FAIRFIELD TOWN
WELL NO. 1
SOURCE PROTECTION PLAN

Fairfield, Utah

Prepared for:
Fairfield Culinary Water System

October, 2019

Draft for Review

RB&G
ENGINEERING, INC.

201903-004

Fairfield Town Well No. 1
Source Protection Plan

Fairfield, Utah

Prepared for:
Fairfield Culinary Water System

October 2019

RB&G ENGINEERING, INC.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF APPENDICES

EXECUTIVE SUMMARY

Fairfield Town, located in Cedar Valley, Utah County to the west of Utah Lake, has added a new well source to its culinary water system. The new well, designated Fairfield Town Well No. 1, provides culinary water to the existing Town system to supplement and serve as backup during peak demand to water from Big Spring, the Town's primary water source.

Well Location and Design

The new drinking water source is a single groundwater well drilled in Utah County approximately 152 feet east and 141 feet south from the west quarter corner of Section 31, T6S, R2W, SLB&M. The well was constructed in accordance with all Utah Codes pertaining to Public Water Supply Facility Design and Operation: Utah Code R309-515 for source development and R655-4 for water well construction.

Source Protection Zone Delineation

The approximate 250 day (Zone 2), 3-year (Zone 3) and the 15-year (Zone 4) groundwater travel time protection zones for Well 1 are shown on Figure 4 in the Appendix. The generalized dimensions of the protection zones are summarized in the following table.

Protection Zone	Length of Protection Zone[(a)]	Width of Protection Zone[(b)]	Distance Upgradient of Protection Zone	Distance Downgradient of Protection Zone
Zone 2	510 feet	465 feet	370 feet	140 feet
Zone 3	1,290 feet	790 feet	1,130 feet	160 feet
Zone 4	4,645 feet	875 feet	4,470 feet	175 feet

(a) Total length measured parallel to the direction of groundwater flow
(b) Total width measure perpendicular to the direction of groundwater flow

Potential Contamination Sources and Assessment

Three potential contamination sources (PCS) have been identified that affect the source protection zones identified for the Fairfied Town Well No. 1. The PCSs, shown on Figure 4 in the Appendix, include agricultural area, the access road to the well, and the Mannings Canyon Road. All three of these PCSs are deemed to be adequately controlled based upon negligible quantities.

Management Programs for Existing and Future PCSs

As all PCSs are considered to be adequately controlled, no management program for existing PCSs is required. The management program for future potential contamination sources are governed by the Utah County Ordinance 10-8, which provides restrictions on developments within the Protection Zones that may create PCSs. The System will also contact property owners within the Protection Zones to encourage Best Management Practices with agricultural activities.

Furthermore, if PCSs move into the protection zones, the PWS commits to the following course of action:
Contact each PCS as it moves into the protection areas;
Determine whether it is actually a PCS;
If it found to be a PCS, add it to the inventory;
Identify and Assess its controls, and
Plan and implement land management strategies if the PCS is not adequately controlled.

The commitments and implementation schedule are presented in Section 7 of this plan report.

1.0 INTRODUCTION

Fairfield Town, located in Cedar Valley, Utah County to the west of Utah Lake, has added a new well source to its culinary water system. The new well provides culinary water to the existing Town system to supplement and serve as backup during peak demand to water from Big Spring, the Town's primary water source. Figure 1 shows the well location and property ownership around the well.

This Source Protection Plan for Fairfield Town Well No. 1 is prepared as a working document to assist the Town in managing and protecting the watershed and preserving the quality of culinary water obtained from the well for the system. The document is also presented to the State of Utah Department of Environmental Quality, Division of Drinking Water (DDW) as a Source Protection Plan intended to meet the requirements as set forth in Utah Administrative Code R309-600-7.

1.1 System Information

System Name:	Fairfield Culinary Water System
System No.:	25011
Address:	P.O. Box 271 Cedar Valley, UT 84013

1.2 Source Information

The drinking water source covered by this Source Protection Plan is called Fairfield Town Well No. 1 and is listed as Water Source no. 2 (WS002) in the system. The well is located adjacent to the system storage reservoirs, more particularly approximately 152 feet east and 141 feet south from the west quarter corner of Section 31, Township 6 South, Range 2 West, Salt Lake Base and Meridian.

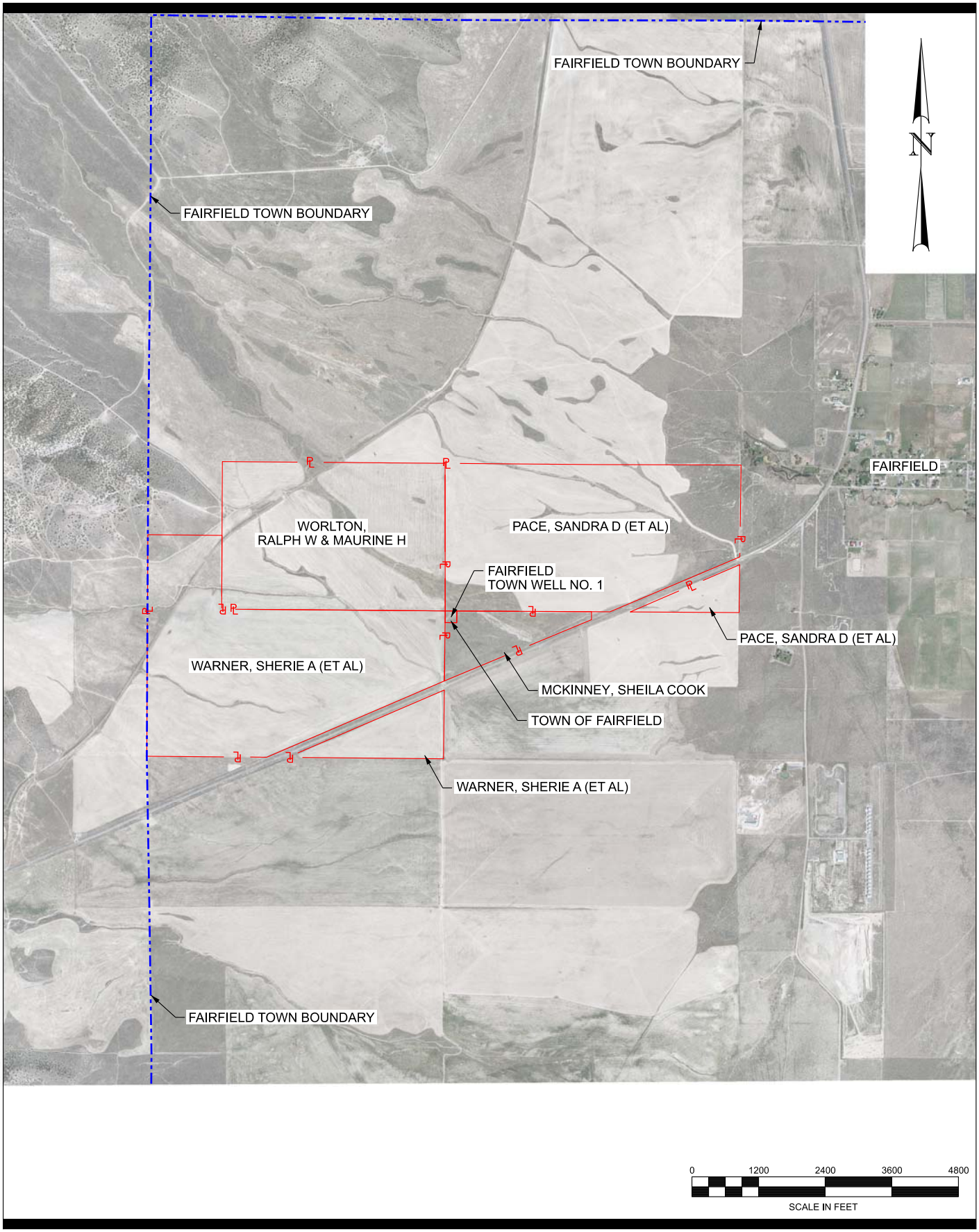
1.3 Designated Person

The designated person responsible for the water system and this Source Protection Plan is:

Tyler Thomas
P.O. Box 271
Cedar Valley, UT 84013
(801) 921-0833
fairfieldtownwater @gmail.com

2.0 THE DELINEATION REPORT - R309-600-9(5)

The delineation report for Fairfield Town Well No. 1 describes the protection zones and scientific procedures used to define them, with other supporting data. The report, included in this plan as Appendix A, was prepared by Rich Emerson with Cascade Water Resources. The



RB&G ENGINEERING, INC.

Figure 01

FAIRFIELD TOWN WELL NO. 1
LOCATION MAP

Preferred Delineation Procedure was used to define the protection zones for Well No. 1. The report contains the following information: geologic data, aquifer data, proposed well construction data, summary of the data and methods used to establish the groundwater protection zones, and appropriate maps of the protection zones. Figure 4 from the delineation report is included herewith showing the delineation zones and potential contamination sources that have been identified.

3.0 INVENTORY OF POTENTIAL CONTAMINATION SOURCES - R309-600-10

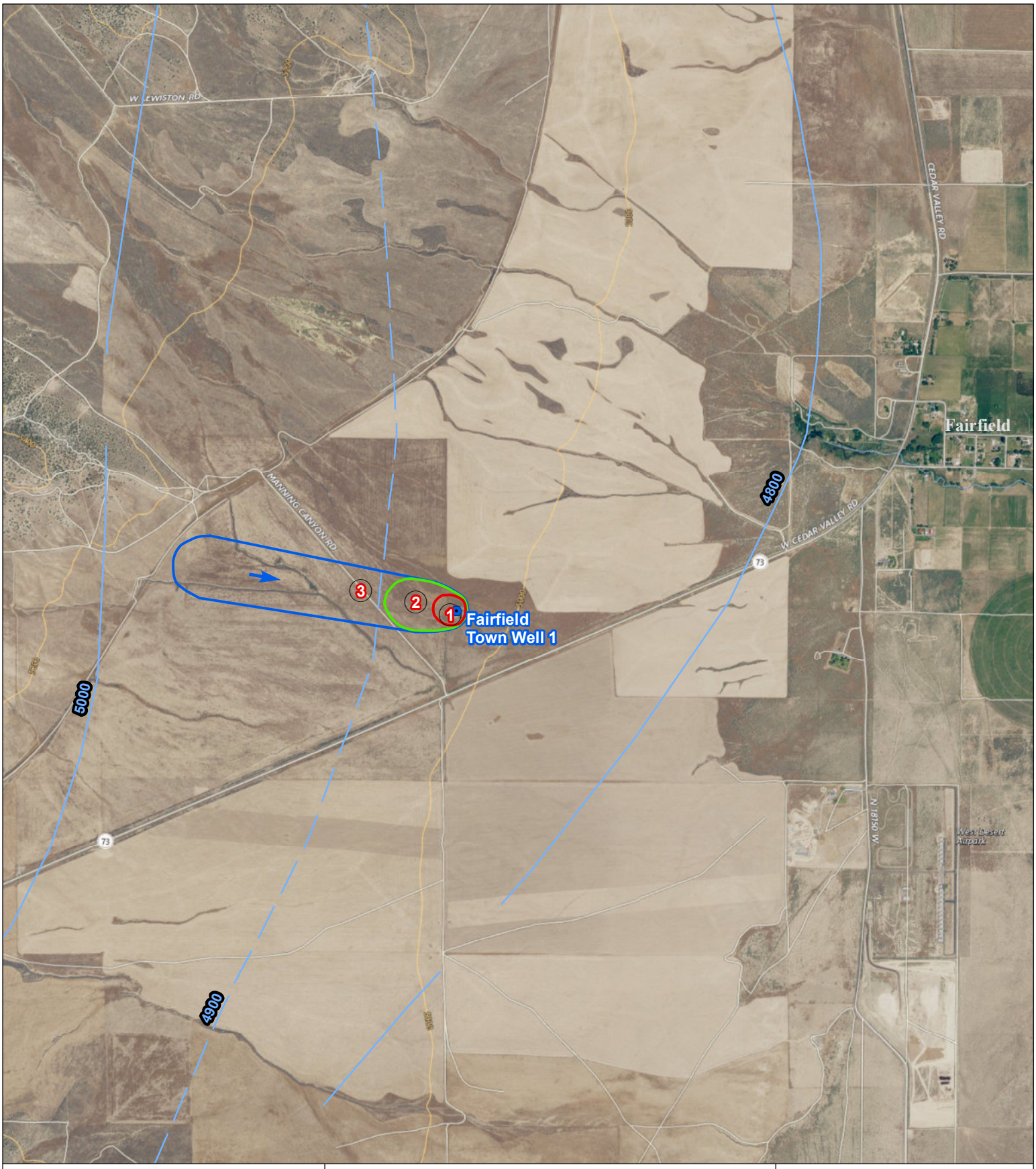
This Section of the Drinking Water Source Protection Plan identifies Potential Contamination Sources (PCSs) within the four source protection zones that have been delineated as outlined in Chapter 2, that may have the potential to contaminate drinking water from Well No. 1. In addition to an inventory of PCSs, those sources are prioritized from those that create the greatest risk to those that pose the least risk to the source.

3.1 List Potential Contamination Sources - R309-600-10(1)

The land use within the Zone 1-4 protection zone boundaries is primarily pasture or open range land. A database review was conducted for the Zone 1-4 protection zones to identify any potential PCSs within the area. The database review, included as Appendix II did not identify any potential PCSs. A field windshield survey was also conducted over the protection area and a total of three PCSs were identified. The PCSs are listed in the following table:

Table 3.1-1
List of Potential Contamination Sources

Priority	Location	Facility	Name/Address	PCS
1	Zones 2-4	Agricultural	Pace, Sandra D. 8284 Coolidge St. Midvale, UT 84047	#2 Agricultural pesticide, herbicide and fertilizer storage, use, filling and mixing areas
			McKinney, Sheila Cook P.O. Box 375 Cedar Fort, UT 84013	
			Worlton, Ralph W. & Maurine H 574 S 100 West #4 St. George, UT 84770-3594	
			Warner, Sherie A. P.O. Box 1274 American Fork, UT 84003-6274	
2	Zones 1-4	Access Road to Well	Fairfield Town P.O. Box 271 Cedar Valley, UT 84013	#39 Roads, Highways and Freeways
3	Zone 3-4	Manning Canyon Road	Utah County 2855 South State Street Provo, UT 84606	#39 Roads, Highways and Freeways



Zone 2
Zone 3
Zone 4
Groundwater flow direction
Potentiometric surface (Jordan, 2013)

Potential Contaminant Source
1 Well 1 Access Road
2 Agricultural Fields
3 Manning Canyon Road

Figure 4. Source Protection Zones and PCSs for Fairfield Town Well 2

0 1,000 2,000 Feet
1 inch = 2,000 feet
Scale = 1:24,000
N

Drawn By:
G3 Mapping
Rich Emerson
rich@g3mapping.com

Project Manager:
John Files

Date: September 2019

CASCADE WATER RESOURCES

3.2 Identify Hazards

Potential hazards associated with the PCSs are summarized as follows:

#2 Agricultural pesticide, herbicide and fertilizer storage, use filling and mixing areas:
The fields within the protection zones are not currently being cultivated, but appear to be (unfenced) open range or pasture.

#39 Roads, Highways and Freeways
Both roads are unpaved, low volume roads which provide access to adjacent properties, and in the case of the Manning Canyon Road, recreationalists. Hazards may include vehicle fluid leakage and spills of materials being transported by vehicles.

3.3 Prioritize the Inventory - R309-600-10(1)

The prioritization of PCSs is shown in Table 3.1-1. While none of the PCSs presently pose a serious threat to the water supply for the Fairfield Town Well #1, the greatest risk to contamination of the watershed area would be applications of pesticides and fertilizers to the agricultural land, if the affected areas are once again placed into crop cultivation. As the access road to the well is in the closest proximity to the source, it is given the second highest priority, with the Manning Canyon Road the least priority.

3.4 Potential Contamination Source Location - R309-600-10(1)

The location of the PCSs with regard to Zones 1, 2, 3 and 4 are identified in Table 3.1-1.

3.5 Potential Contamination Sources Plotted on Map

The Potential Contamination Sources identified in Section 3.1 are plotted on the map shown in Figure 4.

4.0 ASSESSMENT OF POTENTIAL CONTAMINATION SOURCE HAZARDS

The PCSs identified in Section 3 have been evaluated to determine the adequacy of control in preventing contamination of the Fairfield culinary water system. Users of the well access road and Mannings Canyon Road do not normally carry large amounts of chemical or hazardous materials. It is anticipated that the possibility of hazardous spills is remote and that any potential spills would be small. Therefore, the PCSs for the two roads are considered to be adequately controlled by negligible quantity.

All agricultural property within the protection zones is currently included in the USDA Conservation Resource Program (CRP). The land is dry farmed, but not in active agricultural production, so no fertilizers or pesticides are being applied and have not been applied for many

years. Therefore, the PCS for the agricultural land is assessed to be adequately controlled by negligible quantity. Results of the assessment are summarized in Table 4.1.

Table 4.1
Assessment of Potential Contamination Sources

Potential Contamination Source	Activity	Adequately Controlled	Justification
Roadways	Vehicle Fluid Leakage and/or Spills of Materials Transported	Yes	Negligible Quantity
Agriculture	Agricultural pesticide, herbicide and fertilizer	Yes	Negligible Quantity

5.0 MANAGEMENT PROGRAM FOR EXISTING POTENTIAL CONTAMINATION SOURCES - R309-600-11

As there are no PCS hazards that are assessed as not adequately controlled, a management plan for existing potential contamination sources is not required.

6.0 MANAGEMENT PROGRAM FOR FUTURE POTENTIAL CONTAMINATION SOURCES - R309-600-12

Current Fairfield Town ordinances do not specifically address requirements for the Drinking Water Source Protection Zones. Utah County Ordinance 10-8, which applies to all incorporated and unincorporated areas of the County, provides Drinking Water Source Protection provisions that are consistent with those of the State Code (R309-600) that must be complied with regarding development. These requirements apply to the Fairfield Town Well #1 delineation area. The ordinance restricts construction of facilities that could create PCSs within the protection zones.

As the potential exists that farming activities could resume in agricultural areas within the Protection Zones, the System will contact all of the property owners by letter and suggest that best management practices be implemented.

Furthermore, if a new potential contamination source (PCS) is identified within the Protection Zone Areas 1-4, the system agrees to:

Contact each PCS as it moves into the protection areas;
Determine whether it is actually a PCS;
If it found to be a PCS, add it to the inventory;
Identify and Assess its controls, and
Plan and implement land management strategies, if the PCS is not adequately controlled.

7.0 THE IMPLEMENTATION SCHEDULE - R309-600-7(1)(e)

The following implementation schedule is proposed for the management strategies in Sections 5 and 6:

Land Management Strategy	Responsible Party	Beginning Implementation Date	Frequency
Letters to Property Owners regarding Protectin Zone Delineation and encouraging Best Management Pracitices	Water Systerm Manager	Within 90 Days after approval of Plan	As needed
Notification to Customers regarding Approval of Source Protection Plan (Section 11.0)	Water System Manager	Within 90 Days after approval of Plan	When plan changes or is updated
Evaluation of new Potential Contamination Sources	Water System Manager	Upon Discovery	As needed

8.0 THE RESOURCE EVALUATION - R309-600- 7(1)(f)

The actions described in this plan will have a minimal effect on the water system's resources, and can be completed with the system's existing resources.

9.0 THE RECORD KEEPING SECTION - R309-600- 7(1)(g)

The system will keep records of the actions described in Section 5 and 6. These records will become the basis for providing updated Drinking Water Source Protection Plans to the Division of Drinking Water in the future. Records will include the following:

Communication and Notices to System Customers
Inventory Updates to List of Potential Contamination Sources
Communication with Property Owners within the Protection Zones

10.0 THE CONTINGENCY PLAN - R309-600- 14

Boiling water and bottled water may be used temporarily if the contamination is biological. If is a toxic chemical, water from the well would be shut off and consumers would need to use bottled water. If a specific contaminant is identified and technology is available to remediate the contamination, the water system will purchase remediation technology, if feasible. If a period of water shortage is experienced, water rationing will be enforced. The water system will be responsible to educate the water uses and to implement the rationing plan.

11.0 PUBLIC NOTIFICATION - R309-600- 15

The following statement is to be included in the Town consumer confidence report and distributed to consumers upon approval of the Source Protection Plan by the Division of Drinking Water:

The Drinking Water Source Protection Plan for Fairfield Town Well #1 is available for your review. It contains information about source protection zones, potential contamination sources and management strategies to protect our drinking water. Potential contamination sources common in our protection areas are farming and roads. Our source has a low susceptibility to potential contamination. We have also developed management strategies to further protect our source from contamination. Please contact us if you have questions or concerns about our source protection plan.

12.0 WAIVERS

There are currently no waivers associated with the well.

ADDENDUM I

Delineation Report - Fairfield Town Well 1

Delineation Report

Fairfield Town Well 1

Utah County, Utah

October 10, 2019

Prepared for:

Fairfield Town & Utah Division of Drinking Water

PWS # 25011

Prepared By:

RICHARD EMERSON
CASCADE WATER RESOURCES
PO BOX 982948
PARK CITY, UT 84098

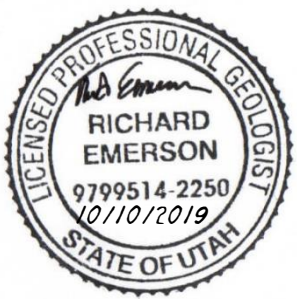


TABLE OF CONTENTS

LIST OF FIGURES

LIST OF APPENDICES

EXECUTIVE SUMMARY

This document will serve as the Delineation Report for the Fairfield Town Culinary Water System Well 1.

Well Location and Design

The new drinking water source is a single groundwater well drilled in Utah County approximately 152 feet east 141 feet south from the west quarter corner of section 31 T6S R2W S.L.B.M.

The well was constructed in accordance with all Utah Codes pertaining to Public Water Supply Facility Design and Operation: Source Development code R309-515 and Water Well construction requirements R655-4.

Source Protection Zone Delineation

The approximate 250-day (Zone 2), 3-year (Zone 3), and the 15-year (Zone 4) groundwater travel time protection zones for Well 1 are shown on Figure 4. The generalized dimensions of the protection zones are summarized in Table 2.

Table 2. *Well 1 Protection Zone Approximate Dimensions*

Protection Zone	Length of Protection Zone[a]	Width of Protection Zone[b]	Distance Upgradient of Well	Distance Downgradient of Well
Zone 2	510 ft.	465 ft.	370 ft.	140 ft.
Zone 3	1290 ft.	790 ft.	1130 ft.	160 ft.
Zone 4	4645 ft.	875 ft.	4470 ft.	175 ft.

a - Total length measured parallel to the direction of groundwater flow
b - Total width measured perpendicular to the direction of groundwater flow

1.0 INTRODUCTION

Fairfield Town is in the process of adding a source to their Public Water Supply System to increase its capacity to deliver culinary water its population. The new well will provide culinary water to the existing system to supplement and serve as a backup to spring water from Big Spring, their primary source, during peak demand.

This document is presented to the State of Utah Department of Environmental Quality, Division of Drinking Water (DDW) as a Delineation Report for the Fairfield Well 1. This document is intended to meet the requirements of a Delineation Report as set forth in Utah Administrative Code R309-600-9(5) (UDEQ-DDW, 2000, 2007).

1.1 System Information

Name: Fairfield Culinary Water System
System #: 25011
Address: PO Box 271
Cedar Valley, UT 84013

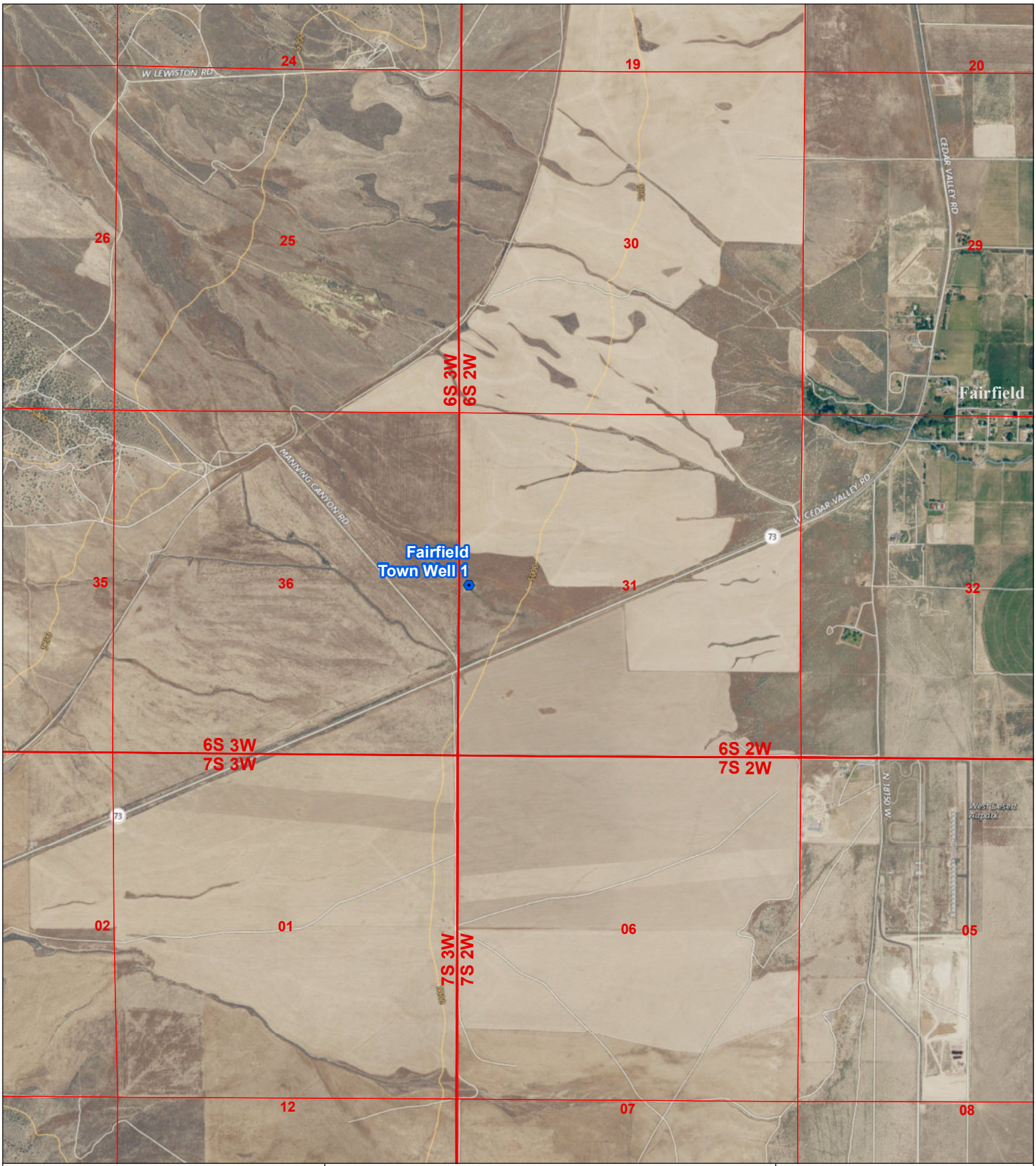
1.2 Source Information

The new drinking water source is a single groundwater well which is called Well 1 and listed as Water Source #2 (WS002) in the system. The well is located approximately 152 feet east 141 feet south from the west quarter corner of section 31 T6S R2W S.L.B.M.

