Table 5-9
TRAFFIC NOISE LEVELS AND CONTOURS FOR ADDITIONAL ACCESS OPTION

Roadway/Segment	Existing Conditions (E)				Existing + Project (E+P)				Existing + Cumulative Projects (E+C) (Near-term)				Existing + Cumulative + Project (E+C+P) (Near-term)			
	CNEL @ 100 ft. (dBA)	70 CNEL (ft.)	65 CNEL (ft.)	60 CNEL (ft.)	CNEL @ 100 ft. (dBA)	70 CNEL (ft.)	65 CNEL (ft.)	60 CNEL (ft.)	CNEL @ 100 ft. (dBA)	70 CNEL (ft.)	65 CNEL (ft.)	60 CNEL (ft.)	CNEL @ 100 ft. (dBA)	70 CNEL (ft.)	65 CNEL (ft.)	60 CNEL (ft.)
Hill Valley Drive																
Project access to Country Club Drive	42	IRW	IRW	IRW	49.7	IRW	IRW	9	42	IRW	IRW	IRW	49.7	IRW	IRW	9
Eden Valley Lane																
Project access to Country Club Drive	41.8	IRW	IRW	IRW	48.6	IRW	IRW	7	41.8	IRW	IRW	IRW	48.6	IRW	IRW	7
Country Club Drive																
Hill Valley Drive to Eden Valley Lane	61.6	17	53	135	63.1	24	70	176	63.7	29	79	194	64.8	36	97	236

IRW = The CNEL contour indicated exists within the width of the roadway.
Note: Distances represent the distance to noise contour lines from the centerlines of roadways (with no topographical consideration)

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The Existing, Existing plus Project, Existing plus Cumulative, and Existing plus Cumulative plus Project CNEL noise levels at nearby residential receivers for the additional access option (for roadways affected by the additional access option) are presented below in Table 5-10. Additionally, when the predicted Existing plus Cumulative noise level is greater than 60 CNEL according to the modeling, the change between the Existing plus Cumulative condition to the Existing plus Cumulative plus Project condition is presented.

With implementation of the additional access option, noise levels along Hill Valley Drive would increase. However, at currently existing receivers along this roadway, noise levels would remain below 60 CNEL with full build out (Existing + Project + Cumulative).

Noise levels at modeled receivers along County Club Drive between Hill Valley Drive and Eden Valley Lane, and along Eden Valley Lane between the Project entrance and Country Club Drive would be lower with this scenario than they would be under the proposed Project (which does not include Project access at Hill Valley Drive). However, future noise levels would still exceed 60 CNEL at both structural façades and exterior use locations for many off-site residences along Country Club Drive.

It is important to note that the CNEL value for the Existing plus Cumulative plus Project condition is never higher than 60 CNEL unless the Existing plus Cumulative only condition also exceeds 60 CNEL, as is the case with the proposed Project without this additional access. As with the proposed Project, in the instances where both of these conditions exceed 60 CNEL, the change from the Existing plus Cumulative condition to the Existing plus Project plus Cumulative condition does not exceed 1 dBA. Therefore, a "cumulatively considerable" project contribution (a greater than 1-dB increase due to Project-added noise to conditions that already exceed 60 CNEL) does not occur with the additional access option, and the cumulative impacts to off-site NSLUs would be less than significant.

Table 5-10
TRAFFIC NOISE LEVELS AND CONTOURS FOR ADDITIONAL ACCESS OPTION

Receiver	Location	CNEL					
		E	E+P	E vs E+P[1]	E+C	E+C+P	E+C vs E+P+C[1]
R 01	2869 Hill Valley Drive	48	51.9	N/A	49.5	51.9	N/A
R 02	2843 Hill Valley Drive	49.8	53.8	N/A	51.3	53.8	N/A
R 03	2805 Hill Valley Drive	50.6	54.7	N/A	52.0	54.7	N/A
R 04	809 Country Club Drive	60.7	62.3	1.8	62.6	63.8	1
R 05	820 Country Club Drive	62.8	64.3	1.8	64.8	65.8	1
R 06	825 Country Club Drive	63.1	64.6	1.9	65.1	66.2	1
R 07	916 Country Club Drive	59.7	61.2	1.9	61.8	62.8	1
R 08	932 Country Club Drive	61.2	62.7	1.9	63.3	64.3	1

