# WASTEWATER FEASIBILITY REPORT – Sterling Ranch Sketch Plan Amendment

PREPARED BY John McGinn

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

PREPARED FOR Falcon Area Water and Wastewater Authority

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CONSULTANTS

# **TABLE OF CONTENTS**

1.0	1.0 INTRODUCTION				
	1.1	OVERALL DEVELOPMENT DESCRIPTION	2		
	1.2	WASTEWATER FEASIBILITY			
2.0	0 WASTEWATER REPORT				
	2.1	PROJECTED WASTEWATER LOADS AND ADEQUANCY OF TREATMENT CAPACITY	3		
	2.2	WASTEWATER CONTRACT AND TREATMENT	4		
	2.3	COLLECTION, PUMPING, AND PIPING	4		
	2.4	WASTEWATER TREATMENT	4		

#### APPENDICES

APPENDIX A - PROPOSED DEVELOPMENT (STERLING RANCH SKETCH PLAN AMENDMENT)

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# 1.0 INTRODUCTION



This wastewater feasibility report is for the <u>Sterling Ranch Sketch Plan Amendment</u>. The service entity is the Sterling Ranch Metropolitan Districts and Falcon Area Water and Wastewater Authority (FAWWA).

#### **1.1 OVERALL DEVELOPMENT DESCRIPTION**

The original sketch plan for Sterling Ranch Development consisted of approximately 1,444 acres located east of Vollmer Rd and north of Woodmen Rd, Section 33, Township 12 South, Range 65 West of the 6<sup>th</sup> P.M. Districts 1, 2 and 3 are considered Special Districts and are under the jurisdiction of the Special District Act.

The sketch plan amendment does not appear to change or modify the overall number of living units, but rather allows for some density allocation changes resulting roughly the same number of units. The plan still targets about 5,225 residential units with limited commercial uses.

### **1.2 FEASIBILITY OF WASTEWATER SERVICE**

The area within the sketch plan is totally contained within the Sterling Ranch Metropolitan District's included boundary, which also is included in FAWWA. The area within the sketch plan amendment has been contemplated for service from SRMD (FAWWA) for years and this change includes no additional lands.

No additional off-site facilities are required for this project. All off-site facilities and treatment are existing and have adequate capacity for the entire buildout flows.

Additionally, the original maximum number of residential units (5225) and developed land does not appear to change appreciably. The FAWWA IGA for treatment allows for up 5849 SFE, so capacity available to FAWWA is adequate. Therefore, wastewater service for this plan is not expected to require any additional capacity by FAWWA or Sterling Ranch Metro.

# 2.0 WASTEWATER REPORT

### 2.1 PROJECTED WASTEWATER LOADS AND ADEQUACY OF TREATMENT CAPACITY

Wastewater unit user loading projections are based on similar District historical use developed in the Falcon area. Average daily wastewater loads are expected to be roughly 172 gallons per day per single family residence. This number has remained consistent throughout development over the last several years.

Prior planning of the area included the same number, (5225) residential units, so as proposed the Sketch Plan Amendment is not expected to the outlook for the proposed development area with respect to wastewater services. Approximately 1.006 MGD of capacity has been set aside for Sterling Ranch in total which is greater than 0.898 MGD expected from 5225 units.





#### 2.2 WASTEWATER CONTRACT AND TREATMENT

The Falcon Area Water and Wastewater Authority/Sterling Ranch Metropolitan District has a perpetual contract with the Meridian Service Metropolitan District (MSMD) for the provision of wastewater treatment. The contract allows for the purchase of up to 5849 SFEs of wastewater capacity from MSMD. Wastewater projections are based on similar District historical use developed in the Falcon area. Average daily-maximum monthly wastewater loads of 172 gallons per day per single family residence are iterated in the Wastewater Contract.

Interim Wastewater Treatment Services will be provided by Colorado Springs Utilities. A copy of the Interim Service Agreement was attached in prior Water and Wastewater Reports and therefor is not included here. An agreement relating to completion of the wastewater outfall and the associated EGF has been extended.

