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MEMORANDUM

To:	Mr. Greg Mattson, Project Manager, County of San Diego
From:	Mark Storm, INCE Bd. Cert. (Dudek)
Subject:	Noise Technical Memorandum for the Otay Ranch Village 14 and Planning Area 16/19 Proposed Project Amendment
Date:	December 2, 2019
cc:	GDCI Proctor Valley L.P.
Attachments	Attachment A, Figures 2.8-3 and 2.8-4 from the Final EIR Attachment B, Figures 6 and 7 from the Land Exchange Alternative Acoustical Analysis Report

Introduction

This Memorandum reflects proposed changes to the Otay Ranch Village 14 and Planning Areas 16/19 Project that was approved by the San Diego County Board of Supervisors on June 26, 2019 (Approved Project). The changes to the Approved Project would reconfigure the development footprint to consolidate development in Village 14; add 147 units, for a total of 1,266 residential units; and reduce impacts by approximately 230 acres, to 579 acres (the Proposed Project Amendment). Figure 1, Regional Location Map, shows the regional location of the Approved Project Area and the Proposed Project Amendment Project Area, in the County of San Diego (County).

An Environmental Impact Report (EIR) was prepared for the Approved Project and was certified by the Board on June 26, 2019. The Final EIR analyzed the potential impacts of the Approved Project. The Final EIR also analyzed potential impacts associated with the EIR Land Exchange Alternative, which was one of the alternatives to the Approved Project. The Final EIR is incorporated herein by reference and the results are summarized in Section 3 and mitigation measures and project design features are described in Section 5.

Dudek prepared the Final Village 14 and Planning Area 16/19 EIR (Final EIR) that included Chapter 2.8, Noise and Chapter 4.8, Land Exchange Alternative. This noise technical memorandum also compares information from the following technical studies:

- Final EIR Appendix 2.8-1, The Acoustical Analysis Report for Otay Ranch Village 14 and Planning Areas 16/19 EIR (revised July 2018).
- Final EIR Appendix 4.1-8, The Acoustical Analysis Report for Otay Ranch Village 14 and Planning Areas 16/19 – Land Exchange EIR Alternative, prepared by Dudek dated February 2018.

The Final EIR and appendices are incorporated herein by reference and the results are summarized below in Section 3 and mitigation measures are described in Section 5 below.

This Noise Technical Memorandum was prepared for the Proposed Project Amendment. The purpose of this analysis is to evaluate whether, and to what extent, the potential impacts of the Proposed Project Amendment to noise differ

from those of the Approved Project and, if appropriate, the EIR Land Exchange Alternative. This technical memorandum includes the following sections: (1) background, (2) Proposed Project Amendment description, (3) summary of the Approved Project's noise impacts, (4) analysis of the Proposed Project Amendment's noise impacts, (5) mitigation measures, and (6) conclusion.

For additional context, the following terminology is used in this Technical Memorandum.

Terminology

Approved Project: The project described in Otay Ranch Village 14 and Planning Areas 16/19 Tentative Map 5616, Specific Plan 16-002, and the certified EIR, which the County of San Diego (County) approved on June 26, 2019. The Approved Project permits 1,119 residential units within a Project Area of approximately 1,369 acres. The Development Footprint of the Approved Project is 809 acres.

Conserved Open Space: Conserved Open Space refers to 24.5 acres of land within the Project Area, which, while designated in the Otay Ranch General Development Plan/Otay Subregional Plan (Otay Ranch GDP/SRP) for residential uses within Village 14 and Planning Areas 16/19, will not be developed as part of the Proposed Project Amendment. Instead, the Conserved Open Space will be preserved on site and be (a) added to the Otay Ranch Resource Management Plan (RMP) Preserve (through a future RMP Amendment), (b) managed under a separate RMP, or (c) utilized to mitigate impacts to the City of San Diego Multiple Species Conservation Program Cornerstone Lands. The Conserved Open Space areas are located adjacent to Otay Ranch RMP Preserve and will be conserved by recording a biological open space easement over the land.

Development Footprint: The areas where a given project will cause permanent or temporary ground disturbance. The Development Footprint includes all on-site development, off-site improvements, and impacts resulting from infrastructure and other allowable uses within the Otay Ranch Resource Management Plan (RMP) Preserve.

EIR Land Exchange Alternative: The project alternative identified as the "Land Exchange Alternative" in Chapter 4 of the certified Final EIR. This Land Exchange Alternative contemplated a land exchange with the California Department of Fish and Wildlife (CDFW) and would develop 1,530 residential units within a Project Area of approximately 2,387.6 acres, with a Development Footprint of 658.3 acres.

Off-Site Improvements: Off-site improvements total approximately 40.1 acres and include Proctor Valley Road, wet and dry utilities, drainage facilities, trails, an off-site sewer pump station in the southern reach of Proctor Valley Road, and off-site sewer facilities to connect to the Salt Creek Interceptor as planned since 1994.

Project Area: The total land area for the Proposed Project Amendment as contemplated in the proposed land exchange between applicant and CDFW.[1] The Project Area consists of approximately 1,283.6 acres currently owned by GDCI Proctor Valley, L.P., the owner/applicant, 219.4 acres currently owned by CDFW, and approximately 40.1 acres of off-site improvements, for a total of 1,543 acres.

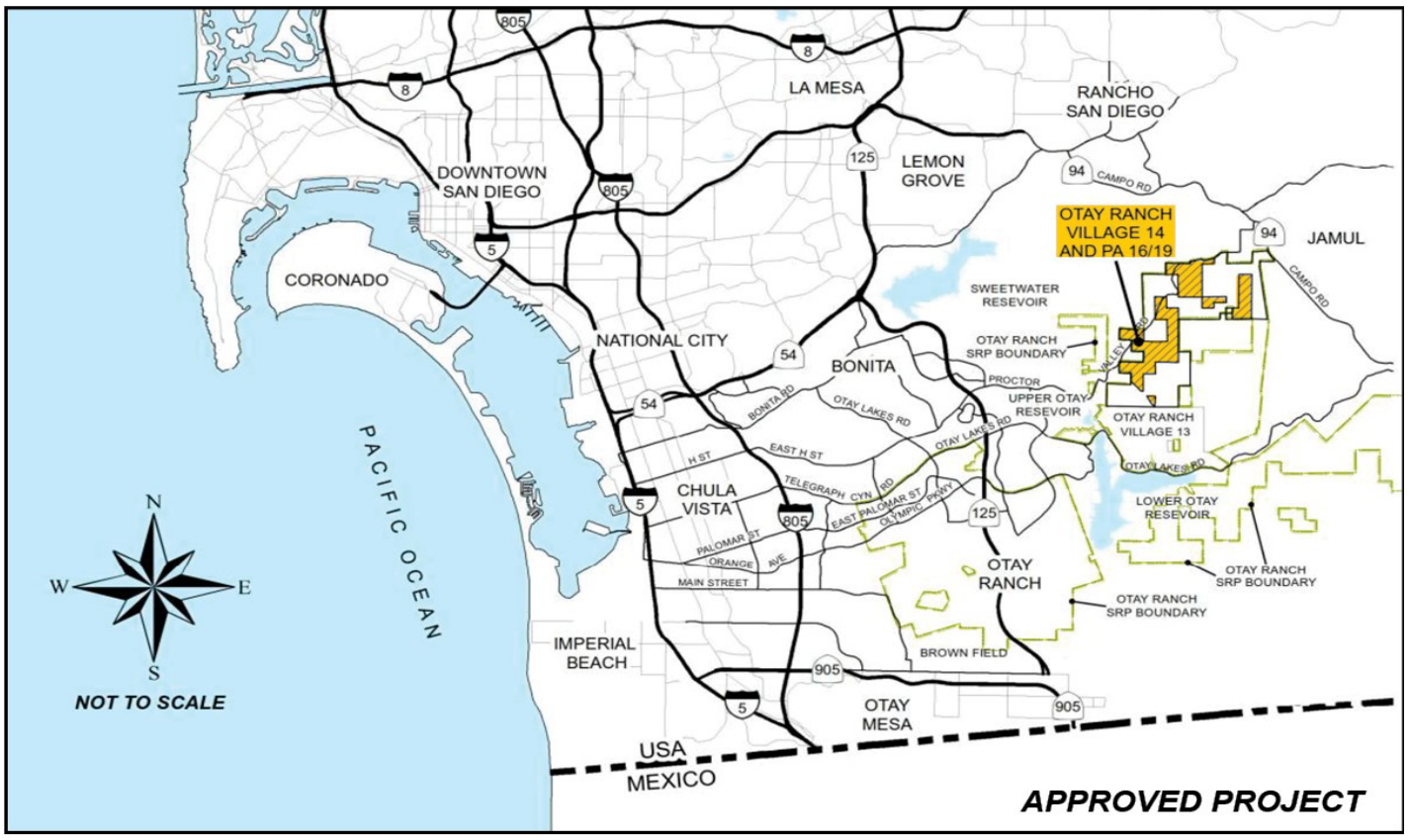
[1] As indicated above, the land exchange necessary to implement the Proposed Project Amendment must be approved by the California Wildlife Conservation Board.

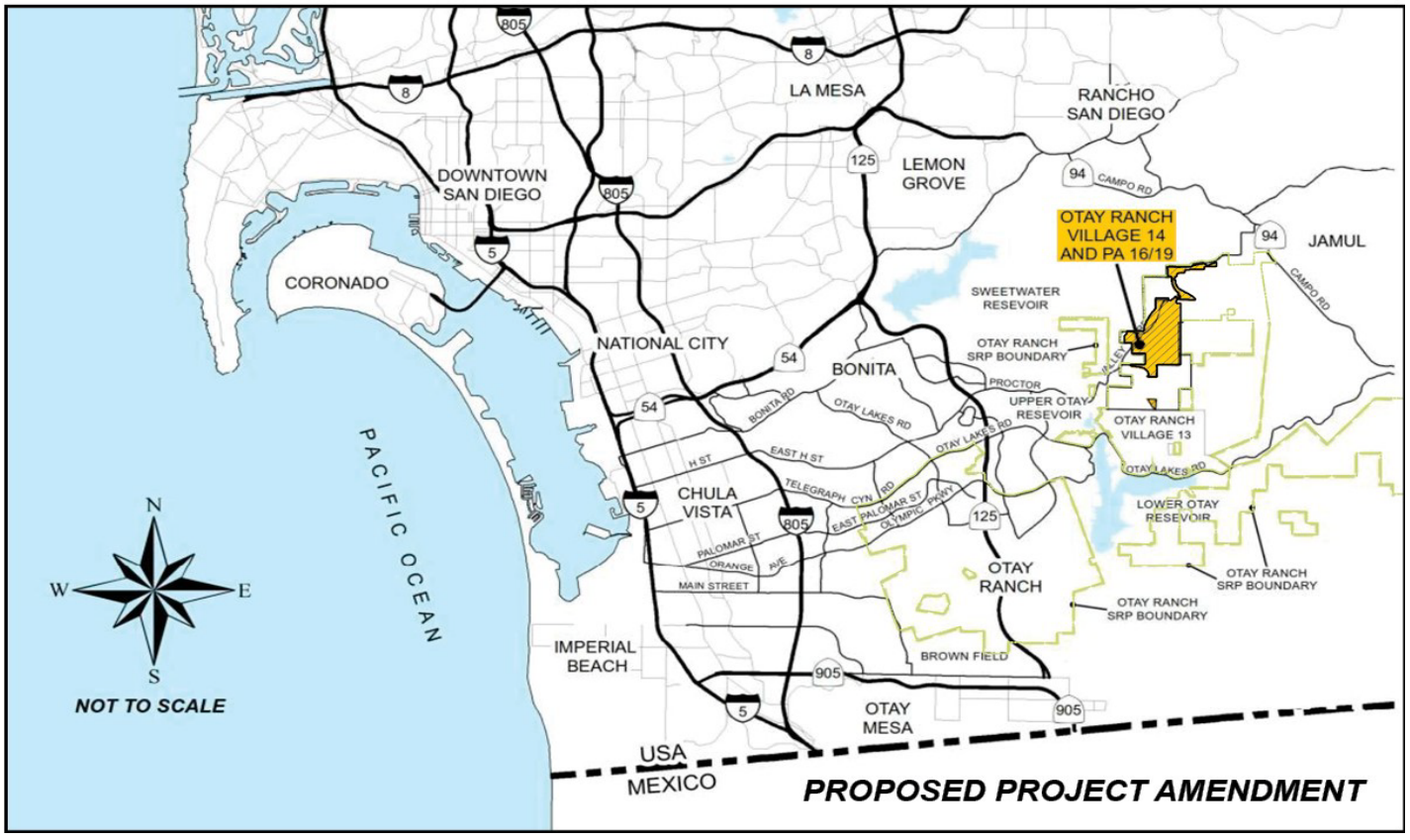
Proposed Project Amendment: The Proposed Project Amendment reflects proposed changes to the Approved Project, which would add 147 units for a total of 1,266 residential units and would reduce the Development Footprint by approximately 230 acres, to a total of 579 acres, within a Project Area of 1,543 acres, as shown on Figure 2, Site Utilization Plan, and more fully described below in Section 2. The Proposed Project Amendment includes a Revised Tentative Map and Specific Plan Amendment. As contemplated in the Dispute Resolution Agreement, the Proposed Project Amendment assumes and will require a County-initiated amendment to the MSCP County Subarea Plan. Because the amendment to the MSCP County Subarea Plan will be initiated by the County, it is not part of the Proposed Project Amendment.

