

YAKIMA RIVER BASIN
ECOSYSTEM RESTORATION
YAKIMA COUNTY, WASHINGTON

APPENDIX K

Preliminary Site Assessment

June 2018

**Integrated Feasibility Report and
Environmental Assessment**



**US Army Corps
of Engineers®**
Seattle District

Yakima River at Union Gap Ecosystem Restoration

Section 1135 Project

**Hazardous, Toxic, and Radiological Waste
Final Preliminary Site Assessment**

14 February 2017

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1 INTRODUCTION

1.1 Purpose

The purpose of conducting this Hazardous, Toxic, and Radiological Waste (HTRW) Preliminary Site Assessment (PSA) is to determine considerations and risk pertaining to known or unknown risk to human or ecological health. This assessment uses both ASTM E 1527-05 *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* and USACE ER 1165-2-132 *Hazardous, Toxic, and Radioactive Waste (HTRW) Guidance for Civil Works Projects* as guidance documents with the understanding that no property transfer will occur, and as such, the approach has been modified to focus only on the immediate project and not the entire property.

1.2 Project Description

Approximately two miles of levee will be removed from the Yakima River and 2.5 miles of new levee setbacks will be constructed. The new levee setbacks will be between 900 to 2,500 feet away from the current levee alignment or river. Three channels will be excavated in Sportsman's Park to reconnect the river to historical channels (Figure 1). Demolition and removal of buildings between the existing levees and setback levees will also occur. An existing headgate in the federal levee at Sportsman Park will be replaced.

1.3 Scope of Work

The scope of work to complete this report is prepared in accordance with the ASTM Standard D 6008-96 (2005) and includes the following tasks:

- Conduct an Electronic Database Review of all reasonably attainable federal, state, and local government information and records to determine possible on-site sources of hazardous substances and environmental condition of the Site.
- Analysis of aerial photographs to gain information that may reflect prior uses of the Site and the surrounding area.

The scope does not include an audit of environmental regulatory compliance issues or permits.

2 ENVIRONMENTAL DATABASE REVIEW

An electronic records search of both Federal and State regulatory agencies was conducted. This review was performed with guidance from ASTM D 6008-96 (2013) and modified for this application to determine if there has or potentially been storage or release of hazardous substance or petroleum products near or adjacent to the proposed project construction.

ESAs were provided by Yakima County for eight parcels within the Yakima Union Gap project. These ESAs were written by Terracon and identified no significant RECs or data gaps. The properties all reside in Yakima, WA. The parcels that were reviewed are listed in the table below:

Table 1. List of Parcels that an ESA was conducted on.

Parcel #	Address	Year Built or Years in Operation	Size (Acres)	Site observations of ESA
1913324401	2226 River Side Riverside Rd.	1978	7.4	No significant recognized environmental consideration (REC) or data gaps was identified.
1913324402	2228 River Side Riverside Rd.	1995		No significant REC or data gaps was identified.
1913324403	2230 River Side Riverside Rd.	1985		No significant REC or data gaps was identified.
19133313013	NA Former Newland Gravel Pit	1964-early 2000's	95.4	No significant REC or data gaps was identified.
19133321002	NA Former Newland Gravel Pit			No significant REC or data gaps was identified.
19133322001	NA Former Newland Gravel Pit			No significant REC or data gaps were identified.
19132833001	NA Former Newland Gravel Pit			No significant REC or data gaps were identified.
19133313005	2118 Riverside Road	1974	0.65	No significant REC or data gaps were identified.

Though no significant REC or data gaps were identified in the ESAs for the above sites there are concerns regarding the demolition of the buildings during the construction of the setback levees. Since some of the building were built before 1980 there is a chance that the buildings consist of materials that contain lead and or asbestos. Other building also appear to have been abandoned and may also present a mold problem. Prior to removal of the buildings as presented in the design drawing sheet C-005 it is recommended that a building material hazardous survey be conducted for structures to be demolished if no such survey was previously conducted. Typically the county of Yakima will include a hazardous building material survey for any demolition contract.

