APPENDIX Q

Water Supply Assessment

SAN DIEGO PUBLIC UTILITIES DEPARTMENT
SENATE BILL 610 WATER SUPPLY ASSESSMENT
Water Code § 10910 *et seq.*

To: (Lead Agency)
San Diego Development Services Department
1222 1st Ave MS 301
San Diego, CA 92101

(Applicant)
New Urban West

Project Information

PTS/IO#: 625519/24008465

Project Title: The Trails at Carmel Mountain Ranch

Assessment of Availability of Water Supply

The Public Utilities Department (PUD) has approved the within assessment and made the following determination regarding the above-described Project:

- The projected water demand for the Project exceeds corresponding forecasted pressure zone demands but is within the forecasted demands of the respective water service area. Public Utilities will update its master planning records accordingly. Any mitigation for additional infrastructure requirements and capital facility charges to meet higher water demand requirements would be evaluated in a separate hydraulic water study.

- A sufficient water supply is available for the Project. The total water supplies available to PUD during normal, single-dry and multiple-dry years within a 20-year projection will meet the projected water demand of the Project in addition to the demand of existing and other planned future uses.

The foregoing determination is based on the following Water Supply Assessment Information and supporting information in the records of PUD.

Signature	Date	Title
	4/17/20	Associate Engineer, Public Utilities Department

Purpose

On January 1, 2002, Senate Bill 610 (SB 610) took effect. The intent of SB 610 was to improve the link between information on water supply availability and certain land use decisions made by cities and counties. Under SB 610 as codified in the California Water Code beginning at Section 10910, a Water Supply Assessment (SB 610 WSA) must be furnished to cities and counties for inclusion in any environmental documentation of projects (defined in the California Water Code) that propose to construct 500 or more residential units, or that will use an amount of water equivalent to what would be used by 500 residential units and that are subject to the California Environmental Quality Act (CEQA).

This Assessment evaluates water supplies that are or will be available during normal, single-dry year, and multiple-dry water years during a 20-year projection to meet the projected demands of the Project in addition to existing and planned future water demands of PUD. Note that this Assessment evaluates the availability of water supplies for the Project only and does not constitute approval or rejection of the Project itself.

The City of San Diego and County Water Authority's 2015 Urban Water Management Plans are available online and are incorporated by reference into this document to support evidentiary record of the availability of sufficient supplies.

Project Description

The proposed project is in the Carmel Mountain Ranch Community and consists of 1,200 multi-family homes and a mix of open space and recreational uses (Figure 1; Project Location). Residential land uses would compose approximately 51 acres and would range in density from 14.5 to 43.5 dwelling units per acre. Open space uses are proposed on approximately 113 acres, which includes over 6 miles of publicly- accessible trails (Fig. 2; Site Plan). Residential land uses would be developed as infill residential neighborhoods based on the standards in the proposed Trails at Carmel Mountain Ranch Design Guidelines. The various components of the proposed project are described in more detail below.

Figure 1 Project Location

There are no non potable water sources in the Project vicinity to offset potable water demands. Specifically, no recycled water pipelines are in the vicinity of the project and therefore cannot be utilized. There are no existing groundwater wells at the existing golf course[1].

[1] https://www.10news.com/news/carmel-mountain-golf-course-to-close-in-july-due-to-rising-water-rates

Residential Land Use

The project would include 251 townhomes on approximately 16 acres, 586 market-rate apartments on approximately 21 acres, 120 affordable apartments on approximately 6 acres, and 243 apartments for 55-and older residents on approximately 8 acres. A variety of building types will be provided in the community, with a mix of for-sale, rental and age-restricted product to serve a diverse and mixed population and household size.

Areas zoned RM-1-1 and RM-1-3 would include two- and three-story townhomes, with two or three bedrooms. Areas zoned RM-2-4 through RM-3-7 would include three- and four-story 55 and up, and all-ages apartments, with studio, one-, two- and three-bedroom units.

