



APPENDIX V

Sanitation Sewer System Hydraulic Modeling Results



COACHELLA VALLEY WATER DISTRICT

Established in 1918 as a public agency

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May 12, 2026

John Gamlin
Discovery MM Club
4800 N. Scottsdale Rd Suite 3850
Scottsdale, AZ 85251

VIA MAIL AND EMAIL AT JGAMLIN@DISCOVERYLANDCO.COM

Dear John Gamlin:

Subject: TTM 39179 The Ranch at Madison
Sanitation Sewer System Hydraulic Modeling Results

The purpose of this letter is to provide results from a sewer hydraulic model completed by Coachella Valley Water District (CVWD) for the Ranch at Madison (Project). The Project consists of 85 single-family residential lots, a spa, a fitness center, a restaurant, a commissary, a private golf short course, a clubhouse, and other sports and leisure amenities within an area of approximately 174 acres. The Project is located east of Monroe Street between 52nd and 54th Avenue.

John Gamlin authorized RTM Engineering Consultants to request CVWD to reperform hydraulic modeling of the Project due to a change in Project Description. CVWD Received the Hydraulic Model Checklist on March 16, 2026.

Hydraulic modeling was completed to verify the sewer facilities required for the Project using the estimated sewer demands. The results of the hydraulic modeling are summarized below.

Sanitation Hydraulic Modeling Results:

The sanitation sewer hydraulic loading is based on the calculated number of equivalent dwelling units (EDU) and flows per EDU as provided in CVWD's Development Design Manual (DDM). The DDM provides for average annual and peak hour dry weather flows (PDWF) of 200 gallons per day per EDU (gpd/EDU) and 400 gpd/EDU, respectively. The estimated peak hour dry weather flow was simulated in the hydraulic model to verify that conditions do not exceed CVWD's depth-to-diameter ratio (d/D) design criteria for sewer pipelines within the existing sanitation sewer system.

Based on the information provided the Project will add an additional loading of 127 EDUs generated by the new buildings. Table 1 shows the revised calculated average annual dry weather flows and peak hour dry weather flows used in the hydraulic model analysis.

**Table 1 – The Ranch at Madison
Proposed EDU and Calculated Sewer Flows**

Area	Total EDU	Average Annual Dry Weather Flow (gpm)	Peak Hour Dry Weather Flow (gpm)
Single Family Residential Homes	85	11.8	23.6
Farm to Table	7	1	2.1
Event Barn	15	2.1	4.2
Clubhouse Facility	9	1.3	2.5
Starter Shack Commercial Facility	1	0.1	0.3
Back of House	8	1.1	2.2
Lagoon	1	0.1	0.3
Total	127	18	35

A hydraulic model was used to simulate the calculated flow conditions from the proposed connections and to verify that flow conditions in existing pipelines meet the criteria in CVWD's DDM.

Onsite Piping

The Project proposes approximately 12,672 Linear Feet (LF) of 8-inch sewer pipes and an on-site lift station with approximately 2,640 LF of 4-inch force mains at the southeast end of the site to connect to CVWD's existing 18-inch pipe at two locations:

Location 1. Monroe Street and Via La Serena Street

Location 2. Monroe Street and 800 ft south of Avenue 53.

Construction of an on-site lift station and force mains will not be permitted. Please submit a newly proposed collection system comprised of gravity pipelines.

The alignments of the proposed pipelines were obtained from the drawings received from the consultant. The final design of the onsite sewer system shall comply with the rules, regulations, and specifications outlined in the DDM. The final design should be submitted to CVWD for review and approval. These hydraulic model comments are for plan check purposes only and the ultimate design responsibility resides with the Design Engineer-of-Record for the Project.

Offsite Piping

The Project's sewer flows will be collected through an existing 18-inch gravity sewer pipeline on Monroe Street and will be conveyed south toward 62nd Avenue via 18 to 33-inch pipes. At 62nd

Avenue, the flows are conveyed east via 33-inch to 42-inch pipes and ultimately discharged into WRP-4 in the City of Thermal.

The gravity sewer capacity evaluation results indicated that the existing pipes downstream of the Project are adequately sized to meet CVWD's DDM criteria. The most critical d/D of 0.32 is observed in an existing 33-inch pipe located east of Monroe Street and 62nd Avenue. The CVWD DDM criteria for sanitary sewer pipelines greater than 30-inches in diameter is 0.75. Thus, the existing pipeline capacity is adequate under the CVWD DDM criteria.

The hydraulic modeling results are valid for one year from the date of this letter. Thereafter, CVWD may review and revise the requirements and/or require an updated hydraulic analysis.

CVWD received a deposit in the amount of \$2,500 for the hydraulic model and any funds remaining after the project review is complete will be returned. If additional funds were expended for project review above the \$2,500 deposit, an invoice will be issued.

Developer shall, at Developer's sole expense, be responsible for compliance with the laws of the State of California and the United States, including, but not limited to, applicable state and federal environmental laws, such as the California Environmental Quality Act, the National Environmental Policy Act, California Public Resources Code section 21000 et seq., and the Federal Endangered Species Act and the California Endangered Species Act, applicable to the design and construction of required facilities in this letter.

Please contact David McGee, Development Services Senior Engineering Technician, for the calculation of the estimated fees, including the Sanitation Capacity Charge (SCC) for this project. In addition, Development Services will incorporate the project's requirements in CVWD's Sanitation System Installation Agreement.

If you have any questions on the hydraulic model results, please contact Armando Rodriguez, Engineering Manager, at (760) 398-2651 extension 2365. If you have any questions on the SCC fees, please contact David McGee at extension 3535.

Sincerely,



Armando Rodriguez
Engineering Manager

Enclosure/1/as