The information presented in this Environmental Database Review (EDR) was obtained from Washington Department of Ecology's Facility and Site Records Database¹ and Toxics Cleanup Program² and the U.S. Environmental Protection Agency's Envirofacts Database³. Only the findings that could be potential concerns are included in this report and do not take into account for geographical, geological, or hydrological consideration (Figure 1; Table 1). In addition, the location of monitoring wells was also obtained from the Washington Department of Ecology's State Well Log database⁴ (Figure 1; Attachment A). All sites within 1.5 mile were initially selected for review. Sites within this initial selection were eliminated further based on their proximity to, and barriers between, the proposed new levee footprints. Table 1 summarizes the sites that still may pose a risk to the project.

¹Accessed 03 February 2017, <http://www.ecy.wa.gov/fs/>

²Accessed 03 February 2017, <https://fortress.wa.gov/ecy/tcpwebreporting/Default.aspx>

³Accessed 03 February 2017, <http://www.epa.gov/enviro/index.html>

⁴Accessed 03 February 2017, <https://fortress.wa.gov/ecy/waterresources/map/WCLWebMap/default.aspx>

Table 2. Recognized Environmental Conditions adjacent to the Yakima 1135 Project.

Site Name	Database List	Site Address	Distance	Facility Site ID	Cleanup Site ID	EPA Registry ID	Status	Contaminant	Media
Birchfield Rd USTs	CSCSL, CS, FSD	3102 W Birchfield Rd	< 20 ft. E	24043	11891	N/A	Cleanup Started	Petroleum-Diesel, Petroleum-Gasoline	Ground water, Soil
Fiscus		1818	980 ft.					Petroleum	
Motor Freight	CSCSL, CS, FSD	RIVERSIDE RD	E	5207940	2164	N/A	Awaiting Cleanup	Products-Unspecified	Soil
Mayflower		1515 S	300 ft.						
Metals Inc	FSD	KEYS RD	E	15248	N/A	N/A	Unknown	Unknown	Unknown
PacifiCorp		500 N KEYS	480 ft.	4557327					
Keys Rd	FSD	RD	E	8	N/A	N/A	Unknown	Unknown	Unknown
WA Army National Guard		YAKIMA TRAINING	1,115 ft.	4284988					
Mobil Training Equipment	EF, FSD	CENTER BLDG 95	NE	2	N/A	110054605192	Unknown	Unknown	Unknown
Nob Hill Auto Wrecking Inc	EF, FSD	2609 W BIRCHFIELD RD	920 ft. W	8764704	N/A	110015533939	Unknown	Unknown	Unknown

CSCSL: Confirmed and Suspected Contaminated Sites List (Toxic Cleanup Program)

CS: Cleanup Sites (Toxic Cleanup Program)

EF: EnviroFacts

FSD: Facility/Site Database

LUST: Leaking Underground Storage Tank (Toxic Cleanup Program)

NFAS: No Further Action Sites (Toxic Cleanup Program)

RUSTIF: Regulated Underground Storage Tanks Inactive Facilities (Toxic Cleanup Program)

2.1 Site Descriptions

Birchfield Rd UST - During January 2011, Yakima County discovered multiple underground storage tanks on a purchased property during dike removal work on property adjacent to the Yakima River. This is near the site of one of the Blue Slough culverts proposed for replacement but not included in the recommended plan.

Soil sample results indicated that the soil has been impacted above MTCA cleanup levels for Total Petroleum Hydrocarbons (TPH). Additionally, environmental consultant site observations indicated that groundwater contamination was also likely.