1.3 Designated Person

The designated person responsible for this Delineation Report is:

Tyler Thomas
PO Box 271
Cedar Valley, UT 84013
(801) 921-0833
fairfieldtownwater@gmail.com



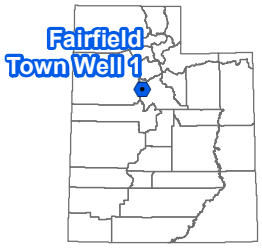


Figure 1. Locatoin of Fairfield Town Well 1

0 1,000 2,000 Feet

1 inch = 2,000 feet

Scale = 1:24,000

Drawn By:
G3 Mapping
Rich Emerson
rich@g3mapping.com

Project Manager:
John Files

Date: September 2019

CASCADE WATER RESOURCES

2.0 DELINEATION REPORT

The delineation report contains the following information: geologic data, aquifer data, proposed well construction data, summary of the data and methods used to establish the groundwater protection zones, and appropriate maps of the protection zones.

The Preferred Delineation Procedure was used to define protection zones for Well 1.

2.1 Geography

Geographically, Fairfield is in Cedar Valley, Utah County, Utah, approximately 21 miles west of American Fork on Utah Route 73. Cedar Valley is in the Basin and Range Province and lies between the Lake Mountains to the east and the Thorpe Hills to the west. The valley is bound by the East Tintic Mountains to the south and the Oquirrh Mountains to the north. Fairfield town and well 1 lie on alluvial sediments to the northeast of the saddle separating the Oquirrh Mountains from the Thorpe Hills to the south.

2.2 Geologic Data

Numerous geologic and hydrologic studies have been conducted in the area by the Utah Geological Survey and the United States Geological Survey. It was determined from local evaluation of wells in the area and from regional modelling conducted by the UGS (Hurlow, 2004; Jordan, 2013) and USGS (Feltis, 1967) that the recharge would be enough to sustain the needed flow for the system. Detailed aquifer studies by the Utah Geological Survey (Hurlow, 2004, Jordan, 2013) quantify the aquifer parameters for multiple aquifers in the valley, including the bedrock, basin-fill, and various perched aquifers.

2.2.1 Regional Geology

The structural evolution of Cedar Valley is typical of eastern Basin and Range valleys. Thrust faults transported younger rocks eastward during the Sevier orogeny which ended approximately 50 million years ago when compression of the inland North American plate largely ceased. One such thrust is visible on the western flank of the East Mountains where older Mississippian rocks have been transported over younger Pennsylvanian rocks (Figure 2). This period of thrust faulting and mountain building was followed by a period of volcanism in the Tertiary time period. Thick deposits of volcanic material were deposited in the region during this time and subsequently eroded in many locations. Outcrop of these volcanic deposits is visible in the Cedar Pass area (Figure 2). Finally, since the late Tertiary, the region has undergone crustal stretching, which has formed, and continues to form the topography we see today. As the crust stretches toward the west, north-south oriented mountains range and valleys form where the crust thins and breaks apart. Normal faults form on each side of the valleys as the mountains rise and the valleys sink.

2.2.2 Local Geology

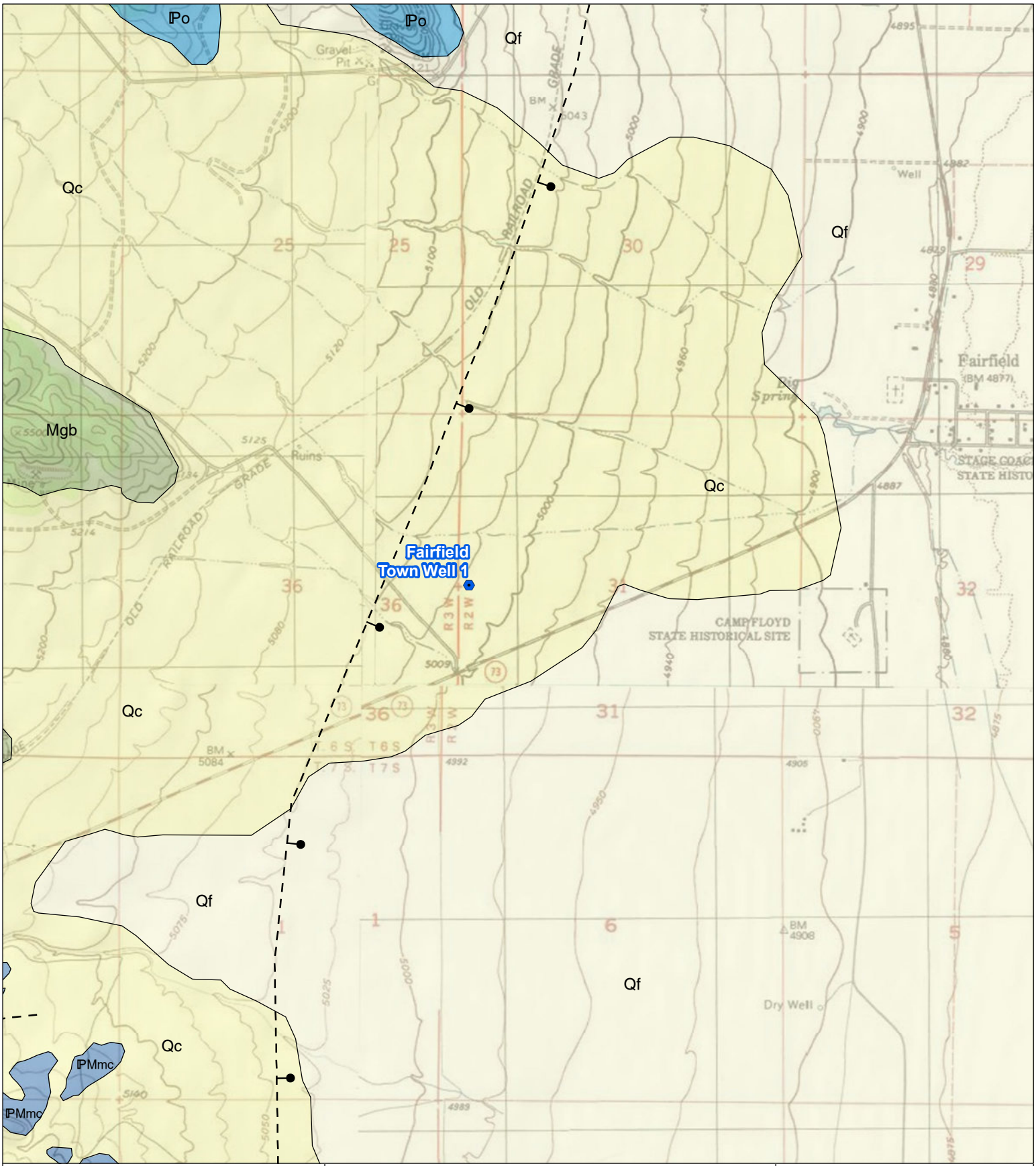
Cedar Valley is a graben formed by crustal extension during the late Tertiary to Quaternary time and is dominantly controlled by north-south trending normal faults (Stewart, 1998, Hurlow, 2004). The valley is asymmetrically tilted to the east due to greater offset on the range bounding fault on the east side of the valley adjacent to the Lake Mountains. As this graben formed, it was filled with debris from the adjacent mountains as they eroded. These coarse-grained deposits are interfingered or layered with fine-grained deposits left behind by a series of lakes that have formed periodically in the valley. The largest and most well-known, Lake Bonneville, retreated approximately 16,000 years ago. The basin-fill deposits grade finer toward the center of the valley where transport of larger particles does not occur. The deposits grade coarser toward the mountain fronts where alluvial fans form when debris flows from the mountains onto the valley floor.

Two main aquifers are present in Cedar Valley, the bedrock aquifer, and valley-fill aquifer. These two aquifers can behave independent of one another, or function relatively homogeneously. As no perennial streams exist in Cedar Valley, the valley-fill aquifer is recharged by the bedrock aquifer and precipitation. The bedrock aquifer recharges almost exclusively from precipitation and snowmelt in the Oquirrh Mountains with an annual estimated recharge of 20,400-24,000 acft (Feltis, 1967).

The valley-fill aquifer is partially confined in the center of the valley where fine-grained sediments do not allow free-flow of groundwater, but dramatically slows its vertical movement (Jordan, 2013). Closer to the mountain fronts, the aquifer is mostly unconfined, and the two aquifers may interact more homogeneously where coarse grained sediments lie in direct contact with fractured bedrock (Hurlow, 2004).

Fairfield Town Well 1 is located on the southeast flank of the Oquirrh Mountains where the bedrock is approximately 390 feet below the ground surface. The Well Driller's log indicates Manning Canyon shale was encountered from 390 to 600 feet where drilling was halted. Manning Canyon shale most often acts as an aquitard and wells are seldom completed in this formation (Hurlow, 2004, Jordan 2013). A pilot hole was drilled to 600 feet and the Manning Canyon shale was isolated with steel casing sealing off the upper alluvial aquifer. This test pump test only yielded 80 gpm so the well was screened in the alluvial aquifer above the shale. The alluvial sediments were documented to be dominantly gravel-to-cobble sized sediments within a matrix of, as well as thin layers of, clay, silt, and sand. These sediments were well cemented near the bedrock contact.

An pump test on the alluvial aquifer by the Utah Geological Survey in Fairfield reported low transmissivity (70 ft^2/day). This test was conducted approximately 2 miles to the east-northeast of Well 1 where the alluvial sediments are finer and the aquifer is more stratified (Jordan, 2013). The aquifer was classified as partially confined (leaky) in Fairfield and is assumed to be less stratified but still partially confined at Well 1 (Jordan, 2013, Hurlow, 2004).



Qf	Unconsolidated fine-grained alluvial and colluvial deposits
Qc	Unconsolidated coarse-grained alluvial and colluvial deposits
Po	Oquirrh Group Rocks, undifferentiated
PMmc	Manning Canyon Shale
Mgb	Great Blue Limestone

Figure 2. Geology of the Fairfield Town Well 1 Area

Geology from The Geology of Cedar Valley, Utah County, Utah, and its Relationship to Groundwater, Utah Geological Survey Special Study 109, Hurlow 2004.

0 1,000 2,000 Feet

1 inch = 2,000 feet

Scale = 1:24,000

Drawn By:
G3 Mapping
Rich Emerson
rich@g3mapping.com

Project Manager:
John Files

Date: September 2019

CASCADE WATER RESOURCES

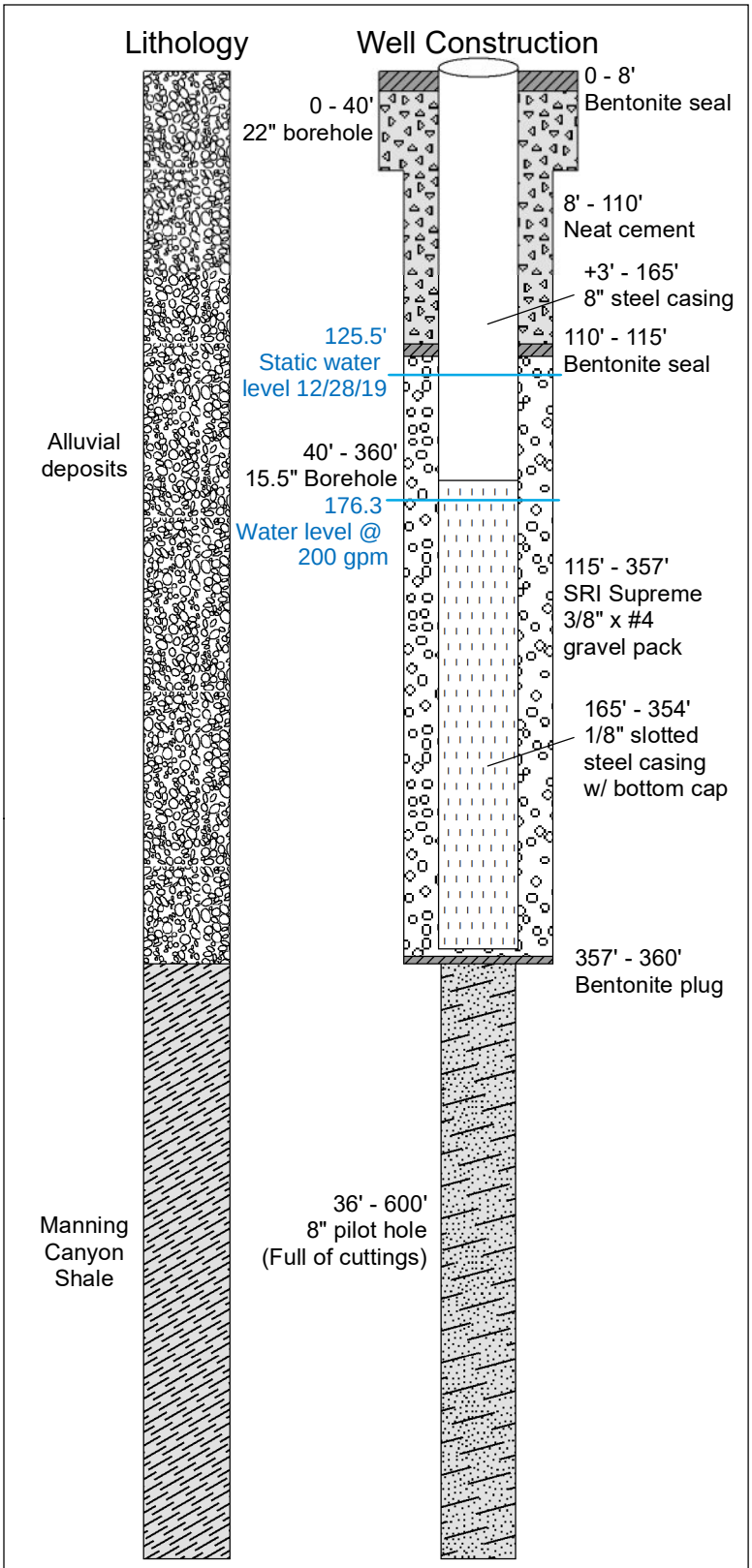


Figure 3.
Well Construction Diagram and Lithology of Fairfield Town Well 1

CASCADE WATER RESOURCES

Vertical Scale: 1 inch equals 75 feet
Drawn By:
G3 Mapping
Rich Emerson

Project Manager:
John Files

Date: September 2019

2.3 Well Materials, Design, and Construction

Figure 3 is the as-built well construction diagram for the Well 1. The well is an 8-inch well with a 22-15.5-inch borehole drilled to 360 feet. An 8-inch pilot hole was drilled to 600 feet and left open below 360 feet. This portion of the well is full of cuttings and was sealed from the rest of the well with a bentonite plug. The sanitary surface seal was witnessed by Neil Burk with Loughlin Water Associates. Table 1 summarizes the well construction parameters and materials.

Table 1. *Well construction summary*

Well head elevation	5015
Drilling method	
Mud Rotary	0 - 600’
Borehole radius	
0 - 40'	22"
40’ - 360'	15.5"
360’ - 600	6" (sealed)
Casing/Screen	
+3' - 165'	8” steel casing
165’ – 354’	8” steel ¼” slotted casing
Annulus	
0 – 8’	Bentonite
8’ – 110’	Cement grout
110’ – 115’	Bentonite
115’ – 357’	1/4" x #4 SRI gravel
357’ – 360’	Bentonite
Projected pumping rate	150 gpm

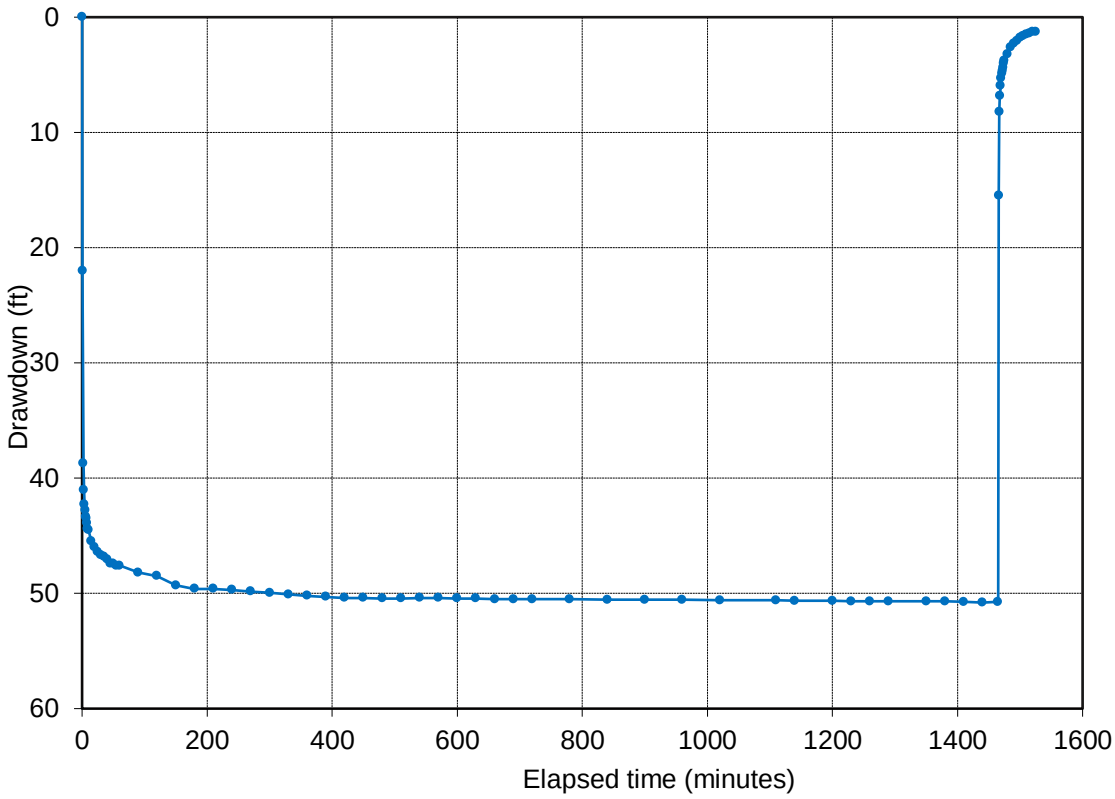
2.4 Aquifer Data

Data from the 24-hour pump test of Well1 were used to calculate aquifer parameters. The well was completed in alluvial sediments above the strongly cemented sediments which are in contact with the Manning Canyon shale. Methods and values follow and are summarized in Table 1.

2.4.1 Well Development and Pump Test

The maximum pumping rate was determined during development and step-down test of the well. A 24-hour constant rate test was accomplished at 200 gpm resulting in a maximum drawdown of 50.8 feet. These two tests indicated a safe yield of approximately 130 gpm and not to exceed 150 gpm. Water levels, development, and pump test were observed, and data recorded by Neil Burk with Loughlin Water Associates. All data used in calculating aquifer parameters were transcribed from the Well Drilling report. Water levels during the 24-hour test are shown the graph below. The report is attached as Appendix B.

Graph 1. *Water levels during 24-hour 200 gpm constant rate pump test*



2.4.2 Transmissivity

The transmissivity was calculated from the data collected during the 24-hour pump test. The data were analyzed with AQTESOLV using both the Cooper-Jacob strait line method and the Hantush-Jacob method.

Method 1: Use drawdown in formation from the constant rate pump test to define a range of transmissivities using AQTESOLV's Cooper-Jacob strait line method. This method can be used to define a range of transmissivities over different periods during the constant rate test. This method resulted in transmissivity ranging from 1200 ft^2/day to 8000 ft^2/day. This method assumes an unconfined aquifer with variable rate and does not include recovery in the analysis.

Method 2: Use drawdown information from the constant rate pump test to define the bulk transmissivity of the aquifer using AQTESOLV's Hantush-Jacob method. This method assumes a leaking confined aquifer, variable pump rate, and accounts for recovery in the analysis. This method resulted in an overall transmissivity of 1600 ft^2/day. This is the value used for calculating the source protection zones. AQTESOLV solutions can be viewed in Appendix C.

2.4.3 Hydraulic Gradient and Flow Direction

The flow direction and gradient were determined from potentiometric contours calculated from water levels across Cedar Valley by the Utah Geological Survey's aquifer study (Jordan, 2013). Water levels in this report were determined from well logs and, when possible, verified in the field by the author. This data shows a groundwater gradient of 0.02 ft/ft N 80º W.

Table 1. *Model Parameters*

Parameter	Value
Effective Porosity	20%
Transmissivity (ft^2/day)	1600
Aquifer Thickness (ft)	189
Hydraulic Conductivity (ft/day)	8.5
Gradient	0.02
Direction of Groundwater Flow	N 80º W
Discharge Rate (gpm)	150

2.4.4 Effective Porosity

There is no site-specific porosity information available. Driscoll (1989) estimates porosity of sand and gravel from 15-25%. A value of 20% was chosen.

2.4.5 Saturated Thickness

A saturated thickness of 189 feet was used for modeling purposes. This is the total length of the screened sections of the well and the assumed saturated thickness of the aquifer at this location.

2.4.6 Discharge Rate

The water system was designed to include 150 gpm from this well.

2.4.1 Well Interference

There are a few domestic wells in Fairfield that pump less than 30 gpm. No wells in the area were shown to interfere with Well 1.

2.5 Hydrogeologic Methods and Calculations

Four protection zones for Well 1 were delineated for management purposes using the Preferred Delineation Procedure as described in UAC R309-600-9. Zone 1 is pre-defined and encloses a 100-foot radius surrounding the wellhead. Zones 2, 3, and 4 were defined using the Environmental Protection Agency's (EPA) software Wellhead Analytic Element Model (WhAEM) (Haitjema, 2017). The semi-analytical option of this software was selected because it delineates groundwater travel time (capture zones) to the pumping well. The aquifer is thought to respond as a homogenous aquifer which is why this method of modeling was selected. Table 1 lists the parameters and model domain used in the WhAEM model. This model has significant limitations, and though the model provides an output with distinct lines for Zones, it should only be used as a guide to an approximate area for capture zones.

2.6 Boundaries of DWSP Zones

The approximate 250-day (Zone 2), 3-year (Zone 3), and the 15-year (Zone 4) groundwater travel time protection zones for Well 1 are shown on figure 4. The generalized dimensions of the protection zones are summarized in Table 2.

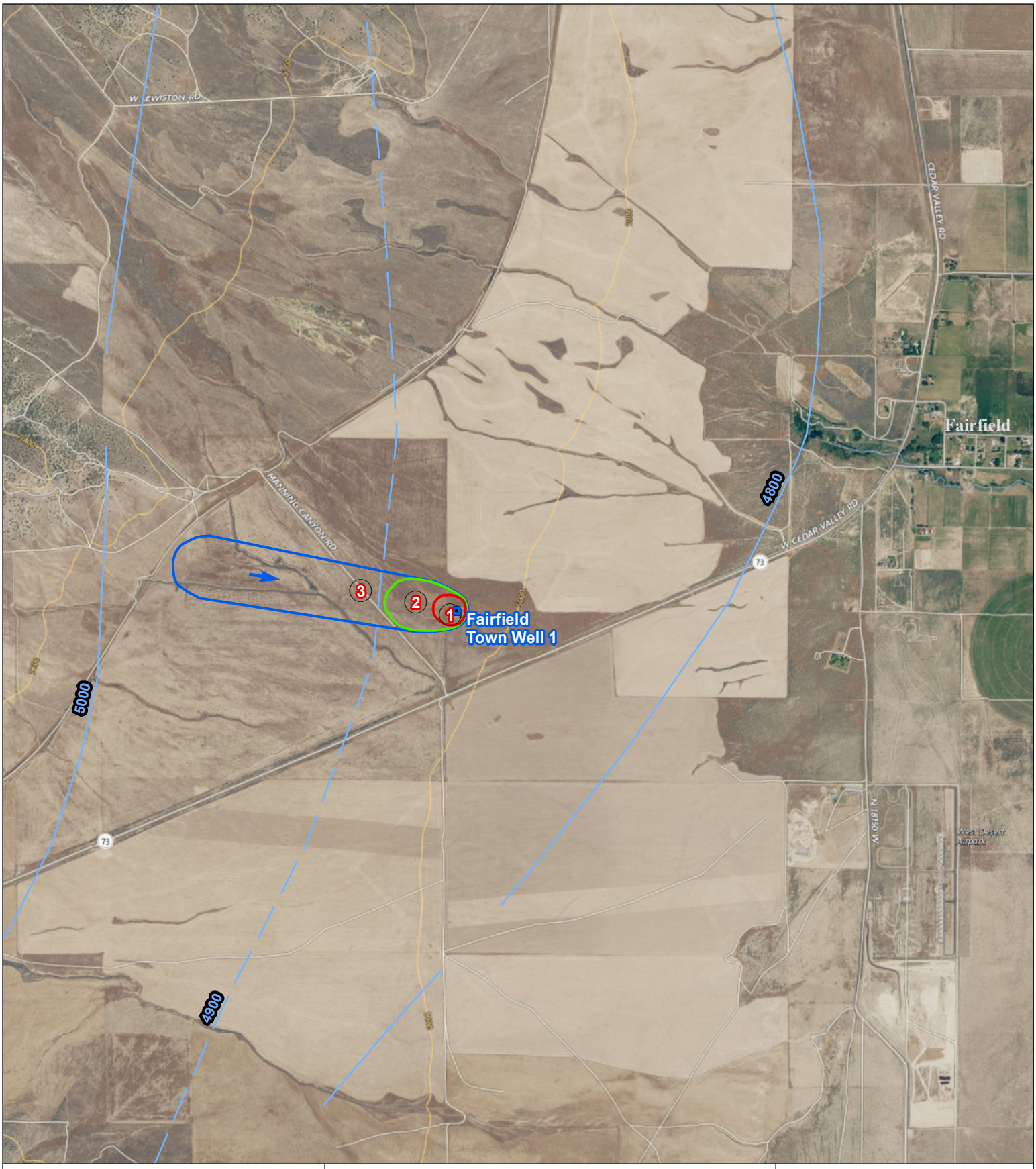
Table 2. *Well 1 Protection Zone Approximate Dimensions*

Protection Zone	Length of Protection Zone[a]	Width of Protection Zone[b]	Distance Upgradient of Well	Distance Downgradient of Well
Zone 2	510 ft.	465 ft.	370 ft.	140 ft.
Zone 3	1290 ft.	790 ft.	1130 ft.	160 ft.
Zone 4	4645 ft.	875 ft.	4470 ft.	175 ft.

a - Total length measured on the centerline parallel to the direction of groundwater flow
b – Maximum total width measured perpendicular to the direction of groundwater flow

2.7 Status of the Aquifer

The aquifer in the area of the Well 1 does not meet the requirements of a Protected Aquifer as defined in UAC R309-600-6(1)(x). Well logs in the area indicate some clay layers, but none greater than 30 feet thick throughout the source protection zones. Cuttings logged from Well 1 indicate some clay but not enough to warrant protected status.



Zone 2
Zone 3
Zone 4
Groundwater flow direction
Potentiometric surface (Jordan, 2013)

Potential Contaminant Source
1 Well 1 Access Road
2 Agricultural Fields
3 Manning Canyon Road

Figure 4. Source Protection Zones and PCSs for Fairfield Town Well 2

0 1,000 2,000 Feet
1 inch = 2,000 feet
Scale = 1:24,000
N

Drawn By:
G3 Mapping
Rich Emerson
rich@g3mapping.com

Project Manager:
John Files

Date: September 2019

CASCADE WATER RESOURCES

3.0 REFERENCES

Driscoll, Fletcher G., 1986, Groundwater and Wells, Published by Johnson Filtrations Systems Inc.

Feltis, R.D., 1967, Ground-Water Conditions in Cedar Valley, Utah County, Utah, Utah State Engineer Technical Publication No. 16.

Haitjema, Henk, 2017, Working with WhAEM, Environmental Protection Agency Office of Research and Development.

Hurlow, H.H., 2004, The Geology of Cedar Valley, Utah County, Utah, and Its Relation to Ground-Water Conditions, Utah Geological Survey Special Study 109.

