

**WATER DEMAND AND WASTEWATER DISPOSAL REPORT**

**FOR**

**CREEKSIDE SOUTH AT LORSON RANCH  
PRELIMINARY PLAN**

**January, 2020**

***Prepared for:***

Lorson, LLC  
212 N. Wahsatch, Suite 301  
Colorado Springs, Colorado 80903  
Contact: Jeff Mark  
(719) 635-3200

***Prepared by:***

Core Engineering Group  
15004 1<sup>st</sup> Avenue S.  
Burnsville, MN 55306  
719-570-1100

Project No. 100.051

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## TABLE OF CONTENTS

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1.0 INTRODUCTION.....	1
2.0 WATER SUPPLY AND WASTEWATER COLLECTION.....	2
3.0 SUMMARY AND CONCLUSIONS.....	3

### **APPENDIX A**

VICINITY MAP

WATER SUPPLY INFORMATION SUMMARY

COMMITMENT LETTER

### **APPENDIX B**

2016 WWSD ANNUAL WATER AND WASTEWATER REPORT, JDS  
HYDRO

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## 1.0 INTRODUCTION

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The proposed 1361.4 acre Lorson Ranch is located in El Paso County and is bounded on the west by Marksheffel Road, the east by existing ranch land and the future Meridian Road, the north by Banning Lewis Ranch and unplatted property, and on the south by Peaceful Valley Estates, a rural and urban residential subdivision and the Appletree golf course. **Creekside South at Lorson Ranch** is a 64.257 acre site within Lorson Ranch. The site is located south of Lorson Boulevard, west of Trappe Drive and north of the south property line of Lorson Ranch on a vacant tract.

The legal description for this site is:

**CREEKSIDE SOUTH BOUNDARY  
LEGAL DESCRIPTION (64.257 ACRES)**

A PARCEL OF LAND IN THE NORTH HALF (N1/2) OF SECTION 23, T15S, R65W OF THE 6th P.M., EL PASO COUNTY, COLORADO MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BASIS OF BEARING:

THE EAST-WEST CENTERLINE OF SAID SECTION 23 BEING MONUMENTED AT THE WEST QUARTER CORNER OF SAID SECTION WITH A FOUND NO. 6 REBAR, FROM WHICH THE EAST QUARTER CORNER OF SAID SECTION 23 MONUMENTED WITH AN ALUMINUM CAP STAMPED "PLS NO. 31161", BEARS N89°41'54"E A DISTANCE OF 5319.46 FEET, TO WHICH LINE ALL BEARINGS IN THIS LEGAL DESCRIPTION ARE RELATIVE;

COMMENCING AT THE WEST QUARTER CORNER OF SAID SECTION 23;

THENCE N89°41'54"E ALONG THE CENTERLINE OF SAID SECTION 892.24 FEET TO THE SOUTHEAST CORNER OF "CREEKSIDE AT LORSON RANCH FILING NO. 1" AS RECORDED UNDER RECEPTION NO.

\_\_\_\_\_, IN THE RECORDS OF EL PASO COUNTY, COLORADO;

THENCE ALONG THE SOUTHERLY AND EASTERLY LINES OF "CREEKSIDE AT LORSON RANCH FILING NO. 1" THE FOLLOWING TWENTY-TWO (22) COURSES;

- 1) THENCE N36°43'29"E A DISTANCE OF 311.41 FEET;
- 2) THENCE N28°55'26"E A DISTANCE OF 265.02 FEET;
- 3) THENCE S77°01'58"E A DISTANCE OF 350.83 FEET;
- 4) THENCE N83°30'09"E A DISTANCE OF 446.06 FEET;
- 5) THENCE N16°26'24"E A DISTANCE OF 116.82 FEET TO A POINT OF CURVE;
- 6) THENCE 281.40 FEET ALONG THE ARC OF A CURVE TO THE RIGHT, SAID CURVE HAVING A RADIUS OF 215.00 FEET, A CENTRAL ANGLE OF 74°59'26", THE CHORD OF 261.74 FEET BEARS N53°56'07"E TO A POINT OF TANGENT
- 7) THENCE S88°34'10"E A DISTANCE OF 160.16 FEET;
- 8) THENCE S44°43'03"E A DISTANCE OF 230.04 FEET;
- 9) THENCE S65°32'01"E A DISTANCE OF 188.46 FEET;
- 10) THENCE N85°20'33"E A DISTANCE OF 169.20 FEET;
- 11) THENCE N17°08'25"E A DISTANCE OF 123.42 FEET;
- 12) THENCE N60°55'25"E A DISTANCE OF 219.41 FEET;
- 13) THENCE N77°50'20"E A DISTANCE OF 405.01 FEET;
- 14) THENCE S82°16'06"E A DISTANCE OF 188.62 FEET;
- 15) THENCE N76°28'55"E A DISTANCE OF 247.86 FEET;
- 16) THENCE N31°05'09"E A DISTANCE OF 90.00 FEET;
- 17) THENCE N58°54'51"W A DISTANCE OF 4.71 FEET;
- 18) THENCE N31°55'05"E A DISTANCE OF 182.34 FEET;
- 19) THENCE N11°17'09"E A DISTANCE OF 285.14 FEET;
- 20) THENCE N00°29'43"E A DISTANCE OF 173.06 FEET;
- 21) THENCE N11°46'57"E A DISTANCE OF 127.69 FEET;
- 22) THENCE N21°18'01"E A DISTANCE OF 20.20 FEET TO THE SOUTHERLY RIGHT-OF-WAY LINE OF LORSON BOULEVARD AS SHOWN IN THE PLAT OF " LORSON RANCH EAST FILING NO. 1" AS RECORDED UNDER RECEPTION NO. 219714288 IN THE RECORDS OF EL PASO COUNTY, COLORADO;

THENCE ALONG SAID LINE THE FOLLOWING FOUR (4) COURSES:

- 1) THENCE S86°49'28"E A DISTANCE OF 128.25 FEET;
- 2) THENCE N89°35'58"E A DISTANCE OF 125.90 FEET;
- 3) THENCE S47°05'26"E A DISTANCE OF 38.26 FEET;

4) THENCE S00°24'02"E A DISTANCE OF 38.12 FEET TO A POINT ON THE WEST LINE OF THAT PARCEL DESCRIBED IN A WARRANTY DEED UNDER RECEPTION NO. 217154370 IN THE EL PASO COUNTY RECORDS;  
 THENCE ALONG THE WEST LINES OF SAID PARCEL THE FOLLOWING FOUR (4) COURSES;  
 1) THENCE S00°24'02"E A DISTANCE OF 429.71 FEET TO A POINT OF CURVE;  
 2) THENCE 538.03 FEET ALONG THE ARC OF A CURVE TO THE LEFT, SAID CURVE HAVING A RADIUS OF 595.00 FEET, A CENTRAL ANGLE OF 51°48'35", THE CHORD OF 519.88 FEET BEARS S26°18'20"E TO A POINT OF TANGENT;  
 3) THENCE S52°12'37"E A DISTANCE OF 365.17 FEET TO A POINT ON A TANGENT CURVE;  
 4) THENCE 160.11 FEET ALONG THE ARC OF A CURVE TO THE LEFT, SAID CURVE HAVING A RADIUS OF 780.00 FEET, A CENTRAL ANGLE OF 11°45'39", THE CHORD OF 159.83 FEET BEARS S58°05'27"E TO THE WEST LINE OF THAT EASEMENT DESCRIBED IN BOOK 2665 AT PAGE 715 OF THE EL PASO COUNTY RECORDS;  
 THENCE S38°22'41"W ALONG SAID EASEMENT LINE 250.28 FEET;  
 THENCE S00°19'53"E ALONG SAID EASEMENT LINE 168.88 FEET TO THE EAST-WEST CENTERLINE OF SECTION 23;  
 THENCE S89°41'54"W ALONG SAID CENTERLINE 4073.30 FEET TO THE POINT OF BEGINNING;  
 SAID PARCEL CONTAINS A CALCULATED AREA OF 2,799,021 Sq. Ft. (64.257 ACRES MORE OR LESS).

This site contains 200 single family detached lots and several tracts for open space and a park.

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## 2.0 WATER SUPPLY AND WASTEWATER COLLECTION

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The development is located within the service boundary of the Widefield Water and Sanitation District (WWSD). A commitment letter is included in Appendix A from WWSD for this project.

### Existing Infrastructure

The WWSD has an existing 16" diameter potable water main located on the west side of Marksheffel Road directly adjacent to Lorson Ranch. In addition, a 24" water main is constructed from the Goldfield tanks (Powers Blvd.) to Lorson Ranch. On-site watermain consists of a 24" watermain in Fontaine Boulevard, a 8" watermain in Trappe Drive and an 8" watermain from Lorson Boulevard south and east to Heritage Road. The existing 8" watermain connected to and extended within the site to provide service to the site.

The WWSD has a regional lift station south of Lorson Ranch at Marksheffel Road and Mesa Ridge Parkway that will be used to provide wastewater gravity service to Lorson Ranch. An 24" sanitary sewer on the west side of the East Tributary of Jimmy Camp Creek will provide gravity sewer service to the site.

### Water Serviceability

The WWSD's has a current developed physical water supply of 5246 ac-ft of water per year and the current demand is 2248 ac-ft per year which is roughly 43% of the existing physical supply.

### Wastewater Serviceability

The WWSD collects and treats wastewater from users within its service area at the WWSD treatment plant located near Hwy 16 and Fountain Creek. The treatment plant has a current hydraulic capacity of **2.5 MGD**. Currently, the plant is operating at a capacity of **1.43 MGD**. The District has the capability to treat an additional **1.07 MGD** with its existing plant.

## Water Demand

Water Demand calculations were completed based on the proposed zoning and densities. Water demand is 0.35 ac-ft/year for each single family lot. This subdivision also includes irrigation for landscaping (park) which has been estimated at 5 single family equivalents.

The new water commitments are 71.75 ac-ft per year for the 200 lots and the landscaping (5sfe).

## Wastewater Demand

Sewer loading calculations were completed based on the proposed zoning and densities. Sanitary loads of 205 Gal/Unit for single family residential lots can be expected.

Based on the wastewater loading, the total wastewater load projected for this site is 0.0041 MGD for the 200 lots.

