

**ENGINEERING STUDY
for
SPRINGS AT WATERVIEW
WATER SYSTEM IMPROVEMENTS**

Prepared For:

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Project No. 003-13-06

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***** CONTENTS *****

Section 1	EXECUTIVE SUMMARY	1
Section 2	INTRODUCTION	2
2.1	Purpose	2
2.2	Scope	2
Section 3	EXISTING CONDITIONS	3
3.1	Description of Service Area	3
3.2	Land Use	3
3.3	Topography and Floodplains	3
3.4	Geology	3
3.5	Groundwater	3
3.6	Climate	6
3.7	Natural Hazards Analysis	6
3.8	Organizational Context	6
3.9	Water Facilities	6
3.10	Relationship to Neighboring Water and Wastewater Facility	6
3.11	Water Demand	7
Section 4	DEVELOPED CONDITIONS	9
4.1	Land Use	9
4.2	Population and Employment	9
4.3	Water Demand	10
4.4	Water Supply	11
4.5	Water Quality	11
Section 5	WATER SYSTEM IMPROVEMENTS	13
5.1	General	13
5.2	Groundwater Wells	13
5.3	Treatment	15
5.4	Storage	15
5.5	Distribution	15
5.6	Other Costs and Gains	16
5.7	Rates and Charges	16

******* APPENDICES*******

Appendix A	Security Water District Report
Appendix B	100-Year Flood Plain Certification
Appendix C	Districts Letter of Commitment
Appendix D	Water Supply Summary

******* LIST OF FIGURES*******

Figure 1	Vicinity Map
Figure 2	Floodplain Map
Figure 3	1-Mile Radius Map
Figure 4	Waterview Water System Improvements

Section 1

EXECUTIVE SUMMARY

This report presents the results of the engineering study for Water System Improvements serving the Waterview Development, an existing development located due south of the Colorado Springs Airport in El Paso County, Colorado; particularly for Springs at Waterview

The Waterview development originally consisted of approximately 740 acres which was reduced to approximately 681 acres after dedication of Powers Boulevard r.o.w. The development is a mixture of residential, commercial and open space uses and is located due south of the City of Colorado Springs Airport, south of the east-west stretch of Powers Boulevard and east of the north-south stretch of Powers Boulevard on both sides of East Bradley Road within Township 15 South, Range 65 West, Sections 6,7,8,9 and 17 and a portion of Section 12, Township 15 South, Range 66 West. In 2014, the El Paso County Land Use Department approved the Sketch Plan for Waterview. The Sketch plan generally consists of 2 general parcels. For the purposes of this report the western parcel will be described as Waterview Phase 1 and the eastern parcel will include Waterview Phase 2, 3 & 4. Existing development, all within Waterview Phase 1, includes Painted Sky at Waterview Filings 1 through 7; these developments consist of 710 single family residential lots on 118.0 acres. Planned development for the remaining 563 acres includes 293.8 acres of single family residential development, 11.4 acres of multifamily development, 158.7 acres of commercial/industrial development, 42.7 acres of r.o.w. set aside and 134.0 acres of open space.

Waterview Phase 1 currently has a Metropolitan District in place (Waterview I Metropolitan District) to provide and coordinate services including water, wastewater, drainage and open space maintenance among other services. Waterview Phase 2, 3 and 4 currently has a Metropolitan District in place (Waterview II Metropolitan District) to provide and coordinate services including water, wastewater, drainage and open space maintenance among other services. Waterview Phase 1 Development currently receives water service from Security Water District, Wastewater Service from Security Sanitation District and electric and gas service from Colorado Springs Utilities. Waterview.

The average annual water demand for Waterview is estimated to be 1187 acre-feet of water per year. Waterview Phase 1 demand is estimated to be 605 acre-feet including existing demand of 355 acre-feet for Painted Sky at Waterview Filings 1 through 7; Springs at Waterview will have a demand of 38.5 ac-ft. of the 605 total. This water will be delivered by the existing Security Water District distribution system with extensions of that system as necessary.

Waterview Phase 2 demand is estimated to be 350 acre-feet; Phase 3, 185 acre-ft.; and Phase 4, 47 acre-ft.

To meet Drinking Water Standards both water suppliers' filter and disinfected source water prior to storage and have met Colorado Department of Health and Environment Drinking Water Standards.

The Security Water District PWSID (Potable Water System Identification Number) is CO0121775.

Section 2 INTRODUCTION

2.1 Purpose

The purpose of this report is to present water system improvements recommended to serve Waterview, a land development project located in El Paso County. It is also intended to serve as a guideline for the ensuing design of recommended improvements.

2.2 Scope

The scope of this report includes:

1. The definition of the service areas as well as identification of significant physical and environmental characteristics and constraints;
2. An analysis of available data to determine existing and to project future water supplies, demands and quality;
3. A description of legal, institutional and managerial arrangements that ensure adequate control of the proposed improvements; and,
4. A preliminary recommendation for a selected supply, treatment, pumping and transmission alternatives.

Section 3 EXISTING CONDITIONS

3.1 Description of the Service Area

The Waterview development consists of approximately 681 acres with a mixture of residential, commercial and open space uses and is located due south of the City of Colorado Springs Airport, south of the east-west stretch of Powers Boulevard and east of the north-south stretch of Powers Boulevard on both sides of East Bradley Road within Township 15 South, Range 65 West, Sections 6,7,8,9 and 17 and a portion of Section 12, Township 15 South, Range 66 West.

Waterview Phase 1, the western portion of Waterview is currently being served by the Security Water District; Springs at Waterview will be served by extensions of their existing system. It is anticipated that Waterview Phases 2, 3 & 4, the eastern portion of Waterview, will receive water service from the Widefield Water and Sanitation District

3.2 Land Use

The Waterview development is located in El Paso County on the eastern edge of City of Colorado Springs and El Paso County urban development. Vacant land can be found north within the Colorado Springs Airport and east in the Bluestem Prairie Open Space and east of Powers Boulevard. Some farming and ranching uses can still be found in these areas. Most of the vacant land has been through City or County planning processes for development.

