



October 9, 2023

Kari Parsons, Project Manager
El Paso County Development Services Department
Sent via online portal at: <https://epcdevplanreview.com/Agencies/Home>

Re: Sterling Ranch East Filing No. 1 Plat
File #: SF2325
Part of Sec. 33 and part of the W ½ W ½ of Sec. 34, Twp. 12S, Rng. 65W, 6th P.M.
Water Division 2, Water District 10
CDWR Assigned Subdivision No. 30428 - 2nd Letter

Dear Kari Parsons:

We have received the above-referenced proposal to subdivide a 161.524-acre parcel into 294 single-family lots and 9 tracts for open space, landscape, park, signage, drainage, utilities, and trails. The proposed source of water supply is service provided by the Falcon Area Water and Wastewater Authority (FAWWA). This letter supersedes our comments provided in the letter dated December 22, 2022.

Water Supply Demand

The proposed water uses and estimated water requirements are as follows: household use for 294 units (97.13 acre-feet/year) and irrigation use (47.02 acre-feet/year). The total demand for the subdivision is 144.15 acre-feet/year.

Source of Water Supply

The proposed source of water supply is service provided by the Falcon Area Water and Wastewater Authority (FAWWA). According to the letter dated November 15, 2022, FAWWA is committed to serving the 144.15 acre-feet/year of water demand associated with the 294 single-family lots and irrigated landscaping.

According to the Water Resources Report prepared by RESPEC dated September 15, 2023 (“Report”) and the information provided by John McGinn on September 25, 2023 to this office (as part of our review of the Sterling Ranch East Filing No. 5), FAWWA has a water supply of 1,930.03 acre-feet/year based on a 300-year supply consisting of Denver Basin aquifer water adjudicated in Water Court case nos. 85CW131 (Shamrock West water), 86CW19, 91CW35, 93CW18/85CW445 (Bar-X Ranch water), 08CW113, 17CW3002, 18CW3002, and 20CW3059 and Determination of Water Right nos. 1689-BD, 1690-BD, and 1691-BD (McCune water). A summary of these water rights is provided in Table 3 of that Report. Because FAWWA anticipates serving 3,710 SFEs in 2040 and 7,310 SFEs in 2060, FAWWA may seek to connect with other water suppliers and investigate the use of lawn irrigation return flow (LIRF) credits and aquifer storage/recharge to increase its supply. Note that our office calculates that 1,929.85 acre-feet/year is available based on a 300-year supply. This discrepancy appears to originate from a difference in the quantity of water calculated to be available from case no. 91CW35. **The FAWWA should be aware that they are limited to the decreed amounts in 91CW35 which are as follows: 3,400 acre-feet from the Dawson aquifer, 7,600 acre-feet from the Denver aquifer, 4,900 acre-feet (not the 4,936 acre-feet claimed in Table 3) from the Arapahoe aquifer, and 3,600 acre-feet (not the 3,623 acre-feet claimed in Table 3) from the Laramie-Fox Hills aquifer.**

According to the Report, FAWWA has a total of 959.35 acre-feet/year of commitments, including the Rhetoric Subdivision and all other commitments through September 15, 2023. According to the Report, there are 970.5 acre-feet/year of uncommitted supply available to the FAWWA based on our estimate of



1,929.85 acre-feet/year of supply available to the FAWWA. Therefore, there appears to be more than sufficient legal supply to supply this development on a 300-year basis.