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## 3.0 SUMMARY AND CONCLUSIONS

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The maximum allowable water demand and the anticipated wastewater contributions are as follows:

Item	ac. ft./yr	Avg. Daily Flow (gpd)
Water Demand	71.75	64,023
Wastewater Flow		41,000

The Widefield Water and Sanitation District has an excess capacity in their existing water supply system to serve this subdivision

The WWSD has excess capacity at their existing wastewater treatment plant to treat an additional **1.07 MGD** of wastewater effluent. The proposed development will only contribute an additional **0.172 MGD** of flow to the existing plant.

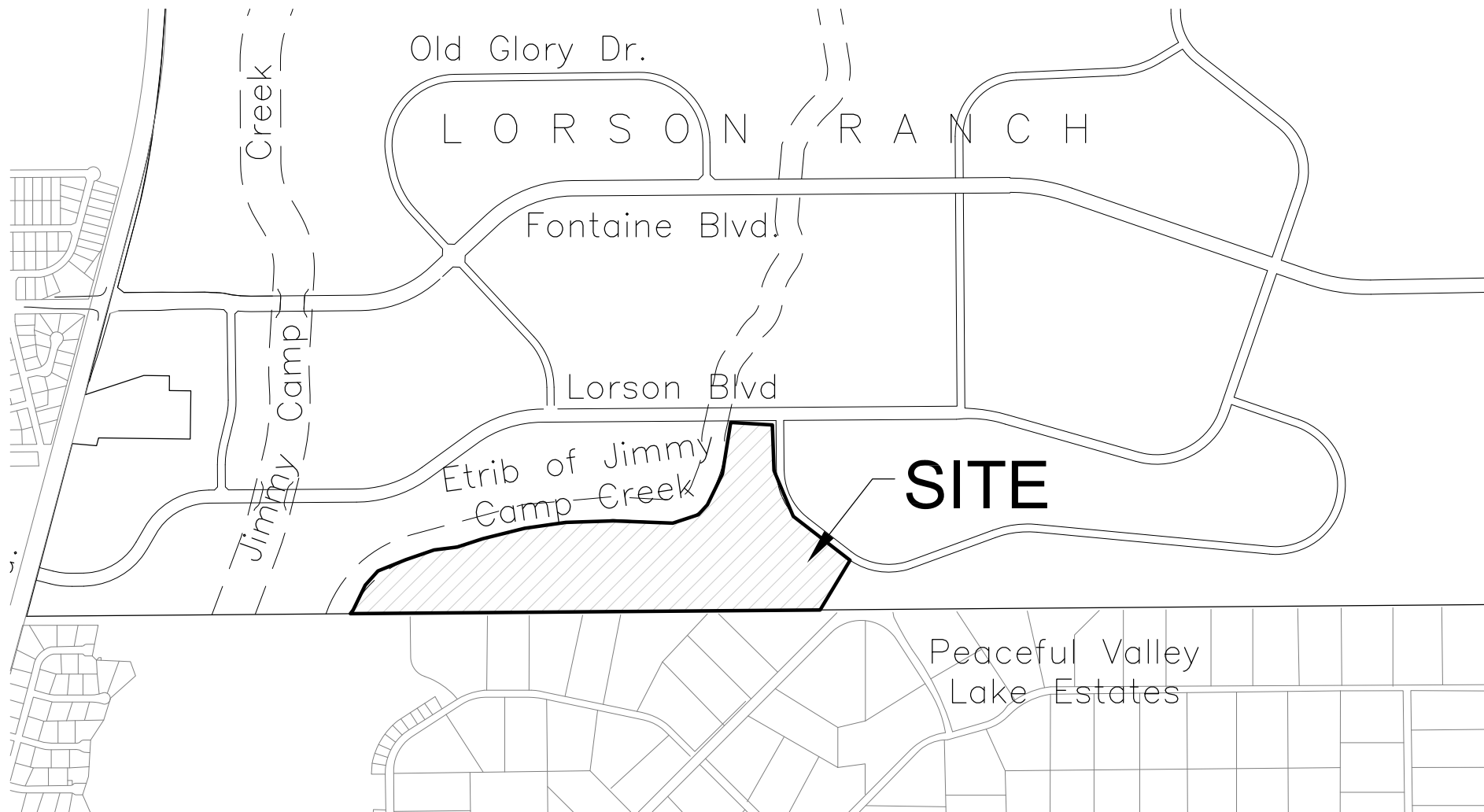
Construction costs of proposed off-site infrastructure have not been included in this report since the infrastructure is located within Lorson Ranch adjacent to this site.

In conclusion, the proposed development is within the limits of the District's ability to serve it both with water and wastewater collection. Water and wastewater infrastructure is onsite, thus, no unusual costs will be incurred by the district or the Developer in developing this project.

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**APPENDIX A –  
VICINITY MAP, WATER SUPPLY INFORMATION, COMMITMENT LETTER**

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**VICINITY MAP**  
NO SCALE



**CORE**  
ENGINEERING GROUP

15004 1ST AVE. S.  
BURNSVILLE, MN 55306  
PH: 719.570.1100

CONTACT: RICHARD L. SCHINDLER, P.E.  
EMAIL: Rich@ceg1.com

**CREEKSIDE SOUTH AT LORSON RANCH  
VICINITY MAP**

SCALE:  
NTS

DATE:  
JANUARY, 2020

FIGURE NO.  
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**8495 Fontaine Boulevard, Colorado Springs, Colorado 80925**

January 17, 2020

Jeff Mark  
Landhuis Company  
212 North Wahsatch, Suite 301  
Colorado Springs, Colorado 80903

Cole Emmons  
County Attorney's Office  
27 East Vermijo Avenue  
Colorado Springs, Colorado 80903

**Re: Commitment Letter for Preliminary Plan of "Creekside South at Lorson Ranch"**

Dear Jeff and Cole:

The Widefield Water and Sanitation District commits to providing water and sewer service to the above mentioned subdivision per this letter. This is a preliminary plan commitment known as Creekside South at Lorson Ranch.

The water commitment is for **200 Residential Lots plus Landscaping (5 sfe) and 71.75 acre-feet.** The expected wastewater load is 41,000 gallons per day.

The Widefield Water and Sanitation District has more than adequate water supply and wastewater treatment capacity to provide services.

Sincerely,

A blue ink signature of Rob Bannister, District Engineer.

Rob Bannister, District Engineer

C: Lucas Hale, General Manager  
Brandon Bernard, Water Department Manager  
Jason Dreessen, Wastewater Department Manager



# WATER SUPPLY INFORMATION SUMMARY

Section 30-28-133(d), C.R.S. requires that the applicant submit to the County, "Adequate evidence that a water supply that is sufficient in terms of quantity, quality and dependability will be available to ensure an adequate supply of water."

1. NAME OF DEVELOPMENT AS PROPOSED <u>Creekside South at Larson Ranch</u>			
2. LAND USE ACTION <u>Preliminary Plan / PUD</u>			
3. NAME OF EXISTING PARCEL AS RECORDED			
SUBDIVISION	FILING	BLOCK	LOT
4. TOTAL ACREAGE <u>64.257</u>		5. NUMBER OF LOTS PROPOSED <u>200</u> PLAT MAP ENCLOSED <input type="checkbox"/> YES	
6. PARCEL HISTORY - Please attach copies of deeds, plats or other evidence or documentation.			
A. Was parcel recorded with county prior to June 1, 1972? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO B. Has the parcel ever been part of a division of land action since June 1, 1972? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If yes, describe the previous action _____			
7. LOCATION OF PARCEL - Include a map delineating the project area and tie to a section corner.			
<u>N 1/2</u> 1/4 OF _____ 1/4 SECTION <u>23</u> TOWNSHIP <u>15</u> <input type="checkbox"/> N <input checked="" type="checkbox"/> S RANGE <u>65</u> <input type="checkbox"/> E <input checked="" type="checkbox"/> W PRINCIPAL MERIDIAN: <input checked="" type="checkbox"/> 6TH <input type="checkbox"/> N.M. <input type="checkbox"/> UTE <input type="checkbox"/> COSTILLA			
8. PLAT - Location of all wells on property must be plotted and permit numbers provided. Surveyors plat <input type="checkbox"/> Yes <input type="checkbox"/> No If not, scaled hand drawn sketch <input type="checkbox"/> Yes <input type="checkbox"/> No			
9. ESTIMATED WATER REQUIREMENTS - Gallons per Day or Acre Feet per Year		10. WATER SUPPLY SOURCE	
HOUSEHOLD USE # <u>200</u> of units <u>62,462</u> GPD <u>70.00</u> AF COMMERCIAL USE # _____ of S.F. _____ GPD _____ AF IRRIGATION # _____ of acres <u>1,561</u> GPD <u>1.75</u> AF STOCK WATERING # _____ of head _____ GPD _____ AF OTHER _____ GPD _____ AF TOTAL <u>64,023</u> GPD <u>71.75</u> AF		<input type="checkbox"/> EXISTING WELLS WELL PERMIT NUMBERS _____ <input type="checkbox"/> DEVELOPED SPRING _____ <input type="checkbox"/> NEW WELLS - PROPOSED AQUIFERS - (CHECK ONE) <input type="checkbox"/> ALLUVIAL <input type="checkbox"/> UPPER ARAPAHOE <input type="checkbox"/> LOWER ARAPAHOE <input type="checkbox"/> UPPER DAWSON <input type="checkbox"/> LARAMIE FOX HILLS <input type="checkbox"/> LOWER DAWSON <input type="checkbox"/> DAKOTA <input type="checkbox"/> DENVER <input type="checkbox"/> OTHER _____ <input type="checkbox"/> MUNICIPAL <input type="checkbox"/> ASSOCIATION <input type="checkbox"/> COMPANY <input checked="" type="checkbox"/> DISTRICT NAME <u>Widefield W+5 District</u> LETTER OF COMMITMENT FOR SERVICE <input type="checkbox"/> YES <input type="checkbox"/> NO	
11. ENGINEER'S WATER SUPPLY REPORT <input type="checkbox"/> YES <input type="checkbox"/> NO IF YES, PLEASE FORWARD WITH THIS FORM. (This may be required before our review is completed.)			
12. TYPE OF SEWAGE DISPOSAL SYSTEM			
<input type="checkbox"/> SEPTIC TANK/LEACH FIELD <input type="checkbox"/> LAGOON <input type="checkbox"/> ENGINEERED SYSTEM (Attach a copy of engineering design)		<input checked="" type="checkbox"/> CENTRAL SYSTEM - DISTRICT NAME <u>Widefield Water + San District</u> <input type="checkbox"/> VAULT - LOCATION SEWAGE HAULED TO _____ <input type="checkbox"/> OTHER _____	

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**APPENDIX B –  
2016 WWSD ANNUAL WATER AND WASTEWATER REPORT, JDS HYDRO**

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# **WIDEFIELD WATER AND SANITATION DISTRICT**

**37 Widefield Blvd**

**Security, CO 80911**

## **District Water and Wastewater Report**

### **Annual Update**

**Date of Update** January 1, 2016

**Update Author** John P. McGinn, PE;

District Engineer for Widefield Water and Sanitation District,

JDS-Hydro Consultants, Inc.