Jordan, L.J., 2013, Aquifer Parameter Estimation from Aquifer Tests and Specific-Capacity Data in Cedar Valley and the Cedar Pass Area, Utah County, Utah, Utah Geological Survey Special Study 146.

Stewart, J.H., 1998, Regional characteristics, tilt domains, and extensional history of the late Cenozoic Basin and Range Province, western North America, Geological Society of America Special Paper 323.

Utah Department of Environmental Quality, Division of Drinking Water, 2002, Guide to preparation of a Preliminary Evaluation Report.

Utah Department of Environmental Quality, Division of Drinking Water, 2000, State of Utah Drinking Water Source Protection Rule, UAC R309-600. Revised June 12, 2000.

WELL DRILLER'S REPORT
State of Utah
Division of Water Rights

For additional space, use "Additional Well Data Form" and attach

Well Identification

Change Application: a39845 (54-1299) WIN: 440376

Owner *Note any changes*

Fairfield Town
PO Box 271
Cedar Fort, UT 84013

Contact Person/Engineer: _____

Well Location *Note any changes*

S 55 E 80 from the W4 corner of section 31, Township 6S, Range 2W, SL B&M

Location Description: (address, proximity to buildings, landmarks, ground elevation,local well #)

Drillers Activity Start Date: 11/2/2016 Completion Date: 1/14/2017

Check all that apply: ☒ New ☐ Repair ☐ Deepen ☐ Clean ☐ Replace ☐ Public Nature of Use: _____

If a replacement well, provide location of new well. _____ feet north/south and _____ feet east/west of the existing well.

DEPTH (feet) FROM	TO	BOREHOLE DIAMETER (in)	DRILLING METHOD	DRILLING FLUID
0	40	22"	Conventional rotary	mud - Bentonite
40	360	15.5"	Conventional mud rotary	Bentonite
0	600	8"	Conventional mud rotary (Pilot)	Bentonite

Well Log

DEPTH (feet) FROM	TO	WATER	PERMEABLE High	PERMEABLE Low	UNCONSOLIDATED CLAY	SILT	SAND	GRAVEL	COBBLES	BOULDER	OTHER	CONSOLIDATED ROCK TYPE	COLOR	DESCRIPTION AND REMARKS (e.g., relative %, grain size, sorting, angularity, bedding, grain composition density, plasticity, shape, cementation, consistancy, water bearing, odor, fracturing, minerology, texture,degree of weathering, hardness, water quality, etc.)
0	5						X						Light Brown	Topsoil
5	30					X	X						Lt. Brown	Alluvial-fan
30	50					X	X	X				Limestone	gray	" "
50	75					X	X	XX				Limestone	gray	" "
75	95				X	X		XX				Limestone	Lt. Brown	" "
95	155					X	X	XX				Limestone	gray	" "
155	200				X	X		XX				Limestone	Lt Brown	" "
200	275					X	X	XX				Limestone	gray	" "
275	300							XX	X			Limestone	gray	" "
300	320					X	X	XX				Limestone	gray	" "

RECEIVED
JAN 19 2017
WATER RIGHTS
SALT LAKE

Static Water Level

Date 12-28-2016 Water Level 125.5 feet Flowing? ☐ Yes ☒ No

Method of Water Level Measurement tape If Flowing, Capped Pressure _____ PSI

Point to Which Water Level Measurement was Referenced Top of Casing Elevation 5015

Height of Water Level reference point above ground surface 3' feet Temperature _____ degrees ☐ C ☐ F

Construction Information

DEPTH (feet) FROM	TO	CASING TYPE AND MATERIAL/GRADE	WALL THICK (in)	NOMINAL DIAM. (in)
0	40	Steel	.250	16"
+3	165	Steel	.322	8"

DEPTH (feet) FROM	TO	SCREEN PERFORATIONS OPEN BOTTOM — SCREEN SLOT SIZE OR PERF SIZE (in)	SCREEN DIAM. OR PERF LENGTH (in)	SCREEN TYPE OR NUMBER PERF (per round/interval)
165	354	.322	8"	
165	354	.125"	8" .322"	Slotted
				12 row

Well Head Configuration: Steel plate — Access Port Provided? ☐ Yes ☒ No

Casing Joint Type: Welded — Perforator Used: _____

Was a Surface Seal Installed? ☒ Yes ☐ No — Depth of Surface Seal: _____ feet — Drive Shoe? ☐ Yes ☒ No

Surface Seal Material Placement Method: Tremie pipe & grout pump

Was a temporary surface casing used? ☒ Yes ☐ No If yes, depth of casing: 40 feet diameter: 16" inches

DEPTH (feet) FROM	TO	SURFACE SEAL / INTERVAL SEAL / FILTER PACK / PACKER INFORMATION — SEAL MATERIAL, FILTER PACK and PACKER TYPE and DESCRIPTION	**Quantity** of Material Used (if applicable)	GROUT DENSITY (lbs./gal., # bag mix, gal./sack etc.)
0	8	Bentonite plug	7 cu ft	50# sacks
8	110	neat cement	4.3 cu yd	15.1 lbs/gal
110	115	Bentonite plug	5 cu ft	50# sacks
357	360	Bentonite plug	2.5 cu ft	50# sacks
115	357	gravel SRI 3/8 x #4	8.5 cu yards	

Well Development and Well Yield Test Information

DATE	METHOD	YIELD	Units Check One GPM	Units Check One CFS	DRAWDOWN (ft)	TIME PUMPED (hrs & min)
12/16/16	air lift	150	X		360	68 hours
12/26/16	pump - 40hp	300	X		360	72 hours

Pump (Permanent)

Pump Description: _____ Horsepower: _____ Pump Intake Depth: _____ feet

Approximate Maximum Pumping Rate: _____ Well Disinfected upon Completion? ☐ Yes ☐ No

Comments

Description of construction activity, additional materials used, problems encountered, extraordinary Circumstances, abandonment procedures. *Use additional well data form for more space.*

Well Driller Statement

This well was drilled and constructed under my supervision, according to applicable rules and regulations, and this report is complete and correct to the best of my knowledge and belief.

Name ALL WELLS DRILLING, LLC (Person, Firm, or Corporation - Print or Type) — License No. 398

Signature _____ (Licensed Well Driller) — Date 1/16/2017

WELL DRILLER'S REPORT ADDTIONAL DATA FORM
State of Utah
Division of Water Rights

Well Identification

Change Application: a39845 (54-1299)

Owner *Note any changes*

Fairfield Town
PO Box 271
Cedar Fort, UT 84013

Contact Person/Engineer: _____

Well Location *Note any changes*

S 55 E 80 from the W4 corner of section 31, Township 6S, Range 2W, SL B&M

Location Description: (address, proximity to buildings, landmarks, ground elevation,local well #)

Well Log

DEPTH (feet) FROM	TO	WATER	PERMEABLE High	PERMEABLE Low	UNCONSOLIDATED CLAY	SILT	SAND	GRAVEL	COBBLES	BOULDER	OTHER	CONSOLIDATED ROCK TYPE	COLOR	DESCRIPTION AND REMARKS (e.g., relative %, grain size, sorting, angularity, bedding, grain composition density, plasticity, shape, cementation, consistancy, water bearing, odor, fracturing, minerology, texture,degree of weathering, hardness, water quality, etc.)
320	340							X	X	X		limestone	gray	Alluvial-fan
340	355					X	X	X	X			"	gray	" "
355	360				X			X	X			"	gray	" "
360	370					X	X	X	X			"	gray	" "
370	390				X			X	X			limeston	gray	" "
390	400				X			X				Limestone	Dr gray	Manning Canyon Shale
400	425				X							shale	Dr gray	" " "
425	465				X								Dr gray	" " "
465	500				~~X~~							shale	Dr. gray	" " "
500	515											shale	Dr gray	" " "
515	535				X							shale	Dr. gray	" " "
535	540											Shale	Dr. gray	" " "
540	555				X							shale	Dr. gray	" " "
555	560				X							shale	Dr gray	" " "
560	575				X							shale	Dr. gray	" " "
575	590											Shale	Dr. gray	" " "
590	600				X							shale	Dr. gray	" " "

RECEIVED
JAN 19 20[illegible]
WATER RIGHTS
SALT LAKE

Construction Information (con't)

DEPTH (feet)		CASING			DEPTH (feet)		☐ SCREEN ☐ PERFORATIONS ☐ OPEN BOTTOM		
FROM	TO	CASING TYPE AND MATERIAL/GRADE	WALL THICK (in)	NOMINAL DIAM. (in)	FROM	TO	SCREEN SLOT SIZE OR PERF SIZE (in)	SCREEN DIAM. OR PERF LENGTH (in)	SCREEN TYPE OR NUMBER PERF (per round/interval)

DEPTH (feet)		SURFACE SEAL / INTERVAL SEAL / FILTER PACK / PACKER INFORMATION		
FROM	TO	SEAL MATERIAL, FILTER PACK and PACKER TYPE and DESCRIPTION	**Quantity** of Material Used (if applicable)	GROUT DENSITY (lbs./gal., # bag mix, gal./sack etc.)

Comments (con't)

Well Driller Statement

This well was drilled and constructed under my supervision, according to applicable rules and regulations, and this report is complete and correct to the best of my knowledge and belief.

Name ALL WELLS DRILLING, LLC (Person, Firm, or Corporation - Print or Type) **License No.** 398

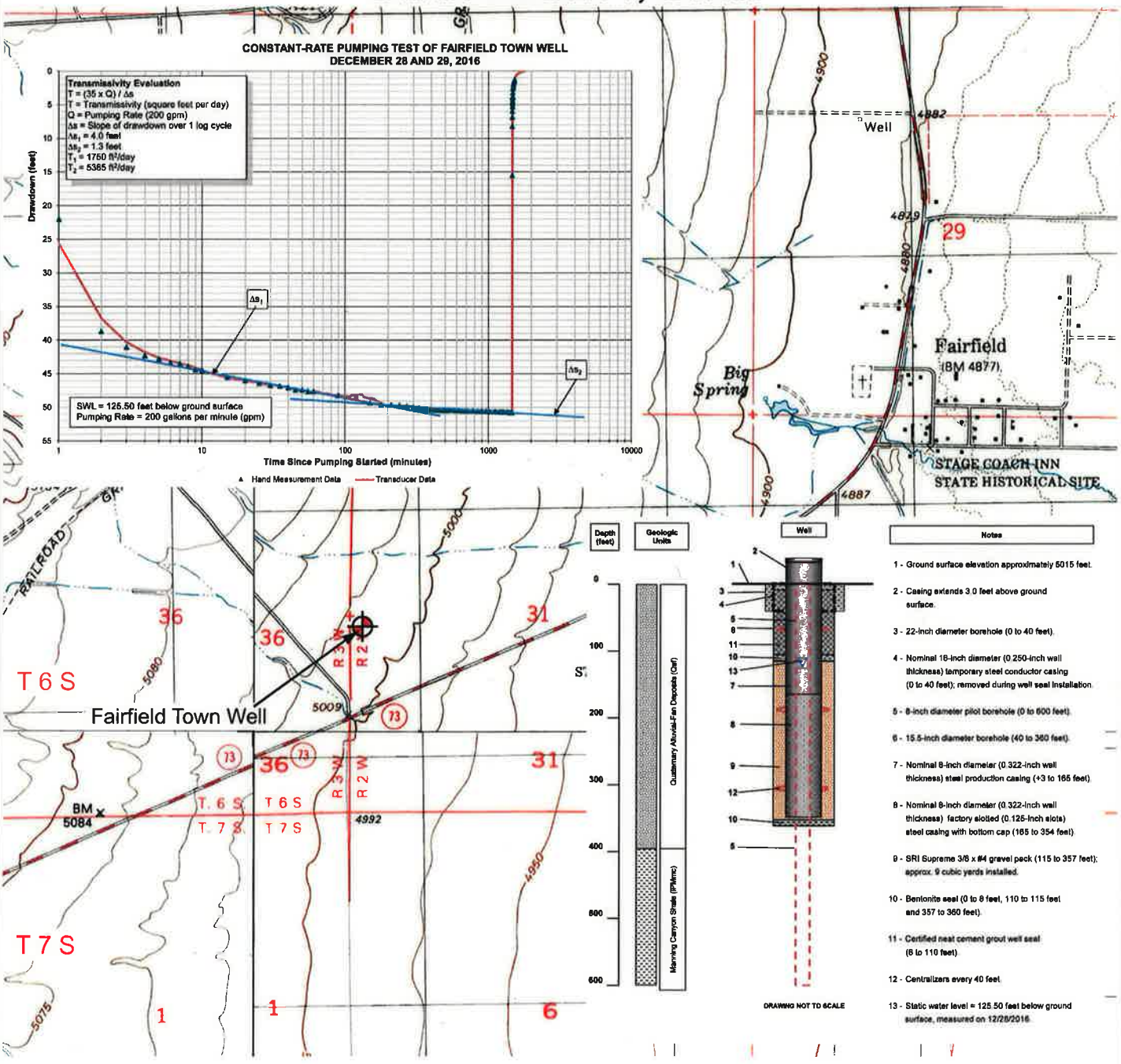
Signature Wm K. Wells (Licensed Well Driller) **Date** 11/16/2017

DETAILED LITHOLOGIC LOG
FAIRFIELD TOWN WELL

Depth		Formation	Description
From	To		
0	5	Top soil	Light brown sandy topsoil.
5	30	Qaf	Light brown silt and fine sand with some limestone gravel.
30	50		Medium to fine gravel (limestone) with some silty sand.
50	75		Medium gray limestone cobbles and gravel with some sandy silt.
75	95		Light brown silt with clay and fine sand and medium gray limestone gravel and cobbles.
95	155		Medium gray limestone cobbles and gravel with some sandy silt.
155	200		Light brown silty clay with medium gray limestone cobbles and gravel.
200	275		Medium gray limestone cobbles and gravel with some sandy silt.
275	300		Medium gray limestone boulders, cobbles and gravel (cemented) with trace sandy silt.
300	320		Medium gray limestone cobbles and gravel with some sandy silt.
320	340		Medium gray limestone boulders, cobbles and gravel (cemented) with trace sandy silt.
340	355		Medium gray limestone cemented cobbles and gravel with some sandy silt.
355	360		Medium gray limestone cemented cobbles and gravel with brown gray clay with sand and silt.
360	370		Medium gray limestone cemented cobbles and gravel with some sandy silt.
370	390		Brownish gray silty clay with medium gray limestone gravel and cobbles.
390	400	IPMmc	Dark gray clay with some medium gray limestone gravel.
400	425		Dark gray-black clayey shale.
425	465		Dark gray-black shale with trace limestone.
465	500		Dark gray-black shale with some dark gray limestone and calcite veins.
500	515		Dark gray-black thin bedded shale with 20% dark gray clay. Non calcareous.
515	535		Dark gray-black clayey shale.
535	540		Dark gray-black thin bedded shale with trace medium brown-gray quartzite.
540	555		Dark gray-black clayey thin bedded shale.
555	560		Dark gray-black clayey shale with 25% hard brownish quartzite; non calcareous.
560	575		Dark gray-black clayey shale with trace hard brownish quartzite.
575	590		Dark gray-black shale with trace white quartz veins.
590	600		Dark gray-black clayey shale.

Notes:
Logged by Neil Burk, P.G. of Loughlin Water Associates, LLC;
Qaf = Quaternary alluvial-fan deposits;
IPMmc = Manning Canyon Shale.

WELL DRILLING, CONSTRUCTION AND TESTING REPORT
FAIRFIELD TOWN WELL
FAIRFIELD CULINARY WATER SYSTEM
PUBLIC WATER SUPPLY SYSTEM (PWS) NO. UTAH25011
UTAH COUNTY, UTAH



Prepared by:
Loughlin Water Associates, LLC
3100 W. Pinebrook Rd. Ste. 1100
Park City, Utah 84098
435-649-4005

LOUGHLIN WATER ASSOCIATES, LLC

January 2017

Prepared for:
Epic Engineering P.C.
Attn: Mr. Trevor Andra, P.E.
100 South 50 East
Heber City, Utah 84032

LOUGHLIN
WATER ASSOCIATES ▲ LLC

March 23, 2017

Utah Division of Drinking Water
Attention: Rich Peterson
P.O. Box 144830
Salt Lake City, Utah 84114-4830

Subject: **Transmittal of Well Construction Report**
Fairfield Town Well (WS002)
Fairfield Culinary Water System, Utah County, Utah
Utah Public Water System (PWS) No. UTAH25011, File No. 10510
for Epic Engineering

Dear Rich:

Please find enclosed our report that summarizes the drilling, construction and testing of the Fairfield Town Well, including information required by the Utah Division of Drinking Water (DDW) for compliance with Utah Administrative Code (UAC) R309-515-6(5)(c). The Fairfield Town Well is a new drinking water source for the Fairfield Culinary Water System (Fairfield), located in Utah County, Utah. The DDW designates Fairfield as Public Water System (PWS) No. UTAH25011 and as a community water system. The Fairfield Town Well is DDW Source WS002.

If you have any questions or need more information, please do not hesitate to call us at (435) 649-4005.

Very truly yours,

Loughlin Water Associates, LLC

Neil I. Burk, P.G.
Senior Hydrogeologist

Enclosure

Cc: Trevor Andra, P.E. – Epic Engineering

3100 W. Pinebrook Road, Ste. 1100 ▲ Park City, Utah 84098
Phone: 435.649.4005 ▲ Fax: 435.649.4085 ▲ Mobile: 435.659.1752 ▲ www.LoughlinWater.com

WELL DRILLING, CONSTRUCTION AND TESTING REPORT
FAIRFIELD TOWN WELL (WS002), DDW FILE #10510
FAIRFIELD CULINARY WATER SYSTEM
PUBLIC WATER SUPPLY SYSTEM (PWS) NO. UTAH25011
UTAH COUNTY, UTAH

Prepared for:

Epic Engineering P.C.
Attn: Mr. Trevor Andra, P.E.
100 South 50 East
Heber City, Utah 84032

Prepared by:

Neil I. Burk, P.G.
Senior Hydrogeologist

Reviewed by:

William D. Loughlin, P.G.
Principal Hydrogeologist

Loughlin Water Associates, LLC
3100 West Pinebrook Road, Suite 1100
Park City, Utah 84098
(435) 649-4005
www.LoughlinWater.com

Date: March 23, 2017

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

File: *Doc17-04-FairfieldWell-ConstRpt*

EXECUTIVE SUMMARY

This report summarizes the drilling, construction and testing of the Fairfield Town Well (the well), including information required by the Utah Division of Drinking Water (DDW) for compliance with Utah Administrative Code (UAC) R309-515-6(5)(c). The Fairfield Town Well is a new drinking water source for the Fairfield Culinary Water System (Fairfield), located in Utah County, Utah. The DDW designates Fairfield as Public Water System (PWS) No. UTAH25011 and classifies the water system as a community water system. The Fairfield Town Well is DDW Source WS002. Figures 1 and 2 show the location of the well.

Loughlin Water Associates, LLC (Loughlin Water) prepared technical specifications (Loughlin Water, 2016) and Epic Engineering P.C. (Epic) prepared a Preliminary Evaluation Report (PER) (Epic, 2016) for the Fairfield Town Well. The DDW issued a plan approval on August 15, 2016 (DDW, 2016). Appendix A provides a copy of the plan approval letter.

The Fairfield Town Well was drilled under approved Permanent Change Application Number a39845 (54-1299). Appendix B presents a copy of the Order of the State Engineer for Permanent Change Application Number 54-1299 (a39845) and a copy of the start cards for the Fairfield Town Well.

All Wells Drilling, LLC (All Wells), Utah-licensed Water Well Driller No. 398, drilled, constructed and tested the Fairfield Town Well. The well is completed in Quaternary alluvial-fan deposits. Table 1 and Figure 3 summarize well construction details. Appendices C, D, and E provide copies of the Well Driller's Report (well log), which includes a detailed borehole lithologic log, geophysical logs, and the well seal certification letter.

All Wells conducted a step-rate pumping test on the well at pumping rates of approximately 97, 145, 195, and 239 gallons per minute (gpm). Figure 4 present a plot of the step-rate pumping test and Figure 5 presents an evaluation of well loss. All Wells conducted a 24-hour constant-rate pumping test on the well at a pumping rate of 200 gpm. Figures 6 and 7 present plots of the constant-rate pumping test. Appendix F presents the test pump specifications and Appendix G present data for the pumping tests.

We estimated an aquifer transmissivity of about 1800 feet squared per day (ft^2/day) using several methods. Figures 8, 9 and 10 present each transmissivity evaluation.

We assessed water quality through monitoring of "*field*" parameters during development and test pumping and the collection of water samples for laboratory analyses at the conclusion of the constant-rate pumping test. Table 2 summarizes the field water quality measurements. The water samples were analyzed for the parameters listed in UAC R309-515-4(5) for a community water system plus total coliform, E. coli bacteria, and iron bacteria. Table 3 summarizes the analytical results and Appendix H provides copies of laboratory reports, which indicate that no water quality parameters exceeded the maximum contamination level.

We recommend that the well not be equipped to pump at a rate of greater than 150 gpm and that the pump not be set below a depth of 180 feet. Additional recommendations about well operation and monitoring are provided in the text.

INTRODUCTION

This report summarizes the drilling, construction and testing of the Fairfield Town Well (the well), including information required by the Utah Division of Drinking Water (DDW) for compliance with Utah Administrative Code (UAC) R309-515-6(5)(c). The Fairfield Town Well is a new drinking water source for the Fairfield Culinary Water System (Fairfield), located in Utah County, Utah. The DDW designates Fairfield as Public Water System (PWS) No. UTAH25011 and classifies the water system as a community water system. The Fairfield Town Well is DDW Source WS002. Figures 1 and 2 show the location of the well.

Loughlin Water Associates, LLC (Loughlin Water) prepared technical specifications (Loughlin Water, 2016) and Epic Engineering P.C. (Epic) prepared a Preliminary Evaluation Report (PER) (Epic, 2016) for the Fairfield Town Well. The DDW issued a plan approval for the well on August 15, 2016 (DDW, 2016). Appendix A provides a copy of the plan approval letter.

The Fairfield Town Well was drilled under approved Permanent Change Application Number a39845 (54-1299). Appendix B presents a copy of the Order of the State Engineer for Permanent Change Application Number 54-1299 (a39845) and a copy of the start cards for the Fairfield Town Well.

The following appendices provide information required by the DDW for compliance with UAC R309-515-6(5)(c) and supplementary well construction information:

- Plan Approval Letter – Appendix A;
- Approved Water Right and Start Cards – Appendix B;
- Well Driller's Report and Detailed Lithologic Log – Appendix C;
- Geophysical Logs – Appendix D;
- Well Seal Certification Letter – Appendix E;
- Test Pump Specifications and Pump Curve – Appendix F
- Pumping Test Data – Appendix G; and
- Laboratory Certificate of Analysis – Appendix H.

This well construction report discusses the information provided in these appendices. Plans and specifications to equip and connect the well to the Fairfield Culinary Water System will be submitted to the DDW under separate cover by others.

WELL DRILLING, LOGGING, AND CONSTRUCTION

WELL LOCATION

Figures 1 and 2 show the location of the Fairfield Town Well. The approximate location of the well, based on Utah Division of Water Rights (DWRi) location calculator map, is:

- UTM Easting 404,772 meters; Northing 4,456,541 meters (NAD 83);
- South 141 feet and East 152 feet from the West Quarter (W4) Corner of Section 31, Township 6 South, Range 2 West, Salt Lake Base and Meridian (SLB&M); and
- Longitude -112.119750 degrees west and Latitude 40.253915 degrees north (NAD83).

The approximate wellhead elevation is 5015 feet, estimated from the Cedar Fort, Utah (1997) USGS 7.5-minute quadrangle topographic map.

DRILLING AND WELL CONSTRUCTION

All Wells Drilling, LLC (All Wells), Utah-licensed Water Well Driller No. 398, drilled, constructed and tested the Fairfield Town Well. All Wells started drilling activities on November 2, 2016 and completed testing of the well on December 29, 2016.

As part of the Fairfield Town Well project, All Wells:

- Drilled a 6-inch diameter pilot borehole using conventional mud rotary methods to a depth of 130 feet, but the borehole deviation was excessive and All Wells plugged and abandoned the borehole.
- Drilled an 8-inch diameter pilot borehole to a depth of 500 feet using conventional mud rotary methods.
- Subcontracted Century Wireline Services (Century) of Tulsa, Oklahoma to geophysically log the pilot borehole.
- Advanced the 8-inch diameter pilot borehole and additional 100 feet to a depth of 600 feet using conventional mud rotary methods at the request of representatives of the Town of Fairfield.
- Installed a 6-inch diameter blank and slotted steel casing assembly to a depth of 300 feet to air-lift test the borehole for estimation of potential production from the well.
- Air-lift tested the pilot borehole at an approximate rate of 80 gallons per minute (gpm) for 3 hours.
- Reamed the pilot borehole to a 22-inch diameter borehole to depth of 40 feet using conventional mud rotary methods.
- Installed nominal 16-inch diameter temporary steel conductor casing to a depth of 40 feet and sealed it in place with bentonite.
- Reamed the pilot borehole to a 15.5-inch diameter borehole from the base of the conductor casing (40 feet in depth) to a depth of 360 feet using conventional mud rotary methods.
- Installed a 3 foot bentonite plug in the bottom of the borehole.
- Installed nominal 8-inch diameter blank and slotted steel casing assembly from 3 feet above ground to 354 feet below ground.

- Installed approximately 9 cubic yards of SRI Supreme 3/8 x #4 gravel pack from a depth of 115 feet to 357 feet.
- Installed a bentonite plug on top of the gravel pack from a depth of 110 feet to 115 feet.
- Installed approximately 4 cubic yards of neat cement grout (prepared at a cement plant) around the 8-inch diameter steel production casing from a depth of 8 feet to 110 feet to seal the well.
- Removed the nominal 16-inch diameter temporary steel conductor casing from the borehole immediately after installation of the neat cement grout well seal.
- Installed a bentonite plug around the 8-inch diameter steel production casing from ground surface to a depth of 8 feet, to allow for the installation of a pitless adaptor.
- Conducted approximately of 68 hours of air-lift development on the well using jetting and swabbing methods;
- Installed a test pump in the well to a depth of 340 feet;
- Conducted approximately 36 hours of pump development on the well;
- Conducted a step-rate pumping test on the well at pumping rates of approximately 97, 145, 195 and 239 gallons per minute (gpm);
- Conducted a 24-hour constant-rate pumping test at a pumping rate of 200 gpm; and
- Allowed the well to recover then disinfected the well and removed the test pump from the well.

Table 1 summarizes and Figure 3 illustrates the as-built construction of the Fairfield Town Well. Appendix C presents a copy of the Well Driller's Report (well log).

Neil I. Burk, P.G. of Loughlin Water observed well drilling, described the drill cuttings, prepared the final well design, observed well construction and development, planned pumping tests, and collected and delivered water quality samples to the analytical laboratory.

LITHOLOGIC LOG

As the well was drilled, All Wells collected drill cutting samples approximately every 5 feet. The well was drilled using conventional mud rotary methods and each lithologic sample was obtained by collecting a grab sample of the material returning up the borehole at the well head. Neil I. Burk, P.G. of Loughlin Water, described the samples and prepared the detailed lithologic log in Appendix C. The lithology of the borehole is summarized below.

Depth (feet)	Formation	Description
0 to 5	None; top soil	Light brown sandy top soil.
5 to 275	Quaternary Alluvial-Fan Deposits (Qaf)	Medium gray limestone cobbles and gravel with sand and silt.
275 to 370	Cemented Alluvial Fan Deposits	Cemented medium gray limestone cobbles and gravel with sand and silt. Tertiary in age?
370 to 390	Transition	Brownish gray silty clay with medium gray limestone and gravel.
390 to 600	Manning Canyon Shale (IPMmc)	Dark gray-black shale with some thin quartzite beds.