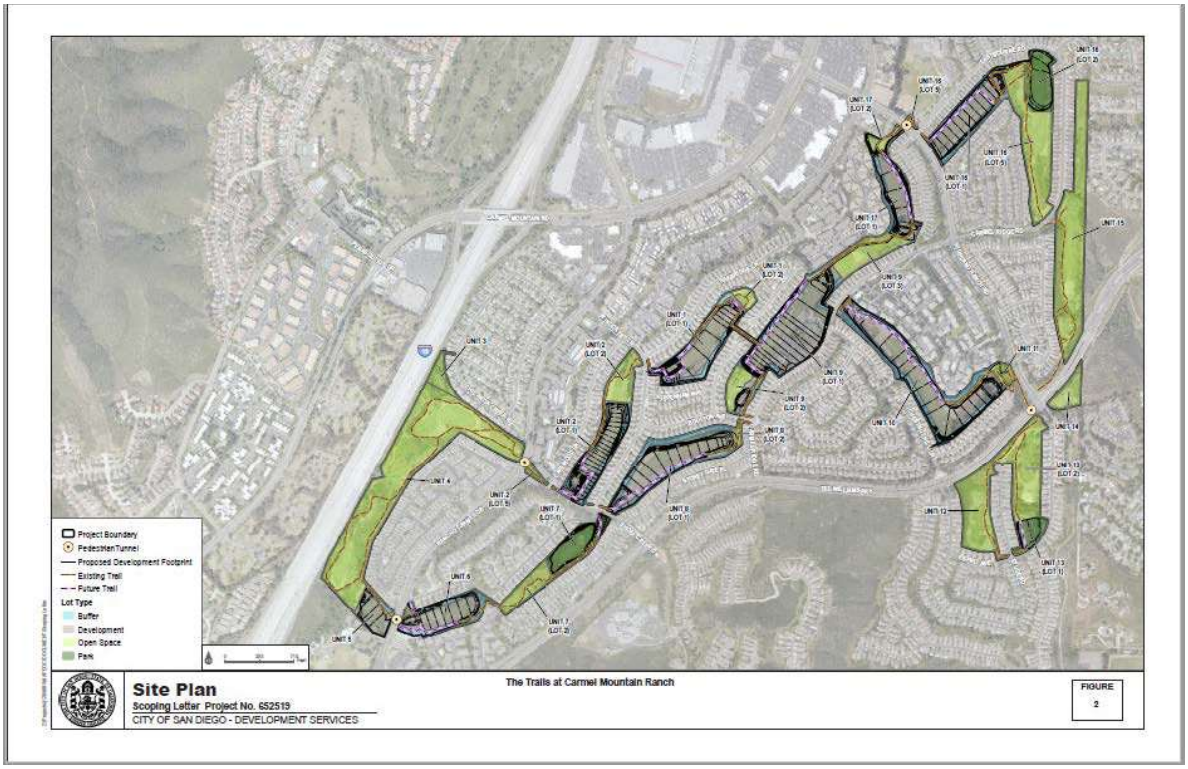


Figure 2 Site Plan

Project Phasing

Development of the project site would occur in phases (Fig. 3; Project Phasing) and would not be entirely built out all at the same time. Proposed Phasing, Units 1, 9, western half of 16, and 17 would be built out during Phase 1; Units 2, 8, and eastern half of 6 would be built out in Phase 2; Units 5 and the western half of 6 would be build out in Phase 3; Units 10 and 11 would be built out in Phase 4; Units 7, 13, and eastern half of 16 would be built out in Phase 5. Based on data provided by the developer, 796 units will be constructed between the years 2020 to 2025 and 404 units are planned to be constructed between 2025 to 2030.

Projected marginal water use for construction/grading was not explicitly included in the Assessment as there are no special project-specific considerations.

The development area includes buildings and surface improvements (i.e., drive aisles and parking) which will be surrounded by 25 acres of landscaped “buffer” area that will be irrigated. The development also proposes 9.8 acres of park with irrigation and an additional 76.2 acres of other open space, of which 62.5 acres is considered for temporary irrigation as required for establishment, and 13.7 acres is considered for permanently irrigation.

