Appendix L-5

Addendum to the Hydraulic Analysis and Sewer Area Study

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MEMORANDUM **736-022**

TO: **The Trails at Lyons Canyon Project, VTTM No. 83301**

CC: **Mike Tran, Los Angeles County Department of Public Works**
Orlando Moreno, Santa Clarita Valley Water Agency

FROM: **Natalie Fraschetti, P.E., Dexter Wilson Engineering, Inc.**

DATE: **November 17, 2023**

SUBJECT: **Impact of Land Use Change to Water and Sewer Technical Reports Prepared for the Trails at Lyons Canyon**

The Trails at Lyons Canyon Project VTTM No. 83301 is presently processing through Los Angeles County to develop a multi-family residential project in the Santa Clarita area. Specifically, the project is located west of Interstate 5 and south of Lyons Avenue and Sagecrest Circle. The project has submitted technical studies to the County of Los Angeles Department of Public Works and the Santa Clarita Valley Water Agency which articulate how sewer and water service, respectively, will be provided to the project. The technical studies have been through multiple reviews and have largely been approved.

Purpose and Conclusion

Since that time, revisions have been made to the project description (an increase in residential units from 504 to 510, and removal of the fire station). Although the land use revisions impact the project's overall estimated water demand and sewer generation, the revisions are insignificant to the conclusions of each of the technical reports. The remainder of this memo will provide additional detail which supports this conclusion.

Sewer/Wastewater Overview of Changes and Impacts

The *Sewer Area Study for the Trails and Lyons Canyon Project in the County of Los Angeles, TR 083301, ESTU 2021000305, PC 12582A* is dated October 17,2022 (Sewer Area Study). The Sewer Area Study has been reviewed by Los Angeles Department of Public Works staff and has been conditionally approved (the condition for approval is execution of the City of Santa Clarita and Project Mitigation Fee Agreement, Appendix J of the Sewer Area Study). The Sewer Area Study is based on a wastewater flow generation rate of 0.525 cubic feet per second (cfs). The revised project description results in a wastewater flow generation as shown in Table 1. Table 2 compares the Sewer Area Study to the revised Table 1 flow, illustrating the land use changes result in a net decrease of sewage flows. As such, the hydraulic analysis and conclusion of the Sewer Area Study are conservative.

TABLE 1
PROJECT WASTEWATER GENERATION
(LACDPW FACTORS)

LAND USE	UNIT COUNT OR ACRES	PEAK FLOW COEFFICIENT	PEAK FLOW, cfs
Apartments and Condos	510 units	0.001 cfs/unit	0.510
Recreation Center	1.13 acre	0.00005 cfs/acre	0.000565
TOTAL	-	-	**0.511 cfs**

TABLE 2
PROJECT WASTEWATER GENERATION COMPARED TO APPROVED SEWER AREA STUDY

SOURCE	PEAK FLOW, cfs
Current Land Use Plan (Table 1)	0.511 cfs
Approved Sewer Area Study	0.525 cfs
Difference	**- 0.014 cfs**

Water Overview of Changes and Impacts

The *Lyons Canyon Development Impact Hydraulic Analysis, Final* by Akel Engineering Group, Inc. dated September 2022 (Water Study) was reviewed and approved by the Santa Clarita Valley Water Agency (SCV Water). The Water Study is based on an average day water demand estimate by the project of 174 gallons per minute (gpm). The revised project description results in a new average day water demand estimate as shown in Table 3. Table 4 compares the Water Study to the revised Table 3 demand, illustrating the land use changes result in a net increase in water demand. The increase is 2.1 percent of the overall demand, which is inconsequential to the overall conclusions and does not modify the conclusions of the report with respect to the offsite improvements needed to serve the project.

TABLE 3
AVERAGE DAILY WATER DEMAND

LAND USE	UNIT COUNT OR ACRES	DEMAND FACTOR	AVERAGE DAILY DEMAND, gpm
Domestic Demands			
Condo	462	0.213 gpm/unit	98.41
Apartment	48	0.202 gpm/unit	9.70
Recreation Center	1.13 ac	0.119 gpm/1000 sf	5.86
Subtotal Domestic	*510 units*	-	*113.97 gpm*
Landscape Irrigation Demands	*23.64 ac*	*2.687 gpm/acre*	*63.52 gpm*
TOTAL DEMAND	-	-	**177.49 gpm**

TABLE 4
PROJECT WATER DEMAND ESTIMATES
COMPARED TO APPROVED WATER STUDY

SOURCE	AVERAGE DAILY DEMAND, gpm
Current Land Use Plan (Table 3)	177.49 gpm
Approved Water Study	173.79 gpm
Difference	**3.70 gpm**

We appreciate the opportunity to provide you with this analysis. Should you have any questions, please do not hesitate to contact me.

NF:ah