Removal of 1,300 tons of petroleum contaminated soil (PCS) and confirmation samples were obtained. One sample was above the MTCA Method A soil cleanup level and benzene was also detected slightly above the cleanup level for a sample collected within the smear zone and in contact with groundwater. In September 11, 2014 a Voluntary Cleanup Program (VCP) Opinion on Site Cleanup was written. The opinion was that further remedial action was necessary to clean up contamination at the Site. The opinion was that additional groundwater monitoring was needed to confirm that groundwater was not impacted from the removed USTs. Yakima County has removed the tanks and impacted soils and is conducting groundwater monitoring.

Due to the previous removal of PCS the impacts of release from this site are minimal. However, since previous confirmation samples have found products of the release above cleanup levels it is suspected that some impacts may occur at the site of the Blue Slough Culverts measure which was screened out and is not included in the recommended plan. The amount of impacted soil to be encountered is suspected to be minimal (<500 tons). Groundwater and surface water may also be contaminated with petroleum products, benzene, toluene, ethylbenzene, and xylene (BTEX). Excavated soils in this area would require characterization prior to disposal. Because the Blue Slough Culverts measure is not included in the recommended plan, this is not of concern to the project.

Fiscus Motor Freight - The site is the location of freight trucking company. The site was listed on Ecology's Confirmed and Suspected Contaminated Sites List based on observed fuel handling and containment configuration, rather than direct evidence of a release such as sampling results or visual evidence. Contamination is suspected due to the lack of containment to keep liquids from reaching soil during fueling and washing operations. The site is east of the proposed DID#1 setback levee, across Blue Slough and outside the project footprint.

Fueling and truck washing take place on small concrete pads, however there is no collection system to keep liquid from running off the concrete pad into the surrounding gravel and soil. The repetition of many fueling events over approximately 30 years is likely to have resulted in overfilling incidents and other accidents. The truck and trailer washing also is likely to have resulted in liquids carrying cleaning agents and grease running off into the soil because the activity itself results in liquid on the concrete pad.

No cleanup has occurred at the site. However, due to the distance of the site from the project and the nature and extent of the release of petroleum products and hazardous material the release is not suspected to impact this project. No data regarding the site exist.

Mayflower Metals Inc. - No data or document exist in ecology records. Given the limited data, information, as well as nature and extent it is unknown and unlikely that releases from the site will impact this project. The site is located in the vicinity of the proposed Blue Slough Culverts measure, which is not included in the recommended plan. Excavated soils in this area would require characterization prior to disposal.

PacificCorp Key Rd - No data or document exist in ecology records. Given the limited data, information, as well as nature and extent it is unknown and unlikely that releases from the site will impact this project. The site is located north of Sportsman Island Channel Restoration area.

WA Army National Guard Mobil Training Equipment - No data or document exist in ecology records or EPA records. Given the limited data, information, as well as nature and extent it is highly unlikely that releases from the site will impact this project due to the distance from the project.

Nob Hill Auto Wrecking Inc. - This site is located near the Nob Hill restoration measure, which was screened out and is not included in the recommended plan. No data or document exist in ecology records or EPA records. Given the limited data, information, as well as nature and extent it is highly unlikely that releases from the site will impact this project due to the distance from the project.