Table 5-10 (cont.)
TRAFFIC NOISE LEVELS AND CONTOURS FOR ADDITIONAL ACCESS OPTION

Receiver	Location	CNEL					
		E	E+P	E vs E+P[1]	E+C	E+C+P	E+C vs E+P+C[1]
R 09	1008 Country Club Drive	58.7	60.3	1.9	60.8	61.8	1
R 10	1012 Country Club Drive	59.4	60.9	1.9	61.5	62.5	1
R 11	1009 Country Club drive	60.6	62.1	1.9	62.7	63.7	1
R 12	2710 Surrey Lane	63.3	64.8	1.9	65.3	66.3	1
R 13		63.1	64.6	1.9	65.2	66.2	1
R 14	1040 Country Club Drive	61.2	62.7	1.9	63.3	64.3	1
R 15	1044 Country Club Drive	59.7	61.2	1.9	61.8	62.8	1
R 16	1110 Country Club Drive	60.1	61.7	1.9	62.2	63.2	1
R 18		64.8	66.3	1.9	66.8	67.8	1
R 17	2709 Surrey Lane	63.9	65.4	1.9	66	67	1
R 19	2482 Live Oak Road	62.9	64.5	1.9	65	66	1
R 20		63.4	64.9	1.9	65.4	66.5	1
R 21	2472 Live Oak Road	58.6	60.2	2	60.7	61.8	1
R 22	1142 Country Club Drive	60.2	61.8	1.9	62.3	63.4	1
R 23	1206 Country Club Drive	61.4	63.1	2	63.5	64.6	1
R 24	1220 Country Club Drive	61.8	63.5	1.9	63.8	65	1
R 55	2895 Eden Valley Lane	49.1	51.7	N/A	50.6	52.6	N/A
R56	2928 Eden Valley Lane	50.4	53.1	N/A	51.8	53.9	N/A
R57	2890 Eden Valley Lane	51.4	54.1	N/A	52.8	54.9	N/A
R58	2919 Eden Valley Lane	49.1	51.9	N/A	50.6	52.7	N/A
R59	2867 Eden Valley Lane	51.9	54.6	N/A	53.4	55.4	N/A
R60	2811 Eden Valley Lane	51.8	54	N/A	53.5	55.1	N/A
R61	2835 Eden Valley Lane	53.7	55.6	N/A	55.6	57	N/A

[1] Results have been rounded down to nearest whole number per County standard practice.
E = Existing, E+P = Existing + Project, E+C = Existing + Cumulative, E+C+P = Existing + Cumulative + Project
N/A =Noise levels are below 60 CNEL; impacts are less than significant.

5.4.3 On-site Transportation Noise

The exterior noise levels were calculated for future on-site residences associated with the Project along Country Club Drive, and are shown in Table 5-11. The specific analysis locations are shown on Figure 7, along with the proposed barrier locations.

Exterior Noise

Impacts

Modeling was conducted utilizing CADNA software to determine if exterior noise levels (for Existing plus Cumulative plus Project conditions) for on-site exterior uses would be in excess of significance thresholds.

As seen on Table 5-11, roadway noise impacts may exceed the allowed 60 CNEL maximum at some future residential exterior use planning areas. Specifically, exterior uses areas for residences along the eastern perimeter of Neighborhood 5 (fronting Country Club Drive, Project Lots 283 through 289) are anticipated to experience noise levels greater than 60 CNEL. The proposed community park located immediately south of Project Lot 297 in Neighborhood 5, however, is not expected to be exposed to noise levels in excess of the allowable 70 CNEL noise level for this type of land use. Refer to Figure 7 for specific receiver locations. Residences located in other Project neighborhoods and in other parts of Neighborhood 5 were modeled to have noise levels far below the 60 CNEL allowable level, and no impacts were assessed for these residences. Therefore, impacts related to exterior use areas for the Project would be potentially significant for some Project residences, and mitigation is required. **(Impact Noi-8)**

Table 5-11
EXTERIOR USE AREA NOISE LEVELS (CNEL)
FOR ON-SITE EXTERIOR USE AREAS
EXISTING PLUS CUMULATIVE PLUS PROJECT
(NEAR-TERM) CONDITION

Receiver Number Location	Noise Level (CNEL)
PR 01 – Lot 282	57.2
PR 02 – Lot 283	**63.4**
PR 03 – Lot 284	**63.2**
PR 04 – Lot 285	**63.4**
PR 05 – Lot 286	**64.3**
PR 06 – Lot 287	**63.8**
PR 07 – Lot 288	**65.0**
PR 08 – Lot 289	**63.8**
CP 01 – Community Park	66.9
CP 02 – Community Park	67.3
CP 03 – Community Park	67.4
CP 04 – Community Park	66.6

Note: Near-term Existing Plus Cumulative Plus Project condition is expected to have greater traffic volumes on segments surrounding the Project site than Year 2035 with Project conditions (LLG 2014); Near-term conditions were modeled to provide a worst-case analysis.
Bold = over the applicable threshold (60 CNEL for residential uses, 70 CNEL for the community park)

Interior Noise

Impacts

Because building façade noise levels may exceed 60 CNEL (see Table 5-8), traditional architectural materials would not be expected to attenuate interior noise to a level of 45 CNEL. Traditional architectural materials are normally able to reduce exterior to interior noise by up to 15 dBA. If the new residential units have a second story, the upper story may be exposed to

noise in excess of 60 CNEL, which would result in interior noise levels in excess of 45 CNEL; impacts related to interior noise levels would therefore be potentially significant. **(Impact Noi-9)**

Mitigation

M-Noi-8 **Traffic Noise Barriers:** Existing plus Cumulative plus Project (worst-case near-term) traffic noise levels at the Proposed Project's residential exterior use areas facing Country Club Drive shall be mitigated to County Standards by the following measure:

