 40 North, Range 27 East. The central portion of the Airport is located at approximately 48.9604919^0 N latitude and 119.4105239^0 W longitude. The elevation of the Airport falls within the range of 1,060' +/- 50' above sea level.

Proposed Project Action

The proposed project action, correlated to this BA, includes the following elements:

- Acquiring one (1) parcel in fee simple for airfield construction and two (2) parcels in fee simple within the runway protection zone (RPZ) limits at both ends of the runway. Collectively, the proposed acquisitions encompass a total of approximately 0.9 acres.
- Shifting and constructing a new runway approximately 103.5' to the east and 155' to the south of the existing runway, with a rotation of 1.5^o east. The new runway would include new edge lighting, precision approach path indicators (PAPIs), signs, electrical vaults, a segmented circle and wind cone, and rotating beacon.
- Constructing a turnaround at each runway end and connector taxiway to the existing apron.
- Removing a septic drainfield obstruction (east side of the existing runway) and installing approximately 1,825 linear feet (L.F.) of sewer, and connecting the new sewer line to the existing City sewer system situated west of the Airport.
- Relocating approximately 3,000 L.F. of interior perimeter fencing on the east side of the Airport.
- And, apron and hangar build-out along the west side of the new runway and the development of a business park on the east side of the runway in accordance with the current Airport Layout Plan (ALP).

The proposed project action is outlined in the current ALP, dated September 9, 2007. The proposed project action meets the standards established by the Federal Aviation Administration's (FAA's) Runway Design Code (RDC) B-I (small aircraft), which aligns with the critical aircraft identified for the Airport. The defined project study area encompasses 152 acres and contains the footprint of the proposed project action described above (see Project Study Area Exhibit, Attachment 1).

Environmental Baseline

The project study area has an average temperature of 50 degrees Fahrenheit, an average of 11.8 inches of rainfall and an average snowfall of 24.6 inches. The growing season is between April 29 and October 9, 164 days. Summers are dry, warm and sunny; whereas the winters are cold and cloudy with some fog (USDA 1980).

Soils in the project study area are generally deep, highly permeable, excessively drained soils that were formed in glacial outwash. The most dominant soil type for the Airport is Ewall loamy fine sand, which is predominately found on 0 to 15 percent slopes (USDA 1980).

The vegetation structure within the project study area generally consists of arid shrubs, upland bunch grasses and annual weeds. Table 2 summarizes the encountered vegetative assemblages that were observed during the site visit. Eight photos were captured throughout the project study area to illustrate the general habitat characteristics and vegetative community present (see Photo Inventory, Attachment 4).

Table 2: Vegetation encountered within the project study area.

Common Name	Scientific Name
Annual fescue	Vulpia myuros
Antelope bitterbrush	Purshia tridentata
Big sagebrush	Artemisia tridentata
Black locust	Robinia pseudoacacia
Blue wild rye	Elymus glaucus
Bluebunch wheatgrass	Pseudoroegneria spicata
Canada thistle	Cirsium arvense
Cereal rye	Secale cereal
Cheat grass	Bromus tectorum
Cinquefoil	Potentilla spp.
Clasping pepperweed	Lepidium perfoliatum
Common fleabane	Pulicaria dysenterica
Common mallow	Malva neglecta
Common mullein	Verbascum thapsus
Common plantain	Plantago major
Common rabbit brush	Chrysothamnus nauseosus
Common yarrow	Achillea millefolium
Cottonwood	Populus trichocarpa
Crested wheat grass	Agropyron cristatum
Diffuse knapweed	Centaurea diffusa
Dropseed	Sporobolus spp.
Five horn smother weed	Bassia hyssopifolia
Flixweed	Descurainia sophia
Goat's-head	Tribulus terrestris
Hawksbeard	Crepis acuminata
Horse brush	Tetradymia canescens
Idaho fescue	Festuca idahoensis
Indian rice grass	Achnatherum hymenoides
Kochia	Bassia scoparia
Needle and thread grass	Stipa comata
Pigweed	Amaranthus albus
Prairie junegrass	Koeleria macrantha
Prickly lettuce	Lactuca serriola
Rabbit brush	Ericameria nauseosa
Rough fescue	Festuca scabrella

Russian olive	Elaeagnus angustifolia
Russian thistle	Salsola tragus
Sandberg bluegrass	Poa secunda
Siberian elm	Ulmus pumila
Stoneseed	Lithospermum ruderale
Tarweed	Madia molina
Threeawn	Aristida spp.
Threetip sagebrush	Artemisia tripartita
Toadflax	Comandra umbellata
Tumble mustard	Sisymbrium altissimum
Yellow star-thistle	Centaurea solstitialis

The project study area lacks any open water features (e.g. open irrigation canals or laterals, wetlands, ponds, streams or lakes). Along the western portion of the study area, there is a piped irrigation line, which delivers water through the project study area to nearby orchards. Most of the orchards that exist immediately north, south and west of the Airport contain fruit trees.

Species Specific Descriptions, Habitat Requirements, and Determinations of Effect

The following is a description of individual species, habitat requirements and a determination of effect for the species listed in Table 1. The first species addressed has an ESA status of "proposed threatened," which does not provide the species any protection under ESA Section 7. In the event that the proposed threatened species becomes a listed species (i.e. "threatened" or "endangered") prior to or during construction, a provisional biological evaluation or effects determination is provided below.

Proposed Threatened Species, Habitat Description and Provisional Effect Determination:

Wolverine

The North American wolverine, a distinct population segment (DPS) found within the contiguous United States, is listed as a "proposed threatened" species under the ESA (USFWS 2013). Without preference to specific vegetation or geological aspects, wolverines inhabit alpine areas that receive persistent deep snow. The current range of the North American wolverine in the contiguous Unites States includes portions of Washington, Idaho, Montana, Wyoming, Colorado, Utah, Oregon, and California (USFWS 2013). A study of wolverines in central Idaho found that their mean elevation range exists between approximately 4,600 and 9,500 feet above sea level, and reported a mean elevation level of approximately 7,475 feet above sea level for winter use (Copeland 1996).

The largest and fiercest member of the weasel family, wolverines weigh between 20 to 40 pounds. Wolverines have a broad round head, small eyes, and a yellowish-brown to black body. They have broad yellow stripes on either side of their body that join at the rump, a bushy tail, and have a strong skunk like odor (Ransom 1981). Wolverines are opportunistic feeders that primarily scavenge carrion, but also prey on small animals, birds, insects, fruits, and berries.

The breeding season occurs from late spring to early fall and females undergo delayed implantation until the following winter to spring. Females excavate their birthing dens in persistent stable snow that is

typically a minimum of five feet deep, which is required for security and to buffer cold winter temperatures. Birthing dens often incorporate rocks, shrubs and downed logs for added security. Following a 30 to 40-day gestation period, litters consisting of one to five offspring are born between mid-February and March. Secondary (maternal) dens are used and abandoned corresponding with snow melt and the accumulation of water (USFWS 2013).

The project study area is outside the typical elevation range that the wolverine would occupy. Suitable habitat for the wolverine is lacking in the project study area based on the elevation range and the lack of alpine habitat. Wolverine presence in the defined project study area is discountable (i.e. extremely unlikely). Transportation projects have not been identified as a threat to wolverines in the proposed listing rule, and transportation corridor and urban development are specifically cited as allowed activities in the proposed rule (4d). Based on the nature and location of the improvements anticipated at the Airport, the proposed project action will not jeopardize the continued existence of the North American Wolverine DPS. Moreover, the proposed project action at the Airport yields a provisional no effect determination for the wolverine based on the absence of viable habitat and elevation considerations.

Listed ESA Species, Habitats Descriptions, and Effect Determinations:

Bull trout and their designated critical habitat

Bull trout are salmonids that are members of the char family. They have grayish to dark green sides with white to pinkish spots. The fish is recognized by the white margins on its pectoral, ventral, and anal fins (Eddy and Underhill 1978). The dorsal fin also lacks the spots that cover the back and sides of the body. Bull trout spawn in the fall in streams with cold, unpolluted water, clean gravel and cobble substrate, and gentle stream slopes (USFWS 1998). Bull trout eggs require a long incubation period, hatching in late winter or early spring. Some may live near areas where they were hatched; however, others migrate from streams to lakes or reservoirs a few weeks after emerging from the gravel. Bull trout habitat consists mainly of oligotrophic lakes and deep pools of pristine cold fluvial habitats in mountainous regions, mainly 45 to 55 degrees Fahrenheit (Sternberg 1996). Food sources of the bull trout include aquatic insects and other invertebrates, switching to fish if available.

The project study area does not contain any streams or lakes. No suitable bull trout habitat (or any fish habitat) exists in the project study area. The proposed project action at the Airport yields a no effect determination associated with bull trout.

Canada lynx

The Canada lynx is a medium-sized felid that has long tufts of hair on its ears, large feet, and a short tail. The lynx is grayish to reddish brown and has faint black spots and bars that cover most of its body (Maas 1997). The lynx has unusually large feet for its size; this characteristic helps it stay on top of frozen snow while in pursuit of prey. They also have excellent night vision and hearing. Adult lynx mainly live by themselves, only joining for a few days to mate. Adult females normally have litters of up to five kittens in the spring. Lynx do most of their hunting at night and require a very small home range when food is plentiful. They usually feed on snowshoe hares and other small rodents, although when food is scarce they will kill young deer. The lynx population is cyclical and peaks about every ten years. Subalpine fir forests are the primary vegetation that may contribute to lynx habitat (Ruediger et al. 2000). Lynx habitat is generally above 4,000 feet within montane and subalpine coniferous forests (IDFG 2016). In the Pacific Northwest, primary habitat components for lynx consist of foraging habitats that support snowshoe hare and provide hunting cover, denning sites, and dispersal/travel cover (Rust 2002).

There are no known or documented lynx populations within the project study area. Furthermore, suitable habitat conditions do not exist within the project area because it is not within a subalpine coniferous

forest and is well below 4,000 feet in elevation. Therefore, a no effect determination is warranted for the Canada lynx.

Yellow-billed cuckoo

The yellow-billed cuckoo, as the name suggests, has a yellow lower mandible. It has rufous wings that contrast against the gray-brown wing coverts and upperparts, and white underparts. Large white spots can be noted on its long black undertail (Alsop 2001). It is a neotropical migrant, which winters in South America. Breeding often coincides with the appearance of massive numbers of cicadas, caterpillars, or other large insects (Ehrlich et al. 1992). Its incubation/nestling period is the shortest of any known bird because it is one of the last neotropical migrants to arrive in North America and chicks have very little rearing time before embarking on their transcontinental migration. In the western United States, this cuckoo will nest in dense stands of tall cottonwood and willow riparian woodlands. Their nesting home range may include 25 acres (10 hectares) or more of riparian woodland habitat (Biosystems Analysis 1989).

Based on information obtained from the PHS report, there are no documented occurrences of yellow-billed cuckoo within defined project study area. West of the Airport, several residential lots contain one or two cottonwoods within their manicured lots; however, the project study area lacks dense stands of tall cottonwood or willow trees. The lack of viable habitat in the project study area makes it highly unlikely that the yellow-billed cuckoo would be present. This project is not likely to significantly impact populations, individuals or suitable habitat. This project will have no effect on yellow-billed cuckoo or its potential habitat.

Conclusion

The activities associated with the proposed Airport Runway Realignment Project, described herein as the proposed project action, have been determined to have no effect on bull trout, Canada lynx, Northern American wolverine, yellow-billed cuckoo, or their respective habitats.

Table 3: Summary of Effects Determinations.

Species	ESA Status	Effects Determination
Bull trout	Threatened	No Effect (NE)
Canada lynx	Threatened	No Effect (NE)
North American wolverine	Proposed Threatened	Provisional Determination = No Effect (NE)
Yellow-billed cuckoo	Threatened	No Effect (NE)

It is our understanding that this report satisfies the Airport's responsibilities at this time under Section 7(c) of the ESA. If additional species are listed (or critical habitat has been designated) prior to completion of construction, and the species (or designated critical habitat) occurs in the defined project study area, the Airport must prepare an individual species evaluation. Species for which a no effect determination has previously been prepared will not be readdressed. It should be noted that the final authority rests with the appropriate regulatory authority.

Respectfully submitted by:

Final Draft 9-18-2018

Vincent Barthels, Biologist Date

List of Attachments:

(1) Project Study Area Exhibit
(2) USFWS IPaC Species Listing (dated: 8-20-2018)
(3) WDFW PHS Report (dated: 8-20-16)
(4) Photo Inventory

References Cited

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Ruediger, B. et al. 2000. Canada lynx conservation assessment and strategy. USDA Forest Service, USDI Fish and Wildlife Service, USDI Bureau of Land Management, USDI National Park Service.

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Attachment 1

PROPOSED PROJECT ACTION ELEMENTS

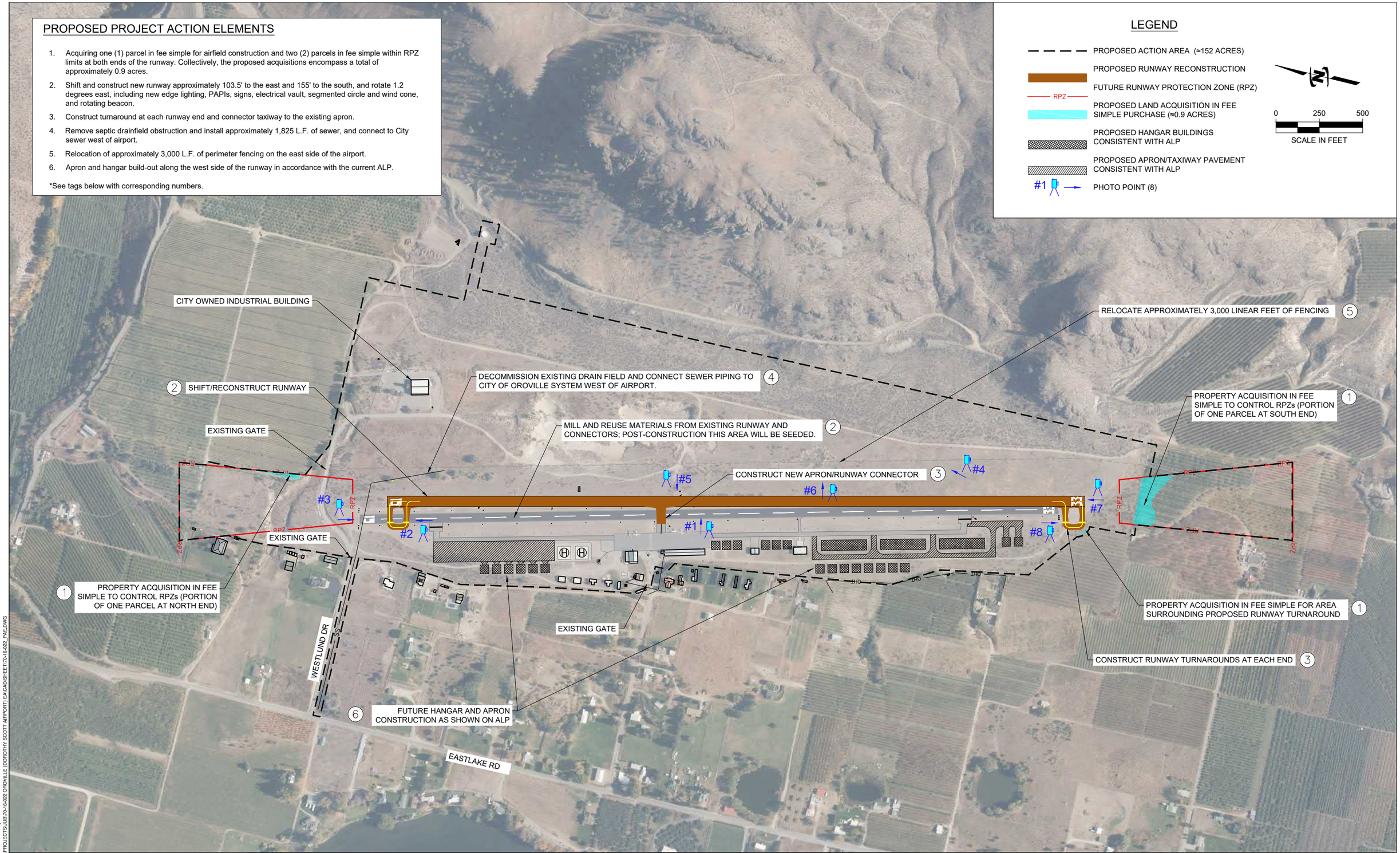
1. Acquiring one (1) parcel in fee simple for airfield construction and two (2) parcels in fee simple within RPZ limits at both ends of the runway. Collectively, the proposed acquisitions encompass a total of approximately 0.9 acres.
2. Shift and construct new runway approximately 103.5' to the east and 155' to the south, and rotate 1.2 degrees east, including new edge lighting, PAPIs, signs, electrical vault, segmented circle and wind cone, and rotating beacon.
3. Construct turnaround at each runway end and connector taxiway to the existing apron.
4. Remove septic drainfield obstruction and install approximately 1,825 L.F. of sewer, and connect to City sewer west of airport.
5. Relocation of approximately 3,000 L.F. of perimeter fencing on the east side of the airport.
6. Apron and hangar build-out along the west side of the runway in accordance with the current ALP.

*See tags below with corresponding numbers.

LEGEND

- PROPOSED ACTION AREA (≈152 ACRES)
- PROPOSED RUNWAY RECONSTRUCTION
- RPZ — FUTURE RUNWAY PROTECTION ZONE (RPZ)
- PROPOSED LAND ACQUISITION IN FEE SIMPLE PURCHASE (≈0.9 ACRES)
- PROPOSED HANGAR BUILDINGS CONSISTENT WITH ALP
- PROPOSED APRON/TAXIWAY PAVEMENT CONSISTENT WITH ALP
- #1 PHOTO POINT (8)

0 250 500
SCALE IN FEET



J-U-B ENGINEERS, INC.

LAST UPDATED: 9/18/2018
PLOT DATE: 9/18/2018
FILE: 70-16-022_PAE

DOROTHY SCOTT AIRPORT
CITY OF OROVILLE
PROJECT STUDY AREA EXHIBIT
SEPTEMBER 18, 2018

Plot Date:9/18/2018 11:51 AM Plotted By: Tim Frech
Date Created:9/18/2018 F:\PROJECTS\JUB\70-16-022 OROVILLE (DOROTHY SCOTT AIRPORT) EA\CAD\SHEET\70-16-022_PAE.DWG

Attachment 2

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
http://www.fws.gov/wafwo/

In Reply Refer To: January 31, 2019
Consultation Code: 01EWFW00-2018-SLI-0085
Event Code: 01EWFW00-2019-E-00837
Project Name: Dorothy Scott Airport

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

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, and proposed species, designated and proposed critical habitat, and candidate species 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. The species list is currently compiled at the county level. Additional information is available from the Washington Department of Fish and Wildlife, Priority Habitats and Species website: http://wdfw.wa.gov/mapping/phs/ or at our office website: http://www.fws.gov/wafwo/species_new.html. 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 or not the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

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

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.). You may visit our website at http://www.fws.gov/pacific/eagle/for information on disturbance or take of the species and information on how to get a permit and what current guidelines and regulations are. Some projects affecting these species may require development of an eagle conservation plan: (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Also be aware that all marine mammals are protected under the Marine Mammal Protection Act (MMPA). The MMPA prohibits, with certain exceptions, the "take" of marine mammals in U.S. waters and by U.S. citizens on the high seas. The importation of marine mammals and marine mammal products into the U.S. is also prohibited. More information can be found on the MMPA website: http://www.nmfs.noaa.gov/pr/laws/mmpa/.

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

Related website:
National Marine Fisheries Service: http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

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

Consultation Code: 01EWFW00-2018-SLI-0085

Event Code: 01EWFW00-2019-E-00837

Project Name: Dorothy Scott Airport

Project Type: DEVELOPMENT

Project Description: Dorothy Scott Airport

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/48.95779076422001N119.411319900172W

Counties: Okanogan, WA

Endangered Species Act Species

There is a total of 4 threatened, endangered, or candidate species on this species list.

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

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

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

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

Mammals

NAME	STATUS
Canada Lynx *Lynx canadensis* Population: Wherever Found in Contiguous U.S. There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3652	Threatened
North American Wolverine *Gulo gulo luscus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5123	Proposed Threatened

Birds

NAME	STATUS
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **proposed** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

Fishes

NAME	STATUS
Bull Trout *Salvelinus confluentus* Population: U.S.A., conterminous, lower 48 states There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8212	Threatened

Critical habitats

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

Attachment 3

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE
PRIORITY HABITATS AND SPECIES REPORT

SOURCE DATASET: PHSPlusPublic
REPORT DATE: 08/20/2018 2.44

Query ID: P180820144427

Common Name Scientific Name Notes	Site Name Source Dataset Source Record Source Date	Priority Area Occurrence Type More Information (URL) Mgmt Recommendations	Accuracy	Federal Status State Status PHS Listing Status	Sensitive Data Resolution	Source Entity Geometry Type
Chukar Alectoris chukar	OKANOGAN PHSREGION 904855	Regular Concentration Regular concentration http://wdfw.wa.gov/publications/pub.php?	1/4 mile (Quarter	N/A N/A PHS LISTED	N AS MAPPED	WA Dept. of Fish and Wildlife Polygons
Golden eagle Aquila chrysaetos	WS_OccurPoint 130940 June 26, 2013	Breeding Area Nest http://wdfw.wa.gov/publications/pub.php?	GPS	N/A Candidate PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Points
Golden eagle Aquila chrysaetos	WS_OccurPoint 54527 April 08, 2014	Breeding Area Nest http://wdfw.wa.gov/publications/pub.php?	1/4 mile (Quarter	N/A Candidate PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Points
Golden eagle Aquila chrysaetos	WS_OccurPoint 54526 April 08, 2014	Breeding Area Nest http://wdfw.wa.gov/publications/pub.php?	1/4 mile (Quarter	N/A Candidate PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Points
Golden eagle Aquila chrysaetos	PHSREGION 900510	Breeding Area Breeding occurrence http://wdfw.wa.gov/publications/pub.php?	1/4 mile (Quarter	N/A Candidate PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Polygons
Golden eagle Aquila chrysaetos	PHSREGION 900464	Breeding Area Breeding occurrence http://wdfw.wa.gov/publications/pub.php?	1/4 mile (Quarter	N/A Candidate PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Polygons
Golden eagle Aquila chrysaetos	WS_OccurPoint 54272 June 26, 2013	Breeding Area Nest http://wdfw.wa.gov/publications/pub.php?	1/4 mile (Quarter	N/A Candidate PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Points

Common Name Scientific Name Notes	Site Name Source Dataset Source Record Source Date	Priority Area Occurrence Type More Information (URL) Mgmt Recommendations	Accuracy	Federal Status State Status PHS Listing Status	Sensitive Data Resolution	Source Entity Geometry Type
Golden eagle Aquila chrysaetos	WS_OccurPoint 54528 April 08, 2014	Breeding Area Nest http://wdfw.wa.gov/publications/pub.php?	1/4 mile (Quarter	N/A Candidate PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Points
Townsend's Big-eared Bat Corynorhinus townsendii	WS_OccurPoint 110288 July 02, 2002	Communal Roost Biotic detection http://wdfw.wa.gov/publications/pub.php?	GPS	N/A Candidate PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Points

WDFW Test Map

August 20, 2018

PHS Report Clip Area

PT

LN

POLY

AS MAPPED

SECTION

QTR-TWP

TOWNSHIP

1:22,677

0 0.175 0.35 0.7 mi

0 0.3 0.6 1.2 km

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Attachment 4

Photo Inventory

The following eight photos were taken on October 6th, 2016.

Photo 1: Looking east at the rocky mountain that exists immediately east of the Airport. The eastern limits of the Airport Property correlate to the end of the sage brush community or the toe of the old railroad grade (which can be seen near the lower third of the photo). For context, the existing runway is position on the bottom of the photo.

Photo 2: Looking at the north end of the runway (Runway 15). In this photo several Siberian elms can be observed east (right) of the runway, and Lake Osoyoos can be observed west (left) of the runway. The runway is situated approximately 145 feet vertically above the ordinary high water mark of Lake Osoyoos.

Photo 3: Looking southerly from the north end of the runway (Runway 15). Within 75 feet of the edge of the runway, the woody vegetative layer has been cleared.

Photo 4: View of the typical vegetative community within the Airport Property. This photo was captured along the central portion of the fence line that parallels the runway to the east. The vegetative community consists of various arid shrubs (antelope bitterbrush, rabbit brush and sage brush), upland bunch grasses (fescues and cheat grass) and annual weeds (Russian thistle, tarweed, goat's-head and prickly lettuce).

Photo 5: Looking westerly at the Airport's windsock and general aviation (GA) apron from the central portion of the Airport Property.

Photo 6: During the site visit a whitetail buck was observed along the Airport's inner perimeter fencing.

Photo 7: Looking northerly from the southern runway end (Runway 33).

Photo 8: Looking southerly from the southwest portion of the Airport Property. Adjacent land uses surrounding the Airport to the north, south and west are predominately established orchards with fruit trees. Within the Airport Property, there are several metered irrigation turn-outs, similar to the one illustrated in the central portion of this photo.

Updated Amendment Documents

USFWS IPaC Report (dated 11-13-2019)

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
http://www.fws.gov/wafwo/

In Reply Refer To: November 13, 2019
Consultation Code: 01EWFW00-2018-SLI-0085
Event Code: 01EWFW00-2020-E-00371
Project Name: Dorothy Scott Airport

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

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, and proposed species, designated and proposed critical habitat, and candidate species 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. The species list is currently compiled at the county level. Additional information is available from the Washington Department of Fish and Wildlife, Priority Habitats and Species website: http://wdfw.wa.gov/mapping/phs/ or at our office website: http://www.fws.gov/wafwo/species_new.html. 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 or not the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

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

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.). You may visit our website at http://www.fws.gov/pacific/eagle/for information on disturbance or take of the species and information on how to get a permit and what current guidelines and regulations are. Some projects affecting these species may require development of an eagle conservation plan: (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Also be aware that all marine mammals are protected under the Marine Mammal Protection Act (MMPA). The MMPA prohibits, with certain exceptions, the "take" of marine mammals in U.S. waters and by U.S. citizens on the high seas. The importation of marine mammals and marine mammal products into the U.S. is also prohibited. More information can be found on the MMPA website: http://www.nmfs.noaa.gov/pr/laws/mmpa/.

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

Related website:
National Marine Fisheries Service: http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

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

Consultation Code: 01EWFW00-2018-SLI-0085

Event Code: 01EWFW00-2020-E-00371

Project Name: Dorothy Scott Airport

Project Type: DEVELOPMENT

Project Description: Dorothy Scott Airport

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/48.95779076422001N119.411319900172W

Counties: Okanogan, WA

Endangered Species Act Species

There is a total of 5 threatened, endangered, or candidate species on this species list.

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

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

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

---

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
Canada Lynx *Lynx canadensis* Population: Wherever Found in Contiguous U.S. There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3652	Threatened
Gray Wolf *Canis lupus* Population: Western Distinct Population Segment No critical habitat has been designated for this species.	Proposed Endangered
North American Wolverine *Gulo gulo luscus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5123	Proposed Threatened

Birds

NAME	STATUS
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **proposed** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

Fishes

NAME	STATUS
Bull Trout *Salvelinus confluentus*	Threatened

Population: U.S.A., conterminous, lower 48 states

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

Species profile: https://ecos.fws.gov/ecp/species/8212

Critical habitats

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

WDFW PHS Report (dated 11-18-2019)

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE
PRIORITY HABITATS AND SPECIES REPORT

SOURCE DATASET: PHSPlusPublic
REPORT DATE: 11/18/2019 2.20

Query ID: P191118142001

Common Name Scientific Name Notes	Site Name Source Dataset Source Record Source Date	Priority Area Occurrence Type More Information (URL) Mgmt Recommendations	Accuracy	Federal Status State Status PHS Listing Status	Sensitive Data Resolution	Source Entity Geometry Type
Chukar Alectoris chukar	OKANOGAN PHSREGION 904855	Regular Concentration Regular concentration http://wdfw.wa.gov/publications/pub.php?	1/4 mile (Quarter	N/A N/A PHS LISTED	N AS MAPPED	WA Dept. of Fish and Wildlife Polygons
Golden eagle Aquila chrysaetos	WS_OccurPoint 54272 June 26, 2013	Breeding Area Nest http://wdfw.wa.gov/publications/pub.php?	1/4 mile (Quarter	N/A Candidate PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Points
Golden eagle Aquila chrysaetos	WS_OccurPoint 54528 April 08, 2014	Breeding Area Nest http://wdfw.wa.gov/publications/pub.php?	1/4 mile (Quarter	N/A Candidate PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Points
Golden eagle Aquila chrysaetos	WS_OccurPoint 54526 April 08, 2014	Breeding Area Nest http://wdfw.wa.gov/publications/pub.php?	1/4 mile (Quarter	N/A Candidate PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Points
Golden eagle Aquila chrysaetos	WS_OccurPoint 54527 April 08, 2014	Breeding Area Nest http://wdfw.wa.gov/publications/pub.php?	1/4 mile (Quarter	N/A Candidate PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Points
Golden eagle Aquila chrysaetos	WS_OccurPoint 130940 June 26, 2013	Breeding Area Nest http://wdfw.wa.gov/publications/pub.php?	GPS	N/A Candidate PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Points
Golden eagle Aquila chrysaetos	PHSREGION 900464	Breeding Area Breeding occurrence http://wdfw.wa.gov/publications/pub.php?	1/4 mile (Quarter	N/A Candidate PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Polygons

Common Name Scientific Name Notes	Site Name Source Dataset Source Record Source Date	Priority Area Occurrence Type More Information (URL) Mgmt Recommendations	Accuracy	Federal Status State Status PHS Listing Status	Sensitive Data Resolution	Source Entity Geometry Type
Golden eagle Aquila chrysaetos	PHSREGION 900510	Breeding Area Breeding occurrence http://wdfw.wa.gov/publications/pub.php?	1/4 mile (Quarter	N/A Candidate PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Polygons
Townsend's Big-eared Bat Corynorhinus townsendii	WS_OccurPoint 110288 July 02, 2002	Communal Roost Biotic detection http://wdfw.wa.gov/publications/pub.php?	GPS	N/A Candidate PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Points

WDFW Test Map

November 18, 2019

PHS Report Clip Area

PT

LN

POLY

AS MAPPED

SECTION

QTR-TWP

TOWNSHIP

1:22,425

0 0.175 0.35 0.7 mi

0 0.3 0.6 1.2 km

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Updated APE/Project Action Exhibit

PROPOSED PROJECT ACTION ELEMENTS

1. Acquiring two (2) parcels in fee within RPZ limits at both ends of the runway. Collectively the proposed acquisitions encompass a total of approximately 0.87acres.
2. Shift and construct new runway approximately 103.5' to the east and 155' to the south, and rotate 1.2 degrees east, including new edge lighting, PAPIs, signs, electrical vault, segmented circle and wind cone.
3. Construct parallel taxiway and four (4) connectors on the west side of the runway.
4. Remove septic drainfield obstruction and install approximately 1,825 L.F. of sewer, and connect to City sewer west of airport.
5. Relocation of approximately 3,000 L.F. of perimeter fencing on the east side of the airport.
6. Apron and hangar build-out along the west side of the runway in accordance with the current ALP.

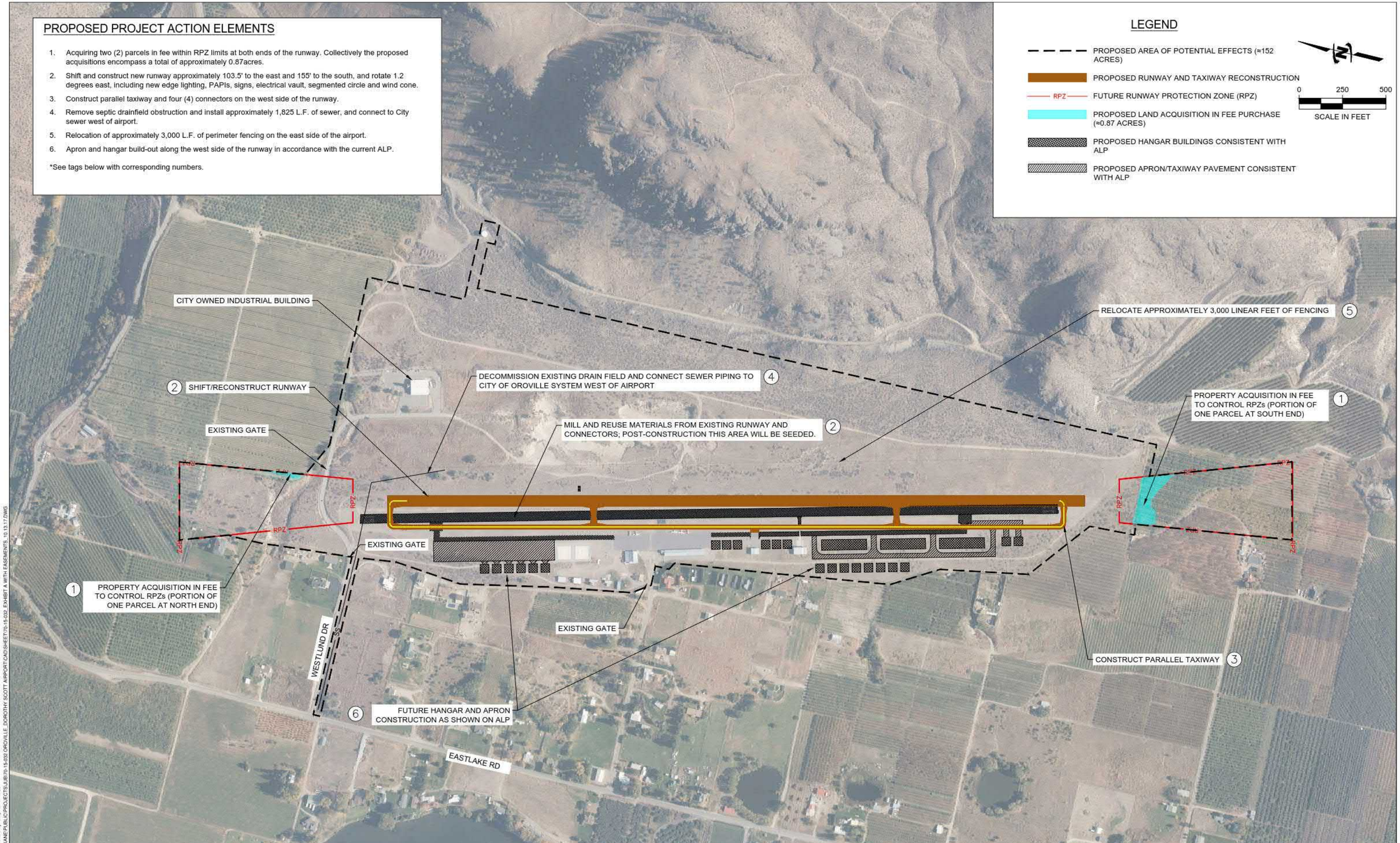
*See tags below with corresponding numbers.

LEGEND

- PROPOSED AREA OF POTENTIAL EFFECTS (≈152 ACRES)
- PROPOSED RUNWAY AND TAXIWAY RECONSTRUCTION
- RPZ — FUTURE RUNWAY PROTECTION ZONE (RPZ)
- PROPOSED LAND ACQUISITION IN FEE PURCHASE (≈0.87 ACRES)
- PROPOSED HANGAR BUILDINGS CONSISTENT WITH ALP
- PROPOSED APRON/TAXIWAY PAVEMENT CONSISTENT WITH ALP

N

0 250 500
SCALE IN FEET



JUB
J-U-B ENGINEERS, INC.

LAST UPDATED: 12/1/2019
PLOT DATE: 12/2/2019
FILE: 70-15-032_EXHIBIT A WITH EASEMENTS_10.13.17.DWG

Plot Date:12/2/2019 9:46 AM Plotted By: Stephanie Nelson
Date Created:12/1/2019 S:\SPOKANE\PUBLIC\PROJECTS\JUB\70-15-032 OROVILLE_DOROTHY SCOTT AIRPORT\CAD\SHEET\70-15-032_EXHIBIT A WITH EASEMENTS_10.13.17.DWG

DOROTHY SCOTT AIRPORT
CITY OF OROVILLE
AREA OF POTENTIAL EFFECTS / PROJECT ACTION EXHIBIT
APRIL 27, 2018

Appendix C: NRCS Form AD 1006 (dated 11-8-2018)

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request 9-13-2018
Name of Project Dorothy Scott Airport Env. Assessment	Federal Agency Involved Federal Aviation Administration
Proposed Land Use Airport District	County and State Okanogan County, Washington
PART II *(To be completed by NRCS)*	Date Request Received By NRCS 10/8/2018 / Person Completing Form: Brad Duncan

Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)*	YES ✔	NO ☐	Acres Irrigated 51,582	Average Farm Size 725

Major Crop(s)	Farmable Land In Govt. Jurisdiction	Amount of Farmland As Defined in FPPA
wheat, hay	Acres: 350,620 %	Acres: 290,000 %
Name of Land Evaluation System Used	**Name of State or Local Site Assessment System**	**Date Land Evaluation Returned by NRCS**
Okanogan LE	NA	10/9/2018

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	0.88			
B. Total Acres To Be Converted Indirectly	0			
C. Total Acres In Site	0.88			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	.11			
B. Total Acres Statewide Important or Local Important Farmland	.77			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	<.001			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	49			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)	55			

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	**Maximum Points**	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)	11			
2. Perimeter In Non-urban Use	(10)	7			
3. Percent Of Site Being Farmed	(20)	20			
4. Protection Provided By State and Local Government	(20)	20			
5. Distance From Urban Built-up Area	(15)	15			
6. Distance To Urban Support Services	(15)	0			
7. Size Of Present Farm Unit Compared To Average	(10)	0			
8. Creation Of Non-farmable Farmland	(10)	0			
9. Availability Of Farm Support Services	(5)	5			
10. On-Farm Investments	(20)	10			
11. Effects Of Conversion On Farm Support Services	(10)	0			
12. Compatibility With Existing Agricultural Use	(10)	0			
TOTAL SITE ASSESSMENT POINTS	160	88	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	55	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	88	0	0	0
TOTAL POINTS ***(Total of above 2 lines)***	260	143	0	0	0

Site Selected: Site A	Date Of Selection 11-8-2018	Was A Local Site Assessment Used? YES ☐ NO ✔

Reason For Selection:

Site A locations provide the necessary space for Airport improvements while minimizing impacts to farmlands and adjacent lands.

Name of Federal agency representative completing this form: Zachary Scott, J-U-B ENGINEERS, Inc.	Date: 11-8-2018

(See Instructions on reverse side) **Form AD-1006 (03-02)**

Appendix D: Phase I Environmental Site Assessment

PHASE 1 ENVIRONMENTAL SITE ASSESSMENT

Dorothy Scott Airport Runway Realignment
Oroville, WA

Prepared for:
Mark Napier
JUB Engineers
422 West Riverside Avenue, Suite 304
Spokane, WA 99210

Prepared by:
Budinger & Associates, Inc.
1101 N. Fancher Road
Spokane Valley, WA 99212
September 17, 2018

Contents

Phase 1 Environmental Site Assessment

DOROTHY SCOTT AIRPORT
RUNWAY REALIGNMENT,
OROVILLE, WA

1 |EXECUTIVE SUMMARY

Based on the information reviewed for this assessment, we find that the airport property was undeveloped or used agriculturally until construction of the airport. Several businesses have operated within the airport property, including airplane maintenance, fueling and crop dusting. We have not found records to suggest leaks or spills or other known adverse environmental conditions from this past use. These activities have been conducted along the south edge of the airport property, and are not likely to impact the runway realignment project. We have not found records or other evidence of spills or other incidents near the runway.

The surrounding area has been historically and currently used for residential and agricultural use, and many orchards are present in the surrounding area. Orchard use has caused shallow soil contamination in other areas of the state due to historical application of pesticides containing lead and arsenic. The primary concern has been with residential exposure to topsoil during subsequent development of former orchard property. There may have been some over-spray of adjacent properties, however, given the current and continued use of the property, we do not consider this to be a significant environmental concern.

A portion of the east side of the airfield was used for several years for waste water treatment plant (WWTP) bio-solids land application, and a septic drainfield is adjacent to the northeast end of the runway. We do not believe this presents a significant level of elevated environmental risk, however, the septic drainfield will need to be removed to accommodate the new runway alignment.

We have not identified past use or former incidents on the airport property through records review or site reconnaissance that are cause for an elevated environmental risk or liability. We conclude that the environmental risk associated with the runway realignment project is relatively low.

2 |INTRODUCTION

2.1 |Purpose

We understand that the City of Oroville is acquiring a small parcel and aviation easements for seven parcels within Runway Protection Zone (RPZ) limits at both ends of the runway. The runway will be shifted approximately 103.5 feet to the east and 155 feet to the south, and rotated east 1.2 degrees. Turnaround areas and connector taxiways are also planned. An existing septic drainfield will be removed and a new sewer line will be connected to the City sewer system. Approximately 3,000 feet of perimeter fencing will be relocated on the east side of the airport. An apron and hangar build-out is planned along the west side of the runway.

The purpose of this Phase I Environmental Site Assessment is to provide information on Recognized Environmental Conditions at the property that may represent potentially significant liabilities associated with the project. It is a preliminary site evaluation that develops an understanding of past activities through a review of historical information and a physical reconnaissance of the site. Recognized Environmental Conditions are defined as the "likely presence of hazardous substances or petroleum products on a property under conditions that would indicate an existing release, a past release, or material threat of release."

If such conditions were brought to the attention of the appropriate environmental regulatory agency such as the Washington State Department of Ecology (WSDOE) or Environmental Protection Agency (EPA), these agencies would require additional assessment and possibly remedial action. Minor or "De-Minimis" conditions that do not represent a significant risk to human health or the environment and those which may be readily corrected with ordinary expense and effort are not considered Recognized Environmental Conditions in the context of a Phase I Environmental Site Assessment.

This environmental site assessment was performed in general accordance with the American Society for Testing and Materials (ASTM) Practice E 1527-13: *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.* The format of this report generally follows the format recommended by the ASTM Standard Practice.

2.2 |Scope of Services

The scope of service conducted was outlined in our Proposal X-16393 dated July 11, 2016. The methodology used follows the general approach of ASTM Practice E 1527-13. ASTM 1527 describes a standard practice for conducting environmental site assessments for commercial real estate transactions with respect to the range of contaminants within the scope of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

2.3 |Significant Assumptions

We assume the information available from public databases is accurate. We assume that the information provided by the property owner and others interviewed for this report is accurate. We assume that there has not been an attempt to conceal the disposal, discharge, or spillage of

hazardous substances or petroleum products on the property. The Client understands that this is not a comprehensive environmental characterization of the property, and the limitations of the Phase I Environmental Site Assessment process. Please contact us to review the findings and opinions expressed in this report if the above assumptions are found to be incorrect.

2.4 |Limitations and Exceptions

Budinger & Associates, Inc. performed the services for this assessment by generally following the approach of ASTM Practice E 1527-13, which describes the limitations of the practice. Other specific limitations and exceptions, such as data gaps in some of the available information, may be described in various sections of this report.

2.5 |Special Terms and Conditions

This report includes special terms and conditions as described in the ASTM standard, our contract agreement, and as described in various sections of this report. The observations, conclusions, and recommendations presented in this report comprise professional opinions based on the information we have reviewed for this assessment; no express or implied warranties are offered.

2.6 |User Reliance

Budinger & Associates, Inc. developed this scope of work for the use and benefit of J-U-B Engineers, Inc., referred to as our Client for the purposes stated herein. The work performed and data produced or made available by Budinger & Associates, Inc. to the Client is solely for the benefit of the Client, the City of Oroville, WA, and other Agencies which will review this project.

The Client does not have the right to assign or provide this report to a third party for their use without the consent of Budinger & Associates, Inc. Reliance by third parties on this report may be inappropriate or misleading. Furthermore, possession of a complete report with all exhibits, photographs, and appendices as listed in the Table of Contents is a condition for use of this report.

With the permission of the Client, Budinger & Associates, Inc. is willing to consult with interested third parties and provide a written Letter of Reliance to permit such third parties to rely on this report. This report will require updating if different activities take place on the property, after one year, or as required by a potential User or Lender.

3 |SITE DESCRIPTION

3.1 |Location and Legal Description

The subject property is located in North Central Washington in Okanogan County. The airport is located approximately 1.4 miles to the northeast of the downtown area of City of Oroville, WA and is named the Dorothy Scott Airport. The subject property encompasses approximately 150 acres and is comprised of 7 parcels as described by the Okanogan County Assessor's Office as

Parcel Numbers: 4027150007, 4027150024, 4027140018, 4027220018, 4027150004, 4027150021 and 4027220004. The Vicinity Map and Site Plan presented in Appendices 10.1 and 10.2 illustrate the location and boundary of the subject property, along with the proposed runway alignment.

3.2 |Site and Vicinity General Characteristics

The City of Oroville and Dorothy Scott Airport are located in high desert Okanogan mountain terrain and are at the southern end of Lake Osoyoos; a lake which extends into Canada approximately four miles to the north. Higher mountainous terrain surrounds the flood plain associated with the lake. The general vicinity surrounding the subject property is mainly residential with agricultural orchards to the north, south, and west while the area to the east is undeveloped, mountainous terrain. An historic railroad grade is just east of the airport which is currently abandoned. Downtown Oroville is approximately 1-1/2 miles to the southwest.

Land use and general characteristics of the surrounding area are well represented by the recent aerial photographs presented in Appendix 10.4.

3.3 |Current and Past Uses of the Property

The area around the airport was used by trappers and Native Americans as a fur trading post due to the presence of Lake Osoyoos and adjacent rivers. The area was first developed by non-Native Americans in the mid-1800's as gold was discovered nearby and the first apple trees were planted. The railroad to the east of the airport soon followed in the early 1900's.

Portions of the subject property were purchased by the City of Oroville from the Scott family in 1934 with additional land being purchased in 1940. The airport was a turf strip until it was paved in 1985.

Per the Airport Layout Plan Report, there are 28 aircraft based at the airport consisting of ultra-light craft, helicopters and single engine aircraft. The airport presently has one runway that is 4,020 feet long by 50 feet wide with a partial parallel taxiway. There are 10 hangar buildings located on the west side of the airport; two of which are privately owned. Present buildings are used for hangar storage, pilot's lounge, pump station and a fixed base operator (FBO) that offers aviation related instruction, maintenance, and fueling. Fire fighting capabilities are not available at the airport and are provided by the City of Oroville nearby. Self service 100 LL aircraft fuel and 80 octane fueling is provided at the airport and is operated by the City of Oroville. A privately owned Jet A fuel tank is also located on the airport property.

Past tenants for the industrial park building (located on the northeast corner of the airfield) are Terra International, Paragon Wood Products, and the current tenant is Veranda Beach Partnership. Star Airmotive leases two hangars on the airport property along with two leased by Waitsburg Helicopters. Typical uses include aircraft maintenance and fueling, crop dusting, and other maintenance. Private individuals lease the other hangars for aircraft storage. The eastern hillside has been previously excavated for sand and gravel production by the City.

3.4 |Description of Improvements to the Site

The airport perimeter is surrounded by older fencing which is reported to be in poor condition. Water is provided from a pump station near the access road and sewer connections are provided by the City of Oroville. Navigation aids consisting of a rotating beacon are located off of the property on top of a hill to the northeast. Medium intensity runway lights (MIRL) currently exist. Existing improvements are detailed in the Airport Layout Plan Report. Improvements are illustrated in photographs presented in Appendix 10.3.

3.5 |Past and Current Uses of the Adjoining Properties

NORTH: The area north of the airport has been agriculturally developed with limited residential development before the 1950's. In 1996, the structure located on the northeast corner of the airfield was constructed for commercial Industrial Park use. Previous tenants have been Terra International and Paragon Wood Products. The building is currently occupied by Veranda Beach Partnership.

EAST: The area to the east has had limited development due to restrictive access and steep terrain. A railroad grade along the lower base of the mountain is illustrated on historic topographic maps but by 2005, topographic maps show it to be a roadway.

SOUTH: The area to the south of the airport was also used agriculturally since the early 1900's. There has been an increase in residential development in the past 30 years; however, this area is still mainly agricultural.

WEST: An irrigation canal defines the airport boundary to the west but is no longer in use. The area to the west, between the airport and shoreline of the lake, has been residentially developed over the past 50 years with some commercial development.

4 |OWNER PROVIDED INFORMATION

4.1 Property Ownership

The subject property is currently owned by the City of Oroville. Most of the airport property was acquired by the City of Oroville in 1934 from the Scott family. Other portions were purchased in 1940. We did not find records of previous industrial or commercial ownership.

4.2 |Environmental Liens or Activity and Use Limitations

The owners do not report environmental liens or activity and use limitations. The WSDOE was queried and did not report liens, restrictive covenants, or environmental land use limitation records on file for the subject property. The environmental records database review does not indicate environmental liens or covenants.

4.3 |Specialized Knowledge

ASTM Standard Practice 1527-13 for environmental assessment defines specialized knowledge as information the user of the report or property owner would have due to previous and current use of the property. Mr. Rod Noel, Mr. Bill Nicholson, City Clerk Ms. JoAnn Denney, Airport Manager Chris Branch and Mr. Steve Johnston indicated that they have been local residents and working in their positions for many years and have in-depth knowledge of the airport operations and history.

4.4 |Commonly Known or Reasonably Ascertainable Information

We use environmental records reviews, familiarity with the general area and interviews to help identify commonly known or reasonably ascertainable information about known contaminated sites or areas that may not be listed in regulatory databases. We are not aware of significantly contaminated sites or areas of soil or groundwater contamination in the surrounding area.

The use of Lead Arsenate Pesticides was commonly used in the early 1900's. The Oroville area has not been identified by Ecology in their Area-Wide Cleanup Site program for former orchard use, though other areas in this part of Washington have been. We have not found records indicating that the airport was previously used for orchard production, though a small portion of a parcel considered for acquisition at the northeast end of the runway is currently in orchard production.

4.5 |Valuation Reduction for Environmental Issues

Properties with known environmental contamination sometimes experience a reduction in property value as a result. A review of the Okanagan County Tax Assessor's records did not indicate a decline in property tax values in the past five years. Archived records for the subject property parcels were not provided or available to review previous valuation, however this factor is more relevant to commercial property transactions.

4.6 |Owner/User Provided Information

Chris Branch, Airport Manager for the City of Oroville, completed an environmental site assessment questionnaire. Present structures/land uses are the industrial park building, a US Customs building, Nicholson's Mechanic shop (Star Airmotive) and rental hangars. We reviewed his responses and did not identify previously known adverse environmental information regarding the airport. We met with Mr. Rod Noel, City of Oroville Superintendant, and he provided information pertaining to bio-solids disposal and prior use of herbicides to control weeds which will be discussed in later portions of this report. Mr. Noel also provided access to the schematics for the industrial building drain field.

JoAnn Denney, City of Oroville Clerk, provided a list of present renters of facilities on the airport. Two of the hangars are used by Star Airmotive and two hangars are rented by Waitsburg Helicopter. The other hangars are rented by private parties for aircraft storage.

4.7 |Reason for Performing Environmental Assessment

We understand that this environmental site assessment was requested to evaluate environmental conditions at the subject property which might require consideration or remediation during realignment of the runway. Such assessment is required to help facilitate funding and permitting requirements for the project. We are not aware of other reasons that environmental assessment services were requested.

4.8 |Client Responsibility

The Client is responsible for providing information available relating to the environmental condition of the property as outlined in our proposed scope of work to include:

- Access to the subject property;
- Person(s) knowledgeable about the site during reconnaissance;
- Available documents or information concerning known or potential environmental liabilities if they exist

5 |RECORDS REVIEW

5.1 |Standard Environmental Record Source

Budinger & Associates, Inc. requested a regulatory site report from Environmental Records Search; a company that specializes in providing historical information on known or suspected contaminated sites and regulated businesses.

- Three locations were listed at or nearby the subject property for the Facility Registry System (FRS): Dorothy Scott Airport, Specialized Services Trucking, Inc., and Oroville Town UST 9322. Being a regulated site does not necessarily indicate known or suspected contamination or release. The airport is listed under the Federal Registry System due to having a history of transportation use.
- Two locations were identified as historic auto repair facilities within 0.75 miles: Star Airmotive and Okanogan Sky Haven. Both of these are/were former tenants of the airport.
- Known leaking underground storage tanks (LUST's) were not listed within 0.75 miles of the subject property.
- Oroville Municipal Airport is listed as a historic-transportation facility.
- Specialized Services Trucking Inc. and WA AGR Okanogan 3 are listed as known hazardous waste generators. WA AGR Okanogan 3 appears to be a pesticide disposal program under the Washington State Department of Agriculture Waste Pesticide Program.
- The Town of Oroville is listed as having an underground storage tank (UST) within 0.75 miles of the subject property. This location is not identified as a leaking underground storage tank (LUST).

The environmental radius report is provided in Appendix 10.7. We do not believe that the listed sites represent an elevated environmental risk to the subject property as they are listed due to the nature of their business and not due to known or suspected adverse environmental conditions.

5.2 |Additional Environmental Record Sources

We reviewed the WSDOE's Facility Site website for the subject property. Specialized Services Trucking Inc. is listed as a facility site on the subject property that is a hazardous waste generator in July 2010. It is also listed as a hazardous waste management activity from July 2010 to August 2014. Other nearby sites are listed due to the nature of their business, having underground storage tanks, construction projects, etc. Clark and Sons Property, located at 15 Balmes Rd, is listed as an Enforcement Final for an air quality violation.

We do not believe these sites cause an elevated environmental risk to the subject property. The Facility/Site report for Specialized Services Trucking Inc. and other nearby sites is provided in Appendix 10.7.

We reviewed the WSDOE's website for Areas Affected by Lead Arsenate Pesticides. These pesticides were commonly used in agricultural areas throughout the state from 1905 to 1947. The percentage of Okanogan County listed as affected by Lead Arsenate Pesticides is 0.31 percent. 1.37 percent of Okanogan County is listed as private land that has also been affected by the pesticide. The aerial photograph from 1947 shows that orchards were present in the surrounding area during this time. The irrigation canal to the west appears to separate orchard and other agricultural use from the airport property. The area to the east does not appear to have been used for orchard production.

5.3 |Physical Setting Sources

Physical setting sources include United States Geologic Survey (USGS) topographic maps, geologic studies, historical aerial photos, topographic maps and nearby well log reports available from the WSDOE.

Topographic Maps

We received historic topographic maps from Environmental Records Search (ERS) for the subject property dating from1957 (1959 revised) to 2001 (2005 revised).

- An airstrip is present on the 1957 topographic map, but is not designated with a name. The elevation of the airport is 1,048 feet above Mean Sea Level (MSL). The area to the east is undeveloped land with fairly steep topography. A railroad grade is illustrated at the base of the mountain to the east. The areas to the south, west and north are a mixture of residential and agricultural use. The City of Oroville is illustrated to the southwest of the airport. Significant changes to the subject property and surrounding areas are not observed in the 1967 and 1979 topographic maps.

- On the 1982 topographic map, the airstrip is named the Dorothy Scott Airport. There has been increased residential development to the south, west, and north. An Allotment Boundary is illustrated on the west side of the airport. The area to the east is undeveloped with the railroad grade is illustrated along the base of the foothills. A radio facility is also illustrated on top of the hills to the east.

- On the 2005 topographic map, the structure to the northeast end of the present runway has been constructed along with more roadways. The area to the east is still undeveloped with a communication facility located on top of the hill. The railroad grade is illustrated as a roadway rather than tracks; likely indicating removal. The areas to the south, west, and north are residentially and agriculturally developed.

The Historical Topographic Maps are provided in Appendix 10.5.

Site Geology

The Washington State Department of Natural Resources' Washington Interactive Geologic Map describes the geology of the airport property as Pleistocene continental glacial drift (Qgd). This is comprised of glacial till and outwash consisting of clay, silt, sand, gravel, cobbles and boulders deposited by or originating from continental glaciers. This locally includes peat, nonglacial sediments, modified land and artificial fill. The hills located to the east of the airport are Mesozoic metasedimentary and metavolcanic rock (MZmt) or Tertiary intrusive rock (Ti). To the north and south of the airfield are soils consisting of Quaternary alluvium (Qa).

The United States Department of Agriculture's Natural Resources Conservation Service designates the soil at the Dorothy Scott Airport as 275-Ewall loamy, fine sand with slopes ranging from 0 to 25 percent. This is fine sand with a high drainage capability.

Well Log Reports from nearby wells indicate varying depths of clay intermixed with sand and gravel. Two logs from wells drilled for fire protection at the airport are included in Appendix 10.5. The deeper well listed clean sand from 0-16 feet, silt with fine sand from 16-41 feet, clay from 41-135 feet and then sand and gravel. Neither bedrock or significant water were reported in either well.

Hydrogeologic Setting

Water Well Reports obtained from the WSDOE show a ground water table in the area ranging from 10 to 15 feet below grade for nearby wells. Lake Osoyoos is located approximately 2,000 feet to the west of the airport and is connected to the Okanogan River to the south. Three smaller ponds (Lehrman Pond, Mychelle Pond, and Namhphoung Pond) are located between the airport and Lake Osoyoos, above the elevation of the lake, but below the elevation of the airport.

Ninemile Creek is located approximately 1,200 feet to the north of the airport and drains into Lake Osoyoos. An old irrigation channel parallels the western boundary of the airport property. Tonasket Creek drains into the Okanogan River to the west and flows south. Other than the irrigation canal, we did not find records or evidence of current or former wet areas, ponds or wetlands near the airport.

A water well is located west of the airport office which was in service until water services were extended. It is a hand dug well with a water level of approximately 18 feet. We understand that wells were drilled to provide water for the industrial park development and fire protection, but

that the wells did not encounter productive water bearing zones. Municipal water service was subsequently provided to the industrial park and other airport facilities.

5.4 |Historical Use Information for the Property

Aerial Photographs
We reviewed historical aerial photographs provided by ERS from 1953 to 2016 and aerial photographs obtained from Google Earth between 1995 and 2016.

- In the 1947 photograph, an airstrip existed on the subject property. It appears to be an unpaved dirt/sod runway. A few structures are observed located on the west-center side of the runway. The area to the east is undeveloped. The areas to the south, west and north of the airstrip appear to be used for agriculture. Limited residential development is observed on the eastern shore of Lake Osoyoos.
- The 1953 aerial photograph provided by ERS shows the airstrip present and a mixture of residential and agricultural development in the adjacent areas.
- Significant changes to the subject property and adjacent areas are not observed in the 1964 aerial photograph. The airstrip still appears to be a dirt strip. The surrounding areas are still used agriculturally.
- The 1974 aerial photograph was likely used by the assessor as it has tax ownership information hand-written on it. The property where the airport is located is illustrated as being owned by the Government and Town of Oroville.
- On the 1983 aerial photograph provided by ERS, the resolution was poor quality so specific changes could not be observed. The areas adjacent to the runway are residentially and agriculturally developed. The City of Oroville is observed to the southwest of the airport.
- On the 1995 Google Earth aerial photograph, the runway is a paved surface with adjacent taxiway and several structures are observed on the mid-western side of the runway. The area to the east is still undeveloped. There has been increased residential development to the south, west, and north but a large portion of this area is still used for agricultural purposes. Significant changes were not observed to the subject property or adjacent areas in the 1998 aerial photograph.
- Between 1998 and 2005, a few residential structures were constructed to the northwest of the runway. Additionally, the commercial structure located adjacent to the northeast side of the runway had been constructed along with equipment further to the east of the structure. There has been an increase in residential development between the runway and Lake Osoyoos. A few more structures have been constructed along the western side of the runway. Significant changes to the subject property or adjacent areas were not observed in the 2006, 2009, 2010, 2011, 2013 and 2016 aerial photographs.

Historical Directories

Sanborn Maps

Fire insurance maps were not available for the subject property. This generally indicates a lack of significant commercial and industrial development.

Local Agency Records

We requested City Directory reports from ERS for the subject property. Historical city directories were not available within their collection for the subject property.

The City of Oroville provided historic building permits for the airport.

- A concrete pad and fuel tank containment system was constructed in 1991.
- An 8,000 gallon above ground fuel tank and dispensing station was installed at the airport in 2005.
- The building permit and associated Certificates of Occupancy were provided for the 8,000 square foot Oroville Light Industrial Park building (constructed in 1996).
- Star Airmotive, Inc. obtained a permit in 1999 for an addition to the existing building located at Hangar 7.
- Huntingdon Industries, Inc. constructed a 1,575 square foot building to be used as an airplane hangar in 2004.
- Paragon Wood Products added a sawdust bin/blower apparatus and a metal storage shed to their business in the Industrial Park building in 2004.

The City of Oroville fire department did not have records regarding calls pertaining to the airport property for spills, fires, or crashes or other incidents where fuel may have been spilled.

The Okanogan County Tax Assessor provided records for the subject property parcels. The documents are provided in Appendix 10.5.

- Parcel Number 4027140018 is 0.650 acres of undeveloped land. This property is reported as sold by Charles and Sally Eder to the City of Oroville in 1995. Assessed land values have been stable over the past five years.
- Parcel Number 4027150007 is 11.65 acres of Transportation-Aircraft designated property. The City of Oroville is listed as the owner and assessed property values increased from 2013 to 2014 and have been stable since 2014. No sale history or date of acquisition is listed.
- Parcel Number 4027150024 does not have an assessed value or comments regarding the parcel.
- Parcel Number 4027220004 is designated Transportation-Aircraft land and is 25.21 acres in size. The property is listed as owned by the City of Oroville and no sales history or date of acquisition is listed. Assessed value increased from 2013 to 2014 and has been stabile since.

- Parcel Number 4027220018 is 37 acres of designated Transportation-Aircraft land. No sales history is listed. A building permit for an airplane hangar is listed from 2003. Assessed land value decreased slightly from 2013 to 2014 but has been stable since.
- Parcel Number 4027150004 is 8.3 acres of designated Transportation-Aircraft land. The assessed land value for this parcel more than doubled from 2013 to 2014 and has been stable since 2014. There is no sales history provided for this parcel. A building permit for a shed was obtained in 2004.
- Parcel Number 4027150021 is listed as owned by the City of Oroville and is designated as Undeveloped Land. The property value has been stable since 2013. The parcel is reported as sold by Eder & Son Orchards to the City of Oroville in August 1995.

5.5 |Historical Use Information on Adjoining Properties

Aerial photographs, topographic maps, and tax appraisal records also illustrate development of adjacent and nearby properties. The adjoining properties have been used as orchards, agricultural and residential use for over one hundred years.

6 |SITE RECONNAISSANCE

6.1 |Methodology and Limiting Conditions

Our Environmental Engineer (Stephen D. Burchett, PE) and Environmental Geologist (Derry D. Callender) visited the subject property in November and December of 2016. We were provided with access to the airport property by the Local Pilot and Airport Operations Manager, Mr. Steve Johnston. We did not obtain access into the airpark industrial building located on the northeast side of the airport or a few of the hangars located on the west side of the taxiway as they were privately rented and locked.

