Biological Resources Report for the Southwest Village Specific Plan San Diego, California Project No. 614791

Prepared for
Tri Pointe Homes
13520 Evening Creek Drive North, Suite 300
San Diego, CA 92128

Prepared by
RECON Environmental, Inc.
3111 Camino del Rio North, Suite 600
San Diego, CA 92108
P 619.308.9333

RECON Number 8868
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Acronyms and Abbreviations

°F	degrees Fahrenheit
ADT	average daily traffic
APN	Assessor's Parcel Number
ASMD	area specific management directives
BGEPA	Bald and Golden Eagle Protection Act
BLA	Boundary Line Adjustment
BMP	best management practice
BMZ	Brush Management Zone
BSO	Biologically Superior Option
Caltrans	California Department of Transportation
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
City	City of San Diego
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
County	County of San Diego
CPU	Community Plan Update
CRPR	California Rare Plant Rank
dB(A)	A-weighted decibels
ESL	environmentally sensitive lands
EAS	Environmental Analysis Section
EVA	emergency vehicle access
FEIR	Final Environmental Impact Report
FESA	Federal Endangered Species Act
FEMA	Federal Emergency Management Agency
GPS	global positioning system
HMP	Habitat Management Plan
I-805	Interstate 805
ITP	Incidental Take Permit
LDC	Land Development Code
L_{eq}	average sound level
MA	Major Amendment
MBTA	Migratory Bird Treaty Act
MCAS	Marine Corps Air Station
MHPA	Multi-Habitat Planning Area
MMC	Mitigation Monitoring Coordination office
MSCP	Multiple Species Conservation Program
NRCS	Natural Resource Conservation Service
OHWM	Ordinary High Water Mark

OMCP	Otay Mesa Community Plan
OMCP FEIR	Otay Mesa Community Plan Final Environmental Impact Report
PAR	Property Analysis Record
PDP SWQMP	Priority Development Project Storm Water Quality Management Plan
PRC	Public Resources Code
RECON	RECON Environmental, Inc.
RWQCB	Regional Water Quality Control Board
SDG&E	San Diego Gas and Electric
Specific Plan	Southwest Village Specific Plan
SR-905	State Route 905
TET	The Environmental Trust
USACE	United States Army Corps of Engineers
USBP	U.S. Border Patrol
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VPHCP	Vernal Pool Habitat Conservation Plan
VTM	Vesting Tentative Map

Summary

The project includes adoption of the Southwest Village Specific Plan (Specific Plan) which provides a comprehensive policy framework intended to guide future development within the Southwest Village District of the City of San Diego (City) Otay Mesa Community Plan (OMCP). The Specific Plan would allow up to 5,130 attached and detached residences and will facilitate creation of a new village anchored by up to 175,000 square feet of commercial and retail uses in a mixed-use Village Core. Buildout of the Specific Plan would provide public facilities including dedication of a new elementary school, developed parks, public recreation trails, and natural open space and habitat conservation. Access to the Specific Plan area would be via two main access points, Caliente Avenue to the north and an extension of Beyer Boulevard to the west (to be built and analyzed as part of this project), connecting the Specific Plan area to the San Ysidro community.

Concurrent with the proposed Specific Plan, a Vesting Tentative Map (VTM) is proposed for the Phase 1 residential component of the Specific Plan. Implementation of the VTM would include construction of a Beyer Boulevard extension connecting the Specific Plan area to San Ysidro, development of up to 920 ~~795~~ residential units, additional grading within Phase 2 areas of the Specific Plan to provide a source of fill soils for a balanced grading operation, and improvements to an existing dirt road to provide for secondary emergency vehicle access (EVA). While not part of the Phase 1 VTM, this report also evaluates trails, grading, and infrastructure components associated with Phase 2 and a portion of Phase 4.

This report includes a project-level analysis of certain components and a program-level analysis of the remainder Specific Plan components. The project-level analysis addresses Phase 1 grading and construction and associated infrastructure, improvements associated with the southern EVA road, as well as Phase 2 and a portion of Phase 4 rough grading, drainage, and other infrastructure improvements including the southeastern sewer lift station. The program-level analysis addresses implementation of the remaining Specific Plan development areas (Phase 3, a portion of Phase 4, and Phases 5 to 7). As future development is proposed within the program-level analysis areas, future project specific impact analysis would be required.

Summary of Findings for Program-level Analysis Areas

Future development within program-level analysis areas of the Specific Plan (Phase 3, a portion of Phase 4, and Phases 5 to 7) would result in an approximately 131-acre impact area, including approximately 39 acres of impacts to sensitive vegetation communities including but not limited to grassland and Diegan coastal sage scrub, subject to future site-specific surveys and evaluation. There are also 58 acres mapped as extensive agriculture that, due to the time that has passed since it was in agricultural use and the typical vegetation changes over time for fallow agricultural lands, have been conservatively considered non-native grassland for a potential total of 97 acres of sensitive vegetation communities. Within the program-level areas, scattered vernal pool and/or wetland basins may contain San Diego fairy shrimp (*Branchinecta sandiegonensis*), Riverside fairy shrimp (*Streptocephalus woottoni*), and sensitive plant species. Impacts to sensitive vegetation communities, wetland resources, and sensitive plants and wildlife would be considered significant. Wetland deviations would likely be required once future development is proposed to address

impacts to drainages and wetlands present within the program-level analysis areas, although site-specific surveys would be required to confirm presence. Indirect impacts to sensitive resources including the adjacent Multi-Habitat Planning Area (MHPA) may also result from development of program-level areas.

The project-level analysis included a comprehensive review of area wildlife movement with respect to impacts to wildlife corridors, as required by OMCP Mitigation Framework BIO-2. The analysis shows that implementation of the program-level portions of the Specific Plan would have a less than significant impact on wildlife movement corridors.

The Otay Mesa Community Plan Final Environmental Impact Report (OMCP FEIR) required a land use consistency analysis related to environmental policies contained in the OMCP. The analysis shows that implementation of the mitigation identified for the program-level areas would ensure impacts would be reduced to less than significant.

The requirements of the OMCP FEIR Mitigation Framework would be carried forward as mitigation for the program-level areas of the Specific Plan as applicable; however, the measures have been modified where appropriate, to include updated City requirements and to specifically address implementation of the Specific Plan. The Mitigation Framework for the program-level areas includes mitigation for sensitive plants and wildlife (SP-BIO-1) ~~and migratory wildlife (SP-BIO-2). The program level analysis concludes impacts related to wildlife movement corridors would be less than significant; however, SP-BIO-2 would be implemented to address potential impacts of future project construction and operations to sensitive wildlife species nesting and foraging. These~~ This measure~~s~~ carri~~es~~y forward the OMCP FEIR Mitigation Framework BIO-1 ~~and BIO-2~~. Additionally, the program-level mitigation includes mitigation for wetlands (SP-BIO-2~~3~~) which carries forward OMCP FEIR Mitigation Framework BIO-4.

OMCP FEIR Mitigation Framework LU-2 requires implementation of the MHPA Land Use Adjacency Guidelines for projects adjacent to the MHPA. As the City requires implementation of the MHPA Land Use Adjacency Guidelines as a condition of any development adjacent to the MHPA, these measures would be implemented at the program-level as standard conditions, ensuring compliance with OMCP FEIR Mitigation Framework LU-2.

Consistent with the OMCP FEIR, impacts associated with implementation of the program-level areas would be significant for the issues of sensitive vegetation communities, sensitive plants, sensitive wildlife species, jurisdictional resources, and indirect impacts. Implementation of SP-BIO-1~~,~~ and SP-BIO-2~~, and SP-BIO-3~~ and compliance with the MHPA Land Use Adjacency Guidelines as a condition of any development adjacent to the MHPA would reduce impacts to less than significant.

Impacts related to the Multiple Species Conservation Program (MSCP) and Vernal Pool Habitat Conservation Plan (VPHCP), wildlife corridors, and land use consistency would be less than significant because each individual development that is proposed within the Specific Plan in the future would be required to undergo its own individual VPHCP/MSCP consistency analysis. All future projects brought forward would be required to demonstrate consistency with the MSCP and VPHCP.

Summary of Findings for Project-level Analysis Areas

The project-level area covers approximately 219 acres and includes development areas in the northwest, southwest and southeast portions of the Specific Plan area in addition to off-site improvement areas including Caliente Avenue and Beyer Boulevard West and approximately 0.96 miles (5,090 linear feet) of primitive trails south and southeast of the development area both within and outside of the Specific Plan boundary. The project-level components include grading and construction of Beyer Boulevard West and Planning Areas 8 through 14 in addition to rough grading within Planning Areas 15 through 20 and portions of Planning Areas 1, 2, and 7 (within Phase 4), improvements to the southern EVA road, and future infrastructure and improvement areas including the Spring Canyon drainage outfall, the southeastern sewer pump station, and primitive trails. The following sensitive vegetation communities occur within the project-level survey area: maritime succulent scrub (Tier I), disturbed maritime succulent scrub (Tier I), native grassland (Tier I), Diegan coastal sage scrub (Tier II habitat), disturbed Diegan coastal sage scrub (Tier II habitat), non-native grassland (Tier IIIB habitat), mule fat scrub, southern willow scrub, disturbed riparian, disturbed wetlands, tamarisk scrub, vernal pools (with and without fairy shrimp), and natural flood channel. A total of 19 sensitive plant species were observed during the focused rare plant surveys and other biological surveys conducted in project-level areas. A total of 25 sensitive wildlife species were observed or assumed present within the project-level survey area during the general and focused surveys conducted for this project.

Impacts to 100 Percent Conserved Lands Associated with the Beyer Boulevard West Extension

As part of the project-level components, implementation of an extension of Beyer Boulevard would cross 100 percent conserved lands in order to provide vehicular access to the Specific Plan area from San Ysidro. Impacts to 100 percent conserved lands were anticipated in the OMCP FEIR. Specifically, the OMCP FEIR states: "If mobility element roads (i.e., Beyer Boulevard West, Airway Road, and Del Sol Boulevard) impact existing conserved lands, an additional 1:1 ratio shall be added to the City required mitigation ratio in order to replace the lands that were previously preserved as open space." Consistent with the OMCP FEIR for impacts to conserved lands, an additional 1:1 ratio has been applied to City standard mitigation ratios for impacts to conserved land including West Otay Mesa A, West Otay Mesa B, and the Furby North Preserve.

Two of the conserved parcels, referred to as West Otay Mesa A and West Otay Mesa B, are protected by conservation easements held by California Department of Fish and Wildlife (CDFW). After entitlements are obtained from the City to allow the project to proceed, additional actions would be required by CDFW. It is anticipated that the existing easements would be amended to identify Beyer Boulevard West and its slopes as an allowed use within the easement. In exchange for the CDFW easement modifications, a new conservation easement would be granted to CDFW, with the United States Fish and Wildlife Service (USFWS) identified as third-party beneficiary. The specific location of the new conservation easement would be determined through ongoing coordination with CDFW. In addition to a new conservation easement, two additional project design features are included as part of the project to support the requirements of CDFW and USFWS, including the following:

- An approximate 2.13-acre area is being ~~considered~~ proposed for vernal pool restoration within the City-owned West Otay Mesa B parcel.
- An approximate 95.29-acre area of additional habitat preservation beyond City mitigation requirements is proposed to be dedicated in-fee title to the City for long-term management.

An additional conserved parcel owned by the County of San Diego (County) referred to as the Furby North Preserve would be impacted by the proposed Beyer Boulevard West alignment. In order to allow Beyer Boulevard West to cross this preserve, the County requires replacement land to offset the loss of parkland under the Parkland Preservation Act. The project proposes to meet this requirement by providing 7.98 acres of replacement land that would be conveyed to the County. This replacement land would be managed by the City as part of the surrounding MHPA. An action by the County Board of Supervisors would be required to consider acceptance of replacement land and to allow County ownership within the Furby North preserve to be quitclaimed to the City for management as right-of-way and manufactured slopes.

Consistency with MSCP and VPHCP

The development of project-level areas would require a boundary line adjustment (BLA) pursuant to the MSCP. A MHPA BLA is required for impacts to MHPA lands~~, while a VPHCP conservation analysis is provided to address impacts to land considered baseline conservation in the VPHCP, referred to as 100 percent conserved lands, which include West Otay Mesa A, West Otay Mesa B, and the Furby North Preserve~~. Where Beyer Boulevard West crosses the MHPA, the developed portion of the roadway contains public utilities (water, sewer and stormwater infrastructure) and therefore is exempt from the City's ESL regulations, as a City linear utility project pursuant to the City's Land Development Code Section 143.0111.

MHPA deletions total 14.88 acres, including 12.82 acres of sensitive vegetation communities and 2.07 acres of disturbed and urban/developed lands. MHPA addition areas total 18.08 acres, including 16.88 acres of sensitive vegetation communities and 1.20 acres of disturbed lands.

~~The overall 44.55 acres of land to be added to the MHPA as part of the BLA process would be located adjacent to existing MHPA and would be conserved and managed by the City of San Diego with endowment funding. Impacts to VPHCP 100 percent conserved lands total 19.36 acres including 17.54 acres of sensitive vegetation communities and 1.82 acres of disturbed lands. Deletions of VPHCP 100 percent conserved lands would be offset by MHPA additions totaling 27.37 acres of sensitive vegetation communities and 0.66 acres of disturbed lands. Addition areas to offset impacts to the 100 percent conserved lands include an 8.80-acre area of mesa top lands that expands the vernal pool preserve in addition to enhancement of a disturbed wetland to become a vernal pool to ensure 100 percent replacement vernal pool resources in the deletion areas. Overall, the BLA and 100 percent conserved lands replacement would result in a slight decrease in Tier I vegetation from the exchange of lands; however, in total, the MHPA would increase by 14.19 acres of sensitive vegetation communities. In addition, the trails restoration program would convert 7.83 acres of disturbed and non-native grassland to maritime succulent scrub, resulting in an overall increase in Tier I communities in the MHPA. The MHPA addition areas combined with restoration of maritime succulent scrub would serve to ensure there is an excess of Tier I habitat provided as a result of project activities.~~

~~The overall 44.55 acres of land to be added to the MHPA as part of the BLA process would be located adjacent to existing MHPA and would be conserved and managed by the City of San Diego with endowment funding. Where Beyer Boulevard crosses the MHPA, the developed portion of the roadway contains public utilities (water, sewer and stormwater infrastructure) and therefore is exempt from the City's ESL regulations, as a City linear utility project pursuant to the City's Land Development Code Section 143.0111. The Beyer Boulevard slopes within the MHPA and a~~All portions of Beyer Boulevard West within VPHCP 100 percent conserved lands are included within the VPHCP Conservation Analysis.