PV1 and PV3: PV1 and PV3 are areas of the Approved Project located in Village 14 as shown on Figure 3 attached.

Revised Tentative Map: The Revised Tentative Map reflects revisions to the June 26, 2019, Approved Tentative Map #5616 that are necessary to process and implement the land exchange with CDFW and the Proposed Project Amendment in the County.

Specific Plan Amendment: The Specific Plan Amendment reflects revisions to the June 26, 2019, Approved Specific Plan #16-002 that are necessary to process and implement the land exchange with CDFW and the Proposed Project Amendment in the County.





SOURCE: Hunsaker 2019

FIGURE 1

Regional Location

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment

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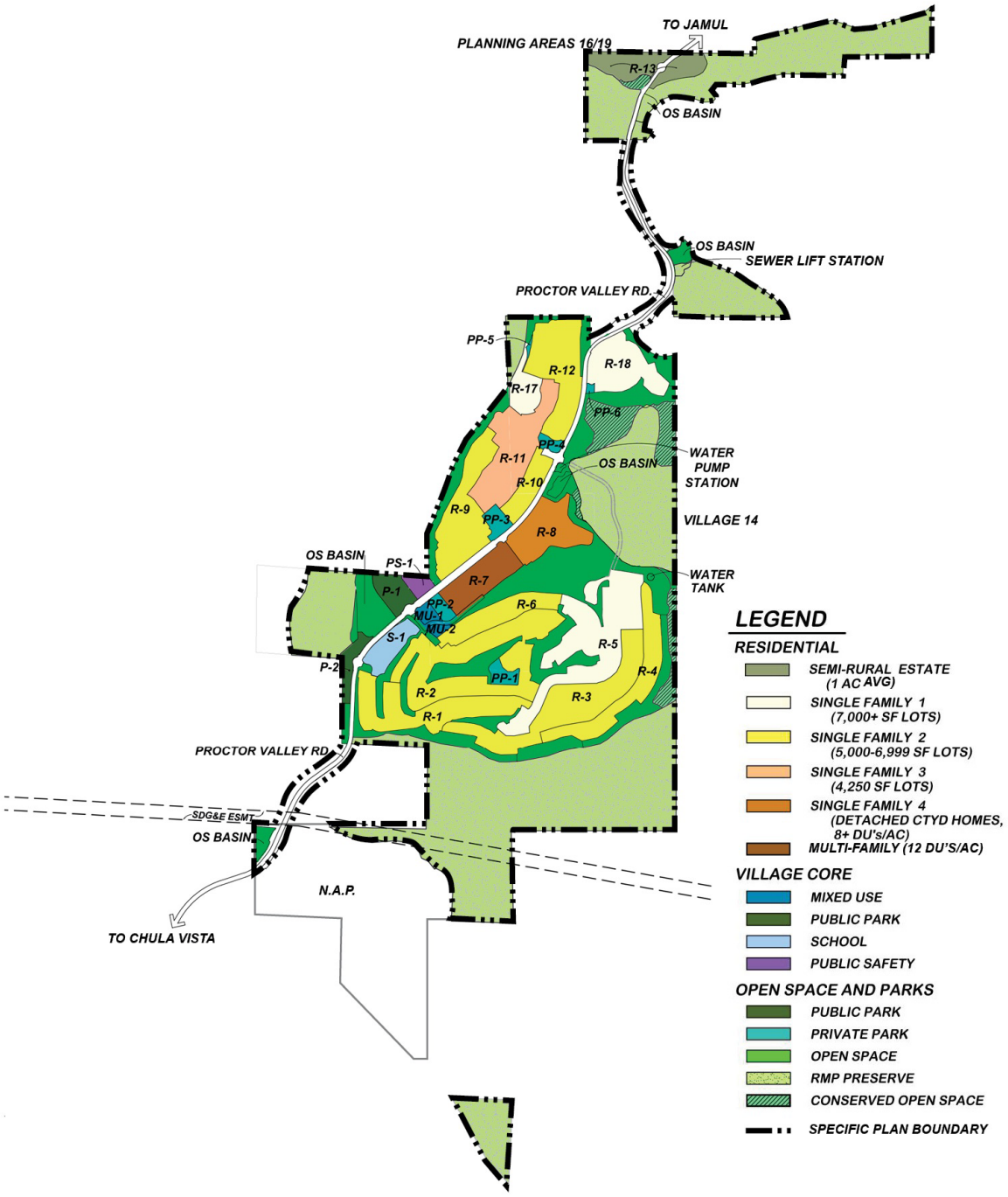

SOURCE: Hunsaker 2019

FIGURE 2

Site Utilization Plan

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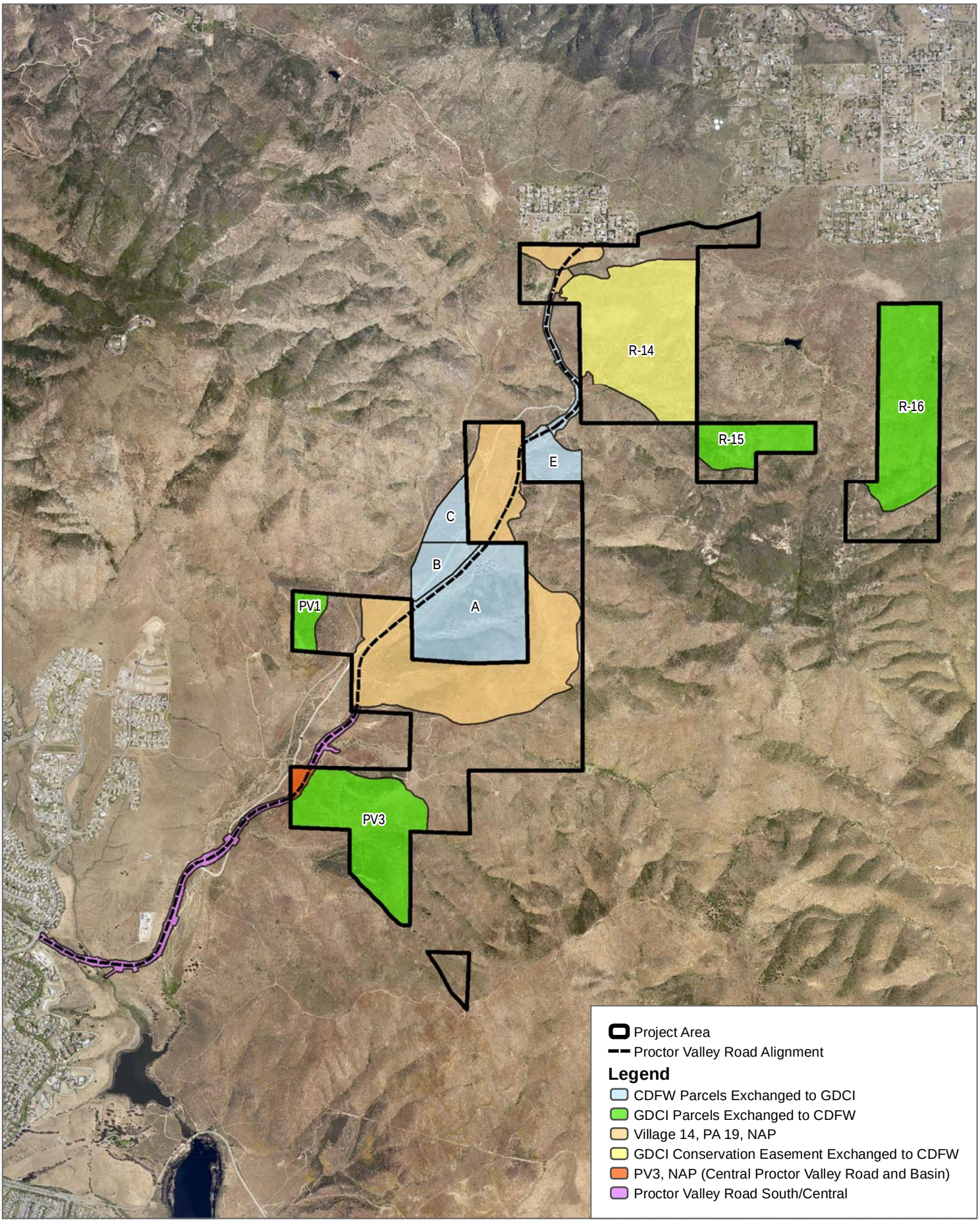
Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment



SOURCE: SANGIS 2017; Hunsaker 2019

DUDEK

0 1,400 2,800 Feet

FIGURE 3

Proposed Land Exchange

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment

Section 1. Background

The Proposed Project Amendment Project Area comprises approximately 1,543 acres of undeveloped land within the Proctor Valley area of the 23,000-acre Otay Ranch master planned community (see Figure 4, Proposed Project Amendment Project Area). The Proposed Project Amendment reflects proposed changes to the Approved Project, including a proposed land exchange with the California Department of Fish and Wildlife (CDFW).

On June 27, 2019, the owner/applicant of the Approved Project entered into a Dispute Resolution Agreement with CDFW, the U.S. Fish and Wildlife Service, and the County. Pursuant to this agreement, the owner/applicant would seek a land exchange with CDFW through a process overseen by the California Wildlife Conservation Board. The proposed land exchange, if approved by the Wildlife Conservation Board, would require the owner/applicant to (i) transfer 147.3 acres in Village 14 and 192.4 acres in Planning Area 16 to CDFW, and (ii) record a conservation easement over 191.5 acres in Planning Area 16. In exchange, CDFW would transfer 219.4 acres in Village 14 to the owner/applicant. The Proposed Project Amendment would then be implemented upon the lands within the applicant's ownership, including those received via the Wildlife Conservation Board land exchange. Because the Proposed Project Amendment assumes the above-described land exchange, it would result in a different development footprint than the Approved Project's development footprint. Therefore, a Specific Plan Amendment to the approved Village 14 and Planning Areas 16/19 Specific Plan and a Revised Tentative Map are required processes for the Proposed Project Amendment.

While the Proposed Project Amendment and EIR Land Exchange Alternative both contemplate exchanges of land with the CDFW, the Development Footprints and other aspects differ. It is important to note that the Development Footprint of the Proposed Project Amendment was assessed in the certified Final EIR as part of the Approved Project Development Footprint and as part of the EIR Land Exchange Alternative Development Footprint.

Section 2.Proposed Project Amendment Description and Summary of Amendment/Revisions

The Proposed Project Amendment proposes 1,266 residential units within a Project Area of 1,543 acres. The Proposed Project Amendment Development Footprint would be approximately 578.6 acres, which would consistent of approximately 513.1 acres within Otay Ranch Village 14, 25.2 acres within Otay Ranch Planning Area 19, and 40.1 acres of off-site improvements (i.e., Proctor Valley Road). Of the 1,266 residential units, 1,253 units would be located in Village 14 (consistent with the Otay Ranch GDP/SRP) and 13 units would be located in Planning Area 19 (consistent with the Otay Ranch GDP/SRP). The Proposed Project Amendment is depicted in Figure 2 and summarized in Tables 1 through 3.

As described above, the Proposed Project Amendment would also include a land exchange between the owner/applicant and CDFW, which would require the owner/applicant to transfer 339.7 acres to CDFW and record a conservation easement over 191.5 acres, and, in exchange, CDFW would transfer 219.4 acres in Village 14 to the owner/applicant to create a consolidated Development Footprint. The proposed land exchange between the applicant and CDFW is depicted in Figure 3. As defined above, the Proposed Project Amendment requires a Specific Plan Amendment and Revised Tentative Map, which must be approved by the County. The Revised Tentative Map would replace that certain approved Tentative Map TM #5616, approved by the County on June 26, 2019. The Specific Plan Amendment would amend the Specific Plan 16-002 to reflect the Proposed Project Amendment, including the Revised Tentative Map and the land exchange with CDFW.