6.2 |Hazardous Substances and Petroleum Products with Identified Uses

We did not identify obvious hazardous substances and petroleum products with identified uses during the site reconnaissance that were not mentioned in other areas of this report. Aircraft maintenance and fueling activities have presumably involved a variety of solvents, oils, fuels and other petroleum products. These activities were located along the western edge of the airfield and should not impact the runway re-construction project.

The helicopter washing area, located just north of the main entrance, has been used for many decades to wash pesticides off of helicopters as they returned from crop-dusting. The concrete pad is surrounded by a coarse, gravel fill material. We assume that after many years of pesticide washing, the soils could contain residual pesticide and herbicides. Furthermore, there are two large tanks adjacent to this wash-pad that are presumed to have been used to store chemicals. The vegetation surrounding the helicopter wash area and the storage tanks did not show signs of distress. This area will not be affected by the construction project. However, it should be noted that if additional work is planned for the airport in this area, additional environmental assessment may be warranted.

6.3 |Hazardous Substances and Petroleum Products with Unidentified Uses

We did not identify obvious hazardous materials or petroleum products with unidentified use during the site reconnaissance or records review.

6.4 |Storage Tanks

The airport has an above ground, 8,000 gallon fuel tank with above ground piping and fuel pumps located along the west side of the taxiway. The area is located within a concrete and cinder block, secondary containment structure. We did not observe indications of previous spills or leaks in the secondary structure, along the product lines, or around the fuel pumps such as staining, discoloration, or odors.

An underground storage tank system was once located near the airport entrance. They were installed inside a geosynthetic containment membrane, portions of which remain visible around the tank excavation. The two underground fuel storage tanks were removed by the City of Oroville around 1985 prior to records being required by the WSDOE. Mr. Rod Noel was the Fire Chief for the City of Oroville at the time and reported that the tanks were removed and spills or leaks were not observed. We have not found other records of these tanks.

There are four, relatively old storage tanks located beside one of the hangars on the west side of the runway. Two of the tanks appear to be approximately 500 gallons in size and the other two are likely 1,000 gallon tanks. These tanks are used by Bill Nicholson of Airmotive to store waste oil that he receives from private sources for the purpose of burning as heat fuel in his shop. We did not observe obvious signs of leaks or spills in this area, such as discoloration of soils or distressed vegetation. The tanks appeared to be near empty at the time of our site reconnaissance.

There is a privately owned Jet A fuel tank located in front of one of the hangars. The tank appeared to be fairly new and signs of distressed vegetation or discoloration of the soils and cement pad were not observed. The fuel truck sitting next to this tank is reportedly used as a water truck as stated by Mr. Steve Johnston, the airport manager.

Two red storage tanks are located adjacent to the helicopter wash pad. These tanks are used by the former crop-dusting businesses. We are unaware of the contents of these tanks but they are likely containers for pesticides. We did not observe obvious indications of previous spills such as distressed vegetation, discoloration, or unusual odors. The tanks appeared to be in relatively good condition with no signs of cracks or significant dents.

6.5 |Odors

Unusual, noxious or chemical odors were not detected during reconnaissance of the property.

6.6 |Pools of Liquids or Wetlands

We did not observe pools of liquids or wetlands during our site reconnaissance.

6.7 |Drums and Other Containers

We observed several drums and containers at various areas of the subject property during the site reconnaissance. There are four 55-gallon drums located adjacent to the waste oil tanks beside the hangar. Two of these drums were full with petroleum lubricant labels and were lying on their side. We did not observe leaks from these drums. Two other 55-gallon drums were full and standing upright without labels. We did not observe signs of leaks and these are presumably waste oil storage. A 25-gallon drum was observed lying on its side next to these tanks but was empty.

We observed two 55-gallon drums inside one of the open hangars which were empty. Two empty quart sized oil containers were also observed lying on the ground. One of the walls of this hangar had multiple, used, metal, quart-sized oil cans stacked between the wall studs. This appears to be a collection of old oil cans and we did not observe obvious signs of significant leaks or spills from these cans.

The north patio area of Airmotive has thirteen 55-gallon drums of waste oil. Most of these drums were full or partially full of waste oil that Mr. Nicholson uses for heating his shop. There were obvious signs of oil being spilled from a couple of these drums as the concrete pad had spilled oil with the surrounding vegetation showing signs of distresses. Mr. Nicholson said he was aware of the minor spill and was going to clean the area up. This area is not affected by the construction project.

6.8 |Indications of Polychlorinated biphenyls (PCB's)

We have not identified past uses of the subject property or records that would indicate the presence of PCB's is likely.

6.9 |Solid Waste Disposal

A large burn tank was observed adjacent to the pesticide storage tanks and helicopter washing pad. This tank incinerator is in poor condition with significant amounts of corrosion and rust. The interior of the tank is full of burned debris and recent trash items. The tank was reported to be used by the crop-dusting business as a means to dispose of the pesticide chemical containers.

We did not observe significant amounts of illegal dumping on the airport property. One 5-gallon lubricant container was observed along the east fence of the airport. Trash and debris were not observed in the old sand pit area located east of the runway.

7 |INTERVIEWS

We met with Mr. Rod Noel, City Superintendent for the City of Oroville who is also the Fire Chief. Mr. Noel has worked for the City of Oroville for 31 years and provided historic information and review of the schematics for the Air Park septic system.

- A 1,500 gallon septic tank is located on the west side of the Air Park industrial building. This septic tank is gravity fed through piping in an underground trench to the dosing tank

located adjacent to the fence on the east side of the runway. When the septic tank reaches a specific volume, the waste water is forced through a bell inlet and discharged through a valve which is located within the proposed area of construction. The system was designed and constructed in 1995 by Century West Engineering in Spokane.

- Mr. Noel said the current plan is to connect the Air Park industrial building to the city's septic system and since this system has been installed, it has not needed maintenance or repair. The office is served by a small septic system located between the buildings and the western fence, south of the entrance.
- Mr. Noel also mentioned the former disposal of bio-solid waste along the east side of the runway. This program was permitted by WSDOE and was conducted between approximately 1990 to 2010. Material was transported from the waste water treatment plant to the east side of the runway during this period and was intended to control dust by increasing the vegetation. He said the program met all of the WSDOE requirements and was discontinued in 2010 when their Class A waste water facility was constructed. Soil samples were obtained during this period and were within the WSDOE guidelines. Mr. Noel said they didn't get that close to the runway (approximately 150 feet east of the runway) since the terrain was difficult for the truck to maneuver.
- Mr. Noel also mentioned the wash pad for the crop-duster helicopters located on the airport. This helicopter washing area has been used since at least the 1960's. He said the helicopter operations were previously conducted by Dan Jones of Waitsburg Helicopter Service and by his father before him. JR Helicopter service now rents the helicopter pads and conducts occasional operations there. He stated that the helicopters wash off on the pad following crop dusting operations. A secondary containment system below the wash pad is not believed to be present.
- The area around the airport has been previously sprayed with 2 4-D herbicides using both ground and air methods. The purpose was to control knapweed. Mr. Noel said that the county has not sprayed for knapweed in the past 10 years.
- Mr. Noel also provided historic information regarding the canal adjacent to the west fence. The canal was abandoned and filled in with dirt in the 1970's. In his 50 years living in the area, he does not remember the railroad tracks being present along the east hillside.

Mr. Steve Johnston, Local Pilot and Airport Operations Manager, provided us with access to the airport property and information pertaining to airport operations. He has lived in Oroville and worked at the airport for many years. He reported that the helicopter wash pad was used by the Jones' helicopter business and that the helicopters were only washed on the pad area. He showed us the areas on the airport where storage tanks and drums were present and who the owners were.

We spoke with Mr. Bill Nicholson, the owner of Star Airmotive aircraft maintenance facility at the airport. He said he uses waste oil provided by outside sources as a heat source for his hangar. He has a septic tank located behind the loading dock of his hangar. He does not have floor drains. Mr. Nicholson knew about the oil drum leak located on the north side of his building and is planning to clean it up. We asked Mr. Nicholson about the helicopter washing area which is

directly behind his building. He recalled that the area was always used to wash the blades of the helicopters after they returned from crop dusting.

8.0 |CONCLUSIONS

Most of the airport property has been owned by the City of Oroville since the 1930's and 1940's and has been used as a small aircraft airport. The turf strip was paved in 1985 and is used by both private pilots and some commercial operations.

The planned construction to shift the north end of the runway by 100 feet to the east will disturb the septic system for the Industrial Park building. It is planned that the septic system will be connected to city sewage systems. We do not believe significant environmental risk to be a factor during excavation of this system.

The areas located east of the runway were formerly used as bio-solid disposal sites by the City of Oroville from the WWTP. Dumping areas are not reported to be within approximately 150 feet of the runway, therefore, environmental risk is relatively low. Bio-solid disposal ceased in 2010 under the approval and guidelines of the WSDOE.

Okanogan County has historically sprayed the airfield perimeter areas with 24D herbicides to control knapweed using both ground and aerial methods. This herbicide has not been reportedly used in the past 10 years. In our opinion, the associated risks are very low.

The area around the Oroville Airport has been used primarily as agricultural orchard lands for over 100 years. Lead Arsenate pesticides were widely used from 1905 to 1947; when they were banned. It is likely that these pesticides were used on the adjacent areas during this time frame. Residual pesticides may be present in shallow soils about the perimeter of the airport from overspray. The primary risk is from long term exposure, typically from ingestion in a residential setting. Given the proposed use of the property, we consider the potential risk to be very low.

The waste oil tanks and drums located on the west side of the taxiway are not located within an area that will be affected by this construction project. Although a minor oil spill was observed, it does not pose an elevated risk to this project. Furthermore, although not in an area affected by this project, the long use of the helicopter washing pad located adjacent to the main gate could be a concern. If future airport projects will be conducted in this area, we recommend that further environmental assessment be conducted in this area.

We have not identified past use or incidents occurring on the airport, through records review or site reconnaissance, that will likely give cause for an elevated environmental risk or liability for the areas to be affected by this project. We have not identified adverse environmental conditions or land use in the surrounding area that would be likely to impact the subject property, other than orchard use that may have utilized Lead Arsenate pesticides. We conclude that additional environmental assessment is not warranted.

Current regulations require that wells which will no longer be used, be properly sealed and decommissioned. The hand dug well near the office represents a physical hazard (falls) and conduit for groundwater contamination if it is not maintained properly. Though not related to the runway realignment project, we recommend proper abandonment.

9.0 |SIGNATURES OF ENVIRONMENTAL PROFESSIONAL

I declare that Budinger & Associates, Inc. environmental assessment personnel meet the definition of *Environmental Professionals* as defined in 312.10 of 40 CFR 312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the appropriate inquiries in substantial conformance with the standards and practices set forth in 40 CFR Part 312.

Prepared by:
Budinger & Associates, Inc.

Derry D. Callender
Environmental Geologist

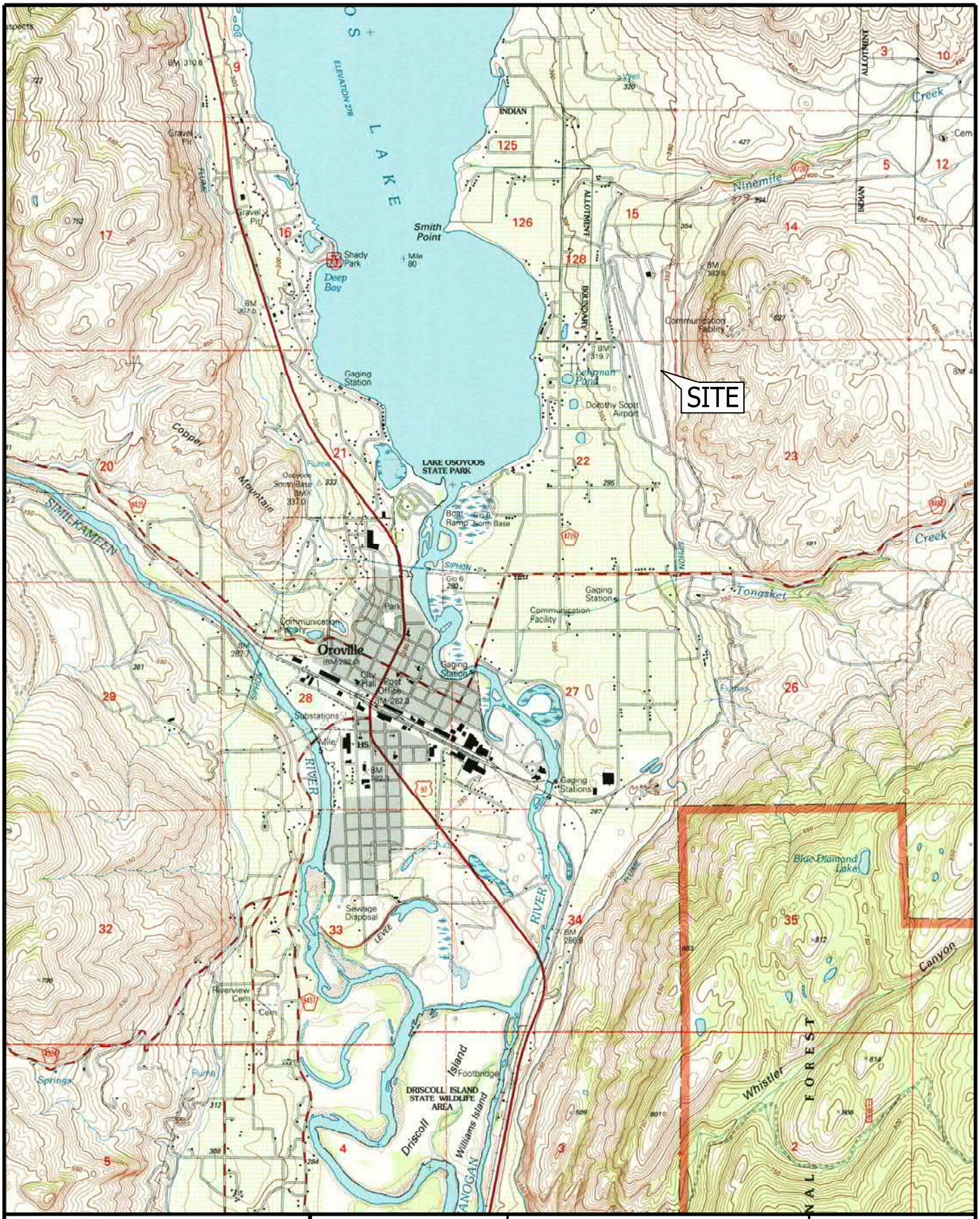
Stephen D. Burchett, PE
Manager Environmental Services, Principal

STEPHEN DEREK BURCHETT
STATE OF WASHINGTON
31921
REGISTERED
PROFESSIONAL ENGINEER

9/17/18

Appendix 10.1

Vicinity Map



N

SCALE: 1"=3000'

0 1500 3000

SECTIONS 15 and 22
T 40 N R 27 W
USGS 2001

Budinger & Associates

VICINITY MAP

DOROTHY SCOTT RUNWAY REALIGNMENT

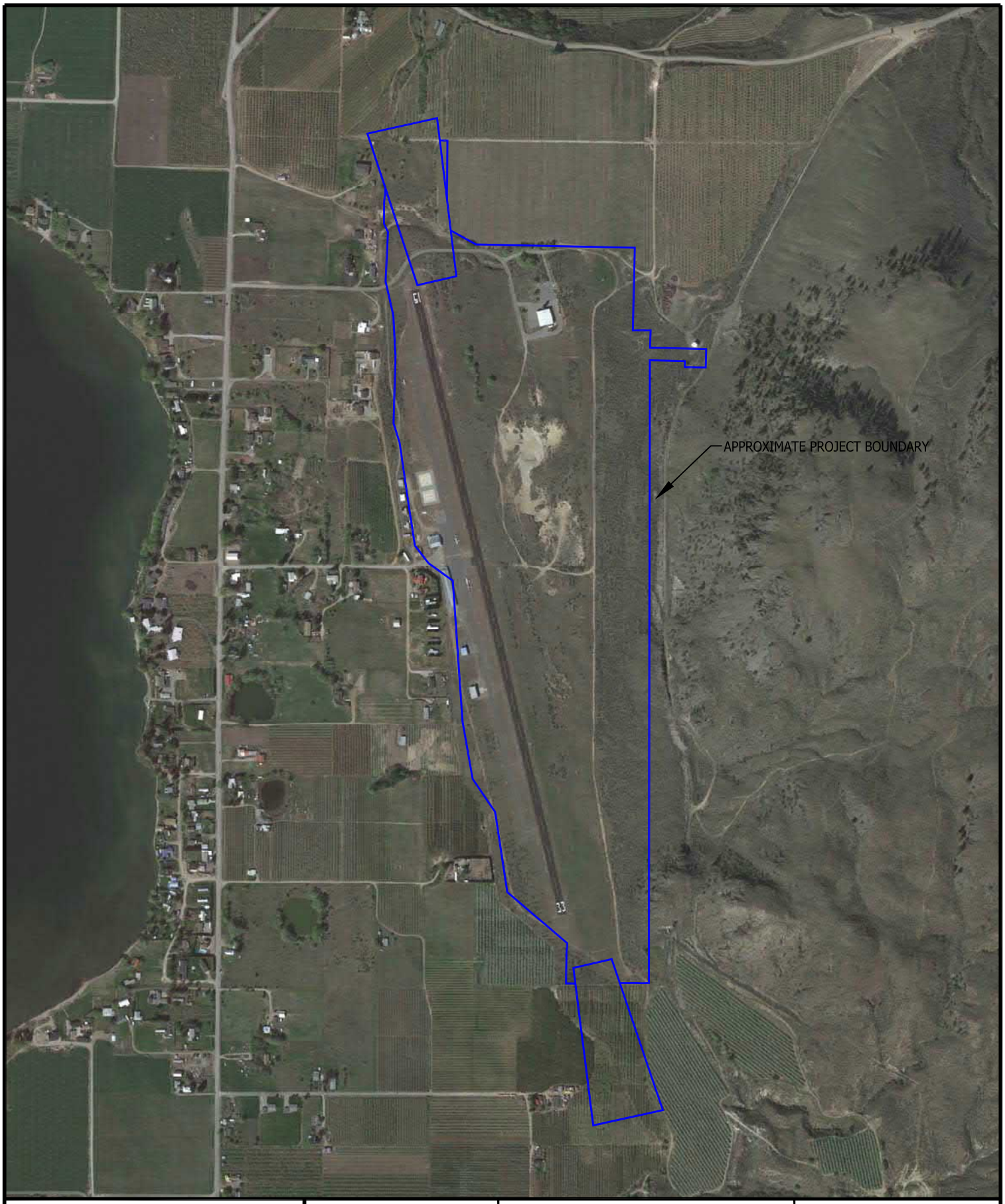
FIGURE 10.1

PROJECT NUMBER X16393

DATE: 11/2016

Appendix 10.2

Site Plan



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SCALE: 1"=800'

0 400 800

GOOGLE EARTH IMAGE, 2016

Budinger & Associates

SITE PLAN	FIGURE 10.2
DOROTHY SCOTT RUNWAY REALIGNMENT	PROJECT NUMBER X16393
	DATE: 11/2016

PROPOSED PROJECT ACTION ELEMENTS

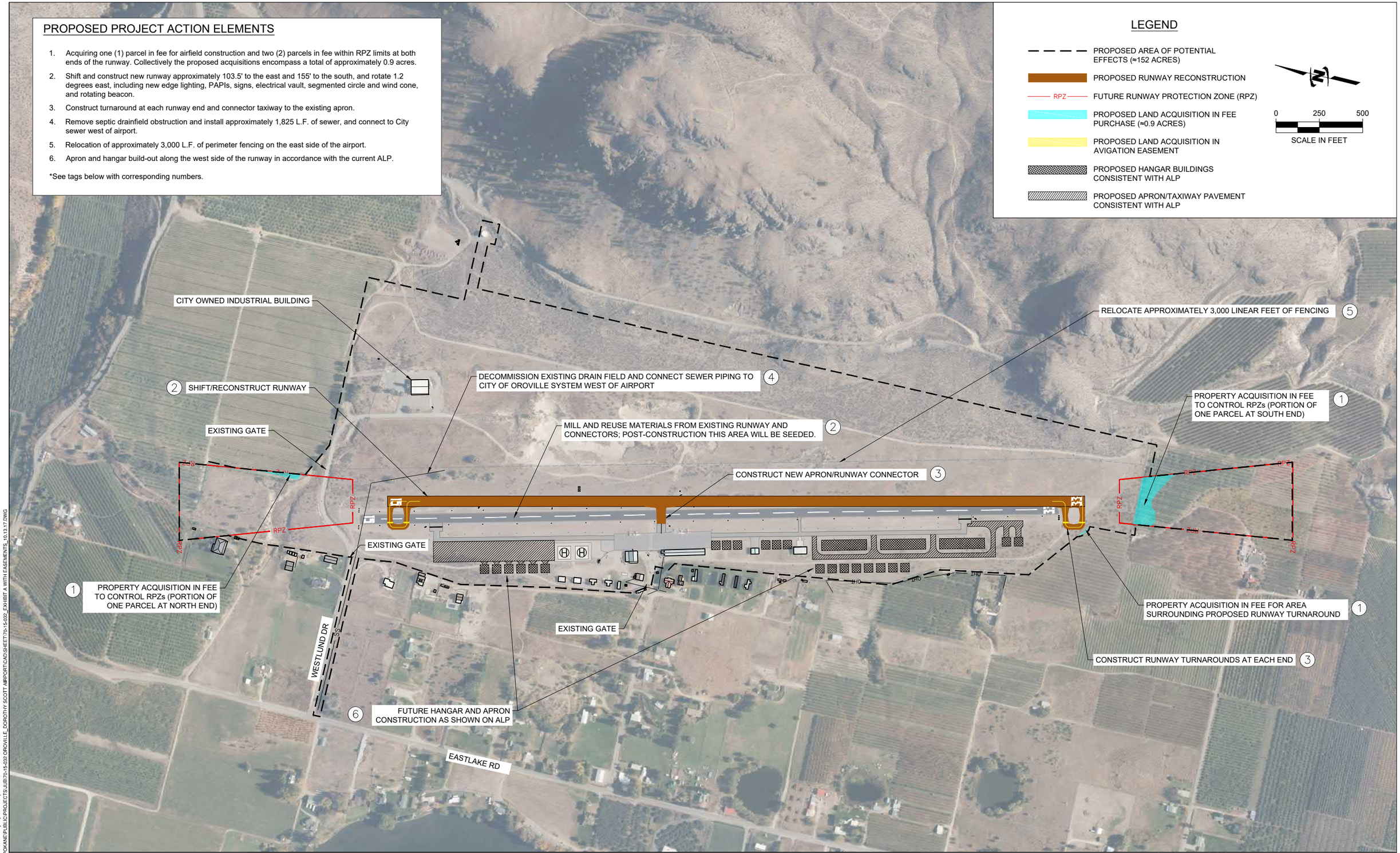
1. Acquiring one (1) parcel in fee for airfield construction and two (2) parcels in fee within RPZ limits at both ends of the runway. Collectively the proposed acquisitions encompass a total of approximately 0.9 acres.
2. Shift and construct new runway approximately 103.5' to the east and 155' to the south, and rotate 1.2 degrees east, including new edge lighting, PAPIs, signs, electrical vault, segmented circle and wind cone, and rotating beacon.
3. Construct turnaround at each runway end and connector taxiway to the existing apron.
4. Remove septic drainfield obstruction and install approximately 1,825 L.F. of sewer, and connect to City sewer west of airport.
5. Relocation of approximately 3,000 L.F. of perimeter fencing on the east side of the airport.
6. Apron and hangar build-out along the west side of the runway in accordance with the current ALP.

*See tags below with corresponding numbers.

LEGEND

- PROPOSED AREA OF POTENTIAL EFFECTS (≈152 ACRES)
- PROPOSED RUNWAY RECONSTRUCTION
- RPZ — FUTURE RUNWAY PROTECTION ZONE (RPZ)
- PROPOSED LAND ACQUISITION IN FEE PURCHASE (≈0.9 ACRES)
- PROPOSED LAND ACQUISITION IN AVIGATION EASEMENT
- PROPOSED HANGAR BUILDINGS CONSISTENT WITH ALP
- PROPOSED APRON/TAXIWAY PAVEMENT CONSISTENT WITH ALP

0 250 500
SCALE IN FEET



DOROTHY SCOTT AIRPORT
CITY OF OROVILLE
AREA OF POTENTIAL EFFECTS / PROJECT ACTION EXHIBIT
APRIL 27, 2018

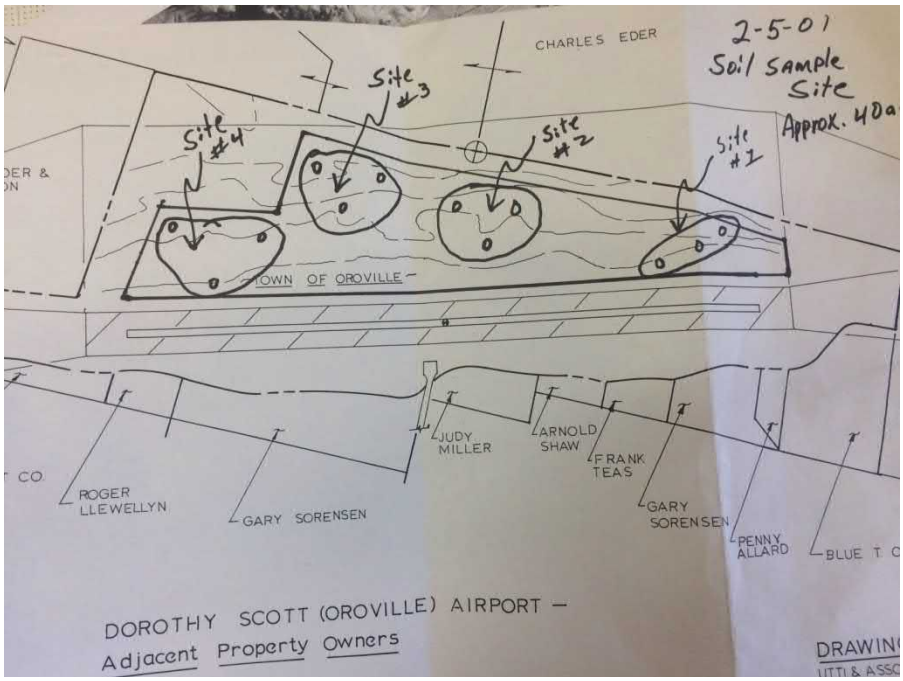
JUB ENGINEERS, INC.

LAST UPDATED: 7/27/2018
PLOT DATE: 7/27/2018
FILE: 70-15-032_EXHIBIT A WITH EASEMENTS_10.13.17.DWG

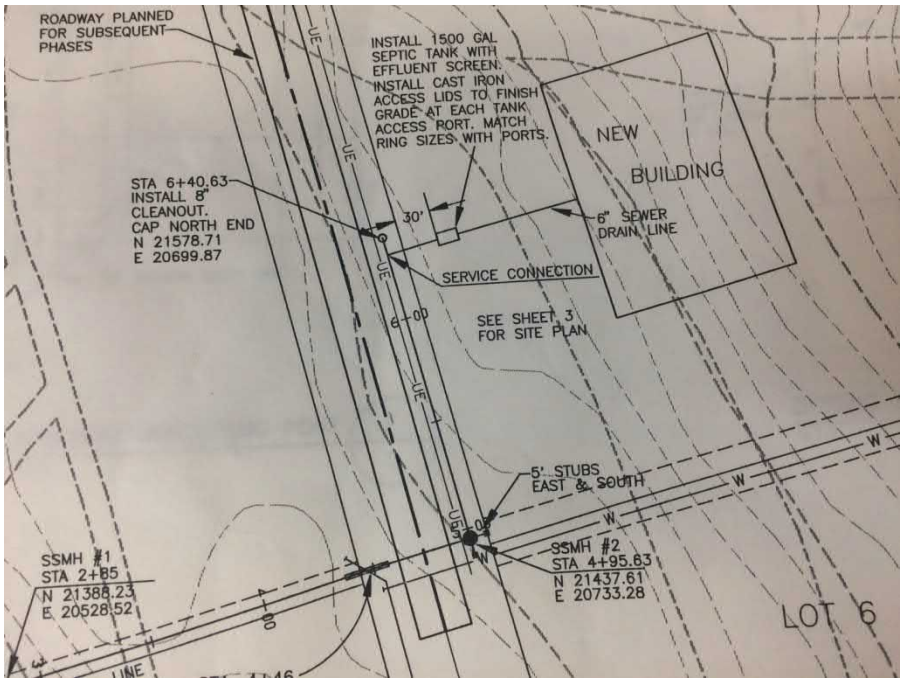
Plot Date:7/27/2018 3:27 PM Plotted By: Spencer Stephens
Date Created:5/1/2018 \\SPOKANEPUBLIC\PROJECTS\JUB\70-15-032 OROVILLE_DOROTHY SCOTT AIRPORT\CAD\SHEET\70-15-032_EXHIBIT A WITH EASEMENTS_10.13.17.DWG

Appendix 10.3

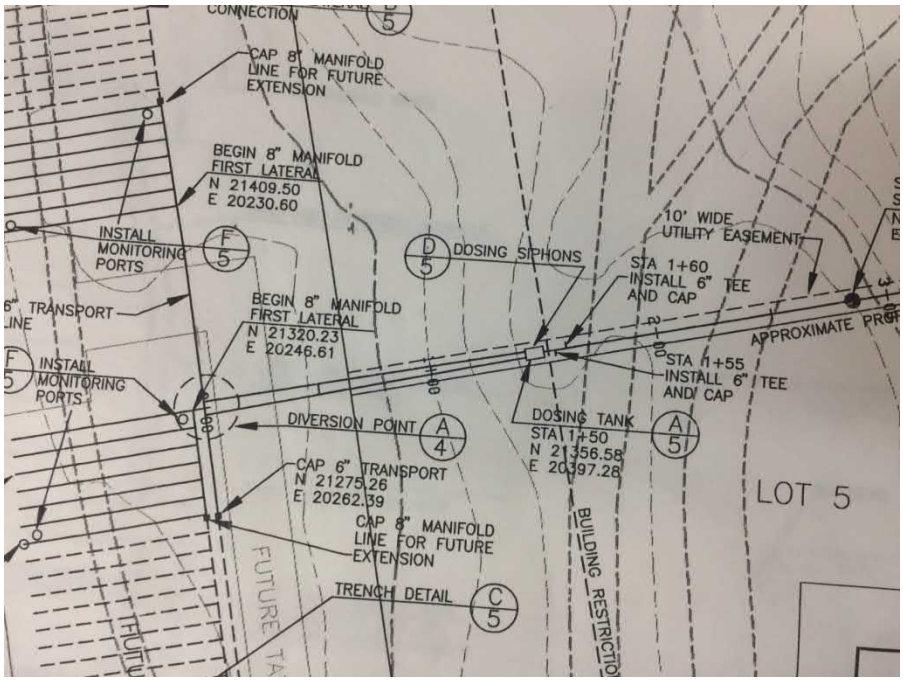
Site Photographs



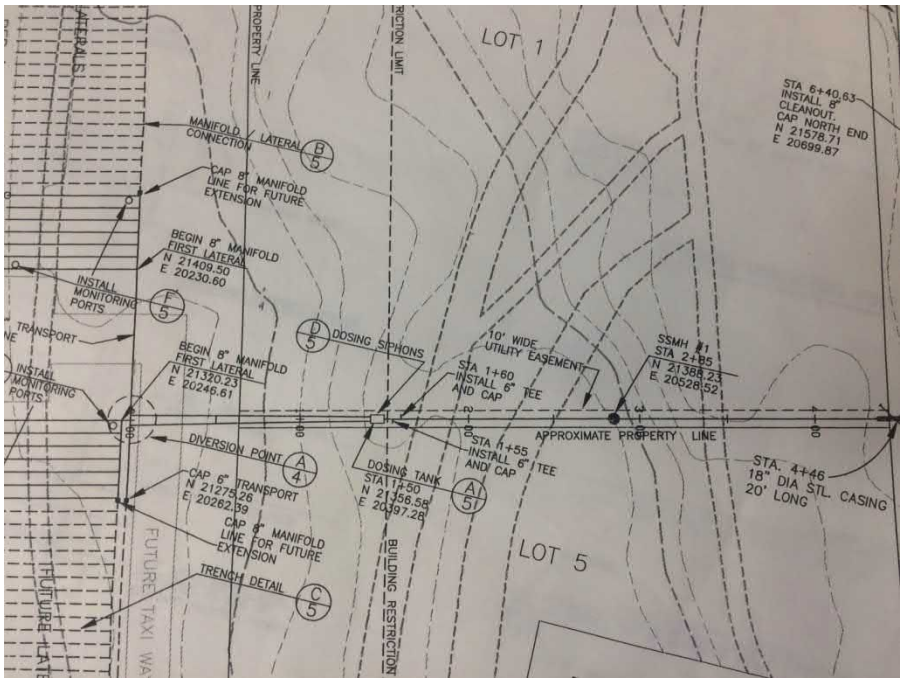
1. Soil sample locations of bio-solid soil sampling in 2001.



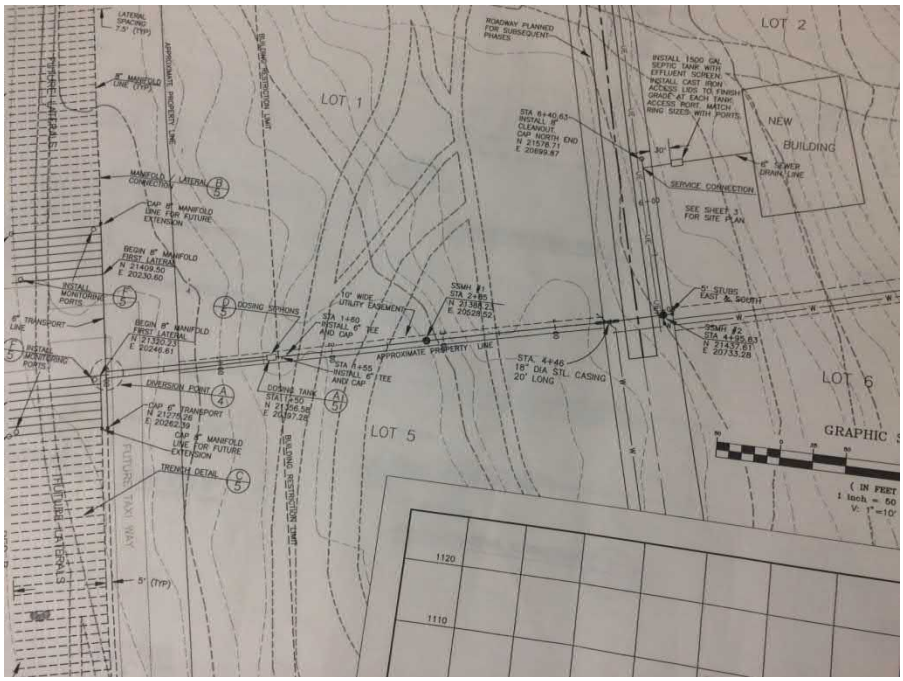
2. Air park septic drain system schematic from building.



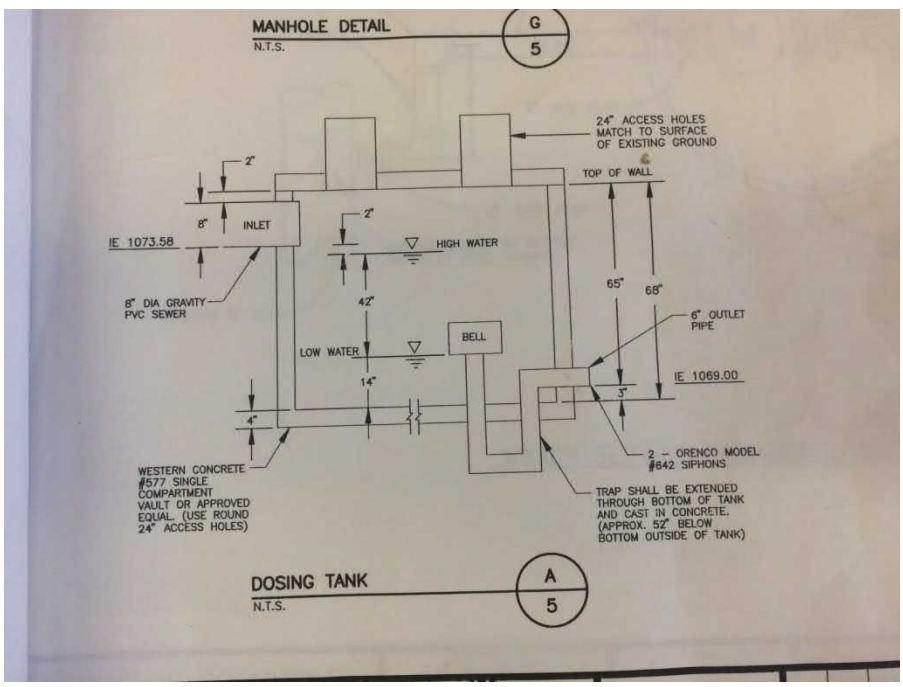
3. Airpark building septic system drain field affected by project.



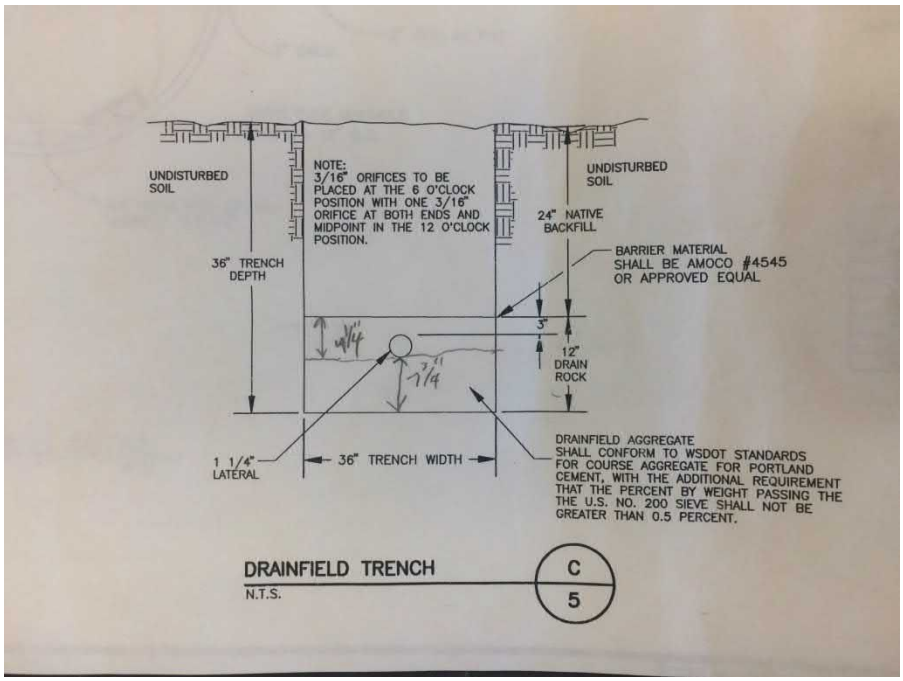
4. Airfield drain field system schematic.



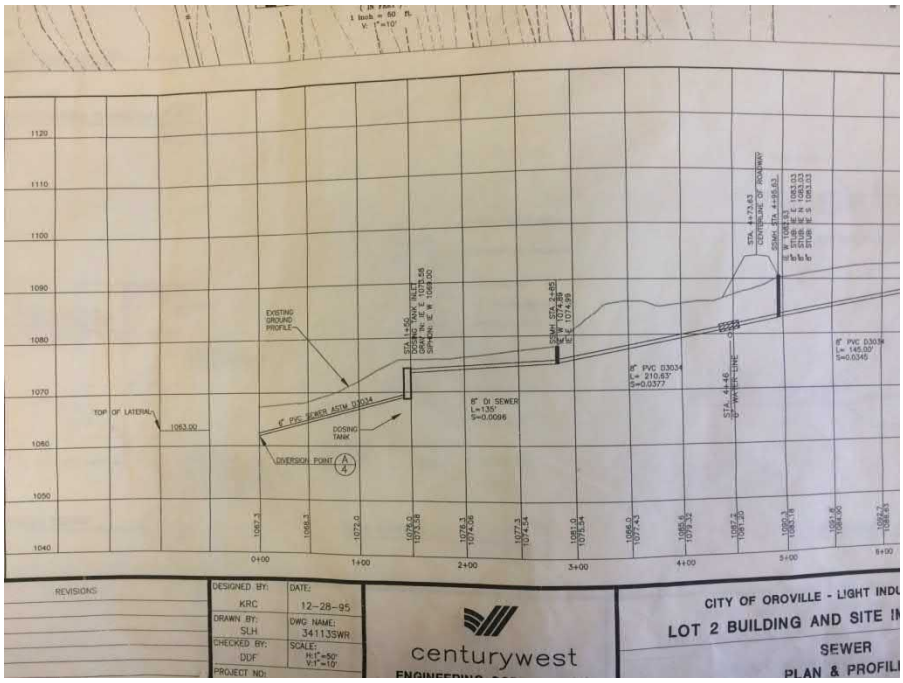
5. Airpark building septic system schematic.



6. Septic tank dosing tank schematic.



7. Drain field trench schematic.



8. Lateral view of drain field system schematic.

9. Helipads on west side of taxiway.

10. One of two previous underground storage tanks located by west fence.

11. Tanks and drums used by Star Airmotive for waste oil storage.

12. 55-gallon oil drum located by hangers on west side of taxiway.

13. Waste oil tanks located beside hanger on west side of taxiway.

14. 55-gallon drum located inside hanger.

15. Used oil cans located inside hanger on wall.

16. Old gas pumps.

17. Privately owned Jet A fuel tank outside hanger on west side of taxiway.

18. Presumed chemical storage tanks for crop duster operations.

19. Burning tank located next to chemical storage tanks.

20. Full, partial and empty drums located on north side of Star Airmotive shop.

21. Distressed vegetation adjacent to north side of Star Airmotive shop.

22. Drum with signs of minor spill on north side of Star Airmotive.

23. Helicopter wash pad area.

24. Above ground fuel storage tank & old UST on right (not presently used).

25. Above ground product lines and dispensers.

26. Construction materials behind Airpark building.

27. Recyclables on side of Airpark building.

28. 5-gallon drum of sealant on north side of Airpark building.

29. Front side of Airpark building.

30. Field between Airpark building and runway.

31. Sand pit located on east side of runway.

32. 5-gallon hydraulic oil container located along east fence.

33. East side of runway, area to be affected by construction.

34. Septic system discharge valve.

35. Septic system discharge valve.

36. Septic system dosing tank location.

37. Northern end of runway looking north.

38. West taxiway looking south.

39. Southern end of runway looking south.

40. Hangers located on west side of runway looking north.

41. Behind hangers located on west side of runway.

Appendix 10.4

Aerial Photographs

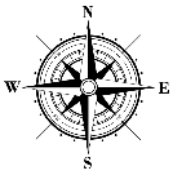
Historical Aerial Photo

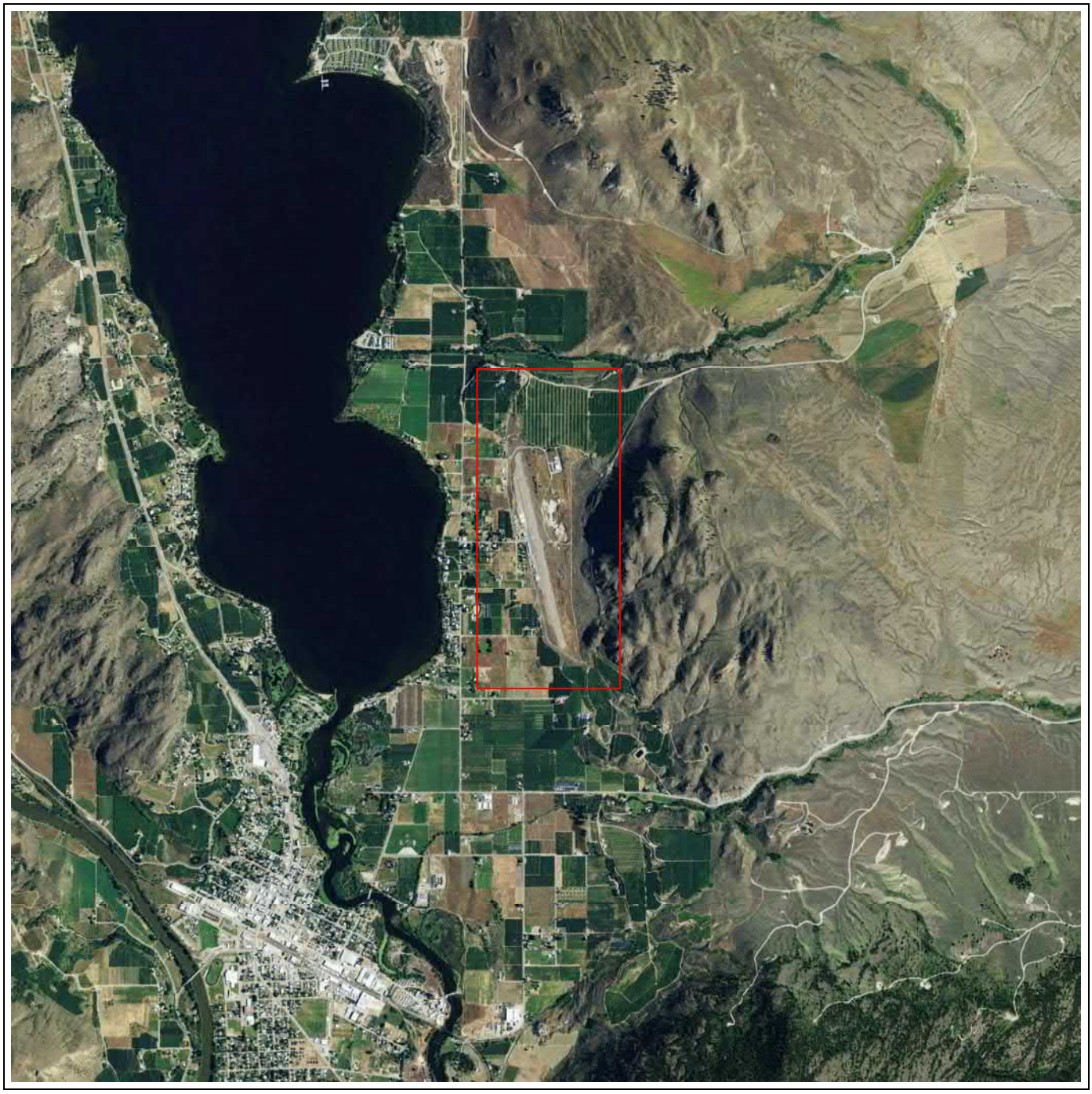
Site:

Oroville Washington Airport

City of Oroville, WA

2016





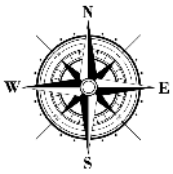
Historical Aerial Photo

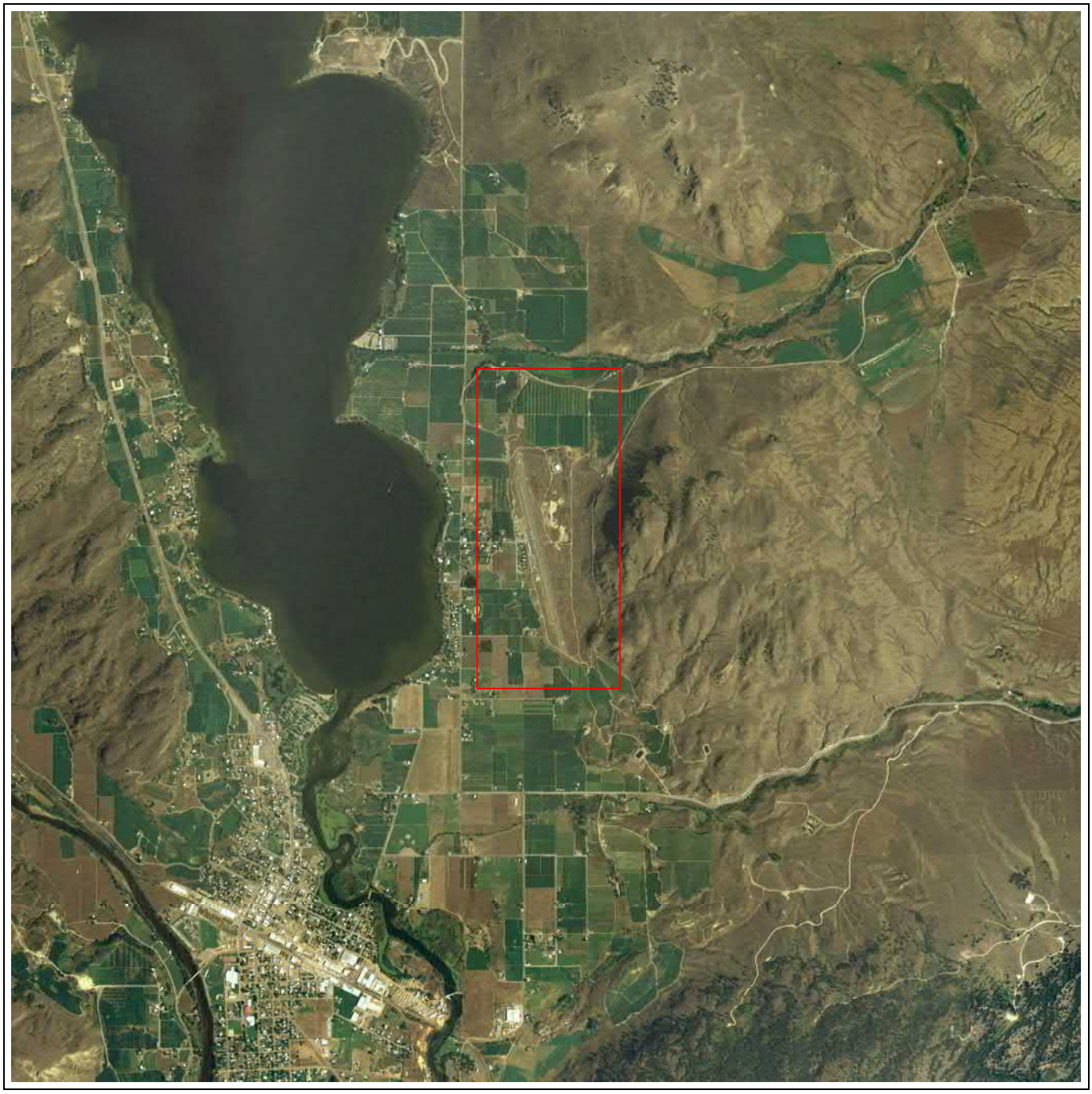
Site:

Oroville Washington Airport

City of Oroville, WA

2011





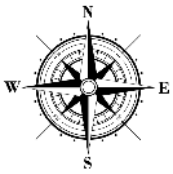
Historical Aerial Photo

Site:

Oroville Washington Airport

City of Oroville, WA

2005



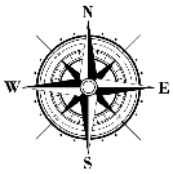
Historical Aerial Photo

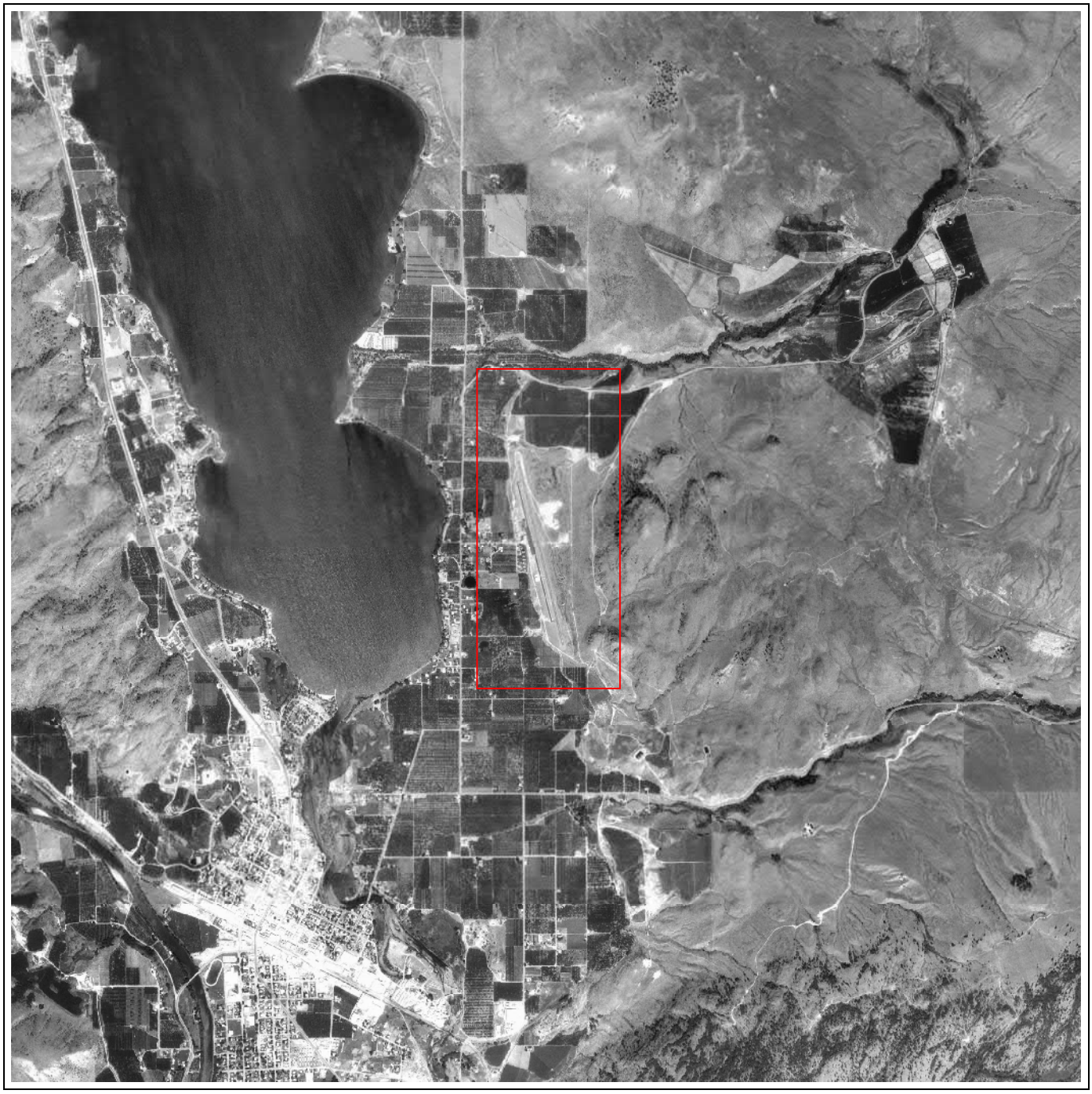
Site:

Oroville Washington Airport

City of Oroville, WA

1998





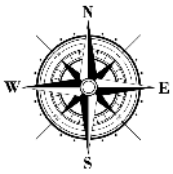
Historical Aerial Photo

Site:

Oroville Washington Airport

City of Oroville, WA

1995



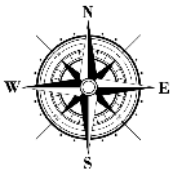
Historical Aerial Photo

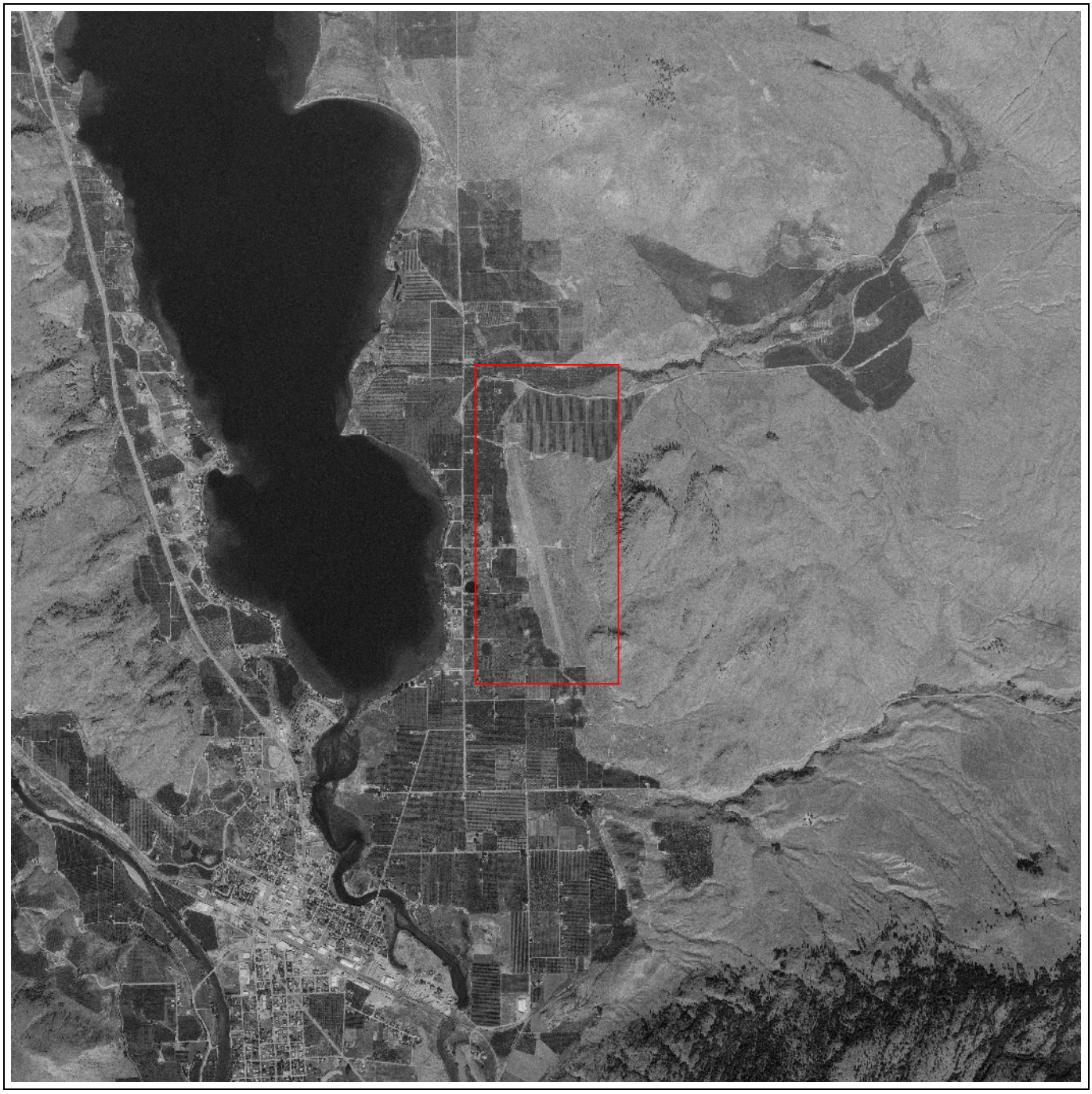
Site:

Oroville Washington Airport

City of Oroville, WA

1983





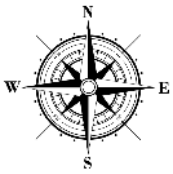
Historical Aerial Photo

Site:

Oroville Washington Airport

City of Oroville, WA

1975



Historical Aerial Photo

Site:

Oroville Washington Airport
City of Oroville, WA

1964

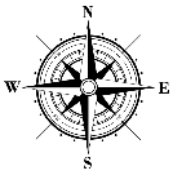
Historical Aerial Photo

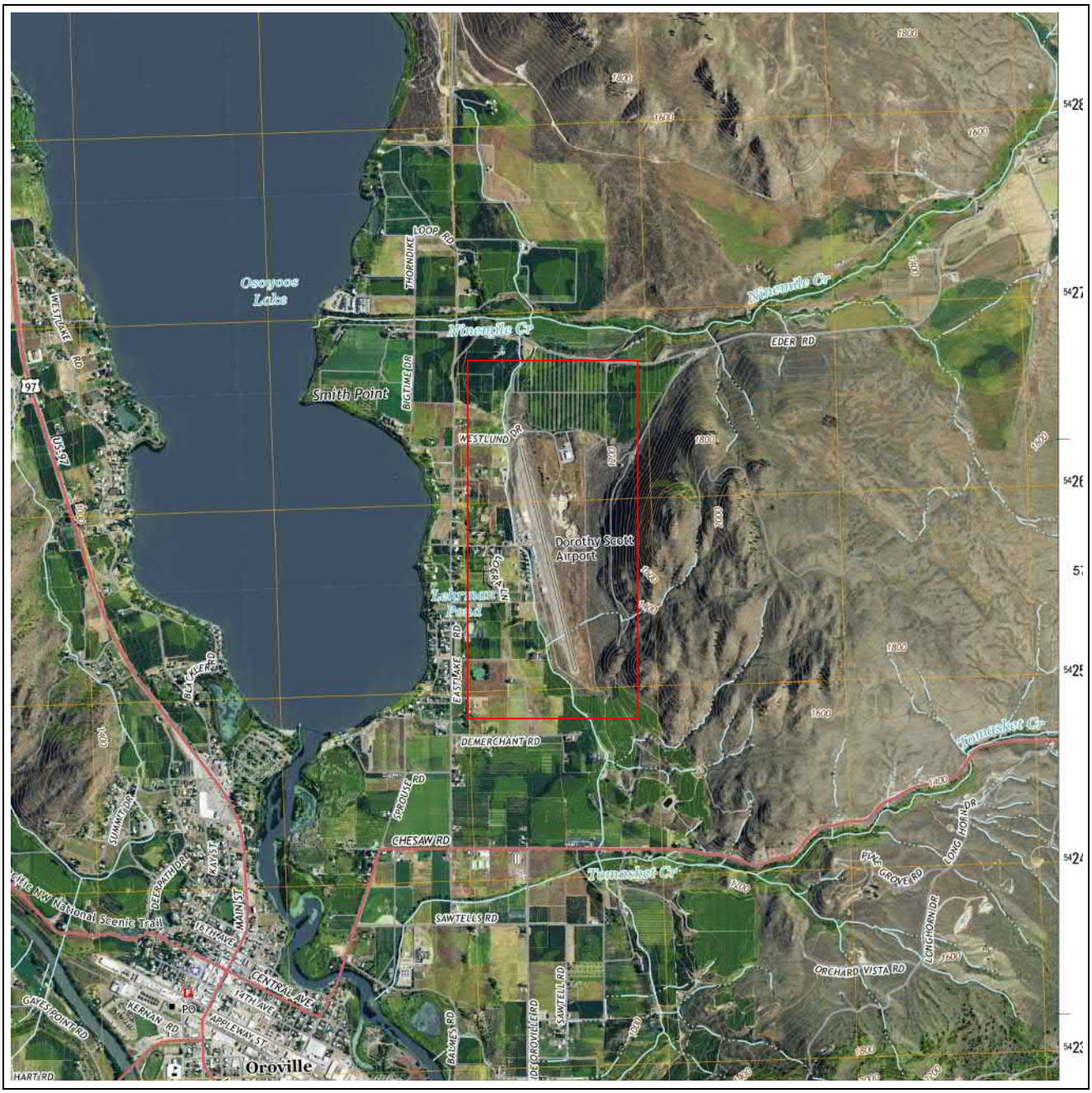
Site:

Oroville Washington Airport

City of Oroville, WA

1953





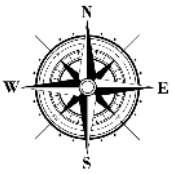
Historical Topographic Map

Site:

Oroville Washington Airport

City of Oroville, WA

Photorevised Date:	**N/A**
Original Date:	**2014**
Quad:	**Oroville**
Series:	**7.5**
Original Scale:	**1:24,000**
Contour Intervals:	**40’**



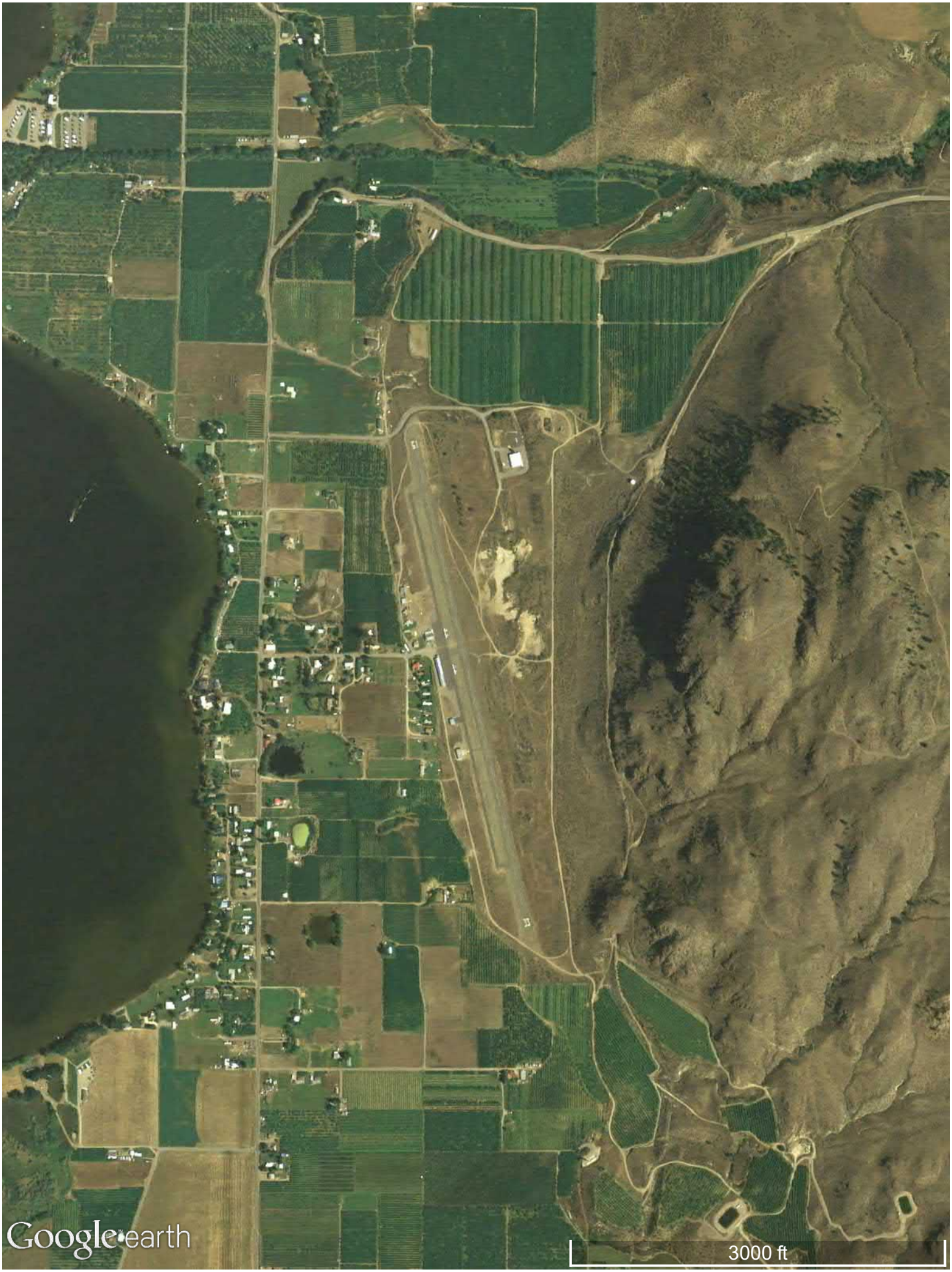

TX1
TX21
TX33
TX92
279
Ac


9.75 AC
7.26 AC
TAX 5
15.13 AC
TAX 6
22.15 A.
1001
40.00 AC.
TAX 9
TAX 13
5.00 AC
TAX 2
TAX 4
TAX 14
TAX 3
TAX 5
TAX
11
6.37 A
TAX 12
17.20 AC
overtrue 55
TOWN OF
OROVILLE
TAX 7
2001
20.00 AC.
TAX 19
GOVT.
LOT 3
TAX 1
TAX 16
2.00 AC.
2006
TOWN OF
OROVILLE
TAX 2
TAX 1
TAX 3
TAX 5
TAX 7
TAX 9
TAX 2
GOVT.
LOT
4
TOWN OF
OROVILLE
TAX 4
TAX 8
TAX 2
2.12
TAX 1
1.02
TAX 17
S. 15 T.