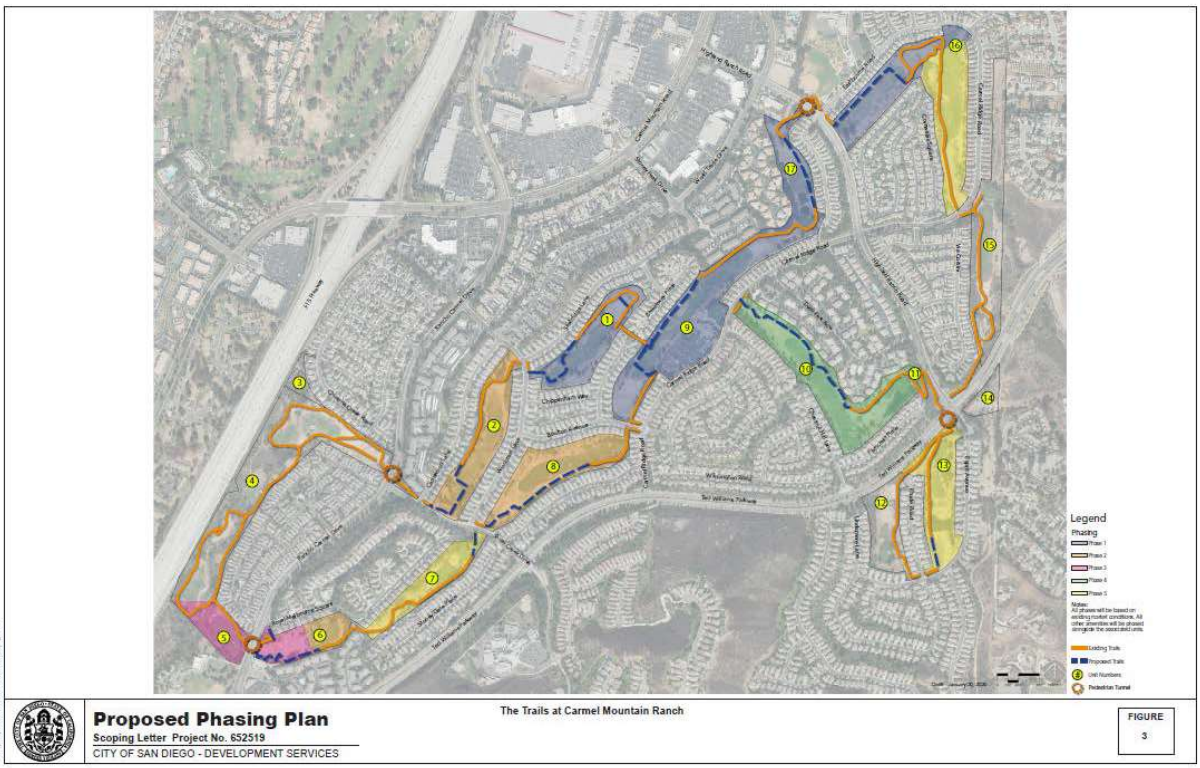


Figure 3 Project Phasing

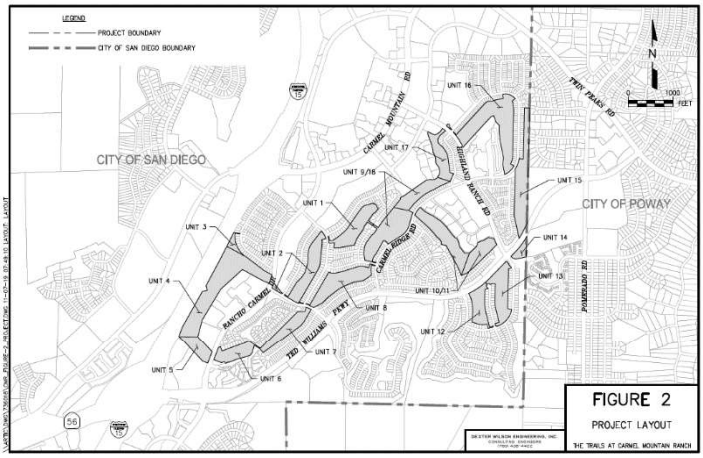
Water Demand Estimate (2040)

Zoning Designation		Proposed Area (ac)	Proposed Units	Duty or Demand Factor (gpd or gpd/ac)	Gallons per Day (gpd)	Average Annual Demand (af/y) 2020-2025	2025-2030	2030-2035	2035-2040
RM-1-1, RM-1-3		16.2	251	279	70,029.0	54.9	78.4	78.4	78.4
RM-2-4, RM-2-5		21.5	586	154	90,244.0	70.8	101.1	101.1	101.1
RM-2-6		5.6	120	154	18,480.0	14.5	20.7	20.7	20.7
RM-3-7, RM-2-5		7.9	243	154	37,422.0	29.3	41.9	41.9	41.9
Irrigated Space - Landscaped Buffer		25.0	-	1,500 gpd/ac	37,500.0	29.4	42.0	42.0	42.0
Irrigated Space - Parks		9.8	_	2,000 gpd/ac	19,600.0	22.0	22.0	22.0	22.0
Irrigated Space - Open Area	Temporary	62.5	_	2,000 gpd/ac	125,000.0	140.0	0	0	0
	Permanent	13.7	_	2,000 gpd/ac	27,400.0	30.7	30.7	30.7	30.7
HOA Pools		0.2	7	4,939 gpd/ac	1,190.5	0.9	1.3	1.3	1.3
Total Project Demand						**392.5**	**338.1**	**338.1**	**338.1**
Existing Site Demand (Offset)						**0.0**	**0.0**	**0.0**	**0.0**
Net Water Demands						**392.5**	**338.1**	**338.1**	**338.1**
Total Net Water Demand with Additional 5% Prelim. Residential Data Contingency						**412.1**	**355.0**	**355.0**	**355.0**
Baseline Carmel Mountain 920 Pressure Zone Forecast (2019)						1,201	1,166	1,164	1,162
Forecast with Project						**1,613**	**1,521**	**1,519**	**1,517**
Baseline Miramar Service Area Forecast (2019)						47,046	47,046	47,046	47,046
with The Trails						47,458	47,401	47,401	47,401
also with Alante - 45 multifamily units x est. 20% for other land use						47,467	47,410	47,410	47,410
also with Rancho Penasquitos gold course redevelopment - 482 multifamily units x est. 20% for other land use						47,567	47,510	47,510	47,510
Estimated Cumulative Demand						**47,567**	**47,510**	**47,510**	**47,510**