A 6-foot high noise control wall shall be installed along the outer perimeter of the residential use areas for Lots 283 through 289 to reduce noise impacts in the outdoor use area to less than 60 CNEL (refer to Table 2.6-1). Please see Figure 7 for the locations of the proposed sound walls. The noise control wall must wrap around the ends of the property with 30-foot long returns wherever there is a break or terminus of the wall along Country Club Drive. Required sound attenuation barriers shall be solid and constructed of masonry, wood, plastic, fiberglass, steel, or a combination of those materials, with no cracks or gaps, through or below the wall. Any seams or cracks must be filled or caulked. If wood is used, it can be tongue and groove and must be at least one inch total thickness or have a density of at least 3½ pounds per square foot. Where architectural or aesthetic factors allow, glass or clear plastic 3/8 of an inch thick or thicker may be used on the upper portion, if it is desirable to preserve a view. Sheet metal of 18 gauge (minimum) may be used, if it meets the other criteria and is properly supported and stiffened so that it does not rattle or create noise itself from vibration or wind. Any door(s) or gate(s) must be designed with overlapping closures on the bottom and sides and meet the minimum specifications of the wall materials described above. The gate(s) may be of one inch thick or better wood, solid-sheet metal of at least 18-gauge metal, or an exterior-grade solid-core steel door with prefabricated door jambs.

M-Noi-9 **Interior Noise Control for Residences:** A final exterior-to-interior analysis shall be conducted to demonstrate that interior residential noise levels are below 45 CNEL. This analysis would be submitted with the final building plan submittal for the residential units along Country Club Drive.

5.5 Impact Summary

The following is a summary of Project noise impacts:

Impact Noi-1 Ripping or any heavy dozer activities, use of a large excavator, or use of a rock drill within 180 feet of an occupied off-site or future on-site residential structure may create significant impacts.

Impact Noi-2 Rock breaking within 300 feet of an occupied off-site or future on-site residential structure may create significant impacts.

Impact Noi-3 Blasting using even small charges within 200 feet of a residential structure may create a significant vibration impact. Larger blasts at greater distances may also create significant impacts.

Impact Noi-4 The use of air conditioning condensers at the Project site within 35 feet of a property line may create noise levels in excess of the County's nighttime allowable hourly limit of 45 dBA L_{EQ} at adjacent residences.

Impact Noi-5 Without additional noise control, the proposed fresh water booster pump and associate backup generator may create exterior noise levels in excess of the allowed exterior one-hour average noise level of 45 dBA L_{EQ} at residential property lines. Thus, noise impacts from the proposed booster pump to surrounding property lines could occur.

Impact Noi-6 Without additional noise control, the generators associated with the proposed on-site wastewater pump stations may create exterior noise levels in excess of the allowed exterior one-hour average noise level of 45 dBA L_{EQ} at residential property lines. Thus, noise impacts from the proposed pump stations to surrounding property lines could occur.

Impact Noi-7 Without additional noise control, the WTWRF equipment and associated generator may create a combined exterior noise level in excess of the allowed exterior one-hour average noise level of 45 dBA L_{EQ} at residential property lines. Thus, impacts from the proposed WTWRF to surrounding property lines could occur.

Impact Noi-8 Noise levels at the Project's residential exterior use areas facing Country Club Drive may exceed 60 CNEL. Thus, impacts from traffic noise would be significant and would require exterior use area noise control.

Impact Noi-9 Noise levels at the Project's residential building façades facing Country Club Drive may exceed 60 CNEL. Typically, with the windows closed, building shells provide approximately 15 dB CNEL of noise reduction. Thus, it is possible that interior noise levels would exceed the 45 CNEL threshold, resulting in a potentially significant impact.

6.0 SUMMARY OF PROJECT DESIGN CONSIDERATIONS AND MITIGATION MEASURES

6.1 Design Considerations

Proposed pump stations would be located more than 10 feet away from all on- and off-site residences.

6.2 Mitigation

M-Noi-1 **Ripping Noise Barrier:** If ripping, drilling, or excavation is required within 180 feet of a residentially occupied off-site or on-site property line, a 12-foot-high barrier shall be erected along a length of the property line. This barrier shall be of sufficient length to block the line of sight between the occupied property and any ripping operations within 180 feet of the property. Additionally, the barriers shall extend at least 10 feet beyond the horizontal line of sight in each direction. Figure 5 shows the 12-foot barrier noise mitigation noise contours. The final barrier must break the line of sight between the top of the equipment exhaust and the residential receiver at all visible locations, and when taking into consideration all topography in relevant areas.

If new information is provided to prove and certify that the construction equipment and noise measures being used is different prior to grading plan approval, then then a new construction noise analysis may be reviewed to the satisfaction of the [PDS, PCC]. The supplemental noise analysis shall be prepared by a County Approved Noise Consultant and the report shall comply with the Noise Report Format and Content Requirements. Any proposed alternative methods, or the reduction or modification of measures may be approved if the construction activities are reduced to 75 dB and below at the occupied property line.

M-Noi-2 **Breaker Equipment Operation Limit:** If a breaker is required on-site, then it shall not be used within 300 feet of property lines of occupied residences.