TOWN OF OROVILLE
TAX 18
TAX 4 TOWN OF OROVILLE (AIRPORT)
TAX 44 2.76 AC.
TAX 128 73.09 AC.
TAX 68 1.16 AC.
TAX 112
TAX 130 5.00 AC.
TAX 131 9.79 AC.
TAX 143
PUBLIC ACCESS
LEHRMANN'S LAKE TRACTS
ELLIS - FORDE
LAKE VIEW TRACTS
AVENUE
TAX 124 13.63 AC.
S½NW-SW-SE
S½NE-SW-SE
OROVILLE

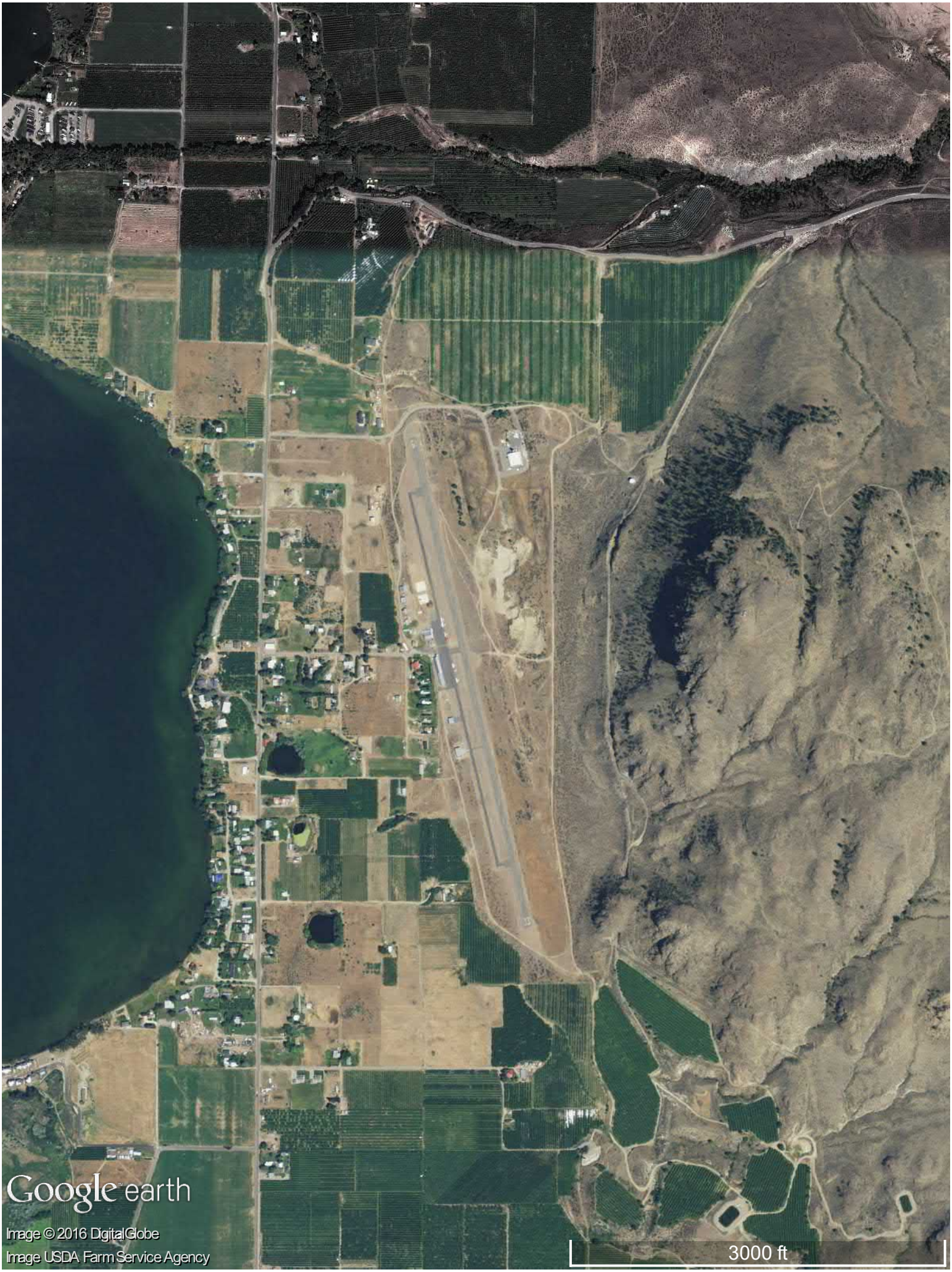

Google earth
Image U.S. Geological Survey
3000 ft


Google earth
Image U.S. Geological Survey
3000 ft


Google earth
3000 ft

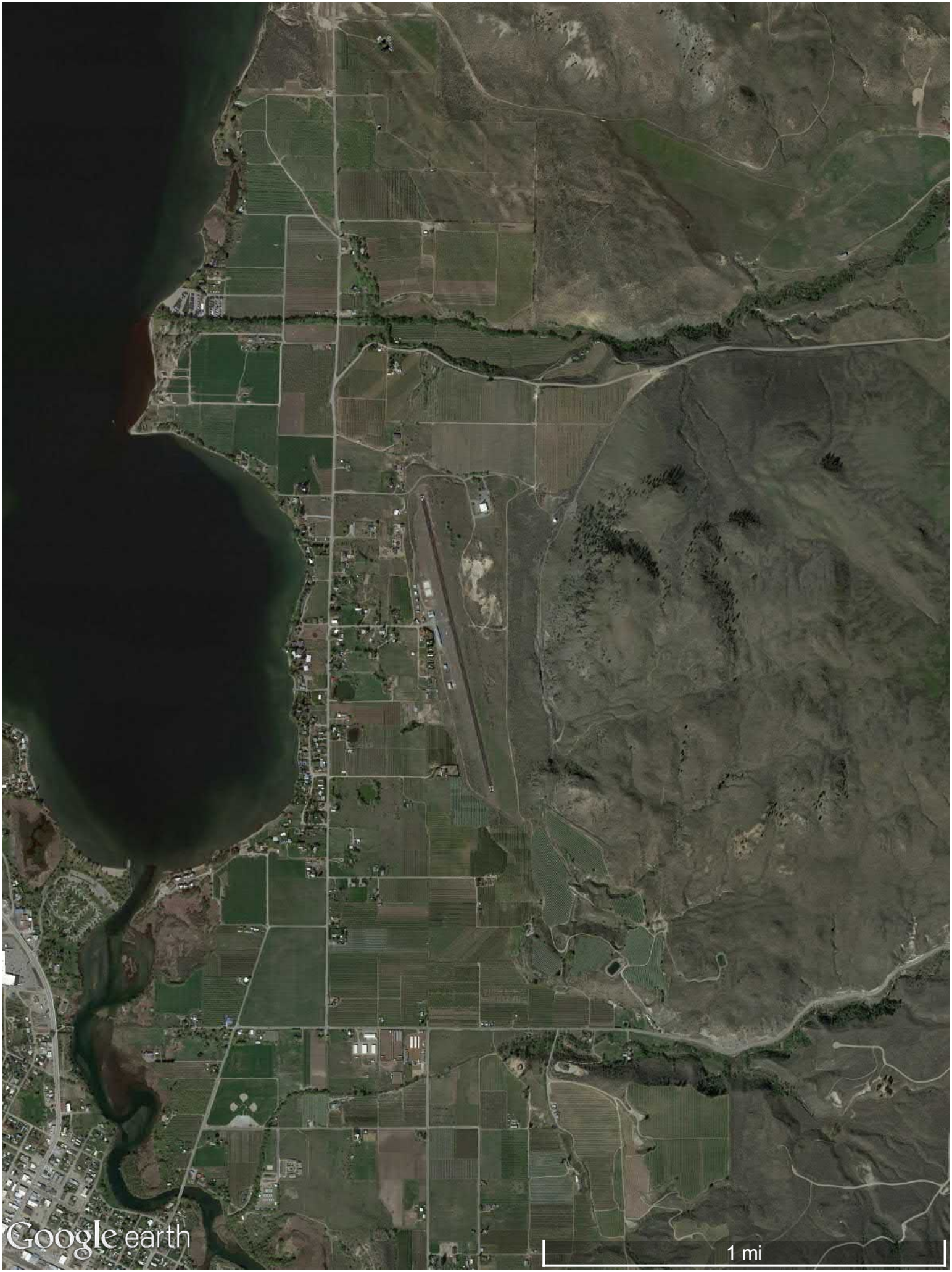

Google earth
Image U.S. Geological Survey
3000 ft


Google earth
Image USDA Farm Service Agency
3000 ft


Google earth
Image © 2016 DigitalGlobe
Image USDA Farm Service Agency
3000 ft


Google earth
Image USDA Farm Service Agency
3000 ft

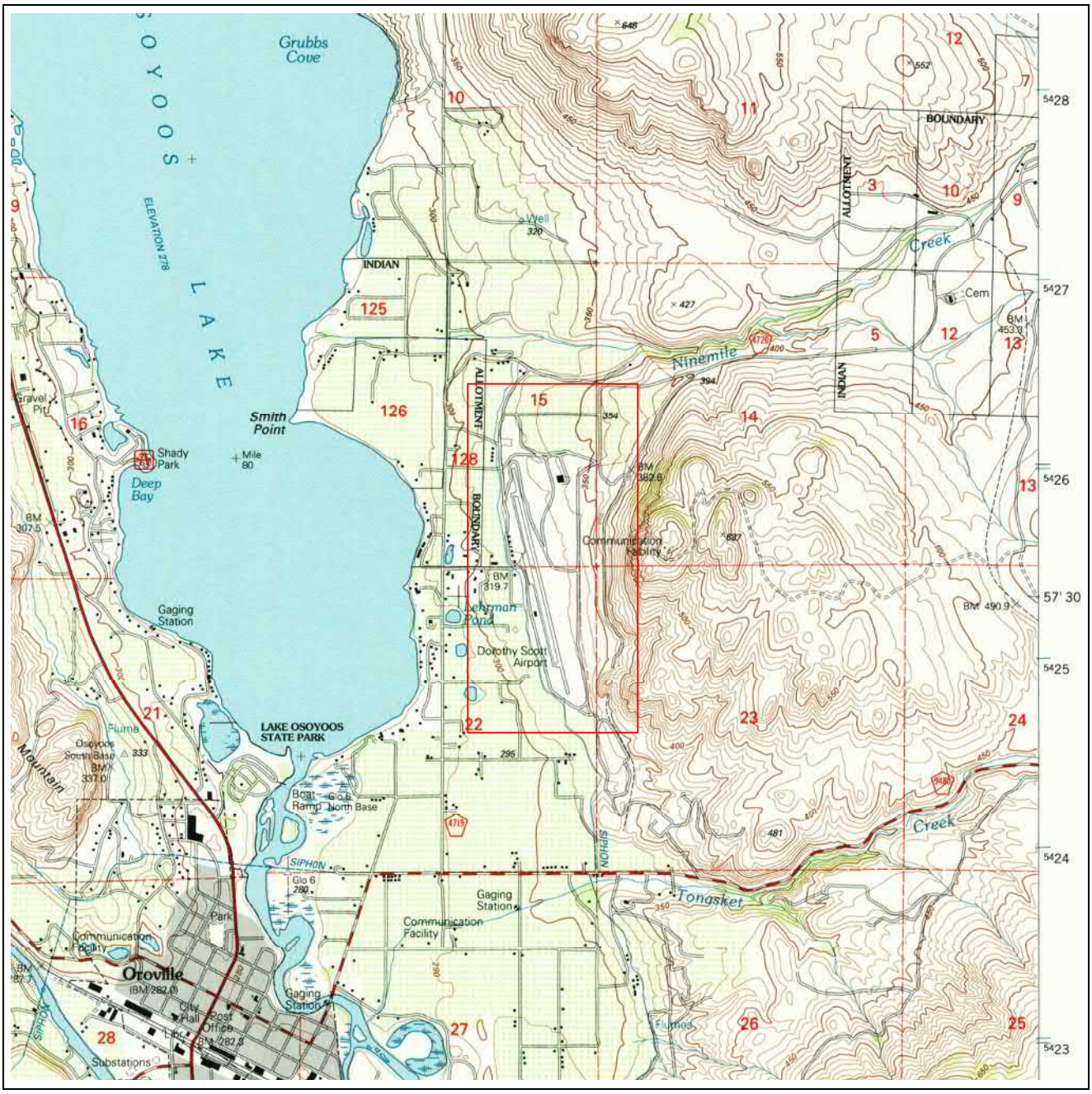

Google earth
3000 ft


Google earth
1 mi


Google earth
3000 ft

Appendix 10.5

Historical Research Documentation



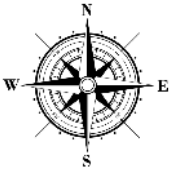
Historical Topographic Map

Site:

Oroville Washington Airport

City of Oroville, WA

Photorevised Date:	**2005**
Original Date:	**2001**
Quad:	**Oroville**
Series:	**7.5**
Original Scale:	**1:24,000**
Contour Intervals:	**10 Meters**



Historical Topographic Map

Site:

Oroville Washington Airport

City of Oroville, WA

Photorevised Date:	**N/A**
Original Date:	**1982**
Quad:	**Oroville**
Series:	**7.5**
Original Scale:	**1:24,000**
Contour Intervals:	**10 Meters**

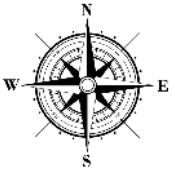
Historical Topographic Map

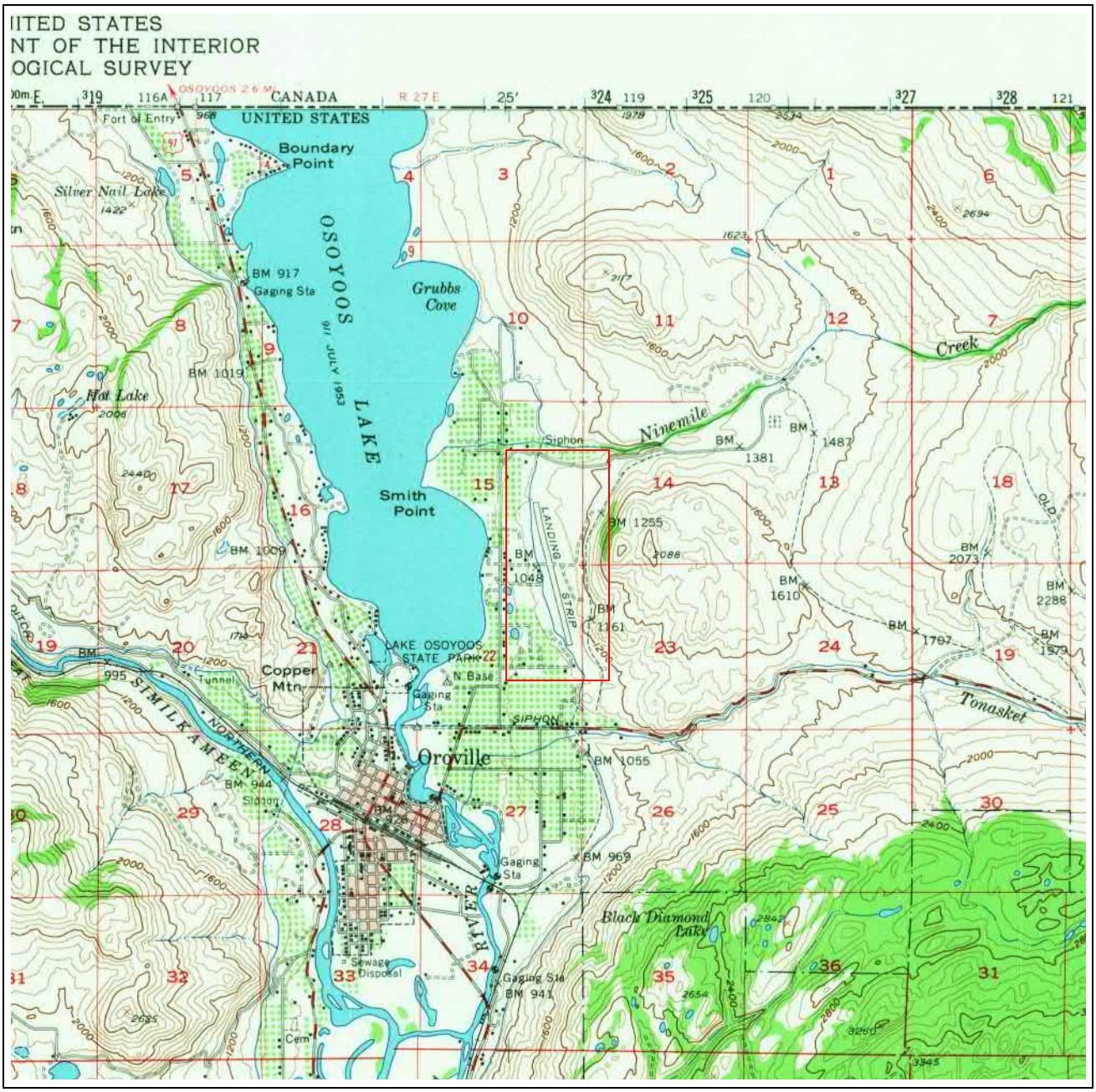
Site:

Oroville Washington Airport

City of Oroville, WA

Photorevised Date:	**1979**
Original Date:	**1957**
Quad:	**Oroville**
Series:	**15**
Original Scale:	**1:62,500**
Contour Intervals:	**80’**





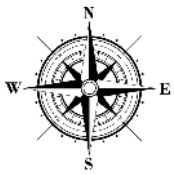
Historical Topographic Map

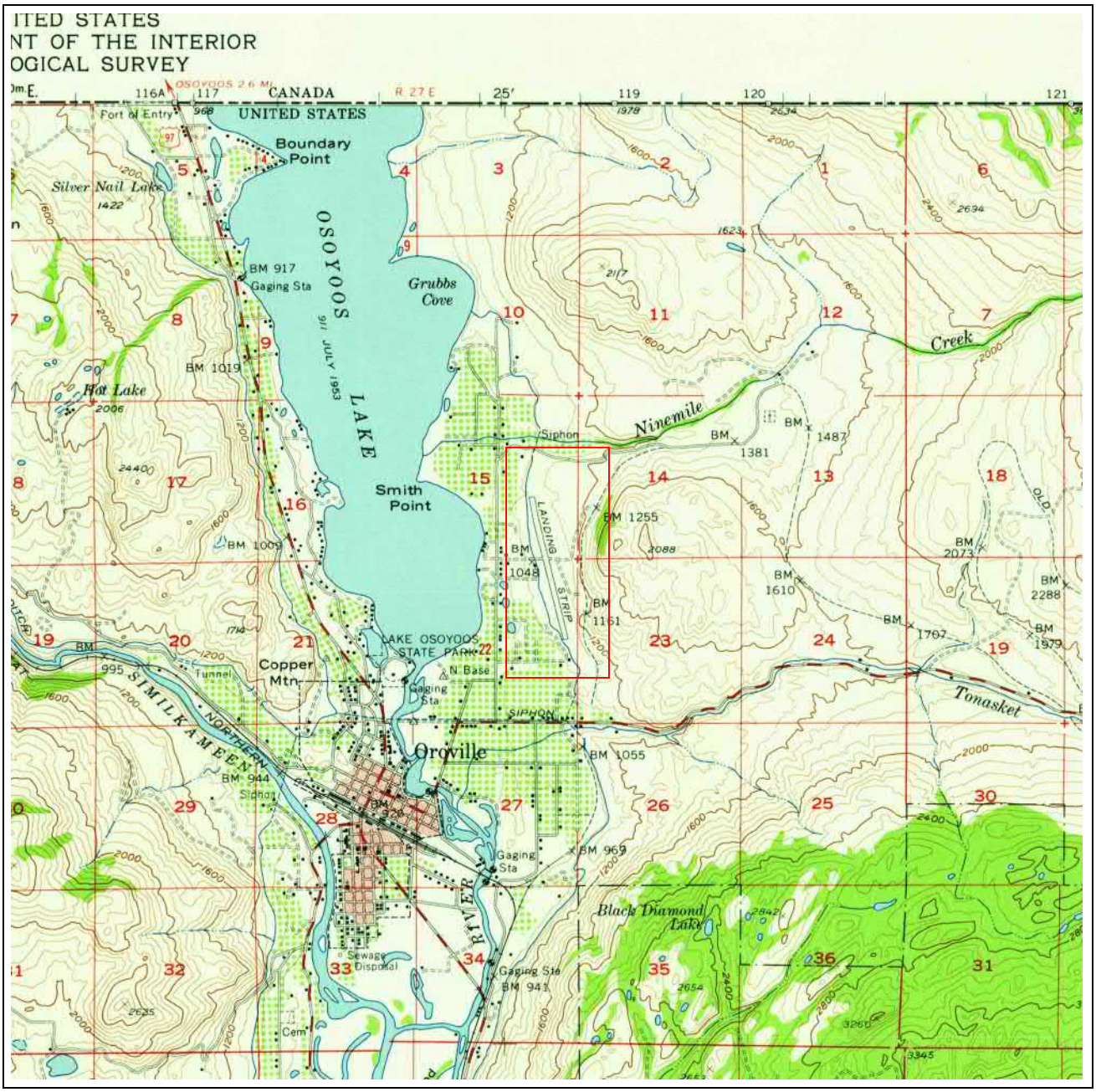
Site:

Oroville Washington Airport

City of Oroville, WA

Photorevised Date:	**1967**
Original Date:	**1957**
Quad:	**Oroville**
Series:	**15**
Original Scale:	**1:62,500**
Contour Intervals:	**80’**





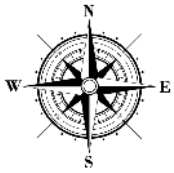
Historical Topographic Map

Site:

Oroville Washington Airport

City of Oroville, WA

Photorevised Date:	**1959**
Original Date:	**1957**
Quad:	**Oroville**
Series:	**15**
Original Scale:	**1:62,500**
Contour Intervals:	**80’**



ENVIRONMENTAL RECORD SEARCH

Subject Site:

Clients Project #:
Address: **Oroville Washington Airport**
City, State Zip: **City of Oroville, WA**

ERS Order #:

2104671117 CDA

Prepared For:

Name: Steve Burchett
Company: Budinger and Associates
Address: 1101 N Fancher Road
City, State Zip: Spokane Valley, WA 99212

Date:

September 20, 2016

City Directory Search Result:

A search of our in-house collection of city directories was conducted for the above referenced site address. The review of our holdings has determined that no historical city directories are available within our collection for the referenced site; therefore they are not "reasonably ascertainable" according to ASTM standards. Environmental Record Search (ERS) certifies that a thorough search of our holdings has been completed.

Thank you for selecting ERS.
Researched by:

Eric Charles Exton

ENVIRONMENTAL RECORD SEARCH

Subject Site:

Client's Project #:
Address: **Oroville Washington Airport**
City, State Zip: **Oroville, WA**

ERS Order #:
2104671117 FIM

Years Reviewed:

1945, 1922, 1909

Historical Fire Insurance Map Search Result:

The review of collections and indexes has determined that no historical fire insurance maps are available within these collections and indexes for the referenced site; therefore they are not available and are considered not "reasonably ascertainable" according to ASTM standards. Environmental Record Search (ERS) certifies that a thorough search of our holdings, various other collections and indexes has been completed.

Note: There was coverage for the city of Oroville, WA but it did not extend out far enough to reach the subject site.

Thank you for selecting ERS.

Researched by:

Andrew Pham

From: Joshua Petker <jpetker@co.okanogan.wa.us>
Sent: Thursday, September 22, 2016 11:35 AM
To: Steve Brown; Beth Barker
Subject: RE: Lab Responses

I am not aware of any lab activity in those areas.

Josh

-------- Original message --------
From: Steve Brown <sbrown@co.okanogan.wa.us>
Date: 9/22/16 10:43 AM (GMT-08:00)
To: Beth Barker <bbarker@co.okanogan.wa.us>
Cc: Joshua Petker <jpetker@co.okanogan.wa.us>
Subject: Lab Responses

I've looked at all parcels and not aware of any lab responses to any of these.

The following parcels are owned by the City of Oroville, although I am not aware of any lab responses to these locations he may want to confirm this with the City of Oroville or Oroville PD and not take my word for it.

4027150007
4027140018
4027150024
4027220018
4027220004

Thank you

TOWN OF OROVILLE BUILDING DEPARTMENT
Oroville, Washington 98844 Phone 509/476-2926

BUILDING PERMIT

082

OWNER: Town of Oroville - Town Airport	BY:	SEWER PERMIT No	
BUILDER		CONTRACTOR'S LICENSE No	
SITE LOCATION: Town Airport		PARCEL NUMBER	

RT	SEC	TWP	RANGE	LOT	BLOCK	ZONE	SUB DIVISION SHORT PLAT	LOT SIZE
		40	27					

☐ NEW RESIDENCE ☐ BASEMENT ☐ ACCESSORY BUILDING ☐ GARAGE
☐ CARPORT ☐ ADDITION ☐ REMODEL
☒ OTHER Concrete Pad - Fuel Tank Containment ☐ NO BEDROOMS _____

SPECIAL INSTRUCTIONS:

MINIMUM REQUIRED SETBACKS FRONT	HEIGHT
SIDE	ELEVATOR
REAR	FLOOD DIST DESIGNATION

Sewer	Water	E.P.A.

MANDATORY INSPECTIONS		PLAN NO.	TYPE OF HEATING			
FOUNDATION	FRAMING	Bldg Dimensions	Gar Crpt Dim	Stories	Basement	BUILDING PERMIT FEE $ WAIVED ∅
LATH/WALLBOARD	FINAL Expired	Sq Ft Main Floor 16'x16'	Sq Ft 2nd Floor	Sq Ft Basement		PLAN CHECKING FEE $
BUILDING TO BE USED FOR		I certify that I am exempted from the requirements of the state contractor's registration law, under Sec 3, Chap 126, laws of 1967	VALUATION 1200.00			P.T. # PENALTY FEE $ ∅
APPLICANT'S SIGNATURE			DATE 9-13-91			CK. # TOTAL FEE $ ∅

Permission is hereby granted to do the work described hereon according to the approved plans and specifications pertaining hereto, subject to Compliance with any ordinances or zoning resolutions of Town of Oroville. Construction must start within 120 days and first inspection called for; otherwise permit becomes null and void. Building permit expires 18 months from date of issuance. X _____

1st — INSPECTOR'S COPY 2nd — CUSTOMER'S COPY 3rd — ASSESSOR'S COPY 4 — HARD FILE COPY

R. B. LITTLE & CO.

TOWN OF OROVILLE BUILDING DEPARTMENT
Oroville, Washington 98844 Phone 509/476-2926

BUILDING PERMIT

224

Rec. # 21499

OWNER: City od Oroville, POB M, Oroville WA 98844	BY: cdj	SEWER PERMIT No	
BUILDER: Collier Company, Inc. 12800 Johnny Ross Rd. Bremerton WA 98312	CONTRACTOR'S LICENSE No: COCCICI100JR (4/18/96)		
SITE LOCATION: Oroville Light Indusrial Park Lot2 Building Site	PARCEL NUMBER: 4027162006		

RT	SEC	TWP	RANGE	LOT	BLOCK	ZONE	SUB DIVISION/SHORT PLAT	LOT SIZE
	16	40	27	2		A-1	S2 NE SE, SE SE	22.71 acres

☐ ~~NEW RESIDENCE~~ building ☐ BASEMENT ☐ ACCESSORY BUILDING ☐ GARAGE
☐ CARPORT ☐ ADDITION ☐ REMODEL F-1 V-N
☐ OTHER ☐ NO BEDROOMS_____

SPECIAL INSTRUCTIONS:

MINIMUM REQUIRED SETBACKS		HEIGHT
FRONT -0-		
SIDE -0-		ELEVATOR
REAR -0-		FLOOD DIST DESIGNATION none

Sewer	Water	E.P.A.
PLUMB		132.00

MANDATORY INSPECTIONS		PLAN NO.	TYPE OF HEATING electric			
FOUNDATION	FRAMING	Bldg. Dimensions 80' x 100'	Gar. Crpt. Dim	Stories 1	Basement	BUILDING PERMIT FEE $1,515.00
LATH/WALLBOARD	FINAL	Sq. Ft. Main Floor 8,000	Sq. Ft. 2nd Floor	Sq. Ft. Basement		PLAN CHECKING FEE $ 530.25
BUILDING TO BE USED FOR: Moderate-hazard factory		I certify that I am exempted from the requirements of the state contractor's registration law, under Sec. 3, Chap. 126, laws of 1967	VALUATION $223,520			~~XXXX~~ State Code ~~XXXX~~ PENALTY FEE $ 4.50
APPLICANT'S SIGNATURE			DATE 3/20/96			CK. # TOTAL FEE $ 2,172.75

Permission is hereby granted to do the work described hereon according to the approved plans and specifications pertaining hereto, subject to Compliance with any ordinances or zoning resolutions of Town of Oroville. Construction must start within 120 days and first inspection called for otherwise permit becomes null and void. Building permit expires 18 months from date of issuance.

1st — INSPECTOR'S COPY 2nd — CUSTOMER'S COPY 3rd — ASSESSOR'S COPY 4 — HARD FILE COPY

R. B. LITTLE & CO.

City of Oroville Building & Permits Department

Certificate of Occupancy

This certificate is issued pursuant to Section 109.3 of the Uniform Building Code, adopted by Title 15 of the Oroville Municipal Code, as directed by Chapters 19.27 of the Revised Code of Washington. This certifies that at the time of issuance, this structure was in substantial compliance with the various ordinances of the City regulating building construction and use for the following work: **The new construction of a multi-tenant 80'x 100' moderate-hazard factory.**

Occupancy Group: **F-1** Type of Construction: **V-N**

Building Permit No.: **224**

Zoning District: **Airport District** Flood Hazard Zone: **C**

Owner of the Building: **City of Oroville, Post Office Box 2200, Oroville, Washington 98844**

Building Location: **Lot 2 Oroville Industrial Park**

Property: **Tax 2006 part of the S1/2 NE SE, SE SE in Section 16 of Township 40 N., Range 27 E. WM.**

Building Official: **Christian D. Johnson, C.B.O.**

Dated: **April 19, 1999** By: _____

Except for residences and utility buildings, this notice shall be posted in a conspicuous place and may only be removed by the Building Official

CITY OF OROVILLE
P.O. Box 2200
Oroville, Washington 98844

BUILDING & PERMITS DEPARTMENT

PERMIT NO.: 358

PERMITTEE: Star Airmotive, Inc. (William Nicholson), 23 C Airport Rd., Oroville WA 98844
CONTRACTOR & LICENSE NO.: Robinson Construction, 74 River Loop Rd., Tonasket, WA 98855 ROBINC*07106 3/23/00
OWNER OF PROPERTY: City of Oroville, Washington, P.O. Box 2200, Oroville, WA 98844
STREET ADDRESS OF WORK: Hanger #7 Dorothy Scott Airport
PARCEL NO.: 4027229610 **TWP:** 40N. **RNG:** 27 EWM **SEC:** 22
SHORT LEGAL: Tax 9610
ZONING DISTRICT: Airport District **FLOOD ZONE:** Zone C
REQ'D SETBACKS: FRONT: Lease Req'm **SIDE STREET:** "" **SIDES:** "" **REAR:** ""
CONDITIONS OF APPROVAL: Approved to standard

SCOPE OF PERMITTED WORK: The 20' 60' single.story addition (20' x 50' enclosed, 20'x 10' open on two sides) to an existing building.
INTENDED USE OF BUILDING: Storage of moderate hazard, low-piled commodities accessory to the aircraft repair facility.
OCCUPANCY GROUP & TYPE OF CONSTRUCTION: S-1/H-5 & V-N

VALUATION: $15,000 est., $24,640 adv.

PERMIT FEES:

BUILDING PERMIT FEE: 391.25 PLAN REVIEW FEE: 176.06
STATE CODE FEE: 4.50 1/2 HOUR SEPA REVIEW: 30.00
TOTAL APPLICATION FEES: $598.81 RECEIPT#: 4207

PENDING FEES:
SEPA review cost incurred: RECEIPT#:

ACKNOWLEDGEMENT OF PERMITTEE

As the permit holder of this permit, I understand that it is my responsibility to call for, and ensure that all work is inspected and approved, prior to concealment and or use. Further, that failure to obtain a written approval in any 180 day block shall cause this permit to become null and void and without final written approval, use and or occupancy is not approved.

William Nicholson
Signature of the Permittee

STAR AIRMOTIVE (City of Oroville), 5/17/99
Hanger #7 Dorothy Scott Airport - Storage Room Addition
BUILDING PERMIT NO.: 358, page#1 of 2
COPIES: INSPECTOR'S, PERMITTEE'S, ASSESSOR'S, OFFICE

PERMIT ISSUANCE

Pursuant to Section 106.4 of the Washington State Building Code, permission is hereby granted to do the work heron according to the approved plans and specification pertaining hereto, subject to field corrections and compliance with any ordinance or zoning resolutions of the City of Oroville, Washington.

Building Official

RECORD OF APPROVALS:

FINAL ISSUED: JULY 19, 1999

STAR AIRMOTIVE (City of Oroville), 5/17/99
Hanger #7 Dorothy Scott Airport - Storage Room Addition
BUILDING PERMIT NO.: 358, page#2 of 2
COPIES: INSPECTOR'S, PERMITTEE'S, ASSESSOR'S, OFFICE

CERTIFICATE OF OCCUPANCY

City of Oroville Building & Permits Department

This certificate is issued pursuant to Section 109.3 of the Uniform Building Code, Adopted by Title 15 of the Oroville Municipal Code, as authorized by Chapter 19.27 of the Revised Code of Washington. This certificate certifies that at the time of issuance, this structure was in compliance with the various ordinances of the City regulating building construction and use for the following work: The 20'X 60' single story addition for the storage of moderate hazard, low-piled commodities accessory to an existing aircraft repair facility.

Occupancy Group: S-1 & H-5
Type of Construction: V-N
Building Permit #: 358
Use Zone: Airport District
Owner of Building: Star Airmotive, Inc. c/o The City of Oroville, Washington, P.O. Box 2200, Oroville, Washington
Building Location: Hanger #7 Dorothy Scott Airport
Property: Tax 9610 in Section 22 of Township 40 N., Range 27 E WM

By: Christian D. Johnson

Date: July 19, 1999

Building Official: Christian D. Johnson, C.B.O.

Except for residences and utility buildings, this notice shall be posted in a conspicuous place and may only be removed by the Building Official.

CITY OF OROVILLE
P.O. Box 2200
Oroville, Washington 98844
Phone 509.476.2926 Facsimile 509.476.9067 e-mail: oroville@nvinet.com

BUILDING & PERMITS DEPARTMENT

PERMIT NO.: 521

PERMIT HOLDER: Huntingdon Industries Inc., P.O. Box 1148, Oliver B.C., V0H 1T0
CONTRACTOR & LICENSE NO.: Silvernail Homes, P.O. Box 1959, Oroville, WA 98844 SILVEH*05106 7/18/2004
OWNER, IMPROVEMENTS: Ajai Sehgal, 20122 NE 186 Court, Woodinville, WA 98072
OWNER, PROPERTY: City of Oroville, P.O. Box 2200, Oroville, WA 98844
STREET ADDRESS OF WORK: 23 Airport Road Lease Space #4
PARCEL NO.: 4027220018 **TWP:** 40N. **RNG:** 27 EWM **SEC:** 22
SHORT LEGAL: Tax 18 pt NE NE, Lease Space #4, Dorothy Scott Airport, Oroville
ZONING DISTRICT: Airport **FLOOD ZONE:** Zone C **SHORELINE:** Upland
REQ'D ZONING SETBACKS: FRONT: Lease Req'm **STREET:** " " **SIDES:** " " **REAR:** " "
CONDITIONS OF APPROVAL:
1. Approved to standard.

SCOPE OF PERMITTED WORK: The new construction of a 35' x 45' single story unheated building (1,575 sq ft).
INTENDED USE OF BUILDING: Airplane Hanger
OCCUPANCY GROUP & TYPE OF CONSTRUCTION: S-5 & II-N
VALUATION: $38,000 est., $25,360 adv
PERMIT FEES:

BUILDING PERMIT FEE: 401.35 PLAN REVIEW FEE: 180.61
STATE CODE: 4.50
TOTAL APPLICATION FEES: $586.46 RECEIPT#: 10670

ACKNOWLEDGMENT OF PERMIT HOLDER

As the permit holder of this permit, I understand that it is my responsibility to call for, and ensure that all work is inspected and approved, prior to concealment and or use. Further, that failure to obtain a written approval in any 180 day block shall cause this permit to become null and void and without final written approval, use and or occupancy is not approved.

Signature of the Permit Holder

PERMIT ISSUANCE

Pursuant to Section 106.4 of the Washington State Building Code, permission is hereby granted to do the work heron according to the approved plans and specification pertaining hereto, subject to field corrections and compliance with any ordinance or zoning resolutions of the City of Oroville, Washington.

Building Official

RECORD OF APPROVALS:

Sehgal, Ajai (City of Oroville), 6/5/2003
23 Airport Rd., Lease Space #4. - New hanger
PERMIT NO.: BLD-521 - Page #1 of 1

COPIES: INSPECTOR'S, PERMITTEE'S, ASSESSOR'S, OFFICE

CITY OF OROVILLE
P.O. Box 2200
Oroville, Washington 98844
Phone 509.476.2926 Facsimile 509.476.9067

BUILDING & PERMITS DEPARTMENT

PERMIT NO: 552

foundation only

PERMIT HOLDER: Graham Const PH. 486-2532
PO Box 686 Tonasket, WA 98855

CONTRACTOR & LICENSE NO.: Same
OWNER OF PROPERTY: Paragon Woos Products Oroville Airport Industrial Park Ph. 476-4114
STREET ADDRESS OF WORK: Same as above
PARCEL NO.: **TWP:** **RNG:** **SEC:**
SHORT LEGAL:
ZONING DISTRICT: I-1 **FLOOD ZONE:**
REQ'D ZONING SETBACKS: FRONT/STREET: 0 **SIDES:** 0 **REAR:** 0
CONDITIONS OF APPROVAL: Standard
SCOPE OF PERMITTED WORK: Ftg system for sawdust bin/blower **INTENDED USE OF BUILDING:**
OCCUPANCY GROUP & TYPE OF CONSTRUCTION: VN
VALUATION: Not given
PERMIT FEES: Permit $111.25 Plan Check 0

STATE CODE FEE: **4.50**
TOTAL APPLICATION FEES: $ 115.75 **RECEIPT#** 11965 (3/2/04)

ACKNOWLEDGMENT OF PERMITTEE

As the permit holder of this permit, I understand that it is my responsibility to call for, and ensure that all work is inspected and approved, prior to concealment and or use. Further, that failure to obtain a written approval in any 180 day block shall cause this permit to become null and void and without final written approval, use and or occupancy is not approved.

---------- Date----------
Signature of the Permittee / Owner

PERMIT ISSUANCE

Pursuant to Section 106.4 of the Washington State Building Code, permission is hereby granted to do the work heron according to the approved plans and specification pertaining hereto, subject to field corrections and compliance with any ordinance or zoning resolutions of the City of Oroville, Washington.

Building Official B Yates Date 3/9/04

Record of Approvals

Ftg apv'd 3/9/04 BG

left job copy with Ernie on 3/23/04

Ofc Copy

CITY OF OROVILLE
P.O. Box 2200
Oroville, Washington 98844

Phone 509.476.2926 Facsimile 509.476.9067

BUILDING & PERMITS DEPARTMENT

PERMIT NO: 553

PERMIT HOLDER: Paragon Wood Products Ph. 476-2926 Andrew

Box 459 Oroville WA 98844

ofc (360) 549-3774
Cel (250) 308-9557
fx (250) 549-2424

CONTRACTOR & LICENSE NO.: H&R Sheetmetal Ph. (250)379-2678
OWNER OF PROPERTY: Paragon Wood Products
STREET ADDRESS OF WORK: 40 Westlund Dr.
PARCEL NO.: **TWP:** **RNG:** **SEC:**
SHORT LEGAL:
ZONING DISTRICT: I-1 **FLOOD ZONE:**
REQ'D ZONING SETBACKS: FRONT/STREET: 0 **SIDES:** 0 **REAR:** 0
CONDITIONS OF APPROVAL: Standard
SCOPE OF PERMITTED WORK: Bin installation **INTENDED USE OF BUILDING:** Sawdust Blower
OCCUPANCY GROUP & TYPE OF CONSTRUCTION: U2 VN
VALUATION: 20,000.
PERMIT FEES: Permit $321.25 Plan Check $208.81

STATE CODE FEE: **$4.50**
TOTAL APPLICATION FEES: $534.56 **RECEIPT#** 12097

ACKNOWLEDGMENT OF PERMITTEE

As the permit holder of this permit, I understand that it is my responsibility to call for, and ensure that all work is inspected and approved, prior to concealment and or use. Further, that failure to obtain a written approval in any 180 day block shall cause this permit to become null and void and without final written approval, use and or occupancy is not approved.

---------- Date----------

Signature of the Permittee / Owner

PERMIT ISSUANCE

Pursuant to Section 106.4 of the Washington State Building Code, permission is hereby granted to do the work heron according to the approved plans and specification pertaining hereto, subject to field corrections and compliance with any ordinance or zoning resolutions of the City of Oroville, Washington.

Building Official B Yates Date 3/16/04

RECORD OF APPROVALS

1

ofc Copy

CITY OF OROVILLE
P.O. Box 2200
Oroville, Washington 98844

Phone 509.476.2926 Facsimile 509.476.9067

BUILDING & PERMITS DEPARTMENT

PERMIT NO: 564

PERMIT HOLDER: Paragon Wood Prod. 476-4114
POB 459 Oroville

CONTRACTOR & LICENSE NO.: Same (Eng of record- Allied Steel) 877-997-8335
OWNER OF PROPERTY: City of Oroville
STREET ADDRESS OF WORK: Airport
PARCEL NO.: **TWP:** **RNG:** **SEC:**
SHORT LEGAL:
ZONING DISTRICT: Airport **FLOOD ZONE:**
REQ'D ZONING SETBACKS: FRONT/STREET: 0 **SIDES:** 0 **REAR:** 0
CONDITIONS OF APPROVAL:
SCOPE OF PERMITTED WORK: Mt'l Shed **INTENDED USE OF BUILDING:** Storage
OCCUPANCY GROUP & TYPE OF CONSTRUCTION: U & VN
VALUATION: N/A
PERMIT FEES: Permit 0 Plan Check 0

State Code Fee:
TOTAL APPLICATION FEES: $ No Fee per Cathy City to pay #1266 **RECEIPT#**

ACKNOWLEDGMENT OF PERMITTEE

As the permit holder of this permit, I understand that it is my responsibility to call for, and ensure that all work is inspected and approved, prior to concealment and or use. Further, that failure to obtain a written approval in any 180 day block shall cause this permit to become null and void and without final written approval, use and or occupancy is not approved.

Date 9/24/04

Signature of the Permittee / Owner

PERMIT ISSUANCE

Pursuant to Section 106.4 of the Washington State Building Code, permission is hereby granted to do the work heron according to the approved plans and specification pertaining hereto, subject to field corrections and compliance with any ordinance or zoning resolutions of the City of Oroville, Washington.

Building Official Date 8/31/04

CITY OF OROVILLE
Post Office Box 2200
Oroville, Washington 98844
Phone (509)476-2926 Facsimile (509)476-9067 E-mail cjohnson.oroville@nvinet.com

BUILDING & PERMITS DEPARTMENT

PERMIT NO.: 597

PERMIT HOLDER: Oroville Public Works, P.O. Box 2200, Oroville, WA 98844
CONTRACTOR & LICENSE NO.: Permit Holder, See Declaration
OWNER OF PROPERTY: City of Oroville, P.O. Box 2200, Oroville, WA 98844
STREET ADDRESS OF WORK: 23 Airport Road, Dorthy Scott Airport, Oroville
PARCEL NO.: 4027220018 **TWP:** 40 N. **RNG:** 27 E WM **SEC:** 22
SHORT LEGAL: Tax 18 part of NE NE, Oroville
ZONING DISTRICT: Airport District **FLOOD ZONE:** Zone C **SHORELINE:** Upland
REQ'D ZONING SETBACKS: FRONT: per Airport Plan **SIDE STREET:** "" **SIDES:** "" **REAR:** ""
RECORD USE OF PROPERTY: Public Facility **STATUS:** Conforming as to use.
CONDITIONS OF APPROVAL:
1. Approved to standard.

SCOPE OF PERMITTED WORK: The installation of an 8,000 gallon aviation above ground fuel tank, related containment and piping system at an existing fuel dispensing station.
INTENDED USE OF BUILDING: Fuel Dispensing Station
OCCUPANCY GROUP: M **TYPE OF CONSTRUCTION:** IIB
VALUATION: $(not provided) est., $2,000 adv.
PERMIT FEES:

BUILDING PERMIT FEE: 69.25 STATE CODE FEE: 4.50
FIRE -MECHANICAL PERMIT FEE: 47.10
TOTAL APPLICATION FEES: $120.85 **RECEIPT#:** 14940

ACKNOWLEDGMENT OF PERMIT HOLDER

As the permit holder of this permit, I understand that it is my responsibility to call for, and ensure that all work is inspected and approved, prior to concealment and or use. Further, that failure to obtain a written approval in any 180 day block shall cause this permit to become null and void and without final written approval, use and or occupancy is not approved.

Signature of the Permit Holder

DECLARATION OF OWNER EXEMPTION

As the tenant and with the full consent and knowledge of the owner of this above described property I hereby declare that I am exempted from the requirements of the Contractors Registration Laws under 18.27.90 of the Revised Code of Washington for this permitted work.

FOR THE CITY:
Signature of the Owner

PERMIT ISSUANCE

Pursuant to Section 105.3.1 of the Washington State Building Code, permission is hereby granted to do the work heron according to the approved plans and specification pertaining hereto, subject to field corrections and compliance with any ordinance or zoning resolutions of the City of Oroville, Washington.

Building Official

RECORD OF APPROVALS:

COPIES: INSPECTOR'S, PERMITTEE'S, ASSESSOR'S, OFFICE

Closed Hangar #1	Harry Haney
Closed Hangar #2	Bruce Trethewey
Closed Hangar #3	John Zosel
Closed Hangar #4 & #5	Waitsburg Helicopter
Closed Hangar #6	Bill Nicholson - Star Airmotive
Closed Hangar #7	Bill Nicholson - Star Airmotive
Closed Hangar #8 (Land Lease)	Rhonda Colbert
Open Hangar #1-A	Richard Moreau
Open Hangar #2-A	James Swanton
Open Hangar #3-A	B.L. Cleman
Open Hangar #5-A	William Innes
Open Hangar #6-A	John Baker
Open Hangar #8-A	Bob Sandefur
Land Lease #3	Gary McNulty
Land Lease #4	Ajai Sehgal
Land Lease #7	Eric Tandberg

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT
STATE OF WASHINGTON

Application No. 54-23002
Permit No. C

(1) OWNER: Name Charles Eder Address Oroville, Wash

(2) LOCATION OF WELL: County Okanogan, Wash 9884 NE ¼ SE ¼ Sec. 15 T. 40 N., R. 27 E. W.M.
Bearing and distance from section or subdivision corner NW ¼

(3) PROPOSED USE: Domestic ☑ Industrial ☐ Municipal ☐ Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one)
New well ☐ Method: Dug ☑ Bored ☐
Deepened ☑ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 48 inches.
Drilled 46 ft. Depth of completed well 46 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 48 Diam. from 0 ft. to 14 ft.
Threaded ☐ 6" plastic pipe Diam. from 14 ft. to 46 ft.
Welded ☑ Diam. from ft. to ft.

Perforations: Yes ☐ No ☐
Type of perforator used
SIZE of perforations in. by in.
3/16 perforations from 14 ft. to 46 ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes ☐ No ☑
Manufacturer's Name
Type Model No.
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☑ No ☐ Size of gravel: 4 in minus
Gravel placed from 14 ft. to 46 ft.

Surface seal: Yes ☐ No ☑ To what depth? ft.
Material used in seal
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name
Type: H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level ft.
Static level Surface 14 ft. below top of well Date
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☑ If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test None
Bailer test gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes ☐ No ☐
OK MAB

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
(unknown) Old Well	0	14
Clay Blue	14	46

Work started Dec 14, 19 74 Completed Dec 17, 19 74

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Bud Hennessman Well Contractor
(Person, firm, or corporation) (Type or print)

Address Po Box 313 Oroville, Wash

[Signed] Bud Hennessman (Well Driller)

License No. 0209 Date Dec 17-74, 19 74

(USE ADDITIONAL SHEETS IF NECESSARY)

S. F. No. 7356—OS—(Rev. 4-71).

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. .....

Permit No. 94-2434

(1) OWNER: Name East Lake water Association Address Rt Box 22A

(2) LOCATION OF WELL: County Okanogan NE LOT 2 ¼ ¼ Sec. 22 T. 40 N., R. 27 W.M.

Corner A, B, H

ring and distance from section or subdivision corner

(3) PROPOSED USE: Domestic ☑ Industrial ☐ Municipal ☐ Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) ....

New well ☑ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 12 inches.
Drilled 30 ft. Depth of completed well 30 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 12" Diam. from 0 ft. to 30 ft.
Threaded ☐ ..." Diam. from ... ft. to ... ft.
Welded ☐ ..." Diam. from ... ft. to ... ft.

Perforations: Yes ☑ No ☐
Type of perforator used drilled
SIZE of perforations 1/16 in. by ... in.
26 perforations from 30 ft. to ... ft.
... perforations from ... ft. to ... ft.
... perforations from ... ft. to ... ft.

Screens: Yes ☐ No ☑
Manufacturer's Name ...
Type ... Model No. ...
Diam. ... Slot size ... from ... ft. to ... ft.
Diam. ... Slot size ... from ... ft. to ... ft.

Gravel packed: Yes ☑ No ☐ Size of gravel: 3/4 minus
Gravel placed from 20 ft. to 30 ft.

Surface seal: Yes ☑ No ☐ To what depth? 10 ft.
Material used in seal puddle clay
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? ... Depth of strata ...
Method of sealing strata off ...

(7) PUMP: Manufacturer's Name Berkley
Type: Submercible H.P. 3/4

(8) WATER LEVELS: Land-surface elevation above mean sea level .... ft.
Static level 10 ft. below top of well Date ...
Artesian pressure ... lbs. per square inch Date ...
Artesian water is controlled by ... (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☒ No ☐ If yes, by whom? Ed Bjorkman
Yield: 4 gal./min. with ... ft. drawdown after ... hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test ...
Bailer test ... gal./min. with ... ft. drawdown after ... hrs.
Artesian flow ... g.p.m. Date ...
Temperature of water Cool Was a chemical analysis made? Yes ☒ No ☐

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
gravel	0	10
yellow clay	10	20
Blue Clay	20	30

RECEIVED AUG 16 1995 DEPARTMENT OF ECOLOGY CENTRAL REGIONAL OFFICE

Work started 6/12/85, 19 85. Completed 6/18, 19 85

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Bud Hennessen (Person, firm, or corporation) (Type or print)

Address RT 2 Box 1312 Oroville, wa

[Signed] Bud Hennessen (Well Driller)

License No. 0209 Date 7/25, 19 85

(USE ADDITIONAL SHEETS IF NECESSARY)

S. F. No. 7356—OS—(Rev. 4-71).

Well Tagging Form

WASHINGTON STATE DEPARTMENT OF ECOLOGY

Unique Well Tag No: A65204 26707 502

RECORD VERIFICATION (check ✓ one)

- [ ] Well Report available *(please attach this form to the well report and submit it to the Ecology Regional Office near you)*
- [ ] Verification inconclusive
- [x] Well Report not available

WELL OWNERSHIP, IF DIFFERENT FROM WELL REPORT

First Name: 010895 Last Name:

Street Address:

City: State:

LOCATION OF WELL, IF DIFFERENT FROM WELL REPORT

Well Address: Eastlake Water Association

City: Oroville County: Okanogan

T. 40 N. R. 27 W.M. Sec. 22 SW 1/4 of the NE

FOR AGENCY USE ONLY

Latitude 48° 57 ' 13 61119 "

Longitude 119° 25 ' 07 76634 "

- [x] GPS
- [ ] Topographic Map
- [ ] Survey
- [ ] Computer generated

Elevation at land surface 929.10 feet/meters *(circle one)*

- [ ] Digital Altimeter
- [ ] Topographic Map
- [ ] Other

Additional information, if available:

- [ ] Location marked on topographic map *(please attach)*
- [ ] Location marked on air photo *(please attach)*

FOR AGENCY USE ONLY

WELL CHARACTERISTICS

Physical Description of well (size of casing, type of well, housing, etc.)

6" casing

Submersible pump

Location of Well identification Tag:

on pipe near cap

Was supplemental tag needed for ease of identifying well? ☐ Yes ☒ No

If yes, where was tag placed? _____

D	C	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

Scale 1:24,000 (1"=2,000')

Indicate the location of the well within the Section by drawing a dot at that point.

SECTION _____

COMMENTS: _____

FOR ECOLOGY WATER RESOURCES PROGRAM ONLY

ater Right # _____ Date Issued _____

rcle One: Application Permit Certificate Claim Exempt

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. 2

Permit No. ....

(1) OWNER: Name OLA NEIHOUSE Address Omeda, Wash 98844

(2) LOCATION OF WELL: County OKANOGAN SW ¼ NE ¼ NE ¼ Sec 22 T 40 N., R 27 E W.M.

Bearing and distance from section or subdivision corner

(3) PROPOSED USE: Domestic ☑ Industrial ☐ Municipal ☐ Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one)....

New well ☑ Method: Dug ☑ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 30 inches.
~~Drilled~~ Dug 30 ft. Depth of completed well 30 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6" Diam. from Top ft. to 30 ft.
Threaded ☐ " Diam. from ft. to ft.
Welded ☐ " Diam. from ft. to ft.

Perforations: Yes ☑ No ☐
Type of perforator used Drill & Saw
SIZE of perforations ⅛ in. by in.
perforations from 26 ft. to 30 ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes ☐ No ☑
Manufacturer's Name
Type Model No.
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☑ No ☐ Size of gravel: 3/8 mm
Gravel placed from 10 ft. to 30 ft.

Surface seal: Yes ☑ No ☐ To what depth? Top to 10 ft.
Material used in seal puddle clay
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name Berkley
Type: Submerable H.P. ½

(8) WATER LEVELS: Land-surface elevation above mean sea level.... ft.
Static level 10 ft. below top of well Date
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☐ If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test (in 24 hrs)
Bailer test 400 gal./min. with 30 ft. drawdown after 24 hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes ☐ No ☑

OK MAB

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Top Soil	Top	2 ft
Clay	2	30

RECEIVED
JUN 18 1975
DEPARTMENT OF ECOLOGY
CENTRAL WATER RESOURCES

Work started June 10, 19 75 Completed June 14, 19 75

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Bud Hennemann (Person, firm, or corporation) (Type or print)

Address Po Box 313 Omeda, Wash

[Signed] Bud Hennemann (Well Driller)

License No. 0209 Date, 19 75

(USE ADDITIONAL SHEETS IF NECESSARY)

S. F. No. 7356—OS—(Rev. 4-71)
ECY-070-28

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT
STATE OF WASHINGTON

Application No. .....
Permit No. .....

(1) OWNER: Name Ralph Zosel Address Oroville Wash

(2) LOCATION OF WELL: County Okanogan SW¼ SE¼ SE¼ Sec. 15 T. 40 N., R. 27 E.W.M.
ing and distance from section or subdivision corner

PROPOSED USE: Domestic ☑ Industrial ☐ Municipal ☐ Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) ....
New well ☑ Method: Dug ☑ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 30 ft. Depth of completed well 30 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6" Diam. from 4 ft. to 30 ft.
Threaded ☐ 36" Diam. from 0 ft. to 4 ft.
Welded ☐ ..." Diam. from ... ft. to ... ft.

Perforations: Yes ☑ No ☐
Type of perforator used Drill
SIZE of perforations 3/16 in. by 3/16 in.
320 perforations from 26 ft. to 30 ft.
... perforations from ... ft. to ... ft.
... perforations from ... ft. to ... ft.

Screens: Yes ☐ No ☑
Manufacturer's Name ...
Type ... Model No. ...
Diam. ... Slot size ... from ... ft. to ... ft.
Diam. ... Slot size ... from ... ft. to ... ft.

Gravel packed: Yes ☑ No ☐ Size of gravel: ¼"
Gravel placed from 12 ft. to 30 ft.