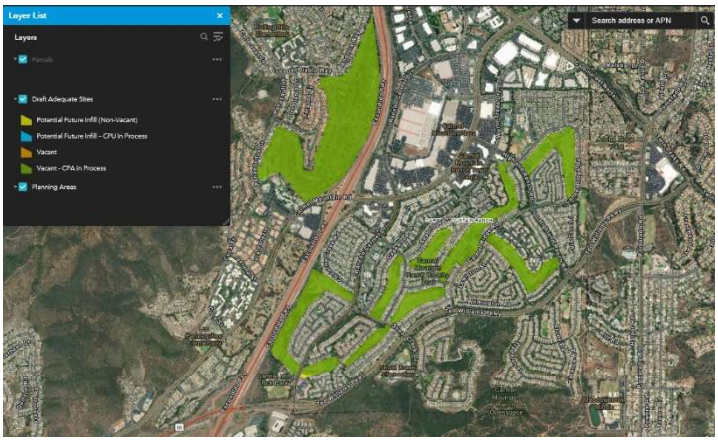
Zoning Designation	Regulations for Residential Uses
*RM-1-1	Multiple dwelling unit; lower density; maximum 1 DU per 3,000 sf
*RM-1-2	Multiple dwelling unit; lower density; maximum 1 DU per 2,500 sf
*RM-1-3	Multiple dwelling unit; lower density; maximum 1 DU per 2,000 sf
RM-2-4	Multiple dwelling unit; medium density; maximum 1 DU per 1,750 sf
RM-2-5	Multiple dwelling unit; medium density; maximum 1 DU per 1,500 sf
RM-2-6	Multiple dwelling unit; medium density; maximum 1 DU per 1,250 sf
RM-3-7	Multiple dwelling unit; medium density; limited commercial; maximum 1 DU per 1,000 sf
*	Multifamily classification with some single family classification characteristics

Cumulative Demand Description

There are three pressure zones (PZ) pertinent to the project (draft project hydraulic Water Study; Nov. 2019): the primary Carmel Mall (920 HGL) PZ, secondary Rancho Bernardo I (793 HGL) PZ for Unit 5 and Unit 6, and the tertiary Golf Course II (1130 HGL) PZ for Unit 9/18. As the latest available Water Study's Average Demands (draft Table 2) does not provide enough land use resolution to factor out dwelling unit types and permanent/temporary irrigation over the course of project phasing, and because the proportion of land use attributed to secondary and tertiary PZs are relatively low, all demands for the purpose of this SB 610 WSA will be conservatively attributed to the primary Carmel Mall (920 HGL) PZ.



Neighboring planned developments consist of the Alante, located at the extreme southeast end of the Project site (figure below; yellow area) with 45 multi-family residential units assumed to be served by the Rancho Bernardo I (793 HGL) PZ; and the Rancho Penasquitos golf course redevelopment for 485 multifamily units (northwest of The Trails) which falls under the Penasquitos (920 HGL) PZ.



Other planned developments in the Project vicinity, external to CM 920 PZ.
Source: City Planning Department, Adequate Sites Web Map
https://sandiego.maps.arcgis.com/apps/webappviewer/index.html?id=b59b6b74eb734adb9c12b081af40924b

Availability of Sufficient Supplies

The City 2015 UWMP's forecasted citywide water demands compared with planned supplies are shown in the following series of **Tables 1-3** which account for all the City service areas. PUD evaluation of combined service area demand and supply projections result in a finding of sufficient overall planned water supply to serve this SB 610 WSA's identified cumulative water demands in normal, single-dry year, and multiple-dry water year forecasts within a 20-year projection.

