# WASTEWATER FEASIBILITY REPORT — STERLING RANCH SKETCH PLAN AMENDMENT 4

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# 1.0 INTRODUCTION

This wastewater feasibility report is for the <u>Sterling Ranch Sketch Plan Amendment No 4</u>. The sketch plan is entirely within the Falcon Area Water and Wastewater Authority (FAWWA) Service Area.

# 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.

The sketch plan amendment 4 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 4,800 residential units with limited commercial uses.

There are some changes in non-residential land uses such as deletion of a school are that are generally offset with alternate uses but again no substantial changes in anticipated water/wastewater needs.

## 1.2 FEASIBILITY OF WASTEWATER SERVICE

The area within the sketch plan has been planned for service by FAWWA for all amendments as well as the original plan.

No additional off-site facilities are required for this project, however, lift station no. 2 has been planned to serve the eastern portion of Sterling Ranch for some time and is shown in the southeast corner of the site as originally planned. All off-site facilities and treatment are existing and have adequate capacity for the entire buildout flows.

Service as previously planned is feasible and expected for Sterling Ranch which includes any modifications proposed by this amendment 4.

# 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. Prior planning of the area included the same number, (4800) residential units, so as proposed the Sketch Plan Amendment 4 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 FAWWA in the Meridian/Cherokee treatment system, which is greater than 0.898 MGD expected from 4800 units.



# 2.2 WASTEWATER CONTRACT AND TREATMENT

The Falcon Area Water and Wastewater Authority 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.

Additional Wastewater Treatment Services are being provided by Colorado Springs Utilities.

# 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. The main collection point for most of the western portion of the site is in the southwest corner of the site and either gravity fed to CSU or pumped easterly to Meridian/Cherokee. The eastern portion of the site flows to the southeastern corner of Sterling Ranch and will be pumped to Meridian/Cherokee. FAWWA has completed its gravity outfall to CSU and completed construction of the Lift Station 1 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.

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 FAWWA will have significant excess capacity after it is fully developed. FAWWA also has an existing agreement with CSU through which the gravity outfall to the south serves the western portion of FAWWA.



