WATER RESOURCES REPORT

for

FALCON STORAGE
FINAL PLAT

January 2024

Prepared By:

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FALCON STORAGE

WATER RESOURCES REPORT

January 2024

Prepared for:

Woodmen Hills Metropolitan District
8046 Eastonville Road
Peyton, CO 80831

Prepared by:

RESPEC, LLC
5540 Tech Center Drive, Suite 100
Colorado Springs, CO 80919

Table of Contents

1.0 INTRODUCTION AND EXECUTIVE SUMMARY

The purpose of this report is to address the specific water needs of the proposed Falcon Storage subdivision in Falcon, CO. This project is currently seeking plat approval through El Paso County, and this report is a requirement of approval.

EXECUTIVE SUMMARY: **The Woodmen Hills Metropolitan District (WHMD, the District) has adequate water supply to meet the needs of this proposed land use on a 300-year basis. Additionally, since this project is for irrigation needs only, wastewater service does not apply.**

2.0 PROJECTED LAND USES

2.1 Projected Land Uses

Lands within the subject area have been planned as commercial development. This report and associated commitments pertain to the lands proposed to encompass this proposed land use. Please refer to the Land Use Exhibit in ***Appendix B***.

2.2 Water Demands for the Subject Property

Lots within the subject area have been planned as commercial development with only landscaping needs. There are no domestic water needs for the proposed subdivision.

Based on irrigation required for trees, shrubs, and grasses, a total annual landscape water demand is estimated at **35,343 gallons per year (GPY), or 0.1085 acre-feet per year (AF/YR).** **1.0 acre-foot = 325,850 gallons*

A breakdown of expected water demands, generated by a landscape design firm, is provided in ***Appendix F***.

3.0 DISTRICT WATER NEEDS AND PROJECTED DEMANDS

3.1 Actual Water Demand Summary

The Woodmen Hills Metropolitan District tracks water demands and water use on an annual basis. The three most recent water use data are as follows:

Table 3-1: Three-Year Use History

Year	Annual Water Use (AF)	SFEs (No.)	Unit User Characteristic (AF/SFE)
2020	902.90	2,954	0.306
2021	786.29	2,995	0.263
2022	846.25	3,033	0.279

3.2 Unit Water User Characteristics

Unit water user characteristics are counted on a Single Family Equivalent (SFE) basis. The actual delivered unit user characteristic varies year to year, and averages about 0.283 annual acre-feet (AF). The District has adopted a 0.353 AF/SFE/day planning demand factor that covers not only actual use, but also covers reserves, system losses, and water accountability.

All single-family homes are counted as one SFE. Commercial and non-residential land uses are projected in terms of SFE, where a single tap might be the equivalent to more than one SFE. If and when any multi-family development is proposed in Woodmen Hills, an adjustment will be allocated in which a dwelling unit may be less than one (1) SFE.

Over the last 10 years, the unit user characteristic has been trending downward due to water conservation awareness, limitations on turf grass, low-flow fixtures, and inverted block rates – all of which encourage water conservation. Although there is reasonable belief that the downward trend is likely to continue, WHMD has not assumed additional downward trending into long-range planning but will address the trend as it materializes.

3.3 Current Demands versus Supply

In 2022, WHMD used 846.25 acre-feet of water out of a potential supply of 1,457 acre-feet on a 300-year basis – about 58% of supply. The use of overall supply has varied over the last decade, with a maximum of 63% of 300-year supply being used in the year 2012 and a minimum use of 48% in 2014. This number will vary based on timing of water acquisitions, annual weather, and various other factors. See *Figure 3-1* for a graph of WHMD's unit user characteristic vs. planning values.

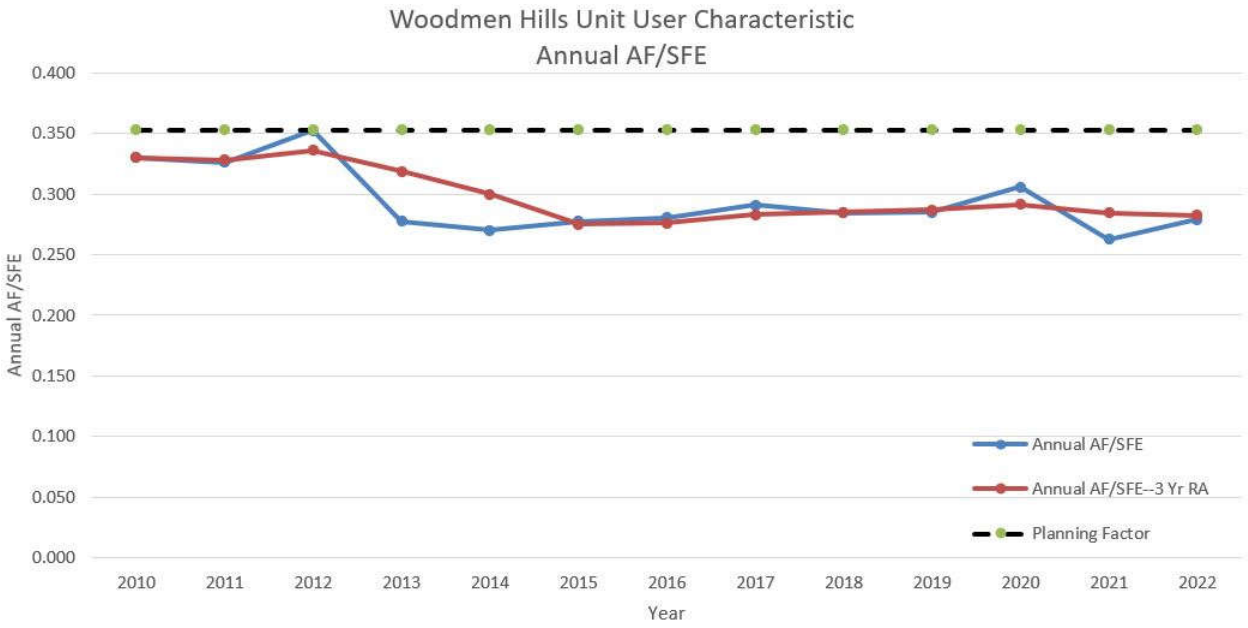


Figure 3-1 – Woodmen Hills Demand vs. Planning Values

4.0 WATER RIGHTS AND SUPPLY

4.1 District Water Rights

The District has numerous and varied local and off-site water rights. The rights include both renewable sources and Denver Basin non-renewable sources. The Property's total legal supply on a 300-year basis currently stands at 1,457.6 annual acre-feet$_{300}$. A narrative description of the nature of those supplies is discussed in subsequent sections. ***Appendix C*** contains the District's current legal water supply inventory.

4.2 Adequacy of Water Rights

Current water rights holdings are adequate for current demands and average expected buildout demands. The District's planning or desired holdings are also within 20% of meeting 2040 and 2060 buildout projections on a 300-year basis (District buildout is expected to occur prior to 2040). The perceived planning shortage would be 25 annual acre-feet. However, the District expects to make acquisitions far in excess of the perceived shortage.

- Current Use 846 acre-feet
- Buildout Average Need 1,260 acre-feet (includes 2040 and 2060)
- Buildout Planning Target 1,482.6 acre-feet (includes 2040 and 2060)
- Existing 300-Year Rights 1,457.6 acre-feet$_{300}$

The District's current water rights supply provides for a conjunctive water supply, mixing fully-consumable, non-renewable, and renewable sources. While current 300-year supplies exceed expected full buildout (including 2040 and 2060 scenarios), WHMD is actively pursuing long-term, additional future supplies to bolster its long-term water security and address anticipated physical depletions of non-renewable water.

4.3 Description of Current Water Rights

The District's current water rights include renewable and non-renewable supplies in the Denver Basin. These are each discussed further in this section.