### **Attachments**

- Widefield Water Facilities Map (2 sheets)
- Widefield 2015 Water Quality Consumer Confidence Report
- End of 2015 Year Commitment Balance Sheet

### **1. Water General**

The Widefield Water and Sanitation District's Water System was originally created in the 1960's and has been expanded for nearly 50 years. The system serves approximately 8000 single family equivalent households.

All water supply is based on surface water rights, renewable groundwater, and a mix of various sources. The system does not rely on any non-renewable water sources.

The current Legal Water Supply Holdings of the District are estimated at 9495 annual acre-feet.

The current Developed Physical Supply is 5246 annual acre-feet. The three year running average actual use is 2248 acre-feet which is roughly 43% of the existing available physical supply.

A revised table of active commitments, and completed subdivisions is attached. This table is valid as of January 1, 2016.

2. **Recent Water Volumes Used** The recent three years water use and tap data are as follows;

Year	Annual Use (Acre-feet)	Single Family Equivalent (Taps in SFE)
2013	2318	7632 (corrected)
2014	2309.	7797 (corrected)
2015	2117	8058

3. **Water Supply**

**Changes in Water Supply** There have been NO RECENT CHANGES in the Widefield Water Supply Inventory in the last 3 years, since the last Full Report. All existing sources have been previously documented on file at County Attorney's office.

**Listing of Water Supplies:**

*Renewable Groundwater;* All sources previously documented at County Attorney's office

- Widefield Aquifer; Widefield is allocated the use of 2575 annual acre-feet through the Widefield Aquifer Stipulation
- Jimmy Camp Aquifer; Widefield is allocated 650 annual acre-feet through the Widefield Aquifer Stipulation
- Vennetucci Lease: Widefield is perpetually leased an allocation of 596 annual acre-feet through a Public Trust Partnership which provides for funding of the Vennetucci Trust Farm through water revenues on a perpetual basis. This is currently subleased to the City of Fountain through the year 2017.

*Surface Water Supplies:* Sources documented at County Attorney's Office

- Widefield owns 1500 annual acre-feet of the Fountain Valley Authority Project which safely yields 1425 annual acre-feet of fully consumable water.
- Widefield has 812 shares of Fountain Mutual Irrigation Water and is the owner/operator of the Crews Gulch Augmentation Station as this supply is used in augmentation or leased out on an annual basis, as it has never been fully needed.

- Widefield owns roughly 1025 annual acre-feet of return flows from CSU's portion of the FVA project. This is used in augmentation, but is mostly leased out annually because demand has not required the need.
- Widefield owns a mix of senior surface water supplies and out-of-priority water supplies that total 1351 annual acre-feet. This is the fully consumable portion and this water is leased out and has not been developed into physical supply.

### **Potential or intended Future Supplies**

Although Widefield does have active cases that are intended to extend supplies, the District does not wish to disclose the volumes or nature of those supplies that are in active acquisition states.

### **Legal Documentation accompanying new water acquisitions and augmentations plans**

None

## **4. Widefield Water Quality**

The water quality provided by the Widefield Water and Sanitation District meets or exceeds all required State and Federal Drinking Water Standards. For a detailed water quality report, please see the Widefield Consumer Confidence Report which is updated annually and accessible at <http://wwsdonline.com/index.php?page=consumer-confidence-report>. A 2015 copy is attached.

## **5. Widefield Physical Water System**

The Widefield System is too large to show all lines and facilities, the attachment shows the major facilities. The Widefield Water System consists of:

Service area of roughly 10 square miles.

Pipelines over 550,000 linear feet varying in size from 4 to 30 inches in diameter

Seven Water Tanks totaling roughly 10.0 Million Gallons

Five Pressure Zones

Three Booster Stations

24 Inch Transmission from FVA

Participation in Pueblo Reservoir and Frying Pan Arkansas Water project

Two Water Treatment Plants

Eleven Active Wells (not including inactive or the Vennetucci System)

**6. Major capital improvements accomplished during recent years and anticipated improvements for the upcoming years**

- Most Recent Three Years Upgrades to water facilities include the following:
  - Begin Development of West to East Transmission Line: This project includes certain transmission line upgrades which will continue over the next 10 years
  - Replacement of well equipment in three Widefield and Jimmy Camp wells. (No addition to sources)
  - Repair and Rehabilitation of a 2.1 MG Tank
- Expected Upcoming 3 Years Improvements - These are all system-wide capital projects.
  - No additional Sources
  - Phase IV West to East Transmission System
  - Repair and changes to Well C-1
  - Demolition of two older tanks and reconstruction of one tank
  - Relocation of JHW-2 Well
  - Well Manifolding

**Wastewater Report Update**

**1. Wastewater General**

The Widefield Water and Sanitation District's Wastewater System was originally created in the 1960's and has been expanded for nearly 50 years. The system serves over 8000 single family equivalent households.

The current hydraulic capacity of the Widefield Wastewater Treatment Plant is 2.50 MGD. *Note—WWTP are rated on the basis of Average daily Maximum Monthly Flow, which differs from Max Day Flow.* There have been no increases to plant capacity since 2001.

The treatment plant discharges to Lower Fountain Creek.

Current 3 year running average loading is 1.43 MGD which is roughly 58% of Plant Capacity.

Current projected use plus active commitments are projected to be roughly 1.69 MGD which represents about 66% of Current Hydraulic Plant Capacity. *Note—WWTP are rated on the basis of Average daily Maximum Monthly Flow, which differs from Max Day Flow.*

2. **Actual Wastewater Volumes Treated**

The recent three years wastewater plant loads and tap data are as follows:

Year	Average Daily Flow (MGD)	Single Family Equivalent (Taps in SFE)
2013	1.47	7724 (Corrected)
2014	1.44	7885 (Corrected)
2015	1.40	8131

Note; Widefield provided wastewater treatment to Colorado Centre Metropolitan District from late 2011 through mid 2014.

3. **Existing Widefield Wastewater System**

The Widefield Water System consists of:

Service area of roughly 10 square miles.

Pipelines over 570,000 linear feet varying in size from 8 to 24 inches in diameter

Five Lift Stations

Wastewater Treatment Plant—2.5 MGD Capacity

The existing wastewater plant remains in compliance with CDPHE Discharge Standards.

4. **Major capital improvements accomplished during the past year and anticipated improvements for the upcoming year**

- **Most Recent Three Years:** Upgrades to wastewater facilities include the following:

Some replacement of older lines in older areas of the District

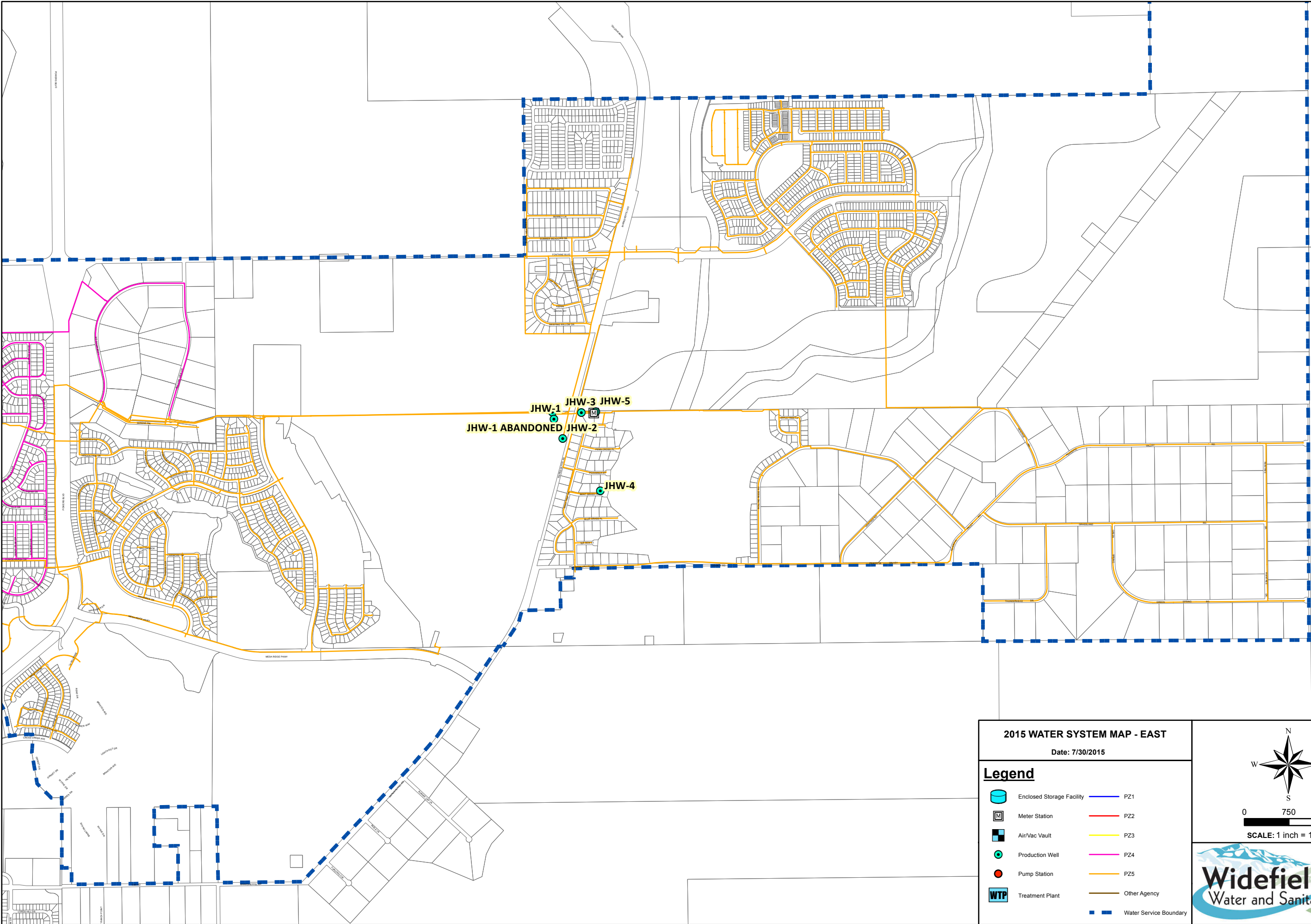
- **Expected Upcoming Three Years Improvements**

Upgrade of Treatment systems to meet future Regulation 85 requirements. This upgrade includes Bio-nutrient Removal required by 2019. This is not expected to include increases in capacity.