The proposed source of water for this subdivision is bedrock aquifers in the Denver Basin. The State Engineer's Office does not have evidence regarding the length of time for which this source will be a physically and economically viable source of water. The Denver Basin water rights adjudications have been decreed by the State of Colorado, Water Division 1 District Court, Water Division 2 District Court, and the Colorado Groundwater Commission. According to 37-90-137(4)(b)(I), C.R.S., "Permits issued pursuant to this subsection (4) shall allow withdrawals on the basis of an aquifer life of one hundred years." Based on this **allocation** approach, the annual amounts of water decreed are equal to one percent of the total amount, as determined by rules 8.A and 8.B of the Statewide Nontributary Ground Water Rules, 2 CCR 402-7. Additionally, according to 37-90-107(7)(a), C.R.S., "Permits issued pursuant to this subsection (7) shall allow withdrawals on the basis of an aquifer life of 100 years." Based on this **allocation** approach, the annual amounts of water allocated in the determinations are equal to one percent of the total amount, as determined by rule 5.3.2.1 of the Designated Basin Rules, 2 CCR 410-1. Therefore, the water may be withdrawn in those annual amounts shown on attached Table 1 for a maximum of 100 years.

The *El Paso County Land Development Code*, Section 8.4.7.(B)(7)(b) states:

"(7) Finding of Sufficient Quantity

(b) Required Water Supply. The water supply shall be of sufficient quantity to meet the average annual demand of the proposed subdivision for a period of 300 years."

The State Engineer's Office does not have evidence regarding the length of time for which this source will "meet the average annual demand of the proposed subdivision." However, treating El Paso County's requirement as an **allocation** approach based on 300 years, the allowed average annual amount of withdrawal would be reduced to one third of that amount which is **greater** than the annual demand of FAWWA's commitments. As a result, the water may be withdrawn in those annual amounts for 300 years.

Additional Comments

The application materials indicate that a storm water detention pond will be constructed as a part of this project. The applicant should be aware that unless the structure can meet the requirements of a "storm water detention and infiltration facility" as defined in section 37-92-602(8), C.R.S., the structure may be subject to administration by this office. The applicant should review DWR's *Administrative Statement Regarding the Management of Storm Water Detention Facilities and Post-Wildland Fire Facilities in Colorado*, attached, to ensure that the notification, construction and operation of the proposed structure meets statutory and administrative requirements. The Applicant is encouraged to use *Colorado Stormwater Detention and Infiltration Facility Notification Portal* to meet the notification requirements, located at <https://maperture.digitaldataservices.com/gvh/?viewer=cswdif>.

State Engineer's Office Opinion

Based upon the above and pursuant to section 30-28-136(1)(h)(I) and 30-28-136(1)(h)(II), C.R.S., it is our opinion that the proposed water supply is **adequate** and can be provided **without causing injury** to decreed water rights.

Our opinion that the water supply is **adequate** is based on our determination that the amount of water required annually to serve the subdivision is currently physically available, based on current estimated aquifer conditions.

Our opinion that the water supply can be **provided without causing injury** is based on our determination that the amount of water that is legally available on an annual basis, according to the statutory **allocation** approach, for the proposed uses is greater than the annual amount of water required to supply existing water commitments and the demands of the proposed subdivision.

Our opinion is qualified by the following:

The Division 1 Water Court and the Ground Water Commission has retained jurisdiction over the final amount of water available pursuant to the above-referenced water rights, pending actual geophysical data from the aquifer.

The amounts of water in the Denver Basin aquifer, and identified in this letter, are calculated based on estimated current aquifer conditions. The source of water is from a non-renewable aquifer, the allocations of which are based on a 100-year aquifer life. The county should be aware that the economic life of a water supply based on wells in a given Denver Basin aquifer may be less than the 100 years (or 300 years) used for allocation due to anticipated water level declines. We recommend that the county determine whether it is appropriate to require development of renewable water resources for this subdivision to provide for a long-term water supply.

Please contact me at Wenli.Dickinson@state.co.us or (303) 866-3581 x8206 with any questions.