<u>Renewable Water Supply</u>

Woodmen Hills and the surrounding area are within a designated groundwater basin known as the Upper Black Squirrel (UBS) Groundwater Management District. Rules regarding use, access, and other management issues are governed by the UBS and the State Groundwater Commission. These rules vary from other areas in the State. Water types managed within the District are alluvial groundwater that exists in the uppermost sands, which are only 15 to 25 feet deep in the Falcon area, but up to 350 feet deep in the Guthrie Ranch area. Alluvial water in the UBS is "over-appropriated," meaning no additional alluvial water rights are available. Therefore, acquisition of alluvial rights is limited to

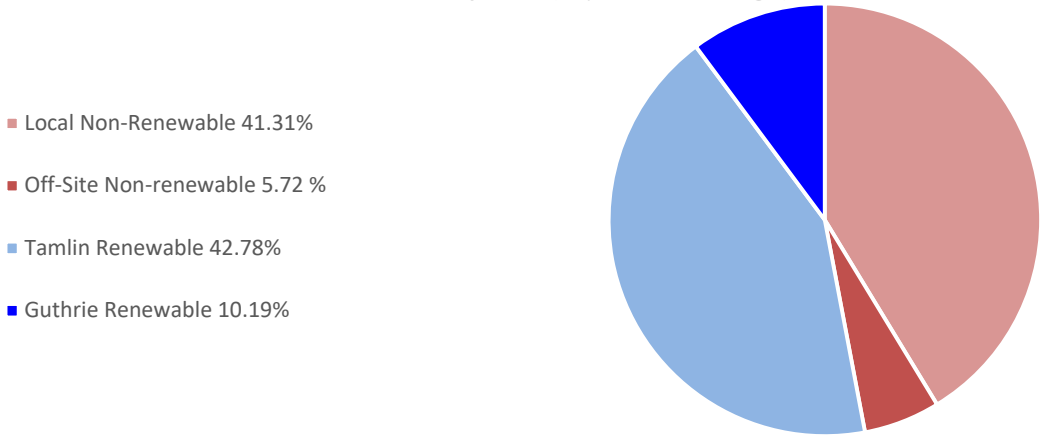
the purchase of someone else's existing alluvial rights. The Guthrie alluvial rights were obtained in such a fashion. Alluvial rights are renewable.

The District has renewable resources in two categories. One is a direct alluvial pumping right in the UBS basin at Guthrie, and the other is a perpetual, contractual right through Cherokee Metropolitan District (Cherokee, CMD). The direct alluvial right is for 89 annual acre-feet and, as a renewable right, it does not need to be counted on a 300-year basis. It is currently fully and physically available and is used at an average of 90% of its full capacity.

The second renewable source is a 350 annual acre-feet contractual and perpetual right through Cherokee. It is typically used near its face value capacity since it is perpetual at about 98%. This water is delivered to the District through a three-mile long, off-site system south of the District.

In prior years, the renewable rights supplied about 53% of the District's annual needs. ***Figure 4-1*** illustrates WHMD's source of supply breakdown of renewable and non-renewable sources.

Figure 4-1 Woodmen Hills Source Utilization
Use in Acre-feet (3 year Average)



Non-Renewable Denver Basin Supply

The second type of groundwater in the Falcon area is Denver Basin water. The Denver Basin is a vast, deep-rock aquifer that stretches from south of Falcon northerly to beyond Denver. Rights that are granted in the Denver basin are based on the ownership of the surface property – the larger the parcel, the larger the allocation. This water is much deeper, ranging up to 2,650 feet deep. Denver Basin water is considered finite and therefore non-renewable water. In the Falcon area, there are four main formations that make up the Denver Basin: Dawson, Denver, Arapahoe, and Laramie-Fox Hills, described from top to bottom.

The District has numerous determinations under the existing District boundaries, which total 793 annual acre-feet on a 300-year basis, and 2,378 annual acre-feet on a 100-year basis. Except maybe for support of future Aquifer

Storage/Recharge (ASR) projects, it is not anticipated that the number of local well sites will be increased in the near future.

Although there is significant unused pumping capability in the Falcon area, the District has relied less on their local sources in the past five to ten years.

The District has also acquired additional off-site Denver Basin rights.

These areas have yet to be fully developed as physical supply. The Hart well field already has future easements and well sites dedicated, but because there is no current need, no wells have been drilled yet in the Hart area.

Because the Guthrie area has not been accessed by any other Denver Basin users at this time, its physical capacity has remained strong. Not counting the Dawson or Denver formations, the Guthrie and Hart areas have a total of 860 annual acre-feet$_{100}$ and 287 acre-feet$_{300}$.

The Guthrie well field is the location where WHMD expects additional physical sources (additional wells) will be drilled as needed in the near future (next 2 to 20 years).

5.0 WATER SYSTEM FACILITIES AND PHYSICAL SUPPLY

5.1 Source of Supply

Woodmen Hills has multiple sources of supply as discussed below.

Local Wells:

The District has 12 wells in the Falcon area, mainly in the Arapahoe and Laramie-Fox Hills formations. These wells are all within the District's service area boundary.

Off-Site Wells:

The District operates four (4) Denver Basin wells at the Guthrie field, which is about 12 miles east of the Falcon area. The Denver Basin wells are in the Arapahoe and Laramie-Fox Hills formations.

Off-site Alluvial Wells:

Additionally, the District owns and operates two (2) alluvial wells at the Guthrie field which pump renewable water from the Upper Black Squirrel Basin.

Cherokee Water:

This water is alluvial from the Upper Black Squirrel Basin and is renewable. The annual quantity obtained from Cherokee is 350 acre-feet and is a perpetual right.

5.2 Water Treatment

The District owns and operates three water treatment plants and provides water treatment to its entire supply. The plants are all within the service area and treat at the following capacities:

Filter Plant #1	0.86 MGD Treatment Capacity
Filter Plant #2	0.36 MGD Treatment Capacity
Filter Plant #3	1.30 MGD Treatment Capacity

Woodmen Hills is currently constructing a new treatment facility with a capacity of 2.16 MGD. This facility will take the place of existing Filter Plant #1. Overall additional capacity above existing will be 1.3 MGD (2.16 MGD – 0.86 MGD). This new facility will be online by the spring of 2024. The District will also be upgrading Filter Plant #2's capacity to 0.86 MGD in late 2024 to early 2025.

5.3 Water Storage

The District currently owns and operates three (3) water storage facilities with a total capacity of 4.25 million gallons. They have recently brought their "West Water System" online, which consists of a 4-mile, 18-inch pipeline and a new 3.0-million-gallon concrete water storage tank.

This new tank is located such that it will bolster fire flow, service pressures, system reliability, and potable water storage.

5.4 Distribution, Pumping, and Transmission Lines

The District has two major off-site transmission lines which are jointly owned with Meridian Service Metropolitan District (MSMD). The names of the transmission lines are the Guthrie Line and the Tamlin Line.

The Tamlin system is a 12-inch line extending roughly three miles south-westerly of the District and is connected to the Cherokee Metropolitan District. The ultimate capacity of the Tamlin system is 1.8 MGD. The Tamlin system includes a 1.5 MGD pumping station.

The Guthrie system is a 14-mile long, 12-inch pipeline extending to the east of the District along Judge Orr Road. It includes wells, pumping facilities, and a mid-point pumping station. Its current capacity is 1.94 MGD.

The District has additional pump stations within its boundaries, including the Theriot Pump Station and an integral pump station inside a water treatment facility.

There are multiple pressure zones within the District's service boundary, and roughly 63 miles of internal distribution lines.

5.5 Recent and Upcoming System Expansions

The District has recently expanded its water system, and it has future expansions currently in planning phases.

West Water System:

As mentioned above, the District has recently completed its "West Water System." This system does not include any additional water rights, but does enhance the fire supply, service pressure, and system reliability. While no source of supply is being added, the new transmission line does open the door for future joint projects, shared supplies, and/or regionalization options. This project was brought online in December 2020.

Guthrie Expansion:

As a joint project with MSMD, a well field expansion is slated within the Guthrie system which is scheduled to be online in 2025/2026. This project is the second phase of the overall *Guthrie Master Plan.* The expansion will broaden the Guthrie collection system while also adding two new wells. This project does not add any legal supply but enhances the physical capabilities of the system.

5.6 Water Quality

The District treats and filters its raw water sources. Filtration is generally for iron and manganese removal. Water is disinfected to meet or exceed all CDPHE drinking water standards. ***Appendix D*** contains a copy of the "WHMD 2023 Drinking Water Quality Report," which outlines water quality delivered to District consumers.

6.0 EL PASO COUNTY MASTER PLANNING ELEMENTS

6.1 County Water Master Plan 2040 and 2060 Projections

WHMD lies within the El Paso County Master Planning area, Region #3. The master plan generally shows WHMD in its correct location.

Buildout:

Expected buildout of WHMD is based on the extrapolated overall SFE density. The existing overall gross developed density is 1.5 SFE/gross acre. Gross acres include numerous non-water-using lands, such as drainageways, open spaces, roads, rights of way, etc. They also include mixed use, with very low-density development (lot sizes of one acre or larger), commercial, and urban density development.

Based on known and future land use and a projection of development for non-planned areas, it is expected that WHMD buildout may approach 4,000 to 4,200 SFE.

Annual growth rates over the last decade have varied from no growth in 2011 to nearly 5% growth in 2018. Overall, the 10-year annual growth rate in WHMD has been 1.73% per year. The District's projections plot growth at both a 2% and a 3% rate.

2040 Buildout:

Since WHMD already exceeds 80% buildout, full buildout would be anticipated within the 2040 timeframe. The Woodmen Hills service area is likely to be fully built out between the years 2032 and 2038. Therefore, the WHMD 2040 needs are being addressed in terms of full buildout.