TABLE 1 - PROJECTED SUPPLY AND DEMAND COMPARISON – NORMAL YEAR

Normal Year Demands/Supplies	Demand and Supplies (AFY)				
	2020	2025	2030	2035	2040
Water Demand (with wholesale and conservation)	**200,984**	**242,038**	**264,840**	**273,748**	**273,408**
Local Water Supplies					
Recycled Water (City service area only)	13,650	13,650	13,650	13,650	13,650
Local Surface Supply	22,900	22,800	22,700	22,600	22,500
Groundwater	3,100	3,100	3,100	3,100	3,100
Sub-Total Local Supplies	**39,650**	**39,550**	**39,450**	**39,350**	**39,250**
Water Supply from SDCWA (purchased water)	161,334	202,488	225,390	234,398	234,158
Total City Water Supplies	**200,984**	**242,038**	**264,840**	**273,748**	**273,408**
Estimated Water Shortages	0	0	0	0	0

TABLE 2 - PROJECTED SINGLE-DRY YEAR SUPPLY AND DEMAND COMPARISON

Single-Dry Year (1990)	Demand and Supplies (AFY)				
	2020	2025	2030	2035	2040
Water Demand (with wholesale and conservation)	**213,161**	**256,883**	**281,167**	**290,654**	**290,292**
Local Water Supplies					
Recycled Water (City service area only)	13,650	13,650	13,650	13,650	13,650
Local Surface Supply	16,657	16,584	16,512	16,439	16,366
Groundwater	3,100	3,100	3,100	3,100	3,100
Sub-Total Local Supplies	**33,407**	**33,334**	**33,262**	**33,189**	**33,116**
Water Supply from SDCWA (purchased water)	179,754	223,549	247,906	257,466	257,176
Total City Water Supplies	**213,161**	**256,883**	**281,167**	**290,654**	**290,292**

TABLE 3 - PROJECTED SUPPLY AND DEMAND COMPARISON DURING MULTIPLE DRY YEAR PERIOD ENDING IN 2040

Dry Year 1 (1990) Demands/Supplies	Demand and Supplies (AFY)				
	2020	2025	2030	2035	2040
Water Demand (with wholesale and conservation)	**213,161**	**256,883**	**281,167**	**290,654**	**290,292**
Local Water Supplies					
Recycled Water (City service area only)	13,650	13,650	13,650	13,650	13,650
Local Surface Supply	16,657	16,584	16,512	16,439	16,366
Groundwater	3,100	3,100	3,100	3,100	3,100
Sub-Total Local Supplies	**33,407**	**33,334**	**33,262**	**33,189**	**33,116**
Water Supply from SDCWA (purchased water)	179,754	223,549	247,906	257,466	257,176
Total City Water Supplies	**213,161**	**256,883**	**281,167**	**290,654**	**290,292**
Estimated Water Shortages	0	0	0	0	0
Dry Year 2 (1991) Demands/Supplies	**Demand and Supplies (AFY)**				
	2020	2025	2030	2035	2040
Water Demand (with wholesale and conservation)	**200,610**	**241,581**	**264,338**	**273,228**	**272,888**
Local Water Supplies					
Recycled Water (City service area only)	13,650	13,650	13,650	13,650	13,650
Local Surface Supply	16,233	16,162	16,091	16,020	15,949
Groundwater	3,100	3,100	3,100	3,100	3,100
Sub-Total Local Supplies	**32,983**	**32,912**	**32,841**	**32,770**	**32,699**
Water Supply from SDCWA (purchased water)	167,627	208,669	231,469	240,457	240,189
Total City Water Supplies	**200,610**	**241,581**	**264,338**	**273,228**	**272,888**
Estimated Water Shortages	0	0	0	0	0
Dry Year 3 (1992) Demands/Supplies	**Demand and Supplies (AFY)**				
	2020	2025	2030	2035	2040
Water Demand (with wholesale and conservation)	**208,665**	**251,402**	**275,139**	**284,412**	**284,058**
Local Water Supplies					
Recycled Water (City service area only)	13,650	13,650	13,650	13,650	13,650
Local Surface Supply	18,962	18,879	18,796	18,714	18,631
Groundwater	3,100	3,100	3,100	3,100	3,100
Sub-Total Local Supplies	**35,712**	**35,629**	**35,546**	**35,464**	**35,381**
Water Supply from SDCWA (purchased water)	175,953	215,773	239,592	248,948	248,677
Total City Water Supplies	**208,665**	**251,402**	**275,139**	**284,412**	**284,058**
Estimated Water Shortages	0	0	0	0	0