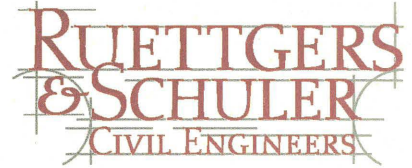

APPENDIX C
Traffic Impact Study

1800 30th Street, Suite 260
Bakersfield, California 93301

Phone (661) 327-1969
Fax (661) 327-1993



April 14, 2021

614-02
Electronic Mail

Mr. Dan Bartel
Assistant General Manager/Engineer
Rosedale – Rio Bravo Water Storage District
849 Allen Road
Bakersfield CA 93314

REF: Traffic Impact Study for the Proposed McAllister Ranch Groundwater Banking Project,
Bakersfield, California

Dear Mr. Bartel:

This letter presents the findings of a traffic impact study completed for the McAllister Ranch Groundwater Banking Project, a proposed groundwater storage and recovery facility situated on approximately 2,070 acres of undeveloped land in the City of Bakersfield, California. The project site is located approximately 14 miles southwest of downtown Bakersfield in the northwest quadrant of South Allen Road and Panama Lane. The project would be constructed, operated and managed by the Rosedale – Rio Bravo Water Storage District (RRBWSD) and the Buena Vista Water Storage District (BVWSD).

The study included evaluations of level of service (LOS) and vehicle miles traveled (VMT). Methodologies used for the evaluations are consistent with applicable City and State guidelines.

Project Trip Generation

Trip generation estimates were developed for the peak of project construction and project operation based on information provided by the project applicant. These estimates include both ADT (average daily traffic) and peak hour (AM and PM) volumes.

Construction Phase

As currently planned, project construction would begin in 2022 and take approximately five years to complete. It is anticipated that construction activities would take place primarily during daylight hours, Monday through Friday. Construction traffic would access the project site from Panama Lane.

The peak of project construction is expected to occur in 2024 and involve both pipeline and pump installation. Construction traffic would include workers in passenger vehicles (cars and light trucks) commuting to and from the project site and heavy trucks delivering and removing construction materials. Trip generation estimates for peak project construction are shown in Table 1.

Table 1
Trip Generation
Peak Project Construction

Trip Type	Vehicle Type	Variable	ADT Daily Trips	AM Peak Hour		PM Peak Hour	
				IN	OUT	IN	OUT
Worker	Passenger	13 Workers	39	100 13	0 0	0 0	100 13
Material	Heavy Truck	18 Deliveries/Loads	36	100 18	0 0	0 0	100 18
TOTAL			75	31	0	0	31

It is estimated that 13 workers would comprise the daily workforce during the peak of project construction. A carpool rate was not applied to worker trips given the relatively small workforce and proximity of the project site to local population centers. In addition, it was assumed that the entire workforce would enter and exit the project site during the AM and PM peak hours, respectively. It was also assumed that 50 percent of the workforce would exit and return to the project site during the workday.

The 18 daily heavy truck trips include both deliveries of construction materials to the site (e.g., pipe, concrete, etc.) and loads of material unearthed during construction and removed from the site because of a lack of suitability for other project uses. It was assumed that no construction equipment (e.g., excavator, crane, etc.) would be moved on or off the site during the peak of project construction. It was also assumed that 50 percent of the heavy truck trips would enter and exit the project site during the AM and PM peak hours, respectively.

Operation Phase

Upon completion, the proposed groundwater storage and recovery facility would be inactive approximately 85 percent of the time. When active, the facility would operate 24 hours a day, seven days a week. Trip generation estimates for project operation are shown in Table 2.

Table 2
Trip Generation
Project Operation

Trip Type	Vehicle Type	Variable	ADT	AM Peak Hour		PM Peak Hour	
				IN	OUT	IN	OUT
			Daily Trips	% Split Trips	% Split Trips	% Split Trips	% Split Trips
Worker	Passenger	2 Workers	6	100 2	0 0	0 0	100 2
Material	Heavy Truck	1 Delivery	2	50 1	50 1	0 0	0 0
TOTAL			8	3	1	0	2

It is estimated that project operation would require a maximum daily workforce of two workers. A carpool rate was not applied to worker trips given the relatively small workforce and proximity of the project site to local population centers. In addition, it was assumed that all workers would enter and exit the project site during the AM and PM peak hours, respectively. It was also assumed that 50 percent of the workers would exit and return to the project site during the workday.

A maximum of one heavy truck per day is anticipated during project operation. It was assumed that 100 percent of the heavy truck trips would enter and exit the project site during the AM peak hour.

Level of Service (LOS)

In compliance with the State of California, Department of Transportation's *Guide for the Preparation of Traffic Impact Studies*, dated December 2002, the City's threshold for requiring a traffic impact analysis is the addition of 50 project trips to one or more intersections during the peak hour of adjacent street traffic. The peak hour of adjacent street traffic typically occurs on weekdays during the AM or PM peak hour for commuter traffic.

As shown in Tables 1 and 2, the project is estimated to generate 31 peak hour trips during the peak of construction and a maximum of four peak hour trips during project operation. Both estimates are below the traffic impact analysis threshold of 50 peak hour trips. Therefore, the project is not expected to result in a significant transportation impact.

Vehicle Miles Traveled (VMT)

Guidelines for assessing project VMT as part of a transportation impact analysis under CEQA are contained in the State of California, Office of Planning and Research's *Technical Advisory on Evaluating Transportation Impacts in CEQA*, dated December 2018. These guidelines include methodology recommendations for analyzing project VMT, including the following regarding vehicle type (page 4).

Vehicle Types. Proposed (CEQA Guideline) Section 15064.3, subdivision (a), states, "For the purposes of this section, 'vehicle miles traveled' refers to the amount and distance of automobile travel attributable to a project." Here, the term "automobile" refers to on-road passenger vehicles, specifically cars and light trucks.

The Technical Advisory also contains screening thresholds for identifying whether a land use project should be expected to result in a less than significant transportation impact under CEQA. One such threshold pertains to project size. According to the Advisory, a project that generates fewer than 110 trips per day may be assumed not to cause a significant transportation impact. As shown in Tables 1 and 2, the number of daily passenger vehicle trips generated during peak project construction and project operation (39 and six, respectively) satisfies the small project screening threshold. Therefore, the project is expected to have a less than significant transportation impact during both phases.

Summary and Conclusion

Trip generation estimates for the peak of project construction and project operation fall below the City of Bakersfield's traffic impact analysis threshold of 50 peak hour trips. Therefore, no significant transportation impacts related to level of service are anticipated.

Similarly, project VMT is not expected to result in a significant transportation impact under CEQA. The project satisfies the small project screening threshold of fewer than 110 daily passenger vehicle trips for both peak project construction and project operation.

Please contact me should you have any questions.

Very truly yours,


Ian J. Parks
RCE #58155



IJP/ljh