M-Noi-3 **Blasting Plan and Noise Ordinance Compliance:** Prior to and during construction activities, the applicant shall be required to prepare and implement a blast plan to reduce impacts associated with air blast over-pressure generated by project-related construction activities and to incorporate any required noise reducing measures to comply with County Noise Ordinance regulations. The project applicant shall conform to the blast plan which would be comprised of the following (but not limited to): No blasting shall occur at a distance of less than 600 feet from any off-site structure without specific analysis by the blasting contractor showing less than significant vibration impacts to the structure. All blast planning must be done by a San Diego County Sheriff approved blaster, with the appropriate San Diego County Sheriff blasting permits, and all other applicable local, state, and federal permits, licenses, and bonding. The blasting

contractor or owner must conducts all notifications, inspections, monitoring, major or minor blasting requirements planning, with seismograph reports as necessary.

Construction equipment associated with blasting (i.e., drilling, pre and post blasting work) shall comply with the County Noise Ordinance, Sections 36.408, 36.409, and 36.410. The blast plan shall include any necessary noise measures such as (but not limited to) temporary noise barriers and blankets, increased setbacks, limiting construction equipment operations, and any other methods specified within the blasting plan must be implemented to comply with County Noise Ordinance requirements.

M-Noi-4 **HVAC Noise Barrier:** If a residential air conditioning condenser is installed within 35 feet of a property line, a 5.5 foot-high noise control barrier shall be installed between the residential use areas and the condensers to reduce related noise impacts in the outdoor use areas to less than 45 dBA L_{EQ}. The barrier shall extend in each direction beyond the condenser location so that any location without a barrier at the adjacent property is at least 35 feet from the condenser unit. The applicant must provide proof that the installed condensers have a manufacturer's sound power noise rating of less than 75 dBA. If the condenser is placed beyond a distance of 35 feet from the property line, no mitigation would be required.

M-Noi-5 **Booster Pumps Noise Control:** The booster pump and diesel generator noise may be controlled by various methods, including but not limited to: enclosing the diesel generator within a custom designed noise control structure (such as a steel enclosure); placing the pump equipment and diesel generator within a CMU construction building that includes noise control features, increase property line setbacks of the generator location, locating noise sources such that noise shielding would be provided from on-site intervening structures or topography.

The applicant shall provide a final noise impact analysis for the booster pump station backup power generators prepared by a County-approved noise consultant demonstrating compliance with the County 45 dBA property line requirement completed to the satisfaction of the County PDS.

M-Noi-6 **Wastewater Pump Station Noise Control:** Diesel generator noise may be controlled by the various methods, including but not limited to: enclosing the diesel generator within a custom designed noise control structure (such as a steel enclosure); placing the pump equipment and diesel generator within a CMU construction building that includes noise control features, increase property line setbacks of the generator location, locating noise sources such that noise shielding would be provided from on-site intervening structures or topography.

The applicant shall be required to provide a final noise impact analysis for the pump station backup power generators prepared by a County-approved noise consultant. The final noise impact analysis shall demonstrate compliance with the

County 45 dBA property line requirement completed to the satisfaction of the County PDS.

M-Noi-7 **WTWRF Noise Control:** In order to ensure compliance of the WTWRF with applicable noise regulations, design options shall be employed to reduce noise levels. These design measures could include the following:

1. Stationary equipment noise may be controlled by the following methods:

    a. Providing a tall exterior enclosure wall and gate to control offsite noise impacts for all WTWRF equipment (excluding the diesel generator),
    b. Enclosing the WTWRF equipment inside a noise control CMU structure or specific design enclosures.
    c. Increasing property line setbacks of WTWRF noise sources where feasible.
    d. Locating WTWRF noise sources such that noise shielding would be provided from on-site buildings or structures.
    e. Incorporating noise control measures such as acoustical louvers or paneling into the WTWRF design.

2. Diesel generator noise may be controlled by the following methods:

    a. Enclosing the diesel generator within a custom designed noise control structure (such as a steel enclosure).
    b. Placing the diesel generator within a CMU building that includes noise control features such as (but not limited to) acoustical louvers or paneling, etc.

The applicant shall be required to provide a final noise impact analysis as part of the facilities design submittal package for the WTWRF prepared by a County-approved noise consultant. The final noise impact analysis shall demonstrate compliance with the County 45 dBA L_{EQ} property line nighttime limit completed to the satisfaction of the County PDS. The conditions of approval of the MUP will ensure that the correct equipment/structural noise barriers will be properly installed to reduce noise levels to less than significant levels. The conditions of approval of the MUP will ensure that the correct equipment/structural noise barriers will be properly installed to reduce noise levels to less than significant levels.