The 2040 buildout is currently expected to be approximately 4,200 SFE. Using the current unit user characteristic, water average, annual planning suggests a 1,188.6 acre-feet average annual need, with a planning need of 1,482.6 acre-feet which includes roughly 20% reserves. Current holdings are 1,457.6 acre-feet on a 300-year basis.

In 2040, actual expected needs will be more than met with the current supply, but since WHMD is currently planning on over 20% reserves, a possible, very small shortage of 25 annual acre-feet might be expected.

2060 Buildout:

WHMD is expected to be fully built-out prior to 2040; therefore, 2060 projections are the same as 2040

6.2 Description of Long-Term Planning and Future Sources of Supply

In theory, the 300-year supply of water for WHMD appears to be more than adequate for full buildout, which would include both the 2040 and 2060 scenarios. Even with the projected WHMD 20% reserve desire, the current 300-

year supply is less than 2% short. However, portions of the District's water supply are based on non-renewable sources.

The District currently relies on about half of its water supply to come from non-renewable water sources (Denver Basin wells). Although these sources are substantial, the District anticipates yield degradation of non-renewable physical supplies over time and believes that expansion of its water supply is advisable. While some Denver Basin water may be added, a focus on additional renewable sources is a priority.

In 2018, the District developed a water policy intended to facilitate the goal of continued addition of water with a priority of seeking additional renewable resources. Elements of the policy aim to:

1. Cause development to "pay its way" in terms of water and capital improvements.
2. Develop separate funding supply dedicated to:
    - Acquisition of new water
    - Development of physical infrastructure
    - Investment in additional and/or improved sources

In addition to adding off-site sources, an additional priority is to acquire and/or invest in additional renewable water supplies.

Long-Term Planning:

Although there is no near-term perceived shortage expected in supply, the District will be increasing water reliability, increasing efficiency, and acquiring/improving sources of supply over time.

New sources/expansions are expected to come from five areas:

1. Developer Inclusions

    The service area considered for full build-out includes areas that are currently not in the formal District boundaries. Developers must relinquish any and all water as a term of inclusion. While limited, the District will place these into its inventory. Some have existing determinations, and some lands are not quantified. As such, these sources will be rather limited, and are expected to be non-renewable and less than 100 annual acre-feet$_{300}$.

2. Acquisitions

    The District established a funding mechanism in 2018 dedicated to the development of additional legal and physical supply. This mechanism is entirely funded through development revenues and the current fund has become substantial.

Ongoing negotiations cannot be disclosed for obvious reasons. It should be noted that the District pursues both non-renewable and renewable sources with emphasis on the renewables.

3. Regionalization

   There are two forms of regionalization described herein:

   a. One factor is the development of close, cooperative ties with adjacent Districts in order to develop water efficiency through joint efforts. WHMD is the largest water provider and the regional wastewater provider among the five Falcon Districts. It is geographically central to all five of the major Falcon Districts, making it key to Falcon's regional water development. WHMD already has joint water projects with Meridian Service Metropolitan District and Falcon Highlands Metropolitan District. These joint actions allow for more comprehensive water projects and greater water efficiency.

   b. The second element is much broader regionalization. WHMD has been open to cooperative actions with Colorado Springs Utilities (CSU). CSU potentially is open to shared physical facility utilization, which would enable WHMD to expand its scope in seeking water rights. While it is not expected that CSU will provide actual water, the access to facilities opens greater doors for WHMD.

4. Facility Expansion

   WHMD jointly owns extensive transmission systems with Meridian Service Metropolitan District, which extend 14 miles easterly and 5 miles southerly of its service area. While certain water rights are already associated with these facilities, additional and/or replacement supplies are being considered as non-renewable replacements and/or additional rights. WHMD recently completed a transmission line to the west of its boundaries which provides substantial storage, enhanced fire protection, and allows for more regionalization options.

5. Indirect, Lawn Irrigation Return Flows (LIRF) Credits, Aquifer Storage/Recharge, and Direct Reuse

   While WHMD plans on adding additional renewable water resources, it understands the value of its ability to retain consumptive use of its non-renewable resources. Therefore, we project that at least some continued pumping of Denver Basin water should extend out many decades as it creates the basis for reuse for both indirect and future direct reuse. The conjunctive use of renewable and non-renewable supplies also allows for future potential for aquifer storage and recharge, which is expected to become an option for WHMD within the Arapahoe aquifer.

   Currently, WHMD discharges roughly 400 acre-feet per year of water, which is fully consumable and reusable. In addition, WHMD has quantified its LIRF

credits, which are currently being used to offset underdrain flows. However, the District has implemented underdrain control systems that will eliminate the need for using LIRF credits for augmentation, allowing the LIRF credits to be converted to potable use.

Miscellaneous Future Supplies:

1. Unquantified Lands:

   As the District includes additional lands, further determinations will either be added to the District's supplies or the un-quantified rights will be relinquished to the District, which will then be quantified, determined, and ultimately added to the District's supplies.

   The District does not immediately process all unquantified rights upon obtaining ownership but holds such ownership until an adequate amount of lands are processed, making determinations reasonable in cost. At this time, the District is holding about 30 acres in wait, which would represent roughly an additional 9 to 10 annual acre-feet $_{300}$ to its inventory. The District usually likes to have roughly 40 acres before processing determinations. These are not added to the District's inventory until formally determined.

2. Determinations Which Might be Dedicated Upon Inclusion

   Within the expected service area are lands that are not yet included which will also be bringing existing determinations to the table and dedicating these supplies to the District. These will not be added to the District's inventory until deeded to the District.

3. Future Acquisitions

   WHMD recently adopted a water management and acquisition policy which allows for the generation of funds dedicated to procurement of future water rights acquisitions. WHMD's Water Acquisition Fund has now exceeded several million dollars. The fund is dedicated strictly to acquiring and/or developing additional future supplies. Obviously, negotiations that are ongoing for purchase of both renewable and non-renewable resources cannot be discussed here.

4. Regionalization

   WHMD is one of the largest districts among the five Falcon districts. WHMD is central to interconnecting each of the five Falcon districts and has been pursuing joint operations with its neighbors for years. Ultimately, joint operations could dramatically enhance the reliability and efficiency of the Falcon Districts.

   WHMD also participates in one-on-one and joint discussions with CSU, which may ultimately provide regional delivery systems that allow for a broader range of acquisitions for WHMD.

6.3 Municipal Interconnects

WHMD operates over 51 miles of wastewater collection system and owns and operates three lift stations. Since this development will not generate any wastewater, the District's wastewater facilities are unaffected.

In addition to joint water supply sources, the District has several interconnects with other municipal systems that can provide two-way flows between the said districts. Certain additional interconnects may be added in the future.

WHMD has both a raw water interconnect with Cherokee that feeds one way to Cherokee as well as the Tamlin interconnect on the potable water system that conveys water to WHMD.

7.0 CONCLUSION

The Woodmen Hills Metropolitan District (WHMD, the District) has adequate water supply to meet the needs of this proposed land use on a 300-year basis. Additionally, since this project is for irrigation needs only, wastewater service does not apply.

Appendix A

IF BAR DOES NOT MEASURE ONE INCH, SCALE OF THIS DRAWING HAS BEEN ALTERED 1"

WOODMEN HILLS METROPOLITAN DISTRICT

PAINT BRUSH HILLS

MERIDIAN RANCH

STAPLETON DR

EASTONVILLE RD

SITE

MERIDIAN RD

WOODMEN RD

FALCON HIGHLANDS

HWY 24

FALCON VISTA

0' 750' 1,500'

11x17 SCALE: 1"=1,500'

24x36 SCALE: 1"=750'