Table 1. Village 14 and Planning Areas 16/19 Proposed Project Amendment Site Utilization Plan Summary

Description	Village 14		Planning Area 16/19		Total Proposed Project Amendment	
	Gross Acres	Units	Gross Acres	Units	Gross Acres	Units
Residential Subtotal [1]	**386.6**	**1,253**	**14.9**	**13**	**401.4**	**1,266**
Non-Residential Uses						
Mixed Use [2]	2.7				2.7	
Public Parks	10.2				10.2	
Private Parks/Recreation [3]	9.5				9.5	
Public Safety Site	2.3				2.3	
Elementary School Site	9.9				9.9	
Open Space	47.8		1.7		49.5	
Conserved Open Space	23.0		1.5		24.5	
Otay Ranch RMP Preserve	278.6		98.4		377.0	
Circulation	23.3		3.4		26.7	
Non-Residential Uses Subtotal	*407.2*		*105.0*		*512.1*	-
Total Proposed Project Amendment [4]	**793.7**	**1,253**	**119.8**	**13**	**913.6**	**1,266**
Other Off-sites						
Off-site Improvements	40.1				40.1	
Off-site Preserve PA 16			58.2		58.2	
Parcels Exchanged to CDFW	147.3		192.4		339.7	
Conservation Easement PA 16			191.5		191.5	
Total Proposed Project Amendment Area					**1,543.1**	**1,266**

Notes: PA = Planning Area, CDFW = California Department of Fish and Wildlife.

1 Residential gross acres includes 96.7 acres of related internal slopes, fuel modification and/or preserve edge open space lots.

2 Village 14 Mixed Use acreage includes 10,000 sf of commercial use.

3 Village 14 has 2.1 acres of private pocket parks included in the residential acreage; therefore, the subtotal including PPP is 11.7 acres.

4 Totals may not sum due to rounding

Table 2. Proposed Project Amendment Site Utilization Plan Detail (Village 14)

Description		Gross Acres (1,2)	Units (3)	Density
Single Family Residential				
R-1	50*100	33.1	103	3.1
R-2	60*100	48.3	136	2.8
R-3	60*85	35.8	112	3.1
R-4	60*100	31.5	73	2.3
R-5	75*100	51.7	121	2.3
R-6	60*85	22.5	47	2.1
R-8	Courtyard	21.1	116	5.5
R-9	60*85	33.0	96	2.9
R-10	60*85	8.5	31	3.7
R-11	50*85	25.4	119	4.7
R-12	50*100	27.6	94	3.4
R-17	70*100	7.4	10	1.4
R-18	70*100	27.8	45	1.6
Single Family Residential Subtotal		*373.8*	*1,103*	*3.0*
Multi-Family				
R-7	MF	12.7	150	11.8
MF Subtotal		*12.7*	*150*	*11.8*
Residential Subtotal *(3)(4)*		**386.6**	**1,253**	**3.2**
Non-Residential Uses				
Mixed Use *(2)*	MU - C	2.7		
Public Parks				
P-1	Village Green Park	6.2		
P-2	Scenic Park	3.9		
Public Parks Subtotal		*10.2*		
Private Parks & Recreation				
PP-1	Central	2.8		
PP-2	Village Core	2.1		
PP-3	West	1.9		
PP-4	West	1.5		
PP-5	Northwest	0.8		
PP-6	Northeast	0.4		
PPP *(3)*	Various	0.0		
Private Parks/Recreation Subtotal		9.5		
Public Safety Site		2.3		
Elementary School Site		9.9		

Table 2. Proposed Project Amendment Site Utilization Plan Detail (Village 14)

Description		Gross Acres (1,2)	Units (3)	Density
Open Space		47.8		
Conserved Open Space		23.0		
Otay Ranch RMP Preserve		274.9		
Circulation - In Preserve		3.7		
Circulation – Arterial		23.3		
Non-Residential Uses Subtotal		*407.2*		
Village 14 Subtotal		**793.7**	**1,253**	**1.6**

Notes:
1 Residential gross acres includes 96.5 acres of related internal slopes, fuel modification and/or preserve edge open space lots.
2 Village 14 Mixed Use acreage includes 10,000 sf of commercial use.
3 Village 14 has 2.1 acres of private pocket parks included in the residential acreage; therefore, the subtotal including PPP is 11.6 acres.
4 Totals may not sum due to rounding

Table 3. Proposed Project Amendment Site Utilization Plan Detail (Planning Areas 16/19)

Description	Gross Acres	Units	Density
Residential Uses			
R-13 (PA 19 Estates)	14.9	13	0.9
Residential Subtotal (1)	*14.9*	*13*	*0.9*
Non-Residential Uses			
Circulation in Preserve	1.4		
Open Space	1.7		
Conserved Open Space	1.5		
Otay Ranch RMP Preserve	97.0		
Circulation Arterial	3.4		
Non-Residential Uses Subtotal	*105.0*		
Planning Area 19 Subtotal	*119.8*	*13*	*0.1*
Proposed Project Amendment Total (2)	**913.6**	**1,266**	**1.4**
OTHER			
Description	**Gross Acres (1)**	**Target Units**	**Density**
Other Applicant Owned NAP of TM			
PV1 exchanged to CDFW	18.9		
PV3 exchanged to CDFW	128.4		
R-15 Exchanged to CDFW	49.9		
R-16 Exchanged to CDFW	142.5		
R-14 Conservation Easement Area	191.5		
R-15 Preserve	10.5		
R-16 Preserve	47.8		

Table 3. Proposed Project Amendment Site Utilization Plan Detail (Planning Areas 16/19)

Subtotal	*589.5*		
Off-site Acres	**40.1**		
Proposed Project Amendment Project Area	**1,543.1**	**1,266**	

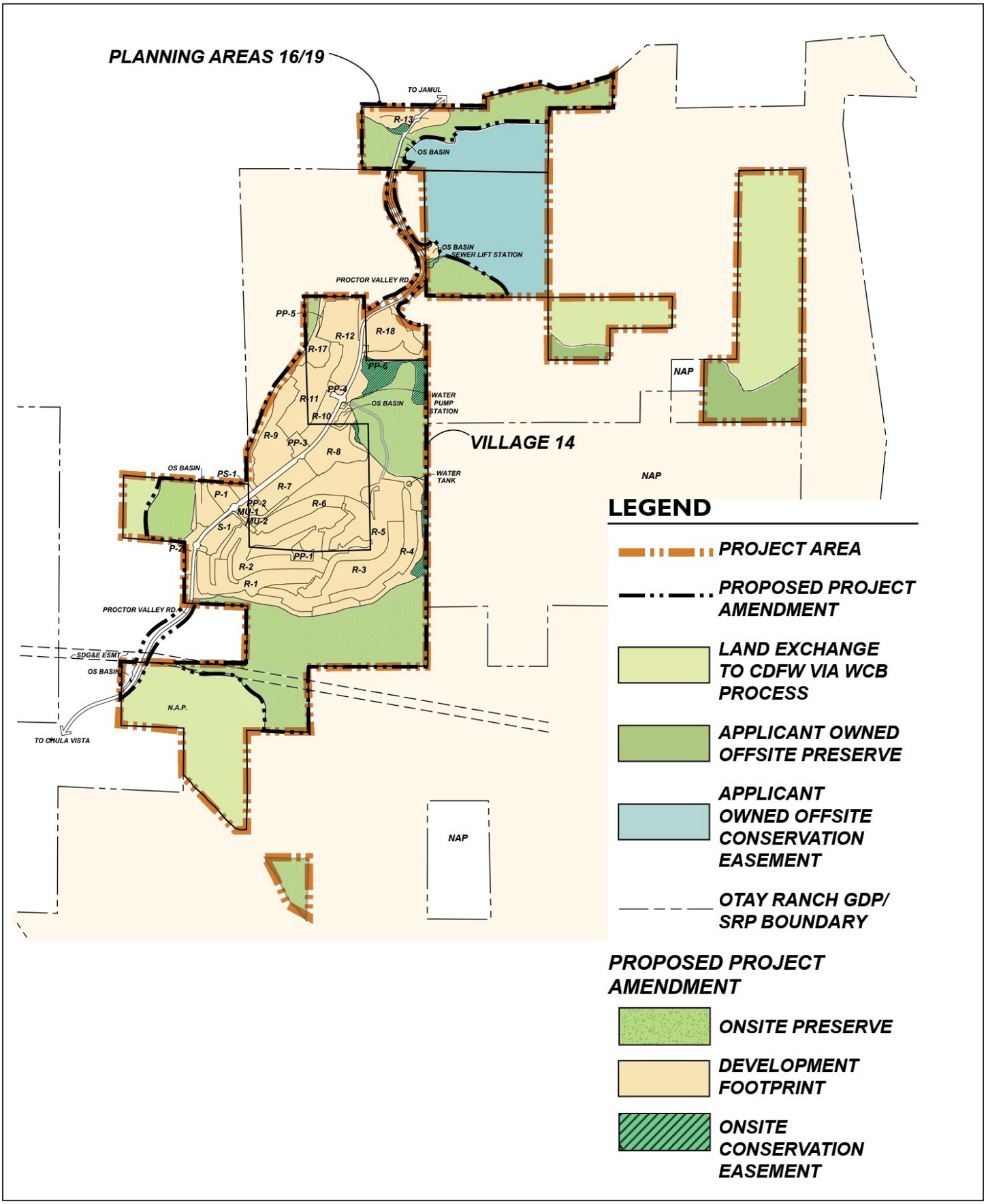
Notes: PA = Planning Area.
[1] Residential gross acres includes 2.1 acres of related internal slopes, fuel modification and/or preserve edge open space lots.
[2] Totals may not sum due to rounding

Proposed Project Amendment Relative to the Approved Project and the EIR Land Exchange Alternative.

The Final EIR evaluated both the Approved Project and the EIR Land Exchange Alternative at a project level of analysis. This Technical Memorandum examines whether the Final EIR, through its analysis of the Approved Project and the EIR Land Exchange Alternative, covered all anticipated impacts of the Proposed Project Amendment. Figure 5 depicts the limits of the development contemplated under the Approved Project, the EIR Land Exchange Alternative, and the Proposed Project Amendment. Table 4 provides a summary of the components for the Proposed Project Amendment, the Approved Project, and the EIR Land Exchange Alternative. Note that from a geographical perspective, each acre that comprises the Proposed Project Amendment's Development Footprint is located either within the Approved Project Development Footprint or within the EIR Land Exchange Alternative Development Footprint. In other words, no portion of the Proposed Project Amendment Development Footprint is outside the combined Approved Project and EIR Land Exchange Alternative Development Footprints.