M-Noi-8 **Traffic Noise Barriers:** Existing plus Cumulative plus Project (worst-case near-term) traffic noise levels at the Proposed Project's residential exterior use areas facing Country Club Drive shall be mitigated to County Standards by the following measure:

A 6-foot high noise control wall shall be installed along the outer perimeter of the residential use areas for Lots 283 through 289 to reduce noise impacts in the outdoor use area to less than 60 CNEL (refer to Table 2.6-1). Please see Figure 7 for the locations of the proposed sound walls. The noise control wall must wrap around the ends of the property with 30-foot long returns wherever there is a break or terminus of the wall along Country Club Drive. Required sound attenuation barriers shall be solid and constructed of masonry, wood, plastic, fiberglass, steel, or a combination of those materials, with no cracks or gaps, through or below the wall. Any seams or cracks must be filled or caulked. If wood is used, it can be tongue and groove and must be at least one inch total thickness or have a density of at least 3½ pounds per square foot. Where architectural or aesthetic factors allow, glass or clear plastic 3/8 of an inch thick or thicker may be used on the upper portion, if it is desirable to preserve a view. Sheet metal of 18-gauge (minimum) may be used, if it meets the other criteria and is properly supported and stiffened so that it does not rattle or create noise itself from vibration or wind. Any door(s) or gate(s) must be designed with overlapping closures on the bottom and sides and meet the minimum specifications of the wall materials described above. The gate(s) may be of one inch thick or better wood, solid-sheet metal of at least 18-gauge metal, or an exterior-grade solid-core steel door with prefabricated door jambs.

M-Noi-9 **Interior Noise Control for Residences:** A final exterior-to-interior analysis shall be conducted to demonstrate that interior residential noise levels are below 45 CNEL. This analysis would be submitted with the final building plan submittal for the residential units along Country Club Drive.

6.3 Significance After Mitigation

With the implementation of Measures M-Noi-1, M-Noi-2 and M-Noi-3, construction impacts would be reduced to less than significant levels.

With the implementation of Measures M-Noi-4, M-Noi-5, M-Noi-6 and M-Noi-7, stationary noise impacts would be reduced to less than significant levels.

With the implementation of Measure M-Noi-8, noise impacts to exterior use areas associated with on-site NSLUs would be reduced to less than significant levels.

For the residences in the affected area of Neighborhood 5, a 6-foot sound wall along the outer perimeter of the residential outdoor use area would reduce noise levels in the outdoor use area to less than 60 CNEL (refer to Table 6-1, below).

Table 6-1
MITIGATED EXTERIOR USE AREA NOISE LEVELS (CNEL)
EXISTING PLUS CUMULATIVE PLUS PROJECT
(NEAR-TERM) CONDITION

Receiver Number	Noise Level (CNEL)		
Location	No Wall	5½-foot wall	6-foot wall
PR 02 – Lot 283	**63.4**	59.0	56.5
SW-1			
PR 03 – Lot 284	**63.2**	58.5	57.1
SW-1			
PR 04 – Lot 285	**63.4**	58.4	57.1
SW-1			
PR 05 – Lot 286	**64.3**	**60.2**	57.7
SW-1			
PR 06 – Lot 287	**63.8**	**61.7**	59.4
SW-1			
PR 07 – Lot 288	**65.0**	**61.1**	59.5
SW-2			
PR 08 – Lot 289	**63.8**	**60.4**	59.3
SW-2			

SW-1 = Sound Wall 1 (northern residential wall), SW-2 = Sound Wall 2 (southern residential wall)
Note: Near-term Existing Plus Cumulative Plus Project condition is expected to have greater traffic volumes on segments surrounding the Project site than Year 2035 with Project conditions (LLG 2014); Near-term conditions were modeled to provide a worst-case analysis.
Bold = over 60 CNEL

With the implementation of Measure M-Noi-9, interior noise levels for residential units (with a second story) fronting Country Club Drive in Neighborhood 5 would be reduced to less than significant levels.

7.0 OFF-SITE WASTEWATER TREATMENT OPTIONS

The options to the on-site WTWRF would involve the construction of the sewer pipeline and pump stations designed to convey wastewater from the Proposed Project to an off-site wastewater treatment facility. With implementation of these options, the Proposed Project would also need to install pipelines to convey recycled water from the Hale Avenue Resources Recovery Facility (HARRF).

Three potential options are possible for the provision of sewer service, in lieu of the proposed on-site WTWRF and related facilities described previously. These potential options are summarized below.

7.1 Description of Off-site Wastewater Options

7.1.1 Connection to the City of Escondido Hale Avenue Resource Recovery Facility (HARRF)

This potential option involves the following off-site facilities/activities: (1) installation of approximately 2,700 linear feet of sewer pipeline from an existing City pump station (LS-12) located just east of Country Club Drive and south of an unnamed street south of Eden Valley Lane southerly to an on-site location within Neighborhood 5 just south of the SDG&E easement, with these facilities to be located within existing City of Escondido (City) and County streets; (2) installation a of new force main pipeline from Neighborhood 5 to an existing City sewer line, with the new facilities to be located within an existing SDG&E easement; (3) abandonment of an approximately 1,600 linear feet of sewer pipeline located in City easement; (4) installation of approximately 200 linear feet of a new recycled water pipeline from an existing pipeline to the Project site, with the new facilities to be located within City streets; and (5) installation of approximately 1,000 linear feet of a new sewer return pipeline from the Project wet weather storage site to new gravity sewer main in Country Club Drive, with the new facilities to be located within existing County streets.