Continued Line replacement of older lines

Upgrades of solids handling



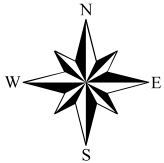


2015 WATER SYSTEM MAP - EAST

Date: 7/30/2015

Legend

- |  |                           |  |                        |
|--|---------------------------|--|------------------------|
|  | Enclosed Storage Facility |  | PZ1                    |
|  | Meter Station             |  | PZ2                    |
|  | Air/Vac Vault             |  | PZ3                    |
|  | Production Well           |  | PZ4                    |
|  | Pump Station              |  | PZ5                    |
|  | Treatment Plant           |  | Other Agency           |
|  |                           |  | Water Service Boundary |

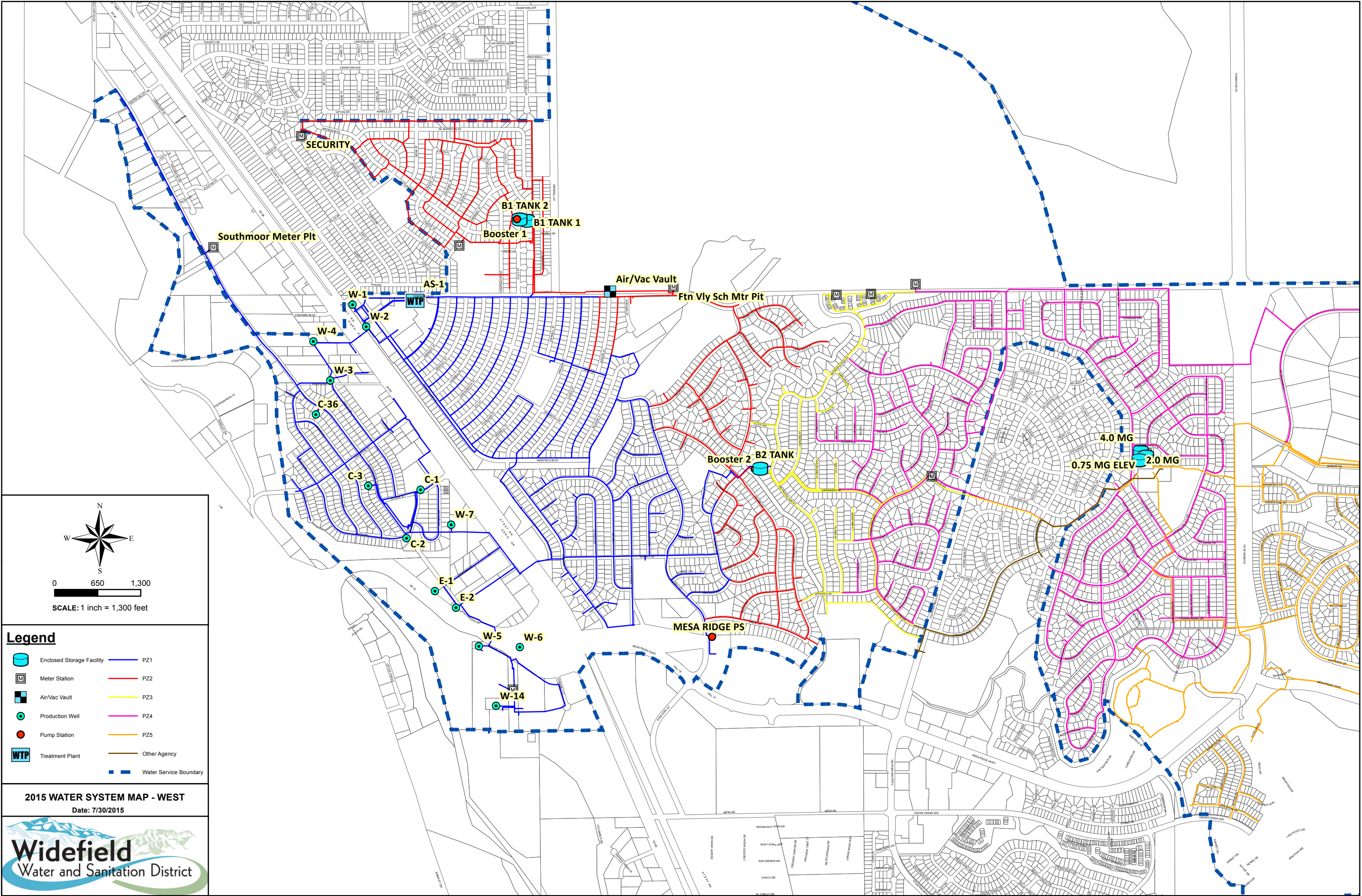


0 750 1,500

SCALE: 1 inch = 1,500 feet







## Widefield Water and Sanitation District

Tabulation of Water Supply vs Active Subdivisions<sup>5</sup>

Current Water (Acre-Feet)			Current SFE Dec 31 2015		
Existing Water Use <sup>1</sup>		2248	8058		
Development			Subdivisions		Comments
			Commitment SFE	Unused Commitment Acre-Feet	
Lorson--Complete					plus Pocket Park
	Pioneer Landing 1	Done	118		
	Ponderosa 1	Done	102		
	Ponderosa 2	Done	102		
	Allegiant	Done	97		
	Townhomes at Lorson Filing #1-Phase One	Done	46		
	Buffalo Crossing Filing #1	Done	55		
	Buffalo Crossing Filing #2	Done	145		
	Meadows at Lorson Filing #1	Done	97		
	Meadows at Lorson Filing #2	Done	110		
	Meadows at Lorson Filing #3	Done	138		
Glen--Complete					
	Glen 6A	Done	68		
	Glen 6B	Done	77		
<u>In Construction/Buildout</u>					
	The Glen 6C		81	31.59	Issuing Taps
	Meadows at Lorson Filing #4		241	46.02	Issuing Taps
<u>In for Final Platting</u>					
	Peaceful Valley Ridge	Re-activated <sup>2</sup>	275	107.25	
	Widefield Commercial Center Filing #1		22.5	8.78	
	Residence at Widfield Park	INACTIVE	27	10.53	No Activity since 2010
	Glen 7		0	0.00	Part of Glen East
	Glen 8	New	0	0.00	Part of Glen East
	Pioneer Landing 2	New	170	66.30	Lorson
<u>Preliminary Plan</u>					
	Glen East		603	235.17	
	Carriage Meadows	INACTIVE	161	62.79	No Activity since 2007
	Rolling Hills Ranch Phase I	ABANDONED <sup>3</sup>	674.18	264.76	No Activity since 2007
Totals		2,248	1,393	418	Inactive units not included in Totals
Actual SFE plus Active Commitments			9,451	3686	3686 based on 0.39 AF/SFE <sup>4</sup>
Current System Water Supply		5,246		5246	
Excess Water Supply				1560	

**Note 1;** The 3 year running average dropped from 2464 Acre-feet (2012, 2013, 2014) to 2248 Acre-feet (2013, 2014, 2015)

Record low usage in 2015, due to continued conservation awareness and extremely wet year

**Note 2;** Peaceful Valley Ridge returned to active status in January, 2015. Lines under construction in 2016

**Note 3;** Rolling Hills Ranch Phase I was mostly abandoned in 2012 due to large portion transferred to US for future VA Cemetery

**Note 4;** Widefield continues to use the planning figure of 0.39 Acre-feet per SFE as a planning figure.

However, Widefield's unit use characteristic continues to drop with conservation awareness. Widefield's current

10 year running average unit user characteristic is 0.328 acre-feet per SFE. We expect to make a change in planning figures within the next few years

**Note 5;** Water use and completed/uncompleted subdivision completions--as of December 31, 2015. Additional 2016 commitments are noted in blue

JDS-Hydro Consultants, Inc



# WIDEFIELD WSD 2019 Drinking Water Quality Report

## For Calendar Year 2018

*Public Water System ID: CO0121900*

**Esta es información importante. Si no la pueden leer, necesitan que alguien se la traduzca.**

We are pleased to present to you this year's water quality report. Our constant goal is to provide you with a safe and dependable supply of drinking water. Please contact BRANDON BERNARD at 719-464-2051 with any questions or for public participation opportunities that may affect water quality.

### General Information

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791) or by visiting <http://water.epa.gov/drink/contaminants>.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV-AIDS or other immune system disorders, some elderly, and infants can be particularly at risk of infections. These people should seek advice about drinking water from their health care providers. For more information about contaminants and potential health effects, or to receive a copy of the U.S. Environmental Protection Agency (EPA) and the U.S. Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and microbiological contaminants call the EPA Safe Drinking Water Hotline at (1-800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- Microbial contaminants:** viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants:** salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides:** may come from a variety of sources, such as agriculture, urban storm water runoff, and residential uses.
- Radioactive contaminants:** can be naturally occurring or be the result of oil and gas production and mining activities.
- Organic chemical contaminants:** including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and also may come from gas stations, urban storm water runoff, and septic systems.

In order to ensure that tap water is safe to drink, the Colorado Department of Public Health and Environment prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

### Lead in Drinking Water

If present, elevated levels of lead can cause serious health problems (especially for pregnant women and young children). It is possible that lead levels at your home may be higher than other homes in the community as a result of materials used in your home's plumbing. If you are concerned about lead in your water, you may wish to have your water tested. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. Additional information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.