3.3 Topography and Floodplains

The topography of the service area is typical of a high desert, short grass prairie with primarily relatively flat slopes generally ranging from 2% to 4%. However, slopes in the 15% to 20% range can be found near natural drainages. The service area drains generally from north to south and is split between three El Paso County designated basins; Wind Mill Gulch to the west, Big Johnson/Crews Gulch in the central region and Jimmy Camp Creek to the east.

The Federal Emergency Management Agency (FEMA) has established a floodplain for the Wind Mill Gulch drainage as shown on Figure 2. It is anticipated that the Waterview development would not do any drainage improvements affecting the floodplain.

3.4 Geology

The site is comprised of several different soil types. From the Soil Survey of El Paso County, the site falls into the following soil types:

1. "11" Bresser sandy loam, 0 to 3 percent slopes.
2. "12" Bresser sandy loam, 3 to 5 percent slopes.
3. "30" Fort Collins loam, 0 to 3 percent slopes.
4. "39" Keith silt loam, 0 to 3 percent slopes.

Typically, these soils are well-drained, gravelly sandy loams that form on alluvial terraces and fans and exhibit high permeability and low available water capacity with depth to bedrock greater than 6 feet.

3.5 Groundwater

The Waterview development service area has little shallow groundwater except near the Windmill Gulch drainage; the groundwater is very shallow in the planned open space area west of the FMIC irrigation ditch. The Waterview service area is on the extreme southern reaches of the Denver Basin aquifers and these aquifers are generally considered not feasible for potable water production. Soil borings in the Waterview Phase 1 developed areas have indicated no shallow groundwater.

((insert Figure 1))

GRINNELL DRIVE

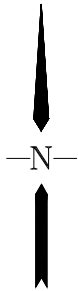
GOLDFIELD DRIVE

FILING NO.1

FILING NO.2

BRADLEY RD

SITE



VICINITY MAP

N.T.S.

SPRINGS AT WATERVIEW

SE Springs
Engineering

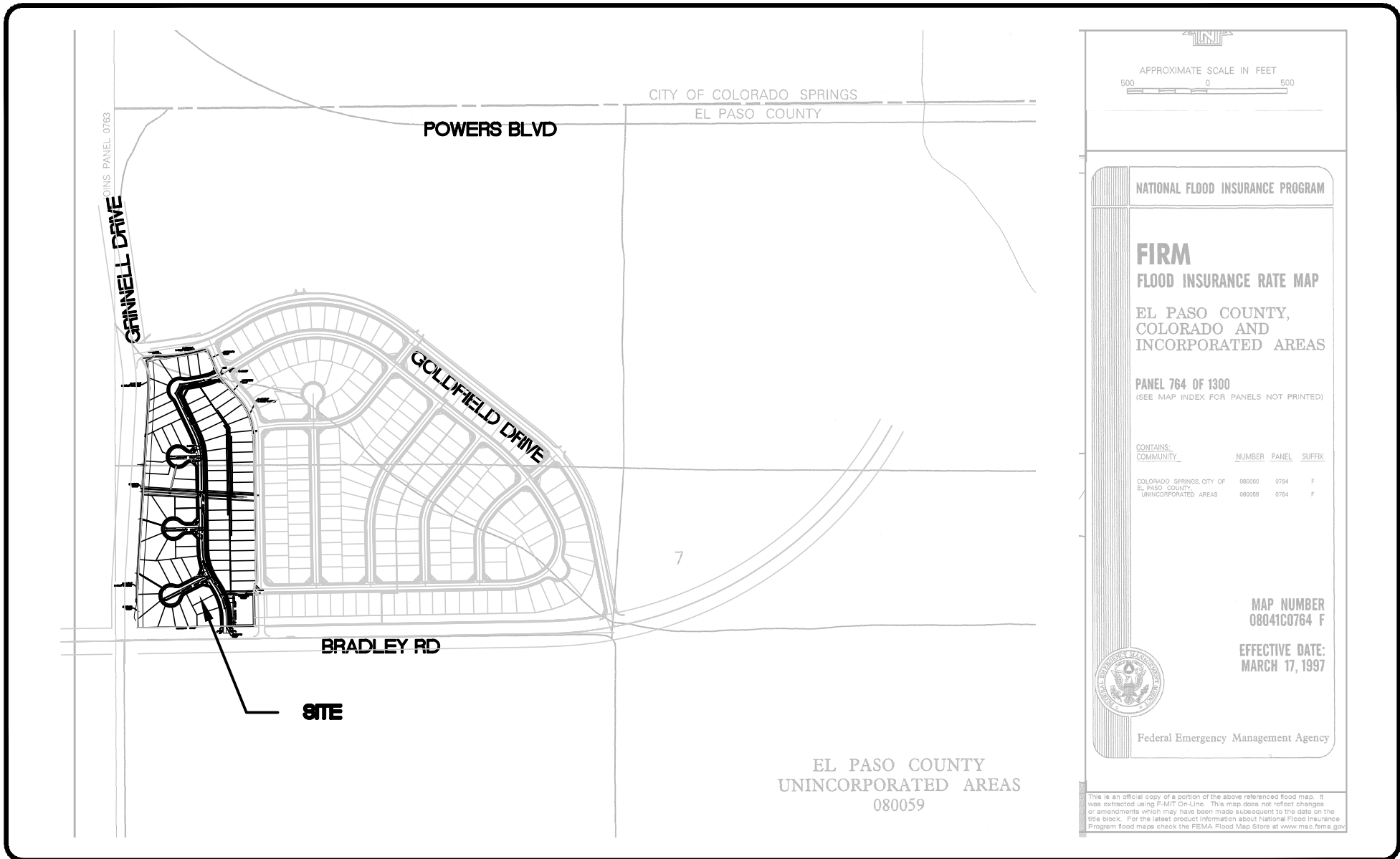
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VICINITY MAP

FIGURE 1

PROJECT NO.