Surface seal: Yes ☑ No ☐ To what depth? 12 ft.
Material used in seal Puddled clay
Did any strata contain unusable water? Yes ☐ No ☑
Type of water? ... Depth of strata ...
Method of sealing strata off Puddled Clay

(7) PUMP: Manufacturer's Name Burkley
Type: Centrifugal H.P. ½

(8) WATER LEVELS: Land-surface elevation above mean sea level .... 900 ft.
Static level 12 ft. below top of well Date Aug 25-74
Artesian pressure ... lbs. per square inch Date ...
Artesian water is controlled by ... (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☑ No ☐ If yes, by whom? Self
Yield: 5 gal./min. with 13 ft. drawdown after 4 hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level
1:00 pm	25	5:00 pm	12		

...e of test August 29 1974
... test ... gal./min. with ... ft. drawdown after ... hrs.
Artesian flow ... g.p.m. Date ...
Temperature of water 68°F Was a chemical analysis made? Yes ☐ No ☑

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
Top Soil	0"	3'
Yellow Clay	3'	12'
Yellow Clay w/Seams	12'	28'
Blue Clay	28'	30'
Nonwater bearing (Blue Clay)		
WELL Dug 30' in diameter from 0' to 30' used 6" Pvc Plastic Pipe from 4' to 30' Gravel Packed from 30' to 12' Puddled Clay from 12' to 4' 6" Concrete from 4' 6" to 4"		

Work started Aug 25, 1974 Completed Aug 31, 1974

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Bud Henneman
(Person, firm, or corporation) (Type or print)

Address P.O. Box 313 Oroville, Wash. 98844

[Signed] Bud Henneman
(Well Driller)

License No. 0209 Date 9-30, 1974

(USE ADDITIONAL SHEETS IF NECESSARY)

...No. 7356—OS—(Rev. 4-71).

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. .....
Permit No. ....1....

(1) OWNER: Name SCOTT THORNDIKE Address RT 1 BOX 209 ORONILLE WA 98844

(2) LOCATION OF WELL: County OKANOGAN — SW¼ NE¼ Sec. 15 T. 40 N., R. 27 W.M.
...ing and distance from section or subdivision corner

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐ Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one)....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 10 inches.
Drilled 34 ft. Depth of completed well 34 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 10" Diam. from +1 ft. to 34 ft.
Threaded ☐ ..." Diam. from ... ft. to ... ft.
Welded ☒ ..." Diam. from ... ft. to ... ft.

Perforations: Yes ☒ No ☐
Type of perforator used TORCH
SIZE of perforations 1/8 in. by 5 in.
6 perforations from 33 ft. to 32 ft.
... perforations from ... ft. to ... ft.
... perforations from ... ft. to ... ft.

Screens: Yes ☐ No ☒
Manufacturer's Name ...
Type ... Model No. ...
Diam. ... Slot size ... from ... ft. to ... ft.
Diam. ... Slot size ... from ... ft. to ... ft.

Gravel packed: Yes ☐ No ☒ Size of gravel: ...
Gravel placed from ... ft. to ... ft.

Surface seal: Yes ☒ No ☐ To what depth? 18 ft.
Material used in seal BENTONITE
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? ... Depth of strata ...
Method of sealing strata off ...

(7) PUMP: Manufacturer's Name ...
Type: ... H.P. ...

(8) WATER LEVELS: Land-surface elevation above mean sea level.... ... ft.
Static level 15 ft. below top of well Date 11-11-80
Artesian pressure ... lbs. per square inch Date ...
Artesian water is controlled by ... (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom? ...
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test ...
...er test 25 gal./min. with ... ft. drawdown after ... hrs.
Artesian flow ... g.p.m. Date ...
Temperature of water ... Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
TOPSOIL	0	4
CLAY	4	7
SAND	7	32
GRAVEL & WATER	32	34

Work started 11-10, 1980 Completed 11-11, 1980

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME ALLIED DRILLING & DEVELOPEMENT INC
(Person, firm, or corporation) (Type or print)

Address P.O. BOX 611 TONASKET WA 98855

[Signed] [illegible] (Well Driller)

License No. 0382 Date 11-17-, 1980

(USE ADDITIONAL SHEETS IF NECESSARY)

ECY 050-1-20

✓ DK 11.20.80

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Start Card No. W-31650
UNIQUE WELL I.D. # AAK 644
Water Right Permit No. _____

(1) OWNER: Name STEVEN LAMB Address RT 1 BOX 214

(2) LOCATION OF WELL: County OKANOGAN NE 1/4 SW 1/4 Sec 15 T. 40 N., R. 27 W.M.

(2a) STREET ADDRESS OF WELL (or nearest address) _____

(3) PROPOSED USE: [X] Domestic [ ] Irrigation [ ] DeWater Industrial [ ] Test Well [ ] Municipal [ ] Other [ ]

(4) TYPE OF WORK: Owner's number of well (If more than one) _____
Abandoned [ ] New well [X] Deepened [ ] Reconditioned [ ]
Method: Dug [ ] Cable [X] Rotary [ ] Bored [ ] Driven [ ] Jetted [ ]

(5) DIMENSIONS: Diameter of well 8 inches.
Drilled _____ feet. Depth of completed well 24 ft.

(6) CONSTRUCTION DETAILS:
Casing installed: _____" Diam. from _____ ft. to _____ ft.
Welded [ ] _____" Diam. from _____ ft. to _____ ft.
Liner installed [ ]
Threaded [ ] _____" Diam. from _____ ft. to _____ ft.

Perforations: Yes [ ] No [X]
Type of perforator used _____
SIZE of perforations _____ in. by _____ in.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.

Screens: Yes [X] No [ ]
Manufacturer's Name JOHNSON
Type Stainless Model No. _____
Diam. _____ Slot size .025 from _____ ft. to _____ ft.
Diam. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel packed: Yes [ ] No [X] Size of gravel _____
Gravel placed from _____ ft. to _____ ft.

Surface seal: Yes [X] No [ ] To what depth? 18 ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes [ ] No [ ]
Type of water? _____ Depth of strata _____
Method of sealing strata off _____

(7) PUMP: Manufacturer's Name _____
Type: _____ H.P. _____

(8) WATER LEVELS: Land-surface elevation above mean sea level _____ ft.
Static level 14' ft. below top of well Date _____
Artesian pressure _____ lbs. per square inch Date _____
Artesian water is controlled by _____ (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes [X] No [ ] If yes, by whom? L.B. McAfee
Yield: 10 gal./min. with 6 ft. drawdown after 4 hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level
12:00	14	12:15	19'6"	12:30	19'6"
12:45	19'6"	1:00	19'6"	1:15	19'6"
1:30	19'6"	1:45	19'6"	2:00	19'6"

Date of test 11/27/93
Bailer test _____ gal./min. with _____ ft. drawdown after _____ hrs.
Airtest _____ gal./min. with stem set at _____ ft. for _____ hrs.
Artesian flow _____ g.p.m. Date _____
Temperature of water _____ Was a chemical analysis made? Yes [ ] No [ ]

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL	FROM	TO
Top Soil	0	2
Brown Sand	2	15
Sand & Gravel	15	21
Sand Gravel Grey water	21	28

NOV 30 1993

Work Started 11-15-93 19. Completed 11-27-93, 19

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME M&M Drilling (PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)
Address RT 1 Box 201A Oroville WASH
(Signed) L. B. McAfee (WELL DRILLER) License No. 2018
Contractor's Registration No. MMWELD088DN Date 11-27, 19 93

(USE ADDITIONAL SHEETS IF NECESSARY)

ECL 050-1-20 (2/93)

File Original and First Copy with Department of Ecology
Second Copy—Owner's Copy
Third Copy—Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Start Card No. 087745

Water Right Permit No. J

(1) OWNER: Name C.Y. & Oroville Address Oroville, Wa 98844

(2) LOCATION OF WELL: County Okanogan NE ¼ SE ¼ Sec. 15 T. 40 N., R. 27 W.M.

(2a) STREET ADDDRESS OF WELL (or nearest address)

(3) PROPOSED USE: ☐ Domestic ☐ Irrigation ☐ DeWater Industrial ☐ Test Well ☐ Municipal ☐ Other ☐
fire protect.

(4) TYPE OF WORK: Owner's number of well (if more than one)
Abandoned ☐ New well ☒ Deepened ☐ Reconditioned ☐ Method: Dug ☐ Cable ☐ Rotary ☒ Bored ☐ Driven ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 47 feet. Depth of completed well ft.

(6) CONSTRUCTION DETAILS:
Casing Installed: 6 " Diam. from +2 ft. to 45 ft.
Welded ☒ " Diam. from ft. to ft.
Liner installed ☐ Threaded ☐ " Diam. from ft. to ft.

Perforations: Yes ☐ No ☒
Type of perforator used
SIZE of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes ☐ No ☒
Manufacturer's Name
Type Model No.
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☐ No ☒ Size of gravel
Gravel placed from ft. to ft.

Surface seal: Yes ☒ No ☐ To what depth? 18 ft.
Material used in seal bentonite
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name
Type: H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level ft.
Static level ft. below top of well Date
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☐ If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level
too small to measure					

Date of test

Bailer test gal./min. with ft. drawdown after hrs.
Airtest gal./min. with stem set at ft. for hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes ☐ No ☐

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL	FROM	TO
sands clean	0	16
sand & clean gravel becom-ing damp at 22'	16	22
sand with sparse gravel, seive size 20/1000	22	28
silty sand & gravel	28	31
brown wet clay	31	36
grey wet clay	36	47

DEC - 1991

Work started 12-2, 19. Completed 12-2, 1991

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME MVM Quality Drilling (PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)
Address 760 Highland Rd. 98813
(Signed) [signature] (WELL DRILLER) License No. 1437
Contractor's Registration No. MVMQUD138ND Date 12-5, 1991

(USE ADDITIONAL SHEETS IF NECESSARY)

ECY 050-1-20 (10-87) -1329

File Original and First Copy with Department of Ecology
Second Copy—Owner's Copy
Third Copy—Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Start Card No. 087745

Water Right Permit No.

(1) OWNER: Name City of Oroville Address Oroville Wa 98844

(2) LOCATION OF WELL: County Okanogan NE ¼ SE ¼ Sec 15 T. 40 N., R. 27 W.M.

(2a) STREET ADDDRESS OF WELL (or nearest address)

(3) PROPOSED USE: ☐ Domestic ☐ Irrigation ☐ DeWater Industrial ☐ Test Well ☐ Municipal ☐ Other ☐
Fire protect.

(4) TYPE OF WORK: Owner's number of well (if more than one)
Abandoned ☐ New well ☒ Deepened ☐ Reconditioned ☐
Method: Dug ☐ Cable ☐ Rotary ☒ Bored ☐ Driven ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 147 feet. Depth of completed well ft.

(6) CONSTRUCTION DETAILS:
Casing Installed: 6 " Diam. from +2 ft. to 145 ft.
Welded ☒ " Diam. from ft. to ft.
Liner installed ☐
Threaded ☐ " Diam. from ft. to ft.

Perforations: Yes ☐ No ☒
Type of perforator used
SIZE of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes ☐ No ☒
Manufacturer's Name
Type Model No.
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☐ No ☒ Size of gravel
Gravel placed from ft. to ft.

Surface seal: Yes ☒ No ☐ To what depth? 18 ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name
Type: H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level ft.
Static level ft. below top of well Date
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☐ If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level
to small to measure					

Date of test

Bailer test gal./min. with ft. drawdown after hrs.
Airtest gal./min. with stem set at ft. for hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes ☐ No ☐

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL	FROM	TO
clean sands	0	16
silt & fine sand	16	41
wet clay	41	115
wet clay bound sand with sparse gravel	115	135
hard pan gravels with progressively greater clay content than previous zone (115 - 135)	135	147

Work started 12-1, 19 Completed 12-1, 1991

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME MVM Quality Drilling (PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)
Address 760 Highland Rd. 98813
(Signed) MV Miller (WELL DRILLER) License No. 1437
Contractor's Registration No. MMMQUDI38NO Date 12-5, 1991

(USE ADDITIONAL SHEETS IF NECESSARY)

ECY 050-1-20 (10/87) 1329

STATE OF WASHINGTON
DEPARTMENT OF CONSERVATION
AND DEVELOPMENT

WELL LOG No A.6181

Date 4-19, 19 62

Record by well driller

Source driller's record

Location State of WASHINGTON

County Okanogan

Area

Map

¼ ¼ sec 15 T 40 N, R 27 E

Diagram of Section

Drilling Co Bud Henneman

Address Oroville, Wash.

Method of Drilling dug Date 10-30, 19 60

Owner Edward A. Scott

Address Box 457, Oroville, Wash.

Land surface, datum ft above below

Correlation	Material	Thickness (feet)	Depth (feet)
	Sand	10	10
	Water bearing clay	12	22
	PUMP TEST:		
	Dim. 48"x22'		
	SWL: 7 ft.		
	DD: 8 ft.		
	Yield: 109 g.p.m.		
	Type and size of pump: Jet		
	Type & size of engine: 1 h.p. elec.		
	Recovery within one hour		
	CASING:		
	48" diam. concrete tile from top to 22 ft.		
	PERFORATIONS:		
	4 ft. concrete tile from top to 22 ft.		

(Transcribe driller's terminology literally but paraphrase as necessary in parentheses. If material water-bearing, so state and record static level if reported. Give depths in feet below land-surface datum unless otherwise indicated. Correlate with stratigraphic column, if feasible. Following log of materials, list all casings, perforations, screens, etc.)

Turn up Sheet of sheets

40N/27E-15P

Appl. 10222
Per. 9608
Cert. 9017

STATE OF WASHINGTON
DEPARTMENT OF CONSERVATION
DIVISION OF WATER RESOURCES

WELL LOG

Record by Driller
Source Driller's record

Location State of WASHINGTON
County. Okanogan
Area
Map
SW ¼SE ¼ sec 15 T. 40 N, R 27 E/W

Diagram of Section

Drilling Co Bud Henneman Well Contractor
Address Box 313, Oroville, WA
Method of Drilling Date , 19
Owner Francis Hart
Address Route 1, Oroville, WA
Land surface, datum ft above/below
SWL 15 Date , 19 Dims

CORRELATION	MATERIAL	From (feet)	To (feet)
	(Transcribe driller's terminology literally but paraphrase as necessary in parentheses. If material water bearing, so state and record static level if reported. Give depths in feet below land-surface datum unless otherwise indicated. Correlate with stratigraphic column if feasible. Following log of materials, list all casings, perforations, screens, etc.)		
	domestic supply		
	top soil	0	3
	sand	3	30
	water level 15 feet		
	Casing: 4" from o' to 6'		
	36" drom 6' for 30'		
	Surface Seal concrete lid		
	Pump test 15 gpm with 10' DD after ? hrs.		

Turn up Sheet of sheets

STATE OF WASHINGTON
DEPARTMENT OF CONSERVATION
AND DEVELOPMENT

WELL LOG

No. Appl. 4015
Cert. 2464

Date March 21, 1953

Record by Joseph T. Hardenburgh

Source Driller's Record

Location State of WASHINGTON

County Okanogan

Area

Map

Gov't Lot 5X sec 15 T40 N, R27 E

Diagram of Section

Drilling Co Donald D. Peterson

Address Oroville, Washington

Method of Drilling Dug Date June 13, 1955

Owner Joseph T. Hardenburgh

Address P.O. Box 918; Oroville, Wn.

Land surface, datum ft above/below

Correlation	Material	Thickness (feet)	Depth (feet)
	Sand & gravel	42	42
	Pump Test:		
	Dia: 42' X 36"		
	SWL: 31'		
	DD: 8'		
	Yield: 250 g.p.m.		
	Casing: 36' dia concrete		
	tile from	6 to	42'
	Perforations: None		

(Transcribe driller's terminology literally but paraphrase as necessary, in parentheses If material water-bearing, so state and record static level if reported Give depths in feet below land-surface datum unless otherwise indicated Correlate with stratigraphic column, if feasible Following log of materials, list all casings, perforations, screens, etc)

Turn up

Sheet of sheets

WATER WELL REPORT

State of Washington Date Printed 18 Apr 2003 Log No 7603

Construction/Decommission Original Construction
Construction Notice of Intent # 131528

PROPOSED USE **DOMESTIC**

TYPE OF WORK Owners s Well Number (If more than one well) **1**
RECONDITIONED Method **ROTARY**

DIMENSIONS Diameter of well **6** inches
Drilled **0** ft Depth of completed well **278** ft

CONSTRUCTION DETAILS Casing installed **EXISTING**
Liner installed
4 Dia from **+2** ft to **268** ft
Dia from ft to ft
Dia from ft to ft
Dia from ft to ft

Perforations **No** Used In
Type of perforator used
SIZE of perforations in by in
Perforations from ft to ft
Perforations from ft to ft
Perforations from ft to ft

Screens **Yes** K Pac Location
Manufacture s Name GOSSCO
Type **PREPACK** Model No **PVC**
Diam **5** slot size **10** from **268** ft to **278** ft
Diam slot size from ft to ft

Gravel/Filter packed **No** Size of Gravel
Material placed from ft to ft

Surface seal **No** To what depth ft
Seal method Material used in seal **EXISTING**
Did any strata contain unusable water? **No**
Type of water Depth of strata
Method of sealing strata off

PUMP Manufacture s name
Type H P **0**

WATER LEVELS Land surface elevation above mean sea level **0** ft
Static level **24** ft below top of well Date **04/15/2003**
Artesian Pressure lbs per square inch Date
Artesian water controlled by

WELL TESTS Drawdown is amount water level is lowered below static level
Was a pump test made? **Yes** If yes by whom? **FOGLE PUMP**
Yield **30** gal/min with **80** ft drawdown after **1**
Yield gal/min with ft drawdown after
Yield gal/min with ft drawdown after

Recovery data (time taken as zero when pump turned off)(water level measured from well top to water level

Time	Water Level	Time	Water Level	Time	Water Level

Date of test **4/15/2003**
Bailer test gal/min ft drawdown after hrs
Air test gal/min w/ stem set at ft for hours
Artesian flow gpm Date
Temperature of water Was a chemical analysis made? **No**

CURRENT
Notice of Intent No **W163598**
Unique Ecology Well I D No **AHK882**
Water Right Permit Number

OWNER **EAST LAKE WATER ASSOC**
OWNER ADDR **71 EAST LAKE ROAD OROVILLE WA 98844**
Well Street Address **71 EAST LAKE RD**
City **Oroville WA 98844** County **OKANOGAN**
Location **SE** 1/4 **NW** 1/4 Sec **22** T **40** R **27E** EWM
Lat/Long (s t r still REQUIRED) Lat Deg Lat Min/Sec
Long Deg Long Min/Sec
Tax Parcel No

CONSTRUCTION OR DECOMMISSION PROCEDURE
Formation Describe by color character size of material and structure Show thickness of aquifiers and the kind and nature of the material in each stratum penetrated Show at least one entry for each change in formation

Material	From	To

Notes
CLEANOUT AND SET PRE PAC SCREEN SILT SAND FINE GRAY W/WATER AT 278

Work started **04/14/2003** Completed **04/15/2003**

WELL CONSTRUCTION CERTIFICATION
I constructed and/or accept responsibility for construction of this well and its compliance with all Washington well construction standards Materials used and the information reported are true to my best knowledge and belief

☑ Driller ☐ Engineer ☐ Trainee

Name **JON RICARD** License No **2341**
Signature Jon Ricard | JR

If trainee Licensed driller is License No
Licensed Driller Signature

Drilling Company
NAME **FOGLE PUMP & SUPPLY INC** Shop **REPUBLIC**
ADDRESS **PO Box 456**
Republic WA 99166
Phone **5097752878** Toll Free **8008453500**
E Mail **wlb@foglepump com**
FAX **5097750498** WEB Site **www foglepump com**

Contractor s Registration No **FOGLEPS095L4** Date Log Created **04/18/2003**

WELL LOG CHANGE FORM

Instructions: Record any change made to the well log record on this form. Append this form to the well log image. File with the original.

WCL Log ID (Required) 359573 Well Log ID 131528

Regional Office: ☑ CRO ☐ ERO ☐ NWRO ☐ SWRO

Type of Well: ☑ Water ☐ Resource

Notice of Intent: W163598 Ecology Well ID Tag No. AHK882

Property (Well) Owner's Name East Lake Water Assn -
Well Street Address
City County Okanogan Zip Code

Location: SW 1/4-1/4 NE 1/4 Sec 22 Twn 40 R 27 (E) or W (Circle One)

Lat./Long: (Required) Lat. Deg. Lat. Min/Sec
Long. Deg. Long. Min/Sec
Horizontal Collection Method Code

Tax Parcel No

Type of Work: ☐ New Well ☐ Reconditioned ☐ Deepened
Well Log Received Date / /
Well Diameter (in inches) Well Depth (in feet) Well Completed Date / /

Driller's Ecology License No.
Trainee's Ecology License No.

Reason/Source of Change (Required)
V4, V4 corrected by Permit Writer, C. Mortensen
Also, this is Well #3 instead of Well #1.

Signature of Well Log Tracker (Required) [signature] Date 8/25/05

WATER WELL REPORT

State of Washington Date Printed: 18-Apr-2003 Log No. 7603

Construction/Decommission: Original Construction
Construction Notice of Intent #: 131528

PROPOSED USE: **DOMESTIC**

TYPE OF WORK Owners's Well Number: (If more than one well) #3
RECONDITIONED Method: **ROTARY**

DIMENSIONS: Diameter of well: **6** inches
Drilled **0** ft. Depth of completed well **278** ft.

CONSTRUCTION DETAILS:
Casing installed: **EXISTING**
" Dia from ft. to ft.
" Dia from ft. to ft.
" Dia from ft. to ft.

Liner installed:
4 " Dia from **+2** ft. to **268** ft.

Perforations: **No** Used In:
Type of perforator used:
SIZE of perforations in. by in.
Perforations from ft. to ft.
Perforations from ft. to ft.
Perforations from ft. to ft.

Screens: **Yes** K-Pac Location:
Manufacture's Name: GOSSCO
Type: **PREPACK** Model No. **PVC**
Diam. **5** slot size: **10** from **268** ft. to **278** ft.
Diam. slot size: from ft. to ft.

Gravel/Filter packed: **No** Size of Gravel
Material placed from ft. to ft.

Surface seal: **No** To what depth ft.
Seal method: Material used in seal: **EXISTING**
Did any strata contain unusable water?: **No**
Type of water: Depth of strata
Method of sealing strata off

PUMP: Manufacture's name
Type: H.P. **0**

WATER LEVELS: Land-surface elevation above mean sea level: **0** ft.
Static level **24** ft. below top of well Date **04/15/2003**
Artesian Pressure: lbs per square inch Date
Artesian water controlled by

WELL TESTS: Drawdown is amount water level is lowered below static level.
Was a pump test made? **Yes** If yes, by whom? **FOGLE PUMP**

Yield:	30	gal/min with	8 ~~30~~	ft drawdown after	1
Yield:		gal/min with		ft drawdown after	
Yield:		gal/min with		ft drawdown after	

Recovery data (time taken as zero when pump turned off)(water level measured from well top to water level

Time:	Water Level	Time:	Water Level	Time:	Water Level

Date of test: **4/15/2003**
Bailer test gal/min ft drawdown after hrs.
Air test gal/min w/ stem set at ft. for hours
Artesian flow gpm Date:
Temperature of water Was a chemical analysis made? **No**

7/11/02

CURRENT
Notice of Intent No.: **W163598**
Unique Ecology Well I.D. No.: **AHK882**
Water Right Permit Number:
OWNER: **EAST LAKE WATER ASSOC.,** System ID 26707 Y
OWNER ADDR: ~~**71 EAST LAKE ROAD**~~ P.O. Box 315 **OROVILLE, WA 98844-0315**
Well Street Address: ~~**71 EAST LAKE RD.**~~ 53 East Lake Rd
City: **Oroville, WA 98844** County: **OKANOGAN**
Location: ~~SE~~ SW 1/4 ~~NW~~ NE 1/4 Sec **22** T **40** R **27E** EWM
Lat/Long: (s, t, r still **REQUIRED)** Lat Deg Lat Min/Sec
Long Deg Long Min/Sec
Tax Parcel No.:

DEPT. OF ECOLOGY Received JUL 25 2005 CENTRAL REGION

CONSTRUCTION OR DECOMMISSION PROCEDURE

Formation: Describe by color, character, size of material and structure. Show thickness of aquifiers and the kind and nature of the material in each stratum penetrated. Show at least one entry for each change in formation.

Material	From	To

Notes:
CLEANOUT AND SET PRE-PAC SCREEN, SILT, SAND, FINE GRAY W/WATER AT 278

Work started **04/14/2003** Completed **04/15/2003**

WELL CONSTRUCTION CERTIFICATION:
I constructed and/or accept responsibility for construction of this well and its compliance with all Washington well construction standards. Materials used and the information reported are true to my best knowledge and belief.

☑ Driller ☐ Engineer ☐ Trainee

Name: **JON RICARD** License No.: **2341**
Signature: Jon Ricard

If trainee, Licensed driller is: License No.:
Licensed Driller Signature:

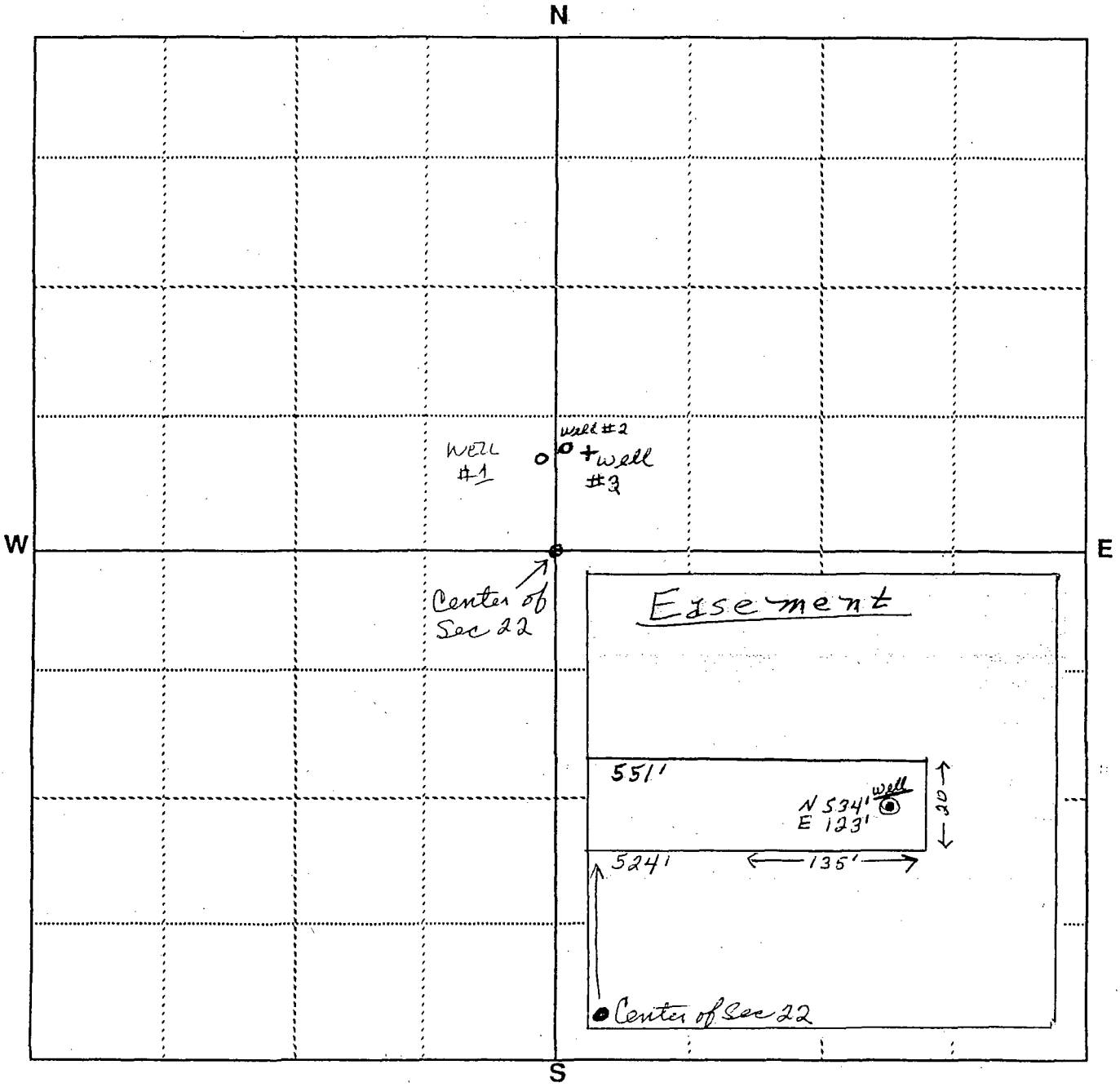
Drilling Company:
NAME: **FOGLE PUMP & SUPPLY, INC.** Shop: **REPUBLIC**
ADDRESS: **PO Box 456**
Republic, WA 99166
Phone: **5097752878** Toll Free: **8008453500**
E-Mail: **wlb@foglepump.com**
FAX: **5097750498** WEB Site: **www.foglepump.com**

Contractor's Registration No.: **FOGLEPS095L4** Date Log Created: **04/18/2003**

East Lake Water Association - System ID #26707 Y Well #3
PO Box 315, Oroville, WA 98844-0315

SECTION MAP

Sec. 22 Twp. 40 N. R. 27 E.W.M.



Scale: 1 inch = 800 feet (each small square = 10 acres)

Show by a cross (X) the location of point of diversion (surface water source) or point of withdrawal (ground water source). For ground water applications, show by a circle (O) the locations of other wells or works within a quarter of a mile.
Indicate traveling directions from nearest town in space below.

534 feet North, 123 feet East from center of Section 22, Okanogan County.

W163598
131528

East Lake Water Association

PO Box 315
Oroville, WA 98844-0315
President: Douglas Weeks
509-476-2061

June 6, 2005

Mary Ann Bruner
Dept of Ecology
PO Box 47600
Olympia, WA 98504-7600

Dear Ms Bruner:

Subject: Water Well Report - Log No 7603 dated 04-18-2003, Well AHK882
East Lake Water Association - System ID 26707Y

Tom Justus, Dept of Health in Spokane asked for a copy of the Well Log. When I looked at the Water Well Report for some information I saw there were some items that need to be changed. Changes are as follows:

Well Number: **3**
Owner Address: **PO Box 315**, Oroville, WA **98844-0315**
Well Street Address: **53 Eastlake** Rd (Eastlake is one word)
Location: **SW** ¼ **NE** ¼ Sec 22 T 40 R 27E EWM

A copy of the Water Well Report, Log No 7603 with corrections is enclosed.

Thank you for taking care of this.

Sincerely,

Verna E Bjorkman

Verna E Bjorkman
Secretary/Treasurer
71 Eastlake Rd, Oroville, WA 98844-9558
Phone: 509-476-3036

East Lake Water Association

PO Box 315
Oroville, WA 98844-0315
President: Douglas Weeks
509-476-2061

June 14, 2005

Mary Ann Bruner
Dept of Ecology
PO Box 47600
Olympia, WA 98504-7600

Dear Ms Bruner:

Subject: Water Well Report - Log No 7603 dated 04-18-2003, Well AHK882
East Lake Water Association - System ID 26707Y

I am enclosing a copy of my last letter of 06-06-05.

On 06-06-05 I mailed a corrected Well Log. There is one more item I missed. Under Well Tests, the draw down is 8 feet instead of 80 feet (see attached hand written report).

A copy of the Water Well Report, Log No 7603 with corrections and the hand written report is enclosed.

Sorry for the inconvenience this has caused you.

Thank you for making the correction in your records.

Sincerely,

Verna E Bjorkman

Verna E Bjorkman
Secretary/Treasurer
71 Eastlake Rd, Oroville, WA 98844-9558
Phone: 509-476-3036

Enclosures - 3

WATER WELL REPORT

State of Washington Date Printed: 14-Apr-2008 Log No. 0

Construction / Decommission: Original

Construction 296325 Construction Notice

PROPOSED USE: DOMESTIC

TYPE OF WORK: Owners's Well Number: (If more than one well)

NEW WELL Method: ROTARY

DIMENSIONS Diameter of well: 6 inches

Drilled 100 ft. Depth of completed well 100 ft.

CONSTRUCTION DETAILS: Casing installed WELDED

6 " Dia from +2 ft. to 98 ft.

" Dia from ft. to ft.

" Dia from ft. to ft.

Liner installed:

" Dia from ft. to ft.

Perforations: No Used In:

Type of perforator used

SIZE of perforations in. b in.

Perforation from ft. to ft.

Perforation from ft. to ft.

Perforation from ft. to ft.

Screens: No K-Pac Location

Manufacture's Name

Type: Model No

Diam. slot size from ft. to ft.

Diam. slot size from ft. to ft.

Gravel/Filter packed: No Size of Gravel

Material placed fro ft. to ft.

Surface seal: Yes To what depth 100 ft.

Seal method: Material used in seal BENTONITE

Did any strata contain unusable water No

Type of water Depth of strata

Method of sealing strata off

PUMP: Manufacture's name

Type: H.P. 0

WATER LEVELS Land-surface elevation above mean sea level: 0 ft.

Static level DRY ft. below top of well Date 04/04/2008

Artesian Pressure lbs per square inch Date

Artesian water controlled by

WELL TESTS: Drawdown is amount water level is lowered below static level.

Was a pump test made No If yes, by whom

Yield gal/min with ft drawdown after

Yield gal/min with ft drawdown after

Yield gal/min with ft drawdown after

Recovery data (time taken as zero when pump turned off)(water level measured from well top to water level

Time:	Water Level	Time:	Water Level	Time:	Water Level

Date of test:

Bailer test gal/min ft drawdown after hrs.

Air test 0 gal/min w/ stem set at 98 ft. for 1 hours

Artesian flow gpm Date

Temperature of water Was a chemical analysis made No

CURRENT

Notice of Intent No.: W257149

Unique Ecology Well I.D. No BAB794

Water Right Permit Number:

OWNER: ZANDELL, ERIC

OWNER ADD 11 MILLERS LANE

OROVILLE, WA 98844

Well Add 11 MILLERS LANE

City: Oroville, WA 98844 County: Okanogan

Location: NW 1/4 NE 1/4 Sec 22 T 40 R 27E EW

Lat/Long: (s, t, r still REQUIRED) Lat Deg Lat Min/Sec

Long Deg Long Min/Se B

Tax Parcel No.: 4027220133

CONSTRUCTION OR DECOMMISSION PROCEDURE

Formation: Describe by color, character, size of material and structure. Show thickness of aquifers and the kind and nature of the material in each stratum penetrated. Show at least one entry for each change in formation.

Material	From	To
SAND	0	16
SAND GRAVEL	16	38
BLUE CLAY	38	100

Notes:

Work starte 04/04/2008 Complete 04/04/2008

WELL CONSTRUCTION CERTIFICATION:

I constructed and/or accept responsibility for construction of this well and its compliance with all Washington well construction standards. Materials used and the information reported are true to my best knowledge and belief

☐ Driller ☐ Engineer ☑ Trainee

Name: JOHN AYERS License No.: 2880T

Signature: John Ayers

If trainee, Licensed driller is: MARTY RUGO License No.: 2038

Licensed Driller Signature Marty Rugo

Drilling Company:

NAME: FOGLE PUMP & SUPPLY, INC. Shop: REPUBLIC

ADDRESS: PO Box 456

Republic, WA 99166

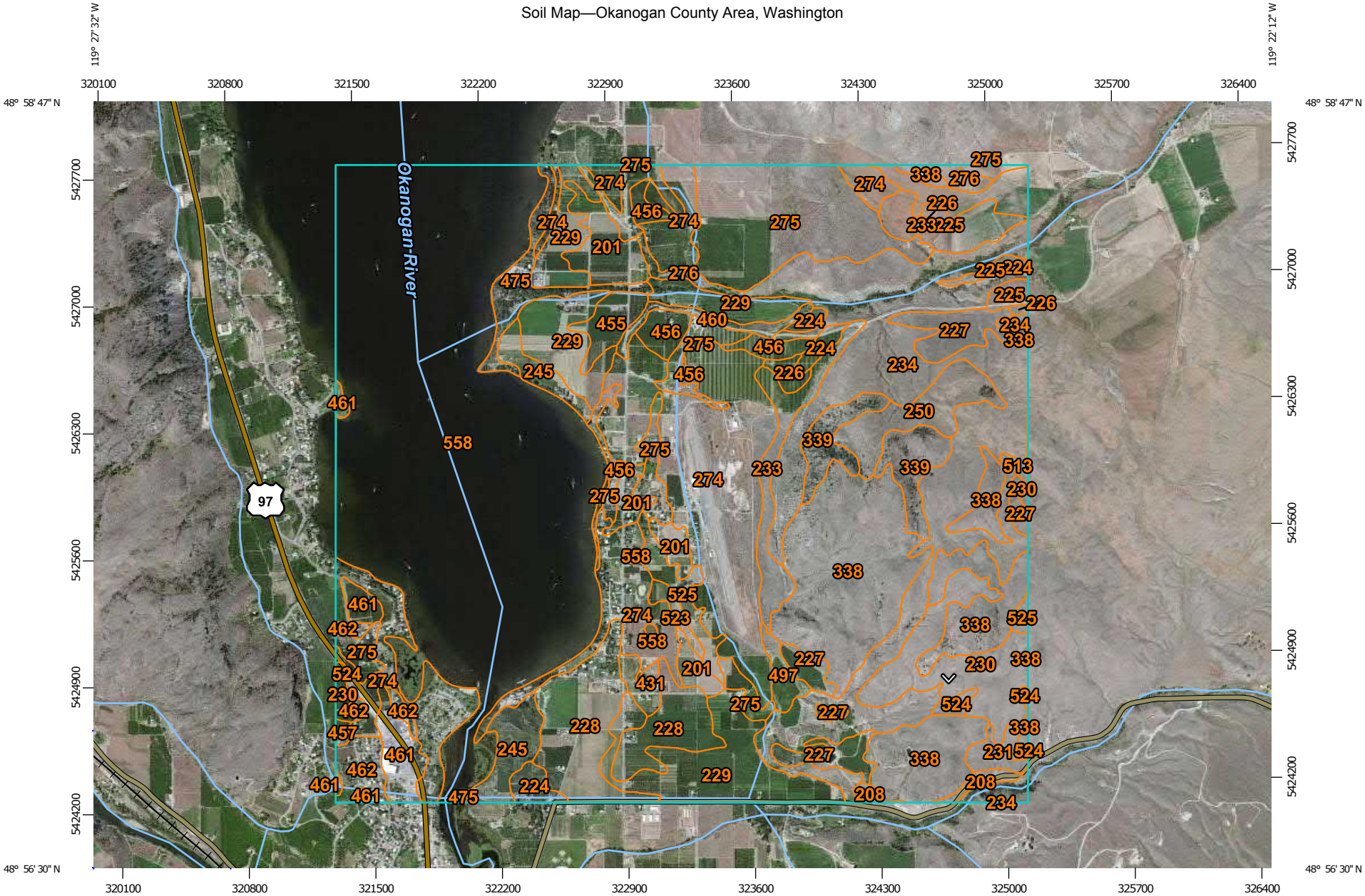
Phone: 5097752878 Toll Free: 8008453500

E-Mail: leslie@foglepump.com

FAX: 5097750498 WEB Site: www.foglepump.com

DEPT. OF ECOLOGY APR 28 2008 CENTRAL REGION OFFICE

Contractor's Registration No.: FOGLEPS095L4 Date Log Created: 04/09/200



Map Scale: 1:29,800 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 400 800 1600 2400

Feet: 0 1000 2000 4000 6000

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: http://websoilsurvey.nrcs.usda.gov
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: Okanogan County Area, Washington
Survey Area Data: Version 11, Sep 25, 2015

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

Date(s) aerial images were photographed: Aug 6, 2011—Aug 8, 2011

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

Okanogan County Area, Washington (WA649)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
201	Aeneas fine sandy loam, 0 to 10 percent slopes	64.8	1.9%
208	Badland	11.4	0.3%
224	Cashmere fine sandy loam, 0 to 3 percent slopes	24.2	0.7%
225	Cashmere fine sandy loam, 3 to 8 percent slopes	48.3	1.4%
226	Cashmere fine sandy loam, 8 to 15 percent slopes	36.0	1.1%
227	Cashmere fine sandy loam, 15 to 25 percent slopes	63.1	1.9%
228	Cashmont sandy loam, 0 to 3 percent slopes	125.5	3.8%
229	Cashmont sandy loam, 3 to 8 percent slopes	194.7	5.8%
230	Cashmont sandy loam, 8 to 15 percent slopes	87.9	2.6%
231	Cashmont sandy loam, 15 to 25 percent slopes	13.9	0.4%
233	Cashmont sandy loam, 0 to 25 percent slopes, extremely stony	46.7	1.4%
234	Cashmont sandy loam, 25 to 45 percent slopes, extremely stony	384.4	11.5%
245	Colville silt loam, 0 to 3 percent slopes	48.5	1.5%
250	Conconully gravelly ashy loam, 0 to 25 percent slopes, extremely stony	48.9	1.5%
274	Ewall loamy fine sand, 0 to 15 percent slopes	431.4	12.9%
275	Ewall loamy fine sand, 15 to 25 percent slopes	229.0	6.9%
276	Ewall loamy fine sand, 25 to 45 percent slopes	16.1	0.5%
338	Lithic Haploxerepts-Cashmont complex, 15 to 45 percent slopes	304.2	9.1%
339	Lithic Haploxerepts-Conconully complex, 15 to 45 percent slopes	57.6	1.7%
431	Okanogan loam, 0 to 5 percent slopes	12.3	0.4%

Okanogan County Area, Washington (WA649)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
455	Pogue fine sandy loam, 0 to 5 percent slopes	21.0	0.6%
456	Pogue fine sandy loam, 3 to 8 percent slopes	40.4	1.2%
457	Pogue fine sandy loam, 8 to 15 percent slopes	2.9	0.1%
460	Pogue gravelly fine sandy loam, 25 to 65 percent slopes, extremely stony	14.2	0.4%
461	Pogue gravelly fine sandy loam, 0 to 8 percent slopes	39.0	1.2%
462	Pogue gravelly fine sandy loam, 8 to 25 percent slopes	30.3	0.9%
475	Riverwash	37.1	1.1%
497	Skaha gravelly loamy sand, 8 to 25 percent slopes	12.7	0.4%
513	Synarep-Colville-Xerofluvents complex, 0 to 3 percent slopes	2.8	0.1%
523	Tonasket silt loam, 3 to 8 percent slopes	8.1	0.2%
524	Tonasket silt loam, 8 to 15 percent slopes	8.0	0.2%
525	Tonasket silt loam, 15 to 25 percent slopes	27.4	0.8%
558	Water	848.1	25.4%
Totals for Area of Interest		**3,340.8**	**100.0%**

Okanogan County Area, Washington

274—Ewall loamy fine sand, 0 to 15 percent slopes

Map Unit Setting

National map unit symbol: 21rvl
Elevation: 700 to 3,000 feet
Mean annual precipitation: 11 to 15 inches
Mean annual air temperature: 46 to 52 degrees F
Frost-free period: 110 to 140 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Ewall and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ewall

Setting

Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Glacial outwash and eolian sands

Typical profile

A1 - 0 to 2 inches: loamy fine sand
A2 - 2 to 7 inches: loamy fine sand
AC - 7 to 15 inches: loamy fine sand
C1 - 15 to 26 inches: sand
C2 - 26 to 60 inches: sand

Properties and qualities

Slope: 0 to 15 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Very high (19.98 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 3.6 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: A
Ecological site: SANDS 10-16 PZ (R008XY502WA)
Hydric soil rating: No

Minor Components

Skaha

Percent of map unit: 10 percent
Landform: Terraces
Landform position (three-dimensional): Riser, tread
Hydric soil rating: No

Aeneas

Percent of map unit: 5 percent
Landform: Terraces
Landform position (three-dimensional): Riser, tread
Hydric soil rating: No

Cashmere

Percent of map unit: 5 percent
Landform: Terraces
Landform position (three-dimensional): Riser, tread
Hydric soil rating: No

Data Source Information

Soil Survey Area: Okanogan County Area, Washington
Survey Area Data: Version 11, Sep 25, 2015

Appendix 10.6

Owner Provided Information

Budinger & Associates
Proudly serving the Inland Northwest since 1976

Geotechnical Engineering
Environmental Engineering
Construction Material Testing
Subsurface Exploration
Special Inspection

ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE

Property Owner/Facility Operator:

Please answer each of the following questions to the best of your knowledge. If you are unsure of your answer to any question, please indicate so by using a question mark. Your efforts are appreciated.

PROPERTY/FACILITY INFORMATION

1. Current Owner of Subject Property:
   Name City of Oroville Telephone No. 509-476-2926
   Address PO Box 2200
   City, State, Zip Oroville WA 98844

2. Location of Subject Property:
   Street Address 23 Airport Rd
   City, State, Zip Oroville WA 98844
   Please attach legal description
   Acreage of Subject Property 141.47 ←

3. How is the property currently being used?
   _____ Residential _____ Commercial
   _____ Industrial _____ Undeveloped Land
   Airport Other

   Describe: _____

4. When did you acquire the property? _____ J-U-B has
5. Who did you acquire the property from? _____ this information
6. How was the property previously used?
   Describe: _____

1101 North Fancher Rd.
Spokane Valley, WA 99212
Tel: 509.535.8841
Fax: 509.535.9589
www.budingerinc.com

7. How is the surrounding property currently being used?

Surrounding Property	Owner	Use
Property to the North	multiple owners	Residential (WEST)
Property to the South		Agriculture (NORTH/SOUTH)
Property to the East	WA. STATE DEPT OF WILDLIFE	OPSN
Property to the West		

8. Are you aware of any environmental problems that exist on surrounding properties?

_____Yes ___✓___No

Explain:

9. Are there any chemical manufacturing plants, gas stations, or petroleum delivery storage facilities located on surrounding properties?

_____Yes ___✓___No _____Unknown

LAND/STRUCTURE ISSUES

1. Describe existing buildings on the property. Include size, date of construction, and materials used.

- Industrial
- Customs Bldg
- Nicholsons Mech
- Hangars
- Rental Hangars

2. Are any flooring, drains, or walls located within the facility, stained by substances other than water?

_____Yes _____No _____Unknown _____N/A

3. Has lead-based paint been used on the facilities?

_____Yes _____No _____Unknown ___X___N/A

4. Is there any evidence of, or are you aware of the use of, Urea Formaldehyde Foam Insulation (UFFI) on the property?

_____Yes _____No ___X___Unknown on Customs None on the rest

5. Are any pesticides, automotive, or industrial batteries, paints, or other chemicals stored on the property or at the facility?
   X Yes ____ No ____ Unknown Nicholson FOB

6. Are there any plastic or metal drums (typically, 55-gallon) located on the property or at the facility?
   ____ Yes ____ No X Unknown

7. What chemicals are used at the property? Please attach Material Safety Data Sheets for each.
   See operator FOB

8. Have soil or other fill materials been brought onto the property from other locations
   X Yes ____ No ____ Unknown Biosolids

9. Is there any visible or other evidence of soil or groundwater contamination on the property?
   ____ Yes X No ____ Unknown

10. Are there any areas on the property with dead or stressed vegetation?
    ____ Yes X No ____ Unknown

11. Are there any pits, ponds, lagoons, or other areas on the property that are used in connection with waste treatment or waste disposal?
    X Yes ____ No ____ Unknown Biosolid incorporation No pits or ponds

12. Have any construction debris, hazardous or unidentified waste materials, tires, automotive or industrial batteries, or any other waste materials been dumped above grade, buried, and/or burned on the property?
    X Yes ____ No ____ Unknown Some burned debris on property historic.

13. On the property, are there any sources of air emissions that have chemical odors, fumes, mists, or smoke?
    ____ Yes X No ____ Unknown

14. Has any soil been brought onto the property that originated from a contaminated site or that is of unknown origin?
    ____ Yes ____ No X Unknown

OTHER ISSUES

1. Is the facility a generator of hazardous waste?
   ____ Yes X No ____ N/A

   If yes, does it have an EPA ID, number?
   EPA I.D. number is ____

2. Has the property owner or facility operator been informed of the presence of hazardous substances or environmental violations with respect to the property or a facility located on the property?
   _____Yes _____No ___X___Unknown

3. Are you aware of any environmental assessment of the property that indicated the presence of hazardous substances on the site or recommended further assessment of the property?
   _____Yes ___X___No _____Unknown

   If yes, please attach.

4. Does the property owner or facility operator have any knowledge of environmental liens or governmental notification relating to violations of environmental laws with respect to the property or any facility located on the property?
   _____Yes ___X___No _____Unknown

5. Has the facility operator or property owner ever received a notification letter from EPA or a state agency about involvement, or potential involvement, in a Superfund site cleanup at an off-site location?
   _____Yes ___X___No _____Unknown

6. Have there been any lawsuits or administrative proceedings for alleged environmental damages involving the property, or any owner or tenant of the property?
   _____Yes ___X___No _____Unknown

7. Have there been any complaints or claims filed by any workers at this property for any environmental health reasons?
   _____Yes ___X___No _____Unknown

   Comments:

8. Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local laws?
   Not that we are aware —

9. Are you aware of any activity and use limitations, such as engineering controls, land restrictions or institutional controls that are in place at the site and/or have been filed or recorded as a registry under federal, tribal, state or local law?
   Not that we are aware

10. As the user of this environmental site assessment do you have any specialized knowledge or experience of the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property of an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?

N/A

11. Does the purchase price for this property reasonably reflect the fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?

N/A

12. Are you aware of commonly known or reasonable ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, as user,

a. Do you know the past uses of the property? Yes

b. Do you know the specific chemicals that are present or once were present at the property?

One aerial spray operation in past

c. Do you know of spills or other chemical releases that have taken place at the property?

Possibly the above

d. Do you know of any environmental cleanups that have taken place at the property?

No

13. As the user of ESA, based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of contamination at the property?

No

14. The reason why the Phase I ESA is required?

Airport improvements – FAA funded

15. The type of property and type of property transaction, for example, sale, purchase, exchange, etc..

—

16. Please provide a map or other documentation showing property location and boundaries.

SEE MAPS

17. Do you know of any previous Phase I ESA's, geotechnical reports, appraisals, or other site studies or reports for the property?

No

STORAGE TANKS

1. Are any Underground Storage Tanks (USTs), either in use or abandoned, present on the property?

_____Yes ___X___No _____Unknown

If yes, give the following for each tank: (attach additional sheets if necessary)

Tank I.D.	Size	Contents	Installation Data	Closure Date

2. Have any previously existing USTs been removed from the property?

_____Yes _____No ___X___Unknown

If yes, give size, contents, locations and removal date for each tank:
(attach additional sheets if necessary)

Tank I.D.	Size	Contents	Installation Data	Closure Date

3. Has there ever been change-in-service or repairs for any of the above USTs?

_____Yes _____No _____Unknown _____N/A

Explain: N/A

4. Are any vent pipes protruding from the ground at the property or adjacent to any structure located on the property?

_____Yes ___X___No _____Unknown _____N/A

5. If USTs exist on the property, are they in compliance with applicable regulations?

_____Yes _____No _____Unknown _____N/A

6. Has there ever been an incident of a leak, spill, or discharge from an UST on the property?
   _____Yes ___X___No _____Unknown ___X___N/A

7. Are leak detection equipment or secondary containment systems installed for all USTs on the property?
   _____Yes _____No _____Unknown ___X___N/A

8. If USTs exist at the property, have they ever been tested for leaks?
   _____Yes _____No _____Unknown ___X___N/A

9. Are any above ground storage tanks present on the property?
   ___X___Yes _____No _____Unknown

   If yes, give size and contents of each tank:
   1 tank in use 8000 g.
   1 tank abandoned 1000 g.
   check for more

10. Have any above ground tanks been removed from the property?
    _____Yes _____No ___X___Unknown

    If yes, give size, contents, locations and removal date for each tank:
    (attach additional sheets if necessary)

	Tank I.D.	Size	Contents	Installation Data	Closure Date
1.	AU Gas Tank	8K	Auto gas		—
					—
					—

POLYCHLORINATED BIPHENYLS (PCBs)

1. Does the facility contain any equipment, such as transformers, capacitors, or hydraulic equipment that may contain PCBs?
   _____Yes _____No ___X___Unknown _____N/A

2. If PCB-containing electrical equipment is present on the property, is it marked with yellow PCB I.D. labels?
   _____Yes _____No ___X___Unknown _____N/A

3. If PCB-containing electrical equipment is present at the property, is there visible or other evidence of leaks or spills on floors or in the soil or groundwater?
   _____Yes _____No ___X___Unknown _____N/A

   Comments:

4. Does the property contain any fluorescent light ballasts labeled as containing PCBs?
_____Yes ___X___No _____Unknown _____N/A

5. On the property, are there any transformers which are owned by a public or private utility or any other private party?
_____Yes _____No ___X___Unknown _____N/A

WATER/SEPTIC

1. Has drinking water at the property always been within acceptable EPA standards?
___X___Yes _____No _____Unknown _____N/A

Comments:

2. Describe the property's water supply (e.g. private well, public supply, etc.).
Municipal

3. Describe the stormwater drainage on the property.
On-site surface

4. Does the property discharge waste water directly to a ditch or stream on or adjacent to this property?
_____Yes ___X___No _____Unknown _____N/A

5. How deep is the groundwater at the property? 30 +

6. In what direction does the groundwater flow? ?

7. Does any seasonal surface water occur at the property?
_____Yes ___X___No _____Unknown

Describe:

8. Is any surface water present at the property year-round?
_____Yes ___X___No _____Unknown

Describe:

9. Does flooding ever occur on any part of the property?
   _____Yes ___X___No _____Unknown

   If yes, from what source does the floodwater come?

   _____
   _____
   _____

10. Describe the location of all areas on the property which have flooded in the past, and give the approximate size and depth of flooded areas.

    N/A
    _____
    _____
    _____

11. What type of septic system serves the property? (public septic system, private septic tanks, etc.)

    _____
    _____

12. Are there any abandoned septic tanks on the property?
    _____Yes ___X___No _____Unknown
13. Are there any drywells on the property?
    _____Yes ___X___No _____Unknown

    Describe:

    _____
    _____
    _____

14. Are there any floor drains in the facilities?
    _____Yes _____No ___X___Unknown _____N/A

    If yes, how many are there, and where are they?

    _____
    _____
    _____
    _____

15. Are there any sumps on the property?
    _____Yes ___X___No _____Unknown _____N/A

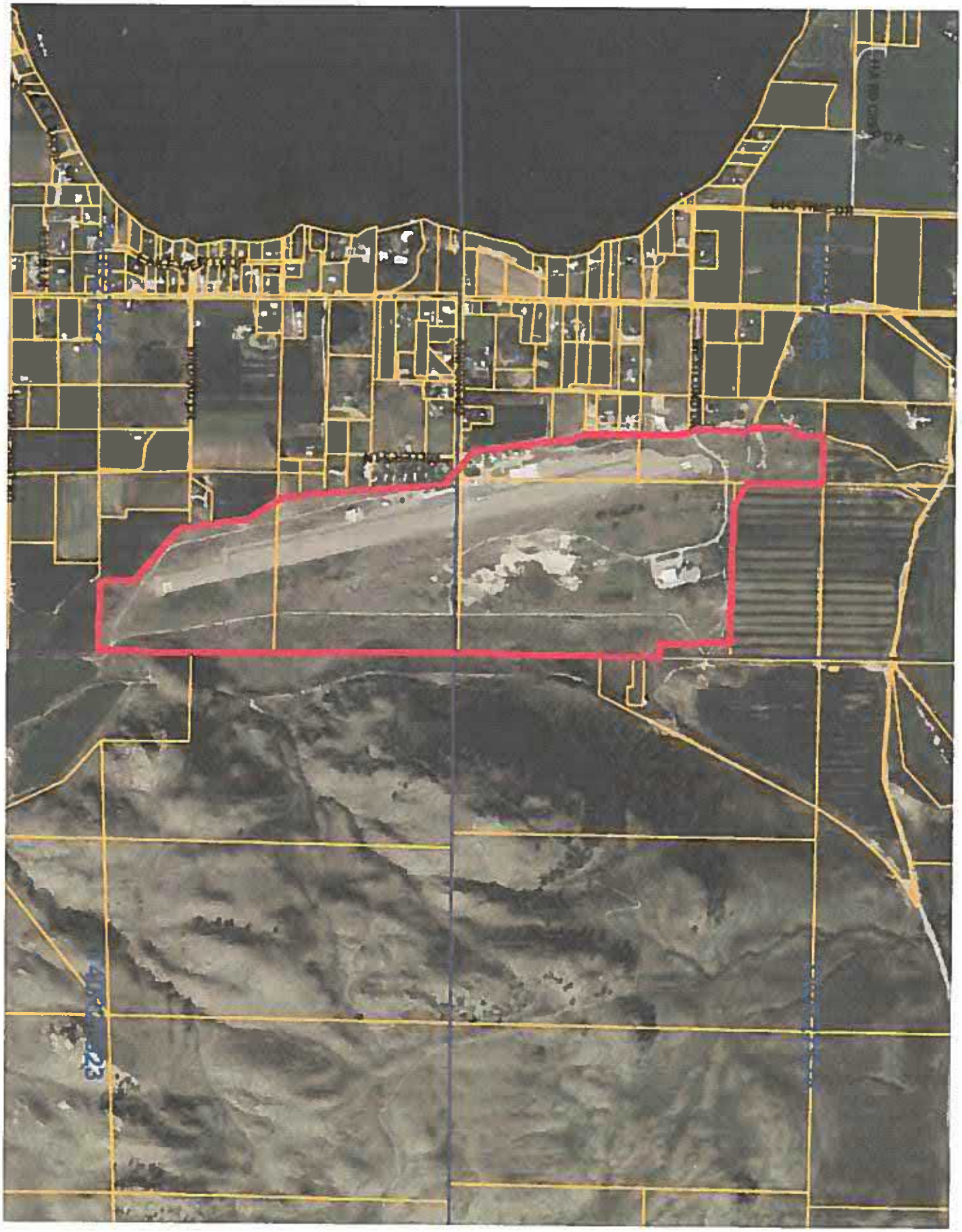
    Describe:_____
    _____
    _____

16. Are they any oil/water separators on the property?
_____Yes _____No __X__Unknown _____N/A
Describe:

_____
_____
_____
_____

To the best of knowledge, I certify that the preceding information is true.

Signature: Chris Beale Date: 11-30-2016
Organization: City of Orville
Address: P.O. Box 2200
Orville WA
Phone Number: 509-560-3535
Email Address: chris.b.orville@nwinet.com



Appendix 10.7

Regulatory Database Records

ENVIRONMENTAL RECORD SEARCH

"The Intelligent Choice"

RecCheck

Report Results

The Standard for ASTM/AAI Radius Searches

(One Mile Environmental Records Search, Exceeds ASTM 1527/1528 and EPA All Appropriate Inquiry)

REPORT RESULTS

Site Location:

Oroville Washington Airport
City Of Oroville, WA 98844
(N 48-57-33, W 119-24-44) NAD83

Client:

Budinger and Associates

TABLE OF CONTENTS

EXECUTIVE SUMMARY

INFORMATION ON THE REQUESTED LOCATION

Site Address:	Oroville Washington Airport City Of Oroville, WA 98844
Client Project Name/Number:	Oroville Washington Airport 2104671117
Coordinates:	N 48-57-33, W 119-24-44 (NAD 83) 48.9593, -119.412153
Date of Report	September 15, 2016
ERS Project Number:	2104671117
Subject Site Listed on the following lists:	Not Listed
Subject Site Listed as Map ID#:	N/A
USGS 7.5 Minute Quad Map:	Oroville (2014-01-24)
Subject Site Located within a Potential Area of Concern:	No
Township, Section and Range:	Township: 40N Range: 27E Section: 22
Site Elevation: (feet above or below (-) mean sea level)	1063
Flood Zone: (FEMA Q3 Digital Data)	Flood Panel Number Not Electronically Available. Electronic Flood Zone information is not available. Check www.FEMA.gov for map.
Fire Insurance Map Coverage:	Unknown: Area Not Digitally Indexed
Radon Information:	EPA Radon Zone: 1 (Predicted avg for county: > 4 pCi/L)
Search Radius Expansion Size: (In Miles)	0.5
Soil Type: (USDA Soil Survey Geographic Database) (SSURGO)	Ewall loamy fine sand, 0 to 15 percent slopes Map Unit Type: Consociation Hydric: No Drainage Class: Excessively drained General Information: Mixed, mesic Typic Xeropsamments

Zip Codes Searched for "Un-Mappable" Sites:	Not Researched
Occurrence Count:	31

SUMMARY OF OCCURRENCES

MAP ID	ID/SITE NAME	ADDRESS	DATABASE	STATUS	DISTANCE (MILES)	ELEV DIFF (FEET)
1 Maps: 1, 2, 3	110038055617 DOROTHY SCOTT	UNKNOWN OROVILLE	FRS-US	Listed	0.02 S	1
2 Maps: 1, 2, 3	485738119243501 40N/27E-15R01	Not Reported by Agency	USGS-Waterwells-US	Listed	0.1 NE	17
3 Maps: 1, 2, 3	400787 OLA HEIHOUSE	Not Reported by Agency	Wells-WA	Listed	0.12 SE	12
4 Maps: 1, 2, 3	401275 RALPH ZOSEL	Not Reported by Agency	Wells-WA	Listed	0.15 NE	22
5 Maps: 1, 2, 3	485725119244201 40N/27E-22A01	Not Reported by Agency	USGS-Waterwells-US	Listed	0.17 S	-9
6 Maps: 1, 2, 3	110042146148 SPECIALIZED SERVICES TRUCKING INC	23 AIRPORT RD OROVILLE	FRS-US	Listed	0.18 NW	-4
6 Maps: 1, 2, 3	3247 Specialized Services Trucking Inc	23 Airport Rd Oroville	FSIS-WA	Listed	0.18 NW	-4
6 Maps: 1, 2, 3	577981-PD STAR AIRMOTIVE	23 AIRPORT RD OROVILLE	Hist-Auto Repair	Listed	0.18 NW	-4
6 Maps: 1, 2, 3	2674 Oroville Municipal Airport	23 Airport Road Suite C Oroville	Hist-Transportation	Listed	0.18 NW	-4
6 Maps: 1, 2, 3	637709-PD OROVILLE MUNICIPAL AIRPORT	23 AIRPORT RD OROVILLE	Hist-Transportation	Listed	0.18 NW	-4
6 Maps: 1, 2, 3	5CB2F9E-WAH000036917 SPECIALIZED SERVICES TRUCKING INC	23 AIRPORT RD OROVILLE	Hist-US	No Longer Listed	0.18 NW	-4
6 Maps: 1, 2, 3	WAH000036917 Specialized Services Trucking Inc	23 Airport Rd Oroville	HWG-WA	Listed	0.18 NW	-4

MAP ID	ID/SITE NAME	ADDRESS	DATABASE	STATUS	DISTANCE (MILES)	ELEV DIFF (FEET)
6 Maps: 1, 2, 3	WAH000036917 SPECIALIZED SERVICES TRUCKING INC	23 AIRPORT RD OROVILLE	RCRA-NON-US	Listed	0.18 NW	-4
7 Maps: 1, 2, 3	WAH000014910 WA AGR Okanogan 3	SKYVIEW INDUSTRIAL PARK 40A WESTLUND DR OROVILLE	HWG-WA	Listed	0.22 N	33
8 Maps: 1, 2, 3	528463-PD OKANOGAN SKY HAVEN	10 AIRPORT RD OKANOGAN	Hist-Auto Repair	Listed	0.22 W	-79
9 Maps: 1, 2, 3	396124 ERIC ZANDELL	Not Reported by Agency	Wells-WA	Listed	0.23 SW	-64
10 Maps: 1, 2, 3	396285 FRANCIS HART	Not Reported by Agency	Wells-WA	Listed	0.24 NW	-43
11 Maps: 1, 3	485737119250301 40N/27E-15P01	Not Reported by Agency	USGS-Waterwells-US	Listed	0.3 W	-95
12 Maps: 1, 3	57667437 OROVILLE TOWN UST 9322	E OSOYOOS LAKE RD & AIRPORT RD OROVILLE	FSIS-WA	Listed	0.31 W	-98
12 Maps: 1, 3	2366BD78-57667437 TOWN OF OROVILLE	E OSOYOOS LK RD & AIRPORT RD Oroville	Hist-WA	No Longer Listed	0.31 W	-98
12 Maps: 1, 3	57667437 OROVILLE TOWN OF	E OSOYOOS LK RD & AIRPORT RD Oroville	UST-WA	Listed	0.31 W	-98
13 Maps: 1, 3	5CB2F9E-WAD000834572 CHEVRON USA INC MANSFIELD BULK	AIRPORT RD MANSFIELD	Hist-US	No Longer Listed	0.31 W	-98
13 Maps: 1, 3	5CB2F9E-WAH000019695 RED SHIRT MILL	AIRPORT RD TWISP	Hist-US	No Longer Listed	0.31 W	-98
13 Maps: 1, 3	78587987-7371 OKANOGAN LEGION AIRPORT	AIRPORT RD Okanogan	Hist-US	No Longer Listed	0.31 W	-98
13 Maps: 1, 3	527867 Site Name Not Reported	AIRPORT ROAD TWISP	Spills-WA	Listed	0.31 W	-98

MAP ID	ID/SITE NAME	ADDRESS	DATABASE	STATUS	DISTANCE (MILES)	ELEV DIFF (FEET)
14 Maps: 1, 3	110015449889 OROVILLE TOWN UST 9322	E OSOYOOS LAKE RD & AIRPORT RD OROVILLE	FRS-US	Listed	0.31 W	-98
15 Maps: 1, 3	394120 CITY OF OROVILLE	Not Reported by Agency	Wells-WA	Listed	0.4 N	59
15 Maps: 1, 3	393662 CHARLES EDER	Not Reported by Agency	Wells-WA	Listed	0.4 N	59
15 Maps: 1, 3	394121 CITY OF OROVILLE	Not Reported by Agency	Wells-WA	Listed	0.4 N	59
16 Maps: 1, 3	395907 EAST LAKE WATER ASSOCIATION	Not Reported by Agency	Wells-WA	Listed	0.41 SW	-104
16 Maps: 1, 3	395906 EAST LAKE WATER ASSOC	Not Reported by Agency	Wells-WA	Listed	0.41 SW	-104

POTENTIAL AREAS OF CONCERN/CONTAMINATION SUMMARY

DATABASE SEARCHED	SUBJECT SITE WITHIN POTENTIAL AREA OF CONCERN	AREAS FOUND WITHIN 1-MILE RADIUS
NPL-R10-US	No	0
SmelterPlume-WA	No	0
Military-Bases-US	No	0

DATABASE OCCURRENCE SUMMARY

HIGH RISK* OCCURRENCES IDENTIFIED IN REQUESTED SEARCH RADIUS		
DATABASE SEARCHED	DISTANCE SEARCHED (MILES)	HIGH RISK OCCURRENCES FOUND
BF-Open-WA	1	0
CERCLIS-US	1	0
CSCS-WA	1	0
LUST-Open-WA	1	0
NPL-US	1.5	0
Proposed-NPL-US	1.5	0
SAA-Agreements-US	1.5	0
Tribal-LUST-Open-Reg10	1	0

* For the purposes of this report, "high risk" occurrences are those that have known contamination and have not received a "case closed" or "no further action" status from the agency that maintains the records.