7.1.2 Connection to Vallecitos Water District (VWD) Facilities

This potential option would involve the installation of approximately 3,400 feet of new force main from the Project site to an existing VWD pipeline. New lines would be located between a pump station located in the southeastern portion of Neighborhood 5, trending northerly to Mt. Whitney Drive, then west to Project streets. From the north end of the Project, the new lines would trend east along Hill Valley Drive to Hill Valley Road. From the point at which Hill Valley Road trends due west, the lines would be installed using one of two routes, on either side of semi-rural residential (four homes) prior to passing along paved roads through the Casitas del Sol Mobile Home Park (past approximately 70 homes, regardless of route) and connecting to existing Vallecitos sewer line in Barham Drive, just south of SR-78. From Barham Drive, the Project would install approximately 500 linear feet of pipeline under SR-78 from Barham Drive to Rancheros Drive (a frontage road between commercial uses and SR-78) in the City of San Marcos.

This option also would require four on-site pump stations and back-up power generators. The on-site pump stations would be located along Project roadways within the development. Two would be sited Neighborhood 3: one (PS 1) on a cul-de-sac in the northeastern portion of the neighborhood between lots 146 and 147, and one (PS 2) along the street leading to Neighborhood 4 south of Lot 161. PS 3 would be sited at the northern extent of Neighborhood 4, just north of Lot 161. The fourth pump station would be located on the WTWRF in Neighborhood 5.

7.1.3 Connection to the Harmony Grove Treatment Plant

This potential option involves: (1) the installation of a force main from the Project site to the Harmony Grove treatment plant, with these facilities to be located within existing City/County streets; and (2) the construction of a new pump station and backup power generator at the Valiano.

The new pump station would be located on the Project, west of Country Club Drive. Located slightly downslope from Country Club Drive, the facility would be the size of a small outbuilding (such as a shed), common in this area.

A new 6-inch force main would be installed from Neighborhood 5, southerly within Country Club Drive, to the Harmony Grove treatment plant currently under construction. The construction period would require excavation and installation within existing roadbed followed by re-cover of the pipeline and removal of any excess soil along the pipeline right-of-way. Impacts would be to a linear right-or-way, with construction activities moving along the right-of-way (cut, install, cover) as installation occurs. Construction worker vehicles, excavation machinery, and water trucks, as well as potential specialty construction machinery or vehicles would be visible along different segments of the right-of-way during the installation process. Temporary storage of pipe may also occur within right-of-way, as appropriate. These effects would vary from the existing condition, but would be temporary in effect along the linear right-of-way.

7.2 Noise Impacts of Off-site Wastewater Options

Potential noise impacts of the off-site pipeline alternatives would vary by option. Specific impacts related to implementation of the three off-site options are described below.

7.2.1 Connection to the City of Escondido Hale Avenue Resource Recovery Facility

Construction Noise

The construction would include normal trenching activities to install eight to twelve inch force main pipeline at an assumed depth not to exceed 6 feet. This would entail the use of a small- to medium-sized excavator, medium-sized loader and dump truck for the excavation and closure of the trenches, with only small equipment being utilized during the installation. A small- to medium-sized excavator would create noise levels of 73.6 dBA L_{EQ} at a distance of 50 feet. Assuming normal excavation duration, the excavator or backhoe and loader would be expected

to be in front of any single home for no more than two hours. At a worst-case potential distance of 25 feet from the nearest property line distance (which is a typical street-work distance) for 2 hours (of an 8-hour day), the average noise level would be expected to be 73.6 dBA L_{EQ} (8-hour). Thus, noise levels from construction activities for this off-site wastewater option would not be in excess of the allowed levels.

Impacts

No construction noise impacts were identified related to this off-site wastewater option.

Mitigation

No construction noise mitigation measures are required for this off-site wastewater option.

Operation Noise

This off-site wastewater option assumes reliance upon gravity flow with the utilization of previously described and analyzed Project wastewater pump stations; this off-site option would not result in operational noises levels in excess of thresholds, and impacts would be less than significant.

Impacts

No operational noise impacts were identified related to this off-site wastewater option.

Mitigation

No operational noise mitigation measures are required for this off-site wastewater option.

7.2.2 Connection to Vallecitos Water District Facilities

Construction Noise

The off-site construction would be comparable to the option above for the connection to HARRF (City of Escondido, as described above). As described previously, at a worst-case potential distance of 25 feet from the nearest property line distance (which is a typical street-work distance) for 2 hours (of an 8-hour day), the average noise level would be expected to be 73.6 dBA L_{EQ} (8-hour). Thus, noise levels from construction activities for this off-site wastewater option would not be in excess of the allowed levels.

Impacts

No construction noise mitigation measures are required for this off-site wastewater option.

Mitigation

No construction noise mitigation measures are required for this off-site wastewater option.

Operation Noise

This off-site wastewater option would require an additional wastewater pump station (total of four).