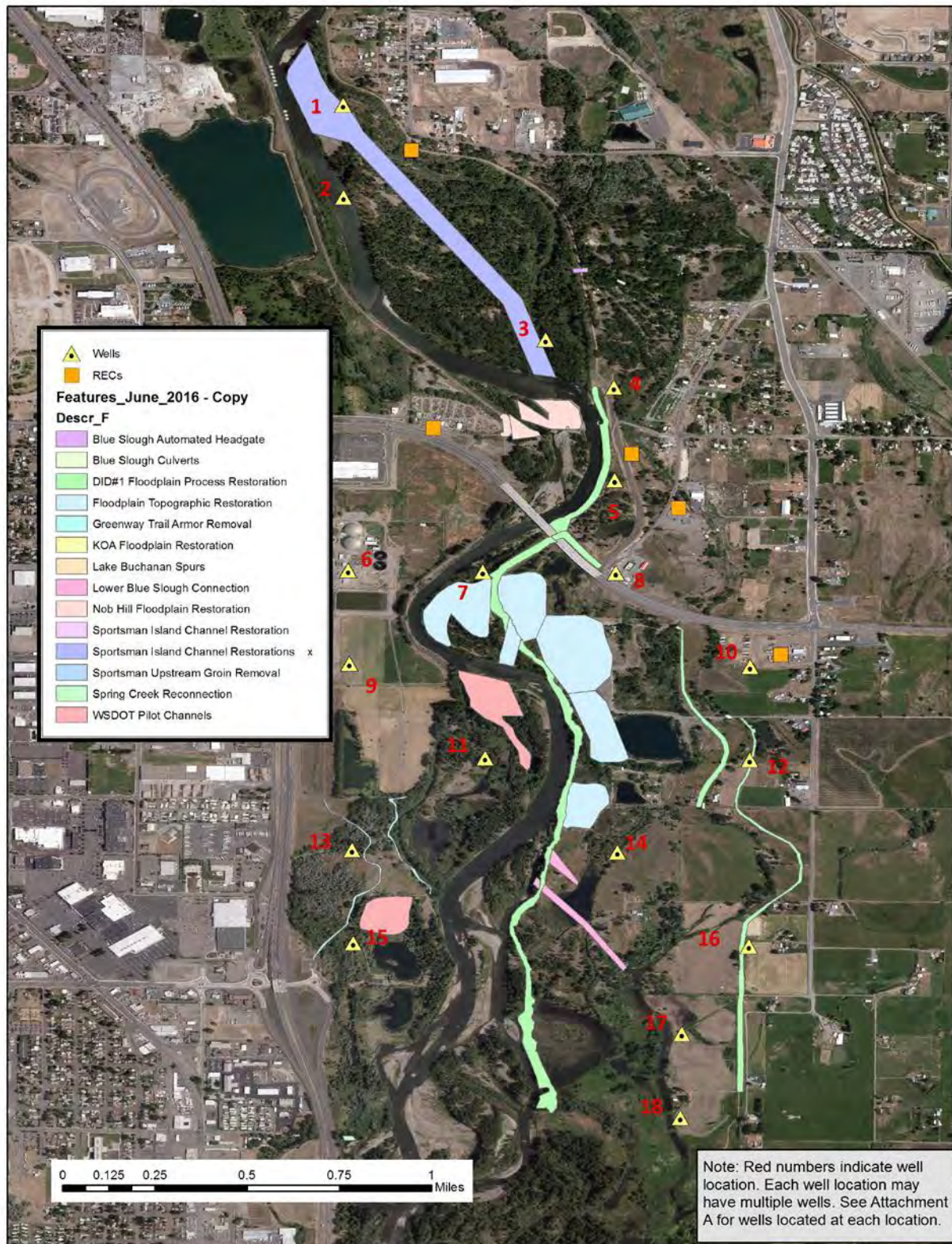


Figure 1. Recognized Environmental Conditions (RECs) and wells located near the proposed project. Map updated 2/2/2017.

3 PROPERTY HISTORY

The proposed project is along both banks of the Yakima River. Historically, the river meandered across a large alluvial plain until 1948 when a federal levee system was constructed. Flooding continued to be a problem after completion of the federal levee system, and subsequent efforts were taken to improve and expand flood control works. As a result, natural processes such as channel migration, side channel development, and floodplain interactions can no longer take place. This has damaged the aquatic and riparian environment throughout the Yakima reach. The resulting circumstances have contributed to poor habitat conditions for endangered species. The Yakima County Board of Commissioners, local stakeholder groups, resource agencies, and the U.S. Army Corps of Engineers aim to address these problems through the proposed Yakima River at Union Gap Ecosystem Restoration project.