Table 4. Proposed Project Amendment Comparison to Approved Project and EIR Land Exchange Alternative

Description	Proposed Project Amendment	Approved Project	EIR Land Exchange Alternative
Development Footprint (Acres)	579	809	658
Project Area (Acres)	1,543	1,369	2,388
Off-Sites (Acres)	40	85	40
Units	1,266	1,119	1,530
Proctor Valley Rd.	Same	Same	Same



SOURCE: Hunsaker 2019

FIGURE 4

Project Area

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment

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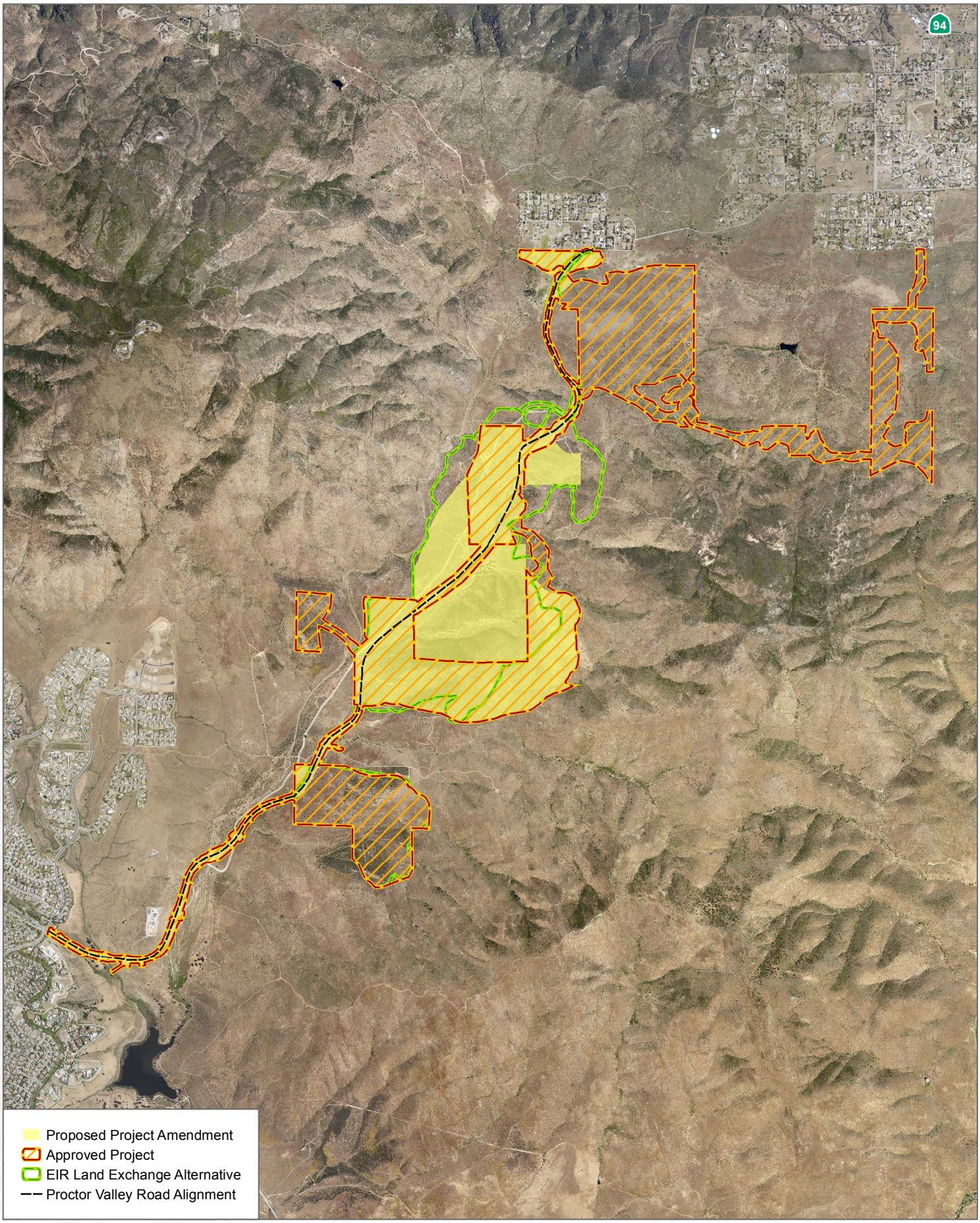


SOURCE: SANGIS 2017; Hunsaker 2019

DUDEK

0 1,450 2,900 Feet

FIGURE 5

Certified EIR Study Area

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment

Section 3. Certified Final Environmental Impact Report Findings Regarding Noise Impacts from Approved Project and Land Exchange Alternative

To provide the appropriate context for comparing the impacts of the Proposed Project Amendment with the impacts anticipated under the Approved Project, this section provides background of the Approved Project's Certified EIR findings as related to noise. Section 4 describes the impacts of the Proposed Project Amendment and compares them to the anticipated impacts of the Approved Project and the EIR Land Exchange Alternative.

The Final EIR assessed project-related noise with respect to four issues: (i) future traffic noise with respect to on-site receptors (e.g., proposed new residences), (ii) future traffic noise on existing off-site receptors, (iii) non-transportation (i.e., stationary heating, ventilation and air conditioning [HVAC] equipment) noise on proposed new residences, and (iv) construction-related noise and vibration. Summarized below are the Final EIR's findings with respect to each of these impact categories.

Section 3.1 Traffic Noise Impacts to On-Site Receptors

For on-site receptors, the primary existing noise source within the Approved Project Area is vehicular traffic from Proctor Valley Road. Proctor Valley Road is currently a two-lane, unimproved, dirt roadway with an average daily traffic volume of approximately 200 average daily trips between the City of Chula Vista eastern boundary and the community of Jamul. The Final EIR determined that by the year 2030, the Approved Project, plus cumulative development in the County, would cause an increase in traffic volumes along Proctor Valley Road between the City of Chula Vista eastern boundary and the community of Jamul. This increase, both at the project-level and cumulative levels, would cause traffic-related noise to increase as well.

The Final EIR determined that the future traffic noise for the Approved Project would exceed the County noise standard of 60 decibels (dB) Community Noise Equivalent Level (CNEL) at the outdoor living areas of 20 new on-site single-family lots adjacent to Proctor Valley Road. The EIR Land Exchange Alternative would have similar impacts. The Final EIR identified these impacts as significant. To mitigate the impacts, the Final EIR recommended 6-foot-high noise barriers where needed to bring traffic noise levels under both project scenarios to below the County's 60 dB CNEL exterior noise criterion.

As to on-site interior noise, both the Approved Project and the EIR Land Exchange Alternative would result in noise levels in excess of 60 dB CNEL at the second-floor level of the single-family residential lots directly adjacent to Proctor Valley Road, thereby exceeding the County's 45 dB CNEL interior noise criterion. This is considered a significant impact absent mitigation. Therefore, prior to issuance of building permits, an interior noise study will be required for residential units adjacent to Proctor Valley Road to ensure that the interior CNEL will not exceed 45 dB. The residences would most likely need to have closed windows and doors as part of a sufficiently sound-insulating building envelope, which would correspondingly require air-conditioning and/or mechanical ventilation (i.e., HVAC) systems in lieu of natural ventilation means to meet the County's interior noise standard. Sound-rated windows may also be required as features of these properly designed building envelopes. The Final EIR determined that this mitigation will reduce interior noise impacts to a less-than-significant level.

Section 3.2 Traffic Noise Impacts to Existing Off-Site Receptor

With respect to noise increment increases at existing off-site receptors, the County's CEQA guidelines define a potentially significant noise impact as a 10 A-weighted decibel (dBA) CNEL increase over existing conditions. The Final EIR determined that under the Approved Project and the EIR Land Exchange Alternative, only one off-site location – M8/R14 – would experience a noise increase of more than 10 dB by year 2030, although much of the increase is from anticipated growth in ambient (i.e., non-project) traffic. The Final EIR identified this as a significant impact and then recommended mitigation measure **M-N-3** to reduce the impact. However, the Final EIR concluded that, even with mitigation, the impact would remain significant and unavoidable.

Section 3.3 On-Site Noise from Non-Traffic Sources

The Final EIR found that noise from on-site operational activities (non-traffic related) could be a potentially significant impact. The Approved Project's operational noise sources would include air-conditioning units at each of the residential land uses. The impact of noise from HVAC equipment or other noise-generating on-site equipment under the Approved Project is considered a potentially significant impact. The Final EIR then recommended mitigation measures (i.e., preparation of an acoustical study or studies of the proposed stationary noise sources ensuring compliance with applicable standards prior to the issuance of building permits) to reduce potential impacts to a level below significance.

Section 3.4 Construction-Related Noise and Vibration

The Final EIR determined that both the Approved Project and the EIR Land Exchange Alternative would generate noise from on-site rock drilling, blasting, and rock crushing activities associated with construction, and that such noise was potentially significant with respect to County of San Diego thresholds (e.g., exceeding 82 dBA maximum noise level [L_{max}]). The Final EIR then recommended mitigation measures to reduce potential effects to a level below significance. Construction noise, associated with improvement of Proctor Valley Road and on-site construction activities, would result in potentially significant impacts at adjacent, occupied residences. Mitigation measures in the forms of a requirement to prepare and implement a blasting and monitoring plan and a requirement of minimum setbacks to reduce these potential effects to a level below significance are provided.

Under the County's guidelines, vibration from construction activities, if they occur within 200 feet of on-site residences, has the potential to result in vibration levels considered potentially significant. The Final EIR found both projects would involve construction activities that would result in vibrations perceptible to persons within certain residential structures, thus resulting in a potentially significant impact. To address this impact, the Final EIR's recommended mitigation measures require the applicant to prepare and implement a vibration-monitoring program. This will reduce the impact to a level below significance.

Section 4. Proposed Project Amendment Noise Impacts as Compared to the Approved Project and the EIR Land Exchange Alternative

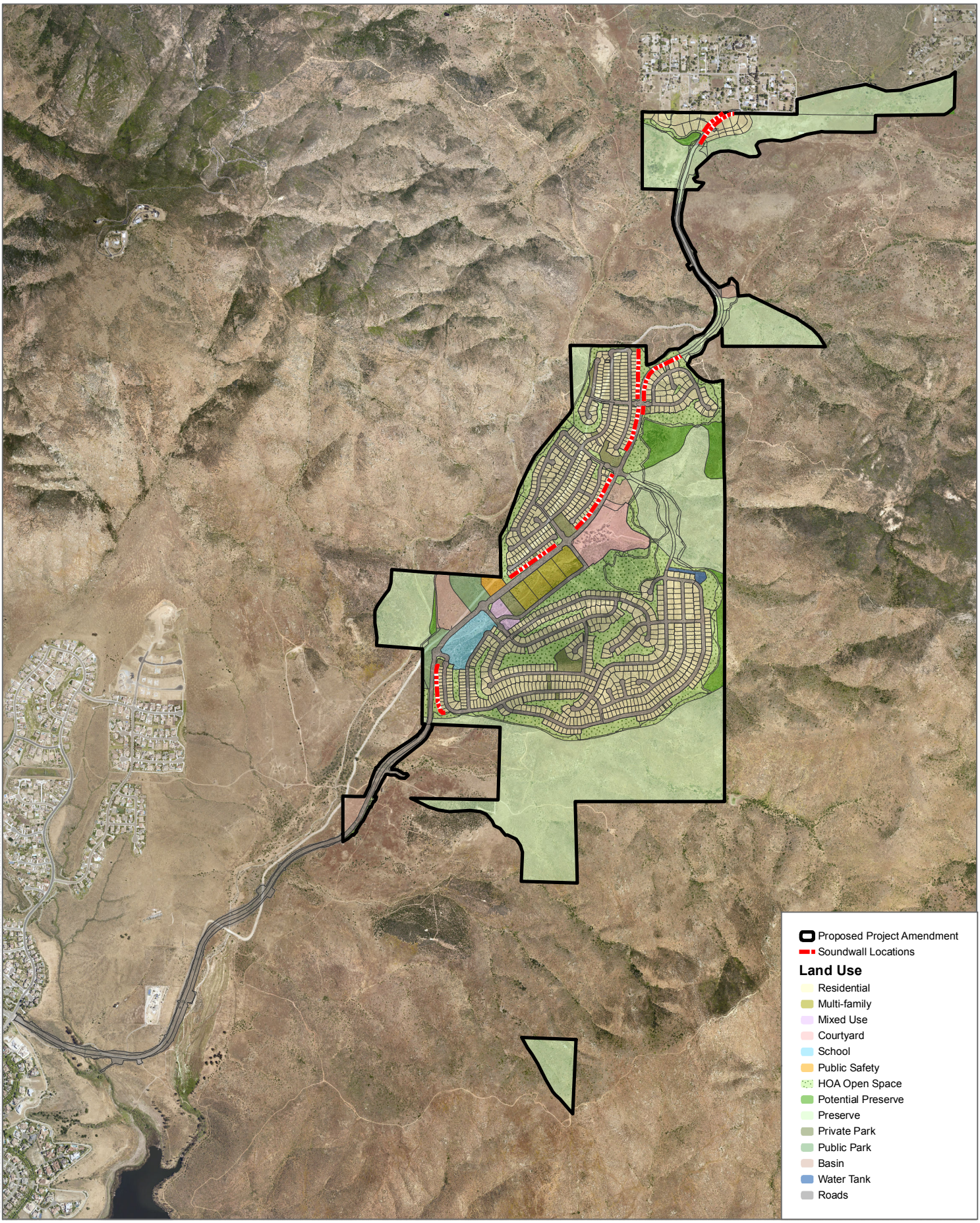
This section assesses potential noise impacts of the Proposed Project Amendment and how they may differ in type or intensity from those of the Approved Project and/or the EIR Land Exchange Alternative. As with the analysis above, this assessment examines the Proposed Project Amendment with respect to four noise impact categories: (i) future traffic noise with respect to on-site receptors (e.g., proposed new residences), (ii) future traffic noise on existing off-site receptors, (iii) non-transportation (i.e., stationary HVAC equipment) noise on proposed new residences, and (iv) construction-related noise and vibration.