SHEET ----OF 1

Proj.#: 112.113
Date: 08/10/20
Design: JPM
Drawn: SKG
Check: JPM

REVISIONS				
NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

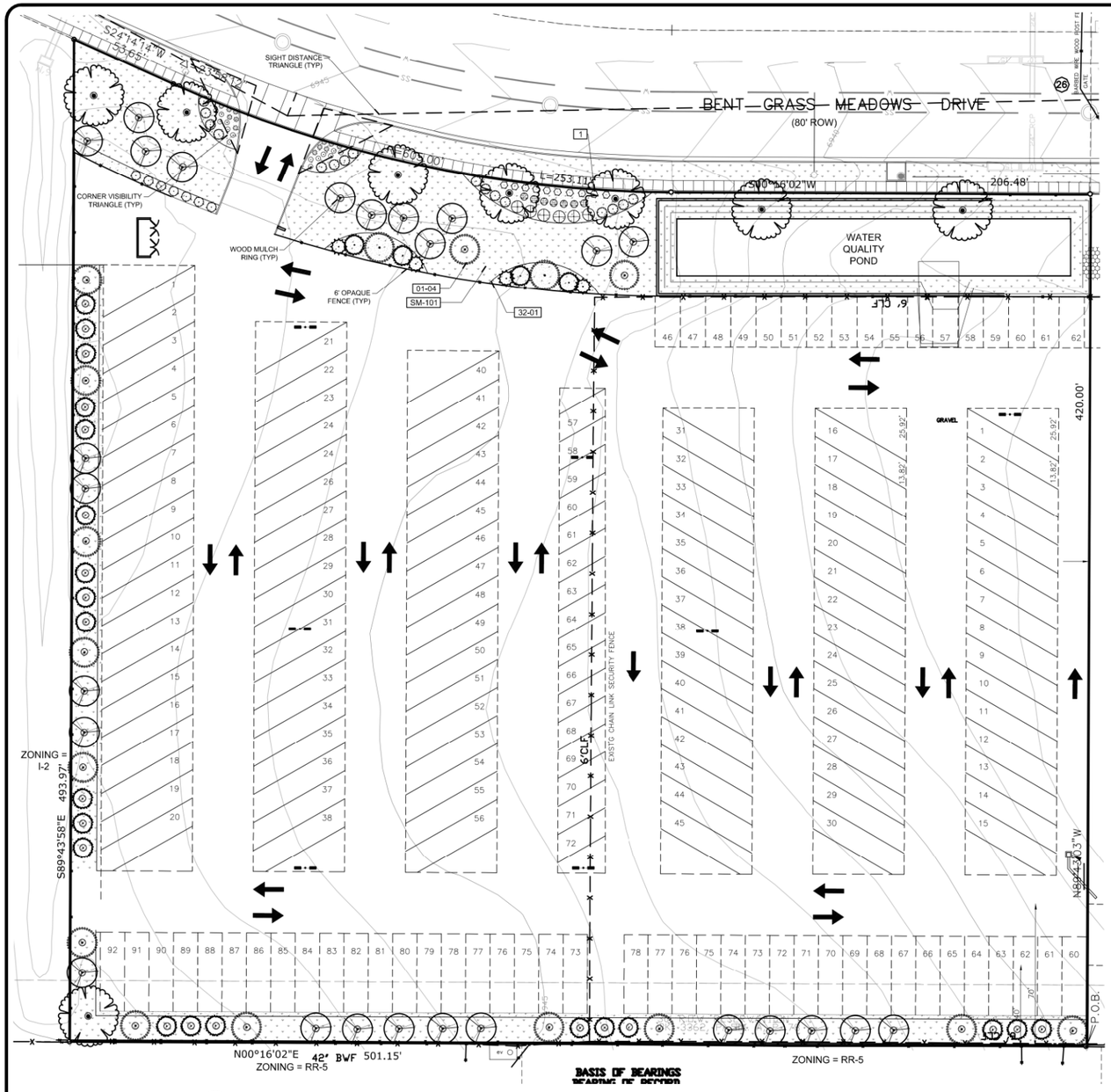
WOODMEN HILLS METROPOLITAN DISTRICT

DISTRICT MAPPING

APPENDIX A–1
WATER SERVICE AREA

RESPEC
Colorado Springs, CO
5540 Tech Center Dr., Suite 100
Colorado Springs, CO 80919
Phone: 719.227.0072
www.respec.com

Appendix B



LANDSCAPE PLAN

SCALE: 1" = 30'

0 30 60 90

PLAN NOTES:

1. **NO SUBSTITUTIONS WITHOUT PREVIOUS APPROVAL OF LANDSCAPE ARCHITECT. UNAPPROVED DEVIATIONS FROM THIS PLAN WILL BE RECTIFIED AT CONTRACTORS EXPENSE.**
2. **CONTRACTOR TO PROVIDE ANALYSIS OF ANY AMENDMENTS PROPOSED FOR PLANTING AREAS PRIOR TO INSTALLATION OF SUCH MATERIALS.**
3. **NO FABRIC UNDER WOOD MULCH IN ANY AREAS. ALL PLANTS IN ROCK MULCH AREAS TO RECEIVE SHREDDED CEDAR MULCH RINGS EQUAL TO THE ROOTBALL OF THE PLANT. MASSING SHALL HAVE CONTINUOUS SHREDDED MULCH BANDS. SEE DETAILS SHEET L2.0.**
4. **ALL EMITTERS PER IRRIGATION PLAN.**
5. **ALL EMITTERS TO BE PLACED AT THE APPROPRIATE LOCATIONS. ALL EMITTERS TO USE MICRO TUBING, STAKES, AND BUG CAPS.**
6. **SEE LANDSCAPE DETAILS SHEET FOR ADDITIONAL NOTES AND DETAILS.'**
7. **RETAIN 10% OF ALL PLANT TAGS PER SPECIES FOR DURATION OF WARRANTY PERIOD.**

PROJECT ADDRESS:	LOT 1, LATIGO BUSINESS CENTER FILING NO 1 7630 BENT GRASS MEADOW DR PEYTON, CO 80831
LEGAL DESCRIPTION:	LOT 1, LATIGO BUSINESS CENTER FILING NO 1
COUNTY ZONING:	I-2
LOT AREA:	217,957 SF
BLDG. COVERAGE:	0
BLDG. SETBACKS:	FRONT = 25' REAR = 25' SIDE = 15'

OWNER: RICHARD GRAHAM JR
FALCON STORAGE PARTNERS, LLLP
4615 NORTH PARK DR, #101
COLORADO SPRINGS, CO 80918
719-440-9414

PLANT SCHEDULE

QTY FOR REFERENCE ONLY. VERIFY ALL COUNTS PER PLAN

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONT
TREES				
	AH	27	ACER TATARICUM `HOT WINGS` / HOT WINGS TATARIAN MAPLE	1.5" B&B MULTISTEM
	CO	8	CELTIS OCCIDENTALIS / COMMON HACKBERRY	1.5" B&B
	JSM	25	JUNIPERUS SCOPULORUM / ROCKY MOUNTAIN JUNIPER	4` HEIGHT
	Jmg2	4	JUNIPERUS SCOPULORUM `MOONGLOW` / UPRIGHT JUNIPER	6` HT
	PE	16	PINUS EDULIS / PINON PINE	6` HT
SYMBOL	**CODE**	**QTY**	**BOTANICAL / COMMON NAME**	**SIZE**
SHRUBS				
	AL	7	AMORPHA CANESCENS / LEADPLANT	5 GAL
	An	14	AMORPHA NANA / DWARF FALSE INDIGO	5 GAL
	CMF	6	CHAMAEBATIARIA MILLEFOLIUM `FERNBUSH` / FERNBUSH	5 GAL
	ES	10	ERICAMERIA NAUSEOSA SPECIOSA / DWARF BLUE RABBITBRUSH	5 GAL
	FA	16	FALLUGIA PARADOXA / APACHE PLUME 12356D	5 GAL
GRASSES				
	BB	12	BOUTELOUA GRACILIS `BLONDE AMBITION` / BLUE GRAMA	1 GAL
	SW	7	SPOROBOLUS WRIGHTII / BIG SACATON	1 GAL
SYMBOL	**CODE**	**QTY**	**BOTANICAL / COMMON NAME**	**CONT**
GROUND COVERS				
	NS	31,276 SF	NATIVE SEED MIX / EPCCD SHOTGUN MIX - UPDATED 2022 SEE SHEET L1.0	SEED
MULCHES				
	RM	4,985 SF	ROCK MULCH / RIVER ROCK 1\"-2\" PER OWNER APPROVAL. PLACE TO A UNIFORM DEPTH OF 3\"	MULCH
	WM	560 SF	SHREDDED WOOD MULCH / WOOD MULCH GORILLA HAIR OR SHREDDED REDWOOD MULCH. NO WEED BARRIER UNDER WOOD MULCH AREAS	MULCH

REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION	QTY
1	PLACE SHREDDED CEDAR MULCH AROUND BASE OF ALL PERENNIALS AND GRASSES IN LARGE COBBLE AREAS. MASSED PERENNIALS TO RECEIVE LARGE RING AROUND ENTIRE GROUP (TYP). WOOD MULCH NOT REQUIRED AROUND BASE OF PLANTS LOCATED IN PEA GRAVEL.	
SYMBOL	**DESCRIPTION**	**QTY**
01-04	SEED ALL DISTURBED AREAS WITH NATIVE LAWN MIX UNLESS OTHERWISE NOTED.	
	32 LANDSCAPE IMPROVEMENTS	
SYMBOL	**DESCRIPTION**	**QTY**
32-01	14 G ROLL TOP STEEL EDGING, STAKED 30" OC MAX.	2,069 LF
SYMBOL	**DESCRIPTION**	**QTY**
SM-101	ALL SEEDED AREAS TO BE AMENDED AND HYDROSEEDED. PLACE EROSION CONTROL MAT ON ALL SLOPES EXCEEDING 4:1.	