The development of project-level areas within land considered baseline conservation in the VPHCP, referred to as 100 percent conserved lands, would require a Major Amendment of the VPHCP to address impacts. This includes lands within West Otay Mesa A, West Otay Mesa B, and the Furby North Preserve.

Impacts to VPHCP 100 percent conserved lands total 19.36 acres including 17.54 acres of sensitive vegetation communities and 1.82 acres of disturbed lands. Deletions of VPHCP 100 percent conserved lands would be offset by MHPA additions totaling 27.37 acres of sensitive vegetation communities and 0.66 acres of disturbed lands. Addition areas to offset impacts to the 100 percent conserved lands include an 8.80-acre area of mesa top lands that expands the vernal pool preserve in addition to enhancement of a disturbed wetland to become a vernal pool to ensure 100 percent replacement vernal pool resources in the deletion areas.

Several project design features to preserve additional lands are proposed in coordination with USFWS and CDFW as part of the VPHCP Conservation Strategy to offset the impacts to 100 percent conserved lands. A total of 95.29 of lands will be preserved within the MHPA south of the project level and 7.98 acres of land will serve as replacement lands for the impacts to the CDFW conservation easement area within Furby North. An additional 2.13-acre area within the CDFW conserved Otay Mesa B parcel would be restored as a component of the VPHCP Conservation Strategy.

Overall, the BLA and 100 percent conserved lands replacement would result in a slight decrease in Tier I vegetation from the exchange of lands; however, in total, the MHPA would increase by 14.19 acres of sensitive vegetation communities. In addition, the trails restoration program would convert 7.83 acres of disturbed and non-native grassland to maritime succulent scrub, resulting in an overall increase in Tier I communities in the MHPA. The MHPA addition areas combined with restoration of maritime succulent scrub would serve to ensure there is an excess of Tier I habitat provided as a result of project activities.

The overall 44.25 acres of land to be added to the MHPA as part of the BLA process would be located adjacent to existing MHPA and would be conserved and managed by the City of San Diego.

Sensitive Upland Vegetation Communities

Implementation of the project-level components would result in impacts to 28.35 acres of maritime succulent scrub, 9.12 acres of disturbed maritime succulent scrub, 0.12 acre of native grassland, 33.24 acres of Diegan coastal sage scrub, 10.93 acres of disturbed Diegan coastal sage scrub, and 105.84 acres of non-native grassland. Mitigation for these impacts would be achieved through

preservation and enhancement of a minimum of 153.23 acres of habitat of equivalent biological value in accordance with the Biology Guidelines (City of San Diego 2018) requirements and OMCP FEIR. To compensate for impacts to conserved lands (West Otay Mesa A, West Otay Mesa B, and the Furby North Preserve) in the location of the proposed Beyer Boulevard West alignment, an additional 1:1 mitigation ratio would be provided for upland impacts above and beyond the City's standard mitigation ratio, consistent with the requirements of the OMCP FEIR. Impacts to sensitive upland vegetation communities would be mitigated via the preservation of 89.94 acres of maritime succulent scrub, 24.82 acres of disturbed maritime succulent scrub, 24.93 acres of Diegan coastal sage scrub, 2.36 acres of disturbed Diegan coastal sage scrub, and 18.89 acres of non-native grassland in the MHPA. This totals 160.94 acres, which provides an excess of 7.71 acres above the minimum requirement. Impacts to 0.12 acre of native grassland would be mitigated through creation of native grassland as detailed in the Otay Tarplant/Native Grassland Mitigation Plan (see Attachment 15).

Sensitive Plant Species

The following 19 sensitive plant species are located within the project-level survey area: ashy spike-moss (*Selaginella cinerascens*), bobtail barley (*Hordeum intercedens*), California adolphia (*Adolphia californica*), California box-thorn (*Lycium californicum*), cliff spurge (*Euphorbia misera*), decumbent goldenbush (*Isocoma menziesii* var. *decumbens*), golden-ray pentachaeta (*Pentachaeta aurea* ssp. *aurea*), Otay tarplant (*Deinandra conjugens*), Palmer's grapplinghook (*Harpagonella palmeri*), San Diego barrel cactus (*Ferocactus viridescens*), San Diego bur-sage (*Ambrosia chenopodiifolia*), San Diego button-celery, San Diego County viguiera (*Bahiopsis lacinata*), San Diego needlegrass (*Stipa diegoensis*), seaside cistanthe (*Cistanthe maritima*), snake cholla (*Cylindropuntia californica* var. *californica)*, south coast saltscale/south coast saltbush (*Atriplex pacifica*), variegated dudleya (*Dudleya variegata*), and western dichondra (*Dichondra occidentalis*).

Of those species observed, Otay tarplant and San Diego button-celery are federally and state listed endangered, are narrow endemics, and covered under the MSCP and VPHCP. Variegated dudleya and snake cholla are narrow endemic and MSCP-covered species. San Diego barrel cactus is a MSCP-covered species. The remaining observed sensitive plant species are considered locally sensitive and have a rare plant ranking as assigned by California Native Plant Society (CNPS).

In addition, the five following species were identified as having a moderate potential to occur: graceful tarplant (*Holocarpha virgata* ssp. *elongate),* Orcutt's bird's-beak (*Dicranostegia orcuttiana* [=*Cordylanthus orcuttianus*]), San Diego goldenstar (*Bloomeria [=Muilla] clevelandii*), small-flowered microseris (*Microseris douglasii* ssp. *platycarpha*), and thread-leaved brodiaea (*Brodiaea filifolia*).

Thread-leaved brodiaea is federally listed threatened, state listed endangered, a narrow endemic, and is a MSCP-covered species. Orcutt's bird's-beak and San Diego goldenstar are MSCP-covered species. The remaining sensitive plant species with moderate potential to occur are considered locally sensitive and have a rare plant ranking as assigned by CNPS. The remaining sensitive plant species with moderate potential to occur are considered locally sensitive and have a rare plant ranking as assigned by CNPS.

Implementation of the project-level areas would result in impacts to approximately 1,900 Otay tarplant individuals within an approximately 0.21-acre area. Impacts to Otay tarplant would be

considered significant and mitigated through implementation of an Otay tarplant restoration effort providing a 4:1 replacement of impacted Otay tarplant within an approximately 1-acre area within the project's habitat mitigation area (see Attachment 15).

Significant impacts to 116 San Diego barrel cactus would result from removal of the species within Beyer Boulevard West and Phases 1, 2 and 4. Significant impacts to 16 snake cholla would result from removal of the species within Beyer Boulevard West and Phase 2. Mitigation for San Diego barrel cactus and snake cholla includes salvage of these species within the project-level areas and translocation to the proposed vernal pool preserve, as detailed in the Vernal Pool and Quino Checkerspot Butterfly Mitigation Plan (see Attachment 14) and the Coastal Cactus Wren Mitigation Plan (see Attachment 13).

Development of Phase 1 would impact 28 federally listed San Diego button-celery located within two vernal pools. Mitigation for impacts to this sensitive plant species would occur through salvage and transplanting of soil supporting impacted San Diego button-celery and in-kind restoration consistent within the proposed vernal pool restoration areas as detailed in the Vernal Pool and Quino Checkerspot Butterfly Mitigation Plan (see Attachment 14).

Thread-leaved brodiaea was not observed; however, there is a moderate potential for the species to occur and impacts would be significant. A pre-construction survey would be conducted to identify any individuals that may be present within the impact footprint. Any individuals that cannot be avoided would be salvaged and transplanted into the Vernal Pool and Quino Checkerspot Butterfly Mitigation Plan area.

Impacts to non-MSCP covered plants species, including ashy spike-moss, bobtail barley, California adolphia, California box-thorn, cliff spurge, decumbent goldenbush, Palmer's grapplinghook, San Diego bur-sage, San Diego County viguiera, San Diego needlegrass, seaside cistanthe, south coast saltscale/south coast saltbush, and western dichondra, would be less than significant. These species were observed within the project-level survey area; however, impacts would be less than significant as the proposed project would not reduce any below a self-sustaining level based on the existing distribution and extent of each of these species.

Golden-ray pentachaeta and variegated dudleya were observed within the survey area but no individuals were located within the impact area. Given the level of survey effort conducted, it is expected that these plants would have been detected within the impact area if present; therefore, no impacts would occur.

Neither Orcutt's bird's-beak nor San Diego goldenstar were observed during multiple surveys conducted over the species blooming periods; however, there is a moderate potential to occur based on the presence of suitable habitat. Both of these species are covered species under MSCP. Orcutt's bird's-beak was covered based on the conservation of all four known populations within the MSCP boundary. The proposed project would impact only a small percentage of the known suitable habitat for this species at both a local and regional scale; therefore, the project is not expected to impact the regional long-term survival of this species and therefore impacts would not be significant.

San Diego goldenstar is a covered species based on the fact that over 70 percent of the major populations, over 80 percent of the known occurrences, and 38 percent of the grasslands would be conserved and that the City of San Diego would avoid any populations within the 25 percent MHPA encroachment areas. The MSCP also provides species-specific conditions related to monitoring of a specific transplanted population and protection against edge effects within the preserved areas. Based on this level of MSCP coverage, current known occurrences of this species within southern California (Jepson Flora Project 2023), and that the loss of suitable habitat within the project impact area comprises a small portion of the suitable habitat available to this species on a local level and on a regional scale; this loss of habitat outside the MHPA would not be a significant impact for these species. Therefore, the project is not expected to impact the regional long-term survival of this species and would therefore not be significant.

Graceful tarplant and small-flowered microseris were not observed during multiple surveys conducted over these species' blooming periods; however, a moderate potential to occur remains based on presence of suitable habitat. If present, impacts to these species would be considered less than significant as the proposed project would not reduce any below a self-sustaining level based on the existing distribution and extent of this species.

While 18.15 acres of the project-level area is located within critical habitat designated for spreading navarretia (*Navarretia fossalis*), this plant species is not present and would not be impacted.

Sensitive Wildlife Species

The following 25 sensitive wildlife species are present within the project-level analysis area: San Diego fairy shrimp (*Branchinecta sandiegonensis*), Riverside fairy shrimp (*Streptocephalus woottoni*), Quino checkerspot butterfly (*Euphydryas editha quino*), least Bell's vireo (*Vireo bellii pusillus*), coastal California gnatcatcher (*Polioptila californica californica*), white-tailed kite (*Elanus leucurus*), burrowing owl (*Athene cunicularia*), Crotch's bumble bee (*Bombus crotchii*), orange-throated whiptail (*Aspidoscelis hyperythra*), coastal whiptail (*Aspidoscelis tigris stejnegeri*), red diamond rattlesnake (*Crotalus ruber*), two-striped gartersnake (*Thamnophis hammondii*), coast horned lizard (*Phrynosoma blainvillii*), northern harrier (*Circus hudsonius*), Cooper's hawk (*Accipiter cooperii*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), western spadefoot (*Spea hammondii*), yellow warbler (*Setophaga petechia*), yellow-breasted chat (*Icteria virens*), merlin (*Falco columbarius*), bald eagle (*Haliaeetus leucocephalus*), golden eagle (*Aquila chrysaetos*), California horned lark (*Eremophila alpestris actia*), grasshopper sparrow (*Ammodramus savannarum*), and San Diego desert woodrat (*Neotoma lepida intermedia*). Coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*) was not directly observed within the analysis area; however, it has a high potential to occur based on observations in habitat just off-site.

Four additional wildlife species were not observed within the project-level analysis area but have a moderate potential to occur within the project-level analysis area, including Coronado skink (*Plestiodon skiltonianus interparietalis*), Bell's sage sparrow (*Amphilospiza belli belli*), loggerhead shrike (*Lanius ludovicianus*), and southern mule deer (*Odocoileus hemionus fuliginata).*

The project-level areas would result in a significant direct and indirect impact to 1.33 acres of habitat for San Diego fairy shrimp, including the Candlelight project, or a total of 1.06 acres of direct and indirect impact without Candlelight. Of those totals, one 0.03-acre vernal pool also contained

Riverside fairy shrimp and one 0.17-acre seasonal basin ("VP12" per Alden 2013) within Candlelight would be impacted that also contains Riverside fairy shrimp. All disturbed wetlands and vernal pools are assumed to contain San Diego fairy shrimp since these species are widely present across the mesa. Mitigation for impacts to San Diego and Riverside fairy shrimp species would be addressed through a 2:1 inoculation of vernal pool surface area based on the surface area impacted, consistent with the requirements of the City's Biology Guidelines (2018a) for mitigating vernal pools with fairy shrimp. Direct and indirect impacts to a total of 1.33 acres (with Candlelight) or 1.06 acres (without Candlelight) of basins containing San Diego fairy shrimp would be mitigated by inoculation of a minimum of 2.66 acres (with Candlelight) or 2.12 acres (without Candlelight) of re-established vernal pool basins with San Diego fairy shrimp. Impacts to a 0.20-acre vernal pool/seasonal basin containing Riverside fairy shrimp would be mitigated through inoculation of a minimum of 0.40-acre of re-established vernal pool basins with Riverside fairy shrimp. As detailed in the Vernal Pool and Quino Checkerspot Butterfly Mitigation Plan (see Attachment 14), the restoration effort proposes to establish 3.86 acres of vernal pool basins and enhance 0.05 acre of existing vernal pool basins, all of which would be inoculated with fairy shrimp cysts to provide an excess of 1.20 to 1.74 acres of vernal pool creation and 0.05 acre of enhancement (with Candlelight requirements) beyond the mitigation ratios required by the City. Mitigation for impacts within the Candlelight and/or Southwind project areas would be implemented by the first project to proceed.

Significant direct impacts to Quino checkerspot butterfly would occur as a result of the removal of host and nectar plants (0.93 acre) within the project-level areas. Mitigation for impacts to host and nectar plants would be provided through preservation and enhancement of 0.96 acre of Quino checkerspot butterfly habitat and 0.93 acre of Quino checkerspot butterfly habitat restoration for a total of 1.89 acres of Quino checkerspot butterfly habitat preservation/enhancement and restoration. These enhancement and restoration efforts would compensate for the loss of Quino checkerspot butterfly suitable habitat. Potential impacts to Quino checkerspot butterfly during restoration activities would be mitigated through implementation of mitigation measures detailed in the respective mitigation and restoration plans, such as avoiding work within mapped nectar and host plants and following protective guidelines during herbicide application. Ultimately, formal consultation with the U.S. Fish and Wildlife Service (USFWS) would be required.