### Source Water Assessment and Protection (SWAP)

The Colorado Department of Public Health and Environment may have provided us with a Source Water Assessment Report for our water supply. For general information or to obtain a copy of the report please visit [www.colorado.gov/cdphe/ccr](http://www.colorado.gov/cdphe/ccr). The report is located under "Guidance: Source Water Assessment Reports". Search the table using 121900, WIDEFIELD WSD, or by contacting BRANDON BERNARD at 719-464-2051. The Source Water Assessment Report provides a screening-level evaluation of potential contamination that *could* occur. It *does not* mean that the contamination *has or will* occur. We can use this information to evaluate the need to improve our current water treatment capabilities and prepare for future contamination threats. This can help us ensure that quality finished water is delivered to your homes. In addition, the source water assessment results provide a starting point for developing a source water protection plan. Potential sources of contamination in our source water area are listed on the next page.

Please contact us to learn more about what you can do to help protect your drinking water sources, any questions about the Drinking Water Quality Report, to learn more about our system, or to attend scheduled public meetings. We want you, our valued customers, to be informed about the services we provide and the quality water we deliver to you every day.

## Our Water Sources

<u>Sources (Water Type - Source Type)</u>	<u>Potential Source(s) of Contamination</u>
WELL W4 (Groundwater-Well) WELL W2Groundwater-Well) WELL W3 (Groundwater-Well) WELL C1 (Groundwater-Well) WELL W7 (Groundwater-Well) WELL E2 (Groundwater-Well) WELL C3 (Groundwater-Well) WELL C36 (Groundwater-Well) JHW2 WELL REDRILL (Groundwater-Well) JHW5R WELL (Groundwater-Well) JHW4R WELL (Groundwater-Well) WELL C2 REDRILL (Groundwater-Well) PURCHASED FROM CO0121275 (Groundwater-Consecutive Connection) WELL W1 (Groundwater-Well) PURCHASED FROM CO0121775 (Surface Water-Consecutive Connection) PURCHASED FROM CO0121300 (Surface Water-Consecutive Connection)	Environment, Industry, Soil runoff, and erosion of natural deposits

## Terms and Abbreviations

- **Maximum Contaminant Level (MCL)** – The highest level of a contaminant allowed in drinking water.
- **Treatment Technique (TT)** – A required process intended to reduce the level of a contaminant in drinking water.
- **Health-Based** – A violation of either a MCL or TT.
- **Non-Health-Based** – A violation that is not a MCL or TT.
- **Action Level (AL)** – The concentration of a contaminant which, if exceeded, triggers treatment and other regulatory requirements.
- **Maximum Residual Disinfectant Level (MRDL)** – The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- **Maximum Contaminant Level Goal (MCLG)** – The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- **Maximum Residual Disinfectant Level Goal (MRDLG)** – The level of a drinking water disinfectant, below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- **Violation (No Abbreviation)** – Failure to meet a Colorado Primary Drinking Water Regulation.
- **Formal Enforcement Action (No Abbreviation)** – Escalated action taken by the State (due to the risk to public health, or number or severity of violations) to bring a non-compliant water system back into compliance.
- **Variance and Exemptions (V/E)** – Department permission not to meet a MCL or treatment technique under certain conditions.
- **Gross Alpha (No Abbreviation)** – Gross alpha particle activity compliance value. It includes radium-226, but excludes radon 222, and uranium.
- **Picocuries per liter (pCi/L)** – Measure of the radioactivity in water.
- **Nephelometric Turbidity Unit (NTU)** – Measure of the clarity or cloudiness of water. Turbidity in excess of 5 NTU is just noticeable to the typical person.
- **Compliance Value (No Abbreviation)** – Single or calculated value used to determine if regulatory contaminant level (e.g. MCL) is met. Examples of calculated values are the 90<sup>th</sup> Percentile, Running Annual Average (RAA) and Locational Running Annual Average (LRAA).
- **Average (x-bar)** – Typical value.
- **Range (R)** – Lowest value to the highest value.
- **Sample Size (n)** – Number or count of values (i.e. number of water samples collected).

- **Parts per million = Milligrams per liter (ppm = mg/L)** – One part per million corresponds to one minute in two years or a single penny in \$10,000.
- **Parts per billion = Micrograms per liter (ppb = ug/L)** – One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- **Not Applicable (N/A)** – Does not apply or not available.
- **Level 1 Assessment** – A study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
- **Level 2 Assessment** – A very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

### **Detected Contaminants**

WIDEFIELD WSD routinely monitors for contaminants in your drinking water according to Federal and State laws. The following table(s) show all detections found in the period of January 1 to December 31, 2018 unless otherwise noted. The State of Colorado requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. Therefore, some of our data, though representative, may be more than one year old. Violations and Formal Enforcement Actions, if any, are reported in the next section of this report.

**Note:** Only detected contaminants sampled within the last 5 years appear in this report. If no tables appear in this section then no contaminants were detected in the last round of monitoring.

<b>Disinfectants Sampled in the Distribution System</b> <b>TT Requirement:</b> At least 95% of samples per period (month or quarter) must be at least 0.2 ppm <u><b>OR</b></u> If sample size is less than 40 no more than 1 sample is below 0.2 ppm <b>Typical Sources:</b> Water additive used to control microbes						
Disinfectant Name	Time Period	Results	Number of Samples Below Level	Sample Size	TT Violation	MRDL
Chlorine	March, 2018	<u>Lowest period</u> percentage of samples meeting TT requirement: 95%	1	20	No	4.0 ppm

Assessments for Microorganism Contaminants Sampled in the Distribution System		
Contaminant Name	TT Requirement	TT Violation
Total Coliform	We were required to conduct an assessment of our system due to one of the following: More than 5.0% positive samples per period (If sample size is greater than or equal to 40) <u><b>OR</b></u> More than 1 positive sample per period (If sample size is less than 40) <u><b>OR</b></u> Repeat samples not collected after positive sample.	No
Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.  <i>During the past year we were required to conduct ZERO Level 1 assessment(s)!</i>		

Lead and Copper Sampled in the Distribution System								
Contaminant Name	Time Period	90 <sup>th</sup> Percentile	Sample Size	Unit of Measure	90 <sup>th</sup> Percentile AL	Sample Sites Above AL	90 <sup>th</sup> Percentile AL Exceedance	Typical Sources
Copper	02/22/2018 to 03/14/2018	0.38	60	ppm	1.3	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead	07/31/2018 to 12/12/2018	2.8	60	ppb	15	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Copper	07/31/2018 to 12/12/2018	0.33	60	ppm	1.3	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead	02/22/2018 to 03/14/2018	2.6	60	ppb	15	1	No	Corrosion of household plumbing systems; Erosion of natural deposits

Disinfection Byproducts Sampled in the Distribution System									
Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Total Haloacetic Acids (HAA5)	2018	12.3	1.41 to 30	16	ppb	60	N/A	No	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHM)	2018	28.62	4.1 to 59.71	16	ppb	80	N/A	No	Byproduct of drinking water disinfection

Radionuclides Sampled at the Entry Point to the Distribution System									
Contaminant Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources

### Radionuclides Sampled at the Entry Point to the Distribution System

Contaminant Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Gross Alpha	2017	1.68	0.71 to 2.65	2	pCi/L	15	0	No	Erosion of natural deposits
Combined Radium	2017	1.5	1.5 to 1.5	1	pCi/L	5	0	No	Erosion of natural deposits
Combined Uranium	2017	6.83	6.1 to 8.2	3	ppb	30	0	No	Erosion of natural deposits
Gross Beta Particle Activity	2017	2	2 to 2	1	pCi/L*	50	0	No	Decay of natural and man-made deposits

\*The MCL for Gross Beta Particle Activity is 4 mrem/year. Since there is no simple conversion between mrem/year and pCi/L EPA considers 50 pCi/L to be the level of concern for Gross Beta Particle Activity.

### Inorganic Contaminants Sampled at the Entry Point to the Distribution System

Contaminant Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Barium	2018	0.01	0.01 to 0.01	2	ppm	2	2	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride	2018	0.89	0.89 to 0.89	1	ppm	4	4	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate	2018	4.39	0.85 to 6.9	7	ppm	10	10	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

**Nitrate:** Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

### Volatile Organic Contaminants Sampled at the Entry Point to the Distribution System



Contaminant Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Tetrachloroethylene	2018	0.13	0 to 0.63	5	ppb	5	0	No	Discharge from factories and dry cleaners

#### Secondary Contaminants\*\*

\*\*Secondary standards are non-enforceable guidelines for contaminants that may cause cosmetic effects (such as skin, or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water.

Contaminant Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	Secondary Standard
Sodium	2018	180	180 to 180	2	ppm	N/A
Total Dissolved Solids	2014	1105	1100 to 1110	2	ppm	500

#### Unregulated Contaminants\*\*\*

EPA has implemented the Unregulated Contaminant Monitoring Rule (UCMR) to collect data for contaminants that are suspected to be present in drinking water and do not have health-based standards set under the Safe Drinking Water Act. EPA uses the results of UCMR monitoring to learn about the occurrence of unregulated contaminants in drinking water and to decide whether or not these contaminants will be regulated in the future. We performed monitoring and reported the analytical results of the monitoring to EPA in accordance with its Unregulated Contaminant Monitoring Rule (UCMR). Once EPA reviews the submitted results, the results are made available in the EPA's National Contaminant Occurrence Database (NCOD) (<http://www.epa.gov/dwucmr/national-contaminant-occurrence-database-ncod>) Consumers can review UCMR results by accessing the NCOD. Contaminants that were detected during our UCMR sampling and the corresponding analytical results are provided below.

Contaminant Name	Year	Average	Range Low – High	Sample Size	Unit of Measure
Bromochloroacetic Acid	2018	2.41	0.909-4.53	8	Parts per Billion
Chlorodibromoacetic Acid	2018	0.90	0.379-1.58	8	Parts per Billion
Dibromoacetic Acid	2018	1.92	1.14-2.91	8	Parts per Billion
Bromodichloroacetic Acid	2018	1.43	0-3.7	8	Parts per Billion
Dichloroacetic Acid	2018	4.24	0-10.8	8	Parts per Billion
Monobromoacetic Acid	2018	0.25	0-0.83	8	Parts per Billion
Trichloroacetic Acid	2018	2.88	0-7.14	8	Parts per Billion
Manganese	2018	4.8	0.412-9.35	2	Part per Billion
Perfluorobutanesulfonic acid	2018	Non-Detect	Non-Detect	12	Parts per Trillion
Perfluorheptanoic acid	2018	Non-Detect	Non-Detect	12	Parts per Trillion

### Unregulated Contaminants\*\*\*

EPA has implemented the Unregulated Contaminant Monitoring Rule (UCMR) to collect data for contaminants that are suspected to be present in drinking water and do not have health-based standards set under the Safe Drinking Water Act. EPA uses the results of UCMR monitoring to learn about the occurrence of unregulated contaminants in drinking water and to decide whether or not these contaminants will be regulated in the future. We performed monitoring and reported the analytical results of the monitoring to EPA in accordance with its Unregulated Contaminant Monitoring Rule (UCMR). Once EPA reviews the submitted results, the results are made available in the EPA's National Contaminant Occurrence Database (NCOD) (<http://www.epa.gov/dwucmr/national-contaminant-occurrence-database-ncod>) Consumers can review UCMR results by accessing the NCOD. Contaminants that were detected during our UCMR sampling and the corresponding analytical results are provided below.