ASTM/AAI STANDARD RECORD SOURCES SUMMARY				
STANDARD ENVIRONMENTAL RECORD SOURCES	ASTM MIN. SEARCH DIST. / ERS SEARCH DIST. (MILES)	ERS DATABASE NAME	TOTAL LISTINGS	MAP ID #'S
Federal NPL site list	1.0 / 1.0	NPL-US	0	None Listed
		Proposed-NPL-US	0	None Listed
Federal Delisted NPL site list	0.5 / 1.0	Delisted-NPL-US	0	None Listed
Federal CERCLIS list	0.5 / 0.5	CERCLIS-US	0	None Listed
Federal CERCLIS NFRAP site list	0.5 / 0.5	CERCLIS-Archived-US	0	None Listed
Federal RCRA CORRACTS facilities list	1.0 / 1.0	RCRA-COR-US	0	None Listed
Federal RCRA non-CORRACTS TSD facilities list	0.5 / 0.5	RCRA-TSD-US	0	None Listed
Federal RCRA generators list	Property and adjoining properties / 0.25	RCRA-CESQG-US	0	None Listed
		RCRA-LQG-US	0	None Listed
		RCRA-NON-US	1	6

		RCRA-SQG-US	0	None Listed
Federal Inst/Eng control registries	Property Only / 0.25	Controls-RCRA-US	0	None Listed
		Controls-US	0	None Listed
		Hist-US-EC	0	None Listed
		Hist-US-IC	0	None Listed
		LIENS-US	0	None Listed
Federal ERNS list	Property Only / 0.0625	ERNS-US	0	None Listed
State and Tribal-Equivalent NPL	1.0 / 1.0	Not Reported by Agency	0	None Listed
State and Tribal-Equivalent CERCLIS	0.5 / 0.5	CSCS-WA	0	None Listed
		HSL-WA	0	None Listed
		NFA-WA	0	None Listed
State and Tribal landfill and/or solid waste disposal sites	0.5 / 0.5	City-Landfills-WA	0	None Listed
		County-Landfills-WA	0	None Listed
		Debris-US	0	None Listed
		Hist-Dumps-US	0	None Listed
		SWF-WA	0	None Listed
		SWLF-US	0	None Listed
		Tribal-ODI-US	0	None Listed
State and Tribal Leaking Storage Tank Lists	0.5 / 0.5	LAST-WA	0	None Listed
		LUST-Closed-WA	0	None Listed
		LUST-Open-WA	0	None Listed
		LUST-RCU-WA	0	None Listed
		Tribal-LUST-Closed-Reg10	0	None Listed
		Tribal-LUST-Open-Reg10	0	None Listed
State and Tribal Registered Storage Tank Lists	Property and adjoining properties / 0.25	AST-WA	0	None Listed
		FEMA-UST-US	0	None Listed
		Tribal-UST-Reg10	0	None Listed
		UST-WA	1	12
State and Tribal Inst/Eng Control Registries	Property Only / 0.5	Controls-WA	0	None Listed
State and Tribal Voluntary Cleanup Sites	0.5 / 0.5	Tribal-VCP-US	0	None Listed
		VCP-WA	0	None Listed
State and Tribal Brownfield Sites	0.5 / 0.5	BF-Closed-WA	0	None Listed
		BF-Open-WA	0	None Listed
		BF-US	0	None Listed
		Tribal-BF-US	0	None Listed

DATABASE SEARCHED	DISTANCE SEARCHED	SUBJECT SITE	0.625 MILES	0.75 MILES	1 MILES	1.5 MILES	TOTAL
BF-US	1	0	0	0	0	-	0
CERCLIS-Archived-US	1	0	0	0	0	-	0
CERCLIS-US	1	0	0	0	0	-	0
Controls-RCRA-US	1	0	0	0	0	-	0
Controls-US	1	0	0	0	0	-	0
Debris-US	1	0	0	0	0	-	0
Delisted-NPL-US	1.5	0	0	0	0	0	0
ERNS-US	0.5625	0	0	-	-	-	0
FEMA-UST-US	0.75	0	0	0	-	-	0
FTTS-ENF-US	0.5625	0	0	-	-	-	0
Hist-Dumps-US	1	0	0	0	0	-	0
Hist-US-EC	1	0	0	0	0	-	0
Hist-US-IC	1	0	0	0	0	-	0
HMIS-US	0.5625	0	0	-	-	-	0
LIENS-US	0.5625	0	0	-	-	-	0
NPL-US	1.5	0	0	0	0	0	0
PADS-US	0.5625	0	0	-	-	-	0
PCB-US	0.75	0	0	0	-	-	0
Proposed-NPL-US	1.5	0	0	0	0	0	0
RCRA-CESQG-US	0.75	0	0	0	-	-	0
RCRA-COR-US	1.5	0	0	0	0	0	0
RCRA-LQG-US	0.75	0	0	0	-	-	0
RCRA-NON-US	0.75	0	1	0	-	-	1
RCRA-SQG-US	0.75	0	0	0	-	-	0
RCRA-TSD-US	1	0	0	0	0	-	0
SAA-Agreements-US	1.5	0	0	0	0	0	0
SWLF-US	1	0	0	0	0	-	0
Tribal-BF-US	1	0	0	0	0	-	0
Tribal-LUST-Closed-Reg10	1	0	0	0	0	-	0
Tribal-LUST-Open-Reg10	1	0	0	0	0	-	0
Tribal-ODI-US	1	0	0	0	0	-	0
Tribal-UST-Reg10	0.75	0	0	0	-	-	0
Tribal-VCP-US	1	0	0	0	0	-	0

STATE ASTM/AAI DATABASES							
DATABASE SEARCHED	DISTANCE SEARCHED	SUBJECT SITE	0.625 MILES	0.75 MILES	1 MILES	1.5 MILES	TOTAL
AST-WA	0.75	0	0	0	-	-	0
BF-Closed-WA	1	0	0	0	0	-	0
BF-Open-WA	1	0	0	0	0	-	0
City-Landfills-WA	1	0	0	0	0	-	0
Controls-WA	1	0	0	0	0	-	0
County-Landfills-WA	1	0	0	0	0	-	0
CSCS-WA	1	0	0	0	0	-	0
FSIS-WA	0.75	0	2	0	-	-	2
HSL-WA	1	0	0	0	0	-	0
HWG-WA	0.75	0	2	0	-	-	2
LAST-WA	1	0	0	0	0	-	0
LUST-Closed-WA	1	0	0	0	0	-	0
LUST-Open-WA	1	0	0	0	0	-	0
LUST-RCU-WA	1	0	0	0	0	-	0
Manifest2-RI	0.5625	0	0	-	-	-	0
Manifest-WA	0.5625	0	0	-	-	-	0
NFA-WA	1	0	0	0	0	-	0
Spills-WA	0.5625	0	1	-	-	-	1

STATE ASTM/AAI DATABASES							
DATABASE SEARCHED	DISTANCE SEARCHED	SUBJECT SITE	0.625 MILES	0.75 MILES	1 MILES	1.5 MILES	TOTAL
SWF-WA	1	0	0	0	0	-	0
SWRCY-WA	1	0	0	0	0	-	0
UST-WA	0.75	0	1	0	-	-	1
VCP-WA	1	0	0	0	0	-	0

SUPPLEMENTAL DATABASES							
DATABASE SEARCHED	DISTANCE SEARCHED	SUBJECT SITE	0.625 MILES	0.75 MILES	1 MILES	1.5 MILES	TOTAL
Air-Reg-Active-WA	0.75	0	0	0	-	-	0
Air-WA	0.75	0	0	0	-	-	0
BioFuel-US	0.75	0	0	0	-	-	0
CDL-US	0.5625	0	0	-	-	-	0
CDL-WA	0.5625	0	0	-	-	-	0
Coal-Ash-Dams-US	1	0	0	0	0	-	0
Coal-Ash-WA	1	0	0	0	0	-	0
Dams-WA	0.75	0	0	0	-	-	0
DCF-WA	0.75	0	0	0	-	-	0
EGRID-US	1	0	0	0	0	-	0
EPA-Watch-List-US	0.75	0	0	0	-	-	0
FA-HW-US	0.5625	0	0	-	-	-	0
FA-HW-WA	0.5625	0	0	-	-	-	0
FA-UST-WA	0.5625	0	0	-	-	-	0
FRS-US	0.5625	0	3	-	-	-	3
FTTS-INSP-US	0.5625	0	0	-	-	-	0
FUDS-US	1.5	0	0	0	0	0	0
Hist-AFS2-US	0.75	0	0	0	-	-	0
Hist-AFS-US	0.75	0	0	0	-	-	0
Hist-CCS-WA	0.75	0	0	0	-	-	0
HIST-CDL-WA	0.5625	0	0	-	-	-	0
Hist-CERCLIS-NFRAP-US	0.75	0	0	0	-	-	0
Hist-CERCLIS-US	0.75	0	0	0	-	-	0
Hist-CS-WA	0.75	0	0	0	-	-	0
Hist-ERNS-US	0.75	0	0	0	-	-	0
Hist-FA-SW-WA	0.5625	0	0	-	-	-	0
Hist-FIFRA-US	0.75	0	0	0	-	-	0
Hist-FINDS-US	0.5625	0	0	-	-	-	0
Hist-LUST-WA	0.75	0	0	0	-	-	0
HIST-MLTS-US	0.75	0	0	0	-	-	0
Hist-NPL-US	0.75	0	0	0	-	-	0
Hist-RCRIS-US	0.75	0	0	0	-	-	0
Hist-SiteRegister-WA	0.75	0	0	0	-	-	0
Hist-SWLF-WA	0.75	0	0	0	-	-	0
Hist-TRIS-US	0.75	0	0	0	-	-	0
Hist-US	0.5625	0	4	-	-	-	4
Hist-UST-WA	0.75	0	0	0	-	-	0
Hist-WA	0.5625	0	1	-	-	-	1
Hist-WaterWells-US	0.5625	0	0	-	-	-	0
ICIS-Air-US	0.5625	0	0	-	-	-	0
ICIS-FEC-US	0.5625	0	0	-	-	-	0
ICIS-NPDES-US	0.5625	0	0	-	-	-	0
Industrial-Permits-WA	0.75	0	0	0	-	-	0
Lead-Smelter-2-US	0.75	0	0	0	-	-	0
Lead-US	0.75	0	0	0	-	-	0

SUPPLEMENTAL DATABASES							
DATABASE SEARCHED	DISTANCE SEARCHED	SUBJECT SITE	0.625 MILES	0.75 MILES	1 MILES	1.5 MILES	TOTAL
LMOP-US	1	0	0	0	0	-	0
MINES-US	0.5625	0	0	-	-	-	0
MLTS-US	0.5625	0	0	-	-	-	0
MRDS-US	0.75	0	0	0	-	-	0
NPDES-WA	0.5625	0	0	-	-	-	0
OGW-WA	0.5625	0	0	-	-	-	0
Oil-WA	0.75	0	0	0	-	-	0
PCS-US	0.75	0	0	0	-	-	0
RADINFO-US	0.5625	0	0	-	-	-	0
RFG-Lab-US	0.75	0	0	0	-	-	0
RMP-US	0.5625	0	0	-	-	-	0
ROD-US	1	0	0	0	0	-	0
SDWIS-US	0.75	0	0	0	-	-	0
SSTS-US	0.5625	0	0	-	-	-	0
SWTire-WA	0.75	0	0	0	-	-	0
Tribal-Air-US	0.75	0	0	0	-	-	0
TRIS2000-US	0.5625	0	0	-	-	-	0
TRIS2010-US	0.5625	0	0	-	-	-	0
TRIS80-US	0.5625	0	0	-	-	-	0
TRIS90-US	0.5625	0	0	-	-	-	0
TSCA-US	0.5625	0	0	-	-	-	0
UIC-WA	0.5625	0	0	-	-	-	0
UMTRA-US	0.5625	0	0	-	-	-	0
USGS-Waterwells-US	0.5625	0	3	-	-	-	3
Vapor-Intrusions-US	1	0	0	0	0	-	0
Wells-WA	0.5625	0	9	-	-	-	9

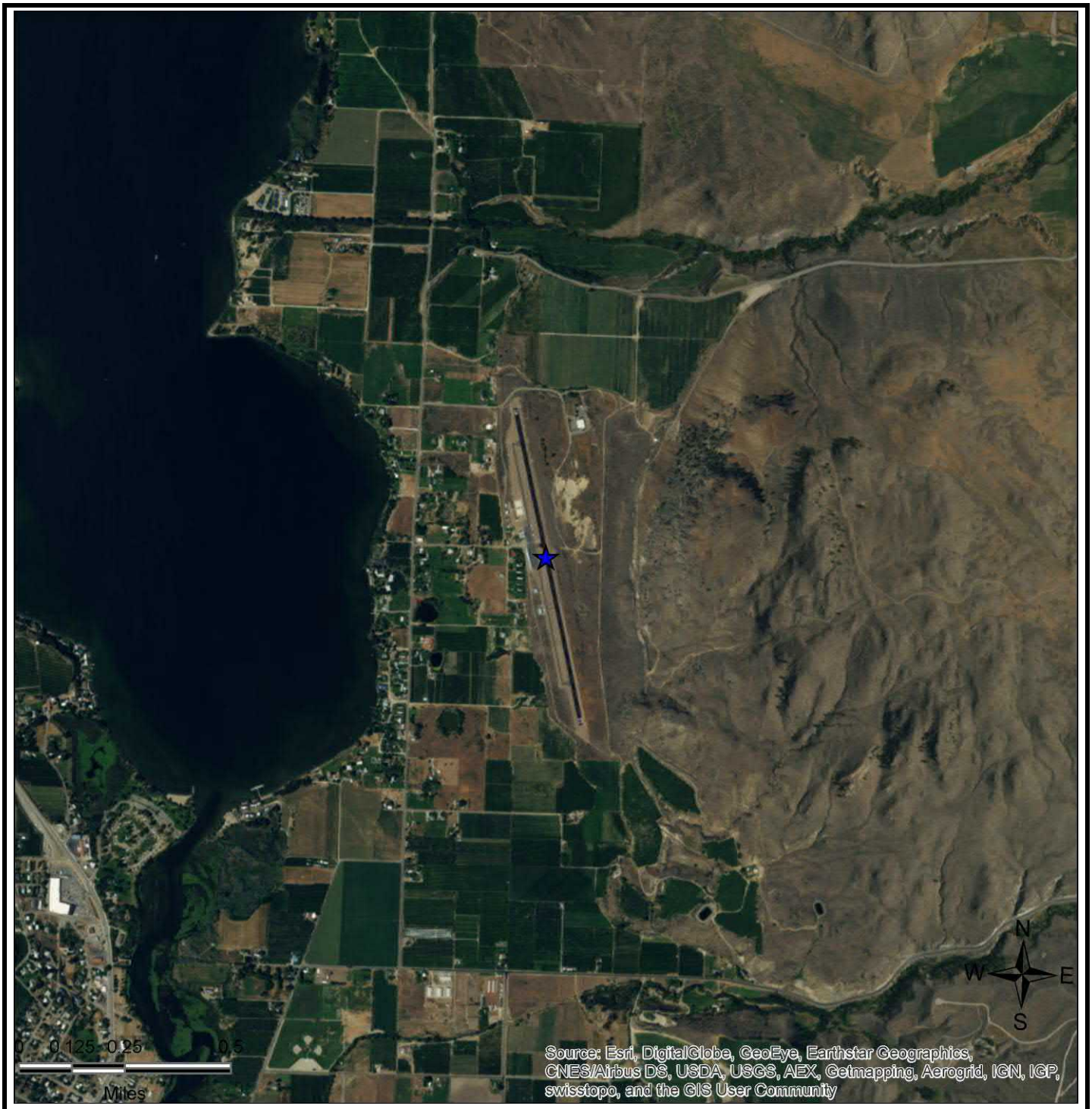
PROPRIETARY HISTORIC DATABASES							
DATABASE SEARCHED	DISTANCE SEARCHED	SUBJECT SITE	0.625 MILES	0.75 MILES	1 MILES	1.5 MILES	TOTAL
Hist-Agriculture	0.5625	0	0	-	-	-	0
Hist-Auto Dealers	0.5625	0	0	-	-	-	0
Hist-Auto Repair	0.75	0	2	0	-	-	2
Hist-Chemical Manufacturing	0.5625	0	0	-	-	-	0
Hist-Chemical-Storage	0.5625	0	0	-	-	-	0
Hist-Cleaners	0.75	0	0	0	-	-	0
Hist-Convenience	0.5625	0	0	-	-	-	0
Hist-Disposal-Recycle	0.5625	0	0	-	-	-	0
Hist-Food-Processors	0.5625	0	0	-	-	-	0
Hist-Gun-Ranges	0.5625	0	0	-	-	-	0
Hist-Machine Shop	0.5625	0	0	-	-	-	0
Hist-Manufacturing	0.5625	0	0	-	-	-	0
Hist-Metal Plating	0.5625	0	0	-	-	-	0
Hist-Mining	0.5625	0	0	-	-	-	0
Hist-Mortuaries	0.5625	0	0	-	-	-	0
Hist-Oil-Gas	0.5625	0	0	-	-	-	0
Hist-OilGas-Refiners	0.5625	0	0	-	-	-	0
Hist-Paint-Stores	0.5625	0	0	-	-	-	0
Hist-Petroleum	0.5625	0	0	-	-	-	0
Hist-Post-Offices	0.5625	0	0	-	-	-	0
Hist-Printers	0.5625	0	0	-	-	-	0
Hist-Rental	0.5625	0	0	-	-	-	0
Hist-RV-Dealers	0.5625	0	0	-	-	-	0

PROPRIETARY HISTORIC DATABASES							
DATABASE SEARCHED	**DISTANCE SEARCHED**	**SUBJECT SITE**	**0.625 MILES**	**0.75 MILES**	**1 MILES**	**1.5 MILES**	**TOTAL**
Hist-Salvage	0.5625	0	0	-	-	-	0
Hist-Service Stations	0.75	0	0	0	-	-	0
Hist-Steel-Metals	0.5625	0	0	-	-	-	0
Hist-Textile	0.5625	0	0	-	-	-	0
Hist-Transportation	0.5625	0	2	-	-	-	2
Hist-Trucking	0.5625	0	0	-	-	-	0
Hist-Vehicle-Parts	0.5625	0	0	-	-	-	0
Hist-Vehicle-Washing	0.5625	0	0	-	-	-	0

SITE LOCATION TOPOGRAPHIC MAP

U.S. Geological Survey. Oroville (2014-01-24) Quadrangle, 7.5 Minute Series

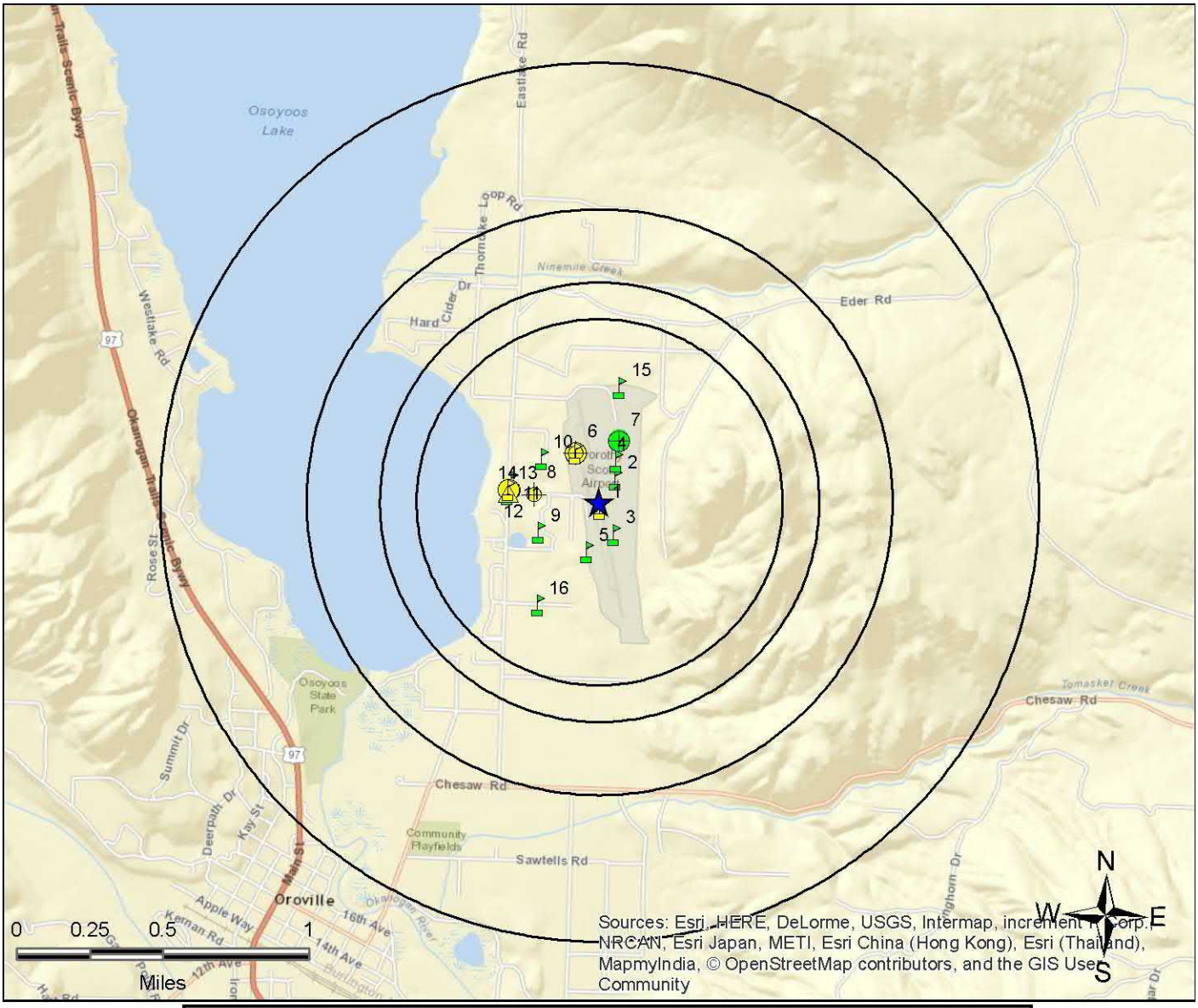
Budinger and Associates	Oroville Washington Airport City Of Oroville, WA 98844	FIGURE: JOB: DATE:	1 2104671117 9/15/2016



SITE LOCATION MAP

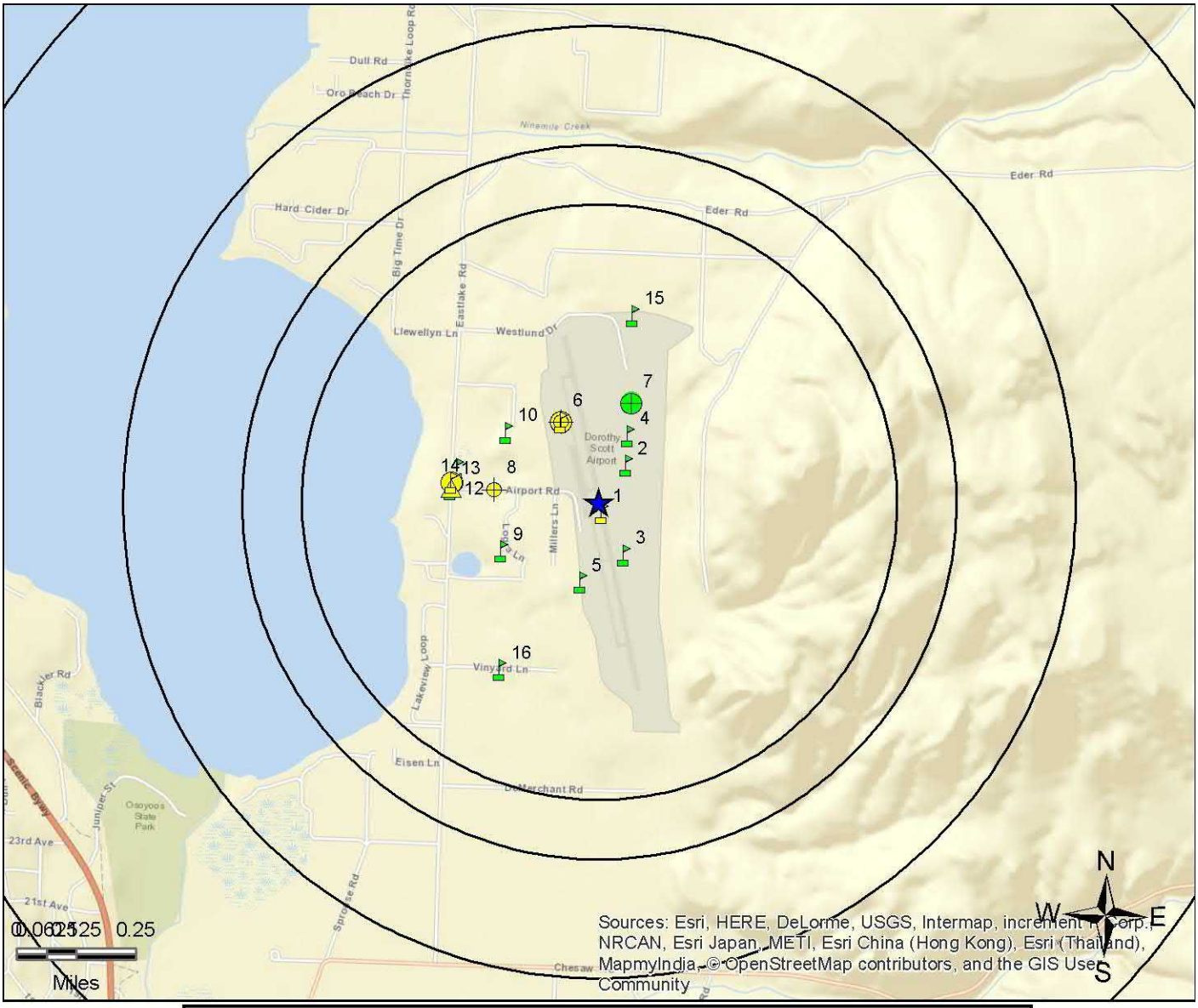
Budinger and Associates	Oroville Washington Airport City Of Oroville, WA 98844	FIGURE: 2 JOB: 2104671117 DATE: 9/15/2016

1.5-MILE RADIUS STREET MAP W/OCCURRENCES (MAP1)



All plotted occurrences represent approximate locations based on geographic information provided by the respective agency. Actual locations may vary due to numerous reasons such as: the size of the property, accuracy of the provided location, accuracy of the software used to determine the location, etc. **Occurrences are shown in three colors** to give a visual indication of the potential risk of the listed occurrence based on the type of list and the current status of the occurrence. Occurrences shown in **RED** are locations with known contamination that have not received a "case closed" or "no further action" status. Occurrences shown in **YELLOW** have been listed by the respective agency, but do not always represent an environmental risk. The detailed status information and description of the listing should be reviewed for further information. Occurrences shown in **GREEN** are occurrences that have active permits or have had contamination in the past but have received a "case closed" or "no further action" status and therefore, do not likely present an environmental risk.

0.75-MILE RADIUS STREET MAP W/OCCURRENCES (MAP2)

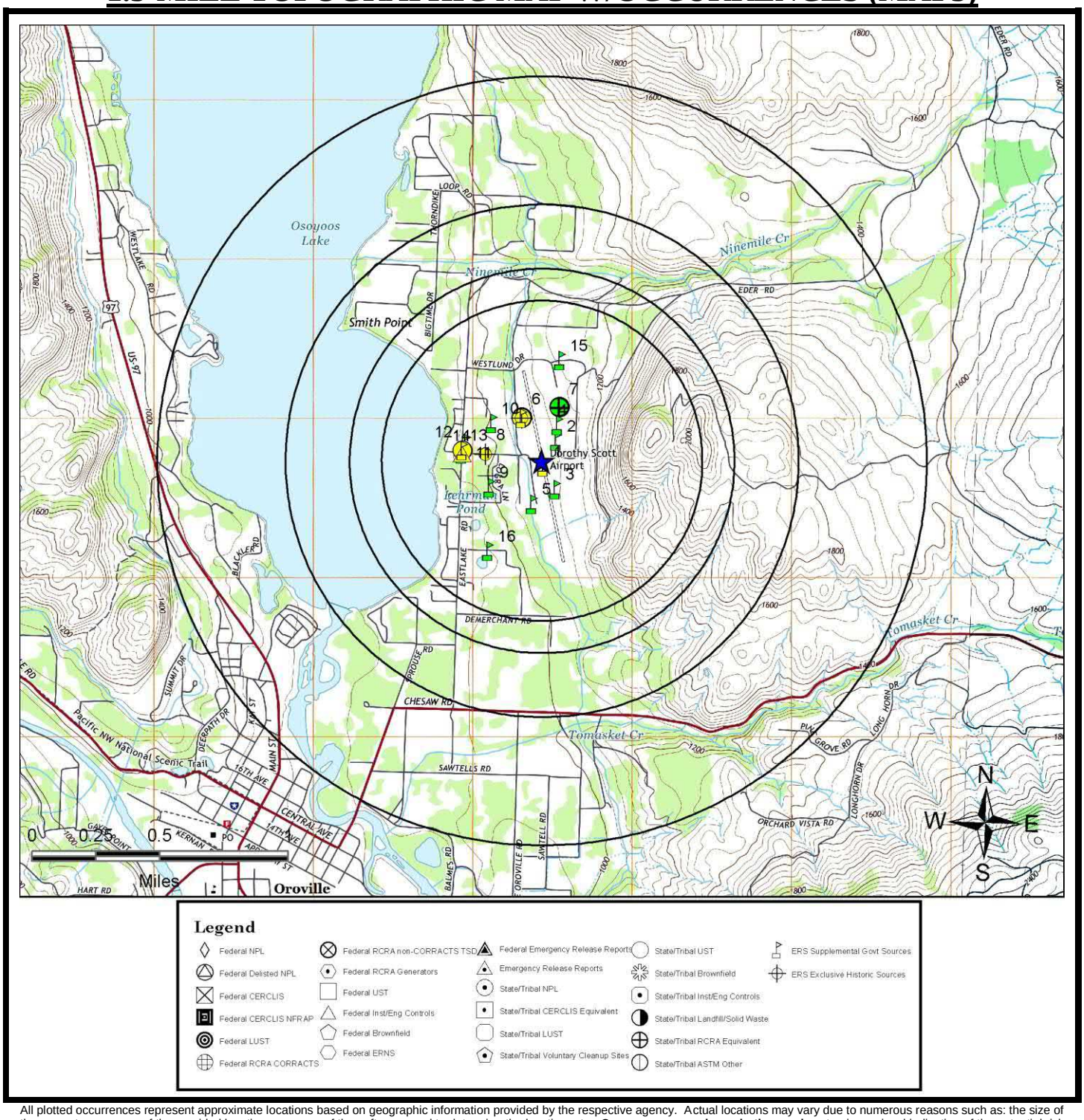


Legend

- Federal NPL
- Federal Delisted NPL
- Federal CERCLIS
- Federal CERCLIS NFRAP
- Federal LUST
- Federal RCRA CORRACTS
- Federal RCRA non-CORRACTS TSD
- Federal RCRA Generators
- Federal UST
- Federal Inst/Eng Controls
- Federal Brownfield
- Federal ERNS
- Federal Emergency Release Reports
- Emergency Release Reports
- State/Tribal NPL
- State/Tribal CERCLIS Equivalent
- State/Tribal LUST
- State/Tribal Voluntary Cleanup Sites
- State/Tribal UST
- State/Tribal Brownfield
- State/Tribal Inst/Eng Controls
- State/Tribal Landfill/Solid Waste
- State/Tribal RCRA Equivalent
- State/Tribal ASTM Other
- ERS Supplemental Govt Sources
- ERS Exclusive Historic Sources

All plotted occurrences represent approximate locations based on geographic information provided by the respective agency. Actual locations may vary due to numerous reasons such as: the size of the property, accuracy of the provided location, accuracy of the software used to determine the location, etc. **Occurrences are shown in three colors** to give a visual indication of the potential risk of the listed occurrence based on the type of list and the current status of the occurrence. Occurrences shown in **RED** are locations with known contamination that have not received a "case closed" or "no further action" status. Occurrences shown in **YELLOW** have been listed by the respective agency, but do not always represent an environmental risk. The detailed status information and description of the listing should be reviewed for further information. Occurrences shown in **GREEN** are occurrences that have active permits or have had contamination in the past but have received a "case closed" or "no further action" status and therefore, do not likely present an environmental risk.

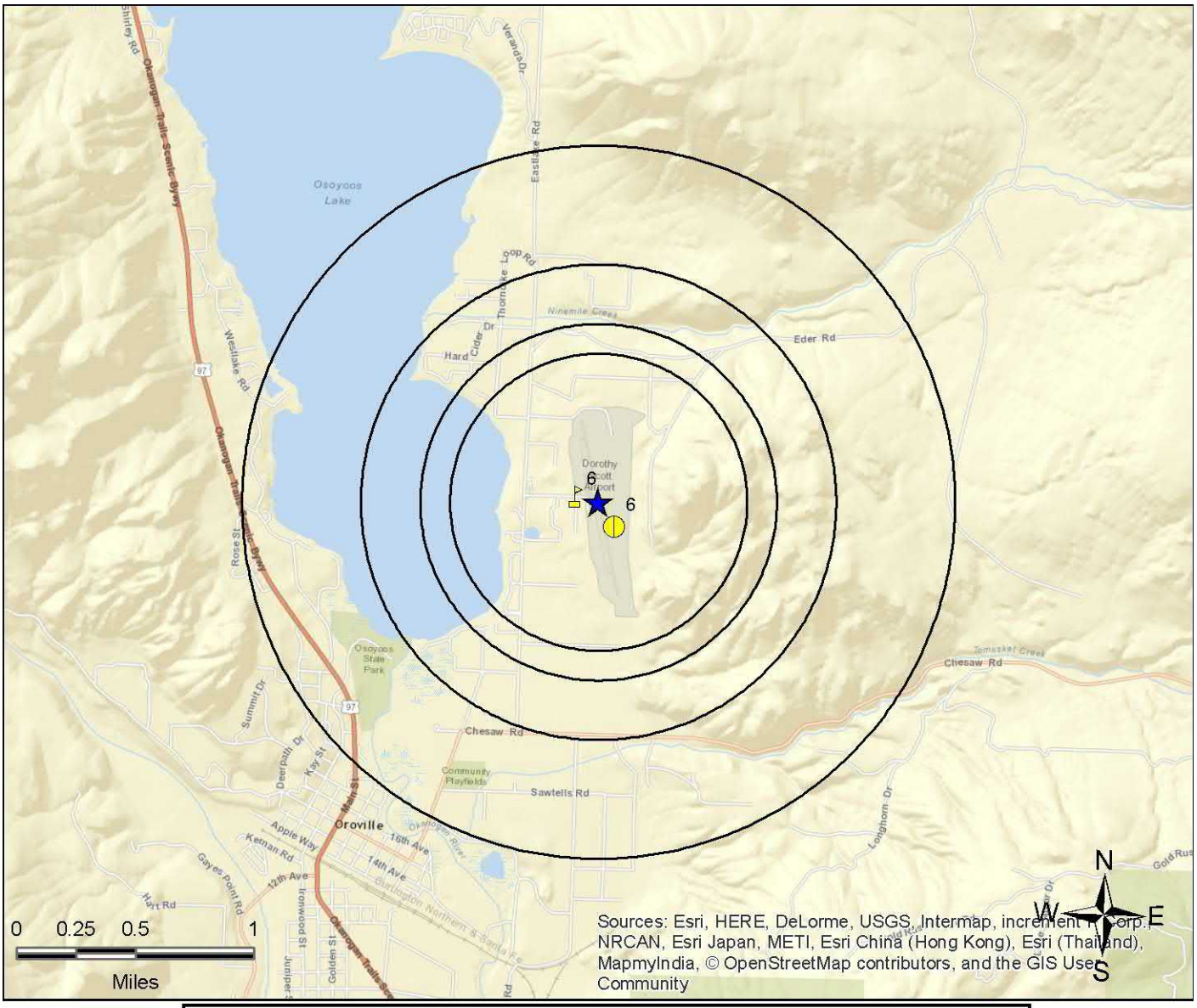
1.5-MILE TOPOGRAPHIC MAP W/OCCURRENCES (MAP3)



All plotted occurrences represent approximate locations based on geographic information provided by the respective agency. Actual locations may vary due to numerous reasons such as: the size of the property, accuracy of the provided location, accuracy of the software used to determine the location, etc. **Occurrences are shown in three colors** to give a visual indication of the potential risk of the listed occurrence based on the type of list and the current status of the occurrence. Occurrences shown in **RED** are locations with known contamination that have not received a "case closed" or "no further action" status. Occurrences shown in **YELLOW** have been listed by the respective agency, but do not always represent an environmental risk. The detailed status information and description of the listing should be reviewed for further information. Occurrences shown in **GREEN** are occurrences that have active permits or have had contamination in the past but have received a "case closed" or "no further action" status and therefore, do not likely present an environmental risk.

AGENCY DIFFERENCES IN MAPPED LOCATIONS (MAP4)

Note: Occurrences on this map have agency provided coordinates which differ significantly from geocoded locations.



Legend

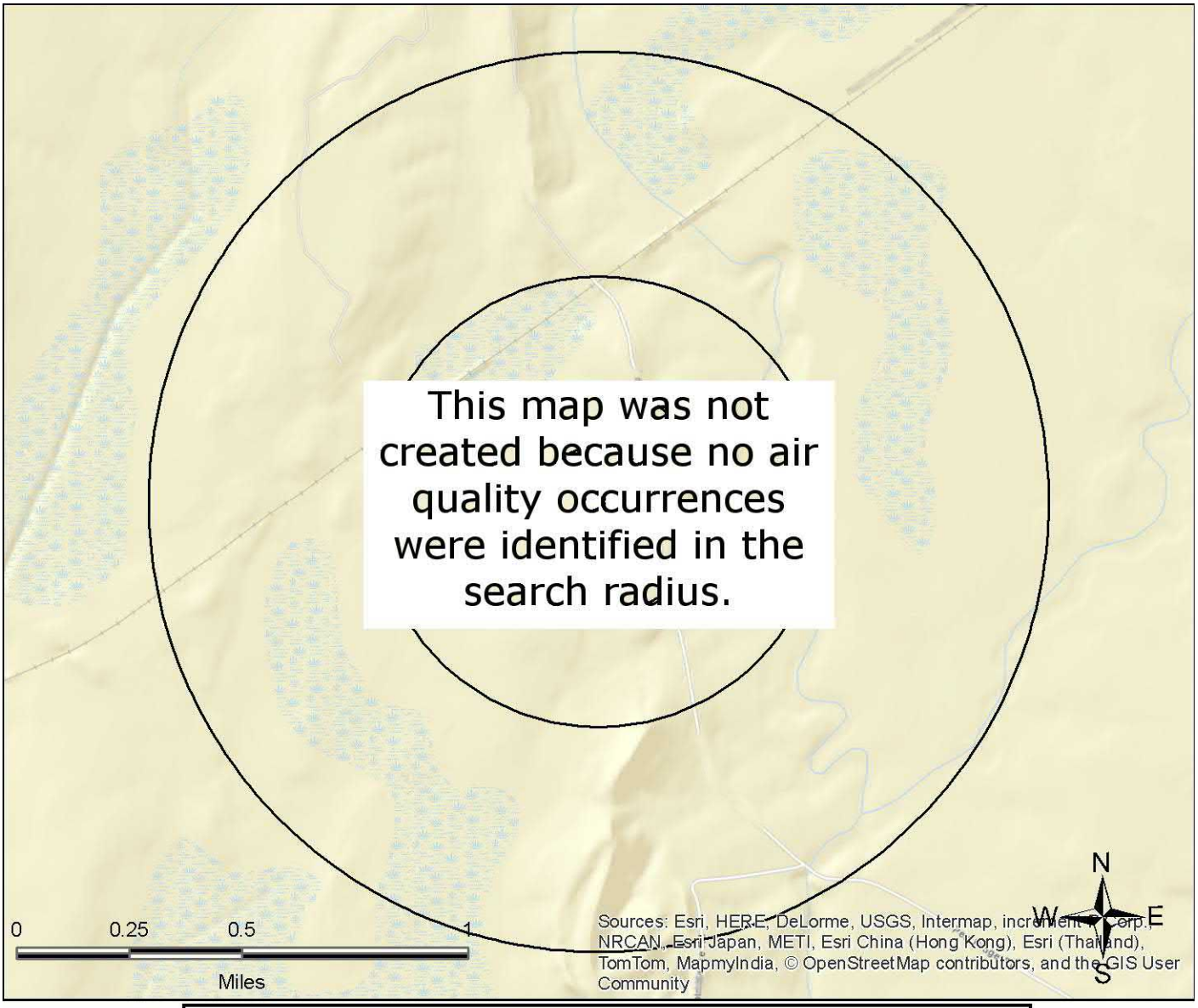
- Federal NPL
- Federal Delisted NPL
- Federal CERCLIS
- Federal CERCLIS NFRAP
- Federal LUST
- Federal RCRA CORRACTS
- Federal RCRA non-CORRACTS TSD
- Federal RCRA Generators
- Federal UST
- Federal Inst/Eng Controls
- Federal Brownfield
- Federal ERNS
- Federal Emergency Release Reports
- Emergency Release Reports
- State/Tribal NPL
- State/Tribal CERCLIS Equivalent
- State/Tribal LUST
- State/Tribal Voluntary Cleanup Sites
- State/Tribal UST
- State/Tribal Brownfield
- State/Tribal Inst/Eng Controls
- State/Tribal Landfill/Solid Waste
- State/Tribal RCRA Equivalent
- State/Tribal ASTM Other
- ERS Supplemental Govt Sources
- ERS Exclusive Historic Sources

SUMMARY OF AGENCY DIFFERENCES

MAP ID	ID / SITE NAME	ADDRESS / DATABASE	AGENCY COORDINATES	DISTANCE (MILES)	DIRECTION
6	110042146148 SPECIALIZED SERVICES TRUCKING INC	23 AIRPORT RD FRS-US	-119.4142, 48.9596	0.1	W
6	3247 Specialized Services Trucking Inc	23 Airport Rd FSIS-WA	-119.41055, 48.95782	0.13	SE

MAPPED AIR PERMITS WITH POTENTIAL DISPERSION (MAP5)

Note: Occurrences on this map are reported in Air Quality databases. Potential air plumes are drawn in the direction of the prevailing wind.



All plotted occurrences represent approximate locations based on geographic information provided by the respective agency/source. Actual locations may vary due to numerous reasons such as: the size of the property, accuracy of the provided location, accuracy of the software used to determine the location, etc. Potential air dispersion plumes are depicted to graphically show the direction contaminates may travel based on prevailing wind data and provide a visual screening tool only. Actual direction will vary especially by season. Depending on the actual contaminate, amount released, and other variables, the distance from the source the contaminate may travel can and will vary. Interpretation and review of all the actual relevant data by an environmental professional is recommended before making any decisions, conclusions or otherwise based on the map depictions, air data, and potential air dispersion plumes.

LISTED OCCURRENCE DETAILS

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
FRS-US	Listed	0.02 miles S	1064 ft (1 ft higher than site)	1

SITE NAME	MAPS	ID
DOROTHY SCOTT	1, 2, 3	110038055617

ADDRESS	CITY	ZIP
UNKNOWN	OROVILLE	98844

DETAILS

Registry ID: 110038055617
FRS Facility Detail: http://iaspub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110038055617
Create Date: 17-FEB-2009 17:09:35
Update Date: 14-APR-2015 20:51:39
Program System: EIS
Interest Types: AIR EMISSIONS CLASSIFICATION UNKNOWN

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
USGS-Waterwells-US	Listed	0.1 miles NE	1080 ft (17 ft higher than site)	2

SITE NAME	MAPS	ID
40N/27E-15R01	1, 2, 3	485738119243501

ADDRESS	CITY	ZIP
Not Reported by Agency		

DETAILS

CATEGORY: GW
LONGDD: -119.410897
LATDD: 48.9604431
SITEURL: http://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=485738119243501
AGENCY: USGS

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
Wells-WA	Listed	0.12 miles SE	1075 ft (12 ft higher than site)	**3**

SITE NAME	MAPS	ID
OLA HEIHOUSE	1, 2, 3	400787

ADDRESS	CITY	ZIP
Not Reported by Agency		

DETAILS

Note: This is an ERS assigned ID
URL: https://fortress.wa.gov/ecy/waterresources/map/WCLSWebMap/textsearch.aspx?newsearch=true Search by Well ID
Well Log ID: 143757
Well Tag Number: Not Reported
Notice of Intent ID: Not Reported
Well Depth: 30
Well Diameter: 30
Well Owner Name: OLA HEIHOUSE
Township: 40
Range: 27
Range Direction: E
Section: 22
Quarter (1/4): NE
Quarter (1/16): NE
Well Completion Date: 06/14/1975
County Name: Okanogan
Well Type Code: W
Well Type: Water
Well Log Receival Date: Not Reported
Tax Parcel ID: Not Reported
State Plane X-Coord: 1902297
State Plane Y-Coord: 1323944
Agency Provided Longitude: -119.410865445
Agency Provided Latitude: 48.9577103478

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
Wells-WA	Listed	0.15 miles NE	1085 ft (22 ft higher than site)	**4**

SITE NAME	MAPS	ID
RALPH ZOSEL	1, 2, 3	401275

ADDRESS	CITY	ZIP
Not Reported by Agency		

DETAILS

Note: This is an ERS assigned ID
URL: https://fortress.wa.gov/ecy/waterresources/map/WCLSWebMap/textsearch.aspx?newsearch=true Search by Well ID
Well Log ID: 144296
Well Tag Number: Not Reported
Notice of Intent ID: Not Reported
Well Depth: 30
Well Diameter: 6
Well Owner Name: RALPH ZOSEL
Township: 40
Range: 27
Range Direction: E
Section: 15
Quarter (1/4): SE
Quarter (1/16): SE
Well Completion Date: 08/31/1974
County Name: Okanogan
Well Type Code: W
Well Type: Water
Well Log Receival Date: Not Reported
Tax Parcel ID: Not Reported
State Plane X-Coord: 1902282
State Plane Y-Coord: 1325268
Agency Provided Longitude: -119.410851792
Agency Provided Latitude: 48.9613365344

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
USGS-Waterwells-US	Listed	0.17 miles S	1054 ft (9 ft lower than site)	**5**

SITE NAME	MAPS	ID
40N/27E-22A01	1, 2, 3	485725119244201

ADDRESS	CITY	ZIP
Not Reported by Agency		

DETAILS

CATEGORY: GW
LONGDD: -119.4128416
LATDD: 48.9568316
SITEURL: http://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=485725119244201
AGENCY: USGS

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
FRS-US	Listed	0.18 miles NW	1059 ft (4 ft lower than site)	6
SITE NAME			**MAPS**	**ID**
SPECIALIZED SERVICES TRUCKING INC			1, 2, 3	110042146148
ADDRESS			**CITY**	**ZIP**
23 AIRPORT RD			OROVILLE	98844

DETAILS

Registry ID: 110042146148
FRS Facility Detail: http://iaspub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110042146148
Create Date: 21-SEP-2010 12:31:09
Update Date: 28-MAR-2014 20:28:29
Program System: RCRAINFO, WA-FSIS
Interest Types: STATE MASTER, TRANSPORTER

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
FSIS-WA	Listed	0.18 miles NW	1059 ft (4 ft lower than site)	6
SITE NAME			**MAPS**	**ID**
Specialized Services Trucking Inc			1, 2, 3	3247
ADDRESS			**CITY**	**ZIP**
23 Airport Rd			Oroville	

DETAILS
Facility Site ID: 3247 EPA ID: Not Reported NAICS Code: 48811 NAICS Description: AIRPORT OPERATIONS SIC Code: 3792 SIC Description: TRAVEL TRAILERS AND CAMPERS Interaction Date: 7/26/2010 Interaction Type: Haz Waste Management Activity Status: Inactive Current System Program Name: HAZWASTE Current System Name: TURBOWASTE Federal Program ID: WAH000036917 Interaction End Date: 8/13/2014 Program Facility Name: Specialized Services Trucking Inc Last Updated Date: 8/13/2014 11:00:12 AM Interaction Date: 7/26/2010 Interaction Type: Hazardous Waste Generator Status: Inactive Current System Program Name: HAZWASTE Current System Name: TURBOWASTE Federal Program ID: WAH000036917 Interaction End Date: 7/26/2010 Program Facility Name: Specialized Services Trucking Inc Last Updated Date: 7/27/2010 2:00:31 AM

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
Hist-Auto Repair	Listed	0.18 miles NW	1059 ft (4 ft lower than site)	**6**

SITE NAME	MAPS	ID
STAR AIRMOTIVE	1, 2, 3	577981-PD

ADDRESS	CITY	ZIP
23 AIRPORT RD	OROVILLE	98844-9543

DETAILS
Listing Year: 1997 SIC Category: AIRCRAFT SERVICING & MAINTENANCE SIC Code: 458104

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
Hist-Transportation	Listed	0.18 miles NW	1059 ft (4 ft lower than site)	6
SITE NAME			**MAPS**	**ID**
Oroville Municipal Airport			1, 2, 3	2674
ADDRESS			**CITY**	**ZIP**
23 Airport Road Suite C			Oroville	98844
DETAILS				
Site Added: 4/30/2013				

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
Hist-Transportation	Listed	0.18 miles NW	1059 ft (4 ft lower than site)	6
SITE NAME			**MAPS**	**ID**
OROVILLE MUNICIPAL AIRPORT			1, 2, 3	637709-PD
ADDRESS			**CITY**	**ZIP**
23 AIRPORT RD			OROVILLE	98844-9543
DETAILS				
Listing Year: 1997 SIC Category: AIRPORTS SIC Code: 458106				

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
Hist-US	No Longer Listed	0.18 miles NW	1059 ft (4 ft lower than site)	6
SITE NAME			**MAPS**	**ID**
SPECIALIZED SERVICES TRUCKING INC			1, 2, 3	5CB2F9E-WAH000036917
ADDRESS			**CITY**	**ZIP**
23 AIRPORT RD			OROVILLE	98844

DETAILS
OrgDatabase: RCRA ArchDate: 3/23/2013

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
HWG-WA	Listed	0.18 miles NW	1059 ft (4 ft lower than site)	6
SITE NAME			**MAPS**	**ID**
Specialized Services Trucking Inc			1, 2, 3	WAH000036917
ADDRESS			**CITY**	**ZIP**
23 Airport Rd			Oroville	98844

DETAILS

Facility Information
RCRA ID Number: WAH000036917
Inactive Date: 8/13/2014
Notification Type: Admin-withdrawal
Annual Report Year: Not Reported
Received Date: 8/13/2014
Address Line 2: Not Reported
NAICS Code: 484220
NAICS: Specialized Freight (except Used Goods) Trucking, Local

Additional Facility and Contact Information
: Not Reported
Hazardous Waste Generator Details
: Not Reported

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
RCRA-NON-US	Listed	0.18 miles NW	1059 ft (4 ft lower than site)	6
SITE NAME			**MAPS**	**ID**
SPECIALIZED SERVICES TRUCKING INC			1, 2, 3	WAH000036917
ADDRESS			**CITY**	**ZIP**
23 AIRPORT RD			OROVILLE	98844

DETAILS
Additional details may be found online using the following link: http://oaspub.epa.gov/enviro/fii_query_dtl.disp_program_facility?pgm_sys_id_in=WAH000036917&pgm_sys_acrnm_in=RCRAINFO Source Type: Implementer Generator Status Universe: N Generator Status: Non-Generator NAICS1: SPECIALIZED FREIGHT (EXCEPT USED GOODS) TRUCKING, LOCAL Active Site Indicator: ----- Owner Name: OROVILLE Operator Name: RANDY THOMAS, GLORIA MORTUD & In Handler Universes: N In a Universe: N Short Term Generator: N Importer Activity: N Mixed Waste Generator: N Transporter Activity: N Transfer Facility: N Recycler Activity: N Onsite Burner Exemption: N Furnace Exemption: N Underground Injection Activity: N Receives Waste From Off-site: N Universal Waste: N Universal Waste Destination Facility: N Used Oil Universe: NNNNNNN Federal Universal Waste: N Active Site Federally Regulated TSDF: ------ Active Site Converter TSDF: ------ More Details Link

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
HWG-WA	Listed	0.22 miles N	1096 ft (33 ft higher than site)	7

SITE NAME	MAPS	ID
WA AGR Okanogan 3	1, 2, 3	WAH000014910

ADDRESS	CITY	ZIP
SKYVIEW INDUSTRIAL PARK 40A WESTLUND DR	OROVILLE	98844

DETAILS

Facility Information
RCRA ID Number: WAH000014910
Inactive Date: Not Reported
Notification Type: Not Reported
Annual Report Year: 2013
Received Date: 2/28/2014 11:05:45 AM
Address Line 2: Not Reported
NAICS Code: 926140
NAICS: Regulation of Agricultural Marketing and Commodities

Additional Facility and Contact Information
EPA ID: WAH000014910
Facility Site ID: 26531823
County Name: OKANOGAN
Address Line 2: WESTLUND DR
Tax Regulated Number: 342008829
NAICS Code: 926140
Business Type: Pesticide Disposal Event
Mailing Name: WSDA Waste Pesticide Program
Mailing Address1: PO Box 42589
Mailing Address2: Not Reported
Mailing City: OLYMPIA
Mailing State: WA
Mailing Zip Code: 98504-2589
Mailing Country: UNITED STATES
Legal Organization Name: WA AGR
More Details Link

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
Hist-Auto Repair	Listed	0.22 miles W	984 ft (79 ft lower than site)	**8**

SITE NAME	MAPS	ID
OKANOGAN SKY HAVEN	1, 2, 3	528463-PD

ADDRESS	CITY	ZIP
10 AIRPORT RD	OKANOGAN	98840

DETAILS

Listing Year: 1997
SIC Category: AIRCRAFT SERVICING & MAINTENANCE
SIC Code: 458104

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
Wells-WA	Listed	0.23 miles SW	999 ft (64 ft lower than site)	**9**

SITE NAME	MAPS	ID
ERIC ZANDELL	1, 2, 3	396124

ADDRESS	CITY	ZIP
Not Reported by Agency		

DETAILS

Note: This is an ERS assigned ID
URL: https://fortress.wa.gov/ecy/waterresources/map/WCLSWebMap/textsearch.aspx?newsearch=true Search by Well ID
Well Log ID: 525887
Well Tag Number: BAB794
Notice of Intent ID: W257149
Well Depth: 100
Well Diameter: 6
Well Owner Name: ERIC ZANDELL
Township: 40
Range: 27
Range Direction: E
Section: 22
Quarter (1/4): NE
Quarter (1/16): NW
Well Completion Date: 04/04/2008
County Name: Okanogan
Well Type Code: W
Well Type: Water
Well Log Receival Date: 04/28/2008
Tax Parcel ID: 4027220133
State Plane X-Coord: 1900941
State Plane Y-Coord: 1323921
Agency Provided Longitude: -119.416505519
Agency Provided Latitude: 48.9576985082

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
Wells-WA	Listed	0.24 miles NW	1020 ft (43 ft lower than site)	**10**

SITE NAME	MAPS	ID
FRANCIS HART	1, 2, 3	396285

ADDRESS	CITY	ZIP
Not Reported by Agency		

DETAILS

Note: This is an ERS assigned ID
URL: https://fortress.wa.gov/ecy/waterresources/map/WCLSWebMap/textsearch.aspx?newsearch=true Search by Well ID
Well Log ID: 328614
Well Tag Number: Not Reported
Notice of Intent ID: Not Reported
Well Depth: 30
Well Diameter: Not Reported
Well Owner Name: FRANCIS HART
Township: 40
Range: 27
Range Direction: E
Section: 15
Quarter (1/4): SE
Quarter (1/16): SW
Well Completion Date: Not Reported
County Name: Okanogan
Well Type Code: W
Well Type: Water
Well Log Receival Date: Not Reported
Tax Parcel ID: Not Reported
State Plane X-Coord: 1900929
State Plane Y-Coord: 1325245
Agency Provided Longitude: -119.416479783
Agency Provided Latitude: 48.9613245825

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
USGS-Waterwells-US	Listed	0.3 miles W	968 ft (95 ft lower than site)	**11**
SITE NAME			**MAPS**	**ID**
40N/27E-15P01			1, 3	485737119250301
ADDRESS			**CITY**	**ZIP**
Not Reported by Agency				

DETAILS

CATEGORY: GW
LONGDD: -119.4186755
LATDD: 48.96016458
SITEURL: http://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=485737119250301
AGENCY: USGS

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
FSIS-WA	Listed	0.31 miles W	965 ft (98 ft lower than site)	**12**

SITE NAME	MAPS	ID
OROVILLE TOWN UST 9322	1, 3	57667437

ADDRESS	CITY	ZIP
E OSOYOOS LAKE RD & AIRPORT RD	OROVILLE	

DETAILS

Facility Site ID: 57667437
EPA ID:
NAICS Code: Not Reported
NAICS Description: Not Reported
SIC Code: Not Reported
SIC Description: Not Reported
Interaction Date: 1/27/2000
Interaction Type: Underground Storage Tank
Status: Active
Current System Program Name: TOXICS
Current System Name: UST
Federal Program ID: 9322
Interaction End Date: Not Reported
Program Facility Name: Not Reported
Last Updated Date: 8/7/2013 11:05:58 AM

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
Hist-WA	No Longer Listed	0.31 miles W	965 ft (98 ft lower than site)	**12**

SITE NAME	MAPS	ID
TOWN OF OROVILLE	1, 3	2366BD78-57667437

ADDRESS	CITY	ZIP
E OSOYOOS LK RD & AIRPORT RD	Oroville	98844

DETAILS
Previous List: UST-WA Archived: 3/23/2010 Tank Name: 1 Installation Date: 12/31/1964 Tank Name: 2 Installation Date: 12/31/1964 Tank Name: 3 Installation Date: 12/31/1964 Capacity: 111 TO 1,100 Gallons Tank Name: 4 Installation Date: 12/31/1964 Capacity: 111 TO 1,100 Gallons

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
UST-WA	Listed	0.31 miles W	965 ft (98 ft lower than site)	12
SITE NAME			**MAPS**	**ID**
OROVILLE TOWN OF			1, 3	57667437
ADDRESS			**CITY**	**ZIP**
E OSOYOOS LK RD & AIRPORT RD			Oroville	98844