Impacts to least Bell's vireo nesting and foraging habitat would be considered significant due to the project impact to occupied wetland areas at the western end of the proposed Beyer Boulevard West extension and suitable habitat adjacent to restoration areas in Spring Canyon. Mitigation required for anticipated impacts to least Bell's vireo nesting during construction and restoration activities would involve pre-construction surveys to determine presence of the species before grading activities commence and breeding season restrictions. Impacts to 0.28 acre of foraging habitat would be considered a significant direct impact to the species. Preservation of approximately 0.31 acre of southern willow scrub and proposed wetland creation (establishment) of 0.36 acre of riparian vegetation would mitigate for the loss of foraging habitat.

Focused surveys for coastal California gnatcatcher have been conducted over several years and have identified a number of pairs present both inside and outside the MHPA. Direct impacts to nesting individuals within the MHPA would be significant. Mitigation required for anticipated impacts would involve pre-construction/restoration surveys to determine presence of the species before grading activities commence. This measure also provides protection from construction and

restoration noise if work is conducted within the MHPA during the breeding season. In addition, implementation of ASMDs to also monitor and attenuate noise impacts during the breeding season would be required. Impacts to 27.25 acres of foraging habitat within MHPA lands would be considered a significant direct impact to the species. Habitat-based mitigation via preservation of 160.94 acre of sensitive upland vegetation communities, including over 140 acres of coastal sage scrub and maritime succulent scrub, would mitigate for the loss of foraging habitat.

No active burrowing owl burrows were identified on-site. As the site does not support active burrows, the site has only a moderate potential to currently support burrowing owl. However, due to one incidental sighting and to support consistency with the MSCP conditions of coverage for burrowing owl, the project includes implementation of an artificial berm within the vernal pool preserve as a project design feature. In addition, based on the incidental sighting and the presence of burrowing owl in Otay Mesa, there is a potential for burrowing owl to colonize the site at a later date and be impacted during construction. This would be considered a significant impact that would be mitigated by the requirement for preconstruction burrowing owl surveys, consistent with the MSCP conditions of coverage for burrowing owl. If detected, a translocation plan will be required for any owls discovered within the impact area prior to or during construction, with coordination and the approval of the Wildlife Agencies, MSCP, and Environmental Analysis Section (EAS). In addition, the site supports 103.77 acres of foraging habitat for burrowing owl, the loss of which would be considered a significant impact to the species that would be mitigated through habitat-based mitigation via preservation of 160.94 acres of non-native grasslands and other sensitive upland vegetation communities. Any loss of foraging habitat through restoration activities such as in the vernal pool preserve or conservation easement replacement lands would be less than significant considering the habitat would continue to provide foraging opportunities for this species.

Mitigation for impacts to 0.63 acre of assumed occupied coastal cactus wren habitat (maritime succulent scrub dominated by coast cholla) in addition to 0.46 acre of indirect impacts to the species associated with post-project roadway noise levels above 60 dB would be mitigated through implementation of a coastal cactus wren habitat restoration effort to be located in proximity to the impact location, within the County's Furby North Preserve. Restoration for impacts to 1.09 acres of coastal cactus wren habitat would occur within a 2.54-acre restoration area comprising 0.72 acre of disturbed maritime succulent scrub (greater than 50 percent cover by non-native species) and 1.82 acres of enhancement to maritime succulent scrub (25 percent non-native cover). The project also would mitigate the loss of 20 acres of potential foraging habitat for this species in the vicinity of the Beyer Boulevard West project component through habitat-based mitigation via the preservation of 160.94 acres of sensitive uplands. Indirect impacts associated with construction and restoration noise would be addressed through the implementation of the Breeding Season Avoidance/Preconstruction Survey mitigation measure and noise monitoring/attenuation measures which would mitigate this impact and reduce it to less than significant.

Crotch's bumble bees were observed incidentally during habitat assessment surveys conducted on approximately 510 acres during the spring of 2024. This species has the potential to occur within all habitats and land cover types, outside of the disturbed trails and roads, developed lands, vernal pools and natural flood channels, based on the species range and available nectar sources on-site. The majority of the survey area supports nectar resources, with approximately 80 acres supporting moderate to high cover of nectar resource for foraging. The entire survey area is considered suitable

for nesting. Impacts to approximately 190 acres of potential Crotch's bumble bee nesting and foraging habitat would be considered significant based on the presence of individuals in the mitigation lands and the identification of suitable nesting and foraging habitat within the project-level analysis area, approximately 42 acres of which supports moderate to high cover of nectar resources. Mitigation would include habitat-based mitigation through the preservation of 160.94 acres of upland vegetation communities and approximately 36 acres of lands within the wetland, vernal pool, and Otay tarplant/native grassland plan areas, all suitable for foraging and nesting by this species. In addition, there are several project design features that include habitat restoration of approximately 17 acres, i.e., trail restoration and wetland plan areas, that would provide additional habitat for this species. This habitat preservation would reduce the impact to foraging and nesting habitat to less than significant. Species-specific mitigation for potential impacts to individual Crotch's bumble bee during construction and restoration would include preconstruction surveys to be conducted during the flight season prior to vegetation clearing or grading. A CDFW Incidental Take Permit would be required.

Western spadefoot surveys identified a potential 1.82 acres of occupied habitat within the survey area. The project would impact 1.33 acres of vernal pool and disturbed wetlands (direct and indirect impacts), which are all either known or assumed to support western spadefoot. These impacts to up to 1.33 acres of potential western spadefoot habitat would be considered significant. Implementation of the Vernal Pool and Quino Checkerspot Butterfly Mitigation Plan (see Attachment 14) would replace a total of 3.86 acres of vernal pool habitat expected to support western spadefoot within a 33.71-acre vernal pool restoration area. Additionally, preservation of uplands habitats includes 23 vernal pools and disturbed wetlands that were observed to support western spadefoot. Impacts to individual spadefoot toad would be mitigated through the implementation of a monitoring plan that would relocate any individuals (eggs, tadpoles or adults) encountered within the project impact area. In addition, potential impacts to western spadefoot during restoration activities related to trail and vernal pool restoration activities would be mitigated through implementation of mitigation measures detailed in the respective mitigation and restoration plans.

Direct impacts to orange-throated whiptail and coast horned lizard are anticipated through potential incidental mortality during construction and restoration activities; however, these are mobile species and likely occur on-site in low numbers, and the project would be expected to result in the loss of very few individuals, if any. These species are also adequately covered by the MSCP with habitat conserved in the MHPA. Suitable habitat within the project impact area comprises a small fraction of the habitat available to this species both at a local level and on a regional scale. In addition, implementation of ASMDs would be required to manage for edge effects. Therefore, the potential loss of these individuals would not reduce their populations to less than self-sustaining and would not be significant.

Cooper's hawk has a moderate potential to nest within the project impact areas, particularly within tall trees found in Phase 1 and Phase 4 areas, and within the Spring Canyon wetland restoration area. Direct impact to nesting individuals would be significant. Establishment of the 300-foot impact avoidance area identified within the MSCP ASMDs would be required as a project condition of approval. Potential significant impacts to approximately 190 acres of foraging habitat within the impacted project-level area would be mitigated through habitat-based mitigation via the

preservation of 160.94 acres of sensitive upland vegetation communities and approximately 36 acres of lands within the wetland, vernal pool, and Otay tarplant/native grassland plan areas, all suitable for foraging by this species. In addition, there are several project design features that include habitat restoration of approximately 17 acres, i.e., trail restoration and wetland plan areas, that would provide additional habitat for this species.

Northern harrier has a high potential to nest within the non-native grassland throughout the site. Direct impacts to nesting individuals would be significant. Establishment of the 900-foot impact avoidance area identified within the MSCP ASMDs would be required as a project condition of approval. Potential significant impacts to approximately 190 acres of foraging habitat within the impacted project-level area would be mitigated through habitat-based mitigation via the preservation of 160.94 acres of sensitive upland vegetation communities and approximately 36 acres of lands within the wetland, vernal pool, and Otay tarplant/native grassland, all suitable for foraging by this species. In addition, there are several project design features that include habitat restoration of approximately 17 acres, i.e., trail restoration and wetland plan areas, that would provide additional habitat for this species. Any loss of non-native grassland through restoration activities such as in the vernal pool preserve or conservation easement replacement lands would be less than significant considering the habitat would continue to provide foraging opportunities for this species.

Significant impacts to California fully protected white-tailed kite would result from the removal of 190 acres of foraging habitat. Potential significant impacts to approximately 190 acres of foraging habitat within the impacted project-level area would be mitigated through habitat-based mitigation via the preservation of 160.94 acres of sensitive upland vegetation communities and approximately 36 acres of lands within the wetland, vernal pool, and Otay tarplant/native grassland plan areas, all suitable for foraging by this species. In addition, there are several project design features that include habitat restoration of approximately 17 acres, i.e., trail restoration and wetland plan areas, that would provide additional habitat for this species. Direct impacts to nesting individuals would be significant and mitigated through implementation of breeding season avoidance, or implementation of preconstruction surveys and avoidance measures. Any loss of foraging habitat through restoration activities such as in the vernal pool preserve or conservation easement replacement lands would be less than significant considering the habitat would continue to provide foraging opportunities for this species.

Golden and bald eagles were each only observed once during many years of surveys conducted on this site. No direct impacts to either are anticipated as the project-level area lacks suitable nesting habitat for these species (tall trees and cliffs).

Southern California rufous-crowned sparrow has a high potential to nest and forage within the non-native grassland, maritime succulent scrub, and Diegan coastal sage scrub in project-level impact areas. Direct impact to nesting individuals would be significant and mitigated through the implementation of breeding season avoidance, or the implementation of preconstruction surveys and avoidance measures. Direct impacts to approximately 75 acres of foraging habitat would be significant and mitigated through habitat-based mitigation via the preservation of 160.94 acres of sensitive upland vegetation communities and approximately 36 acres of lands within the wetland, vernal pool, and Otay tarplant/native grassland plan areas, all suitable for foraging by this species. In addition, there are several project design features that include habitat restoration of approximately 17 acres, i.e., trail restoration and wetland plan areas, that would provide additional

habitat for this species. Restoration activities, specifically conversion of non-native grassland in the vernal pool preserve or conservation easement replacement lands would be less than significant considering the habitat would continue to provide foraging opportunities for this species.

Southern mule deer have a moderate potential to occur within the project areas, based on presence of suitable habitat. Suitable habitat within the project impact area comprises a small fraction of the habitat available to this species both at a local level and on a regional scale. Therefore, any potential impact, if present, would not reduce their populations to less than self-sustaining and would not be significant.

Yellow-breasted chat and yellow warbler have moderate potential to nest within the southern willow scrub and mule fat scrub habitats of the project impact area within the Beyer Boulevard West and Caliente Avenue footprints and within the Spring Canyon wetland restoration area. The project impacts to approximately 0.77 acre of suitable habitat and nesting would be potentially significant. Preservation of approximately 0.31 acres of southern willow scrub and proposed wetland creation (establishment) of 0.36 acre of riparian vegetation and would mitigate for the loss of foraging habitat. Direct impacts to nesting individuals would be significant and mitigated through implementation of breeding season avoidance, or implementation of preconstruction surveys and avoidance measures.

Direct impacts to coastal whiptail, red diamond rattlesnake, two-striped garter snake, Coronado skink, and San Diego desert woodrat through potential incidental mortality during construction activities and removal of suitable habitat are anticipated. However, these species likely occur within the project-level area in low numbers, resulting in the loss of very few individuals, if any. Therefore, the potential loss of these individuals would not be significant. Approximately 190 acres of suitable habitat within the project-level impact area consisting of maritime succulent scrub, disturbed maritime scrub, Diego coastal sage scrub, disturbed coastal sage scrub, non-native grassland, and vernal pool habitats comprises a small fraction of the habitat available to these species on a regional scale. The loss of habitat within the project-level area would be less than significant for these species.

These following additional sensitive avian species may occur or have a potential to occur within various habitats within the project-level areas: merlin, California horned lark, Bell's sage sparrow, loggerhead shrike, and grasshopper sparrow. Direct impacts to nesting individuals would be significant and mitigated through implementation of breeding season avoidance, or implementation of preconstruction surveys and avoidance measures. Foraging habitat for all of these species would be impacted. Suitable habitat within the project impact area comprises a small fraction of the habitat available to this species both at a local level and on a regional scale. Therefore, the loss of foraging habitat would not reduce any of their populations to less than self-sustaining and would be less than significant for these species.

Jurisdictional Resources

Wetland delineations were conducted within the project-level survey areas for U.S. Army Corps of Engineers (USACE) federal waters of the U.S., CDFW and California Regional Water Quality Control Board (RWQCB) waters of the state, and City wetlands and vernal pools. Impacts to these jurisdictional resources would be considered significant. Permits from the resource agencies would be required in order to authorize impacts to jurisdictional resources.

Direct impacts to City wetlands (non-isolated riparian habitat) would total 0.36 acre, requiring a minimum of 0.73 acre of mitigation per the City's Biology Guidelines, respectively (City of San Diego 2018). The wetland mitigation requirements would be achieved within Spring Canyon through 0.73 acre of wetland mitigation including a 1:1 creation component. The Southwest Village Wetland Plan proposes mitigation within Spring Canyon to satisfy the mitigation requirements including a minimum 0.36-acre wetland creation (establishment) and at least 0.37-acre wetland enhancement (rehabilitation) to create wetland function and values consistent with the requirements of the City's Biology Guidelines (see Attachment 18). An additional 0.43 acre of wetland creation (establishment) is proposed to satisfy RWQCB mitigation requirements for impacts to non-wetland waters/streambed and is not required by the City of San Diego. The Southwest Village Wetland Plan (see Attachment 18) proposes 0.36 acre of wetland creation (establishment) and 0.62 acre of wetland enhancement (rehabilitation) within an overall 2.18-acre Wetland Plan area within Spring Canyon. An additional 0.46 acre of wetland creation (establishment) would be implemented as part of the Nakano Wetland Plan (RECON 2024f), providing a total of 1.45 acres of wetland mitigation for Southwest Village. In addition to these mitigation components, the Southwest Village Wetland Plan includes implementation of project design features including an additional 1.20 acres of weed control and the requirement to ensure the remaining 3.46-acre portion of the upstream Nakano Wetland Plan is implemented upstream prior to the Southwest Village Plan area.