Contaminant Name	Year	Average	Range Low – High	Sample Size	Unit of Measure
Perfluorohexanesulfonic Acid	2018	Non-Detect	Non-Detect	12	Parts per Trillion
Perfluorooctanesulfonic Acid	2018	Non-Detect	Non-Detect	12	Parts per Trillion
Perfluorooctanoic Acid	2018	Non-Detect	Non-Detect	12	Parts per Trillion

\*\*\*More information about the contaminants that were included in UCMR monitoring can be found at: <https://drinktap.org/Water-Info/Whats-in-My-Water/Unregulated-Contaminant-Monitoring-Rule-UCMR>. Learn more about the EPA UCMR at: <http://www.epa.gov/dwucmr/learn-about-unregulated-contaminant-monitoring-rule> or contact the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/contact.cfm>.

### Violations, Significant Deficiencies, Backflow/Cross-Connection, and Formal Enforcement Actions

No Violations or Formal Enforcement Actions

CITY OF FOUNTAIN - 2018 MONITORING RESULTS

The table below displays the levels of contaminants detected from water samples taken throughout the 2018 calendar year from the City of Fountain. This table also reflects Fountain Valley (FVA) Authority's (PWSID #CO0121300) test results for 2018 as the City of Fountain purchases 99% of it's drinking water from FVA. If you have any questions regarding the FVA's results, please contact them directly. The City of Fountain joined with Security Water District and Widefield Water & Sanitation District on a water exchange joint project; therefore, Security and Widefield's CCR information has also been included. If you would like a complete copy of their CCR, you are welcome to contact them directly. If you would like to view all test results for the City of Fountain's Water Department, they are available at 301 E. Iowa Avenue, Fountain, CO during normal business hours. NOTE: Only detected contaminants sampled within the last five years appear in this report. If no tables appear in this section, that means the City of Fountain did not detect any contaminants in the last round of monitoring.

INORGANIC CONTAMINATES	UNIT	MCLG	MCL	FOUNTAIN WATER				WIDEFIELD WATER				FOUNTAIN VALLEY AUTHORITY				TYPICAL SOURCES
				RANGE	AVERAGE	SAMPLE SIZE	YEAR SAMPLED	RANGE	AVERAGE	SAMPLE SIZE	YEAR SAMPLED	LEVEL DETECTED	AVERAGE	SAMPLE SIZE	YEAR SAMPLED	
ARSENIC	ppb	0	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1 - 1	1	1	2016	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production waste.
BARIUM	ppm	2	2	.04 - .05	0.04	2	2017	0.01 - 0.01	0.01	2	2018	0.06	N/A	N/A	2018	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
CHROMIUM	ppb	100	100	N/A	N/A	N/A	N/A	0 - 1	0.25	4	2017	N/A	N/A	N/A	N/A	Discharge from steel and pulp mills; erosion of natural deposits.
FLOURIDE	ppm	4	4	1.7 - 1.8	1.75	2	2017	0.89 - 0.89	0.89	1	2018	0.53	N/A	N/A	2018	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
NICKEL	ppb	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.53	N/A	N/A	2018	Erosion of natural deposits; discharge from industries; discharge from refineries and steel mills.
NITRATE	ppm	10	10	1.6 - 3	2.3	2	2018	0.85 - 6.9	4.39	7	2018	0.44	N/A	N/A	2018	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
SELENIUM	ppb	50	50	4 - 7.4	5.7	2	2017	N/A	N/A	N/A	N/A	6	N/A	N/A	2018	Discharge from pertroleum and metal refineries; erosion of natural deposits; discharge from mines.
TETRACHLOROETHYLENE	ppb	0	5	N/A	N/A	N/A	N/A	0 - 0.63	0.13	5	2018	N/A	N/A	N/A	N/A	Discharge from factories and dry cleaners.
TRICHLOROETHYLENE	ppb	0	5	N/A	N/A	N/A	N/A	0 - 1	0.17	6	2017	N/A	N/A	N/A	N/A	Discharge from metal degreasing sites and other factories.
SECONDARY CONTAMINATES	UNIT	MCLG	MCL	FOUNTAIN WATER				WIDEFIELD WATER				FOUNTAIN VALLEY AUTHORITY				TYPICAL SOURCES
				RANGE	AVERAGE	SAMPLE SIZE	YEAR SAMPLED	RANGE	AVERAGE	SAMPLE SIZE	YEAR SAMPLED	RANGE	AVERAGE	SAMPLE SIZE	YEAR SAMPLED	
SODIUM	ppm	N/A	N/A	120 - 140	130	2	2017	180 - 180	180	2	2018	19.6	N/A	N/A	2018	Erosion of natural deposits
TOTAL DISSOLVED SOLIDS	ppm	N/A	N/A	N/A	N/A	N/A	N/A	1100 - 1110	1105	2	2014	N/A	N/A	N/A	N/A	Secondary Standard: 500
DIBROMOACETIC ACID	ppb	N/A	N/A	N/A	N/A	N/A	N/A	1.14 - 2.91	1.92	8	2018	N/A	N/A	N/A	N/A	N/A
DICHLOROACETIC ACID	ppb	N/A	N/A	N/A	N/A	N/A	N/A	0 - 10.8	4.24	8	2018	N/A	N/A	N/A	N/A	N/A
TIRCHLOROACETIC ACID	ppb	N/A	N/A	N/A	N/A	N/A	N/A	0 - 7.14	2.88	8	2018	N/A	N/A	N/A	N/A	N/A
ORGANIC CONTAMINANTS	UNIT	MCLG	MCL	FOUNTAIN WATER				WIDEFIELD WATER				FOUNTAIN VALLEY AUTHORITY				TYPICAL SOURCES
				RANGE	AVERAGE	SAMPLE SIZE	YEAR SAMPLED	RANGE	AVERAGE	SAMPLE SIZE	YEAR SAMPLED	RANGE	AVERAGE	SAMPLE SIZE	YEAR SAMPLED	
HEXACHLOROCYCLO-PENTADIENE	ppb	50	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0 - .06	0.03	2	2016	N/A
DISINFECTANTS SAMPLED IN THE DISTRIBUTION SYSTEM																
DISINFECTANT	UNIT	Lowest period percentage of samples meeting TT requirements: 100%	FOUNTAIN WATER				WIDEFIELD WATER				FOUNTAIN VALLEY AUTHORITY				TYPICAL SOURCES	
CHLORINE	ppm		Number of Samples Below Level: <u>0</u>			30	2018	Number of Samples Below Level: <u>1</u>		20	2018	TT= No More Than 4 Hours With Sample Below 0.2 MG/L		2018	<b>Disinfectants Sampled in the Distribution System</b> - TT Requirements: At least 95% of samples per period (month or quarter) must be at least 0.2 ppm OR if sample size is less than 40 no more than 1 sample is below 0.2 ppm. <b>Typical Sources:</b> Water additive used to control microbes.	

LEAD & COPPER (Sampled in the distribution System)	UNIT	90th PERCENTILE AL	FOUNTAIN WATER				WIDEFIELD WATER				FOUNTAIN VALLEY AUTHORITY				TYPICAL SOURCES		
			90th PERCENTILE	SITES ABOVE AL	SAMPLE SIZE	DATES	90th PERCENTILE	SITES ABOVE AL	SAMPLE SIZE	DATES	90th PERCENTILE	SITES ABOVE AL	SAMPLE SIZE	DATES			
COPPER	ppm	1.3	0.38	0	60	11/8/18 - 11/16/18	0.33 - 0.38	0	60	2/22/18 - 12/12/18	N/A	N/A	N/A	N/A	Corrosion of household plumbing systems; erosion of natural deposits.		
LEAD	ppb	15	6.3	2	60	11/8/18 - 11/16/18	2.6 - 2.8	1	60	2/22/18 - 12/12/18	N/A	N/A	N/A	N/A	Corrosion of household plumbing systems; erosion of natural deposits.		
(DISINFECTION BYPRODUCTS PRECURSOR) REMOVAL RATIO OF RAW AND FINISHED WATER - FOUNTAIN VALLEY AUTHORITY																	
TOTAL ORGANIC CARBON	UNIT	MCLG	MCL	SAMPLE DATES			AVERAGE		RANGE		MCL VIOLATION				TYPICAL SOURCES		
	RATIO	N/A	TT MIN. RATIO: 1.00	MONTHLY - Running Annual Average (2017)			1.08		1 - 1.28		NO				Naturally present in the environment		
FOUNTAIN VALLEY AUTHORITY (FVA) MICROBIOLOGICAL CONTAMINANTS																	
CONTAMINANT	UNIT		AVERAGE		SAMPLE SIZE		DATE	LEVEL DETECTED				VIOLATION		TYPICAL SOURCES			
TURBIDITY	NTU		---		---		Sept. 2018					Highest Single Measurement: 0.128 NTU		NO	Soil Runoff		
TURBIDITY	NTU		---		---		Dec. 2018					Lowest monthly percentage of samples meeting TT requirements: 100%		NO	Soil Runoff		
FOUNTAIN VALLEY AUTHORITY (FVA) CRYPTOSPORIDIUM AND RAW SOURCE WATER E. COLI																	
CONTAMINANT	UNIT		MCL	RANGE DETECTED	YEAR	DESCRIPTION										TYPICAL SOURCES	
CRYPTOSPORIDIUM	oocysts		0	0	2018	Cryptosporidium is a microbial pathogen found in surface water throughout the United States. Although filtration removes cryptosporidium, the most commonly used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source water and/or finished water. Current test methods do not allow us to determine if the organisms are dead or if they are capeable of causing disease. Ingestion of cryptosporidium may cause cryptosporidiosis, an abdpminal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people are at greater risk of developing life threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.										Naturally present in the environment	
E. COLI	MPN		N/A	0 - 10	2018											Naturally present in the environment	
DISINFECTION BY- PRODUCTS	UNIT	MCLG	MCL	FOUNTAIN WATER				WIDEFIELD WATER				FOUNTAIN VALLEY AUTHORITY				TYPICAL SOURCES	
				RANGE	AVERAGE	SAMPLE SIZE	YEAR SAMPLED	RANGE	AVERAGE	SAMPLE SIZE	YEAR SAMPLED	RANGE	AVERAGE	SAMPLE SIZE	YEAR SAMPLED		
TOTAL HALOCETIC ACIDS (HAA5)	ppb	N/A	60	9.2 - 27	19.2	16	2018	1.41 - 30	12.3	16	2018	N/A	N/A	N/A	N/A	By-product of drinking water disinfection.	
TOTAL TRIHALOMETHANES (TTHM)	ppb	N/A	80	25.5 - 53.8	40.68	16	2018	4.1 - 59.71	28.62	16	2018	N/A	N/A	N/A	N/A	By-product of drinking water disinfection.	
RADIONUCLIDES	UNIT	MCLG	MCL	FOUNTAIN WATER				WIDEFIELD WATER				FOUNTAIN VALLEY AUTHORITY				TYPICAL SOURCES	
				RANGE	AVERAGE	SAMPLE SIZE	YEAR SAMPLED	RANGE	AVERAGE	SAMPLE SIZE	YEAR SAMPLED	RANGE	AVERAGE	SAMPLE SIZE	YEAR SAMPLED		
GROSS ALPHA	pCi/L	0	15	4.2 - 4.2	4.2	1	2017	0.71 - 2.65	1.68	2	2017	N/A	N/A	N/A	N/A	Erosion of natural deposits	
GROSS BETA PARTICLE ACTIVITY	pCi/L	0	50	N/A	N/A	N/A	N/A	2 - 2	2	1	2017	N/A	N/A	N/A	N/A	Decay of natural and man-made deposits	
RADIUM, COMBINED (226, 228)	pCi/L	0	5	1.34 - 1.34	1.34	1	2017	1.5 - 1.5	1.5	1	2017	N/A	N/A	N/A	N/A	Erosion of natural deposits	
URANIUM - COMBINED	ppb	0	30	7.2 - 7.2	7.2	1	2017	6.1 - 8.2	6.83	3	2017	N/A	N/A	N/A	N/A	Erosion of natural deposits	