((insert Figure 2))



NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

EL PASO COUNTY,
COLORADO AND
INCORPORATED AREAS

PANEL 764 OF 1300
(SEE MAP INDEX FOR PANELS NOT PRINTED)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
COLORADO SPRINGS, CITY OF	080060	0764	F
EL PASO COUNTY, UNINCORPORATED AREAS	080059	0764	F

MAP NUMBER
08041C0764 F

EFFECTIVE DATE:
MARCH 17, 1997

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

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PROJECT NO. 12-005

**SPRINGS AT WATERVIEW
PDR
FLOOD INSURANCE RATE MAP**

FIGURE

2

3.6 Climate

The climate of the study area is characterized by mild summers and winters, light precipitation, high evaporation and moderately high wind velocities.

The average annual monthly temperature is 48.4 F with an average monthly low of 30.3 F in the winter and an average monthly high of 68.1 F in the summer. Two years in ten will have a maximum temperature higher than 98 F and a minimum temperature lower than -16 F.

Precipitation averages 15.73 inches annually, with 80% of this occurring during the months of April through September. The average annual Class A pan evaporation is 45 inches.

3.7 Natural Hazards Analysis

Natural hazards analysis indicates that no unusual surface or subsurface hazards are located in the service area. However, because the soils are cohesionless, sloughing of steep banks during drilling and/or excavation could occur. By siting improvements in a manner that provides an opportunity to lay the banks of excavations back at a 1:1 slope during construction, the problems associated with sloughing soils can be minimized.

3.8 Organizational Context

Waterview is situated within three El Paso County identified Drainage Basins; Windmill Gulch, Big Johnson/Crews Gulch and Jimmy Camp Creek. There are five water and sanitation utility providers near to or adjacent to the development. At the time of the original Sketch Plan approval there had been no legal actions to claim service rights for the service area by any of the adjacent service providers.

Waterview Phase 1 currently has a Metropolitan District in place (Waterview I Metropolitan District) to provide and coordinate services including water, wastewater, drainage and open space maintenance among other services. It is anticipated that a similar Metropolitan District (Waterview II Metropolitan District) may be set up for Waterview Phase 2, 3 & 4 to provide similar services.

Security Water District and Security Sanitation District have negotiated a service agreement for Waterview Phase 1 where Springs at Waterview is located. The adjacent service providers considered include:

1. Colorado Springs Utilities; located north of the development-current gas and electricity provider.
2. Colorado Centre; located east of the development.
3. Widefield Water and Sanitation District; located south and east of the development.
4. City of Fountain (Water); located south (+/- 1 mile) of the development.

The most likely water service provider for Waterview Phase 1 will continue to be Security Water District. The water service provider for Waterview Phases 2, 3 & 4 could be Security Water District or Widefield Water and Sanitation District however at this time it is anticipated to be Widefield Water and Sanitation District.

The service providers, Security Water District and Widefield Water and Sanitation District will service the area and will be the entities responsible to finance construction and ensure the continuing operation and maintenance of improvements.

3.9 Water Facilities

The Security Water District and the Widefield Water and Sanitation District have been providing potable water service for a long period of time in accordance with the Colorado Department of Health and Environment. Each District will provide water, water treatment, water storage and water distribution for the development in exchange for fees and recurring periodic charges.

Appendix A contains the current Widefield Water and Sanitation District Water Report and Appendix B contains the current Security Water District Water report.

3.10 Relationship to Neighboring Water and Wastewater Facilities

The location of other major water and wastewater facilities, relative to the Waterview Development, are shown on Figure 3.

Figure 3 identifies water wells and habitable buildings within a 1-mile radius of the center of Waterview Phase 1 and to the center of Waterview Phases 2, 3 & 4. No known wells are within the 1-mile radius.

3.11 Water Demand

The Waterview development will be serviced by Security Water District and Widefield Water and Sanitation District. The average district wide water demands for each district are indicated below:

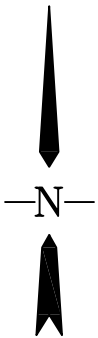
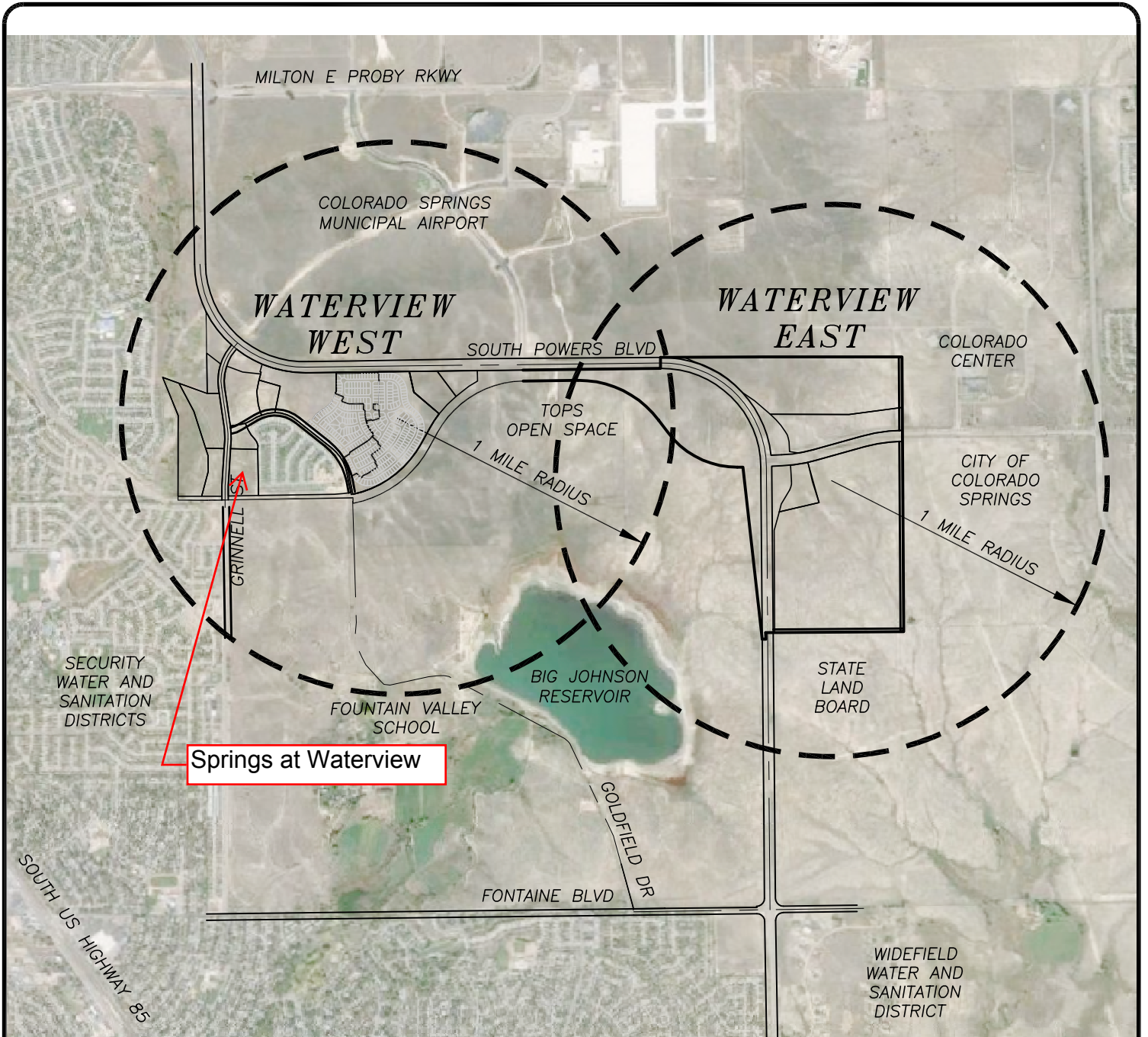
Security Water District:	0.5 ac-ft./year per Single Family Equivalent (SFE)
Widefield Water and Sanitation District:	0.39 ac-ft./year per Single Family Equivalent (SFE)