DETAILS
Tank Information Facility Site ID: 57667437 County: Okanogan UST Site ID: 9322 Agency Provided Latitude: 48.95974 Agency Provided Longitude: -119.41892 Responsible Unit: CENTRAL Tag Number(s): Not Reported Tank Name: 4 Tank Status: Removed Tank Status Date: 08/06/1996 Tank Install Date: 00/31/1964 Tank Upgrade Date: Not Reported Tank Permanent Closure Date: Not Reported Permit Expiration Date: Not Reported Tank Material: Steel Tank Construction: Not Reported Tank Corrosion Protection: Not Reported Tank Manifold: Not Reported Tank Release Detection: Not Reported Tank Tightness Test: Not Reported Tank Spill Prevention: Not Reported Tank Overfill Prevention: Not Reported Capacity Range: 111 TO 1,100 Gallons Pipe Material: Not Reported Pipe Construction: Not Reported Pipe Corrosion Protection: Not Reported More Details Link

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
Hist-US	No Longer Listed	0.31 miles W	965 ft (98 ft lower than site)	13
SITE NAME			MAPS	ID
CHEVRON USA INC MANSFIELD BULK			1, 3	5CB2F9E-WAD000834572
ADDRESS			CITY	ZIP
AIRPORT RD			MANSFIELD	98830

DETAILS
OrgDatabase: RCRA ArchDate: 3/23/2013

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
Hist-US	No Longer Listed	0.31 miles W	965 ft (98 ft lower than site)	13
SITE NAME			**MAPS**	**ID**
RED SHIRT MILL			1, 3	5CB2F9E-WAH000019695
ADDRESS			**CITY**	**ZIP**
AIRPORT RD			TWISP	98856

DETAILS

OrgDatabase: RCRA
ArchDate: 3/23/2013

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
Hist-US	No Longer Listed	0.31 miles W	965 ft (98 ft lower than site)	13
SITE NAME			**MAPS**	**ID**
OKANOGAN LEGION AIRPORT			1, 3	78587987-7371
ADDRESS			**CITY**	**ZIP**
AIRPORT RD			Okanogan	98840

DETAILS

Original Database: Tribal-UST
Archive Date: 06/01/2013
Alt Facility ID: 4020042
County: Okanogan
Tribe: Colville
Tank ID: 5
Alt Tank ID: 5
Date Installed: 01-01-1977
Tank Status Desc: Permanently Out of Use
Substance: Gasoline
Federal Regulated Tank: TRUE

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
Spills-WA	Listed	0.31 miles W	965 ft (98 ft lower than site)	**13**

SITE NAME	MAPS	ID
Not Reported by Agency	1, 3	527867

ADDRESS	CITY	ZIP
AIRPORT ROAD	TWISP	

DETAILS

Incident ID: 527867
Received Date: 7/18/2002
Reported Date: 7/18/2002
Location Name: Not Reported
Waterway: Not Reported
Incident Category: Not Reported
Cause: UNKNOWN
Source: MINING SITE
PRP First Name: Not Reported
PRP Last Name: Not Reported
Medium: SOIL
Activity: STORING
Sheen Only: 0
Impact: SOIL CONTAMINATION
Material Spilled: CHEMICAL
Quantity Spilled: 30
Unit of Measurement: Not Reported
Agency Provided Latitude: Not Reported
Agency Provided Longitude: Not Reported

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
FRS-US	Listed	0.31 miles W	965 ft (98 ft lower than site)	**14**

SITE NAME	MAPS	ID
OROVILLE TOWN UST 9322	1, 3	110015449889

ADDRESS	CITY	ZIP
E OSOYOOS LAKE RD & AIRPORT RD	OROVILLE	98844

DETAILS
Registry ID: 110015449889 FRS Facility Detail: http://iaspub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015449889 Create Date: 01-AUG-2003 04:30:26 Update Date: 26-DEC-2008 13:33:04 Program System: WA-FSIS Interest Types: STATE MASTER

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
Wells-WA	Listed	0.4 miles N	1122 ft (59 ft higher than site)	**15**
SITE NAME			**MAPS**	**ID**
CITY OF OROVILLE			1, 3	394120
ADDRESS			**CITY**	**ZIP**
Not Reported by Agency				

DETAILS

Note: This is an ERS assigned ID
URL: https://fortress.wa.gov/ecy/waterresources/map/WCLSWebMap/textsearch.aspx?newsearch=true Search by Well ID
Well Log ID: 296211
Well Tag Number: Not Reported
Notice of Intent ID: Not Reported
Well Depth: Not Reported
Well Diameter: 6
Well Owner Name: CITY OF OROVILLE
Township: 40
Range: 27
Range Direction: E
Section: 15
Quarter (1/4): SE
Quarter (1/16): NE
Well Completion Date: Not Reported
County Name: Okanogan
Well Type Code: W
Well Type: Water
Well Log Receival Date: Not Reported
Tax Parcel ID: Not Reported
State Plane X-Coord: 1902275
State Plane Y-Coord: 1326601
Agency Provided Longitude: -119.410804349
Agency Provided Latitude: 48.9649870518

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
Wells-WA	Listed	0.4 miles N	1122 ft (59 ft higher than site)	**15**

SITE NAME	MAPS	ID
CHARLES EDER	1, 3	393662

ADDRESS	CITY	ZIP
Not Reported by Agency		

DETAILS

Note: This is an ERS assigned ID
URL: https://fortress.wa.gov/ecy/waterresources/map/WCLSWebMap/textsearch.aspx?newsearch=true Search by Well ID
Well Log ID: 137732
Well Tag Number: Not Reported
Notice of Intent ID: Not Reported
Well Depth: 46
Well Diameter: 48
Well Owner Name: CHARLES EDER
Township: 40
Range: 27
Range Direction: E
Section: 15
Quarter (1/4): SE
Quarter (1/16): NE
Well Completion Date: 12/17/1974
County Name: Okanogan
Well Type Code: W
Well Type: Water
Well Log Receival Date: Not Reported
Tax Parcel ID: Not Reported
State Plane X-Coord: 1902275
State Plane Y-Coord: 1326601
Agency Provided Longitude: -119.410804349
Agency Provided Latitude: 48.9649870518

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
Wells-WA	Listed	0.4 miles N	1122 ft (59 ft higher than site)	**15**

SITE NAME	MAPS	ID
CITY OF OROVILLE	1, 3	394121

ADDRESS	CITY	ZIP
Not Reported by Agency		

DETAILS

Note: This is an ERS assigned ID
URL: https://fortress.wa.gov/ecy/waterresources/map/WCLSWebMap/textsearch.aspx?newsearch=true Search by Well ID
Well Log ID: 296212
Well Tag Number: Not Reported
Notice of Intent ID: Not Reported
Well Depth: Not Reported
Well Diameter: 6
Well Owner Name: CITY OF OROVILLE
Township: 40
Range: 27
Range Direction: E
Section: 15
Quarter (1/4): SE
Quarter (1/16): NE
Well Completion Date: Not Reported
County Name: Okanogan
Well Type Code: W
Well Type: Water
Well Log Receival Date: Not Reported
Tax Parcel ID: Not Reported
State Plane X-Coord: 1902275
State Plane Y-Coord: 1326601
Agency Provided Longitude: -119.410804349
Agency Provided Latitude: 48.9649870518

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
Wells-WA	Listed	0.41 miles SW	959 ft (104 ft lower than site)	**16**
SITE NAME			**MAPS**	**ID**
EAST LAKE WATER ASSOCIATION			1, 3	395907
ADDRESS			**CITY**	**ZIP**
Not Reported by Agency				

DETAILS

Note: This is an ERS assigned ID
URL: https://fortress.wa.gov/ecy/waterresources/map/WCLSWebMap/textsearch.aspx?newsearch=true Search by Well ID
Well Log ID: 139412
Well Tag Number: AGJ204
Notice of Intent ID: Not Reported
Well Depth: 30
Well Diameter: 12
Well Owner Name: EAST LAKE WATER ASSOCIATION
Township: 40
Range: 27
Range Direction: E
Section: 22
Quarter (1/4): NE
Quarter (1/16): SW
Well Completion Date: 06/18/1985
County Name: Okanogan
Well Type Code: W
Well Type: Water
Well Log Receival Date: 08/16/1985
Tax Parcel ID: Not Reported
State Plane X-Coord: 1900974
State Plane Y-Coord: 1322608
Agency Provided Longitude: -119.416443302
Agency Provided Latitude: 48.9541017542

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
Wells-WA	Listed	0.41 miles SW	959 ft (104 ft lower than site)	**16**
SITE NAME			**MAPS**	**ID**
EAST LAKE WATER ASSOC			1, 3	395906
ADDRESS			**CITY**	**ZIP**
Not Reported by Agency				

DETAILS

Note: This is an ERS assigned ID
URL: https://fortress.wa.gov/ecy/waterresources/map/WCLSWebMap/textsearch.aspx?newsearch=true Search by Well ID
Well Log ID: 359573
Well Tag Number: AHK882
Notice of Intent ID: W163598
Well Depth: 278
Well Diameter: 6
Well Owner Name: EAST LAKE WATER ASSOC
Township: 40
Range: 27
Range Direction: E
Section: 22
Quarter (1/4): NE
Quarter (1/16): SW
Well Completion Date: 04/15/2003
County Name: Okanogan
Well Type Code: W
Well Type: Water
Well Log Receival Date: 05/07/2003
Tax Parcel ID: Not Reported
State Plane X-Coord: 1900974
State Plane Y-Coord: 1322608
Agency Provided Longitude: -119.416443302
Agency Provided Latitude: 48.9541017542

RECORDS SOURCES SEARCHED

Air-Reg-Active-WA
Air Permits Active
Category: ERS Supplemental Govt Sources
Description: This database contains air permitted facilities as reported by Regional Offices in Washington. Not all air permitted facilities are required to be reported to the Washington Department of Ecology and are only listed on regional databases.
Olympic: 360-539-7610
Benton: 509-783-1304
Puget Sound: 206-343-8800
Yakima: 509-834-2050
Agency: Local Regional Offices
Phone Number: 7146698096
Date last updated: 4/24/2015
Date last checked: 3/10/2015
Distance searched: 0.75 miles
Sites:
None Found

Air-WA
Washington Air Permits
Category: ERS Supplemental Govt Sources
Description: This database contains a listing of active air permitted facilities being reported to the State department of Ecology.
Agency: Washington State Department of Ecology
Phone Number: 3604076040
Date last updated: 7/12/2016
Date last checked: 6/30/2016
Distance searched: 0.75 miles
Sites:
None Found

AST-WA
Aboveground Storage Tanks
Category: State/Tribal UST
Description: This database contains aboveground storage tanks regulated for spill prevention as reported by Washington Department of Ecology.
Agency: Washington State Department of Ecology
Phone Number: 3604077562
Date last updated: 6/28/2016
Date last checked: 6/28/2016
Distance searched: 0.75 miles

Sites:
None Found

BF-Closed-WA
Inactive Brownfields
Category: State/Tribal Brownfield
Description: This database contains a listing of Brownfield sites which are Closed/Inactive.
Agency: Washington State Department of Ecology
Phone Number: 3604076000
Date last updated: 7/6/2016
Date last checked: 7/1/2016
Distance searched: 1 mile
Sites:
None Found

BF-Open-WA
Active Brownfields
Category: State/Tribal Brownfield
Description: This listing contains Brownfield sites which are still Open/Active and require further cleanup action.
Agency: Washington State Department of Ecology
Phone Number: 3604076000
Date last updated: 7/6/2016
Date last checked: 7/1/2016
Distance searched: 1 mile
Sites:
None Found

BF-US
A Listing of Brownfields Sites
Category: Federal Brownfield
Description: This database contains a listing of Brownfields sites listed under the "Cleanups in My Community" program maintained by EPA.
Agency: United States Environmental Protection Agency
Phone Number: 2025662777
Date last updated: 6/6/2016
Date last checked: 5/25/2016
Distance searched: 1 mile
Sites:
None Found

BioFuel-US
Bio Diesel Fuel

Category: ERS Supplemental Govt Sources
Description: This database contains a listing of EPA Fuels Programs facilities.
Agency: United States Environmental Protection Agency
Phone Number: 2023439303
Date last updated: 7/27/2015
Date last checked: 7/8/2015
Distance searched: 0.75 miles
Sites:
None Found

CDL-US
National Clandestine Drug Lab Register
Category: ERS Supplemental Govt Sources
Description: National Clandestine Drug Lab Register. This database contains a listing of addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites.
Agency: Unites States Drug Enforcement Administration
Phone Number: 2023071000
Date last updated: 7/28/2015
Date last checked: 7/8/2015
Distance searched: 0.563 miles
Sites:
None Found

CDL-WA
Clandestine Drug Labs
Category: ERS Supplemental Govt Sources
Description: This database contains a listing of Methamphetamine Contaminated Properties as reported by the Tacoma Pierce County Department of Health.
Agency: Tacoma Pierce County Department of Health
Phone Number: 2537986500
Date last updated: 8/27/2015
Date last checked: 8/3/2015
Distance searched: 0.563 miles
Sites:
None Found

CERCLIS-Archived-US
CERCLIS sites that have been archived
Category: Federal CERCLIS NFRAP

Description: The Superfund Enterprise Management System (SEMS). The reports produced by SEMS contain information on the assessment and remediation of current and archived hazardous waste sites. The archived designation means that to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates that this decision was not appropriate or other considerations require a recommendation for listing at a later time. Information provided to the previous CERCLIS Legacy System has been added to the details of the sites.
Agency: United States Environmental Protection Agency
Phone Number: 8004249346
Date last updated: 6/7/2016
Date last checked: 9/8/2016
Distance searched: 1 mile
Sites:
None Found

CERCLIS-US
Comprehensive Environmental Response, Compensation, and Liability Information System
Category: Federal CERCLIS
Description: The Superfund Enterprise Management System (SEMS). The reports produced by SEMS contain information on the assessment and remediation of current hazardous waste sites. Information provided to the previous CERCLIS Legal System has been added to the details of the sites.
Agency: United States Environmental Protection Agency
Phone Number: 8004249346
Date last updated: 6/6/2016
Date last checked: 9/8/2016
Distance searched: 1 mile
Sites:
None Found

City-Landfills-WA
City Landfills
Category: State/Tribal Landfill/Solid Waste
Description: This database contains a listing of landfills reported by City agencies in Washington. These facilities have been closed/abandoned and were reported in survey studies. The following is the contact information for the respective cities:
King, Seattle City: 206-296-0100
Agency: Local City Agencies
Phone Number: 7146698096
Date last updated: 9/19/2014
Date last checked: 9/18/2014
Distance searched: 1 mile
Sites:
None Found

Coal-Ash-Dams-US
Coal Ash Contaminated Sites and Hazard Dams
Category: ERS Supplemental Govt Sources
Description: This database contains coal ash contaminated sites and hazard dams. Coal combustion waste sites have contaminated groundwater, wetlands, and rivers. The U.S. EPA rates coal ash ponds according to a National Inventory of Dams criteria that categorizes the ponds by the damage that would occur in the event of a dam failure. This database contains High Hazard and Significant Hazard dams.
Agency: EarthJustice
Phone Number: 8005846460
Date last updated: 10/20/2015
Date last checked: 10/12/2015
Distance searched: 1 mile
Sites:
None Found

Coal-Ash-WA
Coal Ash Disposal Site Listing
Category: ERS Supplemental Govt Sources
Description: This database contains Coal Ash Disposal Sites reported by Washington State Department of Ecology.
Agency: Washington State Department of Ecology
Phone Number: 3604076000
Date last updated: 1/4/2016
Date last checked: 12/4/2015
Distance searched: 1 mile
Sites:
None Found

Controls-RCRA-US
Federal RCRA with Controls
Category: Federal Inst/Eng Controls
Description: This database contains RCRA facilities that have Inst/Eng Controls placed on them as identified by the EPA.
Agency: United States Environmental Protection Agency
Phone Number: 8004249346
Date last updated: 6/10/2016
Date last checked: 9/6/2016
Distance searched: 1 mile
Sites:
None Found

Controls-US
Controls List
Category: Federal Inst/Eng Controls

Description: This database contains a listing of Voluntary Action Program Sites with Engineering Controls and/or Institutional Controls placed on them and were identified by the Environmental Protection Agency.
Agency: United States Environmental Protection Agency
Phone Number: 8004249346
Date last updated: 5/9/2016
Date last checked: 5/9/2016
Distance searched: 1 mile
Sites:
None Found

Controls-WA
Sites with Institutional and Engineering Controls
Category: State/Tribal Inst/Eng Controls
Description: Sites with Institutional and Engineering Controls identified by the Washington Department of Ecology. This registry contains cleanup sites with land use restrictions, also known as Environmental Covenants. Meets legislative requirements passed in 2007.
Agency: Washington State Department of Ecology
Phone Number: 3604077187
Date last updated: 7/6/2016
Date last checked: 6/30/2016
Distance searched: 1 mile
Sites:
None Found

County-Landfills-WA
County Landfills
Category: State/Tribal Landfill/Solid Waste
Description: This database contains a listing of landfills reported by county agencies in Washington. These facilities have been closed/abandoned and were reported in survey studies. The following is the contact information for the respective counties:
Snohomish Health District: 425-339-5250
Pierce: 253-798-6500
King: 206-296-4600
Agency: Local County Agencies
Phone Number: 7146698096
Date last updated: 9/19/2014
Date last checked: 9/19/2014
Distance searched: 1 mile
Sites:
None Found

CSCS-WA
Confirmed and Suspected Contaminated Sites Including Brownfield & Voluntary Cleanup Program Sites

Category: State/Tribal CERCLIS Equivalent
Description: This database contains a listing of sites that are undergoing cleanup and sites that are awaiting further investigation and/or cleanup by the Toxics Cleanup Program. This data set includes Brownfield & Voluntary Cleanup Program Sites.
Agency: Washington State Department of Ecology
Phone Number: 8008267716
Date last updated: 7/6/2016
Date last checked: 6/30/2016
Distance searched: 1 mile
Sites:
None Found

Dams-WA
Inventory of Dams
Category: ERS Supplemental Govt Sources
Description: This database contains the inventory of dams in the state of Washington. These dams are defined as structures that can impound 10- acre-feet or more of watery material at the dam crest elevation.
Agency: Washington State Department of Ecology
Phone Number: 3604076603
Date last updated: 1/13/2016
Date last checked: 1/7/2016
Distance searched: 0.75 miles
Sites:
None Found

DCF-WA
Dry Cleaners
Category: ERS Supplemental Govt Sources
Description: This database contains dry cleaners reported by the Washington State Department of Ecology.
Agency: Washington State Department of Ecology
Phone Number: 3604076735
Date last updated: 7/6/2016
Date last checked: 6/27/2016
Distance searched: 0.75 miles
Sites:
None Found

Debris-US
Debris Sites
Category: Federal Solid Waste
Description: This database contains the Torres Martinez Reservation Illegal dump sites reported by the United States Environmental Protection Agency.
Agency: United States Environmental Protection Agency

Phone Number: 8004249346
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 1 mile
Sites:
None Found

Delisted-NPL-US
Delisted NPL Sites
Category: Federal Delisted NPL
Description: The Superfund Enterprise Management System (SEMS). The reports produced by SEMS contain information on the assessment and remediation of current hazardous waste sites. This database contains a listing of Delisted NPL sites. These are facilities that have been removed from the NPL list. The EPA may delete a final NPL site if it determines that no further response is required to protect human health or the environment.
Agency: United States Environmental Protection Agency
Phone Number: 8004249346
Date last updated: 9/8/2016
Date last checked: 9/8/2016
Distance searched: 1.5 miles
Sites:
None Found

EGRID-US
Emissions & Generation Resource Facilities
Category: ERS Supplemental Govt Sources
Description: Emissions & Generation Resource Integrated Database (eGRID) is a comprehensive source of data on the environmental characteristics of almost all electric power generated in the United States.
Agency: United States Environmental Protection Agency
Phone Number: 2023439340
Date last updated: 11/24/2015
Date last checked: 11/12/2015
Distance searched: 1 mile
Sites:
None Found

EPA-Watch-List-US
EPA Watch List
Category: ERS Supplemental Govt Sources

Description: This database contains facilities listed on the Clean Air Act, Clean Water Act, and RCRA Watch List. These reports are now considered archived and will no longer be updated. Being on the Watch List may not mean that the facility has actually violated the law only that an evaluation or investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. The Watch List does not identify which alleged violations of environmental laws may pose the greatest risk to public health or the environment. It is an automated report based on data from the Air Facility System
(AFS), which is used by federal, state and local agencies to track environmental enforcement and compliance information.
Agency: United States Environmental Protection Agency
Phone Number: 2025661667
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.75 miles
Sites:
None Found

ERNS-US
Emergency Response Notification System
Category: Federal ERNS
Description: The primary function of the National Response Center is to serve as the sole national point of contact for reporting all oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories. This database contains a listing of discharge locations.
Agency: National Response Center
Phone Number: 8004248802
Date last updated: 6/22/2016
Date last checked: 5/25/2016
Distance searched: 0.563 miles
Sites:
None Found

FA-HW-US
Financial Assurance, Hazardous Waste
Category: ERS Supplemental Govt Sources
Description: This database contains Financial Assurance facilities listed under the Hazardous Waste program as reported by the United States Environmental Protection Agency.
Agency: United States Environmental Protection Agency
Phone Number: 8004249346
Date last updated: 7/27/2015
Date last checked: 6/23/2015
Distance searched: 0.563 miles
Sites:
None Found

FA-HW-WA
Financial Assurance for Hazardous Waste
Category: ERS Supplemental Govt Sources
Description: This database contains Financial Assurance facilities under the Hazardous Waste program reported by the Washington State Department of Ecology.
Agency: Washington State Department of Ecology
Phone Number: 3604076000
Date last updated: 8/20/2015
Date last checked: 7/28/2015
Distance searched: 0.563 miles
Sites:
None Found

FA-UST-WA
Financial Assurance for Underground Storage Tanks
Category: ERS Supplemental Govt Sources
Description: This database identifies Underground Storage Tank that have financial assurance as reported by the Washington State Department of Ecology.
Agency: Washington State Department of Ecology
Phone Number: 3604076000
Date last updated: 7/8/2016
Date last checked: 7/6/2016
Distance searched: 0.563 miles
Sites:
None Found

FEMA-UST-US
FEMA Underground Storage Tanks
Category: Federal UST
Description: This database contains Federal Emergency Management Agency (FEMA) owned and operated underground storage tanks. The report was published in 2006.
Agency: United States Environmental Protection Agency
Phone Number: 7036037165
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.75 miles
Sites:
None Found

FRS-US
Facility Registry Index (FINDS)
Category: ERS Supplemental Govt Sources

Description: The Facility Registry System (FRS) is a centrally managed database that identifies facilities, sites or places subject to environmental regulations or of environmental interest.
Agency: United States Environmental Protection Agency
Phone Number: 2022720167
Date last updated: 8/3/2015
Date last checked: 7/8/2015
Distance searched: 0.563 miles
Sites:

DOROTHY SCOTT	MapID: 1	Listed
SPECIALIZED SERVICES TRUCKING INC	MapID: 6	Listed
OROVILLE TOWN UST 9322	MapID: 14	Listed

FSIS-WA
Facility Site Identification System
Category: State/Tribal ASTM Other
Description: The Facility/Site Identification System provides a central repository of key information for each facility/site of interest to the Washington State Department of Ecology. The agency has defined a facility/site as an operation at a fixed location that is of interest to the agency because it has an active or potential impact upon the environment.
Agency: Washington State Department of Ecology
Phone Number: 8008267716
Date last updated: 7/8/2016
Date last checked: 7/1/2016
Distance searched: 0.75 miles
Sites:

Specialized Services Trucking Inc	MapID: 6	Listed
OROVILLE TOWN UST 9322	MapID: 12	Listed

FTTS-ENF-US
FIFRA/TSCA Tracking System (FTTS) Enforcement Actions
Category: Federal ASTM Other
Description: The FIFRA/TSCA Tracking System (FTTS) is a regional system used to track compliance activities such as inspections, case review, enforcement actions taken, samples collected, and pesticide grants and cooperative agreement information. The compliance monitoring and enforcement activities are tracked from the time an inspector conducts (or schedules) an inspection until the time the case is closed or the enforcement action is settled. Specific legal citations include, but are not limited to: Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), Toxic Substances Control Act (TSCA), and Emergency Planning and Community Right-to-Know Act (EPCRA).
Agency: United States Environmental Protection Agency
Phone Number: 2025642501
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles

Sites:
None Found

FTTS-INSP-US
FIFRA/TSCA Tracking System (FTTS) Inspections
Category: ERS Supplemental Govt Sources
Description: The FIFRA/TSCA Tracking System (FTTS) is a regional system used to track compliance activities such as inspections, case review, enforcement actions taken, samples collected, and pesticide grants and cooperative agreement information. The compliance monitoring and enforcement activities are tracked from the time an inspector conducts (or schedules) an inspection until the time the case is closed or the enforcement action is settled. Specific legal citations include, but are not limited to: Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), Toxic Substances Control Act (TSCA), and Emergency Planning and Community Right-to-Know Act (EPCRA).
Agency: United States Environmental Protection Agency
Phone Number: 2025642501
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

FUDS-US
Formerly Used Defense Sites
Category: ERS Supplemental Govt Sources
Description: The Department of Defense (DoD) is responsible for environmental restoration of properties that were formerly owned by, leased to or otherwise possessed by the United States and under the jurisdiction of the Secretary of Defense. Such properties are known as Formerly Used Defense Sites (FUDS). The Army is the executive agent for the program and the U.S. Army Corps of Engineers manages and directs the program's administration. The scope and magnitude of the FUDS program are significant, with more than 9,900 properties identified for potential inclusion in the program. Information about the origin and extent of contamination, land transfer issues, past and present property ownership, and program policies must be evaluated before DoD considers a property eligible for Defense Environment Restoration Account (DERA) funding under the FUDS program. Environmental cleanup procedures at FUDS are similar to those at active DoD installations.
Agency: Department of Defense
Phone Number: 2025284285
Date last updated: 8/30/2016
Date last checked: 8/30/2016
Distance searched: 1.5 miles
Sites:
None Found

Hist-AFS2-US
Air Facility System for Clean Air Act stationary sources

Category: ERS Supplemental Govt Sources
Description: AFS contains emissions, compliance, and enforcement data on stationary sources of air pollution. Regulated sources cover a wide spectrum; from large industrial facilities to relatively small operations such as dry cleaners (automobiles and other mobile air pollution sources are tracked by a different AIRS subsystem (AMS).
Agency: United States Environmental Protection Agency
Phone Number: 2025645962
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.75 miles
Sites:
None Found

Hist-AFS-US
Air Facility System for Clean Air Act stationary sources
Category: ERS Supplemental Govt Sources
Description: AFS contains emissions, compliance, and enforcement data on stationary sources of air pollution. Regulated sources cover a wide spectrum; from large industrial facilities to relatively small operations such as dry cleaners (automobiles and other mobile air pollution sources are tracked by a different AIRS subsystem (AMS).
Agency: United States Environmental Protection Agency
Phone Number: 2025645962
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.75 miles
Sites:
None Found

Hist-Agriculture
Ranches/Farms, Livestock/Agriculture
Category: ERS Exclusive Historic Sources
Description: ERS has compiled proprietary lists of MILLIONS of records dating back to the 1800's that have shown up in historic resources and based on their classification, may have used hazardous materials or petroleum products. This listing includes sites such as: Ranches, Farms, Livestock, and/or Agriculture.
Agency: Environmental Record Search (ERS)
Phone Number: 8003772430
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

Hist-Auto Dealers
Auto and Truck Dealers

Category: ERS Exclusive Historic Sources
Description: ERS has compiled proprietary lists of MILLIONS of records dating back to the 1800's that have shown up in historic resources and based on their classification, may have used hazardous materials or petroleum products. This listing includes Auto Dealers.
Agency: Environmental Record Search (ERS)
Phone Number: 8003772430
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

Hist-Auto Repair
Automotive Repair
Category: ERS Exclusive Historic Sources
Description: ERS has compiled proprietary lists of MILLIONS of records dating back to the 1800's that have shown up in historic resources and based on their classification, may have used hazardous materials or petroleum products. This listing includes sites such as: Auto Repair and Tire Dealers.
Agency: Environmental Record Search (ERS)
Phone Number: 8003772430
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.75 miles
Sites:

STAR AIRMOTIVE	MapID: 6	Listed
OKANOGAN SKY HAVEN	MapID: 8	Listed

Hist-CCS-WA
Confirmed Contaminated Sites Report
Category: ERS Supplemental Govt Sources
Description: This database contains a listing of sites that are undergoing cleanup and sites that are awaiting further investigation and/or cleanup by the Toxics Cleanup Program as reported in 1998.
Agency: Washington State Department of Ecology
Phone Number: 8008267716
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.75 miles
Sites:
None Found

HIST-CDL-WA
Clandestine Drug Labs
Category: ERS Supplemental Govt Sources

Description: This database contains a listing of Clandestine Drug Lab locations reported by the Washington State Department of Ecology from 1989-2007.
Agency: Washington State Department of Ecology
Phone Number: 3604076000
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

Hist-CERCLIS-NFRAP-US
CERCLIS-NFRAP
Category: ERS Supplemental Govt Sources
Description: This database contains CERCLIS sites that are classified as No Further Action Remedial Action Planned as reported in 1998.
Agency: United States Environmental Protection Agency
Phone Number: 8004249346
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.75 miles
Sites:
None Found

Hist-CERCLIS-US
CERCLIS Sites
Category: ERS Supplemental Govt Sources
Description: This database contains CERCLIS sites as reported in 1998.
Agency: United States Environmental Protection Agency
Phone Number: 8004249346
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.75 miles
Sites:
None Found

Hist-Chemical Manufacturing
Manufacturing and Distribution of Chemicals, Gases, and/or Solids
Category: ERS Exclusive Historic Sources
Description: ERS has compiled proprietary lists of MILLIONS of records dating back to the 1800's that have shown up in historic resources and based on their classification, may have used hazardous materials or petroleum products. This listing includes sites such as: Manufacturing and Distribution of Chemicals, Gases, and/or Solids.
Agency: Environmental Record Search (ERS)
Phone Number: 8003772430

Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

Hist-Chemical-Storage
Chemical/Hazardous Use Storage
Category: ERS Exclusive Historic Sources
Description: ERS has compiled proprietary lists of MILLIONS of records dating back to the 1800's that have shown up in historic resources and based on their classification, may have used hazardous materials or petroleum products. This listing includes chemical storage facilities.
Agency: Environmental Record Search (ERS)
Phone Number: 8003772430
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

Hist-Cleaners
Laundry, Cleaners, and Dry Cleaning Services
Category: ERS Exclusive Historic Sources
Description: ERS has compiled proprietary lists of MILLIONS of records dating back to the 1800's that have shown up in historic resources and based on their classification, may have used hazardous materials or petroleum products. This listing includes sites, such as: Laundry, Cleaners, and Dry Cleaning Services.
Agency: Environmental Record Search (ERS)
Phone Number: 8003772430
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.75 miles
Sites:
None Found

Hist-Convenience
Convenience Store with Possible Gas
Category: ERS Exclusive Historic Sources
Description: ERS has compiled proprietary lists of MILLIONS of records dating back to the 1800's that have shown up in historic resources and based on their classification, may have used hazardous materials or petroleum products. This listing includes convenience stores with possible gas use.
Agency: Environmental Record Search (ERS)
Phone Number: 8003772430
Date last updated: Historical Database
Date last checked: N/A

Distance searched: 0.563 miles
Sites:
None Found

Hist-CS-WA
Suspected Contaminated Sites Report
Category: ERS Supplemental Govt Sources
Description: This database contains a listing of sites that are undergoing cleanup and sites that are awaiting further investigation and/or cleanup by the Toxics Cleanup Program as reported in 1998.
Agency: Washington State Department of Ecology
Phone Number: 8008267716
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.75 miles
Sites:
None Found

Hist-Disposal-Recycle
Hazardous Disposal/Recycle and Dumps/Waste
Category: ERS Exclusive Historic Sources
Description: ERS has compiled proprietary lists of MILLIONS of records dating back to the 1800's that have shown up in historic resources and based on their classification, may have used hazardous materials or petroleum products. This listing includes hazardous disposal facilities.
Agency: Environmental Record Search (ERS)
Phone Number: 8003772430
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

Hist-Dumps-US
Dumps Inventory of 1985
Category: Federal Solid Waste
Description: This database contains Dumps as reported on the Inventory of Open Dumps from 1985. This report was published by the Office of Solid Waste, EPA.
Agency: Environmental Protection Agency
Phone Number: 2025660200
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 1 mile
Sites:
None Found

Hist-ERNS-US

Emergency Response Notification System (ERNS)
Category: ERS Supplemental Govt Sources
Description: The Emergency Response Notification System (ERNS) is a national database used to collect information on reported releases of oil and hazardous substances. The database contains information from spill reports made to federal authorities including the EPA, the US Coast Guard, the National Response Center and the Department of transportation. A search of the database records for the period October 1986 through January 1998 revealed information regarding reported spills of oil or hazardous substances in the stated area.
Agency: National Response Center
Phone Number: 8004248802
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.75 miles
Sites:
None Found

Hist-FA-SW-WA

Financial Assurance, Solid Waste
Category: ERS Supplemental Govt Sources
Description: This database contains a listing of Financial Assurance for Solid Waste facilities reported by the Washington Department of Ecology. This was a Financial Assurance survey that was produced in 2000.
Agency: Washington State Department of Ecology
Phone Number: 3604076132
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

Hist-FIFRA-US

Case Administration Data from National Compliance Database (Federal Insecticide, Fungicide, and Rodenticide Act)
Category: ERS Supplemental Govt Sources
Description: This database is no longer maintained by EPA since 2006. The system tracked compliance monitoring and enforcement activities from the time an inspector conducts an inspection until the inspector closes the case or settles any resulting enforcement action(s). EPA now has the ICS database to track this information.
Agency: U.S. Environmental Protection Agency
Phone Number: 2025642501
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.75 miles

Sites:
None Found

Hist-FINDS-US
Facility Index System
Category: ERS Supplemental Govt Sources
Description: The Facility Index System (FINDS) is a compilation of any property or site which the EPA has investigated, reviewed or been made aware of in connection with its various regulatory programs. The data is from 1998.
Agency: United States Environmental Protection Agency
Phone Number: 2022720167
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

Hist-Food-Processors
Food Processing Manufacturers
Category: ERS Exclusive Historic Sources
Description: ERS has compiled proprietary lists of MILLIONS of records dating back to the 1800's that have shown up in historic resources and based on their classification, may have used hazardous materials or petroleum products. This listing includes food processors.
Agency: Environmental Record Search (ERS)
Phone Number: 8003772430
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

Hist-Gun-Ranges
Gun Ranges/Clubs
Category: ERS Exclusive Historic Sources
Description: ERS has compiled proprietary lists of MILLIONS of records dating back to the 1800's that have shown up in historic resources and based on their classification, may have used hazardous materials or petroleum products. This listing includes gun ranges/clubs.
Agency: Environmental Record Search (ERS)
Phone Number: 8003772430
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

Hist-LUST-WA

Leaking Underground Storage Tank List
Category: ERS Supplemental Govt Sources
Description: Leaking Underground Storage Tank List as reported by the Department of Ecology in 1998.
Agency: Washington State Department of Ecology
Phone Number: 3604077183
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.75 miles
Sites:
None Found

Hist-Machine Shop

Machine Shops, Welding, Machine Repair
Category: ERS Exclusive Historic Sources
Description: ERS has compiled proprietary lists of MILLIONS of records dating back to the 1800's that have shown up in historic resources and based on their classification, may have used hazardous materials or petroleum products. This listing includes sites, such as: Machine shops, welding shops and machine repair.
Agency: Environmental Record Search (ERS)
Phone Number: 8003772430
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

Hist-Manufacturing

Historic Sources US: Manufacturing
Category: ERS Exclusive Historic Sources
Description: ERS has compiled proprietary lists of MILLIONS of records dating back to the 1800's that have shown up in historic resources and based on their classification, may have used hazardous materials or petroleum products. This listing includes manufacturing sites.
Agency: Environmental Record Search (ERS)
Phone Number: 8003772430
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

Hist-Metal Plating

Metal Plating
Category: ERS Exclusive Historic Sources
Description: ERS has compiled proprietary lists of MILLIONS of records dating back to the 1800's that have shown up in historic resources and based on their classification, may have used hazardous materials or petroleum products. This listing includes metal plating sites.
Agency: Environmental Record Search (ERS)
Phone Number: 8003772430
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

Hist-Mining
Mining Operations
Category: ERS Exclusive Historic Sources
Description: ERS has compiled proprietary lists of MILLIONS of records dating back to the 1800's that have shown up in historic resources and based on their classification, may have used hazardous materials or petroleum products. This listing includes Mining facilities.
Agency: Environmental Record Search (ERS)
Phone Number: 8003772430
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

HIST-MLTS-US
Material Licensing Tracking System
Category: ERS Supplemental Govt Sources
Description: This database contains facilities listed on the Material Licensing Tracking system that possess or use radioactive materials as reported by the U.S. Nuclear Regulatory Commission. In late 2012, the agency changed from MLTS to WBL system and no longer keep track of certain information that was available in the old MLTS system.
Agency: U.S. Nuclear Regulatory Commission
Phone Number: 3014157169
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.75 miles
Sites:
None Found

Hist-Mortuaries
Crematories/Mortuaries

Category: ERS Exclusive Historic Sources
Description: ERS has compiled proprietary lists of MILLIONS of records dating back to the 1800's that have shown up in historic resources and based on their classification, may have used hazardous materials or petroleum products. This listing includes sites such as: Mortuaries and Crematories.
Agency: Environmental Record Search (ERS)
Phone Number: 8003772430
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

Hist-NPL-US
National Priority List
Category: ERS Supplemental Govt Sources
Description: This database contains NPL sites as reported in 1998.
Agency: United States Environmental Protection Agency
Phone Number: 8004249346
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.75 miles
Sites:
None Found

Hist-Oil-Gas
Oil and Gas Well Related Facilities
Category: ERS Exclusive Historic Sources
Description: ERS has compiled proprietary lists of MILLIONS of records dating back to the 1800's that have shown up in historic resources and based on their classification, may have used hazardous materials or petroleum products. This listing includes Oil and Gas Well related facilities.
Agency: Environmental Record Search (ERS)
Phone Number: 8003772430
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

Hist-OilGas-Refiners
Oil/Gas Refiners/Manufacturers/Plants
Category: ERS Exclusive Historic Sources
Description: ERS has compiled proprietary lists of MILLIONS of records dating back to the 1800's that have shown up in historic resources and based on their classification, may have used hazardous materials or petroleum products. This listing includes Oil and Gas Refiners and/or plants.

Agency: Environmental Record Search (ERS)
Phone Number: 8003772430
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

Hist-Paint-Stores
Paint Stores
Category: ERS Exclusive Historic Sources
Description: ERS has compiled proprietary lists of MILLIONS of records dating back to the 1800's that have shown up in historic resources and based on their classification, may have used hazardous materials or petroleum products. This listing includes paint stores.
Agency: Environmental Record Search (ERS)
Phone Number: 8003772430
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

Hist-Petroleum
Petroleum Refining/ Manufacturing/ Chemicals
Category: ERS Exclusive Historic Sources
Description: ERS has compiled proprietary lists of MILLIONS of records dating back to the 1800's that have shown up in historic resources and based on their classification, may have used hazardous materials or petroleum products. This listing includes sites such as: Petroleum Refining, Manufacturing, and/or processing Chemicals.
Agency: Environmental Record Search (ERS)
Phone Number: 8003772430
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

Hist-Post-Offices
Post Offices
Category: ERS Exclusive Historic Sources
Description: ERS has compiled proprietary lists of MILLIONS of records dating back to the 1800's that have shown up in historic resources and based on their classification, may have used hazardous materials or petroleum products. This listing includes post offices.
Agency: Environmental Record Search (ERS)

Phone Number: 8003772430
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

Hist-Printers
Printers and Publishers
Category: ERS Exclusive Historic Sources
Description: ERS has compiled proprietary lists of MILLIONS of records dating back to the 1800's that have shown up in historic resources and based on their classification, may have used hazardous materials or petroleum products. This listing includes sites such as: Printers and Publishers.
Agency: Environmental Record Search (ERS)
Phone Number: 8003772430
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

Hist-RCRIS-US
EPA's Resource Conservation and Recovery Act
Category: ERS Supplemental Govt Sources
Description: This database contains RCRA facilities as reported by the EPA in 1998. It includes, small, large, and conditionally exempt generators.
Agency: United States Environmental Protection Agency
Phone Number: 8004249346
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.75 miles
Sites:
None Found

Hist-Rental
Rental Equipment & Yards
Category: ERS Exclusive Historic Sources
Description: ERS has compiled proprietary lists of MILLIONS of records dating back to the 1800's that have shown up in historic resources and based on their classification, may have used hazardous materials or petroleum products. This listing includes rental equipment facilities and yards.
Agency: Environmental Record Search (ERS)
Phone Number: 8003772430
Date last updated: Historical Database
Date last checked: N/A

Distance searched: 0.563 miles
Sites:
None Found

Hist-RV-Dealers
Trailer and Recreational Vehicle Dealers
Category: ERS Exclusive Historic Sources
Description: ERS has compiled proprietary lists of MILLIONS of records dating back to the 1800's that have shown up in historic resources and based on their classification, may have used hazardous materials or petroleum products. This listing includes sites such as: Trailer and Recreational Vehicle Dealers.
Agency: Environmental Record Search (ERS)
Phone Number: 8003772430
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

Hist-Salvage
Vehicle Salvage Yards or Wreckers
Category: ERS Exclusive Historic Sources
Description: ERS has compiled proprietary lists of MILLIONS of records dating back to the 1800's that have shown up in historic resources and based on their classification, may have used hazardous materials or petroleum products. This listing includes sites such as: Vehicle Salvage Yards or Wreckers.
Agency: Environmental Record Search (ERS)
Phone Number: 8003772430
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

Hist-Service Stations
Service Stations/Vehicle Fueling
Category: ERS Exclusive Historic Sources
Description: ERS has compiled proprietary lists of MILLIONS of records dating back to the 1800's that have shown up in historic resources and based on their classification, may have used hazardous materials or petroleum products. This listing includes sites such as: Service Stations/Vehicle Fueling Stations.
Agency: Environmental Record Search (ERS)
Phone Number: 8003772430
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.75 miles
Sites:

None Found

Hist-SiteRegister-WA
Toxic Cleanup Program Site Register
Category: ERS Supplemental Govt Sources
Description: The Washington Site Register Toxics Cleanup Program report details activities related to the study and cleanup of hazardous waste sites under the Model Toxics Control Act. This database is from 1998.
Agency: Department of Ecology, Toxics Cleanup Program
Phone Number: 3604077200
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.75 miles
Sites:
None Found

Hist-Steel-Metals
Steel Mills/Manufacturers/Foundries/Smelters
Category: ERS Exclusive Historic Sources
Description: ERS has compiled proprietary lists of MILLIONS of records dating back to the 1800's that have shown up in historic resources and based on their classification, may have used hazardous materials or petroleum products. This listing includes steel metal manufacturers, foundries, and smelters.
Agency: Environmental Record Search (ERS)
Phone Number: 8003772430
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

Hist-SWLF-WA
Municipal Solid Waste Facilities
Category: ERS Supplemental Govt Sources
Description: Solid Waste Facilities as reported by the Department of Ecology, Solid Waste Services Program in 1998.
Agency: Department of Ecology, Solid Waste Services Program
Phone Number: 3604076133
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.75 miles
Sites:
None Found

Hist-Textile

Textile Mills/Manufacturers
Category: ERS Exclusive Historic Sources
Description: ERS has compiled proprietary lists of MILLIONS of records dating back to the 1800's that have shown up in historic resources and based on their classification, may have used hazardous materials or petroleum products. This listing includes textile mill manufacturers.
Agency: Environmental Record Search (ERS)
Phone Number: 8003772430
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

Hist-Transportation

Transportation Facilities
Category: ERS Exclusive Historic Sources
Description: ERS has compiled proprietary lists of MILLIONS of records dating back to the 1800's that have shown up in historic resources and based on their classification, may have used hazardous materials or petroleum products. This listing includes sites such as: Airports and other facilities that may handle hazardous materials and petroleum products.
Agency: Environmental Record Search (ERS)
Phone Number: 8003772430
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:

Oroville Municipal Airport	MapID: 6	Listed
OROVILLE MUNICIPAL AIRPORT	MapID: 6	Listed

Hist-TRIS-US

Toxic Release Inventory System
Category: ERS Supplemental Govt Sources
Description: This database contains facilities who report to the Toxic Release Inventory System as required by the EPA. This reporting is from 1998.
Agency: United States Environmental Protection Agency
Phone Number: 8004249346
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.75 miles
Sites:
None Found

Hist-Trucking

Trucking, Shipping, Delivery, and/or Storage
Category: ERS Exclusive Historic Sources
Description: ERS has compiled proprietary lists of MILLIONS of records dating back to the 1800's that have shown up in historic resources and based on their classification, may have used hazardous materials or petroleum products. This listing includes sites such as: Trucking, Shipping, and/or Delivery Storage.
Agency: Environmental Record Search (ERS)
Phone Number: 8003772430
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

Hist-US

Previously Listed Federal Sites
Category: ERS Supplemental Govt Sources
Description: ERS has compiled records that have been previously listed in other agency databases. When ERS updates an agency database, if there is a record that was in the older version but the record is not found in the newer version, it is put into this database. The site may have been completely removed, or there was a significant change in the record such as Name, ID, or Address. The information from the old listing is preserved in this database along with which database it was originally in, It is also possible that it was moved from one database to another such as a LUST Open site receiving closure and now being listed in the LUST Closed database.
Agency: Environmental Record Search (ERS)
Phone Number: 8003772430
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:

SPECIALIZED SERVICES TRUCKING INC	MapID: 6	No Longer Listed
CHEVRON USA INC MANSFIELD BULK	MapID: 13	No Longer Listed
RED SHIRT MILL	MapID: 13	No Longer Listed
OKANOGAN LEGION AIRPORT	MapID: 13	No Longer Listed

Hist-US-EC

Engineering Controls Sites List
Category: Federal Inst/Eng Controls
Description: This database contains a listing of Voluntary Action Program Sites with Engineering Controls placed on them and were identified by the Environmental Protection Agency.
Agency: Environmental Protection Agency
Phone Number: 8004249346
Date last updated: Historical Database
Date last checked: N/A

Distance searched: 1 mile
Sites:
None Found

Hist-US-IC
Sites with Institutional Controls
Category: Federal Inst/Eng Controls
Description: This database contains a listing of Voluntary Action Program Sites with Institutional Controls placed on them and were identified by the Environmental Protection Agency.
Agency: Environmental Protection Agency
Phone Number: 8004249346
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 1 mile
Sites:
None Found

Hist-UST-WA
Underground Storage Tank Database
Category: ERS Supplemental Govt Sources
Description: Underground Storage Tank Database as reported by the Department of Ecology in 1998.
Agency: Washington State Department of Ecology
Phone Number: 3604077183
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.75 miles
Sites:
None Found

Hist-Vehicle-Parts
Vehicle Parts
Category: ERS Exclusive Historic Sources
Description: ERS has compiled proprietary lists of MILLIONS of records dating back to the 1800's that have shown up in historic resources and based on their classification, may have used hazardous materials or petroleum products. This listing includes Vehicle Parts Dealers.
Agency: Environmental Record Search (ERS)
Phone Number: 8003772430
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

Hist-Vehicle-Washing

Vehicle/Truck Washing Facilities
Category: ERS Exclusive Historic Sources
Description: ERS has compiled proprietary lists of MILLIONS of records dating back to the 1800's that have shown up in historic resources and based on their classification, may have used hazardous materials or petroleum products. This listing includes vehicle washing facilities.
Agency: Environmental Record Search (ERS)
Phone Number: 8003772430
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

Hist-WA

Previously Listed Washington Sites
Category: ERS Supplemental Govt Sources
Description: ERS has compiled records that have been previously listed in other agency databases. When ERS updates an agency database, if there is a record that was in the older version but the record is not found in the newer version, it is put into this database. The site may have been completely removed, or there was a significant change in the record such as Name, ID, or Address. The information from the old listing is preserved in this database along with which database it was originally in, It is also possible that it was moved from one database to another such as a LUST Open site receiving closure and now being listed in the LUST Closed database.
Agency: Environmental Record Search (ERS)
Phone Number: 8003772430
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
TOWN OF OROVILLE MapID: 12 No Longer Listed

Hist-WaterWells-US

Public Community Water Supply/Well Head Protection Database
Category: ERS Supplemental Govt Sources
Description: This database contains the public community water supply wells as reported by the Geological Survey in 1998.
Agency: Geological Survey
Phone Number: 6092921185
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

HMIS-US
Hazardous Materials Information System
Category: Federal Emergency Release Reports
Description: Data includes spills, releases, or other incidents involving hazardous materials in commerce during the course of transportation. All modes of transportation are included except pipeline and bulk marine transportation. Data represent a census of all incidents reportable to the U.S. Department of Transportation This database contains a listing of spills. (DOT). U.S. federal regulations require all spills meeting the following criteria to be reported, in writing, to DOT's Office of Hazardous Materials Safety.
Agency: US Department of Transportation Pipeline and Hazardous Materials Safety Administration
Phone Number: 2023664433
Date last updated: 6/15/2016
Date last checked: 6/1/2016
Distance searched: 0.563 miles
Sites:
None Found

HSL-WA
Hazardous Sites List
Category: State/Tribal CERCLIS Equivalent
Description: This database contains a listing of Hazardous Sites reported by Washington Department of Ecology.
Agency: Washington State Department of Ecology
Phone Number: 8008267716
Date last updated: 7/7/2016
Date last checked: 6/30/2016
Distance searched: 1 mile
Sites:
None Found

HWG-WA
Hazardous Waste Generators
Category: State/Tribal RCRA Equivalent
Description: This database contains hazardous waste generators as reported by the Washington Department of Ecology.
Agency: Washington State Department of Ecology
Phone Number: 3604077170
Date last updated: 7/7/2016
Date last checked: 6/27/2016
Distance searched: 0.75 miles
Sites:

Specialized Services Trucking Inc	MapID: 6	Listed
WA AGR Okanogan 3	MapID: 7	Listed

ICIS-Air-US
Integrated Compliance Information System for Air
Category: ERS Supplemental Govt Sources
Description: The Integrated Compliance Information System for Air (ICIS-Air) data exchange allows all State, Local, and Tribal Air agencies providing air stationary source enforcement and compliance data to submit their data to EPA via the Exchange Network.
Agency: United States Environmental Protection Agency
Phone Number: 2025645962
Date last updated: 9/8/2015
Date last checked: 7/15/2015
Distance searched: 0.563 miles
Sites:
None Found

ICIS-FEC-US
Integrated Compliance Information System for Federal Enforcement Data
Category: ERS Supplemental Govt Sources
Description: The Integrated Compliance Information System (ICIS) tracks all formal administrative and judicial enforcement actions taken by the U.S. EPA and is used as the system of record to provide official enforcement data.
Agency: United States Environmental Protection Agency
Phone Number: 2025646962
Date last updated: 7/29/2015
Date last checked: 7/20/2015
Distance searched: 0.563 miles
Sites:
None Found

ICIS-NPDES-US
National Pollutant Discharge Elimination System (NPDES)
Category: ERS Supplemental Govt Sources
Description: The National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. This database contains a listing of permit holders.
Agency: United States Environmental Protection Agency
Phone Number: 2022720167
Date last updated: 5/5/2016
Date last checked: 4/7/2016
Distance searched: 0.563 miles
Sites:
None Found

Industrial-Permits-WA
Industrial Permits
Category: ERS Supplemental Govt Sources
Description: This database contains Active Industrial Section permits tracked by Washington State Department of Ecology.
Agency: Washington State Department of Ecology
Phone Number: 3604076600
Date last updated: 7/7/2016
Date last checked: 7/1/2016
Distance searched: 0.75 miles
Sites:
None Found

LAST-WA
Leaking Aboveground Storage Tanks
Category: State/Tribal LUST
Description: This database contains spill cases where the source of the spill comes from an aboveground storage tank.
Agency: Washington State Department of Ecology
Phone Number: 3604076000
Date last updated: 7/14/2016
Date last checked: 6/30/2016
Distance searched: 1 mile
Sites:
None Found

Lead-Smelter-2-US
Lead Smelter Sites
Category: ERS Supplemental Govt Sources
Description: This database contains 464 sites that were reported as potential lead smelters sites in research conducted by the EPA Superfund Program and other sources. The sites are listed on the 2007 published report by the EPA Superfund Program.
Agency: United States Environmental Protection Agency
Phone Number: 7034129810
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.75 miles
Sites:
None Found

Lead-US
Lead Smelter Sites
Category: ERS Supplemental Govt Sources

Description: This database contains lead smelter sites reported by the Environmental Protection Agency. This database is provided by the Superfund Enterprise Management System (SEMS).
Agency: United States Environmental Protection Agency
Phone Number: 2025645962
Date last updated: 11/24/2015
Date last checked: 11/10/2015
Distance searched: 0.75 miles
Sites:
None Found

LIENS-US
Federal LIEN Sites
Category: Federal Inst/Eng Controls
Description: This database contains sites that have had Federal Liens filed on them as reported by the EPA.
Agency: United States Environmental Protection Agency
Phone Number: 8004249346
Date last updated: 5/9/2016
Date last checked: 5/9/2016
Distance searched: 0.563 miles
Sites:
None Found

LMOP-US
Landfill Methane Outreach Program
Category: ERS Supplemental Govt Sources
Description: The U.S. Environmental Protection Agency's Landfill Methane Outreach Program (LMOP) is a voluntary assistance program that helps to reduce methane emissions from landfills by encouraging the recovery and beneficial use of landfill gas (LFG) as a renewable energy resource.
Agency: Environmental Protection Agency
Phone Number: 2025647873
Date last updated: 8/12/2016
Date last checked: 7/19/2016
Distance searched: 1 mile
Sites:
None Found

LUST-Closed-WA
Leaking Underground Storage Tanks
Category: State/Tribal LUST
Description: This database contains a listing of Washington Department of Ecology Leaking Underground Storage Tanks.
Agency: Washington State Department of Ecology
Phone Number: 3604077183

Date last updated: 7/7/2016
Date last checked: 7/5/2016
Distance searched: 1 mile
Sites:
None Found

LUST-Open-WA
Leaking Underground Storage Tanks
Category: State/Tribal LUST
Description: This database contains a listing of Washington Department of Ecology Leaking Underground Storage Tanks.
Agency: Washington State Department of Ecology
Phone Number: 3604077183
Date last updated: 7/7/2016
Date last checked: 7/5/2016
Distance searched: 1 mile
Sites:
None Found

LUST-RCU-WA
Leaking Underground Storage Tanks
Category: State/Tribal LUST
Description: This database contains a listing of Washington Department of Ecology Leaking Underground Storage Tanks. The status on these cases are reported cleanup (historic data only). Owner or consultant reports that contamination has been cleaned up; and/or some soil sontamination may remain under existing structures or in otherwise inaccessible areas if groundwater is not threatened and there has been no migration of contamination into the structure; and cleanup report has not been reviewed by Ecology.
Agency: Washington State Department of Ecology
Phone Number: 3604077183
Date last updated: 7/7/2016
Date last checked: 6/30/2016
Distance searched: 1 mile
Sites:
None Found

Manifest2-RI
Hazardous Waste Manifest
Category: State/Tribal RCRA Equivalent
Description: The Rhode Island Department of Environmental Management, Hazardous Waste Manifest System lists sites from all over the country, not just Rhode Island. To be thorough, ERS has searched the data subset that includes Montana sites for listings on or near the subject site that are listed in the Rhode Island Department of Environmental Management, Hazardous Waste Manifest System.
Agency: Rhode Island Department of Environmental Management
Phone Number: 4012222797

Date last updated: 2/19/2016
Date last checked: 2/19/2016
Distance searched: 0.563 miles
Sites:
None Found

Manifest-WA
Hazardous Waste Manifest
Category: State/Tribal RCRA Equivalent
Description: This database contains the hazardous manifest system reported by Washington State Department of Ecology.
Agency: Washington State Department of Ecology
Phone Number: 3604076000
Date last updated: 7/7/2016
Date last checked: 6/27/2016
Distance searched: 0.563 miles
Sites:
None Found

Military-Bases-US
Military Base Boundaries
Category: ERS Supplemental Govt Sources
Description: United States Military Installations is a polygon theme representing the boundaries and location information for important military installations in the United States and Puerto Rico. The database includes records for 405 military installations.
Agency: Research and Innovative Technology Administration's Bureau of Transportation Statistics
Phone Number: 2023663828
Date last updated: 8/9/2016
Date last checked: 7/22/2016
Distance searched: 1.5 miles
Sites:
None Found

MINES-US
Mines Master Index File
Category: ERS Supplemental Govt Sources
Description: The Master Index file contains mine identification numbers issued for mines active or opened since 1971.
Agency: United States Department of Labor
Phone Number: 8777786055
Date last updated: 8/13/2015
Date last checked: 7/27/2015
Distance searched: 0.563 miles
Sites:

None Found

MLTS-US
Material Licensing Tracking System
Category: ERS Supplemental Govt Sources
Description: This database contains facilities listed on the Material Licensing Tracking system that possess or use radioactive materials as reported by the U.S. Nuclear Regulatory Commission.
Agency: U.S. Nuclear Regulatory Commission
Phone Number: 3014157169
Date last updated: 8/12/2015
Date last checked: 8/10/2015
Distance searched: 0.563 miles
Sites:
None Found

MRDS-US
Mineral Resources Data System (MRDS)
Category: ERS Supplemental Govt Sources
Description: MRDS is a collection of reports describing metallic and nonmetallic mineral resources throughout the world. Included are deposit name, location, commodity, deposit description, geologic characteristics, production, reserves, resources, and references.
Agency: U.S. Geologic Survey
Phone Number: 8882758747
Date last updated: 4/28/2016
Date last checked: 2/26/2016
Distance searched: 0.75 miles
Sites:
None Found

NFA-WA
Confirmed and Suspected Contaminated Sites, No Further Action Including Brownfield & Voluntary Cleanup Program Sites
Category: State/Tribal CERCLIS Equivalent
Description: This database contains a listing of sites previously on the Confirmed and Suspected Contaminated Sites List that have received a No Further Action (NFA) determination.
Agency: Washington State Department of Ecology
Phone Number: 8008267716
Date last updated: 7/7/2016
Date last checked: 7/5/2016
Distance searched: 1 mile
Sites:
None Found

NPDES-WA
NPDES Permits
Category: ERS Supplemental Govt Sources
Description: This database contains a listing of National Pollutant Discharge Elimination System (NPDES) permit program facilities reported by the Washington Department of Ecology.
Agency: Washington State Department of Ecology
Phone Number: 3604076489
Date last updated: 7/28/2016
Date last checked: 7/6/2016
Distance searched: 0.563 miles
Sites:
None Found

NPL-R10-US
NPL Region 10 Site Boundaries
Category: Federal NPL
Description: This database contains the boundaries of the NPL sites within the specified EPA region.
Agency: Environmental Protection Agency
Phone Number: 2065531200
Date last updated: 9/1/2016
Date last checked: 9/1/2016
Distance searched: 1.5 miles
Sites:
None Found

NPL-US
National Priorities List
Category: Federal NPL
Description: The National Priorities List is the list of national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States and its territories. The NPL is intended primarily to guide the EPA in determining which sites warrant further investigation. This database contains a listing of NPL sites.
Agency: United States Environmental Protection Agency
Phone Number: 8004249346
Date last updated: 6/6/2016
Date last checked: 9/8/2016
Distance searched: 1.5 miles
Sites:
None Found

OGW-WA
Washington Oil and Gas Wells
Category: ERS Supplemental Govt Sources

Description: This database contains a listing of Oil and Gas Wells that include plugged and abandoned wells. There have not been many Oil and Gas wells drilled in Washington because of the very low potential of oil or gas production. Most of these wells were never permitted by the Agency.
Agency: Washington State Department of Natural Resources
Phone Number: 3609021000
Date last updated: 7/8/2016
Date last checked: 7/7/2016
Distance searched: 0.563 miles
Sites:
None Found

Oil-WA
Used Oil Recycling Locations
Category: ERS Supplemental Govt Sources
Description: This database contains a listing of used oil recycling locations as reported by the Tacoma Pierce County Department of Health.
Agency: Tacoma Pierce County Department of Health
Phone Number: 2537986500
Date last updated: 7/1/2016
Date last checked: 7/1/2016
Distance searched: 0.75 miles
Sites:
None Found

PADS-US
PCB Registration Database System
Category: Federal ASTM Other
Description: This database contains a listing of generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.
Agency: United States Environmental Protection Agency
Phone Number: 2025660500
Date last updated: 9/12/2016
Date last checked: 9/12/2016
Distance searched: 0.563 miles
Sites:
None Found

PCB-US
PCB Transformers
Category: Federal ASTM Other
Description: PCB Transformer Registration Database. This database indicates the best known current status of registered PCB transformers
Agency: United States Environmental Protection Agency
Phone Number: 7033088404

Date last updated: 9/12/2016
Date last checked: 9/12/2016
Distance searched: 0.75 miles
Sites:
None Found

PCS-US
Permit Compliance System for Clean Water Act
Category: ERS Supplemental Govt Sources
Description: PCS is an information management system maintained by the Office of Compliance to track permit compliance and enforcement status of facilities regulated by the National Pollutant Discharge Elimination System (NPDES) under the Clean Water Act. PCS is designed to support the NPDES program at the state, regional, and national levels.
Agency: United States Environmental Protection Agency
Phone Number: 2025640221
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.75 miles
Sites:
None Found

Proposed-NPL-US
Proposed NPL Sites
Category: Federal NPL
Description: The EPA provides information on the assessment and remediation of current hazardous waste sites. The site in this database have been proposed for the NPL list.
Agency: United States Environmental Protection Agency
Phone Number: 8004249346
Date last updated: 5/26/2016
Date last checked: 9/8/2016
Distance searched: 1.5 miles
Sites:
None Found

RADINFO-US
Radiation Information Database
Category: ERS Supplemental Govt Sources
Description: This database contains a listing of facilities that are regulated by the US EPA regulations for radiation and radioactivity.
Agency: United States Environmental Protection Agency
Phone Number: 2023439775
Date last updated: 8/30/2016
Date last checked: 8/30/2016
Distance searched: 0.563 miles

Sites:
None Found

RCRA-CESQG-US
Resource Conservation and Recovery Act, Conditionally Exempt Small Quantity Generators
Category: Federal RCRA Generators
Description: The primary goals of RCRA are to: Protect human health and the environment from the potential hazards of waste disposal. Conserve energy and natural resources. Reduce the amount of waste generated. Ensure that wastes are managed in an environmentally sound manner. This database contains a listing of Conditionally Exempt Small Quantity Generators.
Agency: United States Environmental Protection Agency
Phone Number: 8004249346
Date last updated: 9/9/2016
Date last checked: 8/30/2016
Distance searched: 0.75 miles
Sites:
None Found

RCRA-COR-US
Resource Conservation and Recovery Act - Corrective Actions
Category: Federal RCRA CORRACTS
Description: The primary goals of RCRA are to: Protect human health and the environment from the potential hazards of waste disposal. Conserve energy and natural resources. Reduce the amount of waste generated. Ensure that wastes are managed in an environmentally sound manner.
EPA estimates that between 50 and 70 percent of all TSDFs have some degree of environmental contamination requiring detailed investigation and perhaps cleanup. Under a program entitled Corrective Action, EPA has the statutory authority to require permitted and interim status TSDFs to clean up hazardous waste contamination. This database contains a listing of sites that have had corrective action.
Agency: United States Environmental Protection Agency
Phone Number: 8004249346
Date last updated: 9/9/2016
Date last checked: 8/30/2016
Distance searched: 1.5 miles
Sites:
None Found

RCRA-LQG-US
Resource Conservation and Recovery Act, Large Quantity Generators
Category: Federal RCRA Generators
Description: The primary goals of RCRA are to: Protect human health and the environment from the potential hazards of waste disposal. Conserve energy and natural resources. Reduce the amount of waste generated. Ensure that wastes are managed in an environmentally sound manner. This database contains a listing of Large Quantity Generators.
Agency: United States Environmental Protection Agency

Phone Number: 8004249346
Date last updated: 9/9/2016
Date last checked: 8/30/2016
Distance searched: 0.75 miles
Sites:
None Found

RCRA-NON-US
Resource Conservation and Recovery Act
Category: Federal RCRA Generators
Description: The primary goals of RCRA are to: Protect human health and the environment from the potential hazards of waste disposal. Conserve energy and natural resources. Reduce the amount of waste generated. Ensure that wastes are managed in an environmentally sound manner. This database contains a listing of RCRA Non-Hazardous generators.
Agency: United States Environmental Protection Agency
Phone Number: 8004249346
Date last updated: 9/9/2016
Date last checked: 8/30/2016
Distance searched: 0.75 miles
Sites:
SPECIALIZED SERVICES TRUCKING INC MapID: 6 Listed

RCRA-SQG-US
Resource Conservation and Recovery Act, Small Quantity Generators
Category: Federal RCRA Generators
Description: The primary goals of RCRA are to: Protect human health and the environment from the potential hazards of waste disposal. Conserve energy and natural resources. Reduce the amount of waste generated. Ensure that wastes are managed in an environmentally sound manner. This database contains a listing of Small Quantity Generators.
Agency: United States Environmental Protection Agency
Phone Number: 8004249346
Date last updated: 9/9/2016
Date last checked: 8/30/2016
Distance searched: 0.75 miles
Sites:
None Found

RCRA-TSD-US
Resource Conservation and Recovery Act - Treatment, Storage, and Disposal sites
Category: Federal RCRA non-CORRACTS TSD
Description: The primary goals of RCRA are to: Protect human health and the environment from the potential hazards of waste disposal. Conserve energy and natural resources. Reduce the amount of waste generated. Ensure that wastes are managed in an environmentally sound manner.