Section 4.1 Traffic Noise Impacts to On-Site Receptors

As with the Approved Project and the EIR Land Exchange Alternative, the primary noise source for the Proposed Project Amendment would be traffic along Proctor Valley Road. In some cases, traffic noise from Proctor Valley Road, as received at the exteriors of new on-site residences, would exceed the County's 60 dBA CNEL threshold. Figure 6 shows where these potential traffic noise impacts to on-site noise sensitive land uses are expected to occur at the Proposed Project Amendment site. Sound wall extents (per **M-N-1**) would be required to reduce the identified noise impacts to a less-than-significant level at the following locations:

- Single-family homes along the western edge of planning area R-1. The proposed sound wall for this impact will be installed at the same location presented in Figure 2.8-4 of the Approved Project Final EIR for the comparable vicinity proximate to Proctor Valley Road, which the Approved Project Final EIR analyzed as modeled receptors R23, R24, and R25, as appearing in Figure 2.8-3 (see Attachment A).
- Single-family homes along the eastern edges of planning areas R-9 and R-10. The proposed sound walls for this impact will be installed at the same locations presented in Figure 7 of the Land Exchange Alternative Acoustical Analysis Report for the comparable vicinity proximate to Proctor Valley Road, which the Land Exchange Alternative Acoustical Analysis Report studied as modeled receptors R38, R39, R40, R41, R42, and R43, as appearing in Figure 6 of that report (see Attachment B).
- Single-family homes along the eastern edges of planning areas R-12 and R-17. The proposed sound walls for this impact will be installed at the same locations presented in Figure 2.8-4 of the Approved Project Final EIR for the comparable vicinity proximate to Proctor Valley Road, which the Approved Project Final EIR analyzed as modeled receptors R36, R37, R38, R39, R40, R41, R42, and R43, as appearing in Figure 2.8-3 (see Attachment A).
- Single-family homes along the western edge of planning area R-18. The proposed sound wall for this predicted impact will be installed, as depicted in Figure 6, along the shared western-to-northern boundaries of 11 lots that adjoin the segment of Proctor Valley Road as it gradually curves in direction from north to northeast. The predicted traffic noise level at these sensitive on-site receptors, on the basis of comparable proximity to Proctor Valley Road, would be similar to that predicted by the Approved Project Final EIR for modeled receptors R38 and R39, as appearing in its Figure 2.8-3 (see Attachment A).
- Single-family homes with lots that adjoin the northern and southern sides of the Proctor Valley Road segment that bisects planning area R-13. The proposed sound wall for this impact will be installed at the location presented in Figure 2.8-4 of the Approved Project Final EIR for the comparable vicinity proximate to Proctor Valley Road, which the Approved Project Final EIR analyzed as modeled receptors R51, R52, R53, R54, R55, and R56, as appearing in Figure 2.8-3 (see Attachment A).

Because these above-mentioned areas of the Proposed Project Amendment containing noise-sensitive receivers are essentially identical to the indicated portions or areas from the Approved Project or the EIR Land Exchange Alternative, they would be expected to have the same predicted traffic noise level exposures as analyzed in these preceding noise studies, and correspondingly the same traffic noise mitigation needs.



SOURCE: SANGIS 2017; Hunsaker 2019

DUDEK

0 1,100 2,200 Feet

FIGURE 6

Soundwall Locations

Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment

In addition to showing the anticipated sound wall locations, Figure 6 also depicts the expected residential lot sizes and locations with respect to Proctor Valley Road, and, in a manner similar to the previous project studies, would thus represent the geographical considerations for development of a Noise Restriction Easement consistent with Approved Project Final EIR mitigation measure **M-N-2** and **M-N-2** from the Land Exchange Alternative Acoustical Analysis Report.

Section 4.2 Traffic Noise Impacts to Existing Off-Site Receptor

As shown in Tables 5 and 6, the Proposed Project Amendment's average daily trips are greater than those of the Approved Project, but only by 1.5%, and are less than those of the EIR Land Exchange Alternative. The Final EIR determined that under the Approved Project, traffic noise would create significant impacts at only one of the studied noise-sensitive receptor locations—M8/R14 in the area of Echo Valley—where the noise is expected to increase by more than 10 dB. All other impacts were found to be less than significant—either due to future traffic noise levels staying at or below City of Chula Vista (65 dBA CNEL) or County of San Diego (60 dBA CNEL) noise level thresholds, or by not causing an increase in traffic noise level that would be considered significant. Since a change in traffic volumes (assuming roadway speeds and vehicle type proportions are essentially the same) results in a dB change related to 10 times the base-10 logarithm of the volume difference ratio, the difference between predicted off-site traffic noise levels for the Proposed Project Amendment and the Approved Project would be less than 1 dB on the basis of the following expression: 10*LOG(12969/12767) = 0.07 dB. A sub-decibel difference would not be expected to yield impact significance findings that are different from those disclosed in Table 2.8-12 of the Approved Project Final EIR or Table 12 of the EIR Land Exchange Alternative Acoustical Analysis Report. This means that, when compared with the Approved Project and the EIR Land Exchange Alternative, the Proposed Project Alternative would not result in new significant traffic noise impacts to existing off-site receptors. However, similar to the other two project scenarios, the Proposed Project Amendment would still result in a significant unavoidable noise impact at receptor site M8/R14 (**Impact N-3**).

Table 5. Proposed Project Amendment Average Daily Trips

Land Use	Units	Type	Trip Rate	ADT
Estate	13	DU	12/DU	156
Single Family Residential	1,103	DU	10/DU	11,030
Multi-Family Residential	150	DU	8/DU	1,200
Mixed Use Commercial	10	KSF	110/KSF	1,100
Elementary School	9.9	Acre	90/Acre	891
Neighborhood Park	10,2	Acre	5/Acre	51
Community Purpose Facility	9.5	Acre	30/Acre	285
Fire Station	3	Staff	5.3/Staff	16
			Sub-Total	14,729
			Internal Capture @ 12%	-1,767
			Total	12,962

Note: ADT = average daily trips, DU = dwelling unit, KSF = thousand square feet.

Table 6. Proposed Project Amendment Average Daily Trips Compared to Approved Project and Land Exchange Alternative Average Daily Trips

Land Use	Trip Rate	Average Daily Trips		
		Proposed Project Amendment	Approved Project	EIR Land Exchange Alternative
Estate	12/DU	156	1,500	11,240
Single Family Residential	10/DU	11,030	9,940	270
Multi-Family Residential	8/DU	1,200	0	552
Mixed Use Commercial	110/KSF	1,100	1,100	1,132
Retirement Community	4/DU	0	0	1,650
Elementary School	90/Acre	891	0	747
Neighborhood Park	5/Acre	55	76	67
Community Purpose Facility	30/Acre	285	135	168
Fire Station	5.3/Staff	16	16	16
Sub-Total		14,729	12,767	15,842
Internal Capture @ 12%		-1,767	0	-1,901
Total		12,962	12,767	13,941
Difference (with respect to Proposed Project Amendment)		–	(195)	955

Note: ADT = average daily trips, DU = dwelling unit, KSF = thousand square feet.

Section 4.3 On-Site Noise from Non-Traffic Sources

The potential for noise emission from stationary noise sources associated with development of the Proposed Project Amendment would be comparable to what has been discussed in the previous Final EIR acoustical studies, including Appendix 2-8 of the Final EIR for the Approved Project. These stationary sound sources would be expected to primarily include HVAC systems and would have noise levels subject to relevant noise ordinances and standards (**Impact N-4**). **M-N-3** would be applied in a manner comparable to what has previously been presented for the Approved Project.

Section 4.4 Construction-Related Noise and Vibration

Overall construction activities, both in terms of type of construction and amount of construction equipment, would be the same as the Approved Project and the corresponding analysis presented in the Approved Project Noise Technical Report and Final EIR. Overall grading and blasting quantities would be reduced as shown in Table 7. Further, the Proposed Project Amendment would eliminate development in Planning Area 16 and centralize development in Village 14; however, the same 13 residences would be constructed in Planning Area 19, which is the nearest on-site construction activity to off-site noise sensitive land uses.

Table 7. Estimated Grading and Blasting Quantities

Proposed Project Amendment		Approved Project		Land Exchange Alternative	
Acres Graded	Cubic Yards	Acres Graded	Cubic Yards	Acres Graded	Cubic Yards
Grading Quantities					
522.7	8,943,005	599.3	8,948,734	583.8	8,614,000
Blasting Quantities					
	1,729,498		2,298,117		1,803,516

Proctor Valley Road Construction Noise Impacts to Off-Site Residences

Similar to the Approved Project and the EIR Land Exchange Alternative, the Proposed Project Amendment would involve construction of improvements to Proctor Valley Road proximate to the communities near Echo Valley Road in Jamul and Northwoods Drive/Agua Vista Drive in the City of Chula Vista, thus creating the potential for significant noise impacts that would be comparable to what has been previously studied in the Final EIR (**Impacts N-5** and **N-6**). This impact would be the same under all three development scenarios.

Proctor Valley Road Construction Noise Impacts to On-Site Residences

Since the Proposed Project Amendment would be expected to involve development of areas comparable to those studied in the Final EIR Acoustical Analysis Reports for the Approved Project and the EIR Land Exchange Alternative, the potential for significant noise impact would be comparable to what has been previously studied (**Impacts N-7** and **N-8**).

Proctor Valley Road Construction Impulsive Noise

Similar to the Approved Project, the Proposed Project Amendment would involve rock blasting for the construction of Proctor Valley Road improvements, which would occur as close as 140 feet south of residences in the north end of the Project Area. Therefore, the potential for significant noise impact due to rock blasting would be comparable to what has been previously studied in the Final EIR (**Impact N-9**).

Proctor Valley Road Construction-Related Rock Crushing

The improvements to Proctor Valley Road may also require portable rock crushing as close as 140 feet south of residences. This impact was identified in the Final EIR and would occur under all three development scenarios. Therefore, the potential for significant noise impact due to rock crushing would be comparable to what has been previously studied (**Impact N-10**).

Proctor Valley Road Construction-related Ground-borne Vibration

Since the Proposed Project Amendment—similar to the Approved Project and the EIR Land Exchange Alternative—would involve conventional construction activities and rock blasting for Proctor Valley Road and occur as close as 140 feet south of residences, the potential for significant vibration impacts would be comparable to what has been previously studied (**Impacts N-11**, **N-12**, and **N-13**).

Section 5.Final EIR Mitigation Measures and Project Design Features

Table 8 summarizes the project design features and mitigation measures from the prior noise technical studies and identifies those measures that would apply to the Proposed Project Amendment. Consistent with the Approved Project and the Land Exchange Alternative, Impact N-3 remains a significant and unavoidable impact.

Table 8. Project Design Features and Mitigation Measures

Approved Project Impact and PDF or Mitigation Measure	EIR Land Exchange Alternative Impact and PDF or Mitigation Measure	Proposed Project Amendment Impact and PDF or Mitigation Measure	Explanation
Impact N-1. The traffic noise modeling results indicate that Future Plus Project traffic noise levels would exceed the County of San Diego's exterior noise standard of 60 dBA CNEL along some of the outdoor residential living areas located near Proctor Valley Road. **M-N-1.** The single-family residential lots shown in Figure 2.8-4 with rear- or side-yard exposures adjacent to Proctor Valley Road shall include minimum 6-foot-high solid noise barriers along the exposure. The noise barriers may be constructed as a wall or berm, or a combination of both. The materials used in construction of the barrier shall have a minimum surface density of 4 pounds per square foot. They may consist of masonry material, 0.625-inch-thick Plexiglas, 0.25-inch-thick plate glass, or a combination of these materials. The barriers must be designed so there are no openings or cracks.	Existing and future Proctor Valley Road vehicle noise levels at all identified outdoor living areas of the Land Exchange Alternative residential units would comply with the County's 60 CNEL exterior noise criterion, provided that the Land Exchange Alternative Mitigation Measure **M-N-1** (construction of 6-foot-high, solid walls at single-family residential units adjacent to Proctor Valley Road (see Figure 7 for locations) is implemented. Thus, vehicle noise impacts to on-site residences would be less than significant.	In order to keep Future Plus Project traffic noise levels below the County of San Diego exterior noise standard of 60 dBA CNEL along some of the outdoor residential living areas located near Proctor Valley Road, the Proposed Project Amendment would require sound wall extents shown in Figure 6.	Predicted traffic noise levels for the Proposed Project Amendment along segments of Proctor Valley Road would be comparable to those studied for comparable portions of the Approved Project and Land Exchange Alternative.
Impact N-2. The Proposed Project's second-floor exterior noise levels would range from 55 to 69 dBA CNEL at proposed residential lots, which implies that interior noise levels at second-floor elevations would range from approximately 40 to 54 dBA CNEL. Therefore, the interior noise level for habitable spaces potentially would exceed the County of San Diego's 45 dBA CNEL interior noise criterion. **M-N-2**. Prior to issuance of building permits (and after preparation of detailed building plans) for proposed single-family residential units directly adjacent to Proctor Valley Road, as shown in Figure 2.8-4, the building permit applicant or its designee shall demonstrate that interior noise levels will not exceed the applicable County of San Diego noise ordinance standard of 45 dBA CNEL for the	The noise levels at the second-floor level of proposed residences directly adjacent to Proctor Valley Road could potentially exceed 60 dB CNEL. Thus, without mitigation, the interior noise levels could exceed the County's 45 dB CNEL interior noise criterion. Prior to issuance of building permits, an interior noise study would be required for the residences directly adjacent to Proctor Valley Road to ensure that the interior CNEL would not	The noise levels at the second-floor level of proposed residences directly adjacent to Proctor Valley Road could potentially exceed 60 dB CNEL. Thus, without mitigation, the interior noise levels could exceed the County's 45 dB CNEL interior noise criterion. Prior to issuance of building permits, an interior noise study would be required for the residences directly adjacent to Proctor Valley Road to ensure that the	Predicted traffic noise levels for the Proposed Project Amendment along segments of Proctor Valley Road would be comparable to those studied for comparable portions of the Approved Project and Land Exchange Alternative.