EPA has implemented the Unregulated Contaminant Monitoring Rule (UCMR) to collect data for contaminants that are suspected to be present in drinking water and do not have health-based standards set under the Safe Drinking Water Act. EPA uses the results of UCMR monitoring to learn about the occurrence of unregulated contaminants in drinking water and to decide whether or not these contaminants will be regulated in the future. We performed monitoring and reported the analytical results of the monitoring to EPA in accordance with its Third Unregulated Contaminant Monitoring Rule (UCMR3). Once EPA reviews the submitted results, the results are made available in the EPA’s National Contaminant Occurrence Database (NCOD) (<http://www.epa.gov/dwucmr/national-contaminant-occurrence-database-ncod>) Consumers can review UCMR results by accessing the NCOD. Contaminants that were detected during our UCMR3 sampling and the corresponding analytical results are provided below.

UNREGULATED CONTAMINATES	UNIT	MCLG	MCL	FOUNTAIN WATER				WIDEFIELD WATER				FOUNTAIN VALLEY AUTHORITY				TYPICAL SOURCES
				RANGE	AVERAGE	SAMPLE SIZE	YEARS SAMPLED	RANGE	AVERAGE	SAMPLE SIZE	YEARS SAMPLED	LEVEL DETECTED	AVERAGE	SAMPLE SIZE	YEARS SAMPLED	
BROMOCHLOROACETIC ACID	ppb	N/A	N/A	N/A	N/A	N/A	N/A	.909 - 4.53	2.41	8	2018	N/A	N/A	N/A	N/A	N/A
CHLORODIBROMOACETIC ACID	ppb	N/A	N/A	N/A	N/A	N/A	N/A	.379 - 1.58	0.90	8	2018	N/A	N/A	N/A	N/A	N/A
CHROMIUM	ppb	N/A	N/A	0 - .9	0.19	49	2014-2015	.2 - 1.1	0.19	49	2014-2015	N/A	N/A	N/A	N/A	N/A
BROMODICHLOROACETIC ACID	ppb	N/A	N/A	N/A	N/A	N/A	N/A	0 - 3.7	1.43	8	2018	N/A	N/A	N/A	N/A	N/A
COBALT	ppb	N/A	N/A	0 - 1.35	0.03	48	2014-2015	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MANGANESE	ppb	N/A	N/A	N/A	N/A	N/A	N/A	.412 - 9.35	4.8	2	2018	N/A	N/A	N/A	N/A	N/A
MONOBROMOACETIC ACID	PPB	N/A	N/A	N/A	N/A	N/A	N/A	0 - 0.83	0.25	8	2018	N/A	N/A	N/A	N/A	N/A
MOLYBDENUM	ppb	N/A	N/A	0 - 7.07	3.5	49	2014-2015	1.3 - 6.	3.5	49	2014-2015	N/A	N/A	N/A	N/A	N/A
CHROMIUM	ppb	N/A	N/A	0 - .9	0.19	49	2014-2015	.2 - 1.1	0.19	49	2014-2015	N/A	N/A	N/A	N/A	N/A
STRONTIUM	ppb	N/A	N/A	460 - 640	447	49	2014-2015	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
VANADIUM	ppb	N/A	N/A	0 - .05	0.45	49	2014-2015	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CHROMIUM, HEXAVALENT (DISSOLVED)	ppb	N/A	N/A	0 - .05	0.14	53	2014-2015	.032 - .62	0.14	53	2014-2015	N/A	N/A	N/A	N/A	N/A
CHLORATE	ppb	N/A	N/A	N/A	45	49	2014-2015	25 - 390	45	49	2014-2015	N/A	N/A	N/A	N/A	N/A
1,4-DIOXANE	ppb	N/A	N/A	0 - .19	0.059	17	2014-2015	.07 - .13	0.059	17	2014-2015	N/A	N/A	N/A	N/A	N/A
PERFLUOROBUTANESULFONIC ACID (PFBS)	ppb	N/A	N/A	N/A	N/A	N/A	N/A	Non-Detect	Non-Detect	12	2018	N/A	N/A	N/A	N/A	N/A
PERFLUOROHEPTANOIC ACID (PFHpA)	ppb	N/A	N/A	0 - .01	0.0096	18	2014-2015	Non-Detect	Non-Detect	12	2018	N/A	N/A	N/A	N/A	N/A
PERFLUOROHEXANESULFONIC ACID (PFHxS)	ppb	N/A	N/A	0 - .06	0.098	18	2014-2015	Non-Detect	Non-Detect	12	2018	N/A	N/A	N/A	N/A	N/A
PERFLUOROOCTANESULFONIC ACID (PFOS)	ppb	N/A	N/A	0 - .04	0.033	18	2014-2015	Non-Detect	Non-Detect	12	2018	N/A	N/A	N/A	N/A	N/A
PERFLUOROOCTANOIC ACID (PFOA)	ppb	N/A	N/A	.02 - .04	0.017	18	2014-2015	Non-Detect	Non-Detect	12	2018	N/A	N/A	N/A	N/A	N/A

\*\*\*More information about the contaminants that were included in UCMR3 monitoring can be found at: <http://www.drinktap.org/water-info/whats-in-my-water/unregulated-contaminant-monitoring-rule.aspx>. Learn more about the EPA UCMR at: <http://www.epa.gov/dwucmr/learn-about-unregulated-contaminant-monitoring-rule> or contact the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/contact.cfm>

**VIOLATIONS, SIGNIFICANT DEFICIENCIES, BACKFLOW/CROSS-CONNECTION, AND FORMAL ENFORCEMENT ACTION** - THE STATE OF COLORADO REQUIRES ALL WATER DISTRIBUTORS TO LIST ANY DETECTED CONTAMINANTS THAT APPEAR; REASON OF DETECTED CONTAMINANTS; AND CORRECTIVE MEASURES TAKEN TO PREVENT FROM REOCCURRING. THE FOLLOWING WATER PROVIDERS WERE GIVEN NOTIFICATION OF THE STATE'S FINDINGS REGARDING ANY AND ALL VIOLATIONS, IF ANY, WITH THE RESULTS LISTED BELOW:

NAME	CATEGORY	TIME PERIOD	HEALTH EFFECTS	CORRECTIVE MEASURES
Cross Connection Rule	Failure to meet Cross Connection/Backflow Requirements - Health-based	11/14/18 - Open	May pose risk to public health	State drinking water regulations require that all public drinking water systems, such as FVA, test a percentage of the backflow prevention devices located within their systems annually. In March of 2018, FVA identified 6 backflow prevention devices within its water system that were not tested as required in 2017. This means that FVA violated State drinking water regulations by failing to ensure that these 6 backflow prevention devices were tested in 2017. All 6 of the backflow prevention devices were tested on March 8, 2018 and passed the tests. Therefore, FVA is not aware of any uncontrolled cross connections to its water supply system. FVA is providing the state with an updated Backflow Prevention Cross-Connection Program Plan that includes measures to avoid this type of violation in the future.



**Fountain Valley Authority (PWSID # CO0121300)**  
**2019 Water Quality Report Information for the 2018 Calendar Year for:**  
City of Fountain (PWSID # CO0121275)  
Colorado Springs Utilities (PWSID # CO0121150)  
Security Water District (PWSID # CO0121775)  
Stratmoor Hills Water District (PWSID # CO0121800)  
Widefield Water District (PWSID # CO0121900)

**WATER SOURCE INFORMATION**

Fountain Valley Authority treats surface water received from the Fryingpan-Arkansas Project. The Fryingpan-Arkansas Project is a system of pipes and tunnels that collects water in the Hunter-Fryingpan Wilderness Area near Aspen. Waters collected from the system are diverted to the Arkansas River, near Buena Vista, and then flows approximately 150 miles downstream to Pueblo Reservoir. From Pueblo Reservoir, the water travels through a pipeline to the water treatment plant.