EL PASO COUNTY CONSERVATION DISTRICT

SHOTGUN MIX

Common name	Recommended variety	% of seed mix	Pure live seed pounds/acre
Bluestem, Big Native	Kaw, Bison, Champ	20.0 %	1.08
Little Bluestem Native	Schizachyrium scoparium	10.0%	12
Green Needlegrass Native	Lodorm	10.0%	48
Wheatgrass, Western Native	Arriba, Barton	20.0%	1.60
Grama, Sideoats Native	Vaughn, Butte, El Reno, Niner	10.0%	48
Switchgrass Native	Blackwell, Greenville	10%	20
Prairie Sandreed Native	Goshen, Pronghorn	10.0%	32
Yellow Indiangrass Native	Cheyenne, Holt, Llano	10.0%	51

EL PASO COUNTY CONSERVATION DISTRICT

SITE CATEGORY REQUIREMENTS

ROADWAY LANDSCAPING (or Double Frontage Lot Streetscapes)

Street Name or Zone Boundary (elev.)	Street Classification	Setback Width Req. / Prov.	Linear Footage	Tree/Feet Required	No. of Trees Req. / Prov.
Bent Grass Meadow Dr	Non-arterial	10' / 15'	514	1/30	18 /18

Shrub and Orn. Grass Substitutes	Setback Plant Abbrev. Denoted on Plan	Percent Ground Plane Veg. Req. / Provided	High Water-use Turf %
0 / 0	-	75% / 75%	0%

PARKING LOTS *Screening provided for all parking areas per code via opaque fence + shrubs

No. of Vehicle Spaces Provided	Shade Trees (1/15) Required / Provided	Vehicle Lot Frontage is)	Length of Frontage (ft.) (excluding driveways)	2/3 Length of Frontage (ft.)
		Bent Grass Meadow	295	198

Frontage Screening Provided (LF)	Evergreen LF Req.(50%) / Prov.	Length of Screening Provided	Vehicle Lot Plant Abbr. on Plan	Percent Ground Plane Veg. Req. / Provided
226	113 / 160	295 - opaqua fence		

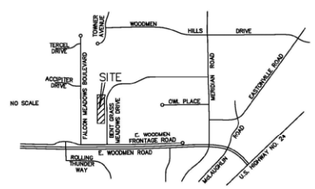
INTERNAL LANDSCAPING

Net Site Area (SF) (less public R.O.W.)	Percent Min. Internal Area (%)	Internal Area (SF) Required / Provided	Internal Trees (1/500 SF) Required / Provided
217,957	5%	10,898 / (37,966)	22 / 22

Internal Plant Abbr. Denoted on Plan	Percent Ground Plane Veg. Req. / Provided
IN	75% / 86%

LANDSCAPE BUFFERS & SCREENS - N/A

Street Name or Property Line (elev.)	Width (in. ft.) Req./ Prov.	Linear Footage	Buffer Trees (1/25') Required / Provided	Evergreen Trees Req.(33%) / Provided	Length of 6 ft. Opaque Structure Req. / Prov.
North PL	15 / 15	494	20 / 20	6 / 9	494
West PL	15 / 15	501	20 / 20	8 / 11	501



VICINITY MAP - NTS

Licensure Notes:

This document is for City review and approval only.

This document is not a construction drawing unless stamped by the Landscape Architect of record. Projects require a stamped set of construction documents for landscape improvement installation.

PCD FILE NO: PPR 22320

REVISIONS:
Comments: 03.16.22
Comments: 12.29.23

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Landscape Architecture
Land Planning & Site Design
5539 Colt Drive, Longmont, CO 80503
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GRAHAM STORAGE - LATIGO BUS CENTER, FILING 1
PEYTON, CO

FINAL LANDSCAPE PLAN

PROJ. NO.:	
DATE:	11.30.20
SCALE:	See Sheet
DRAWN:	JRO
CHKD BY:	NAM
SHEET	L1.0

GENERAL NOTES

(Note: All references to "Contractor" are specific to "Landscape Contractor" unless notified as "General or other type of Contractor")

1. CONTRACTOR IS RESPONSIBLE FOR VERIFYING QUANTITIES OF MATERIALS NEEDED TO COMPLETE THIS PLAN IN THE FIELD. NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES BETWEEN THE DRAWINGS AND CONDITIONS IN THE FIELD. SUBSTITUTIONS OF PLANT MATERIAL ARE NOT ALLOWED WITHOUT APPROVAL FROM LANDSCAPE ARCHITECT GIVEN PRIOR TO INSTALLATION. GRAPHIC QTY'S. PREVAIL OVER WRITTEN QTY'S. PRIOR TO COMMENCEMENT OF WORK THE LANDSCAPE CONTRACTOR SHALL CONTACT OWNERS REPRESENTATIVE FOR SPECIFIC INSTRUCTIONS RELEVANT TO THE SEQUENCING AND SCOPE OF WORK.

2. CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL LANDSCAPE SHOWN ON THIS PLAN. ANY DEFICIENCIES OR DEVIATIONS FROM THIS PLAN ARE TO BE APPROVED BY OWNER'S REPRESENTATIVE OR LANDSCAPE ARCHITECT. ANY CHANGES FROM THE APPROVED PLANS MAY REQUIRE APPROVAL FROM THE CITY OR COUNTY PLANNING DEPARTMENTS.

   LANDSCAPE CONTRACTOR TO PROVIDE ALL LABOR AND MATERIALS NECESSARY TO FURNISH SCOPE OF WORK AS SHOWN PER PLAN.

3. EXISTING TOPSOIL IS TO BE STOCKPILED AND USED TO ESTABLISH FINAL GRADES WITHIN LANDSCAPE AREAS. ALL STOCKPILED SOIL MUST BE CLEAR OF WEEDS, ROCKS AND DEBRIS BEFORE REUSE. ALL BERMED PLANTING BEDS TO BE CREATED WITH IMPORTED TOPSOIL.

4. GENERAL CONTRACTOR TO RE-SPREAD STOCKPILED SOIL AND ESTABLISH ROUGH GRADE CONDITIONS TO THE FOLLOWING SPECIFICATIONS:
   A. 1" BELOW CURB FOR ALL SEEDED AREAS.
   B. 2.5" BELOW CURB FOR ALL SODDED AREAS.
   C. 4" BELOW CURB FOR ALL PLANTING, ROCK AND MULCH BEDS.

5. CONTRACTOR TO TILL PARKING LOT ISLANDS TO A DEPTH OF 30".

6. AMEND ALL PLANTING BEDS WITH CLASS 1 COMPOST. APPLY AT RATE OF 3 CYDS. PER 1000 SQUARE FEET TO ALL PLANTING BEDS AND MANICURED LAWN AREAS, AND 2 CYDS. PER 1000 SQUARE FEET FOR SEEDED AREAS. TILL, MIXING THOROUGHLY, INTO THE UPPER 8" OF SOIL.

7. FINE GRADE TO BE ESTABLISHED BY LANDSCAPE CONTRACTOR. FINE GRADE SHALL BE FREE OF ROCKS AND DEBRIS. FINE GRADE IN SEED AREAS SHALL BE FREE FROM ROCKS AND DEBRIS ½" AND GREATER. FINE GRADE IN SODDED AREAS SHALL BE FREE FROM ROCKS AND DEBRIS ¼"AND GREATER. CONTRACTOR TO REPORT ANY POOR DRAINAGE CONDITIONS PRIOR TO CONSTRUCTION.

8. CONTRACTOR IS TO PROVIDE VERIFICATION THAT ALL SOD IS OF THE SPECIES SHOWN ON THIS PLAN. NO SUBSTITUTIONS WILL BE ALLOWED. SOD TO BE LAID WITH TIGHT STAGGERED EDGES AND BE ROLLED AFTER INSTALLATION. SEEDED AREAS CANNOT BE SUBSTITUTED WITH SOD.

9. MULCHS: ALL PLANTING BEDS THAT CALL FOR WOOD/ORGANIC MULCH TO RECEIVE 4" ORGANIC SHREDDED BARK MULCH. SHREDDED MULCH IS TO BE OF FIBROUS MATERIAL, NOT CHIPS OR CHUNKS. NO FABRIC IS TO BE PLACED UNDER WOOD/ORGANIC MULCH. TREES IN TURF AND NATIVE GRASS AREAS TO RECEIVE 4' DIAMETER OF WOOD MULCH, 3" DEPTH. SHRUBS AND GROUNDCOVERS IN NATIVE GRASS AREAS TO RECEIVE 3' DIAMETER OF WOOD MULCH, 3" DEEP. ALL MULCHED BEDS ARE TO BE SPRAYED WITH WATER AFTER INSTALLATION TO HELP MULCH TO MAT DOWN.