This database contains a listing of Treatment, Storage and Disposal Facilities - Facilities that receive hazardous waste from generators or other facilities for treatment, storage or disposal of waste are known as TSDFs.
Agency: United States Environmental Protection Agency
Phone Number: 8004249346
Date last updated: 9/9/2016
Date last checked: 8/30/2016
Distance searched: 1 mile
Sites:
None Found

RFG-Lab-US
Reformulated Gasoline (RFG)
Category: ERS Supplemental Govt Sources
Description: This database includes the list of registered Reformulated Gasoline Laboratories.
Agency: Environmental Protection Agency, United States
Phone Number: 2023439303
Date last updated: 11/24/2015
Date last checked: 11/18/2015
Distance searched: 0.75 miles
Sites:
None Found

RMP-US
Risk Management Plans
Category: ERS Supplemental Govt Sources
Description: This database contains facilities that have developed risk management plans as reported by the Environmental Protection Agency. The System for Risk Management Plans (SRMP) is a suite of electronic systems containing information relating to risk management plans submitted by facilities in accordance with the Clean Air Act, Section 112(r). Affected facilities are to develop risk management programs which will prevent and minimize consequences of accidental releases of certain hazardous chemicals that could harm public health and the environment.
Agency: United States Environmental Protection Agency
Phone Number: 2025642491
Date last updated: 4/22/2016
Date last checked: 2/23/2016
Distance searched: 0.563 miles
Sites:
None Found

ROD-US
Records of Decision
Category: ERS Supplemental Govt Sources

Description: The Record of Decision (ROD) is a public document that explains which cleanup alternatives will be used to clean up a Superfund site. The ROD for sites listed on the NPL (NPL Site Listing Process) is created from information generated during the Remedial Investigation/Feasibility Study (RI/FS).A ROD contains site history, site description, site characteristics, community participation, enforcement activities, past and present activities, contaminated media, the contaminants present, scope and role of response action and the remedy selected for cleanup. This database contains a listing of sites with RODs.
Agency: United States Environmental Protection Agency
Phone Number: 8004249346
Date last updated: 11/24/2015
Date last checked: 11/18/2015
Distance searched: 1 mile
Sites:
None Found

SAA-Agreements-US
Sites with Superfund Alternative Approach Agreements
Category: Federal ASTM Other
Description: This database contains sites that have a Superfund Alternative agreement. The Superfund alternative (SA) approach uses the same investigation and cleanup process and standards that are used for sites listed on the NPL. The SA approach is an alternative to listing a site on the NPL; it is not an alternative to Superfund or the Superfund process.
Agency: United States Environmental Protection Agency
Phone Number: 2025645110
Date last updated: 9/2/2016
Date last checked: 9/2/2016
Distance searched: 1.5 miles
Sites:
None Found

SDWIS-US
Safe Drinking Water Information System
Category: ERS Supplemental Govt Sources
Description: This database contains the Safe Drinking Water Information including Public Water, Source and Treatment, Enforcements and Violations reported by the United States Environmental Protection Agency.
Agency: United States Environmental Protection Agency
Phone Number: 8004249346
Date last updated: 6/20/2016
Date last checked: 4/6/2016
Distance searched: 0.75 miles
Sites:
None Found

SmelterPlume-WA

Tacoma and Everett Smelter Plume
Category: State/Tribal Other
Description: This database contains areas with arsenic soil contamination from former smelters in Tacoma and Everett. Impacted areas include parts of Thurston, Pierce, King, and Snohomish counties.
Agency: Washington Department of Ecology
Phone Number: 3604077177
Date last updated: 7/20/2016
Date last checked: 7/8/2016
Distance searched: 1.5 miles
Sites:
None Found

Spills-WA
Spill Sites
Category: Emergency Release Reports
Description: Washington State Department of Ecology has defined a facility/site as an operation at a fixed location that is of interest to the agency because it has potential impact upon the environment.
Agency: Washington State Department of Ecology
Phone Number: 3604076000
Date last updated: 7/11/2016
Date last checked: 6/30/2016
Distance searched: 0.563 miles
Sites:
Name not provided by Agency/Source MapID: 13 Listed

SSTS-US
Section 7 Tracking System
Category: ERS Supplemental Govt Sources
Description: This database contains a listing of EPA-registered domestic pesticide-producing and device producing establishments and the pesticides produced based on data in the Section Seven Tracking System.
Agency: United States Environmental Protection Agency
Phone Number: 2025644203
Date last updated: 6/27/2016
Date last checked: 6/9/2016
Distance searched: 0.563 miles
Sites:
None Found

SWF-WA
Solid Waste Facilities
Category: State/Tribal Landfill/Solid Waste

Description: This database contains a listing of Solid Waste Facilities. This database includes the following types of facilities: compost, drop box, energy recovery, inert waste, land application, limited purpose, MSW, pile, tire storage, transfer station, and recycle.
Agency: Washington State Department of Ecology
Phone Number: 3604076132
Date last updated: 7/11/2016
Date last checked: 7/7/2016
Distance searched: 1 mile
Sites:
None Found

SWLF-US
Solid Waste Facilities
Category: Federal Solid Waste
Description: This dataset represents verified locations of ACTIVE permitted Municipal Solid Waste facilities as well as ACTIVE permitted Construction and Demolition waste facilities. It is not intended to be a comprehensive inventory of all permitted solid waste facilities. Specifically excluded from this collection are facilities that accept hazardous waste, industrial waste facilities, waste collection/transfer sites and other specialty waste facilities.
Agency: Oak Ridge National Laboratory, GIST
Phone Number: 8652413976
Date last updated: 8/12/2016
Date last checked: 7/19/2016
Distance searched: 1 mile
Sites:
None Found

SWRCY-WA
Recycling Facilities
Category: State/Tribal ASTM Other
Description: This database contains recycling facilities reported by the Washington State Department of Ecology.
Agency: Washington State Department of Ecology
Phone Number: 3604076000
Date last updated: 7/7/2016
Date last checked: 6/30/2016
Distance searched: 1 mile
Sites:
None Found

SWTire-WA
Solid Waste Tire Facilities
Category: ERS Supplemental Govt Sources

Description: This database contains a listing of Waste Tire Sites registered through the Washington Department of Ecology.
Agency: Washington State Department of Ecology
Phone Number: 3604076132
Date last updated: 7/11/2016
Date last checked: 7/7/2016
Distance searched: 0.75 miles
Sites:
None Found

Tribal-Air-US
Tribal Air Permitted Facilities
Category: ERS Supplemental Govt Sources
Description: This database contains tribal locations that have been issued air permits as reported by the US Environmental Protection Agency. At this time the database includes region 2, 5, 7, 8, 9, 10.
Agency: United States Environmental Protection Agency
Phone Number: 3123532000
Date last updated: 5/1/2015
Date last checked: 2/27/2015
Distance searched: 0.75 miles
Sites:
None Found

Tribal-BF-US
Tribal Brownfields
Category: Federal Brownfield
Description: This database contains a listing of Brownfields on Native American Land identified by the United States Environmental Protection Agency.
Agency: United States Environmental Protection Agency
Phone Number: 8004249346
Date last updated: 5/16/2014
Date last checked: 5/16/2014
Distance searched: 1 mile
Sites:
None Found

Tribal-LUST-Closed-Reg10
Tribal Leaking Underground Storage Tanks
Category: Federal LUST
Description: This database contains a listing of Leaking Underground Storage Tanks on Native American Land identified by the United States Environmental Protection Agency in Region 10.
Agency: United States Environmental Protection Agency
Phone Number: 8004249346
Date last updated: 7/14/2016

Date last checked: 6/30/2016
Distance searched: 1 mile
Sites:
None Found

Tribal-LUST-Open-Reg10
Tribal Leaking Underground Storage Tanks
Category: Federal LUST
Description: This database contains a listing of Leaking Underground Storage Tanks on Native American Land identified by the United States Environmental Protection Agency in Region 10.
Agency: United States Environmental Protection Agency
Phone Number: 8004249346
Date last updated: 7/14/2016
Date last checked: 6/30/2016
Distance searched: 1 mile
Sites:
None Found

Tribal-ODI-US
Tribal Open Dump Sites
Category: Federal Solid Waste
Description: This database contains a listing of Open Dump Sites on Native American Land identified by the Indian Health Service
Agency: Indian Health Service
Phone Number: 3014431046
Date last updated: 8/30/2016
Date last checked: 8/30/2016
Distance searched: 1 mile
Sites:
None Found

Tribal-UST-Reg10
Tribal Underground Storage Tanks
Category: Federal UST
Description: This database contains a listing of Underground Storage Tanks on Native American Land identified by the United States Environmental Protection Agency in Region 10.
Agency: United States Environmental Protection Agency
Phone Number: 8004249346
Date last updated: 6/28/2016
Date last checked: 6/22/2016
Distance searched: 0.75 miles
Sites:
None Found

Tribal-VCP-US
Tribal VCP
Category: Federal Tribal VCP
Description: This database contains voluntary cleanup sites located in tribal land as reported by the United States Environmental Protection Agency.
Agency: United States Environmental Protection Agency
Phone Number: 8004249346
Date last updated: 8/29/2016
Date last checked: 8/29/2016
Distance searched: 1 mile
Sites:
None Found

TRIS2000-US
Toxics Release Inventory System
Category: ERS Supplemental Govt Sources
Description: TRIS is a EPA database reported annually by certain covered industry groups, as well as federal facilities. It contains information about more than 650 toxic chemicals that are being used, manufactured, treated, transported, or released into the environment, and includes information about waste management and pollution prevention activities. This database contains a listing of facilities that reported in the years between 2000-2009.
Agency: United States Environmental Protection Agency
Phone Number: 8004249346
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

TRIS2010-US
Toxics Release Inventory System
Category: ERS Supplemental Govt Sources
Description: TRIS is a EPA database reported annually by certain covered industry groups, as well as federal facilities. It contains information about more than 650 toxic chemicals that are being used, manufactured, treated, transported, or released into the environment, and includes information about waste management and pollution prevention activities. This database contains a listing of facilities that reported in the years between 2010-2012.
Agency: United States Environmental Protection Agency
Phone Number: 8004249346
Date last updated: 8/28/2015
Date last checked: 7/28/2015
Distance searched: 0.563 miles
Sites:
None Found

TRIS80-US
Toxics Release Inventory System
Category: ERS Supplemental Govt Sources
Description: TRIS is a EPA database reported annually by certain covered industry groups, as well as federal facilities. It contains information about more than 650 toxic chemicals that are being used, manufactured, treated, transported, or released into the environment, and includes information about waste management and pollution prevention activities. This database contains a listing of facilities that reported in the years between 1987-1989.
Agency: United States Environmental Protection Agency
Phone Number: 8004249346
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

TRIS90-US
Toxics Release Inventory System
Category: ERS Supplemental Govt Sources
Description: TRIS is a EPA database reported annually by certain covered industry groups, as well as federal facilities. It contains information about more than 650 toxic chemicals that are being used, manufactured, treated, transported, or released into the environment, and includes information about waste management and pollution prevention activities. This database contains a listing of facilities that reported in the years between 1990-1999.
Agency: United States Environmental Protection Agency
Phone Number: 8004249346
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

TSCA-US
Toxics Substance Control Sites
Category: ERS Supplemental Govt Sources
Description: TSCA addresses the production, importation, use, and disposal of specific chemicals including polychlorinated biphenyls (PCBs), asbestos, radon and lead-based paint. This database contains a listing of these facilities.
Agency: United States Environmental Protection Agency
Phone Number: 2025642501
Date last updated: 9/4/2015
Date last checked: 11/21/2014
Distance searched: 0.563 miles

Sites:
None Found

UIC-WA
Underground Injection Control Wells
Category: ERS Supplemental Govt Sources
Description: This database contains Underground Injection Control Wells regulated by the Washington State Department of Ecology through the Underground Injection Control Program.
Agency: Washington State Department of Ecology
Phone Number: 3604076143
Date last updated: 7/12/2016
Date last checked: 7/6/2016
Distance searched: 0.563 miles
Sites:
None Found

UMTRA-US
Uranium Mill Tailings Remedial Action Sites
Category: ERS Supplemental Govt Sources
Description: The Uranium Mill Tailings Radiation Control Act (UMTRCA) of 1978 gave the U.S. Department of Energy (DOE) the responsibility of stabilizing, disposing, and controlling uranium mill tailings and other contaminated material at twenty-four uranium mill processing sites located across ten states and at approximately 5,200 associated properties.
Agency: Department of Energy
Phone Number: 5058450011
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:
None Found

USGS-Waterwells-US
Ground Water Site Inventory
Category: ERS Supplemental Govt Sources
Description: This database contains a listing of wells, springs, test holes, tunnels, drains, and excavations reported by the United States Geological Survey, Water Resources Program.
Agency: United States Geological Survey, Water Resources Program
Phone Number: 9162783000
Date last updated: Historical Database
Date last checked: N/A
Distance searched: 0.563 miles
Sites:

40N/27E-15R01	MapID: 2	Listed
40N/27E-22A01	MapID: 5	Listed

40N/27E-15P01 MapID: 11 Listed

UST-WA
Underground Storage Tanks
Category: State/Tribal UST
Description: This database contains a listing of Underground Storage Tank facilities.
Agency: Washington State Department of Ecology
Phone Number: 3604077183
Date last updated: 7/8/2016
Date last checked: 7/6/2016
Distance searched: 0.75 miles
Sites:
OROVILLE TOWN OF MapID: 12 Listed

Vapor-Intrusions-US
Vapor Intrusion Database
Category: ERS Supplemental Govt Sources
Description: This database contains the vapor intrusion database as reported by the Environmental Protection Agency.
Agency: United States Environmental Protection Agency
Phone Number: 7033057411
Date last updated: 8/17/2016
Date last checked: 8/17/2016
Distance searched: 1 mile
Sites:
None Found

VCP-WA
Voluntary Cleanup Sites
Category: State/Tribal Voluntary Cleanup Sites
Description: This database contains Voluntary Cleanup Sites reported by the Washington Department of Ecology.
Agency: Washington State Department of Ecology
Phone Number: 3604077244
Date last updated: 7/12/2016
Date last checked: 7/11/2016
Distance searched: 1 mile
Sites:
None Found

Wells-WA

Washington Wells
Category: ERS Supplemental Govt Sources
Description: This database contains well logs for the state of Washington. It specifically includes water well logs, decommissioned wells, and resource protection wells.
Agency: Washington State Department of Ecology
Phone Number: 5095752490
Date last updated: 10/16/2015
Date last checked: 10/15/2015
Distance searched: 0.563 miles
Sites:

OLA HEIHOUSE	MapID: 3	Listed
RALPH ZOSEL	MapID: 4	Listed
ERIC ZANDELL	MapID: 9	Listed
FRANCIS HART	MapID: 10	Listed
CITY OF OROVILLE	MapID: 15	Listed
CHARLES EDER	MapID: 15	Listed
CITY OF OROVILLE	MapID: 15	Listed
EAST LAKE WATER ASSOCIATION	MapID: 16	Listed
EAST LAKE WATER ASSOC	MapID: 16	Listed

UN-MAPPABLE OCCURRENCES

The following occurrences were not mapped primarily due to incomplete or inaccurate address information. All of the following occurrences were determined to share the same zip code as the area searched. General status information is given with each occurrence along with any address information entered by the agency responsible for the list.

ID	Facility Name	Address	Database	Status
No "un-mapped" sites requested.				

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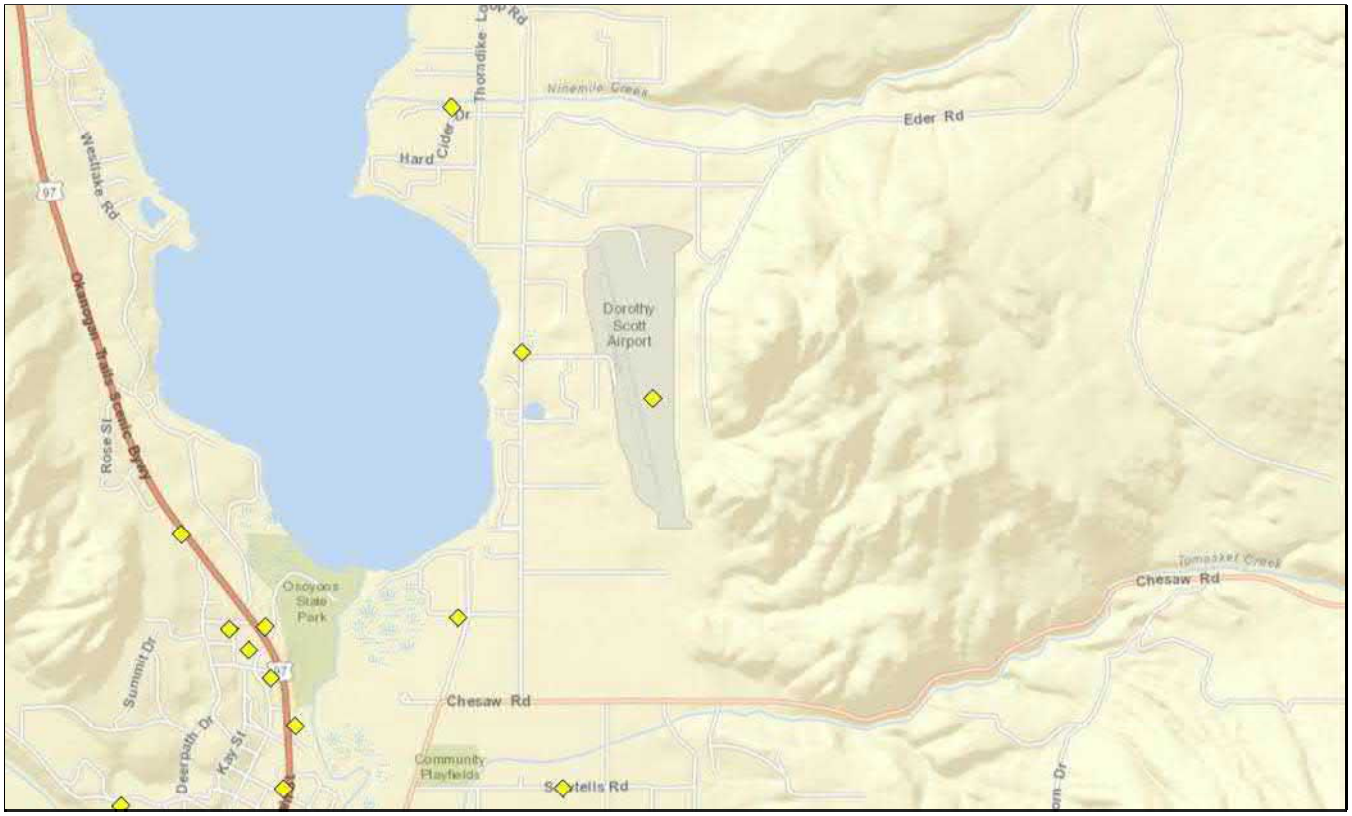
X16393 Dorothy Scott Runway Realignment - WSDOE Facility Site Search Map



Facility/Site: 3247 Specialized Services Trucking Inc

Also known as: Specialized Services Trucking Inc

Address

23 AIRPORT RD

Oroville WA 98844

Decimal Coordinates

Latitude: 48.95782

Longitude: -119.41055

Geographic Information

Ecology Region: CRO | Legislative District: 7 | WRIA: 49

County: Okanogan | Congressional District: 4 | Tribal Land: No

Ecology Interactions

Interaction Description	Ecology Program	Ecology Program Phone	Program ID	Start Date	End Date
Hazardous Waste Generator	HAZWASTE	(360) 407-6023	WAH000036917	7/26/2010	7/26/2010
Haz Waste Management Activity	HAZWASTE	(360) 407-6023	WAH000036917	7/26/2010	8/13/2014

Industrial Codes (External Links Below)

NAICS Code	NAICS Description
48422	Specialized Freight (except Used Goo

No SIC information is available for this facility site.

Facility/Site: 17420 TIBBS PLUMBING & SEPTIC SERVIC

Also known as: TIBBS PLUMBING & SEPTIC SERVIC

Address

107 SAWTELLS RD

OROVILLE WA 98844

Decimal Coordinates

Latitude: 48.94144

Longitude: -119.4163

Geographic Information

Ecology Region: CRO	Legislative District: 7	WRIA: 49
County: Okanogan	Congressional District: 4	Tribal Land: No

Ecology Interactions

Interaction Description	Ecology Program	Ecology Program Phone	Program ID	Start Date	End Date
BIOSOLIDS	W2R	(360) 407-6132		1/1/1900	
Land Application	W2R	(360) 407-6132		1/1/1900	

Industrial Codes (External Links Below)

No NAICS information is available for this facility site.

No SIC information is available for this facility site.

Facility/Site: 9469 Ulinder Residence

Also known as: Ulinder Residence

Address

31 HARD CIDER DR

Oroville WA 98844

Decimal Coordinates

Latitude: 48.97006

Longitude: -119.42339

Geographic Information

Ecology Region: CRO | Legislative District: 7 | WRIA: 49

County: Okanogan | Congressional District: 4 | Tribal Land: No

Ecology Interactions

Interaction Description	Ecology Program	Ecology Program Phone	Program ID	Start Date	End Date
Construction SW GP	WATQUAL		WAR304147	5/9/2016	

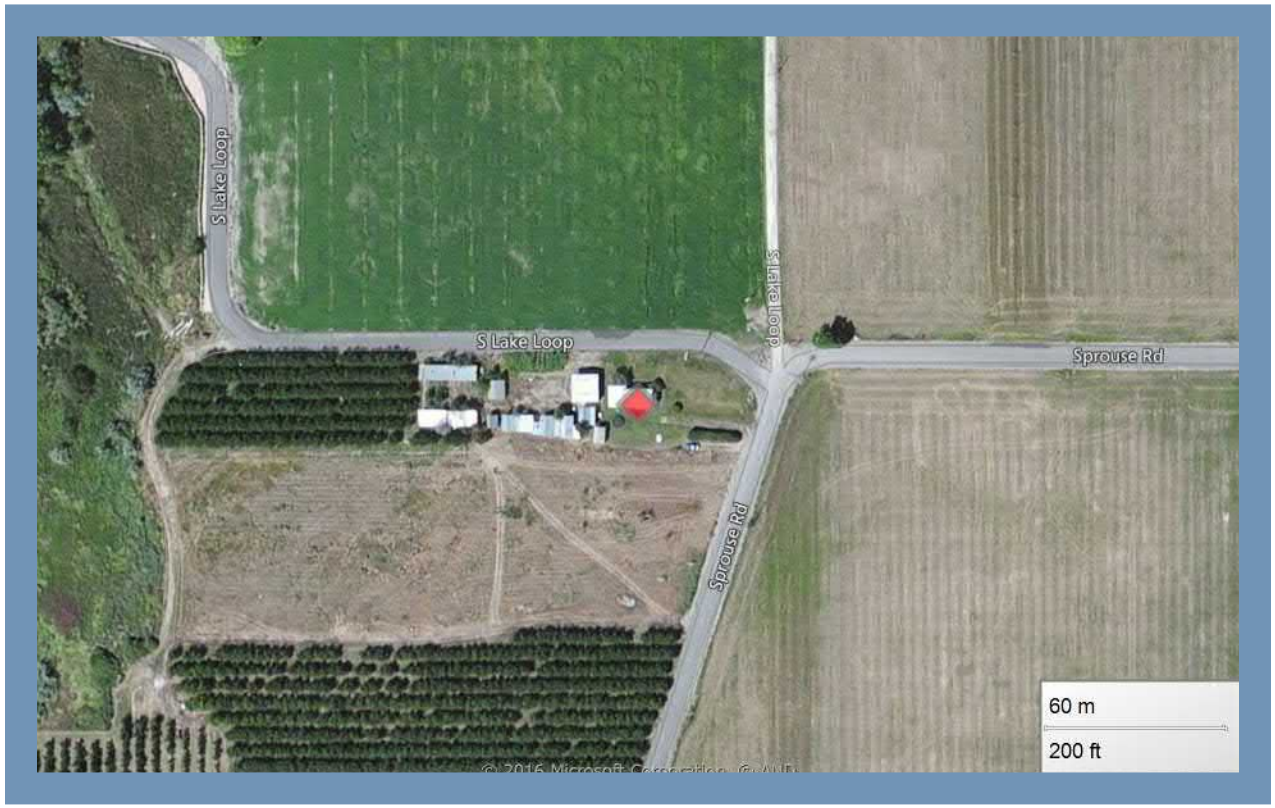
Industrial Codes (External Links Below)

No NAICS information is available for this facility site.

No SIC information is available for this facility site.

Facility/Site: 23909 SANDALS BAY OSOYOOS DEVELOPMENT

Also known as: SANDALS BAY OSOYOOS DEVELOPMENT



Address

NEAR SPROUSE RD

OROVILLE WA 98844

Decimal Coordinates

Latitude: 48.9486

Longitude: -119.423

Geographic Information

Ecology Region: CRO	Legislative District: 7	WRIA: 49
County: Okanogan	Congressional District: 4	Tribal Land: No

Ecology Interactions

Interaction Description	Ecology Program	Ecology Program Phone	Program ID	Start Date	End Date
Construction SW GP	WATQUAL		WAR009915	12/5/2007	3/24/2010

Industrial Codes (External Links Below)

No NAICS information is available for this facility site.

SIC Code	SIC Description
1794	EXCAVATING AND FOUNDATION WORK

Facility/Site: 57667437 OROVILLE TOWN UST 9322

Also known as:

Address

E OSOYOOS LAKE RD & AIRPORT RD

Decimal Coordinates

Latitude: 48.95974

Longitude: -119.41892

OROVILLE WA 98844

Geographic Information

Ecology Region: CRO	Legislative District: 7	WRIA: 49
County: Okanogan	Congressional District: 4	Tribal Land: No

Ecology Interactions

Interaction Description	Ecology Program	Ecology Program Phone	Program ID	Start Date	End Date
Underground Storage Tank	TOXICS	(360) 407-7224	9322	1/27/2000	

Industrial Codes (External Links Below)

No NAICS information is available for this facility site.

No SIC information is available for this facility site.

Facility/Site: 17996 Clark and Sons Property

Also known as: Clark and Sons Property

Address

15 BALMES RD

Oroville WA 98844

Decimal Coordinates

Latitude: 48.93802

Longitude: -119.42331

Geographic Information

Ecology Region: CRO	Legislative District: 7	WRIA: 49
County: Okanogan	Congressional District: 4	Tribal Land: No

Ecology Interactions

Interaction Description	Ecology Program	Ecology Program Phone	Program ID	Start Date	End Date
Enforcement Final	AIRQUAL	(360) 407-6986		12/10/2014	
An Enforcement action (i.e. Penalty, Order, Notice) was finalized and issued to the respective party, indicating the enforcement action was taken. The start and end date listed in the database are both the date the action was issued to the responsible party.					

Industrial Codes (External Links Below)

No NAICS information is available for this facility site.

No SIC information is available for this facility site.

Appendix E: Cultural Resources Survey and Department of Archaeology and Historic Preservation Concurrence Letter

CULTURAL RESOURCES REPORT COVER SHEET

Author: Matthew Marino, Sarah Calabrese, Adam Sackman, and David A. Harder

Title of Report: Cultural Resource Survey of the Dorothy Scott Airport Project, Oroville, Okanogan County, Washington

Date of Report: October 2018

County: Okanogan Sections: 14, 15, 22, and 23 Township: 40 North Range: 27 East

Quad: Oroville Acres: 154

PDF of report submitted (REQUIRED) ☒ Yes

Historic Property Inventory Forms to be Approved Online? ☐ Yes ☒ No

Archaeological Site(s)/Isolate(s) Found or Amended? ☒ Yes ☐ No

TCP(s) found? ☐ Yes ☒ No

Replace a draft? ☐ Yes ☒ No

Satisfy a DAHP Archaeological Excavation Permit requirement? ☐ Yes # ☒ No

DAHP Archaeological Site #:
45OK1035

- Submission of PDFs is required.
- Please be sure that any PDF submitted to DAHP has its cover sheet, figures, graphics, appendices, attachments, correspondence, etc., compiled into one single PDF file.
- Please check that the PDF displays correctly when opened.

Cultural Resource Survey of the Dorothy Scott Airport Project, Oroville, Okanogan County, Washington

By:
Matthew Marino, Sarah Calabrese, Adam Sackman, and David A. Harder

PLATEAU
Archaeological Investigations, LLC

October 2018

Cultural Resource Survey of the Dorothy Scott Airport Project, Oroville, Okanogan County, Washington

Prepared for:
J-U-B Engineers, Inc.
422 W. Riverside, Suite 304
Spokane, WA 99201

By:
Matthew Marino, Sarah Calabrese, Adam Sackman, and David A. Harder

PLATEAU
ARCHAEOLOGICAL INVESTIGATIONS, LLC
P.O. Box 714, Pullman, Washington 99163
(509) 332-3830 VOICE/FAX

October 2018

ABSTRACT

Cultural Resource Survey of the Dorothy Scott Airport Project,
Oroville, Okanogan County, Washington

The City of Oroville proposes to perform improvements and modifications at the Dorothy Scott Airport, located in Okanogan County, Washington. The improvements include the acquisition of property for airfield construction, creation of runway protection zones, shifting and rebuilding of the existing runway, the construction of additional hangars and apron/taxiways, removal of trees, and installation of additional utilities. The area of potential effect, or Project Area, covers 154 acres within Sections 14, 15, 22, and 23 of Township 40 North, Range 27 East, Willamette Meridian.

The project will be funded through a grant from the Federal Aviation Administration. Since this funding is a federal source, the city must meet the requirements of Section 106 of the National Historic Preservation Act, which requires that Federal agencies take into account the effect that their undertakings have on properties that are listed or eligible for the National Register of Historic Places. As such, JUB Engineers, Inc retained Plateau Archaeological Investigations, LLC to conduct the cultural resource survey of the Project Area.

Pre-field research consisted of the review of known archaeological resources within a 1.0-mile radius of the Project Area as inventoried on the Washington Information System for Architectural and Archaeological Records Data at the Washington State Department of Archaeology and Historic Preservation (DAHP) in Olympia, Washington. This search revealed one previously recorded site (45OK1035) within the Project Area.

The fieldwork was completed in a manner consistent with Washington State Senate Bill 5282 amending RCW 27.53.030, and included inspection techniques to identify surface archaeological resources. Plateau archaeologists conducted pedestrian survey across all areas and excavated 61 subsurface shovel probes throughout the Project Area. The field survey resulted in no newly recorded pre-contact or historic-era cultural materials or features. The path of the irrigation feature (45OK1035) was surveyed, and no elements of the feature were present within the Project Area. City Superintendent, Rod Noel, informed Plateau that the path of 45OK1035 within the Project Area had been converted to a city utility corridor. As such, this portion of the feature does not contribute to the NRHP eligibility of the site as a whole. Plateau recommends that the proposed undertaking will result in **No Historic Properties Affected**, and no further archaeological investigations are recommended prior to or during the execution of this project.

KEY INFORMATION

PROJECT

Cultural Resource Survey of the Dorothy Scott Airport Project, Oroville, Okanogan County

LOCATION

Oroville, Okanogan County, Washington

USGS QUADS

Oroville, Washington 7.5 minute, 1981

ACREAGE

154 acres

LEGAL LOCATION OF PROJECT

Sections 14, 15, 22, and 23, Township 40 North, Range 27 East

PROJECT DATA

1 Previously recorded archaeological site
0 New cultural resources located and/or recorded

AUTHORS

Matthew Marino, Sarah Calabrese, Adam Sackman, and David A. Harder

MANAGING AGENCY

Federal Aviation Administration

PROJECT UNDERTAKEN AND REPORT PREPARED FOR

JUB Engineers, Inc.

FIELD NOTE DISPOSITION

Archived at the office of Plateau Archaeological Investigations LLC, Pullman.

PRINCIPAL INVESTIGATOR

David A. Harder, M.A.

DATE

December 2018

CERTIFICATION OF RESULTS

I certify that this investigation was conducted and documented according to Secretary of Interior's Standards and Guidelines and that the report is complete and accurate to the best of my knowledge.

_____ October 18, 2018

Signature of Reporter Date

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PROJECT DESCRIPTION

The City of Oroville (the City) is proposing a project that will facilitate improvements and modifications to the Dorothy Scott Airport and existing Runway 15-33, located in Okanogan County, Washington, between the Okanogan River and the Osoyoos River (Figure 1). The project will be funded through a grant from the Federal Aviation Administration (FAA). As this funding is a federal source, the city must meet the requirements of Section 106 of the National Historic Preservation Act (NHPA), and consider the effects to properties that are listed or eligible for the National Register of Historic Places (NRHP). To that end, JUB Engineers, Inc, the firm conducting the environmental assessment for the project, retained Plateau Archaeological Investigations, LLC (Plateau) to conduct the cultural resource investigation of the proposed undertaking.

In addition to runway reconstruction, the project involves property acquisition for the creation of Runway Protection Zones (RPZ), tree removal, changes to the drain field, and connections to City services. The project will also include the construction of new apron areas and hangars, and the installation of edge lighting, a wind sock, a rotating beacon, and other necessary infrastructure.

The Area of Potential Effect (APE), hereafter referred to as the Project Area, covers 150 acres (ac) and lies within Sections 14, 15, 22, and 23 of Township 40 North, Range 27 East, Willamette Meridian (Figure 2). Anticipated impacts include excavations, compaction of sediments, and other ground disturbing construction activities.

STATEMENT OF OBJECTIVES

The cultural resource survey of the Dorothy Scott Airport Project is intended to identify previously unrecorded archaeological resources and historic properties prior to the execution of the proposed undertaking. The pre-field research was designed to identify any known cultural properties located in or near the Project Area. Research and fieldwork procedures were designed to identify areas of moderate to high probability for Native American and Euroamerican cultural resources. This report describes the pre-field research, field efforts, and results of the project.

LOCATION AND GENERAL ENVIRONMENTAL SETTING

The Dorothy Scott Airport is located roughly two miles northeast of downtown Oroville in northeast Okanogan County. The Project Area lies within the Okanogan Highlands physiographic province, lying east of the Cascade Mountains and north of the Columbia and Spokane Rivers. The Okanogan Highlands extend into Canada, but coalesce with the Bitterroot Mountains near the Idaho border. The Highlands are marked by upland areas separated by a series of broad, north/south trending river valleys such as the Okanogan, Sanpoil, Columbia, Colville, Kettle, and Pend Oreille (Franklin and Dyrness 1969).

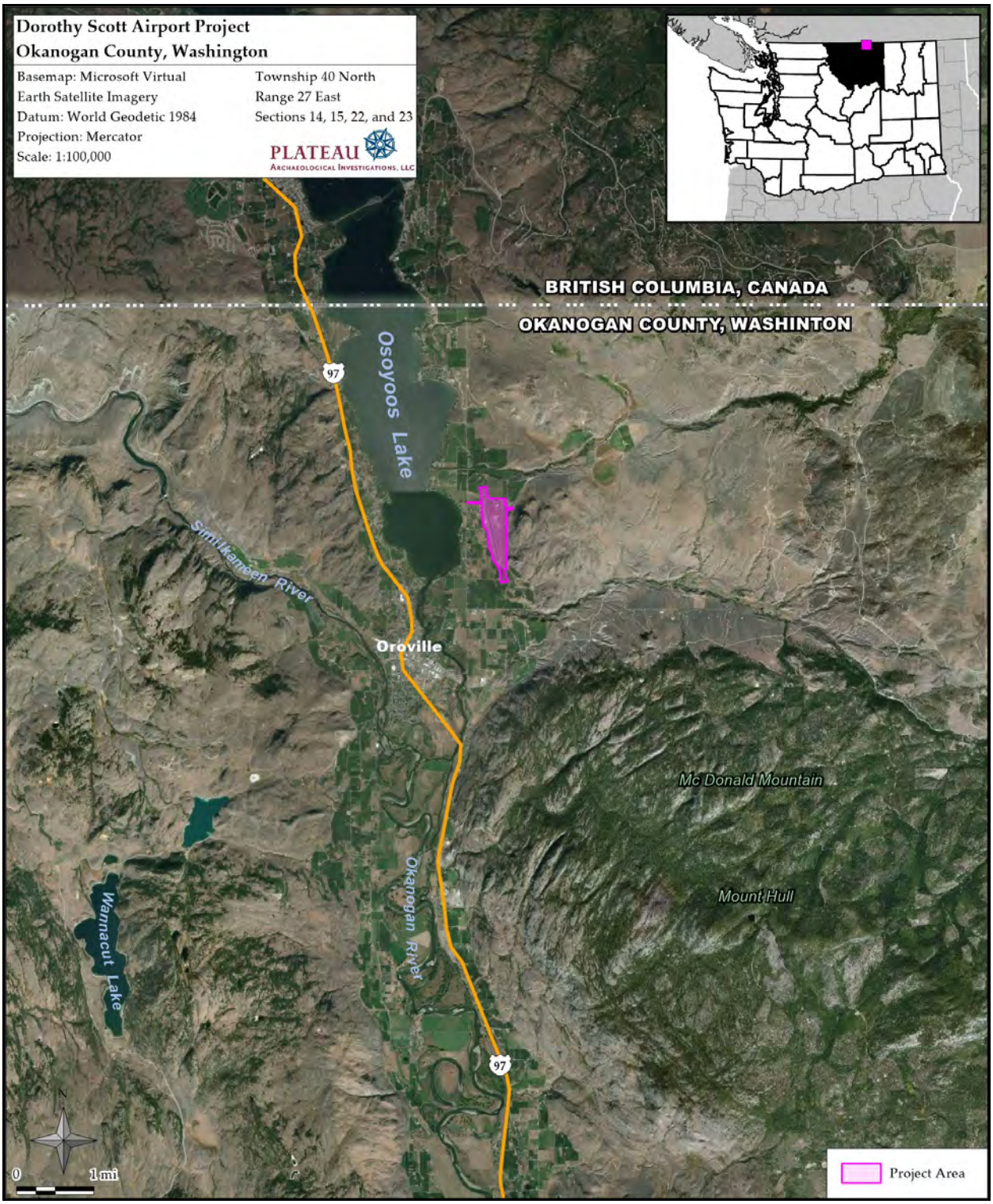

Figure 1. The Project Area within Okanogan County.

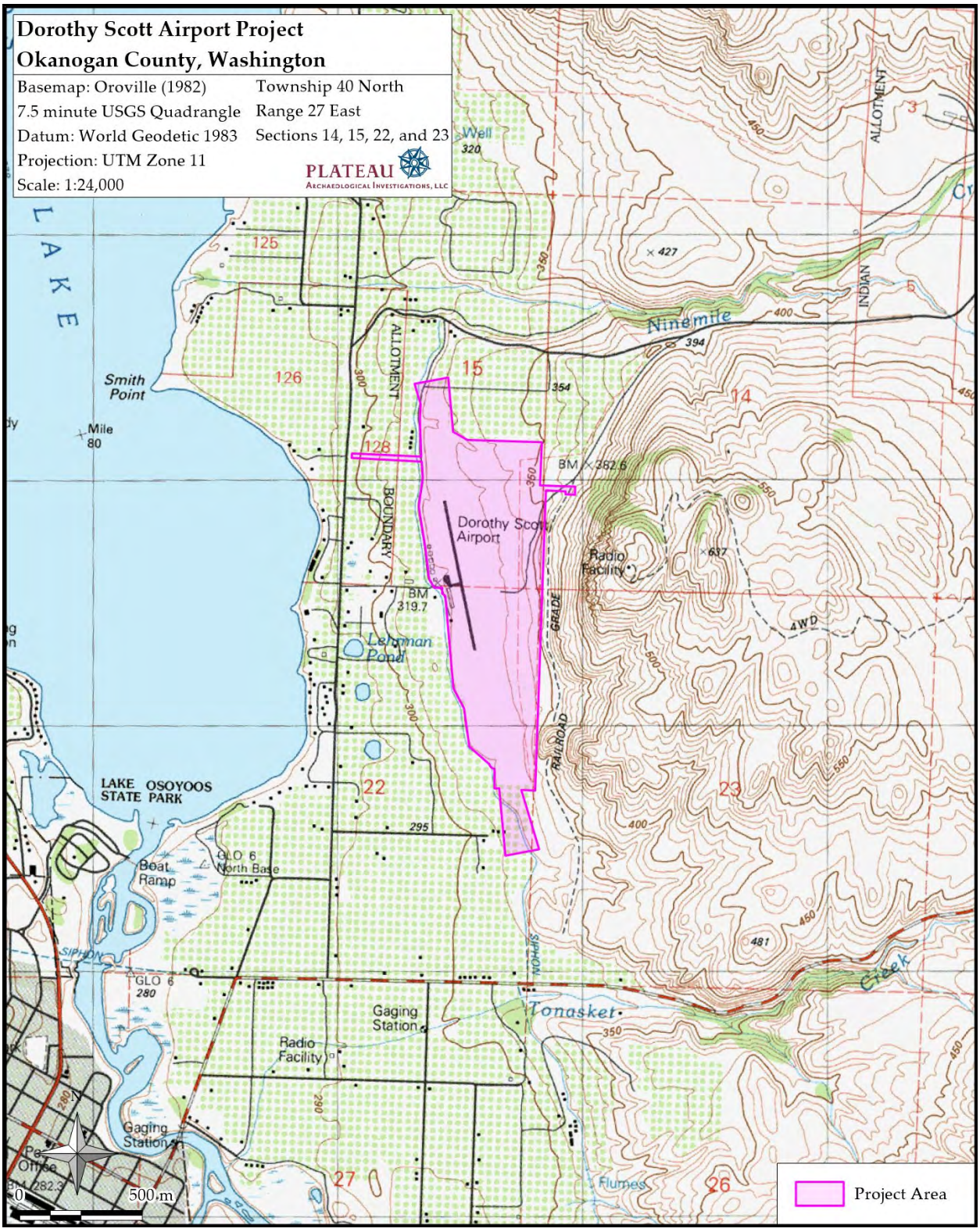

Figure 2. The Project Area on a portion of the Oroville USGS map.

Oroville lies in a north-south trending valley known as the Okanogan Trench. The North Cascades rise to the west of this trench and the Okanogan Highlands rise to the east. The predominate parent materials in the area are gneisses, schists, and granites. The Okanogan Trench was overlain and sculpted by glaciers during the last ice age. Following the recession of glaciers, the area was subject to deposition of till and the effects of lacustrine and fluvial deposition and activity (Alt and Hyndman 1984:82-90). Glaciation and the pursuant floodplain development in the region indicates that sediments are young enough to contain archaeological sites. According to the Natural Resource Conservation Service (2016), the Project Area contains two soil types: Ewall loamy fine sand (15-25% slopes) and extremely stony Cashmont sandy loam (0-25% slopes). Generally, these soils yield profiles consisting of grayish brown loamy fine sands and sandy loams over yellowish brown, pale brown, or brown sands or gravelly sandy loams.

The predominant draw for Native American and Euroamerican populations in this region was, and still is, the extensive river systems. The most significant environmental feature is the Columbia River, which flows for more than 1,200 mi (2,000 km) from the base of the Canadian Rockies in southeastern British Columbia to the Pacific Ocean at Astoria, Oregon. Ten major tributaries—the Kootenay, Okanogan, Wenatchee, Spokane, Yakima, Snake, Deschutes, Willamette, Cowlitz, and Lewis rivers—complete the system. The Project Area lies roughly 1,764 feet (ft) (537 meters [m]) east of Osoyoos Lake, and about 3.2 miles (mi) (5.1 kilometers [km]) northeast of the confluence of the Okanogan and Similkameen Rivers.

Oroville lies within the Canadian Life zone as defined by Merriam in 1892 (Dalquest 1948:27), and many species of animals are presently available. It is likely, though, that Native Americans had access to a larger variety of creatures during the past that played a role in aboriginal use, settlement, and travel patterns in relation to the Project Area. The following lists a few of the more discernible creatures that may have been available to aboriginal populations in the past: elk (*Cervus canadensis*), mule deer (*Odocoileus hemionus*), mountain goats (*Oreamnos americanus*), bighorn sheep (*Ovis canadensis*), black bear (*Ursus americanus*), racoon (*Procyon lotor*), marten (*Martes americana*), fisher (*Martes pennanti*), shorttail weasel (*Mustela erminea*), longtail weasel (*Mustela frenata*), mink (*Mustela vison*), striped skunk (*Mephitis mephitis*), badger (*Taxidea taxus*), river otter (*Lutra canadensis),* coyote (*Canis latrans*), red fox (*Vulpes fulva*), cougar/mountain lion (*Felis concolor*), lynx (*Lynx canadensis),* bobcat (*Lynx rufus*), hoary marmot (*Marmota caligata*), golden-mantled squirrel (*Citellus lateralis*), ground squirrels (*Citellus* sp.), northern flying squirrel (*Glaucomys sabrinus*), red squirrel (*Tamiasciurus hudsonicus*), bushytail woodrats (*Neotoma cinerea*), porcupine (*Erethizon dorsatum*), snowshoe hare (*Lepus americanus*), and cottontail (*Sylvilagus nuttalli*). Several other species may have been present in the region in the past such as wolverine (*Gulo luscus*), wolves (*Canis lupus*), and grizzly bear (*Ursus horribilis*). Even the occasional bison (*Bison bison*) may have been available prehistorically (Burt and Grossenheider 1961; Dalquest 1948).

Many types of fowl and game were available in the past including: Swarth blue grouse (*Dendragapus obscurus pallidus*), Columbian ruffed grouse (*Bonasa umbellus affinis*), Columbian sharp-tailed grouse (*Pedioecetes phasianellus*), western sage grouse (*Centrocercus urophasianus phaios*),

mallard duck (*Anas platyrhynchos platyrhynchos*), western harlequin duck (*Histrionicus histrionicus pacificus*), American common merganser (*Mergus merganser americanus*), the lesser snow goose (*Chen hyperborea hyperborea*), and the Great Basin Canada goose or "honker" (*Branta canadensis moffitti*). Seasonally available birds such as Gadwall (*Anas strepera*), wood duck (*Aix sponsa*), redhead (*Aythya americana*) and the northern ruddy duck (*Oxjura jamaicensis rubida*) reside in the region in the summer. Winter game birds of the region include canvasback (*Aythya valisineria*) and American greater scaup (*Aythya marila nearctica*) (Lothson 1977). According to Lothson (1977) several species of fish were available in the region (especially along the major drainages) such as: sturgeon (*Acipenser*), whitefish (*Prosopium*), suckers (*Pantosteus*, *Catostomus*), bullheads (*Cottus*), and anadromous fish such as salmon (*Oncorhynchus* spp.) and steelhead (*Salmo gairdnerii*).

This region is east of the Pacific Crest and is subject to the rainshadow effect. The flood plains and valleys get relatively little precipitation, about 10 to 15 inches (in) (25 to 38 centimeters [cm]) per year. Nonetheless, as the topography rises, the vegetation regime reflects an increase in precipitation. The flood plain of the Okanogan River is within the *Artemisia tridentata-Agropyron* climatic climax vegetation zone. This indicates that vegetation in an undisturbed context should consist predominately of mountain big sagebrush (*Artemisia tridentata*) and bluebunch wheatgrass (*Agropyron spicatum*). Other grasses such as needlegrass (*Stipa comata* and *S. thurberiana*) and bottlebrush squirreltail (*Sitanion hystrix*) may also be present (Daubenmire 1988). Cottonwood (*Populus trichocarpa*), elm (*Elmnus* spp.), and willow (*Salix* spp.) are present along streams.

As one withdraws from the river, the topography rises. This increased elevation yields an increase in effective moisture and provides a vegetation regime of dispersed Ponderosa pines (*Pinus ponderosa*) in association with bluebunch wheatgrass. Forest habitats to the east and west of Oroville contain Ponderosa pine, Douglas fir (*Pseudotsuga menziesii*), and larch (*Larix occidentalis*) in association with grassy and increasingly shrubby understories and isolated groves of quaking aspen (*Populus tremuloides*) (Daubenmire and Daubenmire 1968). Many of these plants have been incorporated in Native American use as medicinal plants, food sources, and other employments (Table 1).

According to the Tonasket weather station, this region receives an average of 11.43 in (29 cm) of precipitation per year. The average seasonal temperatures recorded at this station are 29.8°F in winter and 68.4°F in the summer. Extreme temperatures of -16°F and 104°F have been recorded (Western Regional Climate Center 2016). The Okanogan Trench provides agreeable conditions for tree fruit, grain, alfalfa, and other cash crops. Additionally, logging and mining operations contribute to the economy.

Table 1. Native Vegetation and Ethnographic Use (after Parish et al. 1996).

Scientific Name	Common Name	Uses
Artemisia tridentata	Mountain big sagebrush	Branches and leaves made teas for colds and used as a smudge.
Agropyron spicatum	Bluebunch Wheatgrass	Medicinal plant for sores and arthritis as well as drying soopolallie berries.
Stipa comata	Needle-and-Thread Grass	Children played with the seeds of this grass by throwing them like darts.
Populus trichocarpa	Cottonwood	Fluffy seeds used for stuffing pillows, inner bark used for soap and medicinal teas, and dugout canoes.
Pinus ponderosa	Ponderosa Pine	Cambium harvested in the spring, seeds collected in the autumn, and wood collected for tinder.
Pseudotsuga menziesii	Interior Douglas Fir	Seeds eaten, twigs and needles used in tea, dried sap chewed to treat colds, and boughs used in ceremonial functions.
Larix occidentalis	Western Larch	Bark and foliage used medicinally; sap used as gum
Populus tremuloides	Quaking Aspen	Sometimes used for dugout canoes and tent poles.

PRE-FIELD RESEARCH

Pre-field research consisted of the review of known archaeological resources within a 1.0-mi (1.6-km) radius of the Project Area as inventoried at the Washington State Department of Archaeology and Historic Preservation (DAHP) in Olympia, Washington. This review was completed using DAHP's secure electronic database known as the Washington Information System for Architectural and Archaeological Data (WISAARD). This database includes recorded archaeological resources, historic property inventories (HPIs), National Register of Historic Properties (NRHP) and Washington Heritage Register (WHR) properties, identified cemeteries, and previously conducted cultural resource surveys found throughout the state of Washington (DAHP 2016).

Plateau also conducted cartographic analysis of landform, topography, soils, and proximity to water using topographic maps. Secondary historic resources, on file at the DAHP and Plateau's office in Pullman, were consulted to identify any known cultural resources. This search allows identification of previously recorded sites and the potential for historic and archaeological resources within or near the project's area of potential effect. In addition, available survey and overview reports were consulted as were ethnographic accounts of the region.

PREVIOUS ARCHAEOLOGICAL RESEARCH

The first archaeological investigations in the region were the result of Grand Coulee Dam, Wells Dam, Chief Joseph Dam, and other reservoir projects. Douglas Osborne (1949) reported on the findings of the Smithsonian River Basin Survey work done prior to construction of Chief Joseph Dam. In 1975, the Washington Archaeological Research Center (WARC) at Washington State University (WSU) did additional survey and archaeological testing. The Office of Public Archaeology at the University of Washington conducted archaeological survey and testing behind Chief Joseph Dam in the 1980s. In later years, smaller undertakings have been done along the Okanogan River, Similkameen River, Osoyoos Lake, within the City of Oroville, and at projects in the surrounding area, which have resulted in the identification of over 30 archaeological sites in or near Oroville.

A review of previously recorded cultural resources and archaeological surveys was completed through the WISAARD on September 23, 2016. The review included Sections 10, 11, 13, 14, 15, 21, 22, 23, 24, 26, 27, and 28 of Township 40 North, Range 27 East. This search revealed nine previously recorded archaeological resources and three HPIs within 1.0 mi (1.6 km) of the Project Area (Table 2). The HPIs include the McAlpine and Jesse Clark homes, both domestic single family homes, deemed Not Eligible for the NRHP, and the Smith Orchard, a large agricultural orchard and homestead with associated structures created in the 1850's, determined Eligible for inclusion within the NRHP. One site, 45OK1035, lies within the Project Area.

Site 45OK2037, a multi-component site located 0.26 mi (0.4 km) northwest of the Project Area, consists of a single piece of crypto-crystalline silicate (CCS) debitage and a historic debris scatter including window pane glass, white ceramic tableware, and faunal remains. Site 45OK1131, a historic site located 0.38 mi (0.61 km) west of the Project Area, includes a railroad grade of the Great Northern Railway from the 1907-1932 era.

Table 2. Previously Recorded Cultural Resource within 1.0 mi (1.6 km) of the Project Area.

Site	Site Type	Recorder(s)
45OK363	Pre-contact camp	Munsell and Salo (1976)
45OK573	Pre-contact camp with earth oven	Moura (1987)
45OK583	Pre-contact camp with lithics	Salo and Yoshino (1987)
45OK1035	Historic irrigation flume	Regan (1992)
45OK1131	Great Northern Railroad railway grade	Amara (2004)
45OK1221	Pre-contact lithic scatter	Hannum (2006)
45OK1322	Pre-contact camp with historic debris	DeRose (2007)
45OK2037	Pre-contact camp and Historic debris scatter	Armstrong (2014)
45OK2110	Historic debris scatter	Armstrong (2015)
McAlpine House	Domestic- Single family home	
Jesse Clark House	Domestic- Single family home	
Smith Orchard	Historic orchard, homestead, and associated structures	

Site 45OK1035, located within the Project Area, is a historic irrigation flume extending from Lake Osoyoos south to Cordell on the east side of the Similkameen River. The site, part of the Oroville-Tonasket Irrigation District, was originally documented in 1992 by Eastern Washington University archaeologists Regan and Welch, and additionally by Peterson in 2008. The flume made a significant contribution to the economic importance of agriculture in the area, functioning from 1916 to the 1970s-80s and providing resources to over 10,000 acres (Helm and Colbert 1986; Regan 1992). The flume is depicted on the 1982 Oroville USGS quadrangle (see Figure 2).

The structural system of the flume originally consisted of wooden 4″ x 4″ posts, wooden flat boards, concrete blocks, and metal sheeting, and cost over $530,000 to complete (Wilson 1990). The wooden posts would function as the sides of the flume, and the wooden boards were laid flat to form the bottom. The bottom was then lined with metal sheeting, fastened with wire nails, and covered in tar to prevent leakage. Over time, segments were continuously updated, eventually including concrete reconstruction on a large portion of the flume. Unfortunately, these modifications have deemed several portions of the flume ineligible for the NRHP due its historical integrity being compromised. City Superintendent of Oroville, Rod Noel (personal communication, 2016), stated that the flume location within the Project Area had been converted to a city utility corridor and is lined with a fence.

Over 40 cultural resource investigations have taken place within the Oroville and Osoyoos Lake area and the lower reaches of the side streams that connect. Three cultural resource surveys have been conducted within 1.0 mi (1.6 km) of the Project Area (Table 3).

Table 3. Previously Conducted Cultural Resource Surveys within 1.0 mi (1.6 km) of the Project Area.

Author	Project	Results	Dir. from APE
Emerson (1996)	Title Transfer of the Oroville-	No cultural resources observed	North
Harder and Hannum (2006a)	Eastlake Lift Station	No cultural resources observed	West
Harder and Hannum (2006b)	Eastlake Sewer Line	No cultural resources observed	West
Roulette, et al. (2011)	OKPUD Last Mile Project	No cultural resources observed	Northeast

REGIONAL PREHISTORIC BACKGROUND

The Project Area is included in the Plateau culture area, which corresponds roughly to the geographic region drained by the Fraser, Columbia, and Snake rivers. The Plateau culture area is bordered on the west by the Cascade Mountains and on the east by the Rocky Mountains. The northern border of the culture area is in Canada where the Plateau culture area gives way to Arctic culture patterns. The southern portion of the Plateau culture area mixes gradually with the Great Basin culture area (Walker 1998:1-3).

A cultural chronology provides a time line describing the adaptations, material culture, subsistence, and settlement patterns of the people who inhabited a specific area. Although a number of archaeological projects were completed within the Oroville region, none were executed with the intention of identifying a local cultural sequence. Due to this, the chronological sequence for the Okanogan Valley is, as yet, poorly understood. In general, settlement patterns of the region are believed to have followed the same trends as elsewhere in the Columbia Plateau.

The first inhabitants of the region followed the recession of the glaciers about 12,000 (Alt and Hyndman 1984:20) years ago and left very few indications of their presence. Their material culture remains constant until about 6,000 years before present (B.P.) and is placed into the Okanagan Phase. Projectile points used were leaf-shaped, and/or stemmed, and basalt was the favored raw material for stone tool manufacture. The only food resource known to have been utilized are river mussels (Pokotylo and Mitchell 1998:94). These people were probably broad spectrum foragers that depended upon plant and animal resources in a large territory that covered a wide range of topographic settings.

Following the Okanogan Phase, the Indian Dan Phase dates from 6,000 to 3,000 B.P. River mussels were still used, but the known inventory of faunal resources now includes fish and un-designated land mammals. Large basal-notched projectile points are the hallmark artifact of this phase; however, leaf-shaped projectile points and flake tools were still in use. Earth ovens, pestles, and milling stones indicate that root resources were exploited (Pokotylo and Mitchell 1998:94).

Settlement patterns change noticeably during the Chiliwist Phase (3,000 to 900 B.P.) with the appearance of deep, steep-walled features known as pithouses. Leaf-shaped projectile points and basal-notched stemmed points with barbs saw continued use, but basalt no longer dominated stone tool material types. Late in this phase projectile points with narrow necks were introduced, indicating the establishment of bow and arrow technology. Also in the archaeological record for this phase are microblades, milling stones, bone tools, and ground stone celts. Deer, elk, and mountain sheep were utilized and the people continued to use mussels and salmon (Pokotylo and Mitchell 1998:94).

The use of pithouses during the Chiliwist Phase suggests a settlement pattern that includes a sedentary period during the coldest part of the year. These people were probably semi-sedentary hunter-gather-fishers that relied upon delayed consumption of seasonally abundant resources. The shift may have been brought about by the intensification of root crops (Ames and Marshall 1980) or the desire to control access to critical resources (Lohse and Sammons-Lohse 1986).

Following the Chiliwist Phase, the Cassimer Bar Phase dates from 900 B.P. until the time of contact between native groups and Euroamericans. Small corner-notched projectile points and toggling harpoons were in use, and an increase in social complexity is suggested by the presence of carved steatite objects and decorated stone and bone artifacts. Pithouse features changed slightly to a less robust design and the use of mat lodges became apparent (Pokotylo and Mitchell 1998:94).

The Protohistoric period begins when the aboriginal cultures of the Columbia Plateau were affected directly or indirectly by the westward expansion of the Euroamerican culture. It is marked by the introduction of the horse and historic trade goods such as beads, glass, and metal. Material culture, subsistence, and traditional practices changed during Euroamerican influence, while population size declined drastically from disease.

Native Americans had indirect contact with Euroamericans by as early as A.D. 1500 through the spread of smallpox and other infectious diseases that caused population decline. Population decline between A.D. 1475 and 1525 for the Chief Joseph Reservoir is reported to coincide with the first North American smallpox epidemic (Campbell 1989:186). Population growth is reported to have occurred between A.D. 1575 and 1775 (Campbell 1989:187).

The Project Area falls within land traditionally occupied by the Nicola-Similkameen, an Athapaskan group of Native Americans. Nicola-Similkameen land included the Nicola Valley, the Similkameen River Valley, and an area along the Okanogan River stretching as far south as Tonasket. This area was sizably diminished during the Okanagan expansion, around 1700, and by the mid-1700s the Nicola-Similkameen were absorbed into the Okanagan and the amalgamate group became known as the Similkameen Okanagan (Kennedy and Bouchard 1998).

The Okanagan expanded their territory, prior to which they settled on land along Okanagan Lake and its surrounding hillsides. During the mid-1700s the Okanagan displaced the Shuswap Indians as they moved north into the Nicola Valley. This is also about the time the Nicola-Similkameen were integrated into the Okanagan. By the mid-1800s, the Okanagan claimed a permanent settlement at Douglas Lake, British Columbia.

Ethnographically, the peoples of the Similkameen Okanogan, Okanogan, and Colville share similar lifestyles. They lived in individual villages, or clusters of villages, comprised of autonomous households linked by kinship, exchange, association, or geographic proximity (Kennedy and Bouchard 1998:247). Individuals were allowed to choose their winter and summer villages; however, if the person did not conform they were ostracized. Thus their kinship system is described as bilateral without lineages (Walters 1938; Anastasio 1972).