These demands have been developed from actual usage records and recognized by the State Engineers Office. These water demands include irrigation; no separate meters are provided for irrigation.

Demand for commercial/industrial property is projected at 1200 gal/acre/day plus irrigation.

These water demands have been used to project use for the Waterview Development; Phase 1 uses the Security demand rates and Phases 2, 3 & 4 uses the Widefield demand rates.

((insert Figure 3))



SCALE: 1"=2800'

**WATERVIEW SUBDIVISION
1 MILE RADIUS MAP**

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FIGURE 3

**Section 4
DEVELOPED CONDITIONS**

4.1 Land Use

In 2001, the El Paso County Land Use Department approved the Sketch Plan for Waterview. This report addresses the Springs at Waterview development anticipated to be submitted to El Paso County for review in June 2013.

The Waterview Sketch Plan Amendment consists of approximately 681 acres with a mixture of residential, commercial and open space uses and is located due south of the City of Colorado Springs Airport, south of the east-west stretch of Powers Boulevard and east of the north-south stretch of Powers Boulevard on both sides of East Bradley Road within Township 15 South, Range 65 West, Sections 6,7,8,9 and 17 and a portion of Section 12, Township 15 South, Range 66 West.

The Sketch Plan area generally consists of 2 general parcels. For the purposes of this report the western parcel will be described as Waterview Phase 1 and the eastern parcel will be described as Waterview Phases 2, 3 & 4. Existing development, all within Waterview Phase 1, includes Painted Sky at Waterview Filings 1 through 5; these Filings consist of 495 single family residential lots on 118 acres. Planned development for the remaining 563 acres includes 223.4 acres of single family residential development, 31.2 acres of multifamily development, 189.8 acres of commercial/industrial development, 3 acres of r.o.w. set aside and 115.6 acres of open space.

The following tabulates land use for the development.

Table 1 – Land Use Plan

Land Use	Land Area (AC)				Units				Population				Population Equivalents			
	Phase				Phase				Phase				Phase			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Single Family Residential																
Current Development (PS F1-F7)	166.3				710				2059				2059			
Proposed Development (5DU/Ac)	15.7	169.3			77	840			223	2436			223	2436		
Multi Family																
12 Units / acre	26.2				342				855				855			
Commercial	16.7	21.2	34.7	30					190	284	378	326	38	57	76	65
Light Industrial			81.2								884				177	
School	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>								430				<i>0</i>
R.O.W.				3.0												
Parks, Open Space	32.2			78												
TOTAL (all Phases)																6053

Bold numbers have been modified since the last Sketch Plan approval; as part of this submittal.

- Assumptions:
- Single family units at 2.9 persons/unit
 - Multi family units at 2.5 persons/unit
 - Commercial/Industrial building area = 15% of total area
 - Commercial units at 600 square feet/employee
 - Employees are considered to be 0.2 SFE

4.2 Population and Employment

By using the land use information noted above and applying standard unit densities of 2.9 persons per dwelling for single family residential uses, 2.5 persons per dwelling for multifamily residential uses and 600 square feet per employee for commercial/industrial uses, permanent resident and employment forecasts for Waterview are shown in the above table.

4.3 Water Demand

By applying Widefield Water and Sanitation District and Security Water District unit water demand factors to land use forecasts, water demands have been developed for ultimate build-out as shown in the following table:

WATER DEMAND

Land Use	SKETCH PLAN			
	AFY	ADD (gpm)	MDD (gpm)	PHD (gpm)
Potable				
SF Residential (include irr.)				
Phase 1				
Existing Lots	355	219	548	876
Proposed Lots	38.5	31	77	124
Phase 2				
Proposed Lots	319	197	474	759
Multifamily				
Phase 1	171	106	291	466
Commercial				
Phase 1	26	16	48	77
Phase 2	26	16	48	77
Phase 3	47	29	73	117
Phase 4	30	19	48	76
Light Industrial				
Phase 3	109	68	169	270
Subtotal	1133	694	1759	2814
Park/Open Space	0	0	0	0
Subtotal	1133	694	1759	2814
Irrigation				
SF Residential (included in potable)				
Multifamily				
Phase 1	8	5	12	20
Commercial				
Phase 1	5	4	9	15
Phase 2	5	3	8	12
Phase 3	9	6	14	22
Phase 4	7	4	11	17
Light Industrial				
Phase 3	20	12	31	50
Park/Open Space	0	0	0	0
Schools	0	0	0	0
Subtotal	54	34	85	136
TOTAL	1187	728	1844	2950
Waterview Phase Demand				
Phase 1	<i>605(355 existing home service)</i>			
Phase 2	350			
Phase 3	185			
Phase 4	47			

Unit water demands are based on actual District records as described in section 3.11 (**the Single Family Residential demands include irrigation because there is no separate meter for irrigation water**), 1200 gallons per acre per day for inside commercial uses and 0.0566 acre feet per year per 1000 square feet of landscaped area for irrigation of commercial properties. We have assumed 10% of commercial property will

be irrigated.