Sincerely,



Wenli Dickinson, P.E.
Water Resource Engineer

Attachment: *Administrative Statement Regarding the Management of Storm Water Detention Facilities and Post-Wildland Fire Facilities in Colorado*

Ec: FAWWA file



COLORADO

Division of Water Resources

Department of Natural Resources

1313 Sherman Street, Room 821
Denver, CO 80203

Administrative Statement Regarding the Management of Storm Water Detention Facilities and Post-Wildland Fire Facilities in Colorado

February 11, 2016

The Division of Water Resources (DWR) has previously administered storm water detention facilities based on DWR's "Administrative Approach for Storm Water Management" dated May 21, 2011. Since the passage of Colorado Senate Bill 15-212, that administrative approach has been superseded. This document describes SB 15-212, codified in section 37-92-602(8), Colorado Revised Statutes (C.R.S.), and how the law directs administrative requirements for storm water management. The document is for informational purposes only; please refer to section 37-92-602(8) for comprehensive language of the law.

Pursuant to section 37-92-602(8), storm water detention facilities and post-wildland fire facilities shall be exempt from administration under Colorado's water rights system only if they meet specific criteria. The provisions of SB15-212 apply to surface water throughout the state. SB15-212 *only* clarifies when facilities may be subject to administration by the State Engineer; all facilities may be subject to the jurisdiction of other government agencies and must continue to obtain any permits required by those agencies.

Storm Water Detention Facilities

Pursuant to section 37-92-602(8), a storm water detention and infiltration facility ("Detention Facility") is a facility that:

- Is owned or operated by a government entity or is subject to oversight by a government entity, including those facilities that are privately owned but are required by a government entity for flood control or pollution reduction.
- Operates passively and does not subject storm water to any active treatment process.
- Has the ability to continuously release or infiltrate at least 97 percent of all of the water from a rainfall event that is equal to or less than a five-year storm within 72 hours of the end the rainfall event.
- Has the ability to continuously release or infiltrate at least 99 percent of all of the water from a rainfall event that is greater than a five-year storm within 120 hours of the end the rainfall event.
- Is operated solely for storm water management.



In addition, to qualify for the allowances provided in SB-212, the facility:

- Must not be located in the Fountain Creek watershed, unless the facility is required by or operated pursuant to a Colorado Discharge Permit System Municipal Separate Storm Sewer System Permit issued by the Department of Public Health and Environment pursuant to Article 8 of Title 25, C.R.S.
- Must not use water detained in the facility for any other purpose nor release it for subsequent diversion by the person who owns, operates, or has oversight over the facility. The facility cannot be operated as the basis for a water right, credit, or other water use right.
- Must not expose ground water.
- May include a structure or series of structures of any size.

If the Detention Facility was constructed *on or before* August 5, 2015 and meets all the requirements listed above, it does not cause material injury to vested water rights and will not be subject to administration by the State Engineer.

If the Detention Facility is constructed after August 5, 2015, meets the requirements listed above, and the operation of the detention facility does not cause a reduction to the natural hydrograph as it existed prior to the upstream development, it has a rebuttable presumption of non-injury pursuant to paragraph 37-92-602(8)(c)(II). A holder of a vested water right may bring an action in a court of competent jurisdiction to determine whether the operation of the detention facility is in accordance with paragraph 37-92-602(8)(c)(II)(A) and (B) has caused material injury. If the court determines that the vested water rights holder has been injured, the detention facility will be subject to administration.

In addition, for Detention Facilities constructed after August 5, 2015, the entity that owns, operates, or has oversight for the Detention Facility must, prior to the operation of the facility, provide notice of the proposed facility to the Substitute Water Supply Plan (SWSP) Notification List for the water division in which the facility is located. Notice must include: the location of proposed facility, the approximate surface area at design volume of the facility, and data that demonstrates that the facility has been designed to comply with section 37-92-602(8)(b) paragraphs (B) and (C). The State Engineer has not been given the statutory responsibility to review notices, however, DWR staff may choose to review notices in the course of their normal water administration duties. Not reviewing notices does not preclude the Division Engineer from



taking enforcement action in the event that the above criteria are not met in design and/or operation.