Table 8. Project Design Features and Mitigation Measures

Approved Project Impact and PDF or Mitigation Measure	EIR Land Exchange Alternative Impact and PDF or Mitigation Measure	Proposed Project Amendment Impact and PDF or Mitigation Measure	Explanation
subject land use. In addition to the installation of sound walls that shall be constructed under mitigation measure M-N-1, it is anticipated that compliance with the applicable standard shall be achieved by structure setbacks, acoustically rated windows and doors, and/or air conditioning or equivalent forced air circulation to allow occupancy with closed windows, which, for most construction, would provide sufficient exterior-to-interior noise reduction. A supplemental acoustical study shall be prepared to demonstrate and verify that interior noise levels will be below 45 dBA CNEL within habitable residential rooms.	exceed 45 dB (mitigation measure **M-N-2**). The residences would most likely require air-conditioning and/or mechanical ventilation systems to meet the County's interior noise standard. Sound-rated windows may also be required. Thus, impacts would be considered less than significant with mitigation incorporated.	interior CNEL would not exceed 45 dB (mitigation measure **M-N-2**). The residences would most likely require air-conditioning and/or mechanical ventilation systems to meet the County's interior noise standard. Sound-rated windows may also be required. Thus, impacts would be considered less than significant with mitigation incorporated.	
Impact N-3. Roadway noise attributable to the Proposed Project would result in a substantial noise increase (more than 10 dBA) at residential receiver M8/R14, located north of the Proposed Project along Proctor Valley Road and west of Melody Road. **No feasible mitigation measures exist to reduce identified impacts below a level of significance.**	Land Exchange Alternative-related traffic noise impacts at existing off-site NSLU would be less than significant, with the exception of one location. At residences located along Proctor Valley Road north of the Land Exchange Alternative and west of Melody Road, a significant increase in traffic noise along this roadway segment would occur compared to existing traffic noise levels, because Proctor Valley Road currently experiences very low traffic volumes. **Because there is no feasible mitigation for this exceedance, this impact is**	Roadway noise attributable to the Proposed Project would result in a substantial noise increase (more than 10 dBA) at residential receiver M8/R14, located north of the Proposed Project along Proctor Valley Road and west of Melody Road. **No feasible mitigation measures exist to reduce identified impacts below a level of significance**.	The Proposed Project Amendment would not substantially change the predicted significant traffic noise increase at the M8/R14 location (i.e., residences along Proctor Valley Road north of the project and west of Melody Road) shared by the Approved Project and the Land Exchange Alternative.

Table 8. Project Design Features and Mitigation Measures

Approved Project Impact and PDF or Mitigation Measure	EIR Land Exchange Alternative Impact and PDF or Mitigation Measure	Proposed Project Amendment Impact and PDF or Mitigation Measure	Explanation
	considered significant and unavoidable.		
Impact N-4. Noise levels attributed to unshielded HVAC mechanical systems could exceed the County of San Diego's daytime property line noise limit for occupied noise-sensitive land uses (NSLUs) (50 dBA L_{eq}) within 250 feet of the source. In addition, sources within 450 feet of an occupied NSLU property line could exceed the County's nighttime noise limit (45 dBA L_{eq}) for stationary-source noise. **M-N-3**. Prior to the issuance of any building permit for stationary noise-generating equipment such as heating, ventilation, and air conditioning (HVAC) systems, the Proposed Project applicant or its designee shall prepare a supplemental acoustical study of the proposed stationary noise sources associated with the HVAC systems for submittal to the County of San Diego (County) for review and approval. Best engineering practices shall be implemented, and the placement of noise-generating equipment and shielding shall be considered when installing stationary noise sources associated with HVAC systems. The acoustical study shall identify noise-generating equipment and predict noise levels from identified equipment at the applicable property lines. Where predicted noise levels would exceed those levels deemed acceptable as established by the County's Noise Ordinance, Section 36.404, the acoustical study shall identify mitigation measures shown to effectively reduce noise levels (e.g., enclosures, barriers, site orientation) to comply with Section 36.404. Such mitigation measures shall be implemented by the applicant or its designee prior to issuance of any building permits.	The Land Exchange Alternative's operational noise sources would include air-conditioning units at each of the single-family and multifamily homes. Noise from HVAC equipment at the Land Exchange Alternative is considered a potentially significant impact. Mitigation measure M-N-3 is provided to reduce potential impacts to less than significant.	The Proposed Project Amendment's operational noise sources would include air-conditioning units at each of the single-family and multifamily homes. Noise from HVAC equipment at the Land Exchange Alternative is considered a potentially significant impact. Mitigation measure **M-N-3** is provided to reduce potential impacts to less than significant.	The Proposed Project Amendment would not substantially change the planning area types and residential dwelling unit densities from what is described in appropriate portions of the Approved Project and Land Exchange Alternative that compose the Proposed Project Amendment; hence, the opportunity for noise emission from unshielded HVAC mechanical systems would be comparable and require comparable mitigation to keep potential impacts less than significant.

Table 8. Project Design Features and Mitigation Measures

Approved Project Impact and PDF or Mitigation Measure	EIR Land Exchange Alternative Impact and PDF or Mitigation Measure	Proposed Project Amendment Impact and PDF or Mitigation Measure	Explanation
Impact N-5. Construction activities associated with Proctor Valley Road improvements could result in exceedances of the County of San Diego's 75 dBA L_{eq}(8-hr) noise standard at the nearest existing noise-sensitive land uses in Jamul (County of San Diego). **M-N-4**. The Proposed Project applicant or its designee shall take those steps necessary to ensure that construction equipment is properly maintained and equipped with noise-reduction intake, exhaust mufflers, and engine shrouds in accordance with manufacturer recommendations. Equipment engine shrouds shall be closed during equipment operation. **M-N-5**. The Proposed Project applicant or its designee shall take those steps necessary to ensure that, whenever feasible, electrical power shall be used to run air compressors and similar power tools. **M-N-6**. The Proposed Project applicant or its designee shall take those steps necessary to ensure that equipment staging areas are located as far as feasible from occupied residences and schools. **M-N-7**. The Proposed Project applicant or its designee shall take those steps necessary to ensure that for construction activities on and off the Project Area, noise attenuation techniques are employed to ensure that noise levels remain below 75 dBA L_{eq} at existing noise-sensitive land uses. Such techniques shall include use of sound blankets on noise-generating equipment and construction of temporary sound barriers adjacent to construction sites near affected uses to achieve noise levels below 75 dBA L_{eq}.	Construction noise associated with improvements of Proctor Valley Road, as well as on-site construction noise at adjacent, occupied residences are considered potentially significant impacts. Mitigation measures **M-N-4** through **M-N-7** are provided to reduce potential impacts to less than significant.	Construction noise associated with improvements of Proctor Valley Road, as well as on-site construction noise at adjacent, occupied residences are considered potentially significant impacts. Mitigation measures **M-N-4** through **M-N-7** are provided to reduce potential impacts to less than significant.	Anticipated construction noise for the Proposed Project Amendment would be comparable to appropriate portions of the Approved Project and the Land Exchange Alternative.
Impact N-6. Construction activities associated with Proctor Valley Road improvements would exceed ambient	Construction noise associated with improvements of Proctor	Mitigation measures **M-N-4** through **M-N-7** are provided to	Anticipated construction noise for the Proposed Project

Table 8. Project Design Features and Mitigation Measures

Approved Project Impact and PDF or Mitigation Measure	EIR Land Exchange Alternative Impact and PDF or Mitigation Measure	Proposed Project Amendment Impact and PDF or Mitigation Measure	Explanation
existing noise levels at the nearest existing noise-sensitive land uses in the City of Chula Vista. See **M-N-4**, **M-N-5**, **M-N-6**, and **M-N-7** above.	Valley Road, as well as on-site construction noise at adjacent, occupied residences are considered potentially significant impacts. Mitigation measures **M-N-4** through **M-N-7** are provided to reduce potential impacts to less than significant.	reduce potential impacts to less than significant.	Amendment would be comparable to appropriate portions of the Approved Project and the Land Exchange Alternative.
Impact N-7. Construction activities associated with Proctor Valley Road in Village 14 could result in exceedances of the County of San Diego's 75 dBA Leq(8-hr) noise standard at adjacent on-site residences. See **M-N-4**, **M-N-5**, **M-N-6**, and **M-N-7** above.	Construction noise associated with improvements of Proctor Valley Road, as well as on-site construction noise at adjacent, occupied residences are considered potentially significant impacts. Mitigation measures **M-N-4** through **M-N-7** are provided to reduce potential impacts to less than significant.	Mitigation measures **M-N-4** through **M-N-7** are provided to reduce potential impacts to less than significant.	Anticipated construction noise for the Proposed Project Amendment would be comparable to appropriate portions of the Approved Project and the Land Exchange Alternative.
Impact N-8. Construction activities associated with Proctor Valley Road in Planning Areas 16/19 could result in exceedances of the County of San Diego's 75 dBA Leq (8-hr) noise standard for adjacent existing residences. See **M-N-4**, **M-N-5**, **M-N-6**, and **M-N-7** above.	Construction noise associated with improvements of Proctor Valley Road, as well as on-site construction noise at adjacent, occupied residences are considered potentially significant impacts. Mitigation measures **M-N-4** through **M-N-7** are provided to reduce potential impacts to less than significant.	Mitigation measures **M-N-4** through **M-N-7** are provided to reduce potential impacts to less than significant.	Anticipated construction noise for the Proposed Project Amendment would be comparable to appropriate portions of the Approved Project and the Land Exchange Alternative.
Impact N-9. Based on a preliminary estimate of the nearest potential areas where rock blasting may be necessary within approximately 140 feet of existing residences, a maximum noise level of up to 89 dBA L_{max}	Construction noise associated with improvements of Proctor Valley Road, as well as on-site construction noise at adjacent,	Mitigation measures **M-N-4** through **M-N-7** are provided to reduce potential impacts to less than significant.	Anticipated construction noise for the Proposed Project Amendment would be comparable to appropriate

Table 8. Project Design Features and Mitigation Measures

Approved Project Impact and PDF or Mitigation Measure	EIR Land Exchange Alternative Impact and PDF or Mitigation Measure	Proposed Project Amendment Impact and PDF or Mitigation Measure	Explanation
from the rock drilling and up to 85 dBA L_{max} from the blasting could occur. These levels would exceed County of San Diego's threshold of significance for impulsive sounds at residential land uses of 82 dBA L_{max}. See **M-N-4**, **M-N-5**, **M-N-6**, and **M-N-7** above.	occupied residences are considered potentially significant impacts. Mitigation measures **M-N-4** through **M-N-7** are provided to reduce potential impacts to less than significant.		portions of the Approved Project and the Land Exchange Alternative.
Impact N-10. The closest existing off-site residence property line (Planning Areas 16/19) or noise-sensitive land use could be located within approximately 140 feet of the proposed rock crushing. At this distance, the noise level (both 8-hour average and impulsive noise) associated with the rock-crushing activities would be approximately 77 dBA L_{eq} and approximately 85 dBA L_{max}. These noise levels would exceed County of San Diego's 8-hour construction noise and impulsive noise thresholds. **M-N-9**. Prior to approval of the grading permit for any portion of the Proposed Project, the Proposed Project applicant or its designee shall take those steps necessary to ensure that on-site rock-crushing facilities are located a minimum of 250 feet from the property line of occupied residences or other noise-sensitive uses.	Construction noise associated with improvements of Proctor Valley Road, as well as on-site construction noise at adjacent, occupied residences are considered potentially significant impacts. Mitigation measures **M-N-4** through **M-N-7** are provided to reduce potential impacts to less than significant.	Mitigation measure **M-N-9** is provided to reduce potential impacts to less than significant.	Anticipated construction noise for the Proposed Project Amendment would be comparable to appropriate portions of the Approved Project and the Land Exchange Alternative.
Impact N-11. The nearest sensitive receptors to Proposed Project construction activities that could produce high vibration levels would be at residences to the north and west of off-site Proctor Valley Road improvements in Jamul and the City of Chula Vista, located approximately 60 feet and 140 feet away. At a distance of 60 feet and greater, vibration levels from grading activities are anticipated to exceed 0.004 inches per second root mean square or 0.1 inches per second peak particle velocity at the nearest off-site residences.	The nearest sensitive receptors to Land Exchange Area's construction activities that could produce high vibration levels would be at the same residences to the north and west of off-site Proctor Valley Road improvements in Jamul and Chula Vista, identified as part of the construction noise impact assessment (see Section	Mitigation measure **M-N-10** would be provided to reduce potential impacts to less than significant levels.	Anticipated construction vibration for the Proposed Project Amendment would be comparable to appropriate portions of the Approved Project and the Land Exchange Alternative.