3.1 Aerial Photography Analysis

A satellite photographic analysis was conducted as part of the PSA. Aerial photographs were obtained for years 1927, 1947, 1968, 1971, 1992, 1996, 2002, 2011, and 2013. Satellite images were reviewed for the following: (1) evidence of excavation activities of unknown type, or industrial operations; (2) evidence of dumping or disposing of waste materials; (3) evidence of significant storage activities involving drums, tanks, or pipelines containing hazardous substances or petroleum products; and (4) evidence of staining associated with industrial activities or activities of unknown origin or type. Analysis consists of looking for recently disturbed soil, construction activities, traffic, active vehicle parking, landscape upkeep, and other notable changes within the site.

Significant mining operations have occurred within the project area. Beginning between 1947 and 1968, and continuing up to 2002 large gravel and sand pits were excavated and left to fill with water, or in some cases filled in and redeveloped (e.g., into a propane business). Other sites of excavation and fill include the waste water treatment facility constructed between 1927 and 1947, the demolition of the old W Birchfield Rd Bridge (between 1947 and 1968), and construction and expansion of the E Nob Hill Blvd Bridge (between 1947 and 1968). Minor sites of excavation and fill include residential building construction and demolition that was evident throughout years examined.

There are potential sites of recent and ongoing storage activities where work is proposed. These include the junkyard on W Birchfield Rd, the propane business east of the Koa Levee, the waste water treatment facility, and existing and recently demolished buildings along the proposed DID#1 West and East Levee Setbacks. The junkyard first showed up in aerial photos from 1968, the propane business in 1992, and the waste water treatment in 1947. Another notable site, located near 2320 Riverside Rd also has evidence of storage in photographs back to 1992.

Based on the 2013 photos, trenches had been excavated for unknown reasons northeast of the waste water treatment facility. No evidence of dumping or disposing of waste materials or staining of soils was observed.

3.2 Site Visit Photos

Site visits were conducted by the Corps from 2012 to 2016. Photos from these site visits have been reviewed and the most pertinent photos with regard to this PSA have been included into Attachment B site photos. The site photos for Section 1135 Yakima River indicate significant solid waste at residential locations within the 1135 section. It is assumed that the majority of this solid waste contains no hazardous materials or waste. Photos of the river and the streams indicate no discoloration or floating product on or within the water. Environmental stressors on local biology were not evident in the photos. Plant life throughout the 1135 section appear health and no stress to plant life were noted.

4 DISCUSSION AND CONCLUSION

This PSA did not identify potential risk to recommended plan scope from hazardous or toxic waste sites. It is unlikely that these sites will impact the project construction due to distance from the proposed measures and the nature of the contamination. Soil and groundwater in the area may be contaminated with LNAPL products from UST sites that are awaiting cleanup or have begun cleanup. If excavation occurs at these locations soil characterization for MTCA method A cleanup and BTEX should be conducted prior to disposal. In addition soils, excavated at Mayflower Metals Inc. should also be characterized for metals prior to disposal. The above mentioned impacts are located in or near the Blue Slough Culverts area; that measure was screened out of the recommended plan.

State monitoring wells do exist within the area of construction and should be protected if the State wishes to maintain groundwater records in the area.

Past ESAs of parcels with development in the area were reviewed and didn't find any RECs on those sites. However, due to the age of buildings to be removed a hazardous building survey of those buildings should be conducted. Historical aerial photographs have indicated limited development and no evidence of HTRW disposal. Site visit photos from 2012 through 2016 were reviewed. No photos indicated any significant HTRW impacts to the project.