Impacts

The pump station, like the three previously described Project pump stations, would be submersible a package sewer. Refer to Section 5.3.4 for a full description of the potential impacts associated with this type of wastewater pump and the associated backup diesel generator. As described in this section, the backup generate could generate noise levels of 45 dBA (nighttime allowable limit) at up to 23,000 feet, without consideration for other factors (such as air and ground plane damping) that could reduce this noise level. Therefore, impacts would be potentially significant. (previously described **Impact Noi-6**)

Mitigation

Diesel generator noise may be controlled by the methods described in measure **M-Noi-6.** As described in this measure, the applicant shall be required to provide a final noise impact analysis as part of the facilities design submittal package for the pump station backup power generators prepared by a County-approved noise consultant. The final noise impact analysis shall demonstrate compliance with the County 45 dBA L_{EQ} property line requirement completed to the satisfaction of the County PDS.

7.3 Connection to the Harmony Grove Treatment Plant

Construction Noise

The construction would be comparable to the option above for the connection to HARRF (City of Escondido, as described above). As described previously, at a worst-case potential distance of 25 feet from the nearest property line distance (which is a typical street-work distance) for 2 hours (of an 8-hour day), the average noise level would be expected to be 73.6 dBA L_{EQ} (8 hour). Thus, noise levels from construction activities for this off-site wastewater option would not be in excess of the allowed levels.

Impacts

No construction noise mitigation measures are required for this off-site wastewater option.

Mitigation

No construction noise mitigation measures are required for this off-site wastewater option.

Operation Noise

This off-site wastewater option would require an additional wastewater pump station (total of four).

Impacts

The pump station, like the three previously described Project pump stations, would be submersible a package sewer. Refer to Section 5.3.4 for a full description of the potential impacts associated with this type of wastewater pump and the associated backup diesel generator. As described in this section, the backup generate could generate noise levels of 45 dBA L_{EQ} (nighttime allowable limit) at up to 23,000 feet, without consideration for other factors (such as air and ground plane damping) that could reduce this noise level. Therefore, impacts would be potentially significant. (previously described **Impact Noi-6**)

Mitigation

Diesel generator noise may be controlled by the methods described in measure **M-Noi-6**; as described in this measure, the applicant shall be required to provide a final noise impact analysis as part of the facilities design submittal package for the pump station backup power generators prepared by a County-approved noise consultant. The final noise impact analysis shall demonstrate compliance with the County 45 dBA L_{EQ} property line requirement completed to the satisfaction of the County PDS.

8.0 CERTIFICATION

The findings and recommendations of this acoustical analysis report are based on the available information, and are a true and factual analysis of the potential acoustical issues associated with the proposed Valiano Project located in the Eden Valley area of the San Dieguito Planning Community San Diego County. This report was prepared by Charles Terry.

Charles Terry, Senior Acoustical Specialist — April 2015 Date

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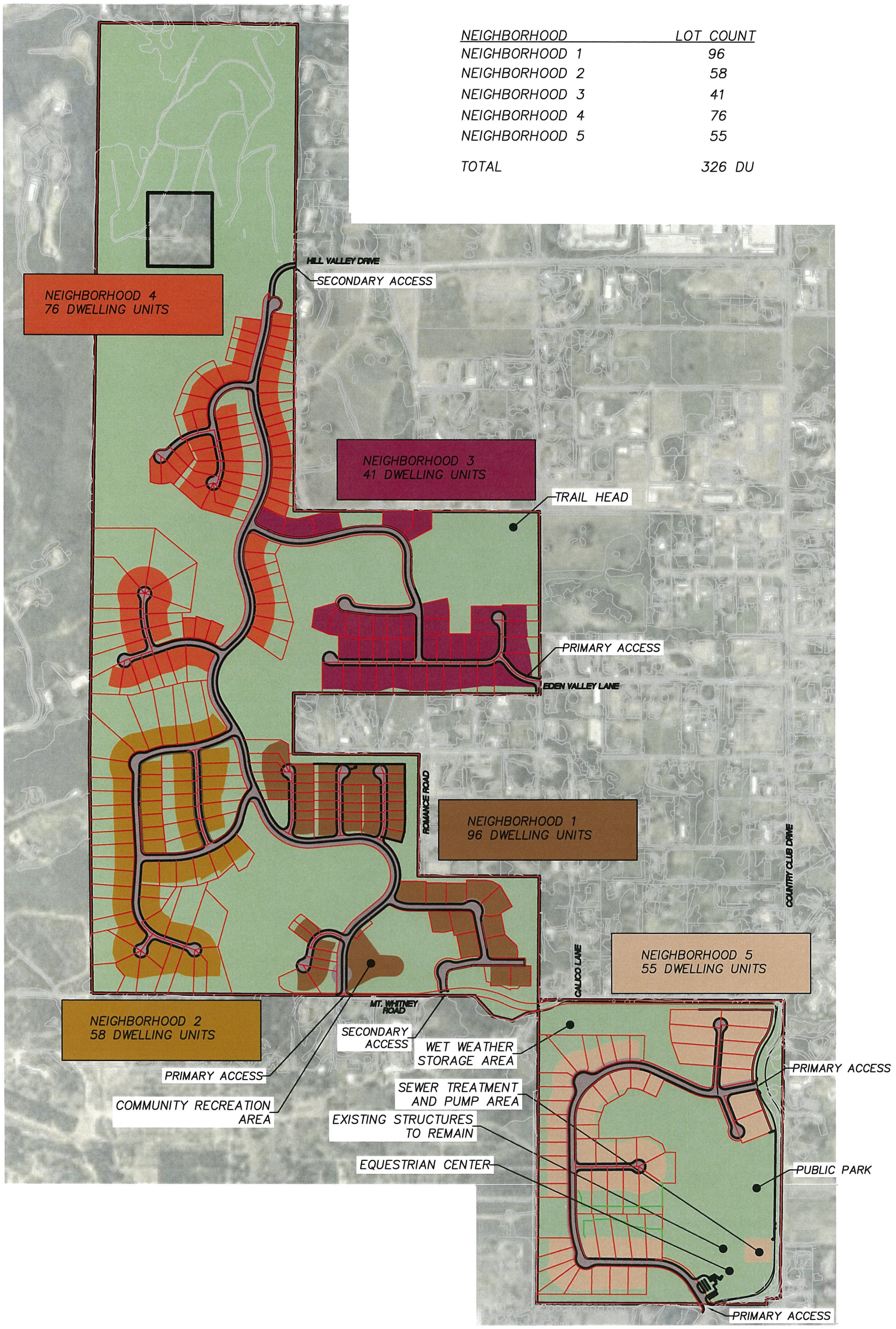
Appendix A