Water demand is first calculated in acre-feet per year (AFY) to determine water supply needs. This value is then factored to determine the average daily demand (ADD) in gallons per minute (gpm), which is used to project maximum day and peak hour demands as well as to estimate revenues and operating costs. Maximum day demand (MDD) and peak hour demand (PHD) have been determined by applying accepted peaking factors of 2.5 and 4.0 to the ADD, respectively. The MDD is used to determine storage needs and the PHD is used for modeling system delivery pressures and to size distribution piping.

Fire flow demand is another demand typically included in the design of water systems. A fire flow demand of 1500 gpm in residential areas and 3500 gpm in commercial areas will be delivered at a minimum pressure of 20 psi by the respective water systems.

4.4 Water Supply

The Widefield Water and sanitation District and the Security Water District have numerous ground water and surface water rights; these water supply sources are summarized in Appendix A and B.

Based on the water demand and the available water sources each district is capable of servicing the respective portions of the Waterview Development; Security Water District Phase 1 and Widefield Water and Sanitation District Phase 2, 3 & 4.

4.5 Water Quality

The Widefield Water and Sanitation District and the Security Water District have both been providing potable water in accordance with El Paso County health Department and Colorado Department of Health and Environment standards and reporting requirements for several decades. Each district provides treatment and disinfection of their raw water sources prior to distribution. Water Quality is summarized in Appendix A and B.

Section 5 WATER SYSTEM IMPROVEMENTS

5.1 General

The water systems operated by Widefield Water and Sanitation District and the Security Water District are classified as "community water systems" and meets the applicable requirements of the Colorado Department of Health and Environment (CDHE).

Filtration and disinfection facilities provide treatment of the raw water sources to ensure good water quality. Elevation differences that exist throughout the district boundaries require different pressure zones to ensure that water is delivered at no less than 40 psi during peak hour flow and at no more than 120 psi during periods of low use. In addition, storage facilities and distribution piping will be provided to ensure that residual pressure requirements are achieved both during peak hour demands and during maximum day demands with a superimposed fire flow of 3500 gpm. The pressure zones are served by both storage facilities as well as transfer pumping equipment.

Waterview Phase 1 is served by a Security Water District elevated tank and will be required to build a second pump station capable of delivering water to that elevated tank from the lower pressure zone.

Waterview Phase 2, 3 & 4 will be served by a pumped pressure zone via extension of the system piping from the vicinity of Powers Boulevard and Fontaine Boulevard.

5.2 Groundwater Wells

Each district has multiple sources of water including groundwater wells as outlined in Appendix A and B

5.3 Water Treatment

Treating and filtering of the water sources meets Drinking Water Standards.

In addition, CDHE standards require that the water supply be disinfected and that the supply receives minimum chlorine contact time of 30 minutes before first use.

5.4 Storage

Storage reservoirs are ground mounted and elevated steel tanks designed in accordance with CDHE and AWWA Standards.

Storage is sized to provide a minimum of 30% of maximum day demand and includes a reserve to supply a fire flow of 3500 gpm for three hours.

5.5 Distribution

The water distribution system provides water at a maximum static pressure of 120 psi during periods of low use, at a minimum residual pressure of 40 psi during peak hour demand and at a minimum residual pressure of 20 psi during maximum day demand with a superimposed fire flow of 3500 gpm. Because the storage tank is ground mounted within the development the system must be pressurized by pumps. The pressure zone will use a loop type system of piping to maximize the efficiency of the system and will be provided with minimum 6-inch diameter pipe and fire hydrants throughout. All pipe and appurtenances will be

designed to meet or exceed AWWA standards.

5.6 Other Costs and Gains

Estimated Costs

Item	Units	Quantity	Unit Price	Extension
Waterview Phase 1 Water Pump Station	LS	1	Complete	Complete
Waterview Phase 2, 3 & 4 Water Pump Station	LS	1	\$650,000	\$650,000
Water Main Extension	LF	6500	\$65	\$422,500
Additional Storage	gal	1,000,000	\$0.95	\$950,000
Total Estimated Cost				\$2,022,500

The costs included above only include capital costs for water system improvements required to serve Waterview and are estimated from best available data. These costs do not include other costs or gains that may be incurred in the acquisition of land, financing, investing, local distribution, the salvage value of equipment or other necessary infrastructure, among others, unless specifically noted.

5.7 Rates and Charges

The Security Water District and the Widefield Water and Sanitation District will impose one-time charges to recoup the cost of constructing water system improvements as well as regular periodic billings to recoup continuing costs for operations, maintenance and equipment replacement. This system of rates and charts is published by each district annually.

Appendix A
Security Water District

Water Quality Report for Calendar Year 2015



Security Water District

PWSID # CO0121775

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

SECURITY WATER DISTRICT is pleased to present to you this year's Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. Security's water comes from two aquifers and the Fryingpan-Arkansas project (Fry-Ark). Of our total water supply, 44 percent comes from wells in the Widefield Aquifer and 7 percent from the Windmill Gulch Aquifer. The remaining 49 percent is treated surface water from the Fry-Ark project. Fry-Ark project water comes from a system of pipes and tunnels that collect water in the Hunter-Fryingpan wilderness area near Aspen, CO. Water collected from the system is 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 Fountain Valley Authority (FVA) water treatment plant, and then through a pipeline to our storage tanks.

GENERAL INFORMATION ABOUT DRINKING WATER

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, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants, such as 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 that may come from a variety of sources, such as agriculture, urban storm water runoff, and residential uses.

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.

Radioactive contaminants, that can be naturally occurring or be the result of oil and gas production and mining activities.