GEOPHYSICAL LOGS

Century geophysically logged the Fairfield Town Well on November 15, 2016, at the conclusion of drilling the pilot borehole to a depth of 500 feet. Century ran the following logs:

- Spontaneous-potential;
- Short and long normal electrical resistance (16- and 64-inch spacing);
- Single point resistivity;
- Temperature;
- Natural gamma;
- 3-arm caliper; and
- Deviation.

Appendix D provides copies of the geophysical logs which were ran when the borehole depth was 500 feet. Note that at the request of representatives from the Town of Fairfield, All Wells advanced the pilot borehole an additional 100 feet to a depth 600 feet after the borehole was geophysically logged.

TEST FOR PLUMBNESS AND ALIGNMENT

As part of the geophysical logging, Century performed a deviation survey of the pilot borehole at a total depth of 500 feet. Appendix D provides a copy of the deviation survey by Century. The survey results indicate that the pilot borehole for the Fairfield Town Well meets the plumbness and alignment requirements outlined in the technical specifications (Loughlin Water, 2016).

WELL SEAL CERTIFICATION

Neil I. Burk, P.G., an authorized representative of the DDW, witnessed and certified the materials and methods used to install the neat cement grout well seal around the production casing. The well seal extends to a depth of 115 feet and the upper portion of

the seal allows for the installation of a pitless adaptor. The Well Seal Certification Letter contained in Appendix E provides further details of the grouting procedure and well seal.

WELL DEVELOPMENT

RIG AND PUMP DEVELOPMENT

From December 19 to December 23, 2016, at the conclusion of well construction, All Wells conducted approximately of 68 hours of air-lift development on the Fairfield Town Well using jetting and swabbing methods. Produced water from the well was still cloudy and contained sand indicating that additional development of the well was required.

All Wells installed a submersible test pump in the well on December 23, 2016 to a depth of 340 feet. The test pump was a nominal 6-inch diameter Grundfos 230S400-10 with a 40 horsepower motor and a 2.5-inch diameter discharge pipe. Appendix F provides a copy of the specifications of the test pump including the pump curve.

All Wells also installed a 2-inch diameter in-line totalizing flow meter to measure the discharge from the well. A valve was installed to control the discharge rate from the well and a Rossum Sand Tester was installed to measure sand production from the well. All Wells conducted approximately 29 hours of pump development work on December 23 and 26, 2016. The step-rate pumping test was conducted on December 27, 2016. However, because additional development was required, an additional 7 hours of pump development was conducted on the well on December 27, 2016 after the step-rate pumping test. The well was allowed to recover for 12 hours prior to the start of the constant-rate pumping test on December 28, 2016.

PUMPING TESTS

All Wells, with assistance from Loughlin Water, conducted a step-rate pumping test on the Fairfield Town Well on December 27, 2016 at pumping rates of 97, 145, 195 and 239 gpm. A 24-hour constant-rate pumping test was conducted on December 28 and 29, 2016 at a pumping rate of 200 gpm. All Wells measured water levels "*by hand*" using an electric water level meter and the flow was measured using the in-line totalizing flow meter. Water levels were also measured and recorded with a pressure transducer that All Wells installed to an approximate depth of 333 feet. Appendix G presents the pumping test data for the step-rate and constant-rate pumping tests.

STEP-RATE PUMPING TEST

As per R309-515-6(10)(a), a step-rate pumping test was conducted to: (1) evaluate well and aquifer performance at different pumping rates, (2) estimate well loss at various pumping rates, and (3) provide base-line data for evaluation of potential future changes in well efficiency.

All Wells conducted a step-rate pumping test of the Fairfield Town Well on December 27, 2016 at pumping rates of 97, 145, 195 and 239 gpm for a total of 240 minutes (4

hours). We calculated a "*critical time*" of about five minutes using the method of Shafer (1978). Pumping water levels prior to five minutes are significantly affected by casing storage and do not accurately reflect aquifer response. Figure 4 presents a plot of water level versus elapsed time since pumping started for the step-rate pumping test. Figure 4 also shows a diagram of the well to help relate pumping water level to the slotted intervals and the pump setting.

Figure 5 presents specific capacity data for the Fairfield Town Well and an evaluation of well loss. Specific capacity is defined as the pumping rate divided by drawdown (gpm/foot). According to Kelly and others (1980), the specific capacity of an ideal, 100-percent efficient well in a confined aquifer will not decrease with increased pumping rate. The decrease in specific capacity indicates that turbulent flow occurs in the aquifer near the well bore and as water enters the well. The degree of turbulence increases with increasing pumping rates.

The table on Figure 5 lists specific capacity values at the end of each step. As expected, observed specific capacity decreased with increased pumping rate and increased pumping time. Specific capacity decreased from about 7 gpm/foot while pumping at 97 gpm to 3.9 gpm/foot while pumping at 239 gpm.

Figure 5 also presents a plot of inverse specific capacity versus pumping rate and a best-fit line to the data for the Fairfield Town Well. The slope of the line indicates the "*well loss coefficient*", which can be used to estimate the amount of drawdown that is due to turbulent flow, or well loss at each pumping rate. According to Hantush (1964), well loss is equal to the well loss coefficient multiplied by the pumping rate squared. The table on Figure 5 lists the observed drawdown at the end of each step and the amount of drawdown due to laminar flow (aquifer drawdown) and the amount of drawdown due to turbulent flow (well loss). We calculated well loss to be about 7.6 feet of the total 13.9 feet of drawdown while pumping at 97 gpm and to be about 46.3 feet of 61.8 feet of drawdown while pumping at 239 gpm (see Figure 5). The test and evaluation indicate that well efficiency ranges from about 43% while pumping at 97 gpm to 23% while pumping at 239 gpm.

CONSTANT-RATE PUMPING TEST

All Wells conducted a constant-rate pumping test of the Fairfield Town Well on December 28 and 29, 2017 at a pumping rate of 200 gpm for a total of 1465 minutes (24.4 hours). Drawdown at the end of the constant-rate pumping test was 50.75 feet, which corresponds to a specific capacity of 3.9 gpm/foot.

Figure 6 presents a plot of water level versus elapsed time since pumping started for the constant-rate pumping test. Figure 6 also shows a diagram of the well to help relate pumping water level to the slotted intervals and the pump setting. Figure 7 presents of plot of drawdown versus elapsed time since pumping started.

After pumping stopped, All Wells measured the water level recovery "*by hand*" using an electric water level probe for 1 hour. The pressure transducer measured and recorded water level data unit it was removed from the well. The transducer data indicates that

the Fairfield Town Well fully recovered to its pre-pumping water level in approximately 333 minutes (5.6 hours) after pumping ceased and 99% recovery occurred in 117 minutes (1.95 hours).

We evaluated the pumping test data using the constant discharge method developed by Cooper and Jacob (1946) and described in Lohman (1972). Figure 8 summarizes the evaluation of the pumping portion of the test. We estimated an aquifer transmissivity between 1800 and 5400 feet squared per day (ft^2/day) near the well using this method.

We evaluated water level recovery as shown on Figure 9, which presents a graph of residual drawdown versus the ratio of time since pumping started/time since pumping ceased (t/t'). In theory, for a well in a uniform aquifer of infinite extent and other standard assumptions, (1) the plot would be a straight line and (2) the plot should project to residual drawdown of 0 feet (fully recovered) at a t/t' ratio of 1. As shown on Figure 9, at a residual drawdown of 0 feet the ration of t/t' is about 5. This suggests that the water level is recovering to a level that is above the static water level measured prior to the pumping tests. This could be from aquifer recharge that occurred from recent precipitation events. Additionally, it is likely that the water level in the aquifer experiences season variations of several feet. We estimated a transmissivity of about 1800 ft^2/day using these data.

We also evaluated the pumping test data using AQTESOLV (Duffield, 2007) and we used the Theis (1935) solution for an unconfined aquifer, which assumes a variable pumping rate and partial aquifer penetration. Our estimated transmissivity based on the AQTESOLV assessment is approximately 1000 ft^2/day. Figure 10 presents the AQTESOLV printout.

Based on the range of estimated transmissivity values using drawdown and residual drawdown data, we believe the bulk transmissivity of the aquifer is approximately 1800 ft^2/day.

WATER QUALITY

We assessed water quality through (1) monitoring of "*field*" parameters during development and test pumping and (2) the collection of water samples for laboratory analyses after 24 hours of pumping.

FIELD MONITORING OF WATER QUALITY

We monitored turbidity, pH, conductivity, and temperature of water produced from the well during drilling, development and test pumping. Sand production was also monitored during test pumping. Table 2 summarizes the water quality measurements made in the field.

Sand production and water turbidity were relatively high until the well was pumped during the constant-rate pumping test, where after 1 hour of pumping at 200 gpm, the turbidity was 9.95 Nephelometric Turbidity Units (NTU) and the sand production was approximately 13.2 parts per million (ppm). The Utah Drinking Water Standard for

turbidity is 5 NTU and sand production should be less than 5 ppm. At the conclusion of the constant-rate pumping test, turbidity was 0.92 NTU and sand production was 1.72 ppm. Conductivity ranged from 851 to 888 microsiemens per centimeter (µS/cm), with an average value of 871 µS/cm. Based on our field water quality measurements of water produced from the well, we believe that groundwater in the aquifer has a temperature of approximately 54 degrees Fahrenheit (°F) and a pH of approximately 7.3.

LABORATORY ANALYSIS OF WATER QUALITY SAMPLES

We collected water quality samples for laboratory analysis from Fairfield Town Well at 10:00 AM on December 29, 2016 after approximately 24 hours of pumping at 200 gpm. We delivered the water quality samples to Chemtech-Ford Analytical Laboratories (Chemtech-Ford) in Sandy, Utah at 12:20 PM on December 29, 2016.

Chemtech-Ford analyzed the water samples for (1) constituents required for a community new drinking water source in accordance with UAC R309-515-4(5), (2) total coliform and E. coli bacteria, and (3) iron bacteria. Table 3 summarizes the analytical results and Appendix H provides copies of laboratory reports and chain-of-custody forms.

Table 3 summarizes and compares analytical results to Utah Drinking Water Standards. The drinking water standards, as defined in UAC R309-200, are divided into two groups:

- Primary Drinking Water Standards, or Primary Maximum Contaminant Levels (MCLs), which are the "*Maximum permissible level of a contaminant in water that is delivered to any user of a Public Water System*" and are established for the protection of human health.
- Secondary Drinking Water Standards, or Secondary MCLs, deal with substances that "*affect the aesthetic quality of drinking water. They are presented as recommended limits or ranges and are not grounds for rejection. The taste of the water may be unpleasant and the usefulness of the water may be impaired if these standards are significantly exceeded.*"

Discussion

As shown in Table 3, no Utah Drinking Water Standards were exceeded. However, the arsenic concentration in water produced from the well was 0.0072 milligrams per liter (mg/L), which is near, but less than, the Primary MCL for arsenic of 0.01 mg/L. We recommend that Fairfield monitor for arsenic by collecting water samples for laboratory analysis on a semi-annual basis.

Chemtech-Ford noted that the holding time of the water samples was exceeded for pH. The pH of the water samples reported by the laboratory was 7.6 and our field measurements of pH indicate that the pH of water produced from the well is approximately 7.3, indicating that the water is near neutral. The total dissolved solids (TDS) concentration of produced water was 620 mg/L.

There does not appear to be any dominant ions in the water with the major ions having similar equivalents. The most abundant cations are calcium, magnesium and sodium. The most abundant anions are chloride followed closely by bicarbonate, then sulfate.

The total hardness (as $CaCO_3$) was 376 mg/L; therefore, the water is considered to be *"very hard"*. The Langlier Index was +0.15, which indicates that the water is non-corrosive, and taking into consideration the hardness of the water, there may be a tendency of scale (hard water deposits) to form on water fixtures and in pipes, an possibly inside the well and slots in the well casing.

The microbiologic water sample indicated the water was absent for total coliform and E. coli. The microbiologic water sample was collected prior to the well being disinfected. Additional microbiologic water samples will likely be collected to obtain an operating permit for the well.

Montana Environmental Laboratory (MEL) of Kalispell, Montana, analyzed the sample collected for iron bacteria. As indicated in Table 3 and in the laboratory report in Appendix H, no iron bacteria were detected in the water sample.

WELL DISINFECTION

All Wells disinfected the well in accordance with UAC R309-515-6(11), *Well Disinfection* and UAC R655-9.6.5, *Well Disinfection and Chlorination of Water*, following test pumping and water sample collection.

RECOMMENDED DISCHARGE RATE

According to the DDW in UAC R309-110, the "*desired design discharge rate*" is the:

> *"...rate selected for the permanent pump installed in a public drinking water well source. This pumping rate is selected by the water system owner or engineer and can match or be the same rate utilized during the constant rate pump test required by R309-515 and R309-600 to determine delineated protection zones. For consideration of the number of permanent residential connections or ERC's that a well source can support (see Safe Yield) the Division will consider 2/3 of the test pumping rate as the safe yield."*

Use of this "*two thirds*" rule is the first step in approximating the long-term yield of a new well. The second step is to monitor the pumping rate, water level, and water quality of the well on a long-term basis and, as appropriate, revise the pumping rate of the well.

The *"firm"* or "*safe*" yield is a groundwater resource concept originally employed to designate the rate at which water can be withdrawn from an aquifer without depleting the supply. Lohman (1972) redefined safe yield as the volume of groundwater that can be withdrawn "*...without getting into trouble.*" For the well, "*trouble*" could include:

- Excessively lowering the water level in the well;

- Adversely impacting water levels in or production from other wells or springs in the area;
- Producing from the well at a rate so much larger than the recharge to the aquifer such that water levels are permanently lowered around the well, water is mined from the aquifer, or permanent physical damage is done to the aquifer;
- Producing sandy or turbid water; and/or
- Causing degradation in the quality of water produced from the well.

Therefore, to avoid "*trouble*" we recommend the following:

- Equip the well to pump at a rate of approximately 130 gpm, which is near the DDW safe yield rating of 133 gpm. This will likely allow the pump to be set at a depth that is just above the top of the slotted interval in the well (depth of 165 feet). However, the well can likely be equipped to pump at a rate of 150 gpm without dropping the pumping water level below the top of the slotted interval in the well, but the pump will likely need to be set in the slotted interval. Do not equip the well to pump more than 150 gpm or set the pump below a depth of 180 feet, even if allowed by the DDW and DWRi.
- The well and aquifer are capable of producing at rates greater than 150 gpm, but the pumping water level in the well will likely drop below the top of the slotted interval in the well. Additionally, the efficiency of the well decreases with increasing pumping rates and minimizing the pumping rate of the well will decrease the operational cost of the well.
- If feasible, equip the well with a smaller yielding permanent pump or with a variable frequency drive (VFD) reduces the frequency that the pump turns on and off, which could improve pumping efficiency.
- Equip the well system with a pump-to-waste device that will allow flushing the well at the start of the operating season to discharge turbid water, if any, at the start of each pumping cycle.
- Thoroughly flush the well by pumping at the beginning of the new operating season, if there is an extended period of non-use.
- Operate the well for at least 2 hours every week, even during periods of low demand, in order to flush the well and nearby aquifer. Leaving a well idle for long periods tends to promote chemical- and bio-fouling and loss of efficiency.
- Monitor the arsenic concentration of water produced from the well on a quarterly basis.
- Monitor the well on an annual basis for the presence of iron bacteria.

Beginning when the well is equipped and put into service, we recommend that Fairfield initiate a program to collect the following data on a regular (monthly to quarterly) basis:

- Water level under non-pumping conditions;
- Water level under pumping conditions;

- Pumping rate;
- Total well production;
- Cloudiness or turbidity of produced water;
- Electrical conductivity of the produced water; and
- Temperature of the produced water.

Appendix I presents a well and pump data collection form that can be used to help the well operator collect the recommended information. The pump installer and water system engineer can help with setting up a system that allows for the collection of the recommended data and recommended operation of the well.

Data collection and good record keeping will allow Fairfield to:

- Assess seasonal and long-term variation in water level and well yield;
- Identify any changes in the water quality in the aquifer;
- Evaluate the long-term capacity of the well;
- Assess any water quality effects from long-term withdrawals from the aquifer;
- Comply with DWRi requirements;
- Evaluate pumping equipment behavior;
- Identify a potential issue or problem with the well before it is an emergency; and
- Estimate the length of service time to schedule preventive maintenance or repairs.

If problems or issues occur with the well, additional sampling and/or a video inspection of the inside of the well can help identify the source of the problem. If necessary, the well can be treated or rehabilitated to return the well to an acceptable condition for operation.

If the water quality of the aquifer declines with long-term use from the well, then the pumping rate can be modified to help alleviate any additional declines in water quality.

PLANS AND SPECIFICATIONS TO EQUIP AND CONNECT WELL

Plans and specifications to equip and connect the Fairfield Well to the Fairfield water system will be prepared by others and submitted to the DDW under separate cover.

REFERENCES CITED

Cooper, H. H., Jr., and Jacob, C. E., 1946, *A Generalized Graphical Method for Evaluating Formation Constants and Summarizing Well Field History*: American Geophysical Union Transactions, vol. 27, no. 4, p. 526-534.

Duffield, G.M., 2007, *AQTESOLV for Windows Version 4.5*: HydroSolve, Inc.

Epic Engineering P.C. (Epic), 2016, *Preliminary Evaluation Report (PER) for Proposed Fairfield Well, Fairfield Culinary Water System, Utah County, Utah, Public Water Supply System (PWS) No. UTAH 25011*: Consultant's report dated July 2016.

Kelly, J. E., Anderson, K. E., and Burnham, W.L., 1980, *The Cheat Sheet--A New Tool for the Field Evaluation of Wells by Step Testing*: Journal of Groundwater, vol. 18, pp. 294-298.

Hantush, M.S., 1964, *Hydraulics of Wells:* in *Advances in Hydroscience*, p. 281–442, Academic Press.

Lohman, S.W., 1972, *Ground-Water Hydraulics*: U.S. Geological Survey Professional Paper 708.

Loughlin Water Associates, LLC (Loughlin Water), 2016, *Technical Specifications, Drilling, Construction and Testing of Proposed Fairfield Well for Fairfield Town Water System, Utah Public Water Supply System (PWS) No. UTAH 25011, Utah County, Utah*: Consultant's report dated June 7, 2016.

Schafer, D.C., 1978, Casing Storage Can Affect Pumping Test Data: The Johnson Drillers' Journal, January – February, pp. 1-5.

Theis, C.V., 1935, *The Relation Between the Lowering of the Potentiometric Surface and the Rate and Duration of Discharge of a Well Using Groundwater Storage*: Transactions of the American Geophysical Union, 2, pp. 519-524.

Utah Department of Environmental Quality, Division of Drinking Water (DDW) 2006, *Monitoring and Water Quality: Drinking Water Standards, UAC R309-200*, September 4, 2009.

Utah Department of Environmental Quality, Division of Drinking Water (DDW) 2016, *Plan Approval, Well Drilling, Fairfield Town Well (WS002), System #25011, File #10510, SRF #3F252*: Governmental agency approval letter dated August 15, 2016.

TABLES

TABLE 1
WELL CONSTRUCTION DATA SUMMARY
FAIRFIELD TOWN WELL

Well Name:	Fairfield Town Well	
Well Owner:	Town of Fairfield (Fairfield Culinary Water System)	
Approximate Well Location:	Approximately, South 125 feet and East 146 feet from the West Quarter (W4) Corner of Section 31, Township 6 South, Range 2 West, Salt Lake Base and Meridian (SLB&M), based on Utah Division of Water Rights location calculator map.	
Ground Surface Elevation:	5015 feet estimated from the Cedar Fort, Utah (1997) USGS 7.5-minute quadrangle topographic map.	
Drilled Depth:	600 feet	
Static Water Level:	125.5 feet below ground surface, measured on December 29, 2016.	
Summary Lithology:	**Depth Interval**	**Formation**
	0 – 5 feet:	Top soil
	5 – 390 feet:	Quaternary alluvial-fan deposits (Qaf)
	390 – 600 feet:	Manning Canyon Shale (IPMmc)
Well Drilling Method:	**Depth Interval**	**Well Drilling Method**
	0 – 600 feet:	Conventional mud rotary (pilot borehole)
	0 – 40 feet:	Conventional mud rotary
	40 – 360 feet:	Conventional mud rotary
Borehole Diameter:	**Depth Interval**	**Borehole Diameter**
	0 – 600 feet:	8 inches (pilot borehole)
	0 – 40 feet:	22 inches
	40 – 360 feet:	15.5 inches
Blank Casing:	**Depth Interval**	**Blank Casing**
	0 – 40 feet:	Nominal 16-inch diameter (0.250-inch wall thickness) temporary steel conductor casing (removed during grout seal installation)
	+3 – 165 feet:	Nominal 8-inch diameter (0.322-inch wall thickness) steel production casing
Slotted Casing:	**Depth Interval**	**Slotted Casing**
	165 – 354 feet:	Nominal 6-inch diameter (0.322-inch wall thickness) factory slotted (0.125-inch slots) steel casing with bottom cap
Filter Pack:	**Depth Interval**	**Filter Pack**
	115 – 357 feet:	SRI Supreme 3/8 x #4 gravel pack (approx. 9 cubic yards installed)
Well Seals:	**Depth Interval**	**Seal Material**
	0 – 8 feet:	Bentonite plug (around production casing for pitless adaptor installation)
	8 – 110 feet:	Neat cement grout (around production casing; approx. 4 cubic yards installed)
	110 – 115 feet:	Bentonite plug (around production casing)
	357 – 360 feet:	Bentonite plug (borehole bottom seal)
Pumping Tests:	Step-rate pumping test: December 27, 2016 at pumping rates of 97, 145, 195 and 239 gallons per minute (gpm). Constant-rate pumping test: December 28 and 29, 2016 at a pumping rate of 200 gpm for 24 hours; drawdown at the end of the test was 50.75 feet.	
Well Driller:	All Wells Drilling, LLC, Utah-licensed Water Well Driller No. 398	

TABLE 2
FIELD WATER QUALITY MEASUREMENTS
FAIRFIELD TOWN WELL

Date/Time	Discharge Rate (gpm)	Turbidity (NTU)	Sand Production (ppm)	pH	Conductivity (µS/cm)	Temperature (°F)	Comments
Drilling and Air-Lift Development							
11/23/16 3:00 PM	75	NM	NM	7.95	797	58.9	Air-lift test of borehole, drill depth 500 feet.
12/20/16 2:45 PM	NM	NM	NM	NM	908	55.0	Air-lift development with jetting tool.
Step-Rate Pumping Test							
12/27/17 11:05 AM	97	29.5	NM	NM	NM	NM	Water quality meter batteries out.
12/27/17 11:10 AM	97	16.5	21.1	NM	NM	NM	
12/27/17 11:40 AM	97	7.02	3.5	NM	NM	NM	
12/27/17 12:00 PM	145	27.7	7.0	NM	NM	NM	
12/27/17 12:10 PM	145	20.8	42.2	NM	NM	NM	
12/27/17 12:20 PM	145	20.9	42.2	NM	NM	NM	
12/27/17 12:40 PM	145	14.5	5.2	NM	NM	NM	
12/27/17 12:45 PM	145	10.1	10.6	NM	NM	NM	
12/27/17 1:00 PM	195	205	225	NM	NM	NM	
12/27/17 1:10 PM	195	173	285	NM	NM	NM	
12/27/17 1:20 PM	195	45.0	122	NM	NM	NM	
12/27/17 1:30 PM	195	49.1	52.8	NM	NM	NM	
12/27/17 1:35 PM	195	44.9	158	NM	NM	NM	
12/27/17 1:45 PM	195	33.9	42.3	NM	NM	NM	
12/27/17 2:00 PM	239	36.9	155	NM	NM	NM	
12/27/17 2:17 PM	239	15.6	24.9	NM	NM	NM	
12/27/17 2:30 PM	239	12.0	37.0	NM	NM	NM	
12/27/17 2:50 PM	239	17.8	31.7	7.16	851	51.8	
Constant-Rate Pumping Test							
12/28/17 10:10 AM	200	67.0	211	7.35	888	47.6	
12/28/17 10:15 AM	200	58.4	NM	7.35	868	51.4	
12/28/17 10:20 AM	200	32.9	26.4	7.21	855	53.3	
12/28/17 10:30 AM	200	28.2	26.4	7.22	885	54.4	
12/28/17 10:40 AM	200	21.0	26.4	7.31	880	54.4	
12/28/17 10:50 AM	200	12.3	NM	7.29	868	54.5	
12/28/17 11:00 AM	200	9.95	13.2	7.37	866	55.3	
12/29/17 9:30 AM	200	1.21	1.72	7.42	885	55.3	
12/29/17 10:00 AM	200	0.92	NM	7.36	864	54.0	Collect water samples for lab analysis.

Notes:
NM means parameter not measured.
gpm means gallons per minute;
NTU means Nephelometric Turbidity Units;
µS/cm means microsiemens per centimeter;
°F means degrees Fahrenheit;
ppm means parts per million.

TABLE 3
WATER QUALITY DATA AND UTAH DRINKING WATER STANDARDS
FAIRFIELD TOWN WELL

Parameters (mg/L except as noted)	Primary or Secondary MCL[a]	Fairfield Town Well 12/29/16[f]
Primary Inorganic Contaminants R309-200-5(1)	**Primary MCL**	
Antimony	0.006	ND
Arsenic	0.01	0.0072
Barium	2	0.066
Beryllium	0.004	ND
Cadmium	0.005	ND
Chromium, total	0.1	ND
Cyanide (free)	0.2	ND
Fluoride	2[b], 4	0.4
Mercury	0.002	ND
Nickel	NS	ND
Nitrate (as Nitrogen)	10	0.5
Nitrite (as N)	1	ND
Total Nitrate and Nitrite (as Nitrogen)	10	ND
Selenium	0.05	0.0026
Sodium	NS	45.4
Sulfate	250[b] / 500 / 1000[c]	79
Thallium	0.002	0.0002
Total Dissolved Solids	500[b] / 1000 / 2000[d]	620
Lead and Copper R309-200-5(2)		
Copper	1.3 [b,e]	0.0024
Lead	0.015 [e]	ND
Pesticides/PCBs/SOCs R309-200-5(3)(a)		
Pesticides/PCBs/SOCs	Varies	ND
VOCs R309-200-5(3)(b)		
Volatile Organic Compounds (VOCs)	Varies	ND
Radiological Chemicals R309-200-5(4)		
Radium 228, pCi/l	5	0.96
Gross alpha, pCi/l	15	3.9
Gross beta, pCi/l	50	2.2
Turbidity (NTU) R309-200-5(5)	5.0 NTU	0.85
Secondary Inorganic Contaminants R309-200-6	**Secondary MCL**	
Aluminum	0.05 to 0.2	ND
Chloride	250	129
Color (color units)	15	10
Foaming Agents (Surfactant as MBAS)	0.5	0.09
Iron	0.3	0.12
Manganese	0.05	ND
Odor (threshold odor numbers)	3	ND
pH (standard units)	6.5-8.5	7.6

TABLE 3
WATER QUALITY DATA AND UTAH DRINKING WATER STANDARDS
FAIRFIELD TOWN WELL

Parameters (mg/L except as noted)	Primary or Secondary MCL[a]	Fairfield Town Well 12/29/16[f]
Silver	0.1	ND
Zinc	5	0.02
Additional Chemicals R309-515-4(5)(b)		
Ammonia	NS	ND
Boron	NS	0.09
Calcium	NS	90.6
Magnesium	NS	36.4
Potassium	NS	1.8
Conductivity (µmhos/cm)	NS	1010
Bicarbonate (HCO3)	NS	212
Carbonate	NS	ND
Hydroxide	NS	ND
Alkalinity, total as CaCO3	NS	212
Phosphate, Ortho as P	NS	0.01
Silica (as silicon dioxide)	NS	16.2
Total Hardness as CaCO3	NS	376
Langelier Index	NS	0.15
Microbiological Quality R309-200		
Total Coliform	Negative	Absent
E. Coli	Negative	Absent
Iron Bacteria	NS	ND

Notes:

Laboratory Certificates of Analysis are in Appendix H.