During the 1986 discovery of the cemetery at *Sntl´exnwenewixwtn*, archaeologists were fortunate to speak with Sarah McCragie, then 87, an Okanogan Indian who lived most of her life in Oroville. Mrs. McCragie spoke of the cultural practice of burying people "where they died" (Chatters and Zweifel 1987:2) and that other family members and friends would also be buried in that same location. A cemetery could include ten or more people. She also states that a portion of the railroad tracks cover some burials and that her father negotiated with the railroad company to construct the rail off the cemetery. This was done and the railroad goes beside the burials. She does not know how many are buried along the railroad (Chatters and Zweifel 1987). The Burlington Northern Railroad, circa 1949, follows the Okanogan River's east bank, crosses over the river between river mile 77 and 78, and continues west, bisecting Oroville (see Figure 2).

Kennedy and Bouchard (1998:249) note that the bodies of the dead were placed in a fetal position, wrapped in mats or robes, and interred on their side. Typically, burials were located in sandy places or on talus slopes and marked with a pile or circle of stones. Graves in the Similkameen area were marked by canoes and effigies during the early 1900s.

Winter villages consisted of a group of one-to-two-family semi-subterranean pit houses located in relatively warm locations (Ray 1939:135). During the winter months, people relied upon stored foods and any game that could be taken. In early spring, winter supplies began to dwindle and people began making forays to gather emergent root crops (Nelson 1973). The Okanagan-Colville had four great hunts: deer and sheep in the spring; deer, sheep, elk, and bear in the late fall; deer in the midwinter; and sheep again the late winter (Boas and Teit 1930). Salmon runs take place at predictable times of the year and provided a valuable resource for immediate use and to store for winter provisions (Schalk 1977). By the end of summer, reserves of dried salmon and prepared roots were stocked for winter. Plant foods were also very important and included roots, nuts, and berries. Saskatoon (*Amelanchier alnifolia*) berries are so important that the Northern Okanogan and Similkameen Okanogan continue to distinguish between eight varieties to this day (Kennedy and Bouchard 1998).

While dugout canoes were often used in transport, only the Similkameen Okanogan are said to have used dogs for hauling purposes (Kennedy and Bouchard 1998:224). The introduction of the horse in the early eighteenth century quickly became popular with the Colville, Northern Okanagan, and Similkameen Okanagan alike, all of which had grazing land suitable for such an animal. For winter transport, Similkameen Okanogan relied on their own style of snowshoe, called the "Nicola-Similkameen style," which were long and narrow.

The ethnography of the Project Area and the surrounding Columbia Plateau and Okanogan Highlands is much more complex with greater cultural diversity than can be summarized here. Ethnographic studies by Angelo Anastasio (1972), Franz Boas and James Teit (1930), Randall Bouchard and Dorothy Kennedy (1979, 1984), Dorothy Kennedy and Randall Bouchard (1998), Verne Ray (1939, 1942), Allan H. Smith (1988), Teit (1930), and others offer the reader a more thorough examination of the native cultures.

REGIONAL HISTORIC BACKGROUND

Contact with peoples on the west coast of the continent was well established by the end of the eighteenth century by British, Spanish, and Russian trading vessels that made regular visits to the coastline. These trading expeditions began the first contact between aboriginal groups and outside cultures. The historic record of the area, though, really begins when Lewis and Clark journeyed through the region in 1805. While Lewis and Clark did not approach the Okanogan Highlands, their journey through the northwest to the mouth of the Columbia River foretold the changes to come.

In 1809, Oregon Territory (later Washington Territory) saw an influx of trappers and fur traders, beginning with the Canadian-owned North West Company as they made their way into the region and built Spokane House, located near the confluence of the Spokane River and Hangman Creek. Two years later, the American-owned Pacific Fur Company built Fort Okanogan. These two companies struggled against one another for fur trade business until 1812 when the Pacific Fur Company's holdings were sold to the North West Company. Soon the London-based Hudson's Bay Company and the North West Company were amalgamated under the British Crown. In 1816, Donald McKenzie, formerly in the employ of the North West Company, braved the suggestion that Spokane House be abandoned as it failed to address promoting trade into the interior (Meinig 1968). After two years of negotiations, Fort Walla Walla (Nez Perce) was constructed in 1818 by the Hudson's Bay Company. By 1825, the Hudson's Bay Company was firmly established as the area's premier trading company and built Fort Colvile (commonly spelled as "Fort Colville") at Kettle Falls, which served as a base station for boundary commissioners surveying the U.S. and Canadian border (Kennedy and Bouchard 1998; Sutton 2008). The Fort, later abandoned in 1870, would become one of the most influential in the northwest in terms of its shaping effect over subsequent years of contact, exploration, and settlement.

Due to the increasing numbers of emigrants, the Oregon Territory was officially established in 1848. By 1850, nearly 12,000 emigrants had passed through the Plateau region along the Oregon Trail (Beckham 1998; Walker and Sprague 1998). With the establishment of the Oregon Territory, federal involvement proliferated. Treaties between Indian tribes and the new state and federal governments were soon underway, but were difficult to maintain in light of the rapid influx of miners following the several "rushes" and settlers who were eager for property. The introduction of disease and other stresses introduced by the new settlers caused mistrust and, eventually, warfare. Several battles took place in the Oregon Territory between 1855 and 1858.

During this period of unrest, efforts were made to limit the incursion of emigrants and others into Indian territories. Prohibition of settlement was strictly maintained, and General Wool pointed out "the army cannot furnish guards to farm houses dotted among hostile tribes" (Meinig 1968:165). The settlement prohibition was only a temporary solution to the inevitable. People settled and volunteer militias attacked indiscriminately and fueled the fire under uncertain relations. The unrest culminated with Colonel Wright's campaign in 1858 that resulted in the executions and murders of sixteen Indians, including the Yakama chief named Owhi, and his son, Qualchan (Beckham 1998).

While Wright's campaign was underway, Major R.S. Garnett led approximately 300 soldiers on a sweep from Fort Simcoe up through the Yakima country, through Wenatchee and as far as the Similkameen River. Garnett's sweep resulted in the summary executions of ten Indians suspected of having attacked miners and the loss of one private, who was lagging behind the company and was presumably shot by an Indian (Wilson 1990:62). These unfortunate turns brought about a new life for the Native American tribes of Washington—the reservation.

The first were the Cayuse, Walla Walla, and Umatilla. After the Whitman Massacre in 1847, where a small group of Cayuse attacked the Whitman Mission near Walla Walla, killing the Whitmans and twelve others, five members of the Cayuse tribe, including their chief, Tiloukaikt, were later tried for the murders and subsequently hung in Oregon City. In 1855, the U.S. Government and the tribes signed the Treaty Council of 1855 at Waiilatpu, which ceded more than 6.4 million acres in what is now northeastern Oregon and southeastern Washington. The tribes, in return, were given 172,000 acres of land—the Umatilla Indian Reservation—which would become their permanent homeland. The tribes reserved their right to fish, hunt, and gather traditional foods and medicines throughout the ceded lands.

In 1859 the U.S. Army moved forces from the Yakima Valley to the Colville area. A post named "Harney's Depot" was set up northeast of the present City of Colville. It quickly became known as Fort Colville. This military post was distinguished from the Hudson's Bay Company fur trading post by its "American" spelling. The American Fort Colville provided a base for the Army, which was responsible for moving Indians onto reservation land. The post was finally abandoned in 1885 for Fort Spokane (Bohm and Holstine 1983).

The Colville Reservation was first established in 1872. The tribes of the territory were originally provided with property north of Spokane on April 9, 1872. The area was bounded, generally, by the Columbia, Spokane, and Pend Oreille rivers. This property was soon "exchanged" for property west of the original reservation which is bounded by the Columbia River on the south and east and by the Okanogan River on the west. The north boundary was the "British possession." This included 2.9 million acres of property. Twenty years later, the north half of the Colville Reservation (totaling 1.5 million acres) was "restored" to public domain and opened for settlement by non-Indians.

The Moses Reservation was established in 1879 west of the Colville Reservation. In 1883, Chiefs Moses, Lot, and Sarsarpkin relinquished the reservation in favor of a move to the Colville Reservation (Miller 1998:267). An agreement was made between the U.S. Government and the people of the Moses Reservation whereby the Indians would be allowed to remain in the area as settlers or to move onto the Colville Reservation. Numerous allotments were allowed on the former Moses Reservation and those who moved were provided with farm equipment and, in some cases, cash and yearly stipends. Thus, the Moses band and others moved to the Colville Reservation.

Oroville

Settlement of the region by non-Indians began as early as 1856 and continued in a relatively slow fashion as pioneers and a few government officials settled in the area through 1885. In 1886 the Moses Reservation was opened to occupation by non-Indians. The area was quickly deluged by miners, stockmen, lumbermen, farmers, merchants, and others until Okanogan County's population reached over 1,500 people in 1890 and almost 13,000 in 1910 (Wilson 1990). With the increasing populations and movements of goods, transportation became a major business in the

valley. Through this era of population growth, transportation alternatives changed from walking then on to horses and stage lines. A multitude of ferries serviced the many rivers and creeks beginning as early as 1865. Stern-wheeled steam ships plied the larger rivers, when the river allowed.

One of the first permanent settlers in the Oroville region was Hiram F. Smith, whose family originated in Maine. In 1845, he moved to New York and learned the newspaper business, working for the *New York Tribune*. He soon made his way out west, to California, eventually taking employment with the Hudson's Bay Company as a mail carrier. He took a route that led him into the Okanogan Valley, quickly seeing the potential of this mild-seasoned valley. By the late 1850's, Smith owned 1,000 acres, purchased from Chief Tonasket, and had orchards of apples, peaches, and grapes (French 1969). He is credited for the beginning of the apple industry, still seen as a major industry in Oroville today.

Smith continued to be a "Jack-of-All Trades," joining the gold rush in British Columbia in 1860. While there, he established a trading post at Rock Creek and created the "rock bottom" sluice box, used to more efficiently recover fine gold (French 1969). One year later, he returned to Oroville and married Mary, the 14-year-old daughter of Chief Manuel of the Colville-Okanogan tribe.

Hiram Smith died in 1893, but not before prospering in agriculture, trading, and mining; serving in territorial and state legislatures; and, earning the titles "Okanogan Smith," "Father of Washington State's Million Dollar Apple Industry," and "Father of Okanogan County" (French 1969).

In spite of his contributions, the City of Oroville actually sprouted from a store and restaurant built by Robert Allison in 1891. The business prospered and drew in other like-minded people until a post office was established in 1893, the same year as Hiram Smith's death, and the town became known as Oroville. Eventually, railroads were established in the region and the Great Northern Rail line reached Oroville from Molson in 1907. It wasn't until 1913 that the line between Oroville and Pateros was operable (Wilson 1990). The economy and population quickly grew with this increase in transportation. Fruit and grain crops as well as ranching became major economic concerns in addition to the mining and logging.

Project Area

Sections 14, 15, 22, and 23 were unsurveyed in the 1896 cadastral, but the Project Area is within an area labeled "Colville Indian Reserve Ceded Lands" (Matson 1896a). Sections 14 and 15 remain unsurveyed in a second cadastral survey dated to 1896, but a north-south trending road is mapped in the center of Section 22, and Tonasket Creek is depicted in the SE¼ of Section 23 (Matson 1896b).

On the 1907 cadastral, The Smith Group of Indian Allotments is mapped in the W½ of Section 15, and a Railroad Grader's Camp is located at the terminus of a road in the NE¼ SE¼ (Kingsburg 1907). This portion of the road is the southernmost of three forks which converge in and terminate

in the center of Section 14. A structure associated with John Snowden is mapped in the center of the NW¼ NE¼, and the SW corner of The Hayward Group of Indian Allotments intersects the NE corner of Section 14. The 1896 cadastrals are referenced in Sections 22 and 23 (Kingsburg 1907).

A 1908 supplement details the Indian Allotments in Sections Section 14 and 15 (Kingsburg 1908). The Smith Group consists of Lizzie Smith (No. 125), Olive Smith (No. 126), and Nancy Appel (No. 128). The lots with the Hayward Group are detailed with no associated names (Kingsburg 1908).

The Indian Allotments are further detailed in Clair Hunt's map of the Colville Reservation (Hunt 1900). The names associated with the Smith Group allotments are the same as those listed in the 1908 survey (Kingsburg 1908). The following names are associated with the Hayward Group: Margaret Hayward (C133), Arthur Hayward (C134), Hercules Hayward (C135), Charles Hayward (C136), Pierre D. Hayward (C137), Joseph D. Hayward (C138), George Mitchell (C139), and Susan Mitchell C140) (Hunt 1900).

The irrigation flume (45OK1035) is mapped as a R.R. Canal on the 1934 atlas (Metsker 1934). The Project Area is located on lands owned by the Oroville-Tonasket Irrigation District, Okanogan County, the U.S. Government, G.M. Scott, E.E. Erwin, and Frank Winkler (Metsker 1934).

TRADITIONAL CULTURAL PLACES

Traditional Cultural Places (TCPs) are important for the "role the property plays in a community's historically rooted beliefs, customs and practices" as stated in the *National Register Bulletin 38* (U.S. Department of the Interior 1990). Although these properties can be difficult to identify and evaluate, an initial search of pertinent publications can be helpful toward identifying the types of properties that may be expected. *National Register Bulletin 38* goes on to state that "examples of properties possessing such significance include:

- a location associated with the traditional beliefs of a Native American group about its origins, its cultural history, or the nature of the world;
- a rural community whose organization, buildings and structures, or patterns of land use reflect the cultural traditions valued by its long-term residents;
- an urban neighborhood that is the traditional home of a particular cultural group, and that reflects its beliefs and practices;
- a location where Native American religious practitioners have historically gone, and are known or thought to go today, to perform ceremonial activities in accordance with traditional cultural rules of practice; and,
- a location where a community has traditionally carried out economic, artistic, or other cultural practices important in maintaining its historic identity."

A review of ethnographies was undertaken to help identify any known TCPs in or near the Project Area. The Project Area lies within the traditional territories of the Nicola-Similkameen and the Middle Columbia Salishans, specifically the Okanogan (*Sinkaietk*) (Miller 1998:253; Spier 1938:85). The Sinkaietk territory encompassed the Okanogan River from Tonasket to its mouth, and far into Canada (Kennedy and Bouchard 1998:240). From the mouth of the Okanogan River, their territory continued upstream on the Columbia River to the vicinity of Lee Canyon or the mouth of Coyote Creek (Spier 1936; Walters 1938:73). This lower stretch of the Okanogan River that the Sinkaietk occupied was known as *nūqaīē'tkū*, which translates as "water that does not freeze" (Spier 1936:10). Spier (1936:16) also discusses the presence of the wintering territory of the Chilowhist band of Methow along the lower Okanogan River. They spoke a Chelan dialect and the Sinkaietk considered them to be members of a different tribe. The band's name is derived from the principal drainage of their winter residence, *ci'lōxwist* (Chiliwist Creek) and was located "between Sand Point and Malott" (Spier 1936:16).

Ethnographies indicate the presence of numerous winter villages along all the major waterways, and Sinkaietk villages were typically located along a major stream. Walters (1938) presented information regarding the locations of Sinkaietk villages organized by band. The Tukoratum band had "winter sites from Condon's Ferry on the Columbia to the mouth of the Okanogan River and up the Okanogan River to about four miles above Monse" (Walters 1938:86). "The Kartar band have winter sites from the foot of Omak Lake to the Columbia River" (Walters 1938:86). He continues "the Konkonelp band have winter sites from about three miles above Malott to the turn of the Okanogan River at Omak" (Walters 1938:86; see also Spier 1936:10-11).

The Tonasket band occupied the Okanogan River from Riverside to Tonasket. This band may not have been specifically recognized prior to Chief Joseph Tonasket's rise to leadership in 1858 (Spier 1936:11). Chief Joseph Tonasket's ancestral homeland extended for some distance into Canada, along Lake Osoyoos down the Okanogan Valley to a few miles south of the present-day Tonasket (Colbert and Helm 1985). He originally ranched on Lake Osoyoos, near the present-day Oroville Airport. It was on Chief Tonasket's land near present-day Oroville that in 1842 Father DeSmet baptized 106 children and several older people in a place later referred to as "the Plain of Prayer" (Raufer 1966). He later sold that land to Hiram F. Smith and his Indian wife, Mary Manuel. In 1885, Chief Tonasket and his people (approximately 38 lodges [Ruby and Brown 1965]) moved to Curlew Creek, and he had a ranch on the left bank of the Kettle River about 1.0 mi (1.6 km) from the present town of Curlew.

Boas and Teit (1930) identify the region around the Project Area as the traditional territory of the Lower Okanogan and the Upper Similkameen bands who occupied villages along the Similkameen River, Lake Osoyoos, and the Okanogan River. Several of the Upper Similkameen villages were occupied as recently as 1904 during Teit's research (Boas and Teit 1930:169). Table 4 lists ethnographic villages identified by Boas and Teit (1930:170-172). Ray (1936) lists three villages that revolve around the confluence of the Okanogan and Similkameen rivers.

Table 4. Ethnographic Villages Identified by Boas and Teit (1930).

Village Name	Location Description
Lower Similkameen villages along Similkameen River proceeding south to the Okanogan River	
N~sli ´tok	This village is located in Washington near the international border.
Xe ´pulôx	This village is located along the river near a lake.
KwaxalÇ ´s	This village is located a little back from the river.
TseltsalÇ ´s	This village is further south along the river than the previous village.
Skwa ´nnt	This village is further south along the river than the previous village.
Ko ´nkone³p	This village is near the mouth of the Similkameen River.
Lower Okanogan villages were no longer extant when Teit visited the area.	
MilkEmix§ ´tuk	This is the name of the district surrounding the mouth of the Similkameen River at the Okanogan River.
SmElkamm§ ´n	This village was probably at the mouth of the Similkameen River.
S~³§ ´lx (or Ækin~ ´q'n)	This village was located at the mouth of the Similkameen River.
Tekwora ´tEm	This village was near the previous village but was located on the Okanogan River.

Kennedy and Bouchard (1998) also mention the late-19th and 20th century villages *sa'titx^{w}* ("piled-up rock dwelling"), located along the east bank of the Okanogan River near the mouth of Osoyoos Lake; *stex^{w}ta'x^{w}ilxtn* ("where fish jump"), on a small bend of the Similkameen River; and *s'uyu's* ("gathered together, meeting"), located on the western shores of Osoyoos Lake in Canada.

The significance of Driscoll Island, approximately 2.4 mi (3.9 km) south of the Project Area, is reflected in local Native American ethnographic narratives, as reported by Norman Lerman (1952-1954) and Bouchard and Kennedy (1984). According to several informants, Driscoll Island was inhabited and used by Native Americans from pre-contact to at least the mid-20th Century. In 1984, Native American place names and occupations associated with Driscoll Island, as well as Eyhott Island immediately south of Driscoll Island, were recorded.

Harry Robinson and Selina Timoyakin, informants to Bouchard and Kennedy, both referred to Driscoll Island as *selxw7i'kn* ("big island"), while another informant, Sarah McCraigie, associated the place name *nk̲wuwapi'tkw* ("getting-deep water") with the island (Bouchard and Kennedy 1984:37-41). The exact location of *nk̲wuwapi'tkw* in other accounts is less certain, and is generally described as being approximately three miles south of Oroville. Based on interviews between 1975 and 1984, Bouchard and Kennedy identify two possible locations for *nk̲wuwapi'tkw* including Driscoll Island, itself, as indicated by Sarah McCraigie, or east of Eyhott Island on the east side of the Okanogan River (Bouchard and Kennedy 1984:38-39). Bouchard and Kennedy suggest the site's true location is most likely the east bank of the Okanogan River just east of Eyhott Island. Either

site lies approximately three miles south of Oroville and near the confluence of the Okanogan River and Similkameen River, which is the reported ancestral home of the Okanagans, including the Sinkaietk and Northern Okanagan groups.

In their discussion of *nk̲wuwapi'tkw*, Bouchard and Kennedy suggest that Teit's (1930:206) identification of the village site, *ko'nkone'łp* (or *k̲wúnk̲wenlhp*), at the confluence of the Okanogan and Similkameen Rivers was erroneous (Bouchard and Kennedy 1984:39). In fact, *k̲wúnk̲wenlhp* is the Okanagan-Colville place name for Okanagan, approximately 42 mi (67.6 km) further south on the Okanogan River. While its specific location is uncertain, the apparent misplacement of *k̲wúnk̲wenlhp*, the common recognition of the *nk̲wuwapi'tkw* place name, and its association with the Driscoll/Eyhott Island area by several informants and researchers draws into question the significance of this section of river and Driscoll Island, itself, as it relates to the reported ancestral point of origin for the Okanagan Indians.

Despite the uncertainty of the ancient significance of Driscoll Island, the island is well represented in oral traditions. The waters off of the west side of Driscoll Island share the place name *nk̲wuwapi'tkw*, and are noted as a traditional salmon fishery. According to Norman Lerman's ethnographic field notes (1952-1954), an unnamed woman (possibly Dorothy Simpson or Harry Robinson's sister-in-law, "Mary") who owned a fruit stand near a bridge at the south end of Oroville, owned Driscoll Island prior to a Mr. Van Pool (ca. 1952-1954). An early non-native settler, Andy Johnson, informed this woman that Driscoll Island had served as an Indian meeting point (Lerman [1952-1954] cited in Bouchard and Kennedy 1984:40-41). Additionally, Lerman reported that when Driscoll Island was plowed for agricultural use, the owner(s) "found many Indian artifacts" (Lerman [1952-1954] cited in Bouchard and Kennedy 1984:40-41). Given the location of Driscoll Island at the confluence of the rivers, the pre-contact and subsequent oral traditions, the named fishery, and accounts of meetings on the island, as well as common ethnographic themes in the area, Driscoll Island was possibly a ceremonial site for "first salmon" rituals, as well as intergroup summits. Such summits could often involve hundreds and even thousands of people during peak fishing seasons.

Traditional Cultural Places not only include habitation sites and locals for social/ceremonial gatherings such as discussed above, but also root grounds, pre-contact burials, raw material procurement areas, hunting areas, and travel routes. Christine Quintasket, who wrote under the pen name Mourning Dove, was born in 1888 (or 1885) and witnessed Native American life at the turn of the 20th century. She was a Colville, but her lineage speaks of the long and entwined history of the Native Americans of the area. Christine's mother was a Colville, her maternal grandfather was Lakes, and her maternal grandmother was a Colville and daughter of *See-whehl-ken*, the Salmon Chief that greeted David Thompson and his crew in 1811. Christine's paternal grandmother was a Nicola Indian (Miller 1990). Quintasket does not mention the Project Area specifically; however, she does speak of an Indian trail leading from Kettle Falls to S'oo-yoos Lake ("narrowing of the waters" present day Osoyoos Lake), in British Columbia that her parents

followed every year that led them from their Colville winter village to Nicola country (Miller 1990:20). She also states that there had been a customs office at Lake Osoyoos since 1860, along an Indian trail (Miller 1990:157).

The implementation of the 1887 Dawes Act occurred on December 1, 1905, with the signing of the McLaughlin Agreement in which two-thirds of the Confederated Colville Tribe constituents agreed to the land cession of the northern half of the Colville Indian Reservation. Qualified individuals and households retained an 80-acre allotment. Distribution of lands began to occur in 1914, with a reported 2,505 CCT individuals who were allotted 333,275 acres of reservation lands. In 1916, the southern half (1.4 million acres) of the reservation was officially opened to non-Indian settlement via the Presidential Proclamation of 1900 (Confederated Tribes of the Colville Reservation 2009). Though not within the Project Area, numerous Indian allotments are located to the northeast (Hunt 1900). The Nancy Appel allotment (C128) lies 230 ft (70 m) west of the Project Area, and the Olive Smith allotment (C126) lies 919 ft (280 m) west of the Project Area. The Lizzie Smith (C125), Charles Hayward (C136), Joseph D. Hayward (C138) and six additional allotments are located within 1.0 mi (1.6 km) of the Project Area (Hunt 1900).

Numerous collections were consulted to identify points of legendary significance near Oroville. These include publications by Boas (1917), Bouchard (1978), Clark (1969), Edmonds and Clark (1989), Erdoes and Ortiz (1984), Hill-Tout (1978), Judson (1910), Miller (1990), Mourning Dove (1990), Ray (1933), Spier (1938), Thompson and Egesdal (2008), and Yanan (1971).

Clark (1969:115-116) relates the Okanagan legend of the Hee-Hee Stone (or Tee-Hee-Hee Stone, Wishing Stone, or Camas Woman) involving Coyote and Blue Flower. Blue Flower was the daughter of a Kalispel chef and had hoped to become the betrothed of an Okanagan warrior, Scrakan. Blue Flower spoke sharply to Coyote, who had laughed at the efforts Scrakan's two brothers were making to win the hand of Blue Flower. Coyote grew angry at Blue Flower and turned half of her to stone. Blue Flower proceeded to throw her basket of newly picked camas outside of Okanagan country, swearing that no camas would grow. She then turned herself completely to stone. Coyote decided that this rock shall bring luck to those who need it. Coyote then proceeded to turn the brothers into mountains. Scrakan became Big Chopaka Mountain. The Hee-Hee Stone stood 20 mi (33.3 km) outside of Oroville, along the Canadian border. Sometime during the early 20th century, a "white man took a hammer and knocked the Hee-Hee Stone to pieces" (Clark 1969:115). Wilson (1990:23) credits the demise of the Hee-Hee Stone to a drunken prospector dynamiting the feature.

Boas (1917:107) tells the tale of *The Five Wolves*, in which an old woman and her grandson elude wolves after killing a deer in Osoyoos Lake. The wolves chase the couple up into the cliffs overlooking the lake and near the Okanogan River. They lived there until the boy had killed and/or maimed all the wolves.

Several manuscripts have been prepared by the *British Columbia Indian Language Project* that pertain to the use of fish and plants by the Colville Okanagan Indians (Kennedy and Bouchard 1975; Turner 1977) as well as tabulating the place names of villages, utilization areas, and areas of legendary significance (Bouchard and Kennedy 1979). Unfortunately for the purposes of this project, these manuscripts are concerned primarily with the areas behind Grand Coulee Dam, especially Kettle Falls. The Turner (1977) document systematically discusses the practical uses of regionally available plant species in regard to their food value and methods of collection and storage, medicinal uses, and any known mythological information regarding the plant. She was also able to identify specific areas where some limited resources were available. Turner (1977:72) mentions that Indian Hemp, or *sp îts ́n*, was gathered from along the Okanogan River and from the south end of Omak Lake. Indian Hemp provided a strong fiber that did not shrink when wet. It was used extensively to make string, twine, rope, fishnets, moccasins and other related items (Turner 1977:72).

EXPECTED PROPERTIES

Previous archaeological investigations correlate Native American sites with relatively flat terrain, well drained soils, within proximity to water, and areas with sweeping vistas. Major rivers, such as the Okanogan, provided corridors where animals and people moved across the landscape. It is along large rivers that ethnographers and archaeologists have documented large village sites.

The Project Area sits east of Lake Osoyoos, near the Okanogan and Similkameen rivers. These bodies of water would have provided accessibility to the region during seasonal trips through the area. Villages and small campsites might manifest themselves by low to moderate densities of stone tools which are concentrated in one or more loci, housepits, hearths, and middens. Evidence of fishing camps would include weirs, cairns, and other rock features. As this area was traversed by multiple bands of Native Americans conducting seasonal activities, it is also possible that exotic lithic material might be present among the artifact assemblage. Visits through this area may manifest themselves as isolated finds.

Based on ethnographic and historical information, prehistoric site types expected for the area might include plant gathering sites and game hunting areas. Seasonal forays into the region included hunting and fishing, quarrying toolstone, collecting berries, or gathering other resources. Additionally, the Project Areas lies near several Indian allotments, which are shown on the Hunt (1900) map on the east side of the Okanogan River. Groethe et al. (2007:7) notes that people often took Indian allotments where their family had lived for centuries.

While non-Native American settlement in Okanogan County began by the 1850s, it was not until 1891 that Oroville developed into more than an orchard establishment. Mining brought many into this part of the county, and Highway 97 is a major route that appears on maps as early as 1902. As such, one might expect to find isolated materials related to homesteading and mining, but not the features (i.e., foundations or prospects) that would be more likely outside of the Project Area.

Other historic period activities associated with the construction, maintenance, and use of the irrigation flume (45OK1035) or the Great Northern railroad (45OK1131) would have resulted in a range of activities from short-term visits through the Project Area, repeated reuse of specific locales, or concentrated occupation. Visits may have resulted in the accidental loss of personal items, hardware, or tools, and the disposal of a small number of food and beverage vessels. These items may be found as isolates or small discrete sites representing ephemeral occupation of the landscape. Typically an item lost or discarded, an "isolate," provides important information about the types of areas exploited by past populations but is not considered eligible for listing on the NRHP.

Oroville is a culturally rich area for Native American occupation as exemplified by the abundance of cultural resources in and near the community including small- to medium-sized open campsites (indicative of daily land-use), rock cairns and pictographs (implying a spiritual connection to the region), and Native American burials. The majority of these sites are located in a 33 km² (20 mi²) area. This sounds like a large area, but as one looks closely it becomes apparent that there is a locale preference, mainly along or in view of the Okanogan River, Similkameen River, and Lake Osoyoos. In a previous investigation, Plateau (Harder and Hannum 2005:28-30) cautioned future developers of the concentrated abundance of archaeological sites in this area and the high potential of finding previously unrecorded sites, including burials, stating,

> "the Native American burials recorded throughout Oroville have their similarities (i.e., terraces, proximity to major drainages, and sandy soils) as well as their differences (i.e., alluvial plains). Due to their variety in locational setting, it is difficult to conclude that there is an all-encompassing statement regarding the probable locations for Native American burials in this area. We can reiterate the importance of both the Okanogan and Similkameen rivers to the ancient populations, both for subsistence and spirituality, and remind the reader of the overall lay of the land that drew people to the area, mainly sandy terraces overlooking meandering river drainages. Therefore, burials may likely be found anywhere within the active alluvial channel of the Similkameen and Okanogan rivers" (Harder and Hannum 2005:30).

FIELD METHODS

Survey work was completed in accordance with the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 FR 44716, September 29, 1983). Field work was carried out over two field sessions—occurring in October 2016 and in October 2018. The 2016 field session was conducted by Plateau archaeologists Matthew Marino and Sarah Calabres and covered the proposed runway restoration area, proposed hanger and apron/taxiway, and the surrounding lands. The 2018 field session was conducted by Adam Sackman and Justin Fitzpatrick and was carried out over the RPZs, Westlund Drive, the eastern portion of the Project Area, and all other portions of the Project Area not surveyed in 2016. Project plans provided by JUB Engineers, Inc. were used for reference during fieldwork.

The fieldwork was completed in a manner consistent with Washington State Senate Bill 5282 amending RCW 27.53.030, and included inspection techniques to identify both surface and subsurface archaeological resources. Survey was conducted across the entire Project Area. All transects were walked with two crew members spaced at 10-m intervals.

Plateau archaeologists excavated 61 subsurface shovel probes (SSPs) within the Project Area(Figure 3). Subsurface probes were excavated as 40-cm round holes. Archaeologists removed sediment by arbitrary 10-cm levels and screened spoils through ¼ inch wire mesh. Sediment characteristics were recorded on standardized forms with the color, composition, and degree of compaction noted. All subsurface probes, pedestrian transects, and cultural materials were recorded on a handheld GPS unit.

PROJECT RESULTS

The entire airport property is bounded by fences, with an interior fence line delineating the Project Area into eastern and western halves. The west half has been heavily-developed for airport facilities and utilities, and includes the runway, helipads, aprons, hangars, shops, customs office, fuel station, and other related structures. Most of this area is paved, and unpaved portions exhibit disturbances in the form of visible road gravels on the ground surface. Pedestrian survey visibility in this portion of the Project Area was excellent, but decreased due to overgrown vegetation along the western airport fence line.

Site 45OK1035 is reportedly located along the western boundary of the Project Area (Appendix A). According to the Oroville (1984) USGS topographic map, the site follows the present airport fence line. Pedestrian survey visibility along this fence line ranged from 80% to 20%, and was obscured by bunchgrass, needle and thread, and sagebrush. While no cultural materials or features that could be attributed to 45OK1035 were identified, the archaeologists noted hookups for a modern irrigation system and signs for a high pressure waterline along this same area (Figure 4). This was expected, as the route of 45OK1035 had been converted to a city utility corridor (Rod Noel, personal communication, 2016).

Survey visibility along the runway flanks improved, and the ground surface was only slightly obscured by low and medium height grasses (Figure 5). Some sagebrush was encountered just east of the runway, and disturbances were evident in the form of utility corridors on both sides of the runway (Figure 6).

The eastern half of the airport property is largely unmanaged, and overgrown with bunchgrass, needle and thread, and sagebrush. Large portions of this area have been utilized as borrow pits or spoil dumps, likely as a byproduct of developing the relatively flat western half of the airport property (Figure 7). Modern construction debris, wood and landscaping debris, and a makeshift

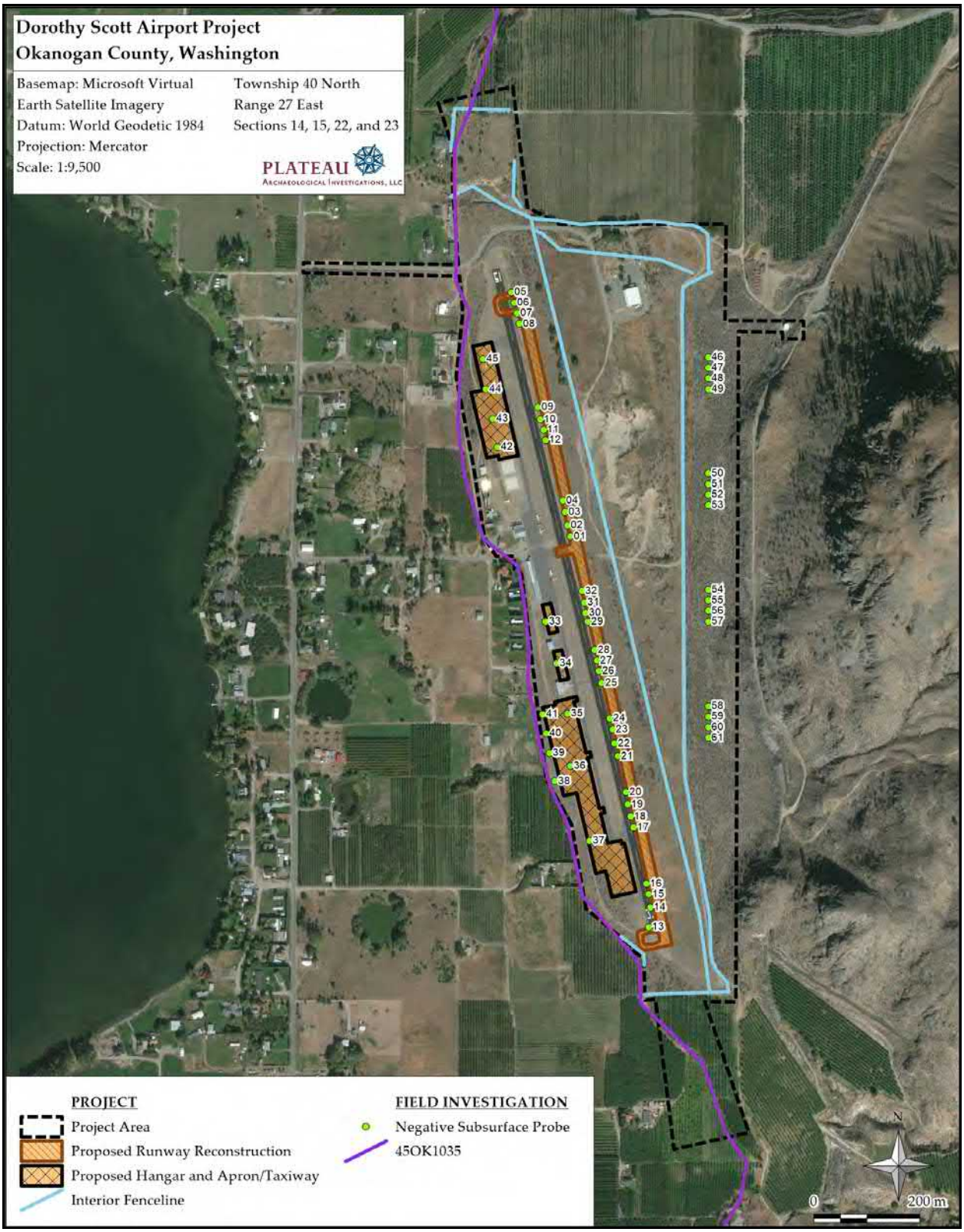

Figure 3. The Project Area and field investigation on an aerial photograph.

Figure 4. Northerly view along western fence line and former location of 45OK1035 irrigation flume. Note subsurface utility marker in center of frame.

Figure 5. Typical survey area along runway, and location of Probes 29-32. View to the south.

Figure 6. Survey area east of the runway showing the path of the subsurface utility corridor. View to the south.

Figure 7. Borrow pit area in eastern half of airport property. View to the east.

shooting range were observed in this portion of the Project Area. North of this large borrow pit and dump is the Skyview Industrial Park with a paved road and parking area, and one warehouse facility (Figure 8).

The eastern portion of the Project Area is heavily vegetated with various grasses and sagebrush. Numerous game trails cut through the area, and, along with sediments exposed through various animal burrowing activity, allowed for a fair level of ground surface visibility (20-40%). A municipal water tank and associated access route are located in the eastern extreme of the Project Area. The land surrounding the water tank has been disturbed, and large gravel has been laid to provide access, obstructing ground surface visibility.

Both northern and southern RPZs exhibit varying levels of ground disturbance, with minor vegetative cover, consisting primarily of various grasses, with some small sage. Ground surface visibility in both areas was approximately 80%.

No newly identified pre-contact or historic-era cultural materials were identified during the pedestrian survey of the Project Area.

The archaeologists excavated 61 SSPs in the Project (Table 5). SSP 01-SSP 12 were excavated along the north half of the proposed runway alignment, and SSP 13-SSP 32 were placed along the south half of the proposed runway. Probes SSP 33-SSP 37 are located within proposed hangar and apron/taxiway locations on the south half of the airport property, Probes SSP 42-SSP 45 were placed within these areas on the north half the airport property, SSP 46-SSP 61 were placed within the eastern portion of the Project Area. SSPs ranged in depth from 30-110 cm (11.8-43.3 in), averaging 82.5 cm (32.5 in).

Generally, one soil profile was observed throughout the Project Area, with some variation in the soils near recently developed areas. This soil profile consisted of dark yellowish brown (10YR4/6) loamy fine sand over a yellowish brown (10YR5/4) loamy fine sand. The surface horizon was only slightly darker (due to higher moisture content), and slightly finer than the base horizon (Figure 10). Probes located closer to roads, runways, and other developed structures contained higher contents of road gravels and occasional fragments of asphalt.

This soil profile does not correspond with the expected Ewall or Cashmont series, but rather seems to represent the result of disturbance and redeposition of these soil series. The disturbance is further highlighted by a distinct 2-cm thick ash layer that was observed in only two subsurface probes. Disturbances were also noted in the form of krotovina, or in-filled animal burrows (see Figure 10).

Figure 8. Unmanaged land in the east half of the Project Area. The Skyview Industrial Park is visible in the right of the frame. View to the northeast.

Figure 9. Northerly view along eastern interior fence line, with dirt road in left of frame.

Table 5. Subsurface Probe Results.

Probe	Easting (m)*	Northing (m)*	Location	Depth (cm)	Results
01	323446	5425802	Proposed Runway-North half	100	Negative
02	323441	5425823	Proposed Runway-North half	100	Negative
03	323438	5425847	Proposed Runway-North half	100	Negative
04	323434	5425868	Proposed Runway-North half	100	Negative
05	323351	5426251	Proposed Runway-North half	100	Negative
06	323356	5426232	Proposed Runway-North half	100	Negative
07	323361	5426213	Proposed Runway-North half	100	Negative
08	323365	5426193	Proposed Runway-North half	60	Negative
09	323394	5426040	Proposed Runway-North half	100	Negative
10	323398	5426017	Proposed Runway-North half	100	Negative
11	323403	5425998	Proposed Runway-North half	100	Negative
12	323406	5425979	Proposed Runway-North half	110	Negative
13	323566	5425085	Proposed Runway-South half	60	Negative
14	323570	5425121	Proposed Runway-South half	40	Negative
15	323568	5425144	Proposed Runway-South half	50	Negative
16	323565	5425164	Proposed Runway-South half	100	Negative
17	323544	5425268	Proposed Runway-South half	100	Negative
18	323540	5425288	Proposed Runway-South half	100	Negative
19	323535	5425310	Proposed Runway-South half	100	Negative
20	323533	5425332	Proposed Runway-South half	100	Negative
21	323519	5425398	Proposed Runway-South half	40	Negative
22	323515	5425421	Proposed Runway-South half	39	Negative
23	323511	5425447	Proposed Runway-South half	45	Negative
24	323507	5425468	Proposed Runway-South half	28	Negative
25	323495	5425533	Proposed Runway-South half	100	Negative
26	323490	5425555	Proposed Runway-South half	100	Negative
27	323487	5425574	Proposed Runway-South half	100	Negative
28	323483	5425593	Proposed Runway-South half	100	Negative
29	323472	5425645	Proposed Runway-South half	30	Negative-Utility line
30	323469	5425661	Proposed Runway-South half	100	Negative
31	323467	5425681	Proposed Runway-South half	100	Negative
32	323463	5425701	Proposed Runway-South half	100	Negative
33	323395	5425648	Proposed Hangar & Apron/Taxiway-South half	100	Negative
34	323412	5425571	Proposed Hangar & Apron/Taxiway-South half	100	Negative
35	323430	5425479	Proposed Hangar & Apron/Taxiway-South half	42	Negative

Table 5. Subsurface Probe Results (Continued).

Probe	Easting (m)*	Northing (m)*	Location	Depth (cm)	Results
36	323432	5425383	Proposed Hangar & Apron/Taxiway-South half	100	Negative
37	323462	5425246	Proposed Hangar & Apron/Taxiway-South half	100	Negative
38	323403	5425356	Proposed Hangar & Apron/Taxiway-South half	100	Negative
39	323395	5425408	Proposed Hangar & Apron/Taxiway-South half	80	Negative
40	323390	5425444	Proposed Hangar & Apron/Taxiway-South half	100	Negative
41	323385	5425479	Proposed Hangar & Apron/Taxiway-South half	80	Negative
42	323318	5425969	Proposed Hangar & Apron/Taxiway-North half	100	Negative
43	323311	5426021	Proposed Hangar & Apron/Taxiway-North half	50	Negative
44	323300	5426075	Proposed Hangar & Apron/Taxiway-North half	70	Negative
45	323296	5426131	Proposed Hangar & Apron/Taxiway-North half	44	Negative
46	323704	5426116	Eastern Project Area	52	Negative
47	323704	5426105	Eastern Project Area	87	Negative
48	323702	5426083	Eastern Project Area	100	Negative
49	323703	5426061	Eastern Project Area	82	Negative
50	323698	5425905	Eastern Project Area	100	Negative
51	323697	542894	Eastern Project Area	48	Negative
52	323697	542872	Eastern Project Area	61	Negative
53	323696	542849	Eastern Project Area	83	Negative
54	323691	5425694	Eastern Project Area	58	Negative
55	323691	5425683	Eastern Project Area	108	Negative
56	323690	5425661	Eastern Project Area	38	Negative
57	323689	5425638	Eastern Project Area	64	Negative
58	323684	5425483	Eastern Project Area	106	Negative
59	323684	5425460	Eastern Project Area	105	Negative
60	323683	5425449	Eastern Project Area	100	Negative
61	323683	5425427	Eastern Project Area	70	Negative
*NAD83, UTM Zone 11			Average depth: 83.7 cm	Total volume: 18.94 m^3	

Figure 10. Typical soil profile observed in Probe 12. Krotovina highlighted in left wall.

RECOMMENDATIONS AND MANAGEMENT PLAN

Plateau archaeologists conducted pedestrian survey across the entire Project Area, and excavated 61 subsurface probes within the Dorothy Scott Airport. The field survey of the Dorothy Scott Airport Project resulted in no newly recorded pre-contact or historic-era cultural materials or features.

While one previously recorded site, 45OK1035, is located within the Project Area, the present survey did not locate any cultural materials that could be associated with this site. Further, the route of the irrigation flume in this area had previously been converted to a city utility corridor, and is now lined with the airport property line fence. There are no remaining elements of the irrigation flume within the Project Area, and the portion of the site surveyed for this project does not contribute to the NRHP eligibility of the site as a whole (see Appendix A). As such, Plateau recommends that this project will result in **No Historic Properties Affected**, and no further archaeological investigations are necessary prior to, or during project execution.

The project proponent, and the construction contractor should be apprised that the potential remains for cultural materials to be inadvertently disturbed during construction. Should ground disturbing activities of these remaining areas reveal any cultural materials (e.g., structural remains, Euroamerican artifacts, or Native American artifacts), activity will cease and the Washington State Historic Preservation Officer will be notified immediately. The results and recommendations in

this document concern the specified area of potential effect. The proponent is advised that the results and recommendations reported herein do not apply to areas of potential effect altered or expanded after the completion of this cultural resource survey. A supplementary cultural resource review will be necessary if the area of potential effect is altered or changed, as per 36 CFR 800.4.

If ground-disturbing activities encounter human skeletal remains during the course of construction, then all activity ***will*** cease that may cause further disturbance to those remains. The area of the find will be secured and protected from further disturbance to those remains. The area of the find will be secured and protected from further disturbance until the State provides notice to proceed. The finding of human skeletal remains ***will*** be reported to the county medical examiner/coroner ***and*** local law enforcement in the most expeditious manner possible. The remains will not be touched, moved, or further disturbed. The county medical examiner/coroner will assume jurisdiction over the human skeletal remains and make a determination of whether those remains are forensic or non-forensic. If the county medical examiner/coroner determines the remains are non-forensic, then they will report that finding to the DAHP who will then take jurisdiction over the remains. The DAHP will notify any appropriate cemeteries and all affected tribes of the find. The State Physical Anthropologist will make a determination of whether the remains are Indian or Non-Indian and report that finding to any appropriate cemeteries and affected tribes. The DAHP will then handle all consultation with the affected parties as to the future preservation, excavation, and disposition of the remains.

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1998 History Until 1846. In *Handbook of North American Indians: Plateau*, v. 12, edited by Deward E. Walker, Jr., pp. 138-148. Smithsonian Institution, Washington D.C.

Walters, L.V.W.
1938 Social Structure. In *The Sinkaietk or Southern Okanagon of Washington*, edited by Leslie Spier, pp.71-101. General Series in Anthropology, No. 6. Contributions from the Laboratory of Anthropology, 2. Santa Fe, New Mexico. George Banta Publishing Co., Menasha, Wisconsin.

Western Regional Climate Center
2016 *Tonasket 4 NNE, Washington (458520)*. Electronic document accessed at www.wrcc.dri.edu, on August 19, 2016.

Wilson, Bruce A.
1990 *Late Frontier: A History of Okanogan County, Washington 1800-1941*. Okanogan County Historical Society, Okanogan, Washington.

Yanan, Eileen
1971 *Coyote and the Colville*. Published by the St. Mary's Mission, Omak, Washington.

STATE OF WASHINGTON
ARCHAEOLOGICAL SITE INVENTORY FORM UPDATE

Smithsonian No.: 45OK1035

***County:** Okanogan

***Date:** 11/5/2016 ***Compiler:** Matthew Marino **Human Remains?** ☐ **DAHP Case No.:**

"Archaeological sites are exempt from public disclosure per RCW 42.56.300"

SITE DESIGNATION

Site Name: Oroville-Tonasket Irrigation Canal

Field/ Temporary ID: 45OK1035

***Site Type(s):** Historic Agriculture-Irrigation Flume and Associated Materials

SITE LOCATION

***USGS Quad Map Name(s):** Oroville

***Legal Description: T**40N **R** 27E **Section(s):** 15 and 22

Quarter Section(s):

***UTM: Zone** 11 **Easting** 323285 m **Northing** 5425827 m

Latitude: 48.96008 **Longitude:**-119.41420 **Elevation (ft/m):** 1,010-1,027 ft (308-313 m)

Other Maps: **Type:**

Scale: **Source:**

Drainage,Major: Lake Osoyoos/Okanogan River **Drainage,Minor:** Ninemile Creek **River Mile:** 80

Aspect: southwest **Slope:** <2%

***Location Description:** This described portion of the irrigation flume is located along the western property boundary of the Dorothy Scott Airport in northeaster Oroville.

Directions** *(For Relocation Purposes):** From downtown Oroville, take Cherry Street north to Chesaw Road. Follow Chesaw Road as it turns east, then head north on Eastlake Road. Turn east on Airport Road, and follow this to the entrence gate of the Dorothy Scott Airport.

SITE DESCRIPTION

Narrative Description** *(Overall Site Observations):** The site consists of the remains of a historic irrigation flume. The flume is mapped on the 1982 Oroville USGS map, and according to this map, it ran for about 10 miles from Grubb's Cove on Osoyoos Lake to south of Cordell.

City Superintendent of Oroville, Rod Noel (personal communication, 2016), stated that the flume location within the Project Area had been converted to a city utility corridor and is lined with a fence.

Site Dimensions** *(Overall Site Dimensions):** Surveyed portion only

*__Length:__ 0.9 mi (1.5 km) *__Direction: n-s__ x *__Width:__ N/A *__Direction:__ N/A

*__Method of Horizontal Measurement:__ GIS

*__Depth:__ N/A * __Method of Vertical Measurement:__ N/A

Vegetation** *(On Site):** Bunchgrass, needle and thread, sagebrush

Local: Shrub-steppe **Regional:** Shrub-steppe

Landforms *(On Site)***:** Hillslope

Local: Okanogan River Valley

Water Resources *(Type)***:** Ninemile Cree **Distance:** Intersects **Permanence:** Year round

CULTURAL MATERIALS AND FEATURES

Narrative Description** *(Specific Inventory Details):** The described portion of the site runs for 1.1 miles (1.7 kilometers) along the western property boundary of the Dorothy Scott Airport. No portions of the flume remain in this area. The path is fence-lined, and high pressure subsurface water lines are located in the vicinity.

As no portions of the site remain, and no cultural materials or features were observed that could be attributed to the site, this portion does no contribute to the NRHP eligibility of the site as a whole.

***Method of Collection:** None

Location of Artifacts** *(Temporary/Permanent):** None

SITE AGE

***Component:** Historic *__Dates:__ 1916-1980s

***Dating Method:** Site forms **Phase:** **Basis for Phase Designation:**

SITE RECORDERS

Observed by: Matthew Marino and Sarah Calabrese **Address:** PO Box 714 Pullman, WA 99163

***Date Recorded:** October 12, 2016

***Recorded by:** Matthew Marino

***Organization:** Plateau Archaeological Investigations ***Organization Phone Number:** 509-332-3830

***Organization Address:** PO Box 714 Pullman, WA 99163 ***Org. E-mail:** info@plateau-crm.com

Date Revisited: **Revisited By:**

SITE HISTORY

Previous Archaeological Work** *(Specify the previous archaeological work done at this location. / If none, please put N/A here.):** The site was originally documented by Regan and Welch in 1992. Subsequent site visits were perfomed by Peterson (2008) and Lancaster (2009).

LAND OWNERSHIP

***Owner:** City of Oroville

***Address:** PO Box 2200 Oroville, WA 98844

***Tax Lot/ Parcel No:** 4027150007, 4027150004, and 4027220018

RESEARCH REFERENCES

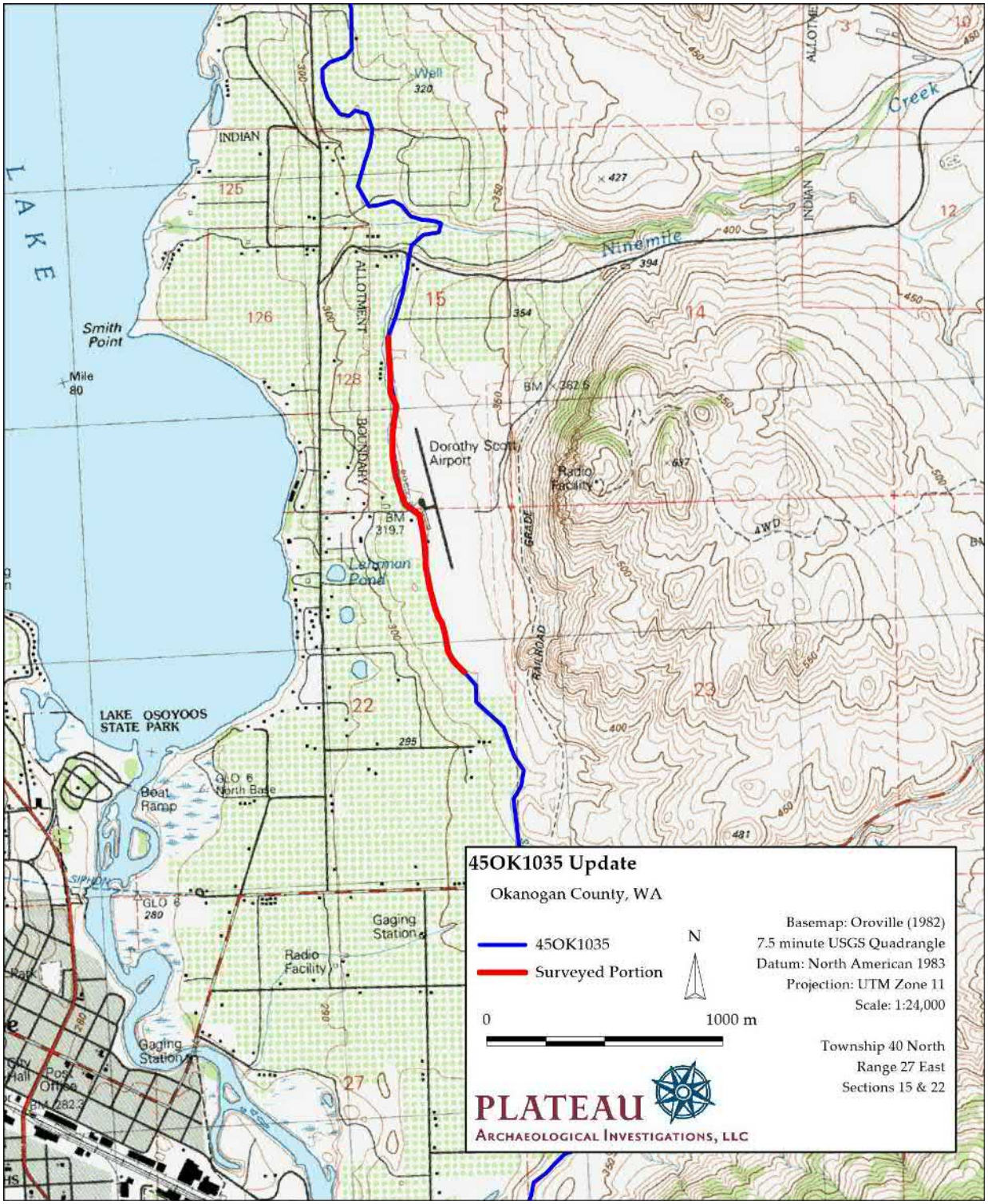
***Items/Documents Used In Research:**

Lancaster, Kim
2009 Washington Archaeological Site Form, site 450K1035.

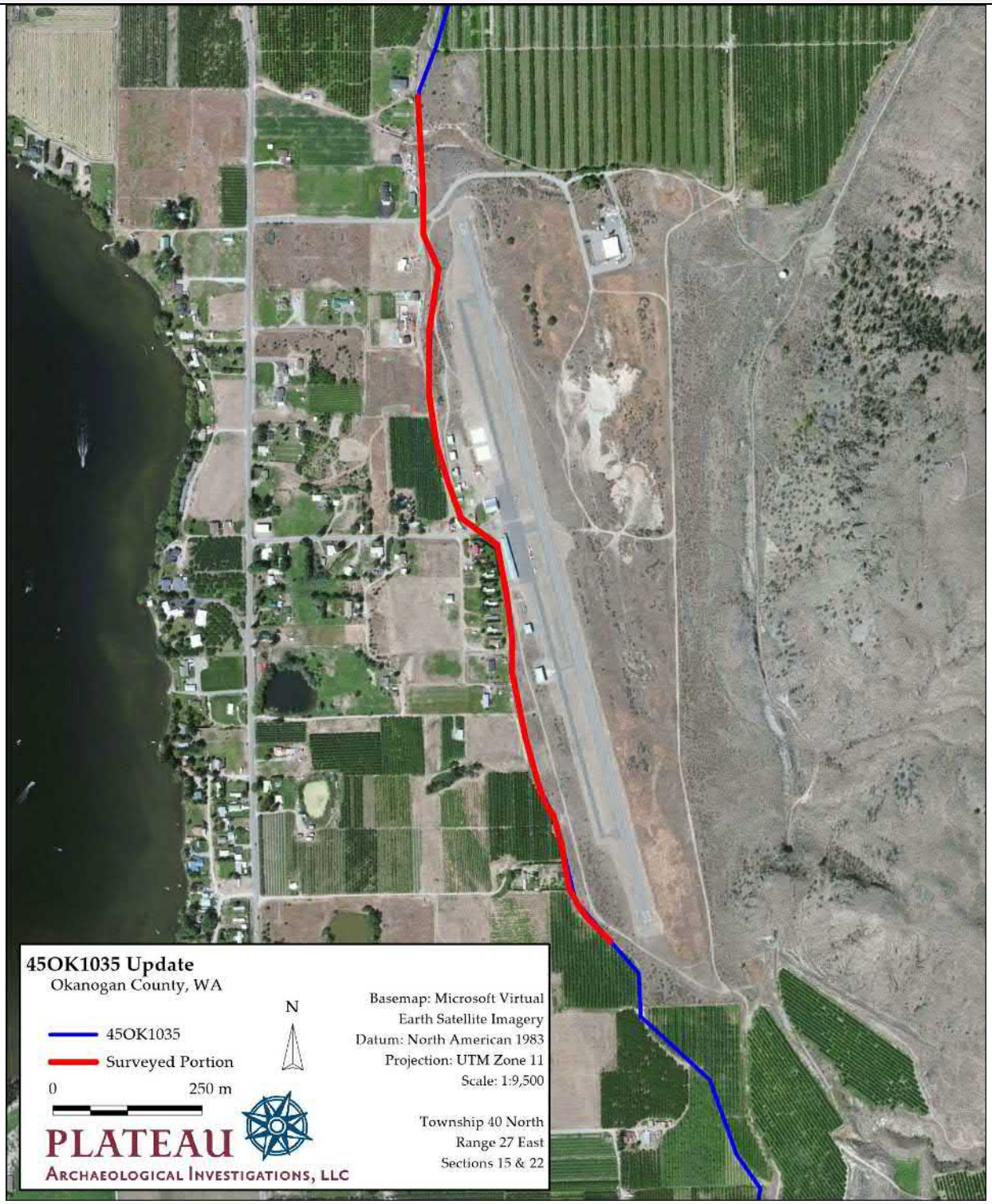
Peterson, Jenna
2008 Washington Archaeological Site Form, site 450K1035.

Regan, Dennis
1992 Washington Archaeological Site Form, site 450K1035.

USGS MAP


45OK1035 Update
Okanogan County, WA
45OK1035
Surveyed Portion
N
0
1000 m
Basemap: Oroville (1982)
7.5 minute USGS Quadrangle
Datum: North American 1983
Projection: UTM Zone 11
Scale: 1:24,000
Township 40 North
Range 27 East
Sections 15 & 22
PLATEAU
Archaeological Investigations, LLC
LAKE
Smith Point
Mile 80
INDIAN
ALLOTMENT
BOUNDARY
Well
Ninemile
Creek
Dorothy Scott Airport
Radio Facility
Lehman Pond
RAILROAD
GRADE
LAKE OSOYOOS STATE PARK
Boat Ramp
GLO 6 North Base
Gaging Station
Post Office
City Hall
4WD

SKETCH MAP


45OK1035 Update
Okanogan County, WA
45OK1035
Surveyed Portion
0
250 m
N
Basemap: Microsoft Virtual Earth Satellite Imagery
Datum: North American 1983
Projection: UTM Zone 11
Scale: 1:9,500
Township 40 North
Range 27 East
Sections 15 & 22
PLATEAU
Archaeological Investigations, LLC

PHOTOGRAPH(S)

Figure 1. Fence line and utility line following path of flume. View to the north.

Figure 2. Two-track dirt road paralleling former flume path.

Figure 3. Northern extent of surveyed flume path. View to the north.

Figure 4. Modern high pressure water line located within the flume path.

Allyson Brooks Ph.D., Director
State Historic Preservation Officer

January 10, 2019

Ms. Cayla Morgan
Airport Planner
Federal Aviation Administration
2200 S 216th St
Des Moines, WA 98198

In future correspondence please refer to:
Project Tracking Code: 2018-10-08350
Property: Dorothy Scott Airport Improvements Project
Re: Review of CRM Report, No Historic Properties

Dear Ms. Morgan:

Thank you for contacting the Department of Archaeology and Historic Preservation (DAHP) and providing a copy of the cultural resources survey report completed by Plateau for the Dorothy Scott Airport Improvements project. I have reviewed the report and concur with recommendations made in the report and your finding of no historic properties affected. As a result of our concurrence, further contact with DAHP on this matter is not necessary. However, if information becomes available and/or the scope of work changes, please resume consultation with DAHP and all consulting parties. In the event that archaeological or historic materials are discovered during project activities, work in the immediate vicinity must stop, the area secured, and contact made with concerned tribes and DAHP for further consultation.

We appreciate receiving any correspondence or comments from concerned tribes or other parties that you receive as you consult under the requirements of 36 CFR 800.4(a)(4).

These comments are based on the information available at the time of this review and on behalf of the State Historic Preservation Officer (SHPO) in conformance with Section 106 of the National Historic Preservation Act and its implementing regulations 36 CFR 800.

Finally, please note that in order to streamline our responses, DAHP requires that Resource documentation (HPI, Archaeology sites, TCP) and reports be submitted electronically. Correspondence must be emailed in PDF format to the appropriate compliance email address. For more information about how to submit documents to DAHP please visit: https://dahp.wa.gov/project-review. To assist you in conducting a cultural resource survey and inventory effort, DAHP has developed Guidelines for Cultural Resources Reporting. You can view or download a copy from our website.

Thank you for the opportunity to review and comment. Please ensure that the DAHP Project Number (a.k.a. Project Tracking Code) is shared with any hired cultural resource consultants and is attached to any communications or submitted reports. If you have any questions, please feel free to contact me.

Sincerely,

Matthew Sterner, M.A.
Transportation Archaeologist
(360) 586-3082
matthew.sterner@dahp.wa.gov