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 has 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 <http://wqcdcompliance.com/ccr>. The report is located under "Source Water Assessment Reports", and then "Assessment Report by County". Select EL PASO County and find 121775; SECURITY WSD or by contacting RICHARD DAVIS at 719-392-3475. 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 from which a source water protection plan may be developed on potential sources of contamination in our source water area which could potentially impact all our water sources. The potential sources are EPA Super Fund 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 Mines sites, Other Facilities, Commercial/Industrial Transportation, High and Low Intensity Residential, Urban Recreational Grasses, Quarries/Strip Mines/Gravel Pits, Agricultural Land, Forest, Septic Systems, Oil/Gas Wells, and Road miles. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled board meetings located at 231 Security Blvd. in Security, which are normally held on the third Wednesday of each month at 5:30 p.m. If you have any questions concerning this report or regarding your water utility, please contact Richard Davis or James L. Jones at Security Water District's office (719-392-3475).

Please contact us to learn more about what you can do to help protect your drinking water sources, any questions about the Drinking Water Consumer Confidence 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.

TABLE OF DETECTED CONTAMINANTS

Security Water District routinely monitors for contaminants in your drinking water according to Federal and State laws. The following tables show all detections found in the period of January 1, 2015 to December 31, 2015 unless otherwise noted. The State of Colorado requires us to monitor for certain contaminants less than once per year because the concentrations of contaminants are not expected to vary significantly from year to year or the system is not considered vulnerable to this type of contamination. Some of our data, though representative, may be more than one year old. The "Range" column in the tables below show a single value for those contaminants that were sampled only once. **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. All Tables include all detections found in the Fryngpan-Arkansas project (Fry-Ark {surface water})

Contaminant Name	Monitoring Period	90th Percentile	Number of samples	Unit of Measure	Action Level	Sites Above Action Level	90 th % Percentile AL Exceedance	Typical Sources
COPPER	06/23/14 to 09/22/14	0.56	30	ppm	1.3	1	No	Corrosion of household plumbing systems; Erosion of natural deposits.
LEAD	06/23/14 to 09/22/14	1.4	30	ppb	15	0	No	Corrosion of household plumbing systems; Erosion of natural deposits.

Contaminant Name	Year	Running Annual Average	Range of Individual Samples (Lowest - Highest)	Number of Samples	Unit of Measure	MCL Running Annual Average	MCL Violation?	Typical Sources
TOTAL HALOACETIC ACIDS (HAA5)	2015	34.47	0 - 65	16	ppb	60	No	By-product of drinking water disinfection.
TTHM	2015	44.37	5.4 - 75.8	16	ppb	80	No	Byproduct of drinking water disinfection.

Contaminant Name	Year	Average of Individual Samples	Range of Individual Samples (Lowest - Highest)	Number of Samples	Unit of Measure	MCL	MCLG	MCL Violation?	Typical Sources
BARIUM	2015	0.09	0.07 - 0.12	2	ppm	2	2	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
CHROMIUM	2015	1.05	1 - 1.1	2	ppb	100	100	No	Discharge from steel and pulp mills; Erosion of natural deposits.
FLUORIDE	2015	1.6	1.1 - 2	4	ppm	4	4	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories.
NITRATE	2015	6.03	3.8 - 7.9	26	ppm	10	10	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
NITRATE-NITRITE	2015	4.65	4.5 - 4.8	2	ppm	10	10	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
SELENIUM	2015	3.35	2.8 - 3.9	2	ppb	50	50	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
TETRACHLOROETHYLENE	2015	0.16	0 - 1.5	72	ppb	5	0	No	Discharge from factories and dry cleaners.
TRICHLOROETHYLENE	2015	0.03	0 - 0.6	72	ppb	5	0	No	Discharge from metal degreasing sites and other factories.

Contaminant Name	Year	Average of Individual Samples	Range of Individual Samples (Lowest - Highest)	Number of Samples	Unit of Measure	MCL	MCLG	MCL Violation?	Typical Sources
COMBINED RADIUM (-226 & -228)	2013	1.57	0.24 - 2.9	15	pCi/L	5	0	No	Erosion of natural deposits.
COMBINED URANIUM	2013	7.12	3.1 - 15	15	ppb	30	0	No	Erosion of natural deposits.
GROSS ALPHA,	2013	1.95	0 - 6.7	15	pCi/L	15	0	No	Erosion of natural deposits.
GROSS BETA PARTICLE ACTIVITY*	2011	5.8	5.8-5.8	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.

Secondary Contaminant **

**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 of Individual Samples	Range of Individual Samples (Lowest - Highest)	Number of Samples	Unit of Measure	Secondary Standard
SULFATE	2014	73	73-73	1	ppm	250
DIBROMOACETIC ACID	2015	1.72	0-4.1	12	ppm	
DICHLOROACETIC ACID	2015	13.13	0-30	12	ppm	
TIRCHLOROACETIC ACID	2015	20	0-46	12	ppm	

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 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

Contaminant Name	Year	Avg. of Individual Samples	Range of Individual Samples (Lowest - Highest)	Number of Samples	Unit of Measure
CHROMIUM	2014	0.53	0-0.9	48	µg/L=PPB
COBALT	2014	0.03	0-1.1	48	µg/L=PPB
MOLYBDENUM	2014	2.13	0-5.8	48	µg/L=PPB
STRONTIUM	2014	376.45	110-520	48	µg/L=PPB
VANADIUM	2014	0.24	0-0.8	48	µg/L=PPB
CHROMIUM, HEXAVALENT (6)	2014	0.46	0.11-0.89	48	µg/L=PPB
CHLORATE	2014	80.25	0-1200	48	µg/L=PPB
1,4-DIOXANE	2014	0.07	0-0.17	42	µg/L=PPB
PERFLUOROBUTANESULFONIC ACID (PFBS)	2014	0.01	0-0.15	42	µg/L=PPB
PERFLUOROHEPTANOIC ACID (PFHPA)	2014	0.03	0-0.07	42	µg/L=PPB
PERFLUOROHEXANESULFONIC ACID (PFHXS)	2014	0.23	0-0.44	42	µg/L=PPB
PERFLUOROCTANE SULFONATE (PFOS)	2014	0.17	0-1.3	42	µg/L=PPB
PERFLUOROCTANOIC ACID (PFOA)	2014	0.05	0-0.09	42	µg/L=PPB

***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>.

Additional Health Information

Potential Health Effects from Long-Term Exposure Above the MCL (unless specified as short-term)

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.