ND = not detected; NS = No Standard.

A blank entry means not analysed.

MCL = Maximum Contaminant Level.

MBAS = Methyl Blue Active.

[a] As per UAC R309-200.

[b] Secondary MCL is 2 mg/L for fluoride, 250 mg/L for sulfate, and 500 mg/L for TDS.

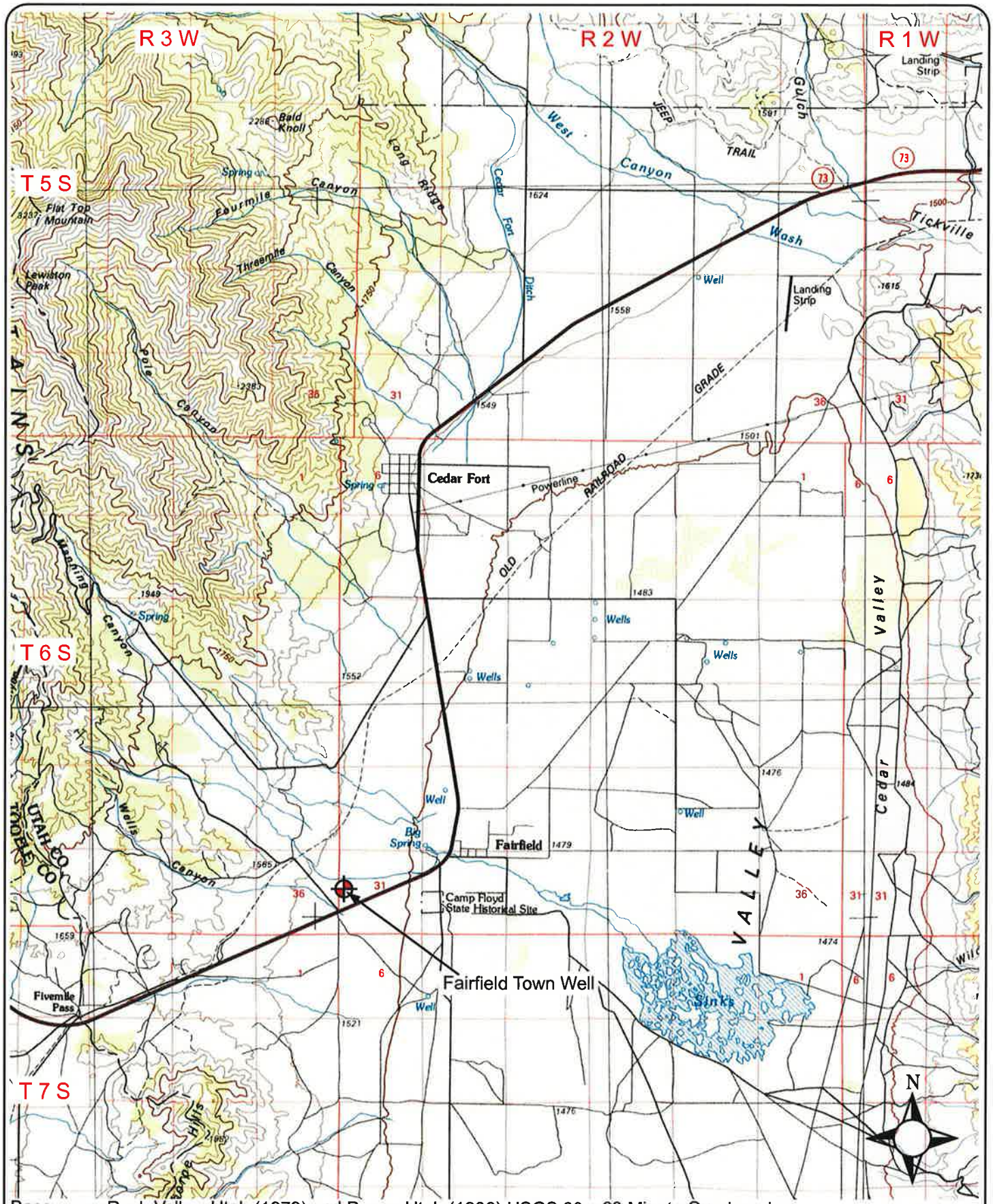
[c] If Sufate is greater than 500 mg/L, then supplier must demonstrate that (1) no better water is available and (2) the water will not be available for human commercial establishments.

[d] If TDS is greater than 1,000 mg/L, then supplier must demonstrate that no better water is available.

[e] Standard is applicable at the consumer's tap based on statistical sampling.

[f] Sample collected on 12/29/2016 after pumping for 24 hours at a rate of 200 gpm.

FIGURES



Base map: Rush Valley, Utah (1979) and Provo, Utah (1986) USGS 30 x 60 Minute Quadrangles.

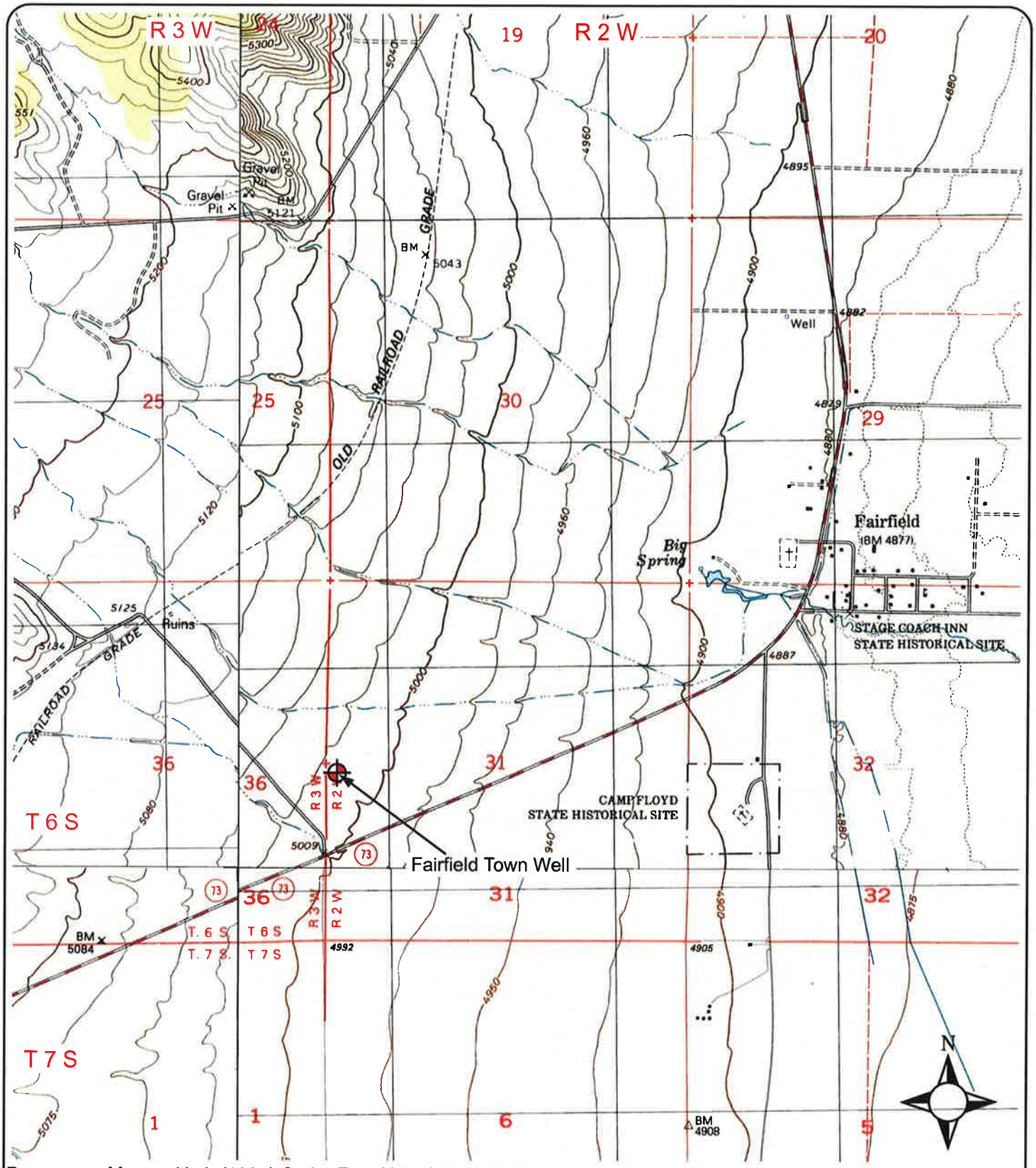
Notes:

All locations are approximate.

0 Feet 10,000

Approximate Scale

Town of Fairfield
Regional Map
Figure 1



Base map: Mercur, Utah (1997) Cedar Fort, Utah (1997), Goshen Pass, Utah (1997) and Five Mile Pass, Utah (1993) USGS 7.5 Minute Quadrangles.

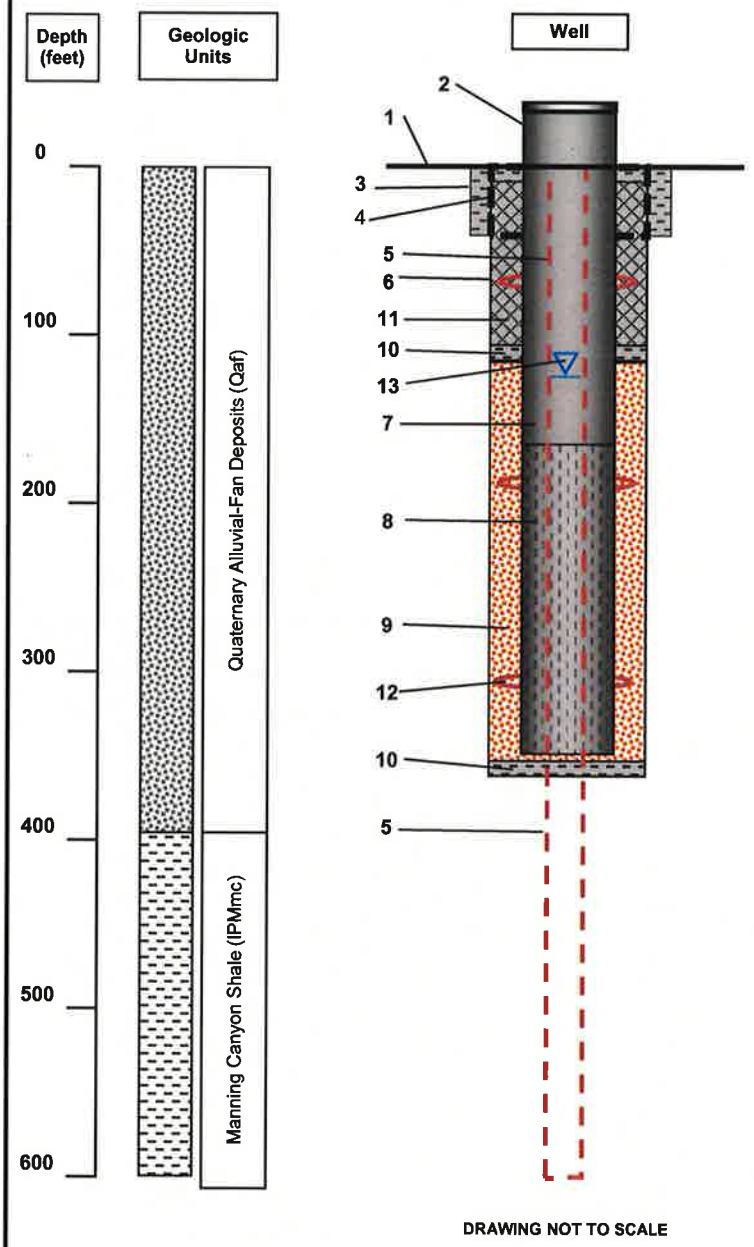
Notes:
All locations are approximate.

LOUGHLIN WATER ASSOCIATES, LLC

0 Feet 4000

Approximate Scale

Town of Fairfield
Location Map
Figure 2



DRAWING NOT TO SCALE

Notes

1 - Ground surface elevation approximately 5015 feet.

2 - Casing extends 3.0 feet above ground surface.

3 - 22-inch diameter borehole (0 to 40 feet).

4 - Nominal 16-inch diameter (0.250-inch wall thickness) temporary steel conductor casing (0 to 40 feet); removed during well seal installation.

5 - 8-inch diameter pilot borehole (0 to 600 feet).

6 - 15.5-inch diameter borehole (40 to 360 feet).

7 - Nominal 8-inch diameter (0.322-inch wall thickness) steel production casing (+3 to 165 feet).

8 - Nominal 8-inch diameter (0.322-inch wall thickness) factory slotted (0.125-inch slots) steel casing with bottom cap (165 to 354 feet).

9 - SRI Supreme 3/8 x #4 gravel pack (115 to 357 feet); approx. 9 cubic yards installed.

10 - Bentonite seal (0 to 8 feet, 110 to 115 feet and 357 to 360 feet).

11 - Certified neat cement grout well seal (8 to 110 feet).

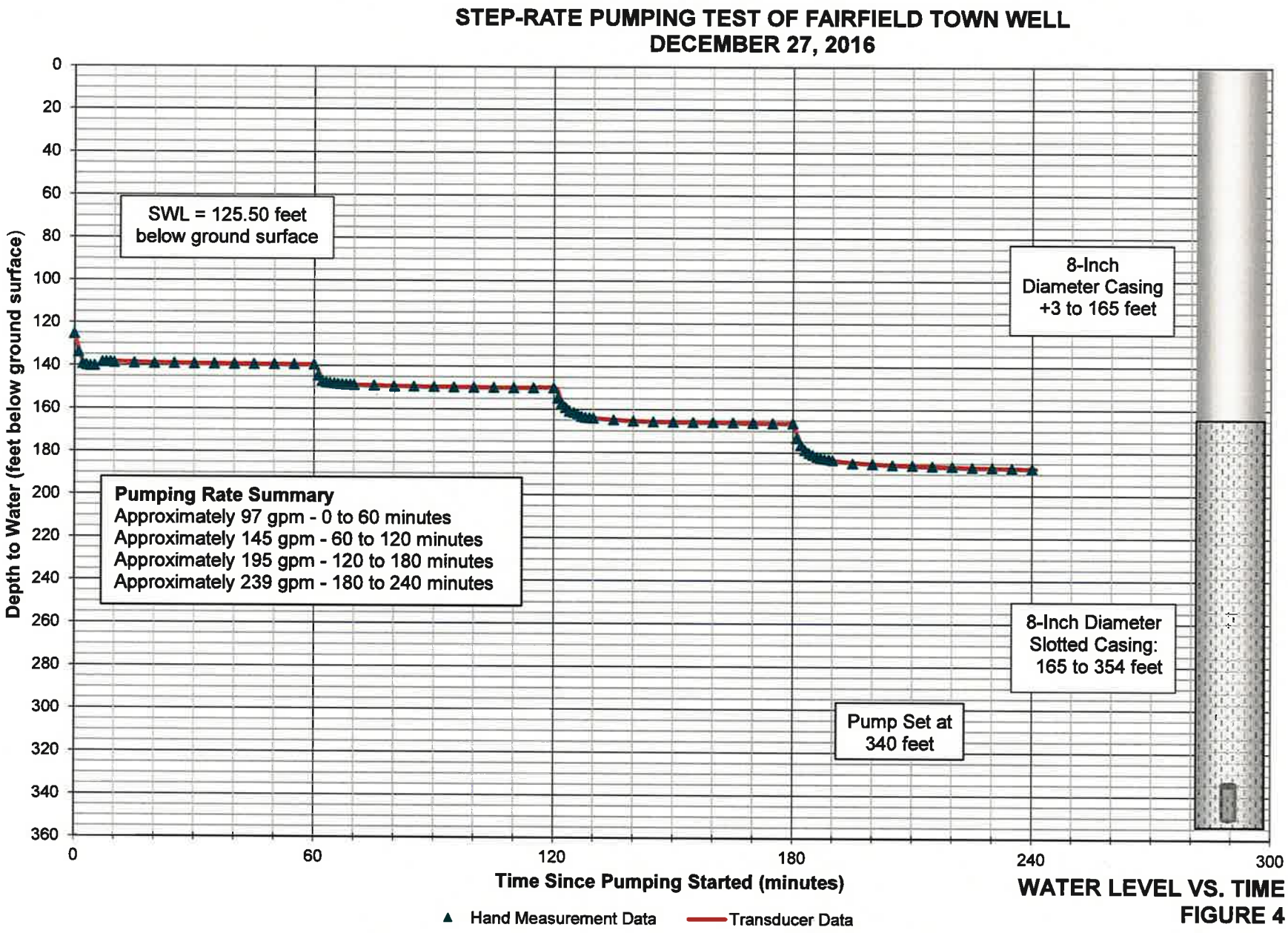
12 - Centralizers every 40 feet.

13 - Static water level = 125.50 feet below ground surface, measured on 12/28/2016.

Notes:
Drilled, constructed and tested by All Well Drilling, LLC, Utah-licensed Water Well Driller No. 398; and
Well seal certified by Neil I. Burk, P.G. of Loughlin Water.

LOUGHLIN WATER ASSOCIATES, LLC

Town of Fairfield
As-Built Well Consturction Diagram
Fairfield Town Well
Figure 3



WATER LEVEL VS. TIME
FIGURE 4

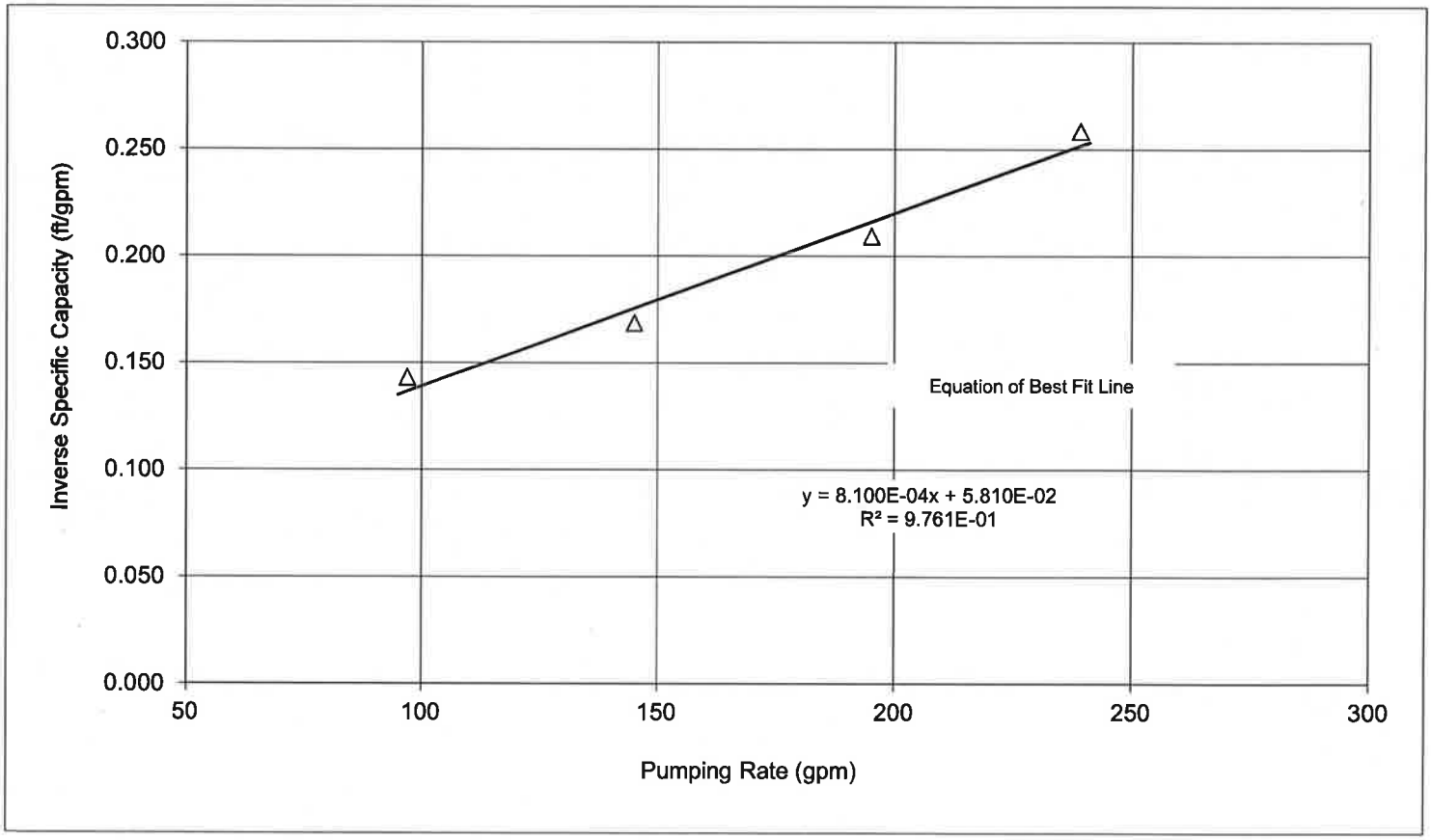
STEP-RATE PUMING TEST OF FAIRFIELD TOWN WELL
DECEMBER 27, 2016

Step	Water Level (feet)	Flow Rate (gpm)	Drawdown (feet)	Specific Capacity (gpm/ft)	Inverse Specific Capacity (ft/gpm)	Calculated* Drawdown Due to Well Loss (ft)	Calculated* Drawdown in Aquifer (ft)	Efficiency (%)
Pre-pumping	125.50	0		-	-	-	-	-
1	139.40	97	13.90	6.98	0.143	7.62	5.64	43%
2	149.95	145	24.45	5.93	0.169	17.03	8.42	33%
3	166.35	195	40.85	4.77	0.209	30.80	11.33	27%
4	187.30	239	61.80	3.87	0.259	46.27	13.89	23%

*Calculated from best fit of line on graph below:

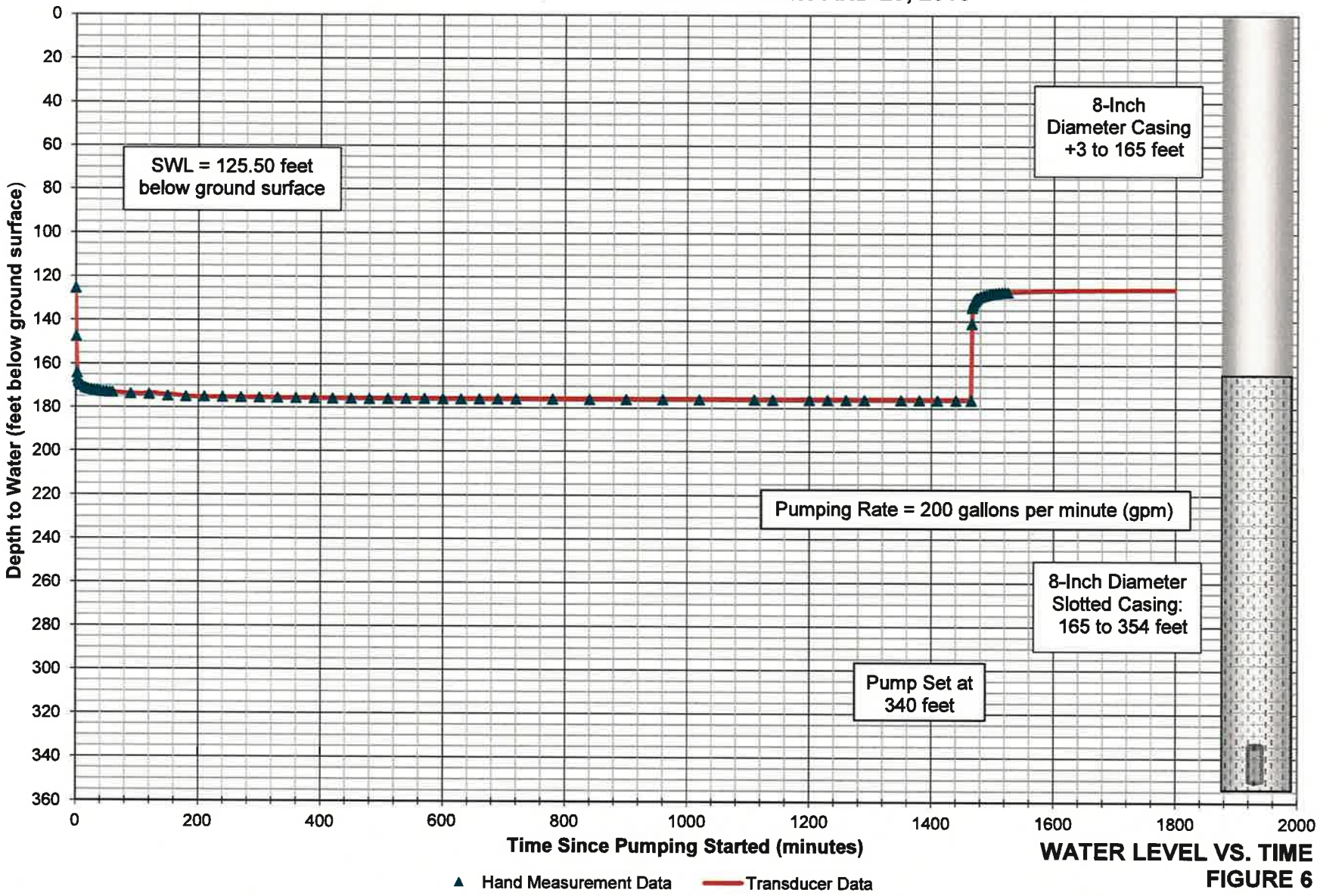
5.810E-02 (ft/gpm) = Best fit line y-axis intercept

8.100E-04 (ft/gpm^2) = Best fit line slope (**"well loss coefficient"**)