To satisfy the notification requirement, operators are encouraged to use the Colorado Stormwater Detention and Infiltration Facility Notification Portal developed by Urban Drainage and Flood Control District (“UDFCD”), located at:

<https://maperture.digitaldataservices.com/gvh/?viewer=cswdif>.

Types of detention Facilities contemplated under this statute include underground detention vaults, permanent flood detention basins,¹ extended detention basins,² and full spectrum detention basins.³ Storm Water Best Management Practices⁴ (BMPs) not contemplated above, including all Construction BMPs and non-retention BMPs, do not require notice pursuant to SB-212 and are allowed at the discretion of the Division Engineer. Green roofs are allowable as long as they intercept only precipitation that falls within the perimeter of the vegetated area. Green roofs should not intercept or consume concentrated flow, and should not store water below the root zone. BMPs that rely on retention, such as retention ponds and constructed wetlands, will be subject to administration by the State Engineer.

Any detention facility that does not meet all of the statutory criteria described above, in design or operation, is subject to administration by the State Engineer.

¹ Flood detention basin: An engineered detention basin designed to capture and slowly release peak flow volumes to mitigate flooding (Urban Drainage and Flood Control, 2010).

² Extended detention basin: An engineered detention basin with an outlet structure designed to slowly release urban runoff over an extended time period (Urban Drainage and Flood Control, 2010).

³ Full spectrum detention basin: An extended detention basin designed to mimic pre-development peak flows by capturing the Excess Urban Runoff Volume and release it over a 72 hour period (Urban Drainage and Flood Control, 2010).

⁴ Best management practice: A technique, process, activity, or structure used to reduce pollutant discharges in stormwater (Urban Drainage and Flood Control, 2010).



Post-Wildland Fire Facilities

Pursuant to section 37-92-602(8), a post-wildland fire facility is a facility that:

- Includes a structure or series of structures that are not permanent.
- Is located on, in or adjacent to a nonperennial stream⁵.
- Is designed and operated to detain the least amount of water necessary, for the shortest duration of time necessary, to achieve the public safety and welfare objectives for which it is designed.
- Is designed and operated solely to mitigate the impacts of wildland fire events that have previously occurred.

In addition, to qualify for the allowances provided in SB-212, the facility:

- Must be removed or rendered inoperable after the emergency conditions created by the fire no longer exist, such that the location is returned to its natural conditions with no detention of surface water or exposure of ground water.
- Must not use water detained in the facility for any other purpose nor release it for subsequent diversion by the person who owns, operates, or has oversight over the facility. The facility will not be operated as the basis for a water right, credit, or other water use right.

If the post-wildland fire facility meets the requirements listed above, it does not cause material injury to vested water rights. While DWR recognizes that post-wildland fire facilities are essential to the protection of public safety and welfare, property, and the environment, DWR may, from time to time, request that the person who owns, operates, or has oversight of the post-wildland fire facility supply information to DWR to demonstrate they meet the criteria set forth above.

If a post-wildland fire facility does not meet all the criteria set forth above, it will be subject to administration by the State Engineer.

⁵ DWR may use the National Hydrography Dataset or other reasonable measure to determine the classification of a stream



Resources and References

Colorado Stormwater Detention and Infiltration Facility Notification Portal:
<https://maperture.digitaldataservices.com/gvh/?viewer=cswdif>

Colorado Senate Bill15-212:
http://www.leg.state.co.us/CLICS/CLICS2015A/csl.nsf/fsbillcont3/13B28CF09699E67087257DE8006690D8?Open&file=212_enr.pdf

United States Geological Survey National Hydrography Dataset: <http://nhd.usgs.gov/>

Urban Drainage and Flood Control District 37-92-602(8) explanation memo and FAQ's:
<http://udfcd.org/crs-37-93-6028-explanation-memo-and-faqs/>

Urban Drainage and Flood Control District. (2010). *Urban Storm Drainage Criteria Manual: Volume 3, Best Management Practices*, updated November 2015. Located at:
<http://udfcd.org/volume-three>