Violation(s) and Formal Enforcement Action(s)

None

Definitions

Action Level (AL): The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.

Gross Alpha, including RA, excluding RN & U: This is the gross alpha particle activity compliance value. It includes radium-226, but excludes radon 222 and uranium. EW

Maximum Contaminant Level (MCL): The highest level of a contaminant that is in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

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 Contaminant 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.

N/A: Not applicable or NT: Not Tested

ND: Not detectable; a testing limit or below detection level (BDL).

NTU (or Nephelometric Turbidity Units): A measure of clarity.

pCi/L (picocuries per liter): a measure of radioactivity.

ppb (parts per billion): micrograms per liter (ug/l).

ppm (parts per million): milligrams per liter (mg/l).

RAA (Running Annual Average): An average of monitoring results for the previous 12 calendar months.

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.

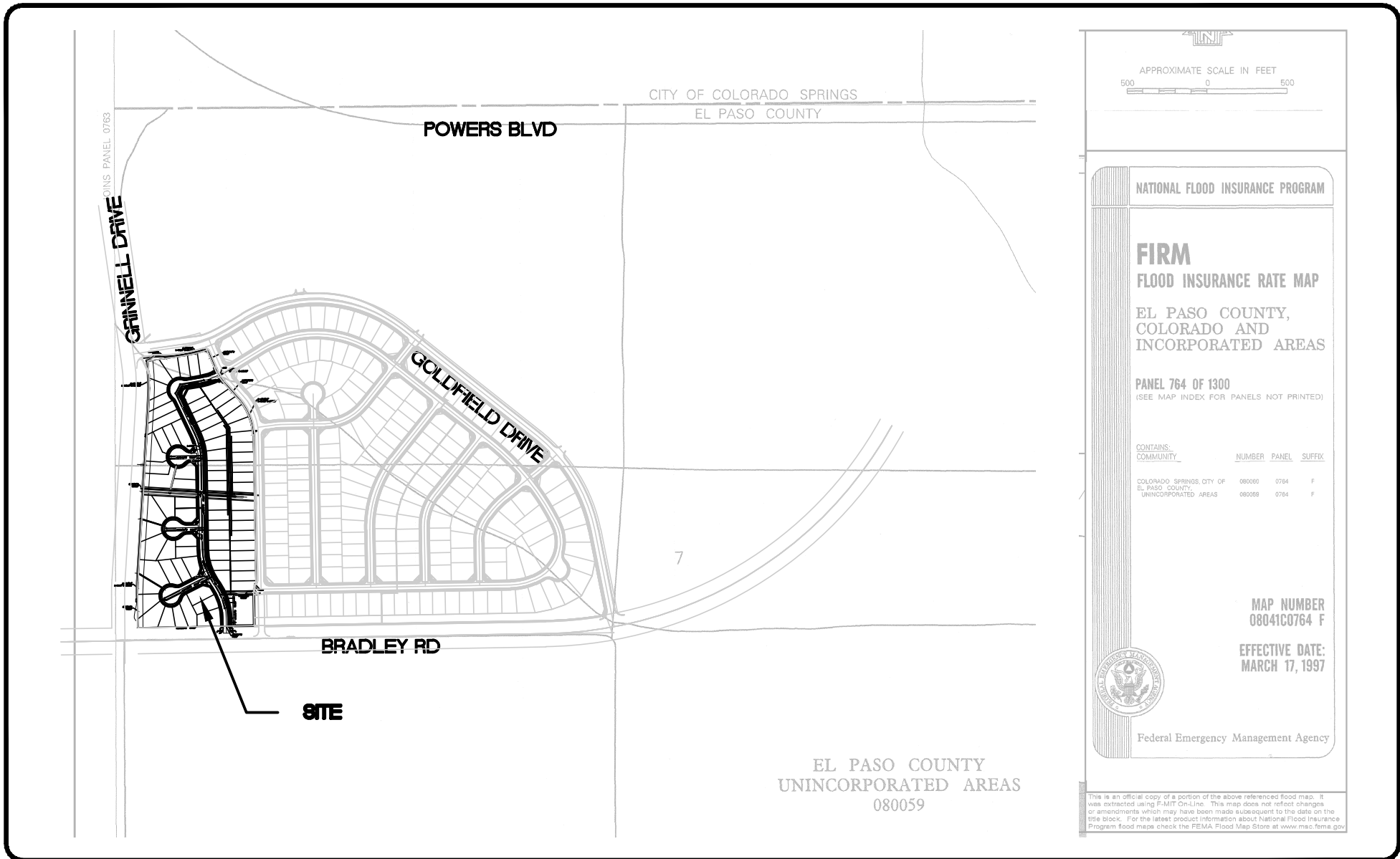
Waiver: State permission not to test for a specific contaminant.

90th Percentile: 90% of samples are equal to or less than the number in the chart.



Appendix B

100 Year Flood Plain Certification



N

APPROXIMATE SCALE IN FEET

500 0 500

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

EL PASO COUNTY,
COLORADO AND
INCORPORATED AREAS


PANEL 764 OF 1300
(SEE MAP INDEX FOR PANELS NOT PRINTED)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
COLORADO SPRINGS, CITY OF	080060	0764	F
EL PASO COUNTY, UNINCORPORATED AREAS	080059	0764	F

MAP NUMBER
08041C0764 F

EFFECTIVE DATE:
MARCH 17, 1997



Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

SE Springs
Engineering

31 NORTH TEJON, SUITE 300
COLORADO SPRINGS, CO 80903
TEL: (719) 227-7388
FAX: (719) 227-7392

PROJECT NO. 12-005

**SPRINGS AT WATERVIEW
PDR
FLOOD INSURANCE RATE MAP**

FIGURE

2

Appendix C

District Letters of Commitment

Security Water and Sanitation Districts / Enterprises

231 SECURITY BLVD. • COLORADO SPRINGS, COLORADO 80911
TELEPHONE 719-392-3475 • FAX 719-390-7252
www.securitywsd.com

September 30, 2016

PAKoscielski, mng.
SWV, LLC

Delivered via email

Dear Paul:

The parcel of land known as Springs at Waterview and depicted on the attached preliminary plan excerpt is not within the boundaries of the Security Water District and the Security Sanitation District. Consequently, the districts are not able to provide a commitment to serve the property at this time. The property has, however, been included in the districts' likely future service area, and has therefore been included in the districts' future service demand projections.