The project would result in significant direct and indirect impacts to vernal pools and disturbed wetlands. Disturbed wetland direct and indirect impacts would total 0.18 acre, and vernal pool direct and indirect impacts would total 0.91 acre impacts for a total of 1.09 acres of vernal pool and disturbed wetland direct and indirect impacts. Impacts to the single vernal pool with San Diego button-celery would be mitigated at a 3:1 ratio consistent with the requirements of the VPHCP. All remaining vernal pool and disturbed wetland impacts would be mitigated at a 2:1 ratio as required by the VPHCP. Implementation of the project-level areas would require 2.18 acres of mitigation for direct and indirect impacts to vernal pools and disturbed wetlands including the Southwind project or 2.10 acres without Southwind. Within the Southwind project area, the first project to proceed would be required to mitigate for their project impacts.

As detailed in the Vernal Pool and Quino Checkerspot Butterfly Mitigation Plan (see Attachment 14), the restoration effort proposes to establish 3.86 acres of vernal pool basins and enhance 0.05 acre of existing vernal pool basins, which would provide an excess of 1.68 acres of vernal pool creation (including impacts from the Southwind project) and 0.05 acre of enhancement beyond the standard mitigation ratios required by the City. If Southwind were to proceed first and mitigate for impacts separately and elsewhere, there would be an excess of 1.76 acres.

Indirect Impacts

Indirect impacts to sensitive plants and vegetation communities within MHPA lands would be avoided through compliance with the MHPA Land Use Adjacency Guidelines, which would be conditions of project approval.

Indirect impacts to Quino checkerspot butterfly could result from the introduction of non-native species and generation of dust in the vicinity of Quino checkerspot butterfly host and nectar plants. Indirect impacts to Quino checkerspot butterfly would be mitigated through the following measures. Introduction of non-native species would be avoided through compliance with the

Specific Plan plant palette which requires native plantings adjacent to open space and through use of native species in the restoration plan plant palettes. During construction of the vernal pool preserve, implementation of BMPs such as silt fences and watering would avoid dust generation. Prior to restoration activities, plant survey updates would be conducted to ensure avoidance of host and nectar plants. With implementation of these measures, indirect impacts to Quino checkerspot butterfly would be mitigated to less than significant.

As coastal California gnatcatcher is present or suitable habitat is present within the MHPA adjacent to the project-level analysis area including along the Beyer Boulevard West extension, around the EVA road, and around the restoration areas, indirect noise impacts from construction and restoration activities could occur to this species within the MHPA if these actions are proposed during the breeding season. These impacts would be significant and mitigated as detailed in direct impact discussion above. Additionally, indirect impacts to coastal California gnatcatcher within adjacent MHPA would be mitigated through compliance with the City's Land Use Adjacency Guidelines when adjacent to MHPA lands and implementation of noise monitoring and attenuation consistent with species-specific ASMDs. Significant indirect impacts from Beyer Boulevard West operational noise may occur to approximately 0.09-acre area of suitable habitat (Diegan coastal sage scrub) based on noise modeling and mitigated through habitat preservation as discussed in the direct impacts. This habitat preservation area includes 7.71 acres beyond the minimum required habitat preservation mitigation, which would also reduce the significant impact from operational noise impacts from Beyer Boulevard West to less than significant.

Significant indirect impacts to coastal cactus wren may result from edge effects associated with development and construction and would be mitigated through the implementation of BMPs, including dust control erosion control, and silt fencing, and installation of masonry walls and wildlife fencing to preclude pedestrian and domestic animal trespass. Indirect impacts associated with construction and restoration noise would be addressed through implementation of the Breeding Season Avoidance/Preconstruction Survey mitigation measure and noise monitoring and attenuation measures. Significant indirect impacts from Beyer Boulevard West operational noise to an approximately 0.46-acre area of suitable habitat (maritime succulent scrub) would be mitigated through additional habitat restoration of 0.46 acres as detailed in the direct impact discussion above.

Indirect impacts to least Bell's vireo from construction are not anticipated given that the occupied habitat within Beyer Boulevard West footprint would be removed completely and the species would not be subject to construction or operational noise impacts. Indirect impacts associated with restoration noise may occur if activities are conducted during this species' breeding season. This would be mitigated through implementation of pre-construction surveys to determine presence of the species before grading activities commence, and breeding season restrictions and/or noise attenuation measures, if present.

Indirect noise impacts to burrowing owl during restoration and construction would be significant and would require mitigation. Indirect noise impacts would be mitigated through compliance with City standard conditions which require avoidance of construction during the breeding season of February 1–August 31. If construction or restoration must occur during this period, pre-construction

surveys would be completed, and if needed, noise reduction measures would be implemented in accordance with the City's Biology Guidelines (City of San Diego 2018).

Indirect impacts to western spadefoot could potentially occur during enhancement of jurisdictional resources within the 100-foot trail corridor or during vernal pool restoration activities, if work were to occur when ponding is present. These would be significant and mitigated through implementation of required VPHCP avoidance and minimization measures detailed in Section 6.2.2.2.a and measures detailed in Section 8.2.4.3 which limits activity to times of the year when no ponding is present. The trails restoration plan (see Attachment 1) and vernal pool restoration plan (see Attachment 14) require that no enhancement activities occur within vernal pools when ponded and herbicide application would not occur within a 10-foot buffer of vernal pools. Implementation of these measures would avoid indirect impacts to western spadefoot.

Implementation of grading within the project-level areas would result in indirect impacts to a total of 0.13 acre of vernal pools and disturbed wetlands either containing or assumed to contain San Diego fairy shrimp. This would be considered a significant indirect impact to San Diego fairy shrimp. Indirect impacts to San Diego fairy shrimp would be mitigated at a 2:1 ratio through inoculation of created vernal pools, as detailed in the Vernal Pool and Quino Checkerspot Butterfly Mitigation Plan (see Attachment 14). Implementation of the mitigation for direct impacts would ensure indirect impacts to vernal pools and disturbed wetlands containing or assumed to contain San Diego fairy shrimp would be reduced to less than significant. Indirect impacts could potentially occur to San Diego fairy shrimp during enhancement of jurisdictional resources within the 100-foot trail corridor or during vernal pool restoration activities, if work were to occur when ponding is present. These would be significant and mitigated through implementation of required VPHCP avoidance and minimization measures detailed in Section 6.2.2.2.a and measures detailed the trails restoration plan (see Attachment 1) and vernal pool restoration plan (see Attachment 14) which requires that no enhancement activities occur within vernal pools when ponded and herbicide application would not occur within a 10-foot buffer of vernal pools. Implementation of these measures would mitigate for indirect impacts to San Diego fairy shrimp during restoration activities.

Indirect impacts to Crotch's bumble bee from construction and restoration activities could result from the introduction of non-native species and generation of dust in the vicinity of nectar plants. Indirect impacts to Crotch's bumble bee would be mitigated through the following measures. As detailed in Section 7.2.2.1, introduction of non-native species would be avoided through compliance with the Specific Plan plant palette which requires native plantings adjacent to open space. Additionally, within the vernal pool preserve where the majority of suitable habitat is present, only native species would be planted, suitable as Crotch's bumble bee nectar plants. Indirect impacts to Crotch's bumble bee would be avoided in areas adjacent to proposed grading through implementation of dust control measures, erosion control, and fencing to demark the limits of disturbance. Additionally, prior to formalizing any primitive trails (e.g., narrowing the trail to 4 feet and restoring disturbed habitats surrounding the trail), sensitive plant survey updates would be conducted to ensure avoidance of sensitive plant species including significant nectar resources. Where needed to protect sensitive areas, peeler pole fencing and/or buffering sensitive plants from the trail would be implemented. With implementation of these measures, indirect impacts to Crotch's bumble bee would be mitigated to less than significant.

Potential indirect noise impacts to nesting Cooper's hawk, northern harrier, white-tailed kite, merlin, California horned lark, loggerhead shrike, yellow warbler, yellow-breasted chat, southern California rufous-crowned sparrow, grasshopper sparrow, and Bell's sage sparrow would be addressed through implementation of the Breeding Season Avoidance/Preconstruction Survey mitigation measure.

Indirect impacts to orange-throated whiptail, coastal whiptail, red diamond rattlesnake, two-striped garter snake, Coronado skink, southern mule deer, and San Diego desert woodrat would be less than significant with adherence to proper BMPs during construction and implementation of the City's Land Use Adjacency Guidelines for areas adjacent to MHPA and species-specific ASMDs. No nighttime lighting is proposed during construction or restoration activities.

Indirect impacts to sensitive wildlife present within the open space areas located along the proposed Beyer Boulevard West extension would additionally be avoided through project design features such as wildlife fencing that would deter trespass into the surrounding open space. No primitive trails are located along the Beyer Boulevard West alignment which would avoid human use impact within wildlife use areas. Additionally, very limited primitive trails are proposed within the surrounding open space and only where existing disturbance is present.

Wildlife Corridors

Impacts to wildlife corridors would be avoided through project design, specifically the design of the proposed Beyer Boulevard West extension which incorporates three wildlife undercrossings and a wildlife overcrossing that would ensure wildlife movement between habitat areas within Moody Canyon and habitat south of the roadway extension. Wildlife fencing would ensure wildlife would not cross the road and instead be directed to crossing locations. Additionally, no primitive trail alignments are proposed near the wildlife overcrossing in order to ensure the area is compatible with wildlife movement and human presence is minimized. With the incorporation of project design features and implementation of a Long-Term Management and Monitoring Plan for the Beyer Boulevard West wildlife movement features (see Attachment 16), impacts related to wildlife corridors would be less than significant.

Land Use Consistency

Implementation of the project-level areas would not conflict with any policies of the OMCP related to biological resources. Impacts related to conflicts with environmental policies would be less than significant.

1.0 Introduction

This report has been prepared according to guidelines set forth in the City of San Diego (City) Multiple Species Conservation Program (MSCP) Subarea Plan (1997) and the City Biological Resources Guidelines (2018a). This report also describes the project's compliance with City of San Diego Land Use Adjacency Guidelines in MSCP Subarea Plan Section 1.4.3 and the avoidance and minimization measures provided in Section 5.2.1 in the City's Vernal Pool Habitat Conservation Plan (VPHCP; City of San Diego 2019). Compliance with the Otay Mesa Community Plan (OMCP) is also discussed.

1.1 Project Location

The project is located in the community of Otay Mesa within the city of San Diego, and more specifically within the Southwest District of the Otay Mesa Community Plan (OMCP), south of State Route 905 (SR-905) and east of Interstate 805 (I-805; Figure 1). The project is located within Township 18 South, Range 01 West and Township 19 South, Range 01 West, of the U.S. Geological Survey (USGS) 7.5-minute topographic map, Imperial Beach, California quadrangle (Figure 2; USGS 1996) and is presented on the City 800-foot-scale map numbers 138-1749 and 138-1761 (Figure 3). The project area is surrounded by residential and commercial development to the north and undeveloped land to the east, west, and south. The City's Multi-Habitat Planning Area (MHPA), VPHCP/MHPA lands, and 100 percent conserved lands occur within and adjacent to the project area (Figure 4). The project area is not within the City's coastal overlay zone and the closest coastal overlay zone is approximately 0.59 mile to the west.

1.2 Project Background

1.2.1 Otay Mesa Community Plan

The OMCP provides a land use vision with associated land use policies for 9,300 acres located east of I-805, south of the Otay River, and west of the county of San Diego boundary. As a part of the OMCP, two areas were envisioned to be addressed by future Specific Plans, the Southwest Village Specific Plan and the Central Village Specific Plan. The Otay Mesa Central Village Specific Plan and associated OMCP amendment was approved in 2017. The Southwest Village Specific Plan envisioned by the OMCP to include 1,400 single-family residential units, 4,480 multi-family units, public facilities, commercial uses, and open space (Figure 5). The OMCP identified that the Specific Plans should be privately initiated and developed in collaboration with the City, and also specified that the Specific Plans would be considered amendments to the Community Plans. The OMCP additionally included a circulation plan that identified the extension of Beyer Boulevard West from San Ysidro connecting through the Specific Plan area to Caliente Avenue, which would be needed to serve the Specific Plan area. Refer to Section 3.3.5, Otay Mesa Community Plan, for additional information regarding the regulatory framework of the OMCP.

1.2.2 Vernal Pool Habitat Conservation Plan

The VPHCP was approved by City Council in January 2018. The VPHCP provides a regulatory framework to protect, enhance, and restore vernal pool resources in specific areas within the City's jurisdiction, while improving and streamlining the environmental permitting process for impacts to seven threatened and endangered species not covered under the City's MSCP Subarea Plan, including five plant and two crustacean species. The VPHCP preserve area expands on the City's existing MHPA by including areas for conservation, referred to as VPHCP/MHPA. A total of 45.92 acres are identified as existing VPHCP/MHPA within the Southwest Village Specific Plan area, 38.83 acres 100 percent and 7.09 acres of 75 percent conservation (see Figure 4). The VPHCP identifies vernal pools as well as conservation areas within the Southwest Village Specific Plan area. In addition, the VPHCP identifies lands that are identified 100 percent conservation (see Figure 4) that represent lands designated for conservation/preservation including the original MHPA lands and land conserved by other entities.

1.2.3 Conserved Land and Specific Plan Ownership

The area within and surrounding the Specific Plan area consists of land owned by various private and public entities as detailed in Figure 6. Tri Pointe Homes is one of the largest landowners in the Specific Plan area; but a number of other private parties own land within the Specific Plan area who each have the ability to develop. The City owns several one-acre parcels within the Specific Plan boundary that are intended for vernal pool conservation purposes. In addition to the various ownerships within the Specific Plan, the area west of the Specific Plan area, where the planned Beyer Boulevard West connection is proposed, is constrained by land that has been conserved for biological resource protection, detailed on Figure 7. The planned alignment of Beyer Boulevard West as envisioned in the City's OMCP would cross the following lands:

1. The County Furby North Preserve (Assessor's Parcel Number [APN] 6380707400) - The 83-acre Furby North Preserve was acquired by the County Department of Parks and Recreation in 2003 to contribute to the conservation of core habitat and contribute to the MSCP preserve system consistent with the City MSCP Subarea Plan. The Furby North Preserve is subject to a Resource Management Plan which provides management directives pursuant to the requirements of the City MSCP Subarea Plan and the Framework Resource Management Plan (County of San Diego 2012).