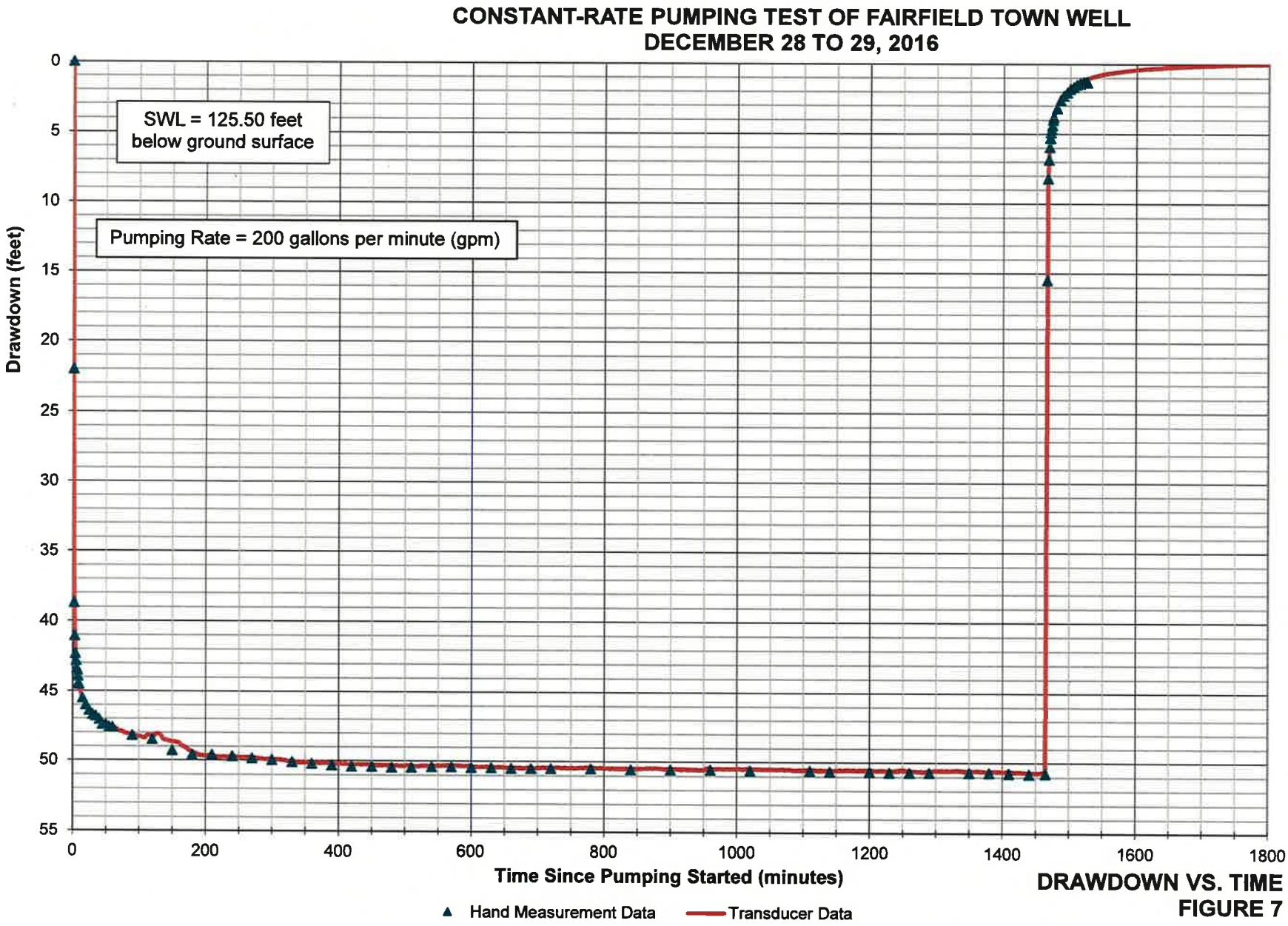


WELL LOSS COEFFICIENT EVALUATION
FIGURE 5

CONSTANT-RATE PUMPING TEST OF FAIRFIELD TOWN WELL
DECEMBER 28 AND 29, 2016

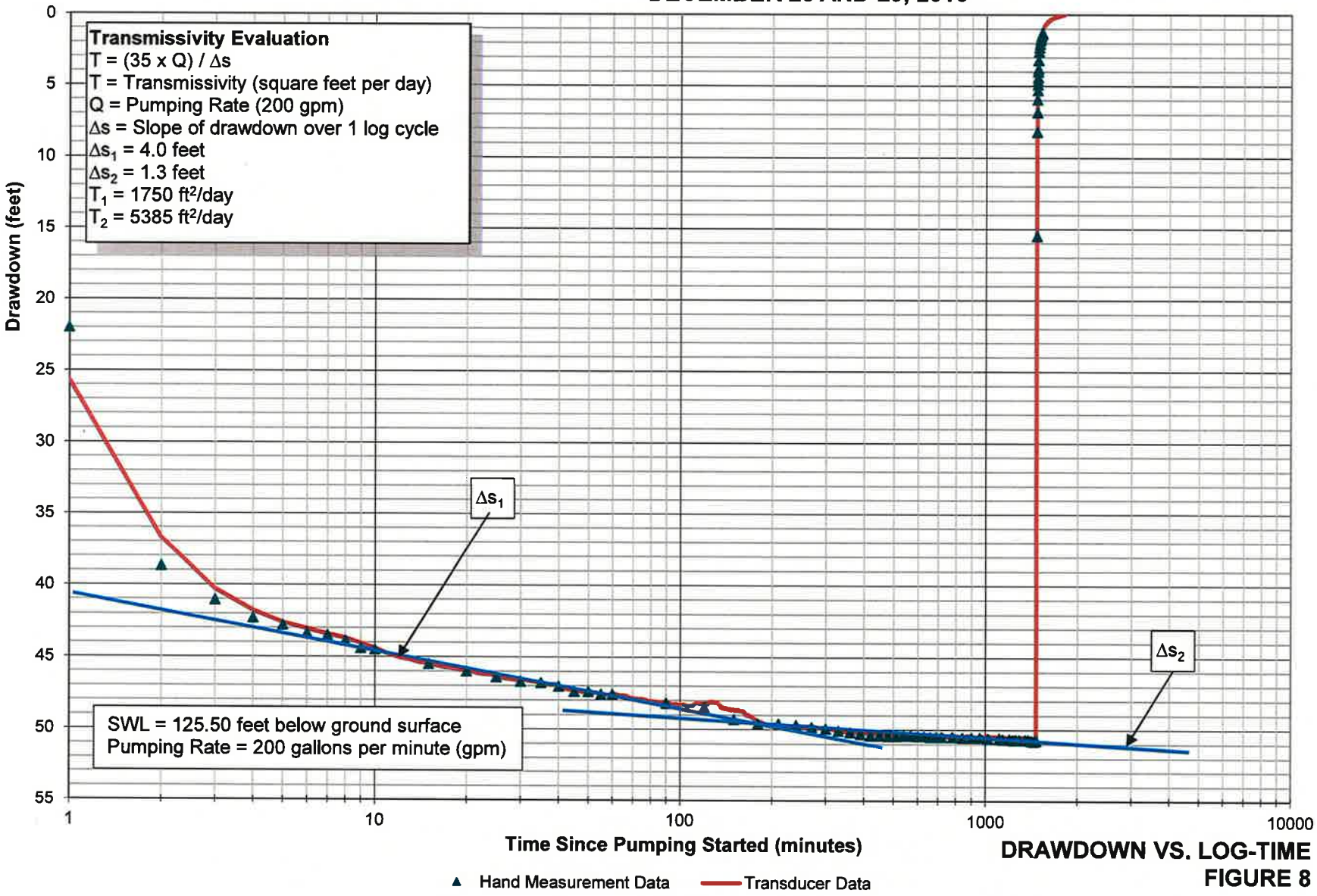


WATER LEVEL VS. TIME
FIGURE 6

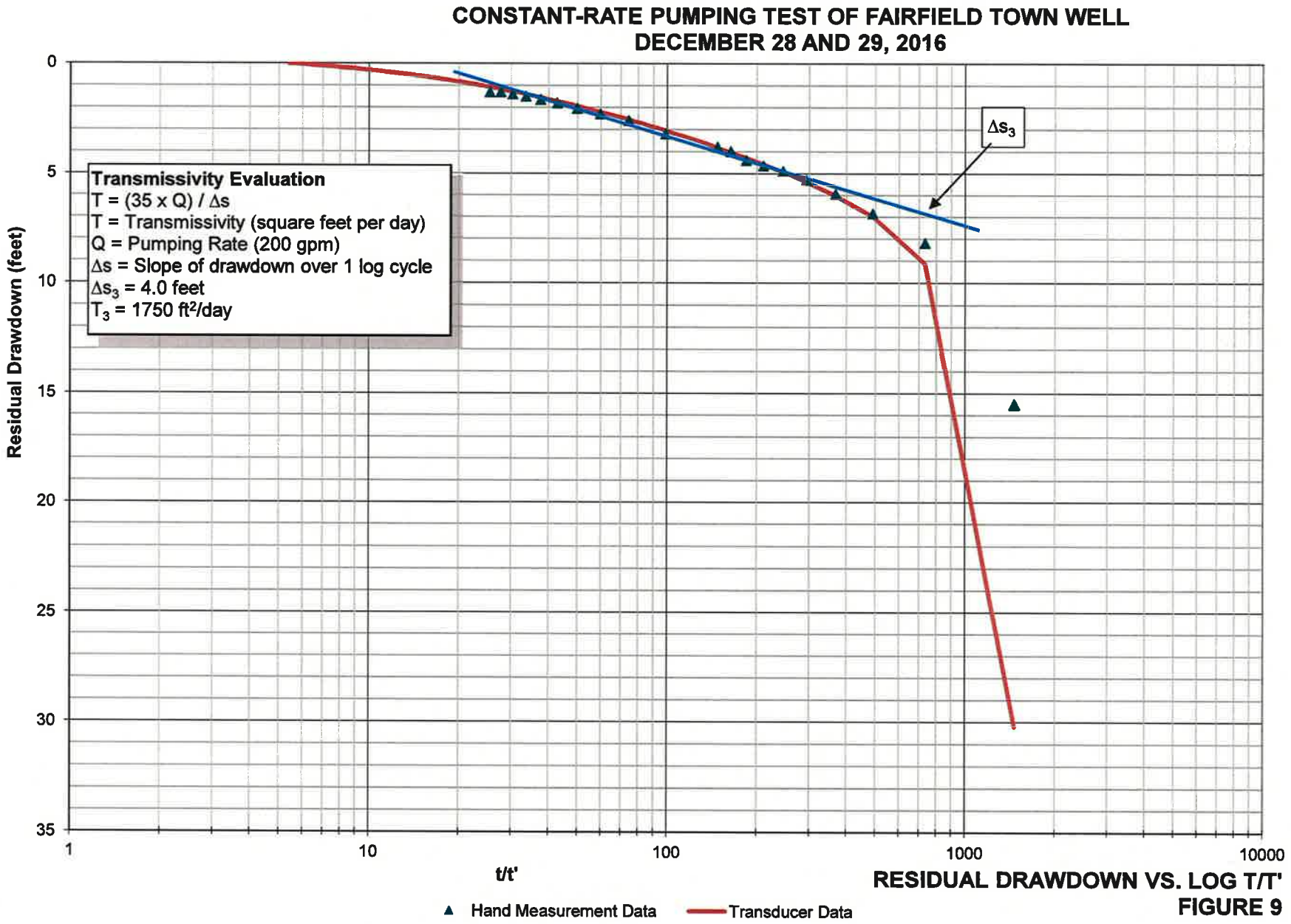


DRAWDOWN VS. TIME
FIGURE 7

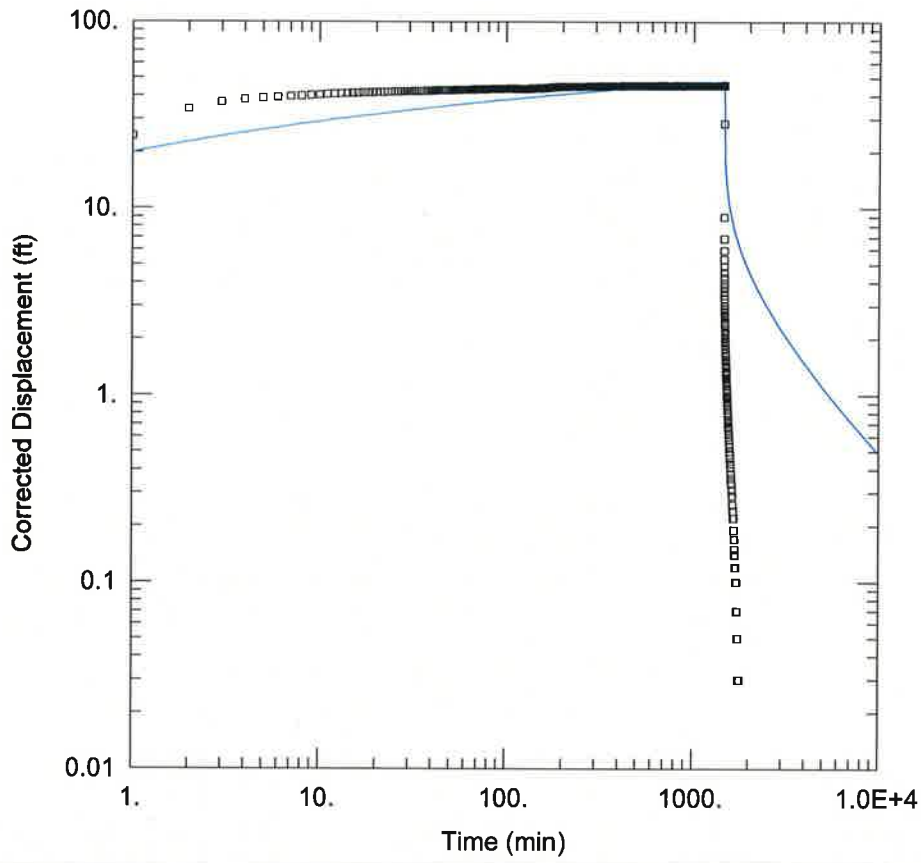
CONSTANT-RATE PUMPING TEST OF FAIRFIELD TOWN WELL
DECEMBER 28 AND 29, 2016



DRAWDOWN VS. LOG-TIME
FIGURE 8



RESIDUAL DRAWDOWN VS. LOG T/T'
FIGURE 9



WELL TEST ANALYSIS

Data Set: Z:\Library\Projects\Epic Engineering\Epic - Fairfield\ConstructionRpt\FairfieldWell.aqt
Date: 01/19/17 Time: 16:48:00

PROJECT INFORMATION

Company: Loughlin Water Associates, LLC
Test Well: Fairfield Town Well
Test Date: December 28 and 29, 2016

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
Fairfield Town Well	0	0

Observation Wells

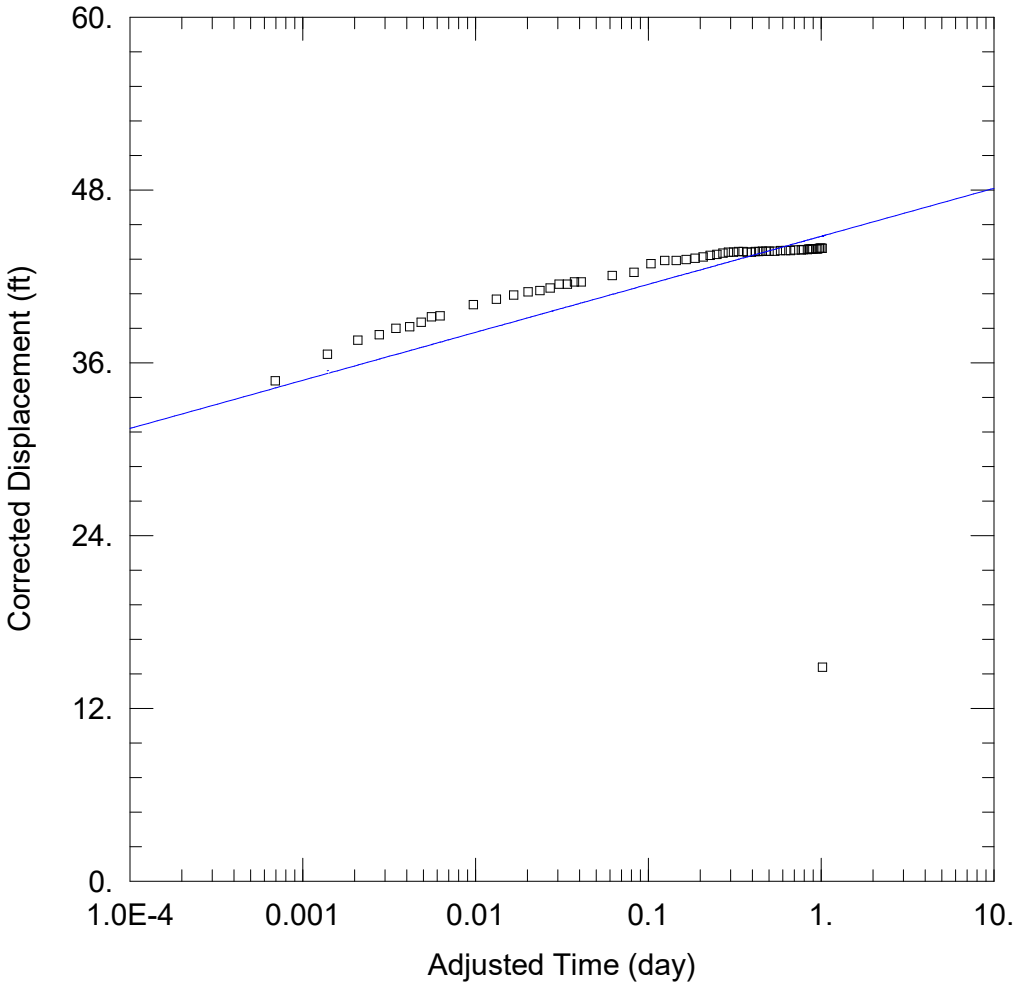
Well Name	X (ft)	Y (ft)
▫ Fairfield Town Well	0	0

SOLUTION

Aquifer Model: Unconfined
Solution Method: Theis

T = 1003.9 ft^2/day
S = 0.1035
Kz/Kr = 0.1
b = 250. ft

Town of Fairfield
AQTESOLV Assessment
Fairfield Town Well
Figure 10



WELL TEST ANALYSIS

Data Set: D:\Fairfield.aqt
Date: 09/25/19 Time: 09:14:34

PROJECT INFORMATION

Company: Cascade Water Resources
Client: Fairfield Town
Project: 1
Location: Fairfield
Test Well: Well 1
Test Date: 12/28/2016

AQUIFER DATA

Saturated Thickness: 189. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

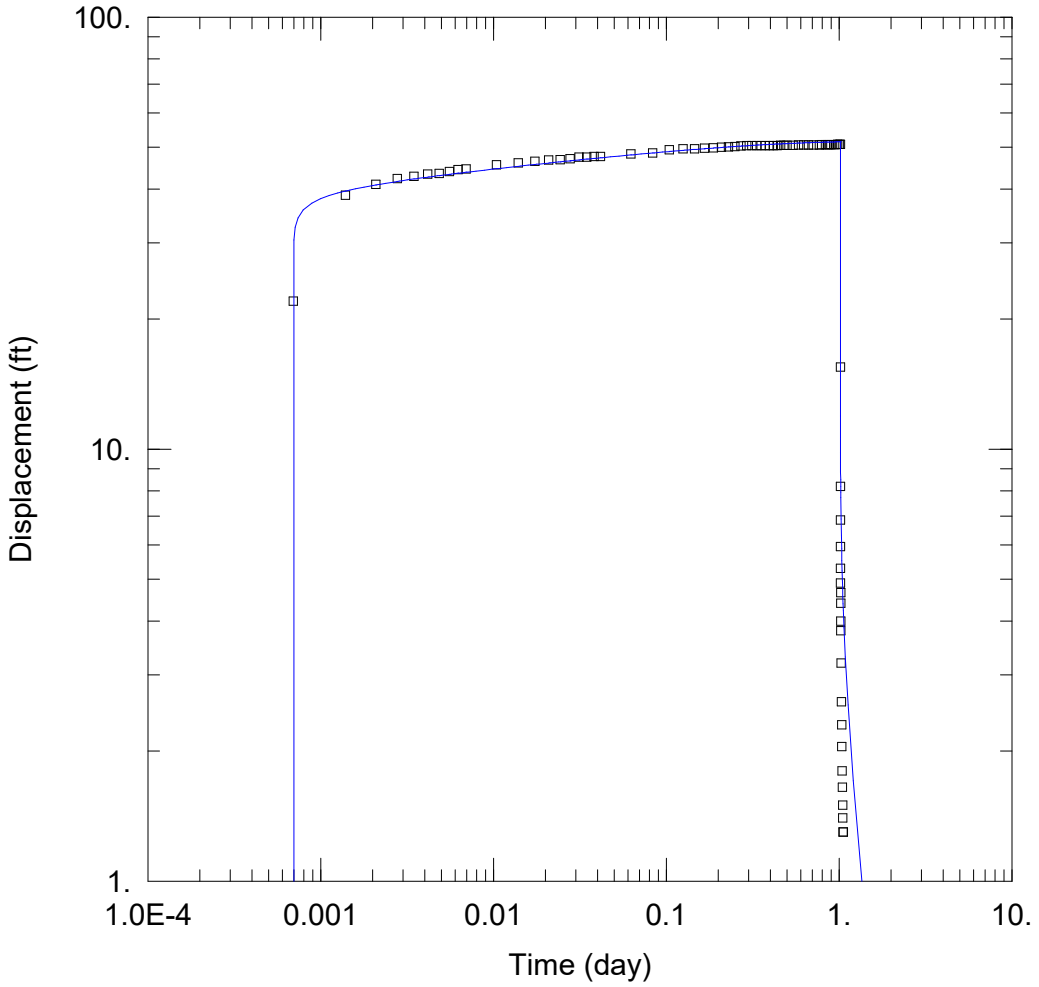
Well Name	X (ft)	Y (ft)
Well 1	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
Well 1	0	0

SOLUTION

Aquifer Model: Unconfined Solution Method: Cooper-Jacob
T = 2115.8 ft^2/day S = 1.0E-10



WELL TEST ANALYSIS

Data Set: D:\Fairfield.aqt
Date: 09/26/19 Time: 14:06:10

PROJECT INFORMATION

Company: Cascade Water Resources
Client: Fairfield Town
Project: 1
Location: Fairfield
Test Well: Well 1
Test Date: 12/28/2016

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
Well 1	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
Well 1	0	0

SOLUTION

Aquifer Model: Leaky
Solution Method: Hantush-Jacob

T = 1600. ft^2/day
S = 3.5E-8
r/B = 7.5E-6
Kz/Kr = 1.
b = 189. ft

ADDENDUM II

Government Records Search - Fairfield Town Well #1

Fairfield Well #1
Cedar Valley Road
Cedar Valley, UT 84013

Inquiry Number: 5811971.3s
October 01, 2019

The EDR Radius Map™ Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

CEDAR VALLEY ROAD
CEDAR VALLEY, UT 84013

COORDINATES

Latitude (North):	40.2547250 - 40° 15' 17.01''
Longitude (West):	112.1229420 - 112° 7' 22.59''
Universal Tranverse Mercator:	Zone 12
UTM X (Meters):	404499.6
UTM Y (Meters):	4456424.0
Elevation:	5039 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	6008405 MERCUR, UT
Version Date:	2014
Northeast Map:	6008361 CEDAR FORT, UT
Version Date:	2014
Southeast Map:	6008381 GOSHEN PASS, UT
Version Date:	2014
Southwest Map:	6008377 FIVEMILE PASS, UT
Version Date:	2014

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140701
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
CEDAR VALLEY ROAD
CEDAR VALLEY, UT 84013

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-SQG ---------- RCRA - Small Quantity Generators
RCRA-VSQG ---------- RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System

US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROL..... Sites with Institutional Controls

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent CERCLIS

SHWS..... This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list.

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... List of Landfills

State and tribal leaking storage tank lists

LAST..... Leaking Aboveground Storage Tank Sites
LUST..... Sites with Leaking Underground Storage Tanks
INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST..... Underground Storage Tank Listing
UST..... List of Sites with Underground Storage Tanks
AST..... Listing of Aboveground Storage Tanks
INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal institutional control / engineering control registries

INST CONTROL..... Sites with Institutional Controls

State and tribal voluntary cleanup sites

VCP..... Voluntary Cleanup Sites List
INDIAN VCP..... Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS..... Brownfields Assessment Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations
ODI..... Open Dump Inventory
IHS OPEN DUMPS..... Open Dumps on Indian Land

EXECUTIVE SUMMARY

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL	Delisted National Clandestine Laboratory Register
CDL	Methamphetamine Contaminated Properties Listing
US CDL	National Clandestine Laboratory Register

Local Land Records

LIENS 2	CERCLA Lien Information

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
SPILLS	Spills Data
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated
FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
ABANDONED MINES	Abandoned Mines
FINDS	Facility Index System/Facility Registry System
UXO	Unexploded Ordnance Sites
DOCKET HWC	Hazardous Waste Compliance Docket Listing

EXECUTIVE SUMMARY

ECHO ---------- Enforcement & Compliance History Information
FUELS PROGRAM ---------- EPA Fuels Program Registered Listing
EMI ---------- Division of Air Quality
DRYCLEANERS ---------- Registered Drycleaners
EWA ---------- Enforceable Written Assurances
Financial Assurance ---------- Financial Assurance Information Listing
FUDS ---------- Formerly Used Defense Sites
MMRP ---------- Military Munitions Response Program
NPDES ---------- Permitted Facilities Listing
TIER 2 ---------- Tier 2 Facility Listing
UIC ---------- UIC Site Location Listing
UOPF ---------- Used Oil Permitted Facilities

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP ---------- EDR Proprietary Manufactured Gas Plants
EDR Hist Auto ---------- EDR Exclusive Historical Auto Stations
EDR Hist Cleaner ---------- EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF ---------- Recovered Government Archive Solid Waste Facilities List
RGA LUST ---------- Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

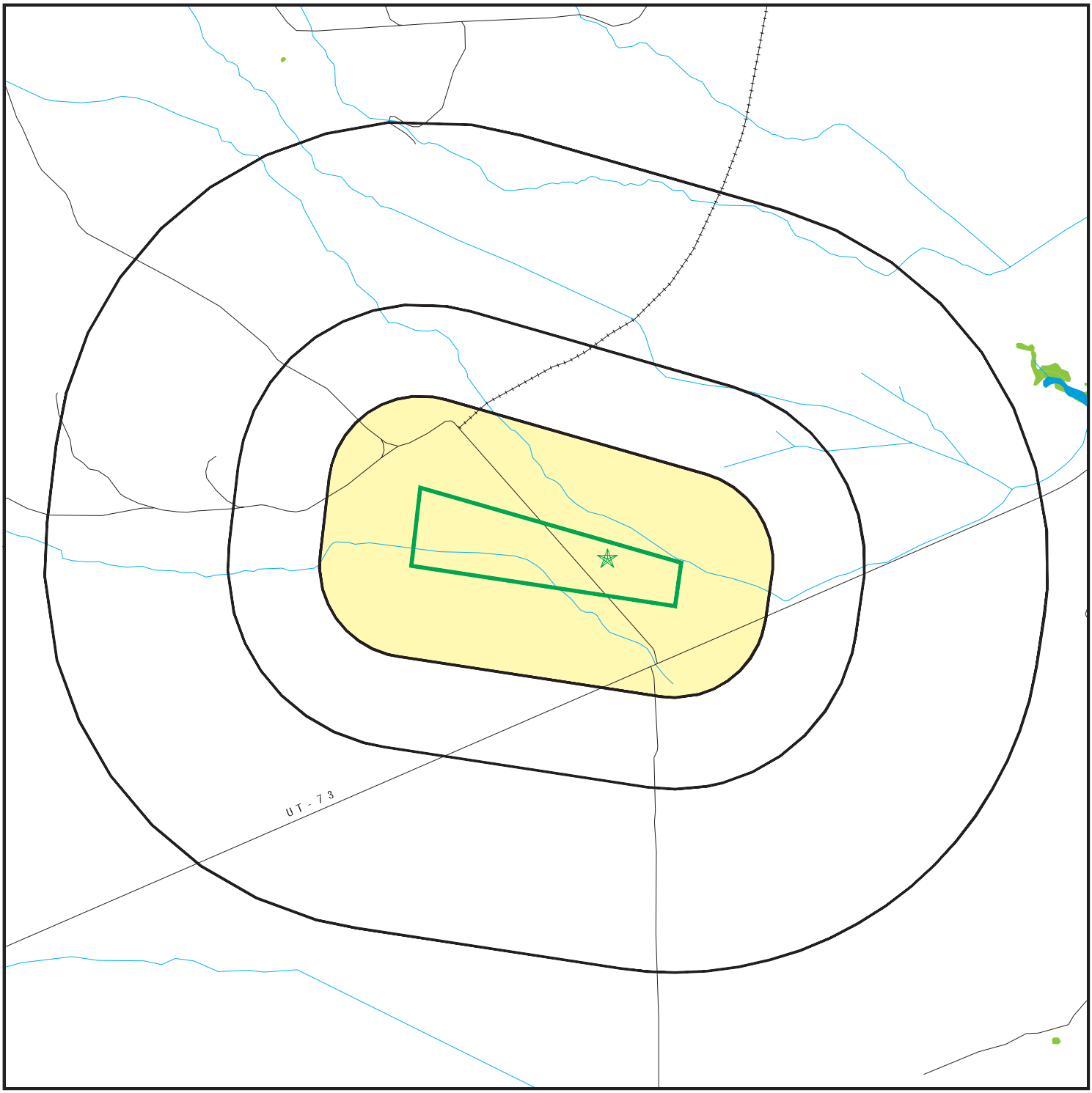
Surrounding sites were not identified.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

There were no unmapped sites in this report.