#### 2.3 COLLECTION, PUMPING, AND PIPING

There are no off-site wastewater facilities required for this project-all facilities are existing. All lands to be developed within the Sterling Ranch and the Retreat areas will gravity feed to the southern portion of the Sterling site. This will be the main collection point for most of the entire future development as well. Sterling is completing construction of the Lift Station and Force Main to serve the area. The force main is constructed across the lower portion of The Ranch. From this point wastewater is intercepted by Meridian Service Metropolitan District.

Connections to the existing system will be determined by final road alignments. Since the existing system is developed along the western edge of Sterling Ranch new connections will tend to be to the south and west.

#### **2.4 WASTEWATER TREATMENT**

No additional wastewater treatment plant or capacity will be required for this project. Meridian Service Metropolitan District (MSMD) owns 2.2 million gallons per day of wastewater capacity in the Cherokee Wastewater Facility. The Cherokee Wastewater Facility is rated at 4.8 MGD and is roughly 18 miles southeast of Sterling. The plant operator, Cherokee Metropolitan District (CMD) has already approved connections, and systems associated with transport and treatment. MSMD and CMD are in compliance with their current COC issued by the Colorado Department of Public Health and Environment.

Sterling Ranch (Falcon Area Water and Wastewater Authority) has an Intergovernmental Agreement with MSMD to ultimately purchase 5849 SFE's for the purpose of serving Sterling Ranch. It is expected that Sterling Ranch will have significant excess capacity after it is fully developed.

**APPENDIX A** 

# STERLING RANCH SKETCH PLAN Amendment



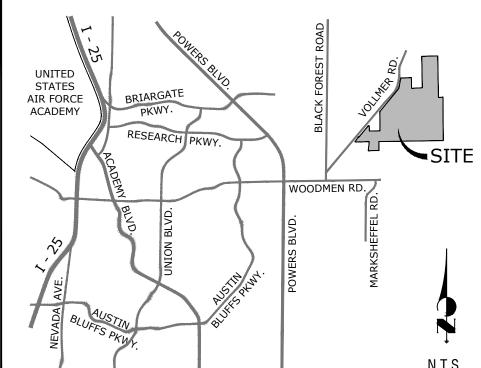


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LAND USE LEGEND:	
44 AC. RESIDENTIAL: 0.2 DU/AC,	9 D.U.
33 AC. RESIDENTIAL: 0.4 DU/AC,	13 D.U.
35 AC. RESIDENTIAL: 1 DU/AC,	35 D.U.
163 AC. RESIDENTIAL: 2 DU/AC,	326 D.U.
790 AC. RESIDENTIAL: 3-5 DU/AC,	3,642 D.U.
86 AC. RESIDENTIAL: 5-8 DU/AC,	600 D.U.
47 AC. MIXED USE 8-25 DU/AC *	600 D.U.
57 AC. ELEMENTARY / K-8 SCHOOL	
18 AC. NEIGHBORHOOD PARK	
25 AC. COMMUNITY PARK	
62 AC. OPEN SPACE / PARK / GREENWAY	
43 AC. OPEN SPACE / BUFFER	
9 AC. UTILITY PARCEL	
5 AC. INDUSTRIAL	

	ROAD
$\rightarrow$	FULL MO
	100-YEAF
_	TRAIL
////	BUFFER /
	NEIGHBC

VEMENT ACCESS POINT R FLOODPLAIN



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	2 2	Homestead Fil 1 SF 04-029	Banding Iron Fil 1 SF-06-017	Homestead SF 19-004		Band S
Ç	Dwelling					
	Units	72	51	104		
	ROAL	<u>) CLASSIF</u>	ICATION T	TABLE		
	Roadway		Existing		2040	) MTC
	Vollmer Road Briargate Parkway		2 lane Co	ollector - 60'	4 lar	ne Mir
			4 Iane Pr	incipal - 160'	4 lar	ne Pri
	Banning L	ewis Ranch Parkwa.	У		4 lar	ne Pri
	Markshef	fel Road	2 Iane Pr	incipal -	4 lar	ne Pri
*A deviation is requested for Marksheffel Road to be built to the City of Co						Sprinas