   TREES IN COBBLE/ROCK MULCH TO RECEIVE 4' DIAMETER OF WOOD MULCH, 3" DEEP. SHRUBS AND GROUNDCOVERS IN COBBLE/ROCK MULCH AREAS TO RECEIVE 3' DIAMETER OF WOOD MULCH, 3" DEEP. NO FABRIC UNDERLAYMENT IN WOOD MULCH AREAS.

   ALL PLANTING BEDS THAT USE QUICK RELEASE ORGANIC PRE-EMERGENT HERBICIDE FOR ALL MULCHED AND PERENNIAL / PLANTING BEDS (AND FOR COBBLE/AGGREGATE AREAS WITH SLOPES EXCEEDING 3:1 GRADE.

10. SEED MIX INSTALLATION: CONTRACTOR TO DRILL SEED WITH DRILLION TYPE APPLICATOR AND APPLY 'SOIL GUARD' BONDED FIBER MATRIX (BFM), WHERE INDICATED PER PLAN AND SCHEDULES. APPLY SEED IN TWO DIRECTIONS (PERPENDICULAR OF THE OTHER) ADD SOIL GUARD BFM FOR DRILL SEEDING WHERE NOTED PER PLAN AND ON ALL SLOPES 5:1 TO 3:1. FOR AREAS WITH 3:1 SLOPES OR GREATER CONTRACTOR TO USE SOIL GUARD APPLICATION ONLY (IN LIEU OF HYDROMULCH) CONTRACTOR TO SPOT SEED NON-GERMINATING AREAS (3) MONTHS AFTER INITIAL SEED APPLICATION. CONTRACTOR TO RE-SEED ALL BARE AREAS (6'x6") AND GREATER AFTER (6) MONTHS FROM SEED GERMINATION OR AT THE BEGINNING OF THE FOLLOWING GROWING SEASON. PRIOR TO THE 11-MONTH WARRANTY INSPECTION RE-APPLY SOIL GUARD AND SEED MIX TO ALL BARE AREAS (6'x6" OR GREATER) AND TO ALL BARE AREAS (4"x4" OR GREATER) ON ALL SLOPES 3:1 AND GREATER.

11. REMOVED DEAD TWIGS AND BRANCHES FROM ALL NEW AND EXISTING PLANT MATERIAL IN A MANNER THAT DOES NOT CHANGE THE NATURAL HABIT OF THE PLANT MATERIAL. SCARES OF 1" OR MORE SHALL BE PAINTED WITH ORGANIC TREE PAINT. CENTRAL LEADERS SHALL NOT BE REMOVED AT ANY TIME. NEWLY PLANTED TREES WITHOUT CENTRAL LEADERS WILL BE REJECTED.

12. CONTRACTOR TO APPLY FERTILIZER IN SPRING & LATE SEPTEMBER. WATER THOROUGHLY AFTER APPLICATION OF FERTILIZERS.

    ALL SEEDED AND SODDED AREAS TO HAVE RECOMMEND FERTILIZER APPLICATIONS ADDED 2 TO 3 WEEKS AFTER SEEDLING EMERGENCE. AND ONCE IN MID TO LATE JUNE, IN EARLY TO MID AUGUST, AND ONCE IN LATE SEPTEMBER. SEEDED AND SODDED AREAS ARE ALSO TO RECEIVE .5 LB. OF ELEMENTAL SULFUR (OR EQUIVALENT MATERIAL) PER 1,000 S.F. APPLIED IN LATE SEPTEMBER. WATER THOROUGHLY AFTER APPLICATION OF FERTILIZERS.

13. ALL PLANT MATERIALS AND UTILITIES ARE SHOWN AT AN APPROXIMATE LOCATIONS. THE CONTRACTOR MAY NEED TO ADJUST LOCATIONS OF PLANT MATERIAL TO ADHERE TO SPECIFIC ON-SITE CONDITIONS AND CODE REQUIREMENTS. ALL TREES AND SHRUBS TO BE PLACES AT 2' MINIMUM BACK OF CURB. CONTRACTOR TO CALL FOR UTILITY LOCATES BEFORE PLANTING (TYP.) 1-800-922-1987, OR CALL 811 BEFORE YOU DIG!

14. STEEL EDGING TO BE USED TO SEPARATE ALL TURF AND/OR SEEDED AREAS FROM PLANTING BEDS. USE PERFORATED EDGING SEGMENTS TO OBTAIN POSITIVE DRAINAGE FOR ALL DRAINAGE SWALES OR AREAS OF STANDING WATER.

15. CONTRACTOR TO PROVIDE COBBLE & UNDERLAYMENT FOR BUILDING DRAINS AND SWALES THROUGH LANDSCAPED AREAS.

16. ALL REQUIRED LANDSCAPING TO BE INSTALLED PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.

17. ALL NURSERY STOCK TO CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI z60.1) AND THE COLORADO NURSERY ACT.

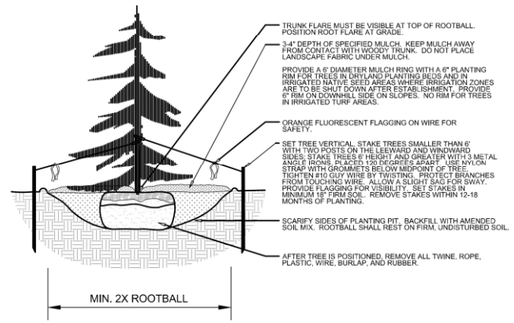
18. CONTRACTOR IS RESPONSIBLE FOR CONTACTING LANDSCAPE ARCHITECT FOR ALL REQUIRED INSPECTIONS. PROVIDE AT LEAST 48 HOURS NOTICE TO SCHEDULE AN INSPECTION. REQUIRED INSPECTIONS INCLUDE A LANDSCAPE LAYOUT AND PLANT MATERIAL VERIFICATION AND PLACEMENT INSPECTION, IRRIGATION MAIN LINE INSPECTION, LANDSCAPE AND IRRIGATION PUNCH LIST INSPECTION, AND A LANDSCAPE AND IRRIGATION FINAL INSPECTION.

19. CONTRACTOR IS TO PROVIDE A ONE YEAR WARRANTY ON ALL PLANT MATERIAL, TURF, IRRIGATION COMPONENTS, AND WORKMANSHIP. REPLACEMENT PLANT MATERIALS SHALL BE OF THE SAME SPECIES AND SIZE AS THE DECAYED OR DEAD PLANT MATERIAL. WARRANTY IS VOID IF PLANT MATERIAL ARE UNDER OR OVER-WATERED/FERTILIZED, DAMAGED BY VANDALISM OR NEGLECTED BY OWNER AFTER FINAL MAINTENANCE PERIOD AND FINAL ACCEPTANCE IS PROVIDED.

    REMOVE ALL TREE STAKING MATERIALS AT END OF WARRANTY, PRIOR TO FINAL ACCEPTANCE

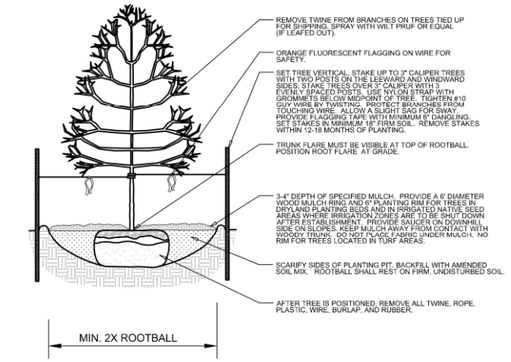
20. MAINTENANCE: THE OWNER OF THIS PROPERTY AND ANY FUTURE OWNERS SHALL BE RESPONSIBLE FOR THE PROPER LANDSCAPE AND IRRIGATION MAINTENANCE OF THIS SITE AND ANY RIGHT OF WAY AREAS BETWEEN THE CURB AND PROPERTY LINES OF THIS SITE. MAINTENANCE OF THIS SITE INCLUDES, BUT IS NOT LIMITED TO, IRRIGATION INSPECTIONS AND ADJUSTMENTS, IRRIGATION SYSTEM SHUT DOWN AND START UP, IRRIGATION LEAK REPAIR, LANDSCAPE WEEDING, MOWING, SEEDING, FERTILIZATION, WOOD MULCH AND ROCK COVER REPLACEMENT, PRUNING, AND PLANT MATERIAL REPLACEMENT (INCLUDING ANNUAL BEDS). ALL MAINTENANCE SHOULD BE IN ACCORDANCE WITH STANDARDS SPECIFIED WITHIN THE "ALCC SPECIFICATIONS HANDBOOK" REVISED EDITION- 1996. OWNER SHOULD CONTACT LANDSCAPE CONTRACTOR OR LANDSCAPE ARCHITECT REGARDING ANY QUESTIONS RELATING TO THE LANDSCAPE OR IRRIGATION MAINTENANCE OF THIS SITE.