OVERVIEW MAP - 5811971.3S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

0 1/4 1/2 1 Miles

Indian Reservations BIA

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

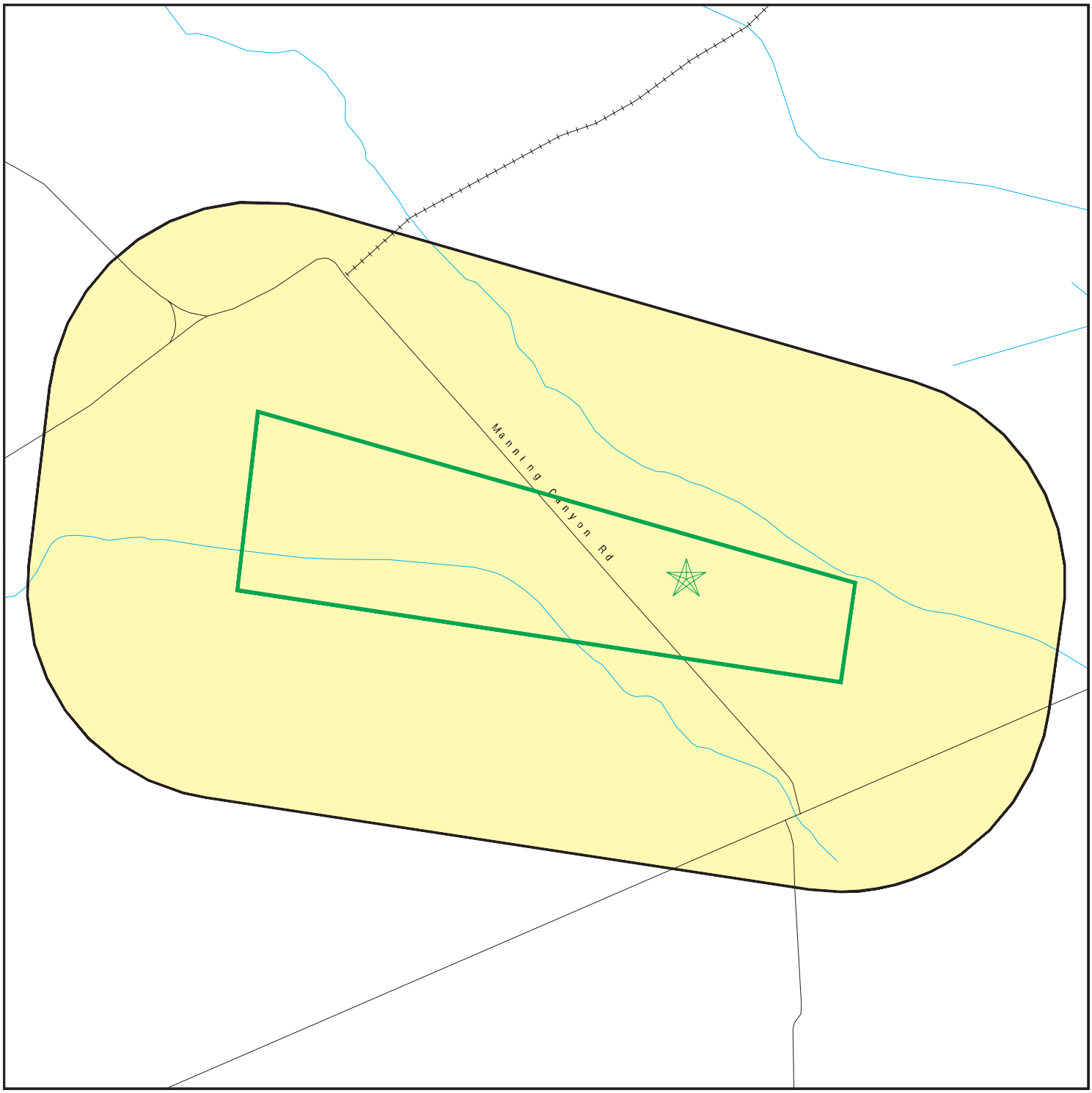
National Wetland Inventory

State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Fairfield Well #1	CLIENT:	RB&G
ADDRESS:	Cedar Valley Road Cedar Valley UT 84013	CONTACT:	Carl Cook
		INQUIRY #:	5811971.3s
LAT/LONG:	40.254725 / 112.122942	DATE:	October 01, 2019 4:59 pm

DETAIL MAP - 5811971.3S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

0 1/8 1/4 1/2 Miles

Indian Reservations BIA

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

N

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Fairfield Well #1	CLIENT: RB&G
ADDRESS: Cedar Valley Road Cedar Valley UT 84013	CONTACT: Carl Cook INQUIRY #: 5811971.3s
LAT/LONG: 40.254725 / 112.122942	DATE: October 01, 2019 5:01 pm

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
State- and tribal - equivalent CERCLIS								
SHWS	N/A		N/A	N/A	N/A	N/A	N/A	N/A
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LAST	0.500		0	0	0	NR	NR	0
LUST	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
INST CONTROL	0.500		0	0	0	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
Local Land Records								
LIENS 2	0.001		0	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
SPILLS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
EMI	0.001		0	NR	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EWA	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
FUDS	0.001		0	NR	NR	NR	NR	0
MMRP	0.001		0	NR	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
TIER 2	0.001		0	NR	NR	NR	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
UOPF	0.001		0	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	0	0	0	0	0	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

N/A = This State does not maintain a SHWS list. See the Federal CERCLIS list.

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number

MAP FINDINGS

NO SITES FOUND

Count: 0 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
		NO SITES FOUND			

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 35

Source: EPA
Telephone: N/A
Last EDR Contact: 09/05/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 35

Source: EPA
Telephone: N/A
Last EDR Contact: 09/05/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 35

Source: EPA
Telephone: N/A
Last EDR Contact: 09/05/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019
Date Data Arrived at EDR: 04/05/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 07/03/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 35

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 09/05/2019
Next Scheduled EDR Contact: 10/28/2019
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates 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 the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 35

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 09/05/2019
Next Scheduled EDR Contact: 10/28/2019
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 09/16/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 303-312-6149
Last EDR Contact: 09/16/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 303-312-6149
Last EDR Contact: 09/16/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 303-312-6149
Last EDR Contact: 09/16/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 303-312-6149
Last EDR Contact: 09/16/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 08/13/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 08/26/2019
Number of Days to Update: 6

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 08/07/2019
Next Scheduled EDR Contact: 11/25/2019
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 08/19/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 08/26/2019
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/20/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 08/19/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 08/26/2019
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/20/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 14

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

SHWS: This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list.

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: Department of Environmental Quality
Telephone: 801-536-4100
Last EDR Contact: 07/22/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: N/A

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: List of Landfills

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 04/09/2019
Date Data Arrived at EDR: 04/11/2019
Date Made Active in Reports: 06/21/2019
Number of Days to Update: 71

Source: Department of Environmental Quality
Telephone: 801-538-6170
Last EDR Contact: 07/08/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Semi-Annually

State and tribal leaking storage tank lists

LAST: Leaking Aboveground Storage Tank Sites

A listing of leaking aboveground storage tank locations.

Date of Government Version: 06/05/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 06/17/2019
Number of Days to Update: 11

Source: Department of Environmental Quality
Telephone: 801-536-4141
Last EDR Contact: 08/30/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Varies

LUST: Sites with Leaking Underground Storage Tanks

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 07/16/2019
Date Data Arrived at EDR: 07/18/2019
Date Made Active in Reports: 07/23/2019
Number of Days to Update: 5

Source: Department of Environmental Quality
Telephone: 801-536-4115
Last EDR Contact: 07/18/2019
Next Scheduled EDR Contact: 10/28/2019
Data Release Frequency: Quarterly

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/10/2018
Date Data Arrived at EDR: 03/08/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 07/29/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/16/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 07/29/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 02/19/2019
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 07/29/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 11/01/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 07/29/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 09/24/2018
Date Data Arrived at EDR: 03/12/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 50

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 07/23/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/13/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 07/29/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 10/12/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 07/29/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/17/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 07/29/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017
Date Data Arrived at EDR: 05/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 136
Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 08/26/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Varies

UST: List of Sites with Underground Storage Tanks
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 07/16/2019
Date Data Arrived at EDR: 07/18/2019
Date Made Active in Reports: 07/23/2019
Number of Days to Update: 5
Source: Department of Environmental Quality
Telephone: 801-536-4115
Last EDR Contact: 07/18/2019
Next Scheduled EDR Contact: 10/28/2019
Data Release Frequency: Quarterly

AST: Listing of Aboveground Storage Tanks
Aboveground storage tank site locations.

Date of Government Version: 06/05/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 06/17/2019
Number of Days to Update: 11
Source: Department of Environmental Quality
Telephone: 801-536-4100
Last EDR Contact: 08/30/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 11/07/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 07/29/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/03/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55
Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 07/29/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/16/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 08/05/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/10/2018
Date Data Arrived at EDR: 03/08/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 54

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 07/29/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 11/01/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 07/29/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 10/12/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 07/29/2019
Next Scheduled EDR Contact: 11/05/2019
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 09/24/2018
Date Data Arrived at EDR: 03/12/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 50

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 07/23/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 10/17/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 07/29/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

INST CONTROL: Sites with Institutional Controls
Sites included on the Brownfields Sites listing that have institutional controls in place.

Date of Government Version: 04/23/2019
Date Data Arrived at EDR: 04/24/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 63
Source: Department of Environmental Quality
Telephone: 801-536-4100
Last EDR Contact: 07/29/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142
Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 09/19/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27
Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP: Voluntary Cleanup Sites List
The purpose of the program is to encourage the voluntary cleanup of sites where there has been a contaminant release threatening public health and the environment, thereby removing the stigma attached to these sites which blocks economic redevelopment. Voluntary cleanup of these sites will hopefully result in clearing the pathway for returning these properties to beneficial use.

Date of Government Version: 03/01/2019
Date Data Arrived at EDR: 05/21/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 36
Source: Department of Environmental Quality
Telephone: 801-536-4100
Last EDR Contact: 08/12/2019
Next Scheduled EDR Contact: 11/25/2019
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Brownfields Assessment Sites
A Brownfields site means real property, the expansion, redevelopment or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant or contaminant, controlled substance or petroleum product.

Date of Government Version: 06/10/2019
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 07/19/2019
Number of Days to Update: 38
Source: Department of Environmental Quality
Telephone: 801-536-4100
Last EDR Contact: 08/16/2019
Next Scheduled EDR Contact: 11/25/2019
Data Release Frequency: Annually

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/03/2019
Date Data Arrived at EDR: 06/04/2019
Date Made Active in Reports: 08/26/2019
Number of Days to Update: 83
Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 09/19/2019
Next Scheduled EDR Contact: 12/30/2019
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52
Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 07/25/2019
Next Scheduled EDR Contact: 11/11/2019
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137
Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 07/19/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39
Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176
Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 08/02/2019
Next Scheduled EDR Contact: 11/11/2019
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 06/11/2019
Date Data Arrived at EDR: 06/13/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/21/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: No Update Planned

CDL: Methamphetamine Contaminated Properties Listing

Utah Administrative Rule 19-6-901 Illegal Drug Operations Site Reporting and Decontamination Act requires local health departments to maintain a list of properties believed to be contaminated by the illegal manufacture of drugs. The following properties were reported to the Salt Lake Valley Health Department by a complaint or report from a law enforcement agency and the Department has determined that reasonable evidence exists that the property is contaminated.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/05/2019
Date Made Active in Reports: 06/17/2019
Number of Days to Update: 12

Source: Salt Lake Valley Health Department
Telephone: 801-468-2750
Last EDR Contact: 09/04/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Varies

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains 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. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 06/11/2019
Date Data Arrived at EDR: 06/13/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/21/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: Quarterly

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 07/30/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 35

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 09/05/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/24/2019
Date Data Arrived at EDR: 06/26/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 89

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 09/24/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Quarterly

SPILLS: Spills Data

Incidents reported to the Division of Environmental Response and Remediation

Date of Government Version: 04/06/2019
Date Data Arrived at EDR: 04/09/2019
Date Made Active in Reports: 06/20/2019
Number of Days to Update: 72

Source: Department of Environmental Quality
Telephone: 801-536-4100
Last EDR Contact: 07/15/2019
Next Scheduled EDR Contact: 10/28/2019
Data Release Frequency: Varies

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 07/31/2011
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/11/2013
Number of Days to Update: 39

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 303-312-6149
Last EDR Contact: 09/16/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 05/15/2019
Date Data Arrived at EDR: 05/21/2019
Date Made Active in Reports: 08/08/2019
Number of Days to Update: 79

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 08/23/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 07/09/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 07/10/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 08/16/2019
Next Scheduled EDR Contact: 11/25/2019
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 06/24/2019
Date Data Arrived at EDR: 06/26/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 89

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 09/24/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 08/05/2019
Next Scheduled EDR Contact: 11/18/2019
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 08/09/2019
Next Scheduled EDR Contact: 11/18/2019
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 198

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 09/19/2019
Next Scheduled EDR Contact: 12/30/2019
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 01/10/2018
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 2

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 08/23/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 09/30/2018
Date Data Arrived at EDR: 04/24/2019
Date Made Active in Reports: 08/08/2019
Number of Days to Update: 106

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 07/26/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 35

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 09/05/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 04/25/2019
Date Data Arrived at EDR: 05/02/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 07/22/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 08/20/2019
Date Data Arrived at EDR: 09/05/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 18

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 09/05/2019
Next Scheduled EDR Contact: 11/18/2019
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 03/20/2019
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 34

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 07/12/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 07/03/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 06/20/2019
Date Data Arrived at EDR: 06/20/2019
Date Made Active in Reports: 08/08/2019
Number of Days to Update: 49

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 09/04/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 09/06/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 09/03/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017
Date Data Arrived at EDR: 11/30/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 15
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 08/09/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 07/01/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 04/01/2019
Date Data Arrived at EDR: 04/30/2019
Date Made Active in Reports: 08/08/2019
Number of Days to Update: 100

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 07/31/2019
Next Scheduled EDR Contact: 11/11/2019
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 30

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 07/08/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 09/16/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 07/10/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 07/30/2019
Next Scheduled EDR Contact: 11/18/2019
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 06/23/2017
Date Data Arrived at EDR: 10/11/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 23

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 08/21/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 35

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 09/05/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 05/03/2019
Date Data Arrived at EDR: 05/29/2019
Date Made Active in Reports: 08/08/2019
Number of Days to Update: 71

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 08/27/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 08/30/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 08/30/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 03/27/2019
Date Data Arrived at EDR: 03/28/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 34

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 09/10/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 05/03/2019
Date Data Arrived at EDR: 06/05/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 90

Source: EPA
Telephone: (303) 312-6312
Last EDR Contact: 09/04/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 04/07/2019
Date Data Arrived at EDR: 04/09/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 07/09/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 07/26/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 71

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 08/21/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UXO: Unexploded Ordnance Sites
A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 01/17/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 74

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 07/15/2019
Next Scheduled EDR Contact: 10/28/2019
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 05/20/2019
Date Data Arrived at EDR: 05/21/2019
Date Made Active in Reports: 08/08/2019
Number of Days to Update: 79

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 08/20/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Quarterly

AIRS: Division of Air Quality
Emissions inventory

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 07/11/2019
Number of Days to Update: 35

Source: Department of Environmental Quality
Telephone: 801-536-4183
Last EDR Contact: 08/21/2019
Next Scheduled EDR Contact: 11/11/2019
Data Release Frequency: Varies

DRYCLEANERS: Registered Drycleaners
A listing of registered drycleaners.

Date of Government Version: 04/23/2019
Date Data Arrived at EDR: 04/25/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 62

Source: Department of Environmental Quality
Telephone: 801-536-4437
Last EDR Contact: 07/15/2019
Next Scheduled EDR Contact: 10/28/2019
Data Release Frequency: Varies

EWA: Enforceable Written Assurances
EWA contains locations of potential Enforceable Written Assurance sites. EWAs will generally ensure to property owners or prospective property owners that there is no unacceptable risk to human health or the environment. EWA locations are based on coordinates derived from maps and GPS data. These locations represent sites, not contaminated areas.

Date of Government Version: 05/28/2019
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 07/23/2019
Number of Days to Update: 34

Source: Department of Environmental Quality
Telephone: 801-536-4167
Last EDR Contact: 09/19/2019
Next Scheduled EDR Contact: 12/30/2019
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 07/12/2019
Date Data Arrived at EDR: 07/16/2019
Date Made Active in Reports: 07/23/2019
Number of Days to Update: 7

Source: Department of Environmental Quality
Telephone: 801-538-6794
Last EDR Contact: 07/08/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

Financial assurance information for underground storage tank facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay

Date of Government Version: 06/05/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 06/17/2019
Number of Days to Update: 11

Source: Department of Environmental Quality
Telephone: 801-536-4141
Last EDR Contact: 08/30/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Varies

FUDS: Formerly Used Defense Sites

Formerly used defense sites.

Date of Government Version: 08/02/2017
Date Data Arrived at EDR: 10/25/2017
Date Made Active in Reports: 12/05/2017
Number of Days to Update: 41

Source: Utah AGRC
Telephone: 801-538-3665
Last EDR Contact: 07/29/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

MMRP: Military Munitions Response Program

Environment.MMRP contains locations of Military Munitions Response Program sites. MMRP manages the environmental, health and safety issues presented by unexploded ordnances (UXO), discarded military munitions (DMM) and munitions constituents (MC). Locations are based on coordinates derived from maps and GPS data. These locations represent sites, not contaminated areas.

Date of Government Version: 05/28/2019
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 07/23/2019
Number of Days to Update: 34

Source: Department of Environmental Quality
Telephone: 801-539-4164
Last EDR Contact: 09/19/2019
Next Scheduled EDR Contact: 12/30/2019
Data Release Frequency: Varies

NPDES: Permitted Facilities Listing

A listing of Division of Water Quality permits.

Date of Government Version: 06/21/2019
Date Data Arrived at EDR: 06/26/2019
Date Made Active in Reports: 06/28/2019
Number of Days to Update: 2

Source: Department of Environmental Quality
Telephone: 801-538-6146
Last EDR Contact: 09/06/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Varies

TIER 2: Tier 2 Facility Listing

TIER 2 contains locations of Tier II facilities under the Emergency Planning and Community Right-to-Know Act (EPCRA). Qualifying facilities report on hazardous and toxic chemicals and are labeled either tier I or tier II. Locations are based on coordinates derived from maps and GPS data. These locations represent sites, not contaminated areas.

Date of Government Version: 05/28/2019
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 07/23/2019
Number of Days to Update: 34

Source: Department of Environmental Quality
Telephone: 801-536-4152
Last EDR Contact: 09/19/2019
Next Scheduled EDR Contact: 12/30/2019
Data Release Frequency: Varies

UIC: UIC Site Location Listing

A listing of underground injection control wells.

Date of Government Version: 05/28/2019
Date Data Arrived at EDR: 05/30/2019
Date Made Active in Reports: 06/18/2019
Number of Days to Update: 19

Source: Department of Natural Resources
Telephone: 801-538-5329
Last EDR Contact: 08/27/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: Quarterly

UOPF: Used Oil Permitted Facilities

DSHW Permitted Used Oil Facilities contains locations in Utah of all Used Oil Facilities: Marketers, Porcessoors, Transfer, Transport and Off-specification Permitted by UDEQ Division of Hazardous Waste (DSHW) ? Used Oil Section.

Date of Government Version: 05/28/2019
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 07/23/2019
Number of Days to Update: 34

Source: Department of Environmental Quality
Telephone: 801-538-9408
Last EDR Contact: 09/19/2019
Next Scheduled EDR Contact: 12/30/2019
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Utah.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/16/2014
Number of Days to Update: 199

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Utah.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/03/2014
Number of Days to Update: 186

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 05/01/2019
Date Made Active in Reports: 06/21/2019
Number of Days to Update: 51

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 07/29/2019
Next Scheduled EDR Contact: 11/11/2019
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 07/15/2019
Next Scheduled EDR Contact: 10/28/2019
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 09/06/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: Endeavor Business Media

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Electric Power Transmission Line Data
Source: Endeavor Business Media
This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Child Care Provider List
Source: Department of Health
Telephone: 801-538-9299

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Utah Geological Survey
Telephone: 801-537-3300

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STREET AND ADDRESS INFORMATION

ADDENDUM III

Utah County Zoning Ordinance 10-8

CHAPTER 10. HEALTH

Article 10-1. In General (Reserved)

Article 10-2. Health Department

10-2-1. Creation.

(a) There is hereby created a County Health Department in Utah County as provided by Title 26A, Utah Code Annotated, 1953, as amended, which shall be known as the Utah County Health Department .

10-2-2. Organization.

The Utah County Health Department shall consist of a Board of Health, a local health officer and departmental personnel.

10-2-3. Board of Health.

The Board of Health members shall be appointed by the County Commission. The Board of Health shall determine the general public health policies to be followed in the administration of the Utah County Health Department and may adopt and enforce public health rules, regulations, and standards necessary to implement the board's public health policies. The Board of Health shall appoint the local health officer subject to ratification by the County Commission. He shall be the executive officer for the council. The health officer may be removed by the health council for cause after due hearing. (R.O. 1956, Section 3-1-2) The local health officer shall serve as secretary to the Board of Health.

(a) The Board of Health shall be nonpartisan whose membership shall meet all the requirements as set forth in Title 26A, Utah Code Annotated, 1953 as amended. The number of Board members shall be set by Board bylaws, but shall be a minimum of three members. Board member terms shall be for three years.

(b) A majority of the members may not:

(i) be primarily engaged in providing health care to individuals or in the administration of facilities or institutions in which health care is provided;

(ii) hold a fiduciary position or have a fiduciary interest in any entity involved in the provision of health care;

(iii) receive either directly or through a spouse more than 1/10 of the member's gross income from any entity or activity relating to health care; and

(iv) be members of one type of business or profession.

(c) Board members may be removed by the Utah County Commission for cause prior to the expiration of the member's term. Any board member removed pursuant to this Section may request and receive a hearing before the Utah County Commission prior to the effective date of the removal.

(d) All members of the board shall reside within the boundaries of the area served by the Utah County Health Department.

(e) The Board may adopt and amend bylaws for the transaction of its business. A majority of the board members constitute a quorum.

(f) Standards and regulations may be adopted by the Board as provided in Title 26A, Utah Code Annotated, 1953 as amended, and administrative and judicial review of the Board's actions is available as provided in Title 26A, Utah Code Annotated, 1953 as amended.

10-2-4. Local health officer.

(a) The local health officer shall be the administrative and executive officer of the Department and shall devote full time to the duties of the office and is responsible to the Board of Health. The local health officer shall meet the qualifications for that office as prescribed by the Utah Department of Health and the Utah County personnel system. The local health officer shall be the administrative and executive officer for the Board of Health. The health officer may be removed by the Board of Health or the County Commission for cause after due hearing as provided in Title 26A, Utah Code Annotated, 1953, as amended.

(b) The local health officer shall appoint other personnel by the Utah County merit system of personnel administration, provided they have the qualifications of training and experience for their positions equivalent to those approved for comparable positions by the Utah State Department of Health and Environmental Quality. Health Department staff may include:

(1) Public health nurses.
(2) Environmental health scientists.
(3) Health Educators
(4) Public Health Nutritionists
(5) Mosquito Abatement Director
(6) Necessary administrative staff, clerical assistants and such other personnel as may be necessary for the proper and efficient functioning of the Utah County Health Department. (Ord. No. 2011-38, 10-11-11)

10-2-5. Powers and duties of the Utah County Health Department - Duties regarding private and public schools

(a) The Utah County Health Department may:

(1) subject to the provisions in Section 26A-1-108 , enforce state laws, local ordinances, department rules, and local health department standards and regulations relating to public health and sanitation, including the plumbing code adopted by the Division of Occupational and Professional Licensing under Section 58-56-4 and under Title 26, Chapter 15a, Food Safety Manager Certification Act, in all incorporated and unincorporated areas served by the Utah County Health Department;

(2) establish, maintain, and enforce isolation and quarantine, and exercise physical control over property and over individuals as the Utah County Health Department finds necessary for the protection of the public health;

(3) establish and maintain medical, environmental, occupational, and other laboratory services considered necessary or proper for the protection of the public health;

(4) establish and operate reasonable health programs or measures not in conflict with state law that:

(A) are necessary or desirable for the promotion or protection of the public health and the control of disease; or

(B) may be necessary to ameliorate the major risk factors associated with the major causes of injury, sickness, death, and disability in the state;

(5) close theaters, schools, and other public places and prohibit gatherings of people when necessary to protect the public health;

(6) abate nuisances or eliminate sources of filth and infectious and communicable diseases affecting the public health and bill the owner or other person in charge of the premises upon which this nuisance occurs for the cost of abatement;

(7)make necessary sanitary and health investigations and inspections on its own initiative or in cooperation with the Utah Department of Health or Environmental Quality, or both, as to any matters affecting the public health;

(8) pursuant to county ordinance:

(A) establish and collect appropriate fees for the performance of services and operation of authorized or required programs and duties. Fees shall be approved and adopted by the Board of Health in its regularly scheduled meetings;

(B) accept, use, and administer all federal, state, or private donations or grants of funds, property, services, or materials for public health purposes; and

(C) make agreements not in conflict with state law that are conditional to receiving a donation or grant subject to approval or ratification by the Utah County Commission;

(9) prepare, publish, and disseminate information necessary to inform and advise the public concerning:

(A) the health and wellness of the population, specific hazards, and risk factors that may adversely affect the health and wellness of the population; and

(B) specific activities individuals and institutions can engage in to promote and protect the health and wellness of the population;

(10) investigate the causes of morbidity and mortality;

(11) issue notices and orders necessary to carry out these powers and duties;

(12) conduct studies to identify injury problems, establish injury control systems, develop standards for the correction and prevention of future occurrences, and provide public information and instruction to special high risk groups;

(13) cooperate with boards created under Section 19-1-106 to enforce laws and rules within the jurisdiction of the boards; and

(14) cooperate with the Utah Department of Health, the Department of Corrections, the Administrative Office of the Courts, the Division of Youth Corrections, and the Crime Victims Reparations Board to conduct testing for HIV infection of convicted sexual offenders and any victims of a sexual offense.