2. A privately-owned parcel known as "West Otay Mesa A" that has a California Department of Fish and Wildlife (CDFW) easement (former The Environmental Trust [TET] easement DOC#1997-0561037; APN 6450611000).

3. A City-owned parcel with a conservation easement held by CDFW known as "West Otay Mesa B". This parcel was previously owned by TET (DOC# 1997-561037, 1998-0131991, 1999-0672696, APN 645-061-0200).

4. The City's planned Beyer Park is located at the current terminus of Beyer Boulevard West in San Ysidro.

The City of San Diego additionally owns and manages 228.63 acres of land to the east of the Specific Plan as part of the City's MSCP preserve.

1.3 Project Description

The project consists of the Southwest Village Specific Plan (Specific Plan) which is intended to guide development within the Specific Plan area consistent with the OMCP (Figure 8) and City of Villages Strategy. The Specific Plan boundary encompasses approximately 490 acres, would facilitate creation of a new village anchored by up to 175,000 square feet of commercial and retail uses in a mixed-use Village Core. The Specific Plan would provide public facilities including dedication of a new elementary school, developed parks, trails, natural open space, habitat restoration, and habitat conservation. Access to the Specific Plan area would be via two main access points, Caliente Avenue to the north and from a proposed extension of Beyer Boulevard West to the west, connecting the Specific Plan area to San Ysidro. The project area includes improvements outside of the Specific Plan boundary, such as additional access improvements for Beyer Boulevard West and Caliente Avenue, emergency vehicle access (EVA) road, water and sewer facilities, as well as trails, and stormwater infrastructure including drainage outfalls. The Specific Plan identifies a range of allowable residential densities for each planning area to allow for flexibility in future planning and design. The following land use designations are proposed:

- Medium-Low Density Residential allowing 8 to 22 dwelling units per acre
- Medium Density Residential allowing 15 to 29 dwelling units per acre
- High Density Residential allowing 20 to 44 dwelling units per acre
- Mixed-Use allowing up to 175,000 square feet of commercial and retail uses at a maximum Floor Area Ratio of 3.0 and multi-family attached residential units at a density range of 20 to 44 dwelling units per acre

Implementation of the Specific Plan would require a number of discretionary approvals including but not limited to an amendment to the OMCP to remove the Neighborhood Village designation and designate Specific Plan land uses and circulation changes, a rezone to implement Specific Plan land uses, and a Multi-Habitat Planning Area Boundary Adjustment.

For the purpose of the environmental analysis included in this report, a full buildout scenario for Specific Plan was analyzed. As the Specific Plan is under multiple property ownerships and the timing of buildout is not known at this time, the ultimate mix of residential densities cannot be known with certainty.

Key objectives of the Specific Plan include:

- Implement a Specific Plan consistent with the land use and mobility framework identified in the OMCP.
- Provide a comprehensive policy and regulatory framework that guides development for Southwest Village in accordance with the General Plan and OMCP.
- Provide balanced residential neighborhoods with a range of housing, including attached and detached options to accommodate increasing growth in the region and critically needed housing.

- Provide a Village Core that connects residential neighborhoods through a grid network including a comprehensive bicycle and pedestrian network that supports connections to transit.
- Provide public amenities and spaces including parks, paseos, trails, open space, and other amenities for active and passive recreation.

The Specific Plan would be implemented in phases as detailed in Figure 9. Phasing represented in Figure 9 is conceptual and implementation may occur in any order provided services are provided concurrent with development. This biology report analyzes implementation of the Specific Plan at both a project-level for phases currently proposed for implementation and at a program-level for future Specific Plan phases. Project-level analysis is provided for implementation of Phases 1, 2 and a portion of Phase 4 (see Figure 9). In addition to Phases 1, 2 and 4, the project-level analysis includes additional improvements that are depicted as their own phase, as represented on Figure 10.1. Project-level analysis phases include Phases 1, 2, and 4, Beyer Boulevard West, off-site improvements, and EVA road. As shown, several of the project-level components are located outside of the proposed Specific Plan boundary, including Beyer Boulevard West and Caliente Avenue road extensions, the southern EVA road, trails, and other infrastructure. Future development areas identified as program-level analysis areas on Figure 10.1 are evaluated at a program-level in this report. Figure 11 depicts the location of project-specific versus program-level areas.

The program-level area is located in the central and eastern portions of the Specific Plan area and consist of approximately 131 acres including an approximately 0.33 mile out and back trail southwest of the Specific Plan area. Anticipated future development within the program-level analysis areas of the Specific Plan is described in Section 1.3.1. Once future projects come forward within the program-level area, they would require additional review to verify existing on-site biological resources, identify project specific impacts, and propose project-specific mitigation. The program-level analysis herein is intended to address potential biological impacts at the program-level and provide a mitigation framework for the future development.

The project-level area includes approximately 220 acres and includes development areas in the north, west, south, southwest and southeast portions of the Specific Plan area in addition to off-site improvement areas including Caliente Avenue and Beyer Boulevard West and approximately 0.96 mile of trails south and southeast of the development area both within and outside of the Specific Plan boundary. The project-level components include Phase 1 of residential development, infrastructure to support Phase 1, Beyer Boulevard West, trail improvements to support Phase 2, and rough grading of the Phase 2 and 4 area and EVA and off-site improvements. These components are described further in Section 1.3.2.

1.3.1 Program-level Components

1.3.1.1 Residential and Mixed-Use Development

Future residential portions of the Specific Plan evaluated at the program-level include Phases 3, 5 through 7, and portions of Phase 4. This includes residential development within portions of Planning Areas 1, 2, and 7 in addition to Planning Areas 3 through 6, and 21, 22, and 24 through 27 as shown on Figure 9. Mixed-use development is anticipated within Phase 7 which includes Planning

Areas 24 through 27, located within the central portion of the Specific Plan area. These program-level areas are under a variety of ownerships and the timing of development is unknown at this time.

1.3.1.2 Infrastructure Improvements

Implementation of the Specific Plan would require a number of infrastructure improvements such as new roadways and water, sewer, drainage, and storm water infrastructure. Conceptual drainage analysis has been completed for the Specific Plan to identify the programmatic drainage design. While specific drainage plans are not available at this time, it is anticipated that two drainage outfalls would be required to convey drainage to the bottom of the canyons south of Planning Areas 5 and 6 (see Figure 9). A pump station in the northeast portion of the Specific Plan area would be required to support future development areas. At this time, project-specific details regarding these infrastructure improvements are unknown.

1.3.1.3 Conceptual Trail Network Revisions

The OMCP, which was adopted in 2014, included a conceptual trail network, as detailed on Figure 12.1. Per the OMCP Recreation Element Policy 7.2-5, the final trail alignments were to be finalized and analyzed with future Specific Plans and project-specific proposals. To carry forward the OMCP trail network planning effort and comply with Policy 7.2-5, the project includes refinements to the existing planned trail network both within and surrounding the Specific Plan area. Certain trails planned for implementation are addressed at the project-level and are discussed further in Section 1.3.2.5.a. The program-level trail alignments are conceptual (see Figure 11), meaning they would require further study and environmental review prior to implementation.

As part of this overall specific planning effort, the adopted OMCP trail network was reviewed as it was discovered that certain trail alignments shown on the OMCP trail map followed alignments that would be unsuitable for implementation due a variety of issues including erosion concerns, steep grade, and presence of sensitive biological resources. Therefore, as part of this planning process, City Parks and Recreation staff conducted several site visits with trail experts, City MSCP staff, biologists and other specialists to consider the best location for trails within and surrounding the Specific Plan area. The focus of this effort was to ensure trails were sited considering compatibility with existing biological resources and to avoid areas where trails would not be sustainable due to slope, erosion or other conditions.

Since Specific Plan area trails within the open space would ultimately connect to primitive trails outside of the Specific Plan, revisions to the OMCP trail network were warranted to ensure consistency with MSCP trail policies related to resource conservation and sensitive species avoidance.

Through detailed evaluation of adopted OMCP conceptual trail alignments with respect to this Specific Plan, it was determined that several alignments should be removed from the plan. As shown on Figure 12.2, a number of the conceptual trail alignments identified in the OMCP are proposed to be removed or revised. Trails proposed for revision are numbered on Figure 12.2 and described below:

- Trail 1 was an alignment that would have crossed a number of conserved properties including the County Furby North Preserve, West Otay Mesa A, and West Otay Mesa B (see Section 1.2.3) within Moody Canyon. Due to the presence of conserved properties and sensitive resources within Moody Canyon, this trail alignment is proposed to be eliminated from the OMCP trail network map.
- Trail 2 is an OMCP conceptual trail alignment that would remain where the trail follows the ridgeline. Connections off the ridge have been removed, as the area is steep and cannot support trail connections from that area.
- Trail 3 includes a number of segments that border land intended for vernal pool conservation. Portions of this conceptual trail are proposed for removal to avoid bringing trail users near existing and/or restored vernal pool areas that need to be protected from disturbance. The portions that would remain are designated as part of the Specific Plan perimeter trail.
- Trail 4 is an extensive east west trail alignment proposed for removal. Additionally, the connections to Trail 2 would be eliminated due to steepness. Portions of this trail were found to be inaccessible and not traversable upon field inspection. An alternative east/west trail was identified that would be sustainable for trail use.
- Trail 5 was eliminated as there were some difficult drainage crossings present along the alignment, unsuitable terrain, slopes and erosion issues.

The City is updating the OMCP trail map to identify conceptual connections, and no specific alignments would be shown until further study and confirmation of sensitive resources and trail sustainability is determined. The trails depicted on Figure 12.3 identify those trails that were determined to be sustainable and compatible with surrounding biological resources. Updates to the City's OMCP trail map requires an amendment to the OMCP, which is one of the entitlements requested with this project. One OMCP program-level primitive trail is identified, which is a single out and back trail (see Figure 12.3, conceptual trail alignments, program-level primitive trail).

Proposed trails within the Specific Plan development area include a perimeter trail at the edge of the development area, intended for use by pedestrians and bicyclists providing views toward the surrounding open space. The perimeter trail would provide a transition between the development area and the surrounding open space areas. The perimeter trail would be located within the development footprint within Brush Management Zone (BMZ) 1. The perimeter trail would be separated from the surrounding open space by revegetated 2:1 to 3:1 manufactured slope which would serve to deter access into the surrounding open space. The trail would have a natural surface that may include tread improvements such as stabilized decomposed granite. Perimeter trail tread widths would be 8 feet, except in areas abutting a 4:1 slope, where the trail tread would be 7 feet in width. Perimeter trails would generally be located within the manufactured slope around the edge of the development within slopes ranging from 2:1 to 4:1. A recreation easement would be recorded over each segment of perimeter trail to allow public access. Perimeter trails would be constructed concurrent with development. Outside of the Specific Plan development area, primitive trails are proposed within both existing and proposed MHPA. Primitive trails would have a maximum trail base width of 4 feet, but some trails may be less than this where sensitive resources are present. Trails would be natural dirt. Primitive trails have been sited to follow existing disturbed trail

alignments where feasible to limit impacts to sensitive resources. Primitive trails would be for passive recreational use only, e.g., hiking, walking and non-motorized bicycle. Equestrian use and motorized bicycles (i.e., e-bikes) would be prohibited; however, where accessible, motorized wheelchairs would be permitted.

The Specific Plan calls for disturbed lands located within a 50-foot buffer (100 feet total) around proposed trail alignments to be restored to native habitats to remove access to unofficial trails and encourage use of the official trail network. The program-level primitive trail is limited to a single out and back ridgeline trail totaling approximately 0.33 mile. The City may require implementation of additional primitive trails within the surrounding open space consistent with the OMCP concept trail plan.

1.3.1.4 Conservation Areas

The Specific Plan includes land designated as open space (see Figure 8). Open space lands include land within the MHPA and/or VPHCP preserve and other land either already conserved or planned for conservation. Planning Area 28 is designated as general open space, with potential uses including passive open space, passive park, storm water and drainage facilities, and community gardens. Planning Areas 23, 29, and 30 include both existing and planned VPHCP/MHPA and MHPA conserved open space areas (shown with hatch overlay on Figure 8), and future uses in these areas would be limited to uses consistent with conservation land and would be required to comply with the VPHCP and MSCP MHPA policies and related regulations. Any development adjacent to conserved open space and/or sensitive biological resources would be required to demonstrate consistency with the City's VPHCP and MSCP Subarea Plan.

1.3.2 Project-level Components

Project-level components of the Specific Plan include Phase 1 of the residential development, infrastructure to support Phase 1, Phase 2 and 4 rough grading areas, Beyer Boulevard West, the EVA road, and other off-site infrastructure improvements. Refer to Figure 10.1 for the project-level phasing areas and Figure 11 for all project-level analysis areas. Implementation of Phase 1 would include development of up to 920 multi-family (detached and attached) residential units, within Planning Areas 8 through 14. The supporting infrastructure would include construction of an EVA road, Beyer Boulevard West and Caliente Avenue along with water, sewer, and transportation infrastructure improvements. Drainage outfalls, a pump station/sewer lift station, and trails are also part of the Phase 2 components. Discretionary actions required to implement the project-level components include, but are not limited to, a Site Development Permit, a MHPA Boundary Line Adjustment (BLA), replacement of VPHCP conservation land, and modifications to existing CDFW easements to identify Beyer Boulevard West as an allowable road easement crossing conserved lands.