SITE PLAN INCLUDING PUMP/LIFT LOCATIONS

NEIGHBORHOOD	LOT COUNT
NEIGHBORHOOD 1	96
NEIGHBORHOOD 2	58
NEIGHBORHOOD 3	41
NEIGHBORHOOD 4	76
NEIGHBORHOOD 5	55
TOTAL	326 DU



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Source: Fuscoe Engineering, 2014

Site Plan including Pump/Lift Stations

VALIANO

Appendix B

CARRIER 38HDR060 SPLIT SYSTEM CONDENSER

ELECTRICAL DATA

38HDR UNIT SIZE	V–PH–Hz	VOLTAGE RANGE*		COMPRESSOR		OUTDOOR FAN MOTOR			MIN CKT AMPS	FUSE/ HACR BKR AMPS
		Min	Max	RLA	LRA	FLA	NEC Hp	kW Out		
018	208/230–1–60	187	253	9.0	48.0	0.80	0.125	0.09	12.1	20
024	208/230–1–60	187	253	12.8	58.3	0.80	0.125	0.09	16.8	25
030	208/230–1–60	187	253	14.1	73.0	1.45	0.25	0.19	19.1	30
036	208/230–1–60	187	253	14.1	77.0	1.45	0.25	0.19	19.1	30
	208/230–3–60	187	253	9.0	71.0	1.45	0.25	0.19	12.7	20
	460–3–60	414	506	5.6	38.0	0.80	0.25	0.19	7.8	15
048	208/230–1–60	187	253	21.8	117.0	1.45	0.25	0.19	28.7	50
	208/230–3–60	187	253	13.7	83.1	1.45	0.25	0.19	18.6	30
	460–3–60	414	506	6.2	41.0	0.80	0.25	0.19	8.6	15
060	208/230–1–60	187	253	26.4	134.0	1.45	0.25	0.19	34.5	60
	208/230–3–60	187	253	16.0	110.0	1.45	0.25	0.19	21.5	35
	460–3–60	414	506	7.8	52.0	0.80	0.25	0.19	10.6	15

* Permissible limits of the voltage range at which the unit will operate satisfactorily

FLA – Full Load Amps
HACR – Heating, Air Conditininng, Refrigeration
LRA – Locked Rotor Amps
NEC – National Electrical Code
RLA – Rated Load Amps (compressor)

NOTE: Control circuit is 24–V on all units and requires external power source. Copper wire must be used from service disconnect to unit.
All motors/compressors contain internal overload protection.

SOUND LEVEL

Unit Size	Standard Rating (dB)	Typical Octave Band Spectrum (dBA) (without tone adjustment)						
		125	250	500	1000	2000	4000	8000
018	68	52.0	57.5	60.5	63.5	60.5	57.5	46.5
024	69	57.5	61.5	63.0	61.0	60.0	56.0	45.0
030	72	56.5	63.0	65.0	66.0	64.0	62.5	57.0
036	72	65.0	61.5	63.5	65.0	64.5	61.0	54.5
048	72	58.5	61.0	64.0	67.5	66.0	64.0	57.0
060	72	63.0	61.5	64.0	66.5	66.0	64.5	55.5

CHARGING SUBCOOLING (TXV-TYPE EXPANSION DEVICE)

UNIT SIZE–VOLTAGE, SERIES	REQUIRED SUBCOOLING °F (°C)
018	12 (6.7)
024	12 (6.7)
030	12 (6.7)
036	12 (6.7)
048	12 (6.7)
060	12 (6.7)