Table 8. Project Design Features and Mitigation Measures

Approved Project Impact and PDF or Mitigation Measure	EIR Land Exchange Alternative Impact and PDF or Mitigation Measure	Proposed Project Amendment Impact and PDF or Mitigation Measure	Explanation
M-N-10. Prior to beginning construction of any Proposed Project component within 300 feet of an existing or future occupied residence, the Proposed Project applicant or its designee shall require preparation of a Vibration Monitoring Plan (VMP) for submittal to the County of San Diego (County) noise control officer for review and approval. At a minimum, the VMP shall require data to be sent to the County noise control officer or designee on a weekly basis or more frequently as determined by the noise control officer. The data shall include vibration-level measurements taken during the previous work period. In the event that the County noise control officer determines there is reasonable probability that future measured vibration levels would exceed allowable limits, the County noise control officer or designee shall take the necessary steps to ensure that future vibration levels do not exceed such limits, including suspending further construction activities that could result in excessive vibration levels, until either alternative equipment or alternative construction procedures can be used that generate vibration levels that do not exceed 0.004 inches per second root mean square (RMS) or 0.1 inches per second peak particle velocity (PPV) at the nearest residential structure. Construction activities not associated with vibration generation could continue. The VMP shall be prepared and administered by a County-approved noise consultant. In addition to the data described previously, the VMP shall include the location of vibration monitors, the vibration instrumentation used, a data acquisition and retention plan, and exceedance notification and reporting procedures.	8.2.1), located approximately 200 feet and 220 feet away, respectively. Therefore, at a distance of 200 feet and greater, vibration levels from grading activities are not anticipated to exceed 0.004 inches per second RMS or 0.1 inches per second PPV at the nearest off-site residences. This impact would be less than significant.		

Table 8. Project Design Features and Mitigation Measures

Approved Project Impact and PDF or Mitigation Measure	EIR Land Exchange Alternative Impact and PDF or Mitigation Measure	Proposed Project Amendment Impact and PDF or Mitigation Measure	Explanation
Impact N-12. The occupied Proposed Project phases have the potential to be impacted by vibration from ongoing construction activities. Location-specific phasing schedules are not available at this time; it is, therefore, possible that construction of a new phase of the Proposed Project could take place as near as 50 feet from an occupied phase. In such an instance, short-term vibration levels as high as 0.03 inches per second root mean square (RMS) could result. Therefore, vibration levels from grading activities may exceed 0.004 inches per second RMS at the nearest on-site residence. See **M-N-10** above.	Because the development of the Land Exchange Alternative would be a multiyear endeavor, portions of the development would be completed and occupied during the construction of subsequent portions (phases). Therefore, the occupied Land Exchange Alternative phases have the potential to be impacted by vibration from on-going construction activities. Location-specific phasing schedules are not available at this time; it is therefore possible that construction of a new phase of the Land Exchange Alternative could take place as near as 50 feet of an occupied phase. In such an instance, short-term vibration levels as high as 0.03 inches per second RMS could result. Therefore, vibration levels may exceed 0.004 inches per second RMS from grading activities on and off site at the nearest on-site residence. This impact would be potentially significant. Mitigation measure M-N-10 would be applied.	Mitigation measure **M-N-10** would be provided to reduce potential impacts to less than significant levels.	Anticipated construction vibration for the Proposed Project Amendment would be comparable to appropriate portions of the Approved Project and the Land Exchange Alternative.

Table 8. Project Design Features and Mitigation Measures

Approved Project Impact and PDF or Mitigation Measure	EIR Land Exchange Alternative Impact and PDF or Mitigation Measure	Proposed Project Amendment Impact and PDF or Mitigation Measure	Explanation
Impact N-13. Because the exact blasting locations, necessary geotechnical data, and blasting and materials handling plans are not known at this time, it is not possible to conduct a noise analysis assessing the proposed blasting and materials handling associated with the Proposed Project. Therefore, for purposes of this analysis, impacts are considered potentially significant. **M-N-8**. Prior to approval of the grading permit issued for any portion of the Project Area, the Proposed Project applicant or its designee shall direct that the designated contractor prepare a blasting and monitoring plan with an estimate of noise and vibration levels of each blast at noise-sensitive land uses within 1,000 feet of each blast. Where potential exceedance of either the County of San Diego's (County) Noise Ordinance or the City of Chula Vista's Noise Control Ordinance is identified, the blast drilling and monitoring plan shall identify mitigation measures shown to effectively reduce noise and vibration levels (e.g., altering orientation of blast progression, increased delay between charge detonations, presplitting) to be implemented to comply with the noise level limits of the County's Noise Ordinance, Sections 36.409 and 36.410; the Chula Vista Noise Control Ordinance, Chapter 19.68; and the vibration-level limits of 1 inch per second peak particle velocity. Such measures shall be implemented by the Proposed Project applicant or its designee prior to the issuance of the grading permit. Additionally, Proposed Project phases involving blasting shall conform to the following requirements: Blasting activities shall be performed by a blast contractor and blasting personnel licensed to operate in the County.	Noise from blasting activities associated with the excavation and mass-grading phase of the Land Exchange Alternative is considered potentially significant, and mitigation measure M-N-8 is provided to reduce potential impacts to less than significant.	Mitigation measure **M-N-8** would be provided to reduce potential impacts to less than significant levels.	Anticipated potential blasting for the Proposed Project Amendment would be comparable to appropriate portions of the Approved Project and the Land Exchange Alternative.

Table 8. Project Design Features and Mitigation Measures

Approved Project Impact and PDF or Mitigation Measure	EIR Land Exchange Alternative Impact and PDF or Mitigation Measure	Proposed Project Amendment Impact and PDF or Mitigation Measure	Explanation
Each blast shall be monitored and recorded with an air-blast overpressure monitor and groundborne vibration accelerometer that is located outside the closest residence to the blast and is approved by the County. Blasting shall not exceed 0.1 inch per second peak particle velocity at the nearest occupied residence, in accordance with County of San Diego's Noise Guidelines, Section 4.3.			
Impact N-CUM-1. The Proposed Project's contribution to increases in noise levels at off-site noise-sensitive land uses could be cumulatively considerable due to construction noise. See **M-N-4**, **M-N-5**, **M-N-6**, and **M-N-7** above.	Mitigation measures **M-N-4** through **M-N-7** are provided to reduce potential impacts to less than significant.	Mitigation measures **M-N-4** through **M-N-7** are provided to reduce potential impacts to less than significant.	Anticipated construction noise for the Proposed Project Amendment would be comparable to appropriate portions of the Approved Project and the Land Exchange Alternative.

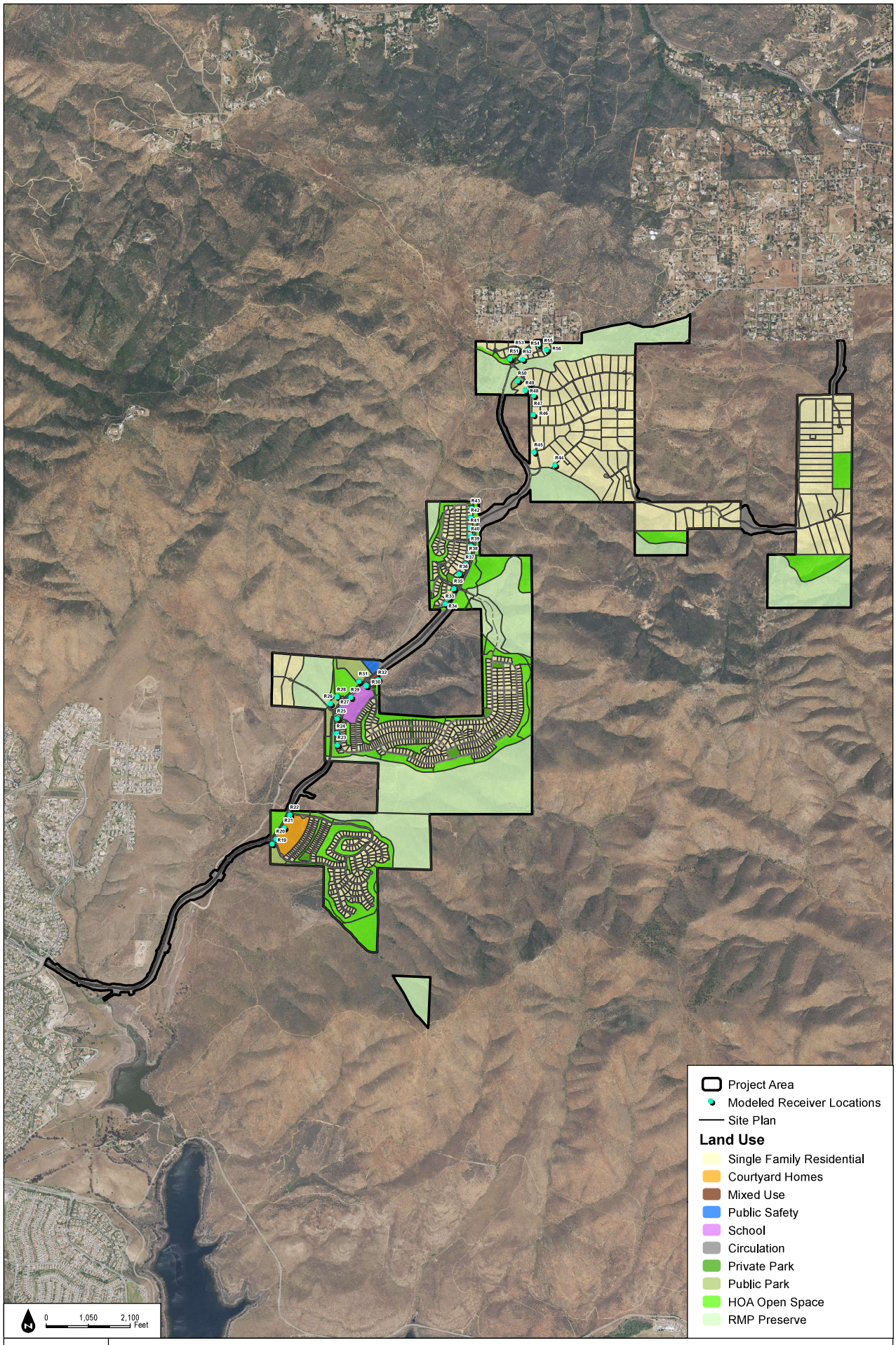
Note: PDF = project design feature, EIR = environmental impact report, HVAC = heating, ventilation, and air conditioning.

Section 6.Conclusion

Overall noise and vibration impacts would be similar under the Proposed Project Amendment when compared to the Approved Project as shown in Table 8. Accordingly, the same mitigation measures from the Approved Project Mitigation Monitoring and Reporting Program (MM-N-1 through MM-N-10) would be implemented under the Proposed Project Amendment. Because the Proposed Project Amendment would not result in any new significant noise and vibration impacts beyond those disclosed in the Approved Project's Certified EIR, no new mitigation measures beyond those included in the Approved Project's Mitigation Monitoring and Reporting Program are necessary.