1.3.2.1 Residential Components

The residential components evaluated at the project-level includes Phase 1, which includes Planning Areas 8 through 14. These Planning Areas are addressed in the VTM, which identifies up to

920 residential dwelling units. Implementation of residential components would occur in phases as detailed below.

a. Phase 1a

Phase 1a would involve construction of access to the Specific Plan area via Caliente Avenue and Central Avenue in addition to construction of the first 200 residential units. The anticipated site plan for Phase 1a is depicted on Figure 10.2. The Caliente Avenue extension south of its existing terminus to Central Avenue may be constructed by another developer or this project; therefore, this access is included as part of the project description in the event this project proceeds first. Phase 1a would involve construction of the first 200 residential units within Planning Areas 8 through 10 in addition to a temporary sewer lift station as depicted on Figure 10.2. Due to the area topography in relation to sewer treatment, a temporary sewer pump station would be required to serve these first 200 units until such time permanent sewer and water lines are constructed.

b. Phase 1b

Phase 1b would involve construction of up to an additional 499 units for a total of 699 residential units. The anticipated site plan for this phase is depicted on Figure 10.2. As part of this phase, an existing dirt road would be improved to provide an EVA road for emergency use (see Figure 16.3 and Section 1.3.2.3.e). Phase 1b would also require the construction of a temporary sewer lift station as depicted in Figure 10.2.

c. Phase 1c

Phase 1c would involve construction of the Beyer Boulevard West extension in addition to the remaining residential units within Planning Areas 12 and 14. Refer to Figure 10.2 for the Phase 1c residential component and Figure 10.1 for the location of the Beyer Boulevard West phase.

d. Phase 2

Rough grading would be conducted within Phase 2 areas. Additionally, Phase 2 includes implementation of drainage outfalls identified on Figure 10.1 and primitive trails (see Figures 12.3 and 12.4). Future site-specific grading and development plans would be required within Phase 2 areas as development is proposed.

e. Phase 4

Rough grading would be conducted within portions of Phase 4 areas, primarily supporting grading for Caliente Avenue, south of Central Avenue and residential development within Planning Area 7. Future site-specific grading and development plans would be required within Phase 4 areas as development is proposed. Grading estimates for Phase 4 include approximately 22,500 cubic yards of cut and 342,500 cubic yards of fill with anticipated import volumes of 320,000 cubic yards originating from other portions of the site.

1.3.2.2 Landscaping and Brush Management

A landscape plan has been prepared covering Planning Areas 8 through 14 in addition to the Beyer Boulevard West extension and the EVA road. Landscape details for these areas are discussed below and detailed on the project landscape plans.

a. Slope Revegetation

Manufactured slopes located adjacent to natural open space would be revegetated with native plants, specifically within the areas depicted on Figure 13.1. The native plant palette for the slopes adjacent to natural open space areas include the following species which correspond to the "MHPA Adjacent Lands and Brush Management Zone 2 (BMZ 2) Plant Palette":

- coastal deerweed (*Acmispon glaber* var. *glaber*)
- ocean locoweed (*Astragalus trichopodus* var. *lonchus*)
- California encelia (*Encelia californica*)
- California matchweed (*Gutierrezia californica*)
- coastal goldenbush (*Isocoma menziesii*)
- laurel sumac (*Malosma laurina*)
- purple needle grass (*Stipa pulchra*)
- white sage (*Salvia apiana*)
- Mojave yucca (*Yucca schidigera*)
- western blue-eyed grass (*Sisyrinchium bellum*)
- blue dicks (*Dipterostemon capitatus* [=*Dichelostemma capitatum*])
- San Diego bur-sage (*Ambrosia chenopodiifolia*)
- California sand-aster (*Corethrogyne filaginifolia*)
- saw-toothed goldenbush (*Hazardia squarrosa*)
- caterpillar phacelia (*Phacelia cicutaria* var. *hispida*)
- bladderpod (*Peritoma arborea*)
- jojoba (*Simmondsia chinensis*)
- foothill needle grass (*Stipa lepida*)
- fascicled tarweed (*Deinandra fasciculata*)
- California adolphia (*Adolphia californica*)
- California box-thorn (*Lycium californicum*)
- coast cholla (*Cylindropuntia prolifera*)
- coast prickly-pear (*Opuntia littoralis*)
- cliff spurge (*Euphorbia misera*)

An exterior manufactured slope plant palette is identified adjacent to the MHPA planted areas as detailed on Figure 13.1 including adjacent to the Beyer Boulevard West extension and other exterior slope areas not adjacent to the MHPA. This plant palette is shown on the project landscape plan and includes native species and additional native groundcovers and native tree species including coast live oak *(Quercus agrifolia)*, Nuttall's scrub oak (*Quercus dumosa*), and blue elderberry *(Sambucus mexicana*). Refer to the landscape plan for additional details.

b. Phase 1 Brush Management

Brush management is required on all premises that are within 100 feet of a structure and contain native or naturalized land. Brush management is proposed along the boundaries of the Phase 1 residential development area where development areas are located adjacent to open space, including Planning Areas 10, 12, and 14. Brush management consists of Zone 1 and Zone 2, which are shown on Figure 13.2. Zone 1 would be a 35-foot minimum width, while Zone 2 would be 65 feet wide, although final layouts of brush management zones may exercise zone reduction provisions set forth under San Diego Municipal Code 142,0421(f). Alternative compliance is proposed in Planning Area 10 (lots 1319, 27-29 and 52-54), Planning Area 12 (lots 63 and 88 through 98), and Planning Area 14 (lots 117 through 135) due to constraints related to adjacency to open space preserves. Dwelling units with alternative compliance brush management zones would be required to comply with the City's FPB Policy B-18-01, "Mitigation for Reduced Brush Management Zones". Alternative compliance would generally include installation of fire rated walls, upgraded openings with dual-glazed, dual-tempered panes along brush side of structures plus a 10-foot perpendicular return along adjacent wall faces. Where glass panes are proposed adjacent to open space, bird safe glass would be used to prevent bird collisions. Bird safe glass would include the use of glass with ultraviolet reflective patterns visible to birds but transparent to the human eye (such as GlasPro Bird Safe Ultraviolet Reflective Glass), or etched or patterned glass that provide a visual barrier. Patterned or etched glass would have vertical stripes at least ¼ inch wide with a maximum spacing of 4 inches, or horizontal stripes that are at least ¼ inch wide with a maximum spacing of 2 inches (U.S. Fish and Wildlife Service [USFWS] 2021). In addition, brush management will avoid impacts to nesting birds in conformance with Migratory Bird Treaty Act (MBTA) and California Fish and Game Code either through timing restrictions or pre-activity nest avoidance surveys.

With the proposed MHPA BLA, all BMZ 1 and 2 areas would be outside of both existing and proposed MHPA. Vegetation management within BMZ 2 would be consistent with City Landscape Manual, Section III: Brush Management which requires BMZ 2 plants to not be cut below six inches which allows for impacts to native habitats to be avoided.

All manufactured slopes within BMZ 2 would be revegetated with native species and would be protected through a covenant of easement. Fire management within BMZ 2 would be the responsibility of a private entity (e.g., homeowners association [HOA]). The easement would ensure permanent protection of the habitat while providing allowance for ongoing vegetation management for fire protection purposes. Refer to the Specific Plan plant palette for a list of allowed plant species within MHPA adjacent areas in BMZ 2 above.

c. Phase 2 Brush Management

Detailed site planning is not complete for Phase 2 residential development areas (e.g., Planning Areas 15, 16, 17, 19, and 20 shown on Figure 9). Therefore, detailed brush management zones are not provided at this time. Brush management zones consistent with the City's Land Development Code (LDC) would be provided as part of Phase 2 Implementation, providing 100 feet of defensible space or approval of alternative compliance consistent with allowances in the LDC. Although Phase 2 site planning is not available at this time, a buffer between the impact limits and the proposed mitigation lands has been provided to accommodate future impact neutral BMZ 2. A 50-foot buffer

was provided between the edge of the grading footprint and adjacent open space as detailed in Figure 13.3. This buffer would ensure that brush management for Phase 2 areas does not encroach into proposed MHPA or mitigation lands. If alternative compliance is required for phase 2 and fire safe glass panes are proposed adjacent to open space, bird safe glass would be required. In addition, brush management will avoid impacts to nesting birds in conformance with MBTA and California Fish and Game Code either through timing restrictions or pre-activity nest avoidance surveys.

1.3.2.3 Roadway Improvements

a. Caliente Avenue and Central Avenue

Access to proposed Phase 1a residential development would require the construction of Caliente Avenue north of the Specific Plan boundary from its current terminus in Otay Mesa, south to the planned connection with Central Avenue. Phase 1a would include the construction of this segment of Caliente Avenue as well as Central Avenue west of Caliente Avenue. Caliente Avenue south of Central Avenue is part of the Phase 4 component. Portions of these improvements extend through the Candlelight and Southwind projects.

b. Beyer Boulevard

Implementation of the project-level areas would require construction of an extension of Beyer Boulevard providing access from San Ysidro to the Specific Plan area. Beyer Boulevard improvements are required both within and outside of the Specific Plan boundary (Figure 14.1).

Beyer Boulevard East

As detailed in the Specific Plan, Beyer Boulevard within the Specific Plan boundary is referred to as Beyer Boulevard East and would be constructed as a modified 4-lane Urban Major.

Beyer Boulevard West

The extension of Beyer Boulevard ~~West~~ west of the Specific Plan from Enright Drive to West Avenue is referred to as Beyer Boulevard West, which is planned as a modified 4-lane Urban Collector. Although planned as a modified 4-lane Urban Collector, the roadway is constrained by environmental resources and the Specific Plan specifies that this segment would be built with 2 instead of 4 lanes (see Figure 14.1). All manufactured slopes surrounding Beyer Boulevard West would be revegetated with native plant species consistent with the surrounding habitats, as detailed in Section 1.3.2.1.

Along the western extent of the proposed Beyer Boulevard West extension, a 6-foot-tall masonry wall would be constructed on the north side of the road to provide separation and noise attenuation from the adjacent habitat. Two San Diego Gas and Electric (SDG&E) access points with gates are proposed along Beyer Boulevard West to provide ongoing access to SDG&E easements and power lines within the surrounding open space (Figure 14.2). A number of retaining walls have been incorporated into the roadway design, largely to limit habitat impacts. Retaining walls include 4-foot

to 12-foot retaining walls along the north and south sides of Beyer Boulevard West to minimize impacts to conserved properties including the Furby North Preserve, West Otay Mesa A, and West Otay Mesa B (see Figure 14.2). Refer to Section 1.3.2.5 for additional actions required related to these properties.

Beyer Boulevard West Wildlife Crossings

Due to the surrounding open space along Beyer Boulevard West, the roadway is designed to allow for wildlife movement through culverts and a wildlife overcrossing. For consistency with the City MSCP Subarea Plan and Area Specific Management Directives for Otay Mesa, a 32-foot-by-60-foot wildlife overcrossing is proposed along the Beyer Boulevard West alignment in the location of one of the highest wildlife use areas (see Figure 14.2). The overcrossing is sited and designed to mimic the existing topographic conditions and convey animals in the location of existing wildlife movement patterns at a high use drainage swale area. The wildlife overcrossing would be sited approximately 515 feet east of the development area. Each end of the overcrossing is designed to include flared entrances to encourage wildlife entry. Surrounding slopes would be revegetated with native vegetation to match surrounding habitats. Wildlife fencing would be incorporated, as discussed further below.

In addition to the wildlife overcrossing, three additional small animal crossing features have been designed as part of the Beyer Boulevard West extension where it crosses conserved lands. Three 6-foot-tall culverts, ranging from 103-105 feet in length, would be installed to provide passage for small mammals between Moody Canyon and habitat areas to the south. These culvert undercrossings would provide multiple opportunities for small animal movement and incorporate wildlife passage into the roadway design. The culvert crossings would also be designed with a flare at the ends to encourage entry. While the culverts are designed to convey drainage during rain events, the drainage design would ensure a flood free crossing for animals during rain events.

Fencing is proposed along the length of Beyer Boulevard West on both the north and south sides to prevent wildlife crossings along the roadway and to funnel wildlife toward the wildlife crossings. Fencing on the north side of Beyer Boulevard West is estimated to be installed for an approximately 3,997-foot length, while fencing along the south side of Beyer Boulevard West would extend approximately 3,112 feet. Along the west side of Beyer Boulevard West, where vehicular access is needed for an SDG&E easement, a gate would be added that would allow for vehicular entry while keeping wildlife from entering the roadway. The precise location (elevation) of the fencing on the slope would be determined during the final engineering of the Beyer Boulevard West extension. The following are key design features related to the proposed wildlife overcrossing and the three small animal under crossings that would be implemented, as recommended by the project's wildlife movement study (Wildlife Tracking Institute 2022):

- Chain-link fencing would be installed along the length of Beyer Boulevard West. Fencing would funnel wildlife toward the culvert undercrossings and the wildlife overcrossing, while preventing wildlife from crossing the roadway.
- The height of the fencing would be based on the slope aspect in relation to the fence, with fence heights being 6 feet up to 8 feet depending on the orientation of the slope. Fence heights vary with topographic conditions to ensure adequate control of wildlife movement away from the roadway. Where the fence is located mid-slope with wildlife usage area

located above the fence line, the fence would need to be 8 feet tall. Where the fence is located at grade or with wildlife use area located downslope of the fence, a 6-foot fence height would be sufficient.

- Wildlife fencing shall be buried 6 inches to prevent animals from burrowing under. Additionally, a fine mesh shall be installed along the bottom two feet of the fence to prevent small animal movement through the fence.
- The wildlife overcrossing surface shall be planted with native plants and native soil, approximately 3 feet deep. Soils for the overcrossing shall originate from the surface layer of surrounding native soils. As detailed in the project landscape plants, the following plant palette is identified for the wildlife overcrossing:

    - Coastal cholla (*Cylindropuntia prolifera*)
    - California encelia/Bush sunflower (*Encelia californica*)
    - Laurel sumac (*Malosma laurina*)
    - Coast prickly pear (*Opuntia littoralis*)
    - Bladderpod (*Peritoma arborea*)
    - Lemonade berry (*Rhus integrifolia*)
    - Black sage (*Salvia mellifera*)
    - Mojave yucca (*Yucca schidigera*)
    - Purple needlegrass (*Stipa pulchra*)
    - Small flowered needlegrass (*Stipa lepida*)

- Native bushes (such as lemonade berry and laurel sumac) found in the area that attain 6- to 8-foot heights should be placed along the sides of the overcrossing to screen the road and provide refugia.

- Micro-refugia (e.g., rock structures) shall be incorporated onto the overcrossing and undercrossing surface for small animal stopping points/shelters.

- Native plant landscaping on the southern slope at the wildlife overcrossing shall be designed with vegetation that would grow in a dense manner to deter human views toward the overcrossing and deter human use. Native cactus and other uninviting species shall be selected to deter human access.

Beyer Boulevard between Otay Mesa Road and Enright Drive (San Ysidro)

As detailed in Figure 15.1, the current Beyer Boulevard in San Ysidro between Otay Mesa Road and Enright Drive is proposed to be improved with revised striping within the existing right-of-way limits. This is an interim improvement that would ensure adequate roadway functioning until the final roadway improvement is implemented as part of Phase 4 of the Specific Plan.