The water demands for this property are estimated to be a maximum of 40 annual acre feet of diversions and 16.0 annual acre feet of depletions based upon 80 single-family equivalents (sfe). Likewise, the wastewater collection and treatment requirements for this property are estimated to be a maximum of 5.75 million gallons per year or 15,760 gallons per day. The districts' commitments to this property would be limited to the preceding amounts.

The Security Water and Sanitation Districts currently have overall capacities that exceed current commitments. Upon submission of an application for final plat to the El Paso County Development Services Department, the Security Water District agrees to commit sufficient water resources and the Security Sanitation District commits sufficient wastewater capacity to serve the property. This commitment may also be subject to determinations of sufficiency and reliability of water supply by El Paso County and the Colorado Division of Water Resources.

The owner of the subject property may petition the Boards of Directors of the Security Water and Sanitation Districts for inclusion of the property into the districts. A service agreement between the property owner and the districts would then be negotiated as part of the inclusion process. If and when the property is included into the districts, it would be entitled to service from each district in accordance with and subject to Colorado state law and the operating rules, regulations and conditions of each district, which are subject to change. Services would also be conditioned on the payment of appropriate fees at the time of requested connection.

PAK
September 30, 2016
Page 2

This service commitment supersedes any previous commitments that may have been provided for this property.

If you have any questions, please contact me.

Sincerely,

A handwritten signature in blue ink that reads "Roy E. Heald". The signature is written in a cursive style with a large initial "R".

Roy E. Heald, General Manager

Appendix D

Water Supply Summary

WATER SUPPLY INFORMATION SUMMARY

Section 30-28-122.(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			
Springs at Waterview Filing No. 1-Sketch Plan Parcels P-5 and P-6			
2. LAND USE ACTION			
Preliminary Plan			
3. NAME OF EXISTING PARCEL AS RECORDED			
Parcel A, Waterview Pump Station Subdivision Exemption			
SUBDIVISION	FILING	BLOCK	LOT
Painted Sky at Waterview	Filing No. 1	Tract D	
4. TOTAL ACREAGE	5. NUMBER OF LOTS PROPOSED	PLAT MAP ENCLOSED <input checked="" type="checkbox"/> YES	
15.67	77		
6. PARCEL HISTORY – The site was Preliminary Planned in 2006. The preliminary Plan and PUD were amended in 2012.			
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.			
--NW ¼ of --- 1/4 SECTION <u>7</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 -- ¼ of --- 1/4 SECTION _____ TOWNSHIP _____ <input type="checkbox"/> N <input type="checkbox"/> S RANGE _____ <input type="checkbox"/> E <input checked="" type="checkbox"/> W -- ¼ of --- 1/4 SECTION _____ TOWNSHIP _____ <input type="checkbox"/> N <input type="checkbox"/> S RANGE _____ <input type="checkbox"/> E <input checked="" type="checkbox"/> W -- ¼ of --- 1/4 SECTION _____ TOWNSHIP _____ <input type="checkbox"/> N <input type="checkbox"/> S RANGE _____ <input type="checkbox"/> E <input checked="" type="checkbox"/> W -- ¼ of --- 1/4 SECTION _____ TOWNSHIP _____ <input type="checkbox"/> N <input type="checkbox"/> S RANGE _____ <input type="checkbox"/> E <input type="checkbox"/> W PRINCIPAL MERIDIAN: <input checked="" type="checkbox"/> 6 TH <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 <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No No Wells			
9. ESTIMATED WATER REQUIREMENTS – Gallons per day or Acre Feet per Year		10. WATER SUPPLY SOURCE	
HOUSEHOLD USE (inc. lot irr)	_____ GPD _____ AF	<input type="checkbox"/> EXISTING WELLS <input type="checkbox"/> DEVELOPED SPRINGS WELL PERMIT NUMBERS _____ _____ _____	<input type="checkbox"/> NEW WELLS – Proposed <input type="checkbox"/> Alluvial <input type="checkbox"/> Upper Arapahoe <input type="checkbox"/> Upper Dawson <input type="checkbox"/> Lower Arapahoe <input type="checkbox"/> Lower Dawson <input type="checkbox"/> Laramie Fox Hills <input type="checkbox"/> Denver <input type="checkbox"/> Dakota <input type="checkbox"/> Other _____
COMMERCIAL USE	_____ GPD _____ AF		
IRRIGATION	_____ GPD _____ AF	<input checked="" type="checkbox"/> MUNICIPAL <input type="checkbox"/> ASSOCIATION <input type="checkbox"/> COMPANY <input type="checkbox"/> DISTRICT NAME <u>Security Water District</u> LETTER OF COMMITMENT FOR SERVICE <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	WATER COURT DECREE CASE NO. _____
STOCK WATERING	_____ GPD _____ AF		
OTHER	_____ GPD _____ AF		
TOTAL	_____ GPD _____ AF		
11. ENGINEER'S WATER SUPPLY REPORT <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, PLEASE FORWARD WITH THIS FORM.			
12. TYPE OF SEWAGE DISPOSAL SYSTEM			
<input type="checkbox"/> SEPTIC TANKLEACH _____		<input checked="" type="checkbox"/> CENTRAL SYSTEM – DISTRICT NAME <u>Security Sanitation District</u>	
<input type="checkbox"/> LAGOON _____		<input type="checkbox"/> VAULT – LOCATION SEWAGE HAULED TO _____	
<input type="checkbox"/> ENGINEERED SYSTEM (Attach a copy of engineering design)		<input type="checkbox"/> OTHER _____	