(b) The Utah County Health Department shall:

(1) establish programs or measures to promote and protect the health and general wellness of the people within the boundaries of the Utah County Health Department;

(2) investigate infectious and other diseases of public health importance and implement measures to control the causes of epidemic and communicable

diseases and other conditions significantly affecting the public health which may include involuntary testing of convicted sexual offenders for the HIV infection pursuant to Section 76-5-502 of the Utah State Code and voluntary testing of victims of sexual offenses for HIV infection pursuant to Section 76-5-503 of the Utah State Code;

(3) cooperate with the Utah Department of Health in matters pertaining to the public health and in the administration of state health laws; and

(4) coordinate implementation of environmental programs to maximize efficient use of resources by developing with the Utah Department of Environmental Quality a Comprehensive Environmental Service Delivery Plan that:

(A) recognizes that the Utah Department of Environmental Quality and the Utah County Health Department are the foundation for providing environmental health programs in Utah County;

(B) delineates the responsibilities of the Utah Department of Environmental Quality and each the Utah County Health Department for the efficient delivery of environmental programs using federal, state, and local authorities, responsibilities, and resources;

(C) provides for the delegation of authority and pass through of funding to the Utah County Health Department for environmental programs, to the extent allowed by applicable law, identified in the plan, and requested by the Utah County Health Department; and

(D) is reviewed and updated annually.

(c) The Utah County Health Department has the following duties regarding public and private schools within its boundaries:

(1) enforce all ordinances, standards, and regulations pertaining to the public health of persons attending public and private schools;

(2) exclude from school attendance any person, including teachers, who is suffering from any communicable or infectious disease, whether acute or chronic, if the person is likely to convey the disease to those in attendance;

(3) make regular inspections of the health-related condition of all school buildings and premises, and:

(A) report the inspections on forms furnished by the Utah Department of Health to those responsible for the condition and provide instructions for correction of any conditions that impair or endanger the health or life of those attending the schools; and

(B) provide a copy of the report to the Utah Department of Health at the time the report is made.

(d) If those responsible for the health-related condition of the school buildings and premises do not carry out any instructions for corrections provided in a report in Subsection (3)(c), the Utah County Board of Health shall cause the conditions to be corrected at the expense of the persons responsible.

(e) The Utah County Health Department may exercise incidental authority as necessary to carry out the provisions and purposes of this section.

10-2-6. Abatement of nuisances.

The Utah County Health Department shall cause every nuisance dangerous to public health and human life, within its jurisdiction, to be abated. When complaint of such nuisance is made to it, the Utah County Health Department shall forthwith cause the matter to be investigated and shall determine whether or not the alleged nuisance is detrimental to the public health or the cause of any disease or mortality. Whenever the Utah County Health Department shall determine that a nuisance detrimental to health exists, it shall in writing, notify the owner or occupant of the premises where said nuisance may be found and shall order the abatement or removal of such nuisance. If such nuisance is not abated or removed pursuant to such order, the Utah County Health Department shall request pursuant to Title 26A, Utah Code Annotated, as amended, that the County Attorney, or a city attorney as appropriate, bring an action for the abatement of such nuisance.

10-2-7. Jurisdiction.

The Utah County Health Department shall have jurisdiction in all unincorporated and incorporated areas of Utah County and shall enforce state health laws, Utah Department of Health, Utah Department of Environmental Quality, and Utah County Health Department rules, regulations, and standards within Utah County.

10-2-8. Rules and regulations.

It shall be the duty of the Utah County Health Department to place a certified copy of its rules and regulations, pertaining to the health and sanitation of Utah County and/or its incorporated cities on file with the Utah County Clerk,.

10-2-9. Financing.

The cost of establishing and maintaining the Utah County Health Department shall be financed as provided in Section 26A-1-117, Utah Code Annotated, 1953, as amended.

Article 10-3. Right of Entry / Unlawful Acts - Criminal and Civil Liability

10-3-1. Right of entry to regulated premises by representatives for inspection.

(a) Upon presenting proper identification, authorized representatives of the Utah County Health Department may enter upon the premises of properties regulated by the Utah County Health Department to perform routine inspections to insure compliance with rules, standards, regulations, and ordinances as adopted by the Utah Departments of Health and Environmental Quality, the Utah County Board of Health, the Utah County Commission, all city councils or governing bodies in Utah County, or the Division of Occupational and Professional Licensing under Section 58-56-4 of the Utah Code Annotated, 1953, as amended.

(b) Section 58-56-4 does not apply to health inspectors acting under this section.

(c) This section does not authorize local health departments to inspect private dwellings.

10-3-2. Unlawful acts - Criminal and civil liability

(a) It is unlawful for any person, association, or corporation, and the officers of the association or corporation to:

(1) violate state laws or any lawful notice, order, standard, rule, or regulation issued under state laws or local ordinances regarding public health or sanitation;

(2) violate, disobey, or disregard any notice or order issued by the Utah County Health Department pursuant to any state or federal law, federal regulation, local ordinance, rule, standard, or regulation relating to public health or sanitation;

(3) fail to make or file reports required by law relating to the existence of disease or other facts and statistics relating to the public health;

(4) willfully and falsely make or alter any certificate or certified copy issued under public health laws;

(5) fail to remove or abate from private property under the control of the person, association, or corporation at their own expense, within a reasonable time not to exceed 30 days after issuance of an order to remove or abate, any nuisance, source of filth, cause of sickness, dead animal, health hazard, or sanitation violation within the boundaries of the local health department whether the person, association, or corporation is the owner, tenant, or occupant of the private property; or

(6) pay, give, present, or otherwise convey to the local health officer or employee of a Utah County Health Department or any member of a Utah County Board of Health any gift, remuneration, or other consideration, directly or indirectly, which the officer or employee is prohibited from receiving by state law.

(b) Removal or abatement under Subsection (2)(e) shall be ordered by the Utah County Health Department and accomplished within a reasonable time determined by the Utah County Health Department, but not exceeding 30 days after issuance of an order to remove or abate.

(c) It is unlawful for any local health officer or employee of any local health department or member of any local board of health to accept any gift, remuneration, or other consideration, directly or indirectly, for the performance of the duties imposed upon the officer, employee, or member by or on behalf of the health department or by this part.

(d) It is unlawful for any local health officer or employee of a local health department, during the hours of the officer's or employee's regular employment by the local health department, to perform any work, labor, or services other than duties assigned to the officer or employee by or on behalf of the local health department.

(e) (1) Any person, association, corporation, or the officers of the association or corporation who violates any provision of this section is:

(A) on the first violation guilty of a class B misdemeanor; and

(B) on a subsequent similar violation within two years, guilty of a class A misdemeanor.

(2) In addition any person, association, corporation, or the officers of the association or corporation, are liable for any expense incurred in removing or abating any nuisance, source of filth, cause of sickness, dead animal, health hazard, or sanitation violation.

(f) Conviction under this section or any other public health law does not relieve the person convicted from civil liability for any act that was also a violation of the public health laws.

(g) Each day of violation of this section is a separate violation.

Article 10-4. Food Service

10-4-1. Food inspection.

The local health officer or an authorized employee may inspect meat and food products manufactured, produced, stored, kept, sold or offered for sale within the County. Such products suspected of being

impure, unhealthful, adulterated or counterfeit may be sampled, embargoed, and/or destroyed.

10-4-2. Enforcement.

The local health officer shall enforce proper sanitary regulations in the management and surroundings involving the production, manufacture, storage, keeping and sale of any article of food or drink prepared for human consumption. For the purpose of effectuating this ordinance, the local health officer or an authorized employee, shall have the following powers:

(a) Right of access, ingress and egress to and from all places of business, factories, farm buildings, carriages, trucks, trailers and cars used in the manufacture, transportation or sale of any article of food or drink and also into restaurants, dining halls, cafes, hotels and all rooms thereof, and all other places where food is prepared, stored or served to patrons;

10-4-3. Examination, condemnation of food, drink.

Samples of drink, meat or meat food products, rabbits, poultry, fish or seafood or other food may be taken and examined as often as deemed necessary for the detection of unwholesomeness or adulteration. The local health officer or an authorized employee may condemn and forbid the sale, or cause to be removed or destroyed, any food product or drink which is deemed by the local health office or an authorized employee to be unwholesome or adulterated.

Article 10-5. Vehicle Emission Inspection/Maintenance.

10-5-1. Adoption of Rules and Regulations.
10-5-2. Copies of Rules and Regulations.
10-5-3. Penalties.

10-5-1. Adoption of Rules and Regulations

Pursuant to Section 41-6-163.6, Utah Code Annotated, 1953, as amended, the Vehicle Emission Inspection/ Maintenance Program Rules and Regulations are hereby adopted in book form and by this reference made a part of this Chapter to the same extent and effect as though said Rules and Regulations were copied herein in full. The Rules and Regulations shall be in effect and enforced only if the County Commission is unable to implement alternative emission reduction strategies that result in the required emission reduction credits as provided for in the State Implementation Plan for Carbon Monoxide for Utah County (reference Section X Part D of the Utah State Implementation Plan). (Ord. No. 1995-02, 1-25-95)

10-5-2. Copies of Rules and Regulations.

Three (3) copies of the Vehicle Emission Inspection/ Maintenance Program Rules and Regulations are ordered to be filed in the office of the County Clerk for the use and examination by the public. (Ord. No. 1995-02, 1-25-95)

10-5-3. Penalties.

Any violation of the Rules and Regulations adopted pursuant to Section 10-5-1 shall be punished in accordance with Section 16.0 of said Rules and Regulations. (Ord. No. 1995-02, 1-25-95)

Article 10-6. Diesel and Gasoline Vehicle Emission Inspection/Maintenance

(Repealed by Ord. 2005-29, 11-1-05)

10-6-1. Adoption of Rules and Regulations.
10-6-2. Copies of Rules and Regulations.
10-6-3. Penalties.

10-6-1. Adoption of Rules and Regulations.

Pursuant to Section 41-6-163.6, Utah Code Annotated, 1953, as amended, the Diesel Vehicle Emissions Inspection/Maintenance Program Rules and Regulations are hereby adopted in book form and by this reference made a part of this Chapter to the same extent and effect as though said Rules and Regulations were copied herein in full. Pursuant to Section 41-6-163.6, Utah Code Annotated, 1953, as amended, the Vehicle Emissions Inspection/Maintenance Program Rules and Regulations are hereby adopted in book form and by this reference made a part of this Chapter to the same extent and effect as though said Rules and Regulations were copied herein in full. (Ord. No. 1998-27; 12-29-98) (Repealed by Ord. 2005-29, 11-1-05)

10-6-2. Copies of Rules and Regulations.

Three (3) copies of the Diesel Vehicle Emissions Inspection/Maintenance Program Rules and Regulations, and three (3) copies of the Vehicle Emissions Inspection/Maintenance Program Rules and Regulations, are ordered to be filed in the office of the County Clerk for the use and examination by the public. (Ord. No. 1998-27; 12-29-98) (Repealed by Ord. 2005-29, 11-1-05)

10-6-3. Penalties.

Any violation of the Diesel Vehicle Emissions Inspection/Maintenance Rules and Regulations adopted pursuant to Section 10-6-1 shall be punished

in accordance with Section 17.0 of said Rules and Regulations. Any violation of the Vehicle Emissions Inspection/Maintenance Rules and Regulations adopted pursuant to Section 10-6-1 shall be punished in accordance with Section 15.0 of said Rules and Regulations. (Ord. No. 1998-27; 12-29-98) (Repealed by Ord. 2005-29, 11-1-05)

Article 10-7. Remote Sensing Program

10-7-1. Adoption of Rules and Regulations.

Pursuant to Section 41-6-163.6, Utah Code Annotated, 1953, as amended, the Remote Sensing Program Rules and Regulations are hereby adopted in book form and by this reference made a part of this Chapter to the same extent and effect as though the Rules and Regulations were copied herein in full. (Repealed by Ord. 2005-30, 11-1-05)

10-7-2. Copies of Rules and Regulations.

Three (3) copies of the Remote Sensing Program Rules and Regulations are ordered to be filed in the office of the County Clerk for the use and examination by the public. (Repealed by Ord. 2005-30, 11-1-05)

10-7-3. Penalties.

Any violation of the Remote Sensing Program Rules and Regulations adopted pursuant to Section 10-7-1 shall be punished in accordance with Section 9.0 of said Rules and Regulations. (Repealed by Ord. 2005-30, 11-1-05)

Article 10-8. Utah County Drinking Water Source Protection Provisions

A. Short Title and Purpose

1. This Chapter shall be known as the "Utah County Drinking Water Source Protection Ordinance."

2. The purpose of this Chapter is to ensure the provision of a safe and sanitary drinking water supply to the residents of Utah County (hereinafter "County"), by the establishment of drinking water source protection zones surrounding the wells and springs used by public water systems in the County and by the designation and regulation of property uses and conditions that may be maintained within such zones. Included under this Chapter are all source protection zones or portions thereof falling within the County, including incorporated and unincorporated areas, unless superseded by a municipal ordinance in accordance with State law. (Ord. 2010-11, 6-1-10) (Ord. 2019-8, 2-26-19)

B. Definitions

When used in this Chapter the following words and phrases shall have the following meanings:

1. "Allowed Use" means a use, activity or practice allowed by this Chapter which does not create a risk of pollution or contamination in the specified protection zone of such significance so as to require the implementation of regulatory requirements, best management practices or engineered controls.

2. "Alternative Onsite Wastewater System" means an onsite wastewater system that is not a conventional onsite wastewater system as defined in Utah Administrative Code R317-4, and includes at-grade systems, mound systems, packed bed media systems, and sand lined trench systems.

3. "Best Management Practices" means a practice or combination of practices determined to be the most effective practicable means of conducting a land use activity to minimize the potential for becoming a pollution source (including technological, economic, and institutional considerations).

4. "Collection Area" means the area surrounding a ground-water source which is underlain by collection pipes, tile, tunnels, infiltration boxes, or other ground-water collection devices.

5."Contaminant" means any harmful physical, chemical, biological or radiological substance or matter in water, including, for purposes of this Chapter, nitrates.

6. "Controlled" means that a physical, regulatory, negligible quantity, or best management/practice control, as defined in Utah UAC R309-600, exists to prevent the discharge of contaminated or hazardous substances from a pollution source or potential contamination source. If no such control exists, the pollution source or potential contamination source is ipso facto uncontrolled.

7."Conventional Onsite Wastewater System" means an onsite wastewater system typically consisting of a building sewer, a septic tank, and an absorption system utilizing absorption trenches, absorption beds, deep wall trenches, or seepage pits.

8. "Design Standard" means established State or National Standards for the design, construction, placement, or maintenance from a potential contamination source to prevent discharges to the ground water. An example of a Design Standard is "Secondary Containment."

9. "Division of Drinking Water" means the Utah Department of Environmental Quality, Division of Drinking Water.

10. "Drinking Water Source Protection Zone" means the specified surface and subsurface area surrounding a ground-water source of drinking water supplying a Public Water Supply, through which contaminants are reasonably likely to move toward and reach such ground-water source.
11. "Groundwater Source" means any well, spring, tunnel, adit, or other underground opening from or through which groundwater flows or is pumped from subsurface water-bearing formations.
12. "Hazardous Waste" means a waste with properties that make it dangerous or potentially harmful to human health or the environment.
13."Onsite wastewater system" means an underground wastewater dispersal system that is designed for a capacity of 5,000 gallons per day or less, and is not designed to serve multiple dwelling units that are owned by separate owners except condominiums. It usually consists of a building sewer, a septic tank and an absorption system.
14. "Pollution Source" means a point source discharge of contaminants to ground water or potential discharges of the liquid forms of "extremely hazardous substances" which are stored in containers in excess of "applicable threshold planning quantities" as specified in SARA Title III. Examples of possible pollution sources include, but are not limited to: storage facilities that store the liquid forms of extremely hazardous substances, septic tanks, drain fields, Class V underground injection wells, landfills, open dumps, land filling of sludge and septage, manure piles, salt piles, pit privies, and animal feeding operations with more than ten animal units. The following definitions clarify the definition of "Pollution Source":
a. "Animal feeding operation" means a lot or facility where the following conditions are met: animals have been or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12 month period, and crops, vegetation forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility. Two or more animal feeding operations under common ownership are considered to be a single feeding operation if they adjoin each other, if they use a common area, or if they use a common system for the disposal of wastes.
b. "Animal unit" means a unit of measurement for any animal feeding operation calculated by adding the following numbers: the number of slaughter and feeder cattle multiplied by 1.0, plus the number of mature dairy cattle multiplied by 1.4, plus the number of swine weighing over 55 pounds multiplied by 0.4, plus the number of sheep multiplied by 0.1, plus the number of horses multiplied by 2.0.
c. "Extremely hazardous substances" means those substances that are identified in the Sec. 302(EHS) column of the "TITLE III LIST OF LISTS - Consolidated List of Chemicals Subject to Reporting Under SARA Title III," (EPA 560/4-91-011).
15. "Potential Contamination Source" means any facility, use or site that employs an activity or procedure which may potentially contaminate ground water, whether it currently does or not. A pollution source is also a potential contamination source.
16. "Prohibited Use" means a use, activity or practice described in Section F of this Article. A Prohibited Use is not permitted.
17. "Public Water System" means a system, either publicly or privately owned, providing water for human consumption and other domestic uses, which has at least 15 service connections, or serves an average of at least 25 individuals daily at least 60 days out of the year. Such term includes collection, treatment, storage and distribution facilities under control of the operator and used primarily in connection with the system. Additionally, the term includes collection, pretreatment or storage facilities used primarily in connection with the system but not under such control.
18. "Recharge Area" means an area in which water reaches the zone of saturation by surface infiltration.
19. "SARA Title III" means the Superfund Amendment and Reauthorization Act Article found in 40 CFR 300-302, pertaining to emergency response and right-to-know.
20. "Secondary Containment" means a type of system or design standard that is used to provide release detection and prevention, such as trays under containers, floor curbing or other systems designed to hold materials or liquids that may discharge from containers holding a potential contaminant. Examples include a double-walled tank, a double-walled integral piping system, or a single-walled tank or integral piping system that is protected by an enclosed concrete vault, liner, or an impervious containment area.
21. "Septic Tank/Drain-Field Systems" means a wastewater system, which is comprised of a septic tank and a drain-field, which accepts wastewater from buildings or facilities for subsurface treatment and disposal. By their design, septic tank/drain-field system discharges cannot be controlled with design standards.

22. "Source Protection Zone" means the specified surface and subsurface area surrounding a ground-water source of drinking water supplying a Public Water Supply, through which contaminants are reasonably likely to move toward and reach such ground-water source. These zones shall have the approval of the State of Utah, Division of Drinking Water as described in R309-600 Source Protection: Drinking Water Source Protection for Ground-Water Sources and as stated herein.

23. "Time of Travel Distance" means the distance that groundwater will travel in a specified time. This distance is generally a function of the permeability and slope of the aquifer. Time of Travel is determined from Hydrological Quality, Division of Drinking Water.

24. "Wellhead" means the upper terminal of a well, including adapters, ports, seals, valves and other attachments. (Ord. 2010-11, 6-1-10; Ord. 2019-8, 2-26-19)

C. Establishment of Drinking Water Source Protection Zones

There are hereby established use districts to be known as zones one, two, three, and four, and management area of the drinking water source protection area. These zones shall have the approval of the State of Utah, Division of Drinking Water as described in R309-600 Source Protection: Drinking Water Source Protection for Ground-Water Sources and are identified and described as follows:

1. "Zone One" is the area within a 100-foot radius from the wellhead or margin of the collection area.

2. "Zone Two" is the area within a 250-day groundwater time of travel to the wellhead or margin of the collection area, the boundary of the aquifer(s) which supplies water to the ground-water source, or the groundwater divide, whichever is closer.

3. "Zone Three" is the area within a 3-year groundwater time of travel to the wellhead or margin of the collection area, the boundary of the aquifer(s) which supplies water to the ground-water source, or the groundwater divide, whichever is closer.

4. "Zone Four" is the area within a 15-year groundwater time of travel to the wellhead or margin of the collection area, the boundary of the aquifer(s) which supplies water to the ground-water source, or the groundwater divide, whichever is closer.

5. "Management Area" is the area outside of zone one and within a two-mile radius where the optional Two-mile Radius Delineation Procedure has been used to identify a protection area, as described in the Utah, Division of Drinking Water R309-600 Source Protection: Drinking Water Source Protection for Ground-Water Sources. This area shall be treated as for Zone 2.

In some cases, such as bedrock areas, Zones 2, 3, and 4 are overlapping due to the inability to determine time of travel. These are sensitive areas. In these cases, the zone shall be protected as for Zone 2. (Ord. 2010-11, 6-1-10; Ord. 2019-8, 2-26-19)

D. Identification of Public Water Systems and Drinking Water Source Protection Zones

1. Utah Administrative Code R309-600 requires public water systems to submit a drinking water source protection plan to the Utah State Division of Drinking Water, for each of its groundwater sources of drinking water.

2 Pursuant to Section 10-8-15, Utah Code Annotated, 1953 as amended, municipalities have extra-territorial jurisdiction to prevent the pollution or contamination of domestic and culinary water, including groundwater sources. Each municipality claiming extra-territorial jurisdiction, pursuant to Section 10-8-15, shall notify the Utah County Health Department, Division of Environmental Health, and specifically identify each of the areas over which it claims jurisdiction in the unincorporated area of Utah County. Municipalities adopting a source protection ordinance in compliance with Section 19-4-113, Utah Code Annotated, 1953 as amended, shall notify the Utah County Health Department, Division of Environmental Health, and specifically identify each of the areas over which it claims jurisdiction in Utah County. If changes to areas over which a municipality claim extra-territorial jurisdiction are made, the municipality shall notify the Utah County Health Department, Division of Environmental Health within 45 days. All notifications shall come in written form and geographic information system (GIS) data.

3. Drinking Water Source Protection Map.

As necessary, the Utah County Health Department, Division of Environmental Health, shall utilize and incorporate the source protection information maintained, updated, and provided by the Utah State Division of Drinking Water.

4. Overlapping Protection Zones.

a. Public water systems with overlapping protection zones shall cooperate in resolving conflicts in the land management strategies contained in the applicable source protection plans. If necessary, the Utah State Division of Drinking Water shall assist with the resolution of any

conflicts between source protection plans approved for the public water systems.

b. No permits or land use approvals, including, but not limited to, a subdivision approval, conditional or permitted use approval, business license or building permit shall be issued pending the resolution of any challenges to the boundaries or conflict between overlapping protection zones. In the event the challenge or conflict in overlapping protection zones cannot be resolved in 180 days, the most restrictive provision shall apply. (Ord. 2010-11, 6-1-10; Ord. 2019-8, 2-26-19)

E. Allowed Uses

The following land uses shall be allowed within drinking water source protection zones:

1. In Zones One, Two, Three, and Four, each use legally established before the effective date of this Chapter, and uses incidental and accessory to such use, may be continued in the same manner thereafter, provided that such use is not determined by any court of competent jurisdiction to be a nuisance under the provisions of federal, state, and/or local laws or regulations.

2. All new land uses, changes of land use, or expansions of land use, shall comply with the requirements of this Chapter. (Ord. 2010-11, 6-1-10; Ord. 2019-8, 2-26-19)

F. Prohibited Uses

Subject to the allowed uses, as described above, the following uses are prohibited within the following drinking water source protection zones, as shown on the Utah County Drinking Water Source Protection Zone Map:

1. Zone One.

All uses that fall within the definition in this Chapter of "pollution source" or "potential contamination source."

2. Zone Two.

All uses that fall within the definition in this Chapter of "pollution source" or "potential contamination source," unless permitted in accordance with Section H.2 of this Chapter.

3. Zone Three.

All uses that fall within the definition in this Chapter of "pollution source" or "potential contamination source," unless permitted in accordance with Section H.2 of this Chapter.

4. Zone Four.

All uses that fall within the definition in this Chapter of "pollution source" or "potential contamination source," unless permitted in accordance with Section H.2 of this Chapter. (Ord. 2010-11, 6-1-10; Ord. 2019-8, 2-26-19)

G. Drinking Water Source Protection Requirements

Following the effective date of this Chapter, no building permit or other form of approval from the County to develop or use real property within the County shall be issued until the applicant establishes that the applicant's proposed development or use of real property complies with the requirements of this Chapter. Each such applicant shall provide to the Utah County Community Development Department a letter from the Utah County Health Department, Division of Environmental Health, certifying that the proposed use complies with the requirements of this Chapter. In addition, following the effective date of this Chapter, no building permit or other form of approval shall be issued by any municipality to develop or use real property within the boundaries of Utah County until the applicant establishes to the issuing municipality that its proposed development or use of real property complies with the requirements of this Chapter. Each such applicant shall provide to the issuing municipality a letter from the Utah County Health Department, Division of Environmental Health, certifying that the proposed use complies with the requirements of this Chapter. (Ord. 2010-11, 6-1-10; Ord. 2019-8, 2-26-19)

H. Alleged Overly Protective Zones

1. If an applicant for a permit or approval to develop or use property disagrees with the boundaries of a drinking water source protection zone, such boundaries may be disputed according to the following procedure:

a. The applicant shall submit written comments to the public drinking water system stating the reasons that the protection zone boundaries are being disputed and request that the public drinking water system authorize a new hydrogeologic study.

b. The public drinking water system may authorize a new hydrogeologic study at the expense of the applicant or elect to conduct a new hydrogeologic study at its own expense.

c. If the public drinking water system declines to authorize a new hydrogeologic study, the applicant may appeal this determination to the Utah County Board of Health. In the event that the Board of Health authorizes a new study, the study shall be conducted at the expense of the applicant.

d. Upon completion, the new hydrogeologic study shall be submitted to the Utah Division of Drinking Water for review.

e. If the Division of Drinking Water adopts the new hydrogeologic study and modifies the boundaries of the applicable drinking water source protection zones, the application shall be processed in

accordance with the modified source protection zones. (Ord. 2010-11, 6-1-10; Ord. 2019-8, 2-26-19)

2. Applicants for a permit or approval to install, relocate, or expand a wastewater system may be exempt from Zone Two through Four prohibited use restrictions on wastewater systems for a parcel platted prior to June 1, 2010 if::

a. The public watersystem within which the applicant proposes to be connected receives concurrence or verification from the Utah State Division of Drinking Water indicating that the proposed wastewater system(s) does not represent a significant contamination risk to the public water system, which concurrence or verification shall be submitted to the Utah County Health Department, Division of Environmental Health in writing

i. For Zone Two, except in instances where a septic system density study, performed by a geotechnical or hydrogeologic professional licensed in the State of Utah, clearly indicates that the installation of the proposed number of a conventional onsite wastewater systems will not increase the maximum contamination level (MCL) of nitrate concentration within the affected groundwater source above the United States Environmental Protection Agency's currently stated MCL goal, in which case a conventional onsite wastewater system may be used, the proposed and installed wastewater system is a contaminant reducing alternative onsite wastewater system approved by the Utah County Health Department.

Or

b. The applicant has received written permission for the proposed onsite wastewater system from the public water system(s) who has delineated the drinking water source protection zones(s); and

i. For Zone Two, except in instances where a septic system density study, performed by a geotechnical or hydrogeologic professional licensed in the State of Utah, clearly indicates that the installation of the proposed number of a conventional onsite wastewater systems will not increase the maximum contamination level (MCL) of nitrate concentration within the affected groundwater source above the United States Environmental Protection Agency's currently stated MCL goal, in which case a conventional onsite wastewater system may be used, the proposed and installed wastewater system is a contaminant reducing alternative onsite wastewater system approved by the Utah County Health Department.

I. Administration

This Chapter shall be administered by the Utah County Health Department, provided that, in addition to any other remedies, a public water system, retail water supplier, or wholesale water supplier may seek enforcement of this Chapter in a district court located in Utah County if the County (i) notifies the public water system, retail water supplier or wholesale water supplier within 10 days of receiving notice of a violation of this Chapter that the County will not seek enforcement of this Chapter; or (ii) does not seek enforcement within two days of a notice of violation of this Chapter when the violation may cause irreparable harm to the groundwater source. (Ord. 2010-11, 6-1-10; Ord. 2019-8, 2-26-19)