The limits of disturbance for this segment assume a wider area in anticipation of the requirement to widen this segment to 4 lanes to its ultimate improvement width which would require acquisition of right-of-way from the San Ysidro School District. The ultimate Beyer Boulevard improvement between Enright Drive and Beyer Boulevard West is depicted on Figure 15.2. The required timing for this improvement corresponds to implementation of Phase 4 of the Specific Plan prior to

issuance of occupancy permits for the 3,301st dwelling unit (after construction of an elementary school and a 17.6-acre public park), although it may be implemented sooner.

The ultimate improvement in this area would include construction of an approximately 6,900-linear-foot retaining wall ranging in height from 1 to 16 feet at its highest point located along the northern side of the road adjacent to the San Ysidro School District property (Figure 15.3).

c. West Avenue and Street A

Internal to the Specific Plan, implementation of Phase 1 would also include construction of West Avenue and Street A to provide access to residential development areas.

d. SR-905 and Caliente Avenue Improvements

The project proposes improvements to the SR-905 and Caliente Avenue interchange. The improvements detailed below shall be completed and operational prior to occupancy of the 201st dwelling unit.

SR-905 Westbound On-Ramp Widening

Widening the westbound SR-905 on-ramp at Caliente Avenue is proposed to ensure adequate roadway operations. This improvement involves adding a lane within the existing California Department of Transportation (Caltrans) right-of-way (Figure 16.1).

Restriping and Signal Modifications within the Caliente Avenue Bridge over SR-905

Intersection reconfiguration of Caliente Ave/SR-905 westbound ramps are proposed to install a second northbound left turn lane (through re-striping on the bridge over SR-905), construct a second receiving lane to the on-ramp, and restripe the number one left turn lane from 100 feet of storage to 300 feet of storage (Figure 16.2). Traffic signal modifications, designed to the satisfaction of the City Engineer and Caltrans Engineer, may also be required.

e. Emergency Vehicle Access Road

The project is subject to the City's Fire Protection and Prevention regulations (San Diego Municipal Code Section 511.0104), which adopted the 2022 California Fire Code, Appendix D, Section D106.2., "Multiple-Family Residential Developments with Significant Fire Risk," which states that multi-family residential projects having more than 200 dwelling units shall be provided with two separate and approved fire apparatus access roads regardless of whether they are equipped with an approved automatic sprinkler system. Accordingly, the project requires a secondary access route prior to occupancy of the 201st unit. The secondary emergency access is proposed to be provided through either the construction of Beyer Boulevard West or through improving an existing utility road south of the Specific Plan area to an EVA road that meets secondary emergency access requirements (see Figure 10.3). The Beyer Boulevard West connection is required to be operational prior to occupancy of the 700th unit for transportation and circulation purposes.

In the event the EVA road is implemented as a component of this project, improvements would involve grading, scraping, and placement of surfacing including concrete, asphalt, and/or decomposed granite or gravel. The road width would be 20-feet wide in most places and would narrow to 14-feet in one location to avoid sensitive environmental resources. Grading is required along portions of the road to reduce the steepness and achieve a maximum 15 percent grade and resurfacing the roadway is required in some areas due to the grade. Approximately 1.99 acres of grading would be required with the remaining disturbance limited to scraping the road to achieve a consistently flat surface. Approximately 0.74-acre of the roadway would require concrete surfacing in areas that would be at a 15 percent grade. A 0.12-acre portion of the road would require asphalt due to steep grades, while the remaining portions of the road (approximately 2.09 acres) would be surfaced with decomposed granite or gravel for stabilization. Grading quantities include approximately 6,780 cubic yards of cut and 8,220 cubic yards of fill, which is captured as part of the overall project-level grading quantities reported in Section 1.3.2.4.a due to grading balancing. Where grading is required, all slope disturbance would be restored to native habitats consistent with the surrounding area. The resurfacing would involve placement of decomposed granite, asphalt, and concrete surfacing in certain areas depending on grade.

The EVA road would provide a secondary emergency only vehicle access once 200 units are constructed. Ultimately, after buildout of Phase 2 residential components and public roadways including South Caliente Avenue, the EVA road access would be provided from the intersection of South Caliente Avenue and D Street. The EVA road would be HOA owned and maintained. Access to the EVA road would be gated at the edge of development and locked with a 'Knox box' for City of San Diego's use only in order to prohibit public vehicular access; however, pedestrian and non-motorized bicycles would be permitted along the EVA road to allow connection to the proposed primitive trail network. Public access beyond the EVA road and trail access points would be prohibited with signage notifying the public to stay only on designated trails. Signage would also be provided along the edges of the EVA road to provide public notice that access to the surrounding open space is prohibited, with the exception of access to formal primitive trails. Manufactured slopes associated with the EVA road would be revegetated with native plants consistent with the surrounding habitats as detailed on the project landscape plans and depicted on Figure 13.1.

To address concerns that the proposed EVA road improvements could destabilize the landslide complex that exists in the area, a geotechnical evaluation was conducted by Geocon, Inc. which identified the hillside has a slope stability factor of safety of 1.24 in the existing condition. Improvements to the road would not exacerbate this risk and would slightly increase stability due to grading, increasing the factor of safety to 1.25 as detailed in Attachment 12. Additionally, due to the factor of safety being above 1.0, future movement of the landslide in general is not expected to occur. Refer to Attachment 12 for additional information regarding landslide risk and stability.

1.3.2.4 Grading and Infrastructure

a. Grading

The project-level grading component includes grading within Phase 1 areas including (Planning Areas 8 through 14), the Beyer Boulevard West extension, the EVA road, and off-site improvement areas. Rough grading areas include Phase 2 (Planning Areas 15 to 20) and Phase 4 (a portion of

Planning Area 1 and Planning Area 7). Grading volumes include 1,936,352 cubic yards of cut and 1,850,224 cubic yards of fill, with anticipated export volumes of approximately 86,128 cubic yards, which would be placed within rough grading areas located within Planning Areas 15 through 18 or used grading balancing for the EVA road and Phase 4 areas.

Grading volumes for Phase 4 are included in the overall grading volumes discussed above, but individually include 22,500 cubic yards of cut and 342,500 cubic yards of fill originating from other portions of the project site. Grading volumes for the EVA road are similarly included in the overall grading volumes discussed above, but individually include 6,780 cubic yards of cut and 8,220 cubic yards of fill, with anticipated import volumes of 1,440 cubic yards coming from other portions of the project site.

Anticipated grading phasing is depicted on Figure 10.1. As shown, grading would be implemented in phases, with Phase 1 including grading to allow the development of up to 920 residential units, Phase 2 including the rough grading areas, the EVA road phase including grading within the EVA road area, the Beyer Boulevard West phase includes grading for the Beyer Boulevard West extension and off-site improvements are identified as their own phase.

b. Drainage and Stormwater Management

Phase 1

The project drainage design involves on-site detention of stormwater in underground vaults to capture, treat and control stormwater flow volumes. Drainage in the post-project condition would flow west within Beyer Boulevard West to a planned detention basin to be shared with the planned Beyer Park. Additionally, stormwater flows would be discharged within the surrounding open space at the drainage locations shown on Figure 10.1. The project's drainage design has been planned so that none of the project runoff discharges into the landslide area due to recommendations from the geotechnical engineer related to landslide stability.

The overall drainage characteristics in the post-project condition would remain similar to the pre-project condition for the residential areas associated with Phase 1a, with drainage discharging to the west at the bottom of the slopes providing flows toward existing drainages within Moody Canyon (see drainage discharge points on Figure 10.1). Due to the proximity of the San Ysidro landslide complex, drainage associated with the proposed Beyer Boulevard West extension and residential development areas south of Beyer Boulevard West would be diverted either north to the proposed stormwater system down Beyer Boulevard West and into the proposed detention basin at the west end of Beyer Boulevard West, or south/southeast toward Spring Canyon. The location of the proposed Beyer Boulevard West detention basin and drainage discharge points associated with Phase 1 development areas are depicted on Figure 10.1.

Post-project storm water runoff would be treated to the City Storm Water Standards, as discussed in "Priority Development Project Storm Water Quality Management Plan (PDP SWQMP) for South Otay Mesa (Preliminary Engineering)," prepared by Rick Engineering Company. Additionally, to manage stormwater in interim conditions during construction phasing, temporary construction basins would be constructed within Phase 2 as a part of rough grading.

Phase 2

While not proposed or required with Phase 1 development, anticipated Phase 2 drainage facilities are evaluated at the project-level. Drainage outfall 1 and 2 would be required to support future Phase 2 residential development areas (see Figure 10.1). These drainage facilities would involve installation of underground drainage conveyance pipes to convey drainage toward lower elevations, outside of the landslide formation. At the outlet of pipe where it surfaces, rip rap would be installed. Flows would be controlled to manage velocities to avoid erosive conditions. Following installation of the drainage pipes, the disturbance areas would be revegetated with native species consistent with the City's Landscape Regulations (Chapter 14, Article 2, Division 4 of the SDMC) and Land Development Manual which requires disturbed areas adjacent to areas of native vegetation to be revegetated with indigenous native plant materials (Section 4.1 of Landscape Standards).

c. Water and Sewer Improvements

Pump Station/Sewer Lift Station

The southeast portion of the Specific Plan area is planned to include a pump station (e.g., sewer lift station) as part of the wastewater infrastructure necessary to support the development of Southwest Village Specific Plan, and is analyzed at the project-level. The pump station was identified as an allowed use in the VPHCP; therefore, it would be located within the VPHCP preserve and would occupy a maximum of 2 acres, just east of Planning Area 18. The pump station would be installed as part of Phase 2 of the project.

Water and Sewer Improvements

Water and sewer line improvements are required to serve the project. Phase 1a and 1b (see Figures 10.2 and 10.3) of the project would involve installation of two separate temporary pump stations that would connect to a 4-inch private force main to be installed within Central Avenue and Caliente Avenue. The force main within Caliente Avenue would extend north to Airway Drive within the existing roadway. These pump stations would be temporary until Beyer Boulevard West and the ultimate water and sewer connections are constructed.

Implementation of the Beyer Boulevard West phase would require extension of water and sewer lines within the footprint of the proposed Beyer Boulevard West extension. West of the extension of Beyer Boulevard West, water and sewer line extensions are required to connect to surrounding pipeline and facilities as detailed in Figure 17. As shown, a 16-inch water line connection would extend west within existing Beyer Boulevard in San Ysidro and north within Otay Mesa Road and Otay Mesa Place connecting to the Princess Park Pump Station located at 1740 Masterson Lane. Sewer line improvements would require construction of a pipeline within East Beyer Boulevard and Center Street connecting to existing sewer lines. Construction of water and sewer lines would require installation using a backhoe straddling the new pipeline installation trench, requiring a disturbance width of 20 feet along pipeline installation locations.

1.3.2.5 Other Project Components

a. Trail Network

Consistent with the OMCP Recreation Element Policy 7.2-5, the final trail alignments within the Specific Plan area were to be finalized and analyzed with future specific plans and project-specific proposals. Additionally, due to the connection of the Specific Plan trail network to the surrounding OMCP conceptual trail network, the overall trail network surrounding the Specific Plan area was evaluated as part of the project. The existing OMCP conceptual trail network is depicted on Figure 12.1. As shown, a number of conceptual trail alignments were identified as part of the OMCP. Through implementation of a trail planning process associated with development of the Specific Plan, revisions to the OMCP trail map are proposed including elimination of a number of trails as detailed in Section 1.3.1.3. As part of the project-level components, portions of the trail network are proposed to be implemented, specifically the Phase 1 and 2 trails depicted on Figure 12.4.

The major trails within the Specific Plan area include a perimeter trail which would be located around the perimeter of the development areas, offering views toward the surrounding open space. An existing utility trail would be maintained to provide a connection to the southern border wall road. From the utility trail, access would be provided to two primitive trails including one out and back trail segment west of the utility road and another east-west primitive trail to the east (see Figure 12.3). The eastern primitive trail may ultimately provide connections to future primitive trails associated with the OMCP trail network; however, at this time, specific alignments are not known.

Trails proposed for implementation as part of the Phase 1 development include the perimeter trails bordering the edge of the proposed residential development area, identified as Phase 1 trails on Figure 12.4. The remainder of the project-level perimeter trail would be implemented as future subdivision maps are proposed, corresponding with Phase 2. Perimeter trail specifications are described in Section 1.3.1.3.

Approximately 0.96 mile of primitive trails (4 feet wide) are proposed to be improved both within the Specific Plan and south of the Specific Plan boundary. Trail improvements would include trail stabilization, erosion control, and closure of unauthorized trail routes in proximity to proposed formal trail alignments. Trail closures would primarily be implemented through restoration of disturbance within a 100-foot corridor surrounding the primitive trail alignment (50-foot buffer on each side) as a project design feature as depicted on Figure 18 and described in more detail in Section 1.3.2.6.a. Primitive trails would have a natural soil/dirt surface and would be for passive recreation only, e.g., hiking, walking, and non-motorized bicycle. Equestrian use and motorized bicycles (i.e. e-bikes) would be prohibited; however, where accessible, motorized wheelchairs would be permitted.

b. CDFW Conservation Easements

CDFW holds conservation easements over two parcels that would be affected by the proposed Beyer Boulevard West extension, referred to as West Otay Mesa A and West Otay Mesa B (soil) (Attachment 19). California Fish and Game Code Section 1348.3 governs conservation easements recognizing that the purpose of CDFW conservation easements is to ensure protection of lands

deemed suitable for wildlife preservation, the process to identify Beyer Boulevard West as an allowed use through these conservation easements requires several actions on the part of both the City and CDFW. The existing CDFW easements would be amended to identify Beyer Boulevard West and its slopes as an allowed use within the easements. Refer to Figure 19 for the location of the required easement amendment area for Beyer Boulevard West.