ATTACHMENT A WELL LOG LIST

Location	Well Log ID	Well Tag ID	Well Owner	Well Type
1	136067	AEB119	CITY OF YAKIMA PUB WORKS	R
1	136068	AEB120	CITY OF YAKIMA PUB WORKS	R
1	493416	APT657	CRAIG RUST	W
1	378756	AKH674	DENNIS KETCHEN	W
1	126458		DUANE HEATH	W
1	693522	BBJ211	RICK MCINTYRE	W
2	128294		JERRY RANK	W
3	329307		STATE PARKS & RECREATION COMM	W
4	933707	AEN067	WA State Park	R
4	933708	AEN069	WA State Park	R
4	933733	AEN068	WA State Park	R
4	125273		CLARENCE CORBIN	W
5	783315	BHM932	City Of Yakima Fulcrum Environmental Consultants	R
5	783317	BHM931	City Of Yakima Fulcrum Environmental Consultants	R
5	783319	BHM930	City Of Yakima Fulcrum Environmental Consultants	R
5	783321	BHM929	City Of Yakima Fulcrum Environmental Consultants	R
5	329314		HOWARD H REED	W
5	129276		KOA CAMPGROUND	W
6	847489	BCF836	City of Yakima Waste Water Treatment Division	R
6	847483	BCF839	City of Yakima Waste Water Treatment Division Ridolfi Inc	R
6	847485	BCF838	City of Yakima Waste Water Treatment Division Ridolfi Inc	R
6	847487	BCF837	City of Yakima Waste Water Treatment Division Ridolfi Inc	R
6	132865		TED PRILL	W
6	830339	BAF922	Yakima Waste Water Plant Columbia Engineers	W
6	830941	BAF923	Yakima Waste Water Plant Columbia Engineers	W
6	830943	BAF924	Yakima Waste Water Plant Columbia Engineers	W
6	830945	BAF925	Yakima Waste Water Plant Columbia Engineers	W
6	830947	BAF926	Yakima Waste Water Plant Columbia Engineers	W
6	830949	BAF927	Yakima Waste Water Plant Columbia Engineers	W
6	830951	BAF921	Yakima Waste Water Plant Columbia Engineers	W
6	830953	BAF922	Yakima Waste Water Plant Columbia Engineers	W
7	380891	AHN622	WA STATE DEPT OF TRANSPORTATION	R
7	380900		WA STATE DEPT OF TRANSPORTATION	R
7	380901		WA STATE DEPT OF TRANSPORTATION	R
7	380902		WA STATE DEPT OF TRANSPORTATION	R
7	380903		WA STATE DEPT OF TRANSPORTATION	R
7	380904		WA STATE DEPT OF TRANSPORTATION	R
8	380892	AHN620	WA STATE DEPT OF TRANSPORTATION	R
8	380893	AHN619	WA STATE DEPT OF TRANSPORTATION	R
8	380899		WA STATE DEPT OF TRANSPORTATION	R
9	136116	AEF718	PIT SITE E - 203	R
9	136117	AEF719	PIT SITE E - 203	R
9	136118	AEF720	PIT SITE E - 203	R
9	931626		Spray Field	R
9	931644		Spray Field	R
9	931645		Spray Field	R

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10	847875	BHP534	WA DOT	R
10	380896		WA STATE DEPT OF TRANSPORTATION	R
10	126847		FISCUR MOTOR FREIGHT	W
10	849219	BBJ245	Linda Sellers	W
10	132305		RUSSELL HEATON	W
11	131421		RAY JORDAN	W
12	134245	ABG950	ARVID ERICKSON	W
12	125884		DAVID WARNER	W
13	933324	AEK285	Gear Jammer Truck Stop	R
13	933327	AEK286	Gear Jammer Truck Stop	R
13	933335	AEK287	Gear Jammer Truck Stop	R
14	126571		ED FISHER	W
15	847879	BHP532	WA DOT	R
15	329322		WASH. STATE HIGHWAY DEPARTMENT	W
16	130087		MARVIN ANTONIE	W
16	131422		RAY JORDAN	W
17	255065	AEN065	MRS ELDON MCCORMACK	R
18	131420		RAY JORDAN	W
19	132297		RUSSELL VILORIA	W

Note: Please see Figure 1 for location numbers.

Well types: water well logs (W); Resource Protection well log (R).

Data obtained from The Washington Department of Ecology State Well Log Viewer
(<https://fortress.wa.gov/ecy/waterresources/map/WCLWebMap/default.aspx>).

ATTACHMENT B SITE PHOTOS

