**COLORADO SOURCE WATER ASSESSMENT AND PROTECTION**

The Colorado Department of Public Health and Environment may have provided us with a Source Water Assessment Report for our water supply. For general information or to obtain a copy of the report please visit [www.colorado.gov/cdphe/ccr](http://www.colorado.gov/cdphe/ccr). The report is located under "Guidance: Source Water Assessment Reports". Search the table using 121300, FOUNTAIN VALLEY AUTHORITY or by contacting Colorado Springs Utilities Laboratory Services at 719-668-4560. The Source Water Assessment Report provides a screening-level evaluation of potential contamination that could occur. It does not mean that the contamination has or will occur. We can use this information to evaluate the need to improve our current water treatment capabilities and prepare for future contamination threats. This can help us ensure that quality finished water is delivered to your homes. In addition, the source water assessment results provide a starting point for developing a source water protection plan. Potential sources of contamination in our source water area are listed below.

**Potential sources of contamination to our source water areas may come from:**

- EPA Superfund Sites
- EPA Abandoned Contaminated Sites
- EPA Hazardous Waste Generators
- EPA Chemical Inventory/Storage Sites
- EPA Toxic Release Inventory Sites

- Permitted Wastewater Discharge Sites
- Aboveground, Underground and Leaking Storage Tank Sites
- Solid Waste Sites
- Existing/Abandoned Mine Sites
- Concentrated Animal Feeding Operations
- Other Facilities
- Commercial/Industrial Transportation
- High-and-Low-Intensity Residential
- Urban Recreational Grasses
- Quarries/Strip Mines/Gravel Pits
- Agricultural Land (row crops, small grain, pasture/hay, orchards/vineyards, fallow and other)
- Forest
- Septic Systems
- Oil/Gas Wells
- Road Miles

Fountain Valley Authority is dedicated to protecting our source water and ensuring quality treated water is delivered to our customers. The results of the source water assessment are not a reflection of our treated water quality received at the system connections, but rather a rating of the susceptibility of contamination under the guidelines of the Colorado SWAP program.

### POSSIBLE WATER CONTAMINANTS

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791) or by visiting <http://water.epa.gov/drink/contaminants>.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV-AIDS or other immune system disorders, some elderly, and infants can be particularly at risk of infections. These people should seek advice about drinking water from their health care providers. For more information about contaminants and potential health effects, or to receive a copy of the U.S. Environmental Protection Agency (EPA) and the U.S. Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and microbiological contaminants call the EPA Safe Drinking Water Hotline at (1-800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

#### Contaminants that may be present in source water include:

- Microbial contaminants: viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants: salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides: may come from a variety of sources, such as agriculture, urban storm water runoff, and residential uses.
- Radioactive contaminants: can be naturally occurring or be the result of oil and gas production and mining activities.



- **Organic chemical contaminants:** including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and also may come from gas stations, urban storm water runoff, and septic systems.

In order to ensure that tap water is safe to drink, the Colorado Department of Public Health and Environment prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

### FLUORIDE INFORMATION

Fluoride is a compound found naturally in many places, including soil, food, plants, animals and the human body. It is also found naturally in Fountain Valley Authority's water source. Fountain Valley Authority does not add additional fluoride to the treated water. Any fluoride in the treated water results from what occurs naturally in the source water.

### LEAD INFORMATION

If present, elevated levels of lead can cause serious health problems (especially for pregnant women and young children). It is possible that lead levels at your home may be higher than other homes in the community as a result of materials used in your home's plumbing. If you are concerned about lead in your water, you may wish to have your water tested. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. Additional information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.

### DEFINITIONS

- **Maximum Contaminant Level (MCL)** – The highest level of a contaminant allowed in drinking water.
- **Treatment Technique (TT)** – A required process intended to reduce the level of a contaminant in drinking water.
- **Health-Based** – A violation of either a MCL or TT.
- **Non-Health-Based** – A violation that is not a MCL or TT.
- **Action Level (AL)** – The concentration of a contaminant which, if exceeded, triggers treatment and other regulatory requirements.
- **Maximum Residual Disinfectant Level (MRDL)** – The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- **Maximum Contaminant Level Goal (MCLG)** – The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- **Maximum Residual Disinfectant Level Goal (MRDLG)** – The level of a drinking water disinfectant, below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- **Violation (No Abbreviation)** – Failure to meet a Colorado Primary Drinking Water Regulation.
- **Formal Enforcement Action (No Abbreviation)** – Escalated action taken by the State (due to the risk to public health, or number or severity of violations) to bring a non-compliant water system back into compliance.
- **Variance and Exemptions (V/E)** – Department permission not to meet a MCL or treatment technique under certain conditions.
- **Gross Alpha (No Abbreviation)** – Gross alpha particle activity compliance value. It includes radium-226, but excludes radon 222, and uranium.
- **Picocuries per liter (pCi/L)** – Measure of the radioactivity in water.
- **Nephelometric Turbidity Unit (NTU)** – Measure of the clarity or cloudiness of water. Turbidity in excess of 5 NTU is just noticeable to the typical person.



- **Compliance Value (No Abbreviation)** – Single or calculated value used to determine if regulatory contaminant level (e.g. MCL) is met. Examples of calculated values are the 90<sup>th</sup> Percentile, Running Annual Average (RAA) and Locational Running Annual Average (LRAA).
- **Average (x-bar)** – Typical value.
- **Range (R)** – Lowest value to the highest value.
- **Sample Size (n)** – Number or count of values (i.e. number of water samples collected).
- **Parts per million = Milligrams per liter (ppm = mg/L)** – One part per million corresponds to one minute in two years or a single penny in \$10,000.
- **Parts per billion = Micrograms per liter (ppb = ug/L)** – One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- **Not Applicable (N/A)** – Does not apply or not available.
- **Level 1 Assessment** – A study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
- **Level 2 Assessment** – A very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

#### **WANT MORE INFORMATION**

For questions concerning this report, please call Colorado Springs Utilities Laboratory Services at (719) 668-4560.

#### **TABLE OF DETECTED CONTAMINANTS**

Fountain Valley Authority routinely monitors for contaminants in your drinking water according to Federal and State laws. The following table(s) show all detections found in the period of January 1 to December 31, 2018 unless otherwise noted. The State of Colorado requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. Therefore, some of our data, though representative, may be more than one year old. Violations and Formal Enforcement Actions, if any, are reported in the next section of this report.

Only detected contaminants sampled within the last 5 years appear in this report. If no tables appear in this section, then no contaminants were detected in the last round of monitoring.

### **Detected Contaminants Table**

Fountain Valley Authority (PWSID CO0121300)

**Inorganic Contaminants**

Monitored at the Treatment Plant (entry point to the transmission system)

Contaminant	MCL	MCLG	Units	Level Detected	MCL Violation	Sample Dates	Possible Source(s) of Contamination
<b>Barium</b>	2	2	ppm	0.06	No	April 2018	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
<b>Fluoride</b>	4	4	ppm	0.53	No	April 2018	Erosion of natural deposits; discharge from fertilizer and aluminum factories
<b>Nitrate (as Nitrogen)</b>	10	10	ppm	0.44	No	April 2018	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
<b>Nickel</b>	N/A	N/A	ppb	0.53	N/A	April 2018	Erosion of natural deposits, discharge from industries, discharge from refineries and steel mills
<b>Selenium</b>	50	50	ppb	6	No	April 2018	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
<b>Sodium</b>	N/A	N/A	ppm	19.6	N/A	April 2018	Erosion of natural deposits

**Organic Contaminants**

Monitored at the Treatment Plant (entry point to the transmission system)

Contaminant	MCL	MCLG	Units	Average	Range	MCL Violation	Sample Dates	Possible Source(s) of Contamination
<b>Hexachlorocyclopentadiene</b>	50	50	ppb	0.03	0 - 0.06	No	April, July 2016	Discharge from chemical factories

**Turbidity**

Continuously monitored at the Treatment Plant (entry point to the transmission system)

Contaminant	TT Requirement	Level Detected	TT Violation	Sample Dates	Possible Source(s) of Contamination
<b>Turbidity</b>	Maximum 1 NTU for any single measurement	Highest Single Measurement: 0.128 NTU	No	Sept 2018	Soil Runoff
<b>Turbidity</b>	In any month, at least 95% of samples must be less than 0.3NTU	Lowest Monthly percentage of samples meeting TT requirement: 100%	No	Dec 2018	Soil Runoff

**Total Organic Carbon (Disinfection Byproducts Precursor) Removal Ratio and Finished Water**

Monitored at the Treatment Plant (entry point to transmission system)

Contaminant	MCL	MCLG	Units	Average	Range Low - High	MCL Violation	Sample Dates	Possible Source(s) of Contamination
<b>Total Organic Carbon (TOC)</b>	TT minimum ratio = 1.00	N/A	N/A	1.08	1 – 1.28	No	Monthly - Running Annual Average	Naturally present in the environment

#### Disinfectants

Continuously monitored at the Treatment Plant (entry point to the transmission system)

Contaminant	MRDL	Units	Level Detected	MRDL Violation	Sample Dates	Possible Source(s) of Contamination
<b>Chlorine</b>	TT= No more than 4 hours with a sample below 0.2 ppm	ppm	0 samples above or below the level	No	Jan – Dec 2018	Water additive used to control microbes

#### Violations, Significant, Backflow/Cross Connection, and Formal Enforcement Actions

Name	Category	Time Period	Health Effects	Compliance Value	TT Level or MCL
<b>Cross Connection Rule</b>	Failure to meet Cross Connection/Backflow Requirements – Health-based	11/14/18 - Open	May pose a risk to public health	N/A	N/A

#### Additional Violation Information

State drinking water regulations require that all public drinking water systems, such as FVA, test a percentage of the backflow prevention devices located within their systems annually. In March of 2018, FVA identified 6 backflow prevention devices within its water system that were not tested as required in 2017. This means that FVA violated State drinking water regulations by failing to ensure that these 6 backflow prevention devices were tested in 2017. All 6 of the backflow prevention devices were tested on March 8, 2018 and passed the tests. Therefore, FVA is not aware of any uncontrolled cross connections to its water supply system. FVA is providing the state with an updated Backflow Prevention Cross-Connection Program Plan that includes measures to avoid this type of violation in the future.