NOTES:
1. DO NOT REMOVE OR CUT LEADER.
2 PRUNE ONLY DEAD OR BROKEN BRANCHES IMMEDIATELY PRIOR TO PLANTING.
3. DO NOT REMOVE ANY DOUBLE LEADER, UNLESS OTHERWISE DIRECTED BY OWNERS REPRESENTATIVE.
4. KEEP PLANTS MOIST AND SHADED UNTIL PLANTING.
5. AMENDED BACKFILL SHALL BE AS STATED ON THIS SHEET.
6. MARK THE NORTH SIDE OF TREE IN THE NURSERY, AND ROTATE TREE TO FACE NORTH AT THE SITE WHENEVER POSSIBLE.
7. PINE AND SPRUCE TREES TO BE SPRAYED FOR IPS BARK BEETLE PRIOR TO PLANTING. COORDINATE WITH CITY FORESTRY
   FOR CURRENT INSECT AND DISEASE RECOMMENDATIONS PRIOR TO PLANTING.
8. ALL TREES TO BE DEEP WATERED AT TIME OF PLANTING.

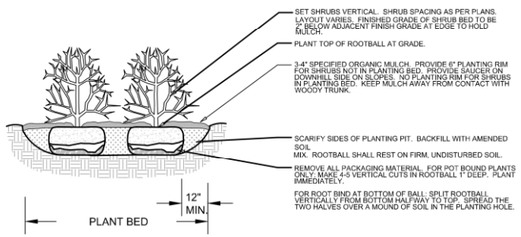


L2.0 EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE SECTION

NOTES:
1. MARK THE NORTH SIDE OF TREE IN THE NURSERY, AND ROTATE TREE TO FACE NORTH AT THE SITE WHENEVER POSSIBLE.
2. AT TIME OF PLANTING, DO NOT REMOVE OR CUT LEADER AND PRUNE ONLY DEAD OR BROKEN BRANCHES, CROSS OVER
   BRANCHES, AND WEAK OR NARROW CROTCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED. HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.
3. STRUCTURAL PRUNING SHOULD NOT BEGIN UNTIL AFTER ESTABLISHMENT PERIOD, USUALLY TWO GROWING SEASONS.
4. KEEP PLANTS MOIST AND SHADED UNTIL PLANTING.
5. DO NOT FERTILIZE FOR AT LEAST ONE GROWING SEASON.
6. AMENDED BACKFILL SHALL BE AS STATED ON THIS SHEET.
7. WRAP TRUNK ON EXPOSED SITES AND SPECIES WITH THIN BARK. USE ELECTRICAL OR DUCT TAPE, NOT TWINE.
8. COORDINATE WITH CITY FORESTRY FOR CURRENT INSECT AND DISEASE RECOMMENDATIONS PRIOR TO PLANTING.
9. DEEP WATER ALL PLANTS AT TIME OF PLANTING.



L2.0 DECIDUOUS TREE PLANTING DETAIL
SECTION



L2.0 SHRUB PLANTING DETAIL
NOT TO SCALE SECTION

PCD FILE NO: PPR 2232

REVISIONS:
Comments: 03.16.22
Comments: 12.29.23

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5539 Cherokee Drive Parker, Colorado 80134
(303) 443-0366 nds@rmisolorado.com

GRAHAM STORAGE - LATIGO BUS CENTER, FILING 1
PEYTON, CO
FINAL LANDSCAPE PLAN DETAILS & NOTES

PROJ. NO.:
DATE: 11.30.20
SCALE: See Sheet
DRAWN: JRO
CHKD BY: NAM
SHEET L2.0

Appendix C

Woodmen Hills Metropolitan District Legal Water Supply Inventory
Summary Sheet

Land Formation/Aquifer	Determination/ Decree	Tributary Status	Annual Allocation 100 Year	Annual Allocation 300 Year	Well Permit(s)
			Acre-Feet/Year	Acre-Feet/Year	
Woodmen Hills Non-Renewable Water Supply					
Dawson	129-BD	NNT - RP	55.00	18.33	60830-F; 60831-F
Dawson	133-BD	NNT - RP	102.00	34.00	60832-F; 60833-F
Dawson/Denver			240.00	80.00	11335-F
Denver	Pre-128-BD	NNT 4%	0.00	0.00	28030-F
Denver	128-BD	NNT 4%	530.90	176.97	
Denver	132-BD	NNT 4%	251.00	83.67	
Arapahoe	127-BD	NT	195.60	65.20	A-1 (59180-F) A-2 (59179-F) A-3 (59183-F)
Arapahoe	131-BD	NT	173.00	57.67	A-5 (56121-F) A-6 (57848-F)
Laramie Fox Hills	126-BD	NT	335.80	111.93	LFH-1 (59181-F) LFH-2 (59182-F) LFH-3 (59184-F)
Laramie Fox Hills	130-BD	NT	145.00	48.33	LFH-5 (56118-F) LFH-6 (57849-F)
Guthrie Ranch					
Arapahoe	229-BD	NT	241.00	80.33	GA-1 (61236-F) GA-2 (61237-F)
Laramie Fox Hills	228-BD	NT	290.00	96.67	GLFH-1 (61234-F) GLFH-2 (61235-F)
Falcon Vista					
Denver	49-BD	NNT 4%	22.10	7.37	
Arapahoe	45307-F	NT	7.00	2.33	45307-F
Laramie Fox Hills	48-BD	NT	15.00	5.00	45306-F
Bentgrass					
Denver	373-BD	NNT 4%	98.80	32.93	
Denver	562-BD	NNT 4%	19.40	6.47	
Arapahoe	372-BD	NT	56.00	18.67	
Arapahoe	561-BD	NT	10.20	3.40	
Laramie Fox Hills	371-BD	NT	50.80	16.93	
Laramie Fox Hills	560-BD	NT	10.50	3.50	
Hart Water					
Arapahoe	2100-BD	NT	51.50	17.17	
Laramie Fox Hills	2099-BD	NT	62.50	20.83	
Gaddie Inclusion					
Denver	1314-BD	NNT	12.70	4.23	Corrected 092220
Arapahoe	1313-BD	NT	9.29	3.10	Converting Ownership
Laramie Fox Hills	1312-BD	NT	10.66	3.55	Converting Ownership
Falcon Fields Inclusion					
Denver	505-BD	NNT	25.66	8.55	Converting Ownership/Location
Arapahoe	504-BD	NT	16.33	5.44	Converting Ownership/Location
Laramie Fox Hills	503-BD	NT	18.12	6.04	Converting Ownership/Location
Sub Total Non-Renewable Supply			***3055.86***	***1018.62***	
Woodmen Hills Non-Renewable Water Supply					
Guthrie Alluvial	Finding 5/5/83	Trib	89.00	89.00	612-RFP; 27554-FP
Cherokee Contract			350.00	350.00	
Sub Total Renewable Supply			***439.00***	***439.00***	
	TOTAL WATER SUPPLY		**3494.86**	**1457.62**	

Woodmen Hills Miscellaneous Water Supplies					
1. Surface Water Diversion				25% of 2 cfs	Currently GC Irrigation
2. Evaporation Deficit and Lawn Irrigation Return Flow Credit (Replacement Plan)					Pending
3. Non-determined and/or un-included Lands 83 acres					Underlying Water Rights held by WHMD but awaiting determinations. These are often processed in batches
	Non-renewable Supplies				
Denver			53.25	17.75	
Arapahoe			33.87	11.29	
Laramie Fox Hills			37.59	12.53	

Update: January, 2024

RESPEC, LLC

Appendix D

WOODMEN HILLS MD 2023 Drinking Water Quality Report
Covering Data For Calendar Year 2022

Public Water System ID: CO0121930

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 JD SHIVVERS at 719-896-0274; 719-495-2500 with any questions or for public participation opportunities that may affect water quality. **Please see the water quality data from our wholesale system(s) (either attached or included in this report) for additional information about your drinking water.**

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 epa.gov/ground-water-and-drinking-water.

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

Lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact JD SHIVVERS at 719-896-0274; 719-495-2500. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at 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 wqcdcompliance.com/ccr. The report is located under "Guidance: Source Water Assessment Reports". Search the table using our system name or ID, or by contacting JD SHIVVERS at 719-896-0274; 719-495-2500. 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

Sources (Water Type - Source Type)	Potential Source(s) of Contamination
WELL A1 (Groundwater-Well) WELL LFH1 (Groundwater-Well) WELL A2 (Groundwater-Well) WELL LFH2 (Groundwater-Well) WELL DW3 (Groundwater-Well) WELL DW1 (Groundwater-Well) WELL A3 (Groundwater-Well) WELL LFH3 (Groundwater-Well) WELL A5 (Groundwater-Well) WELL LFH5 (Groundwater-Well) WELL A6 (Groundwater-Well) WELL LFH6 (Groundwater-Well) GA1 WELL (Groundwater-Well) GLFH1 WELL (Groundwater-Well) GA2 WELL (Groundwater-Well) GLFH2 WELL (Groundwater-Well) GALV1 WELL (Groundwater-Well) GALV2 WELL (Groundwater-Well) PURCHASED FROM CO0121125 CHEROKEE MD (Groundwater-Consecutive Connection)	No potential sources of contamination identified. Please contact us for more information.