Attachment A

Figures 2.8-3 and 2.8-4 from the Final EIR

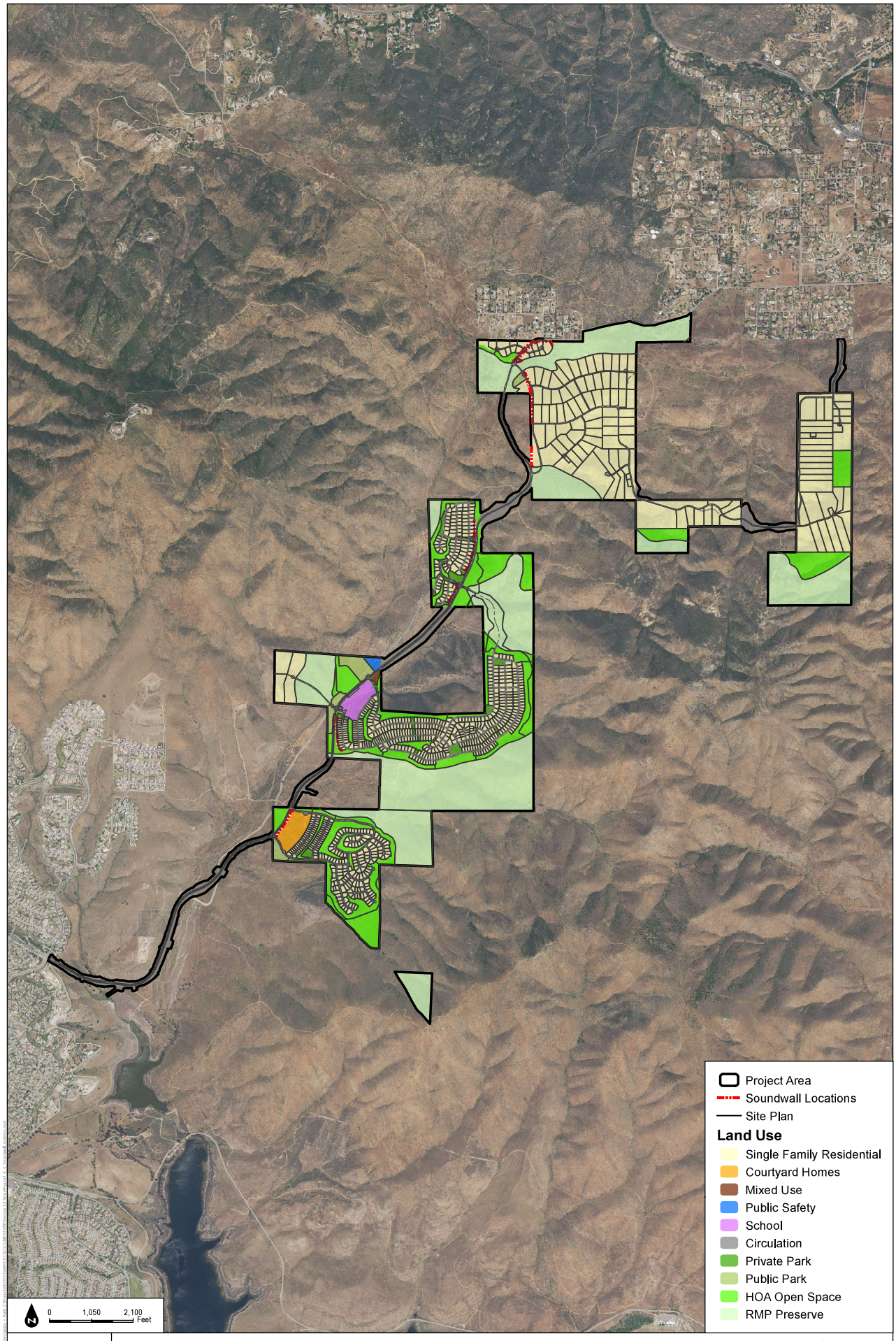


DUDEK

SOURCE: NAIP 2016; Hunsaker 2017

Figure 2.8-3
Modeled On-site Receiver Locations

Otay Ranch Village 14 and Planning Areas 16/19



DUDEK

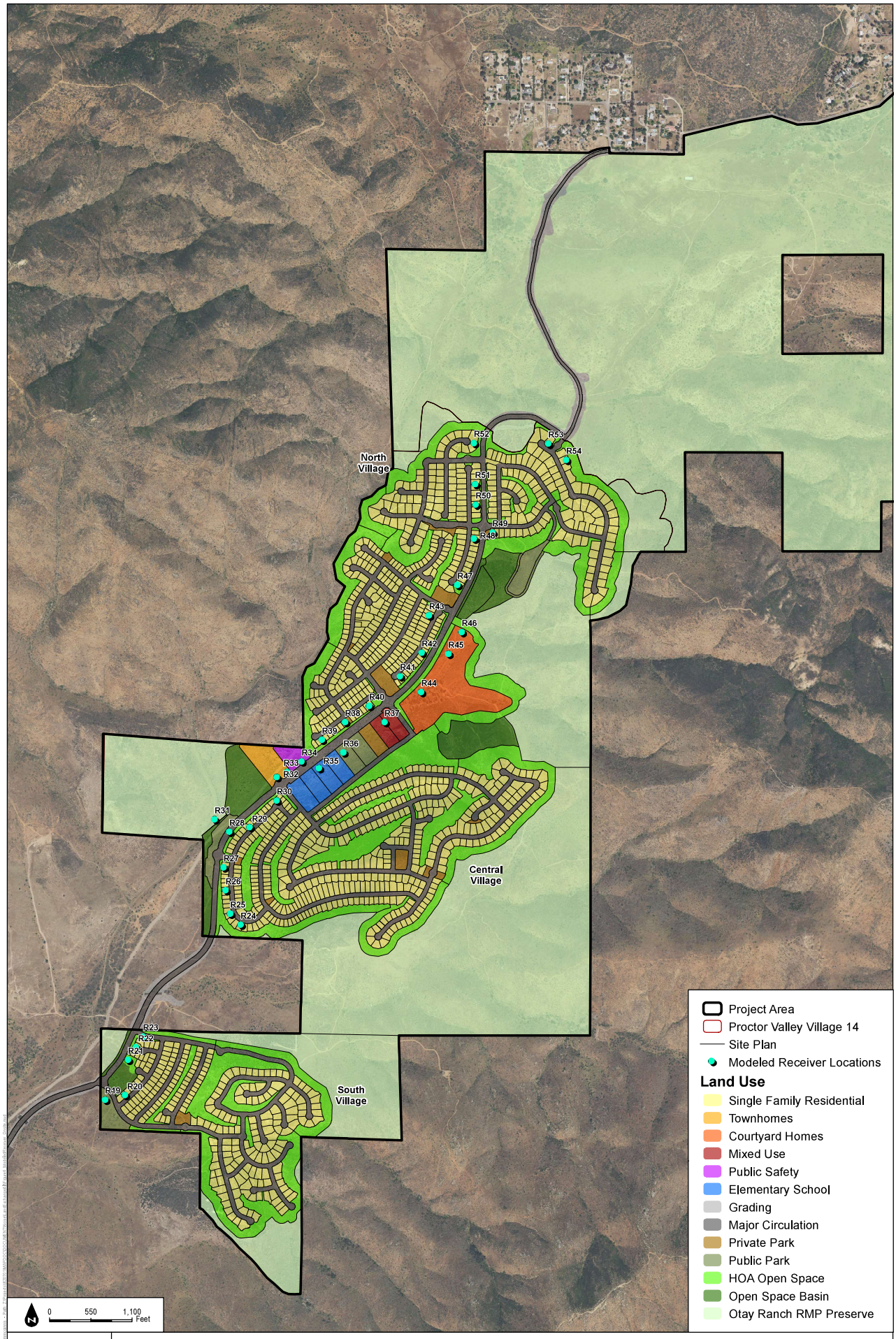
SOURCE: NAIP 2016; Hunsaker 2017

FIGURE 2.8-4
Soundwall Locations

Otay Ranch Village 14 and Planning Areas 16/19

Attachment B

Figures 6 and 7 from the Land Exchange Alternative Acoustical Analysis Report

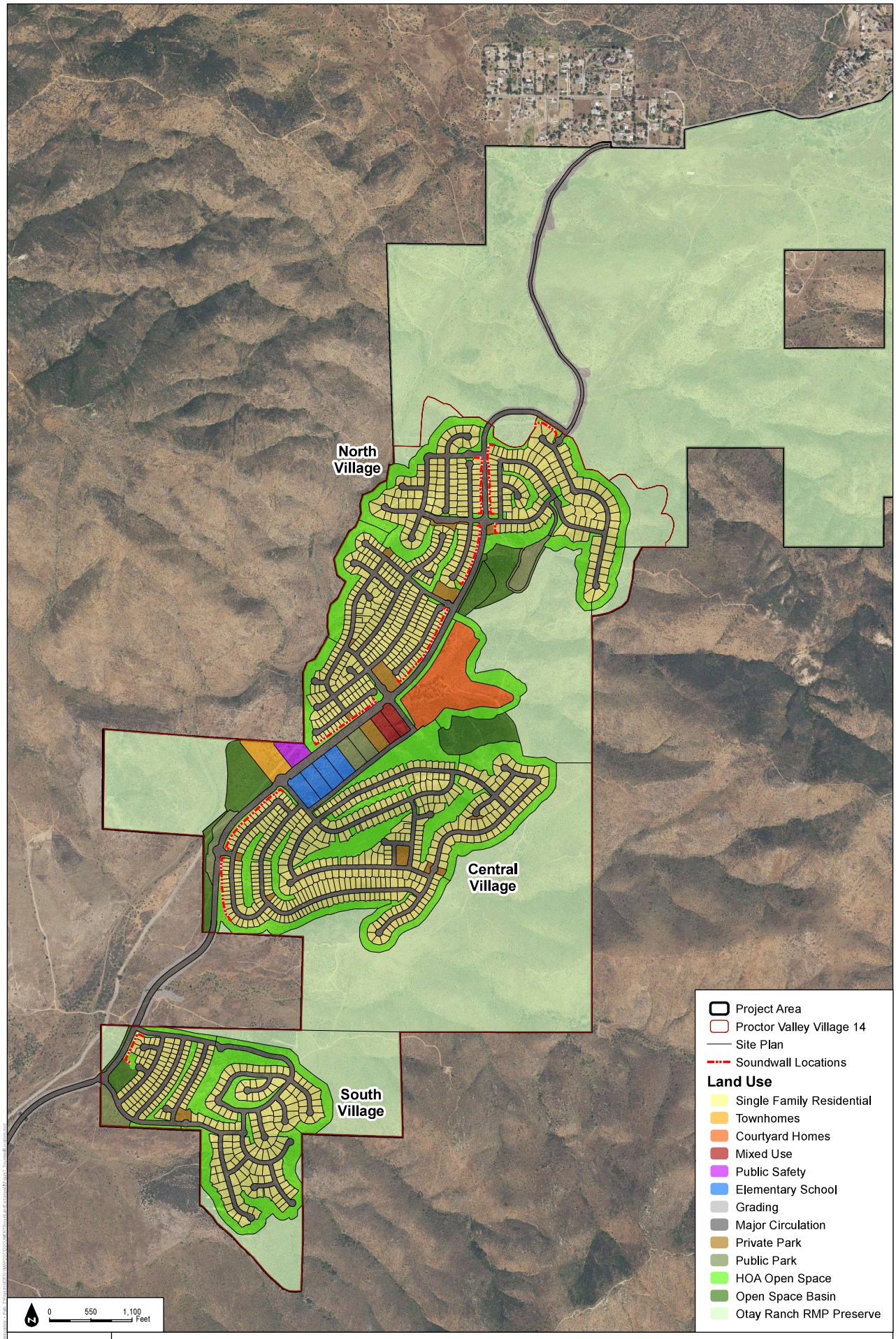


DUDEK

SOURCE: NAIP 2016; Hunsaker 2017

Figure 6
Modeled On-Site Receiver Locations

Otay Ranch Village 14 and Planning Areas 16/19 - Land Exchange Alternative



DUDEK

SOURCE: NAIP 2016; Hunsaker 2017

FIGURE 7
Soundwall Locations

Otay Ranch Village 14 and Planning Areas 16/19 - Land Exchange Alternative