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 90th 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

WOODMEN HILLS MD 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, 2022 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.

Disinfectants Sampled in the Distribution System
TT Requirement: 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
Typical Sources: Water additive used to control microbes

Disinfectant Name	Time Period	Results	Number of Samples Below Level	Sample Size	TT Violation	MRDL
Chlorine	December, 2022	Lowest period percentage of samples meeting TT requirement: 100%	0	12	No	4.0 ppm

Lead and Copper Sampled in the Distribution System

Contaminant Name	Time Period	90th Percentile	Sample Size	Unit of Measure	90th Percentile AL	Sample Sites Above AL	90th Percentile AL Exceedance	Typical Sources
Copper	07/26/2021 to 08/09/2021	0.33	20	ppm	1.3	0	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)	2022	6.7	6.7 to 6.7	1	ppb	60	N/A	No	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHM)	2022	42.2	42.2 to 42.2	1	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**
Gross Alpha	2019	1.62	0 to 3.46	4	pCi/L	15	0	No	Erosion of natural deposits
Combined Uranium	2019	0.5	0 to 2	4	ppb	30	0	No	Erosion of natural deposits

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**
Arsenic	2022	0.5	0 to 2	4	ppb	10	0	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	2022	0.03	0.01 to 0.09	4	ppm	2	2	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	2022	3	3 to 3	4	ppb	100	100	No	Discharge from steel and pulp mills; erosion of natural deposits

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**
Fluoride	2020	0.92	0.67 to 1.24	4	ppm	4	4	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate	2022	1.15	0 to 4.4	4	ppm	10	10	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	2022	0.75	0 to 3	4	ppb	50	50	No	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines

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	2022	109.68	80 to 133.3	4	ppm	N/A

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) (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**

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) (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

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

Violations, Significant Deficiencies, and Formal Enforcement Actions

Non-Health-Based Violations

These violations do not usually mean that there was a problem with the water quality. If there had been, we would have notified you immediately. We missed collecting a sample (water quality is unknown), we reported the sample result after the due date, or we did not complete a report/notice by the required date.

Name	Description	Time Period
REVISED TOTAL COLIFORM RULE (RTCR)	FAILURE TO HAVE ADEQUATE COLIFORM BACTERIA SAMPLE SITES - R518	06/13/2022 - 06/13/2022

Non-Health-Based Violations		
These violations do not usually mean that there was a problem with the water quality. If there had been, we would have notified you immediately. We missed collecting a sample (water quality is unknown), we reported the sample result after the due date, or we did not complete a report/notice by the required date.		
Name	**Description**	**Time Period**
Additional Violation Information		
Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.		
Describe the steps taken to resolve the violation(s), and the anticipated resolution date: During Sanitary Survey conducted on 5/25/2022 it was found that 4 sample sites were missed out of 28 sites in the sampling pool. The 4 sample sites was added back into the sampling pool, water tests collected, and resolved on 6/13/2022.		

Appendix E

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 adeuate supply of water"

1. NAME OF DEVELOPMENT AS PROPOSED *Falcon Storage*

2. LAND USE ACTION *Final Plat*

3. NAME OF EXISTING PARCEL AS RECORDED TR IN W2 SEC 1-13-65 DESC AS FOLS: BEG AT NW COR OF LATIGO BUSINESS CENTER FIL NO 1, TH N 00°16'02" E 501.15 FT, TH S89°43'58"E 493.97FT, TH S24°14'14"W 53.65FT TH ALG ARC OF CUR TO THE L HAVING A RAD OF 605.0FT A C/A OF 23°58'12" AN ARC DIST OF 253.11FT, TH S00°16'02"W 206.48FT, TH N89°45'50"W 420.0FT TO POB

SUBDIVISION *See Above* **FILING** *N/A* **BLOCK** *N/A* **Lot** *N/A*

4. TOTAL ACERAGE *5* | **5. NUMBER OF LOTS PROPOSED** *1* | **PLAT MAPS ENCLOSED** ☑ YES

6. PARCEL HISTORY - Please attach copies of deeds, plats, or other evidence or documentation. (In submittal package)

A. Was parcel recorded with county prior to June 1, 1972? ☐ YES ☑ NO

B. Has the parcel ever been part of a division of land action since June 1, 1972? ☑ YES ☐ NO

If yes, describe the previous action

7. LOCATION OF PARCEL - Include a map deliniating the project area and tie to a section corner. (In submittal)

W 1/2 **OF** **SECTION** *1* **TOWNSHIP** *13* ☐ N ☑ S **RANGE** *65* ☐ E ☑ W

PRINCIPAL MERIDIAN: ☑ 6TH ☐ N.M. ☐ UTE ☐ COSTILLA

8. PLAT - Location of all wells on property must be plotted and permit numbers provided.

Surveyors plat ☑ YES ☐ NO If not, scaled hand -drawn sketch ☐ YES ☐ NO

9. ESTIMATED WATER REQUIREMENTS - Gallons per Day or Acre Foot per Year

HOUSEHOLD USE #		**of units**		**GPD**	**AF**
COMMERCIAL USE #		**AC**		**GPD**	- **AF**
IRRIGATION # *	*5.00*	**AC**	*35,343.00*	**GPD**	*0.108* **AF**
STOCK WATERING #		**of head**		**GPD**	**AF**
OTHER				**GPD**	**AF**
TOTAL			*35,343*	**GPD** *	*0.108* **AF** *

* Based on actual landscape design company usage quantities. See water resources report.

10. WATER SUPPLY SOURCE Various

☑ EXISTING ☐ DEVELOPED ☐ NEW WELLS

WELLS SPRING

WELL PERMIT NUMBERS

Multiple existing wells in the District's portfolio

Proposed Aquifers - (Check One)

☐ Alluvial ☐ Upper Arapahoe

☐ Upper Dawson ☐ Lower Arapahoe

☐ Lower Dawson ☐ Laramie Fox Hills

☐ Denver ☐ Dakota

☐ Other

☐ MUNICIPAL

☐ ASSOCIATION

☐ COMPANY

☑ DISTRICT

NAME Woodmen Hills Metropolitan District

LETTER OF COMMITMENT FOR SERVICE ☑ YES ☐ NO

WATER COURT DECREE CASE NUMBERS

373-BD, 562-BD

372-BD, 561-BD

371-BD, 560-BD

Numerous Additional determinations and other water rights

11. ENGINEER'S WATER SUPPLY REPORT ☑ YES ☐ NO If yes, please forward with this form. (This may be required befor our review is completed)

12. TYPE OF SEWAGE DISPOSAL SYSTEM *N/A (Irrigation Only)*

☐ SEPTIC TANK/LEACH FIELD ☑ CENTRAL SYSTEM - DISTRICT NAME: *Woodmen Hills Metropolitan District*

☐ LAGOON ☐ VAULT - LOCATION SEWAGE HAULED TO:

☐ ENGINEERED SYSTEM (Attach a copy of engineering design) ☐ OTHER:

Appendix F

Project Name: Falcon Storage - Peyton CO **Submitted by: Natural Design Solutions, Inc.** **12/29/2023**

Drip irrigation

Square Feet

5,545

Quantity	Plant Type	Emitter Qty.	Emitter GPH	GPH	Run Time HRS/Wk	Gallons/Wk	
80	Trees	4	2.00	640	2	1280	
53	Shrubs	2	1.00	106	2	212	
19	Grasses	1	1.00	19	2	38	
0	Perennials	1	0.50	0	2	0	
						1530	**Total Gallons/Week**
						6732	**Total Gallons/Month**
						511.0	**Total Gallons/Day at 3 days of Irrigation per Week**

Spray Irrigation

Square Feet	Plant Type		
31,276	Native Seed	0	***N/A: Native seed to be established with temporary Irrigation**

Seasonal Adjustment

Month	Percentage	GAL/MO	
April	60%	4,039.20	
May	75%	5,049.00	
June	90%	6,058.80	
July	100%	6,732.00	
August	90%	6,058.80	
September	60%	4,039.20	
October	50%	3,366.00	
Total Annual Landcape Water Demand:		**35,343.00**	**Gallons**
Total Acre Feet		**0.1085**	
Total Irrigated Area (Sq. Ft.)		**5,545.00**	
Acre Feet per 1000 Sq. Ft.		**0.0196**	

Presumptive Demand * **102,267.5** **Gallons**

* Presumptive Demand Residential and commercial landscaping use 0.0566 acre feet per 1,000 square feet of landscaping

1 Acre foot = 325851.42857143 gal (US)