California law requires compliance with a statutory process when a governmental agency seeks to exercise its powers of eminent domain over conserved land. Due to the easement amendments being for a public road purpose, the City is committed to complying with the requisite notice, consultation, opportunity to state objections, necessity of use, and findings supported by substantial evidence in a Resolution of Necessity as outlined at California Fish and Game Code Section 1348.3. To facilitate modifications to CDFW held conservation easements, the City would consider approval of resolutions to acquire real property interests and initiate condemnation proceedings for the Beyer Boulevard West right-of-way and slopes. Granting of a new CDFW conservation easement would be required prior to the City initiating condemnation proceedings and prior to amending the original conservation easements. CDFW would hold the replacement conservation easement, USFWS would be identified as a third-party beneficiary, and the City would be the long-term habitat manager with endowment funding provided by the applicant/owner. The specific location of the proposed replacement conservation easement would be determined through ongoing coordination with CDFW. In addition to a granting a new conservation easement to CDFW, two additional project design features are included as part of the project to support the requirements of the Wildlife Agencies, including the following:

- An approximate 2.13-acre area is proposed for vernal pool restoration within the City-owned West Otay Mesa B parcel. This potential restoration area is depicted on Figure 19.
- An approximate 95.29-acre area of additional habitat preservation beyond City mitigation requirements is proposed to be dedicated to the City in ownership for long-term management, depicted on Figure 19. This area includes approximately 44.41 acres of maritime succulent scrub, 24.95 acres of disturbed maritime succulent scrub, 13.66 acres of Diegan coastal sage scrub, 0.92 acre of disturbed coastal sage scrub, 6.16 acre of non-native grassland, 0.07 acre of disturbed wetland, 0.19 acre of natural flood channel, 0.16 acre of vernal pool with fairy shrimp, and 6.29 acres of disturbed land. This area is a project design feature to provide additional habitat preservation to support impacts to land conserved in CDFW held conservation easements and considered 100 percent conserved under the VPHCP.

c. County of San Diego Furby North

Beyer Boulevard West would traverse the County of San Diego's (County's) Furby North Preserve, which is land considered 100 percent conserved under the VPHCP, but is not protected by a CDFW conservation easement. The County considers the land within Furby North Preserve to be public parkland protected under the California Public Park Preservation Act of 1971. The California Public Park Preservation Act (California Public Resources Code [PRC] Sections 5400 et seq.) is the primary instrument for protecting and preserving parkland and provides provisions that ensures no net loss of parkland and facilities.

Construction of Beyer Boulevard West and its slopes would occur within a total of 3.73 acres of land within the Furby North Preserve including 3.12 acres of maritime succulent scrub, 0.04 acre of disturbed maritime succulent scrub, 0.02 acre of vernal pool, and a 0.55-acre of disturbed land. This area would be transferred to the City in ownership and for management as part of its public roadway network. A County Board of Supervisors action would be required to authorize the land required for Beyer Boulevard West and its slopes to be conveyed to the City in ownership. See Figure 20.1 for the portion of the County Furby North Preserve that would be quitclaimed to the City.

In order to demonstrate compliance with the Parkland Preservation Act, replacement land has been identified south of the Specific Plan area that would be conveyed to the County in ownership with the City providing long-term management. The location of the replacement land is depicted on Figure 20.1. The replacement land totals 7.98 acres and would include 7.80 acres of maritime succulent scrub, 0.06 acre of disturbed wetland, and a 0.11-acre area of disturbed land. The City would manage these lands as part of the overall MSCP.

Like the land to be removed from the Furby North Preserve, the replacement land would be for habitat conservation purposes. The County and the City would enter into an agreement regarding the City long-term management responsibilities on County owned land, to ensure the land is managed consistent with the City's MSCP.

Legal Access to Southern Portion of the Furby North Preserve

After construction of Beyer Boulevard West, the southern portion of the Furby North Preserve would be bisected by a City Public Road. In order to ensure ongoing legal access to this segment of the County preserve, the applicant proposes to grant a 20-foot access easement to the County that would provide access from Beyer Boulevard West to the Furby North Preserve. Refer to Figure 20.2 for a graphic depicting the proposed easement in relation to Beyer Boulevard West. An access gate is planned to be constructed along the southern side of Beyer Boulevard West to provide SDG&E access to facilities south of the road. This gate and access road would also be used to provide the County access to the southern segment of Furby North. An easement is proposed to be granted on the map.

Legal Access to the Replacement Lands

The County requires a legal access easement to the replacement lands. Figure 20.1 depicts a proposed interim access easement from the existing terminus of Caliente Avenue in Otay Mesa through the Specific Plan area. The interim access easement is proposed through the Specific Plan area to provide the County legal access through the Specific Plan area until such time that public roads are constructed. The interim easements would extinguish as public roads are constructed, providing public access through the Specific Plan area. Ultimate County access to the Furby North replacement lands would be through the Specific Plan area public roads and via an access easement to be granted to the County over the EVA road. Access to the EVA road would be via a gated access at the intersection of Caliente Avenue and Street D.

1.3.2.6 Project Design Features

a. Trail Restoration/Closures

In order to close unauthorized trails, restoration of disturbed land and non-native grassland areas within a 100-foot-wide trail corridor (50 feet on each side of the trail) is proposed (Figure 18.1 to 18.7 and Attachment 1 for the Trails Restoration Plan). Habitat enhancement would be implemented in areas of disturbed coastal sage scrub, disturbed maritime succulent scrub, and disturbed jurisdictional resources. Habitat restoration would be implemented in areas of disturbed lands and non-native grasslands. Where disturbed jurisdictional resources including disturbed wetlands and vernal pools are located within the restoration corridor, those resources would be enhanced through removal of non-native species when no ponding is present. Four isolated ponding features mapped as disturbed wetlands within the restoration corridor would be weeded and seeded with common vernal pool plant species which would result in these features (totaling 0.45 acre) qualifying as vernal pools.

At trailheads leading into the primitive trail network surrounding the open space, trash cans would be provided and signage would be installed to notify trail users to remain on designated trails and inform users of the sensitive resources present. Within the primitive trail network, the trail would be a natural dirt surface. Where needed to protect sensitive resources such as jurisdictional resources or sensitive plant species, peeler pole fencing would be installed to ensure trail users do not disturb these features.

Restoration and enhancement within the trail corridor is a project design feature and not mitigation; therefore, the restoration effort would be completed consistent with the City's Landscape Standards for revegetation adjacent to native vegetation (Section IV), which requires a 25-month monitoring period. A Trails Restoration Plan is included as Attachment 1 and identifies details including site preparation, plant production and installation, seed application methods, and irrigation methods, a proposed schedule, and success criteria, along with measures to ensure the restoration effort does not result in significant impacts to rare plants, sensitive wildlife or jurisdictional resources.

The construction of the main east-west trail located east of the existing utility road would occur after completion of the project's Otay tarplant (*Deinandra conjugens*) restoration which requires the existing road for management and monitoring access. After the restoration is signed off by the City of San Diego Mitigation Monitoring Coordination office (City MMC), the trail would be established and narrowed to a 4-foot-wide primitive trail with restoration implemented within the 100-foot corridor.

b. Artificial Burrow/Earthen Berm

A constructed earthen berm shall be installed within the project's mitigation lands in order to expand opportunities for burrowing owl nesting locations within the Otay Mesa area. Pilot holes would be installed in the berm to offer opportunities for nesting. The proposed berm is proposed within the vernal pool preserve and is intended to support regional efforts to expand suitable burrowing owl nesting locations in the Otay Mesa area. Attachment 13 provides more discussion on design and approach.

c. Bird Safe Glass

Where alternative compliance requires walls with glass panes for fire safety adjacent to open space within Phase 1 or 2, bird safe glass shall be used to prevent bird collisions. Bird safe glass shall include the use of glass with ultraviolet reflective patterns visible to birds but transparent to the human eye (such as GlasPro Bird Safe Ultraviolet Reflective Glass), or etched or patterned glass that provide a visual barrier. Patterned or etched glass shall have vertical stripes at least ¼ inch wide with a maximum spacing of 4 inches, or horizontal stripes that are at least ¼ inch wide with a maximum spacing of 2 inches (USFWS 2021).

d. EVA Road Gate and Signage

At the intersection of South Caliente Avenue and D Street, access to the EVA road would be gated with a City Fire Department approved gate to prohibit public vehicular access. Signage would be installed noticing the public of trail access to primitive trails via the EVA road. Signage shall be installed along the boundary of the EVA road prohibiting public access into the surrounding open space and directing the public to stay on formalized primitive trails.

1.3.2.7 Project-level Phasing Summary

A summary of the project-level phasing is provided below to further describe the relationship between the Specific Plan Development Phasing represented in Figure 9, the grading phasing represented in Figure 10.1, and the various project components described throughout Section 1.3.2. The project elements shown below are listed in the order of anticipated implementation.

Grading Phase	Project-level Components	Planning Areas (PA)	Relationship to VTM
Phase 1 and Off-site improvements (SR-905/ Caliente)	• First 200 units and associated Phase 1a grading areas (Figure 10.2) • Temporary pump station • Central Avenue • Off-site improvements - State Route 905 and Caliente Avenue Westbound On-Ramp (see Figure 16.1 and 16.2)	PA 8 and portions of PA 9 & 10	Part of VTM 2188969
Phase 1, Phase 2, and EVA road	• Second phase of Phase 1 residential development (201 to 699 units) (Figure 10.3) • Southern EVA road improvements (Figure 16.3) • Temporary pump station • Rough grading within Phase 2	PA 8, 11-14 and portions of PA 10	Part of VTM 2188969 and grading borrow areas

Grading Phase	Project-level Components	Planning Areas (PA)	Relationship to VTM
Phase 1, Phase 2, Phase 4, Beyer Boulevard West, and off-site improvements (water/sewer)	• Third phase of Phase 1 residential development (700 to 920 units) (Figure 10.4) • Rough grading in Phase 2 • Beyer Boulevard West Extension and Wildlife Features (see Figures 14.1, 14.2, and 15.1) • Off-site improvements – water and sewer lines (see Figure 17)	Remaining portions of PA 13 and 14	Part of VTM 2188969
Phase 2	• Rough grading to support Phase 1 and Beyer Boulevard West grading balancing • Future grading plan and VTM required to allow residential in Phase 2. At that time, the following improvements would proceed: o Spring Canyon Drainage Outfall o Sewer Lift Station in Vernal Pool Preserve (PA 30) o Project-level primitive trails including trail restoration efforts within the 100-foot trail buffer (see Figure 18.1 to 18.7)	PA 15-20	Grading borrow Area for VTM 2188969. Future VMT/Grading Plan required prior to development.
Phase 4	• Rough grading impacts analyzed. • Future grading plan and VTM required to allow Phase 4 development.	Portions of PA 1, 2 and 7	Outside of VTM 2188969. To be processed with a future VTM

Project Location

RECON

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FIGURE 1
Regional Location

Map Source: USGS 7.5 minute topographic map series, IMPERIAL BEACH quadrangle,1996, T18S R01W & T19S R01W

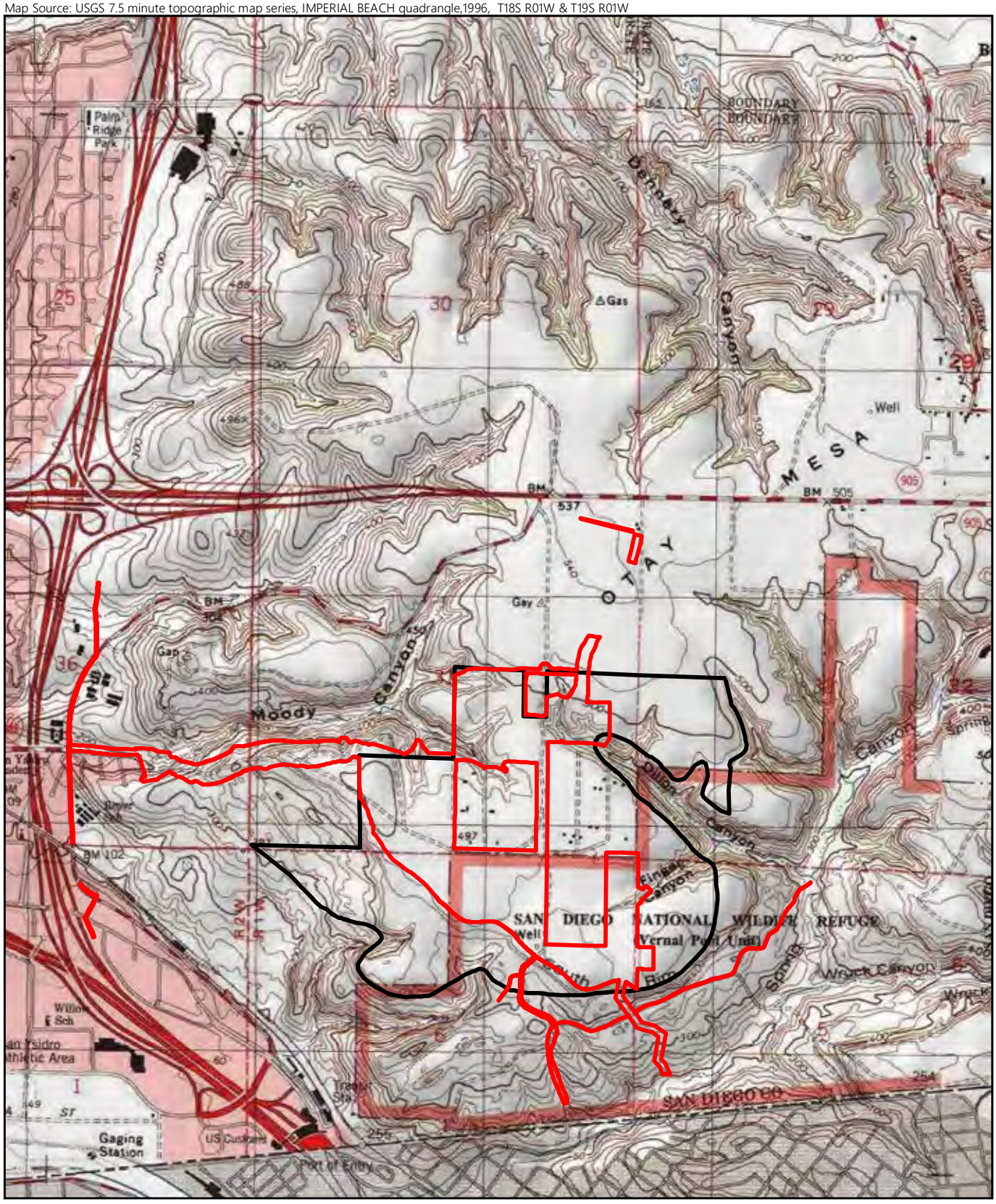

FIGURE 2
Project Location on USGS Map

RECON

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Map Source: City of San Diego, Engineering and Development Department, City 800' Maps, Number 138-1749 & 138-1761

Project-level Analysis Area

Specific Plan Boundary

0 Feet 800

FIGURE 3
Project Location on City 800' Map

M:\JOBS5\8868\common_gis\Reports\Bio\Biotec_2024\Summer\Fig3.mxd 07/05/2024 bma

Image Source: NearMap (Flown May 2024)

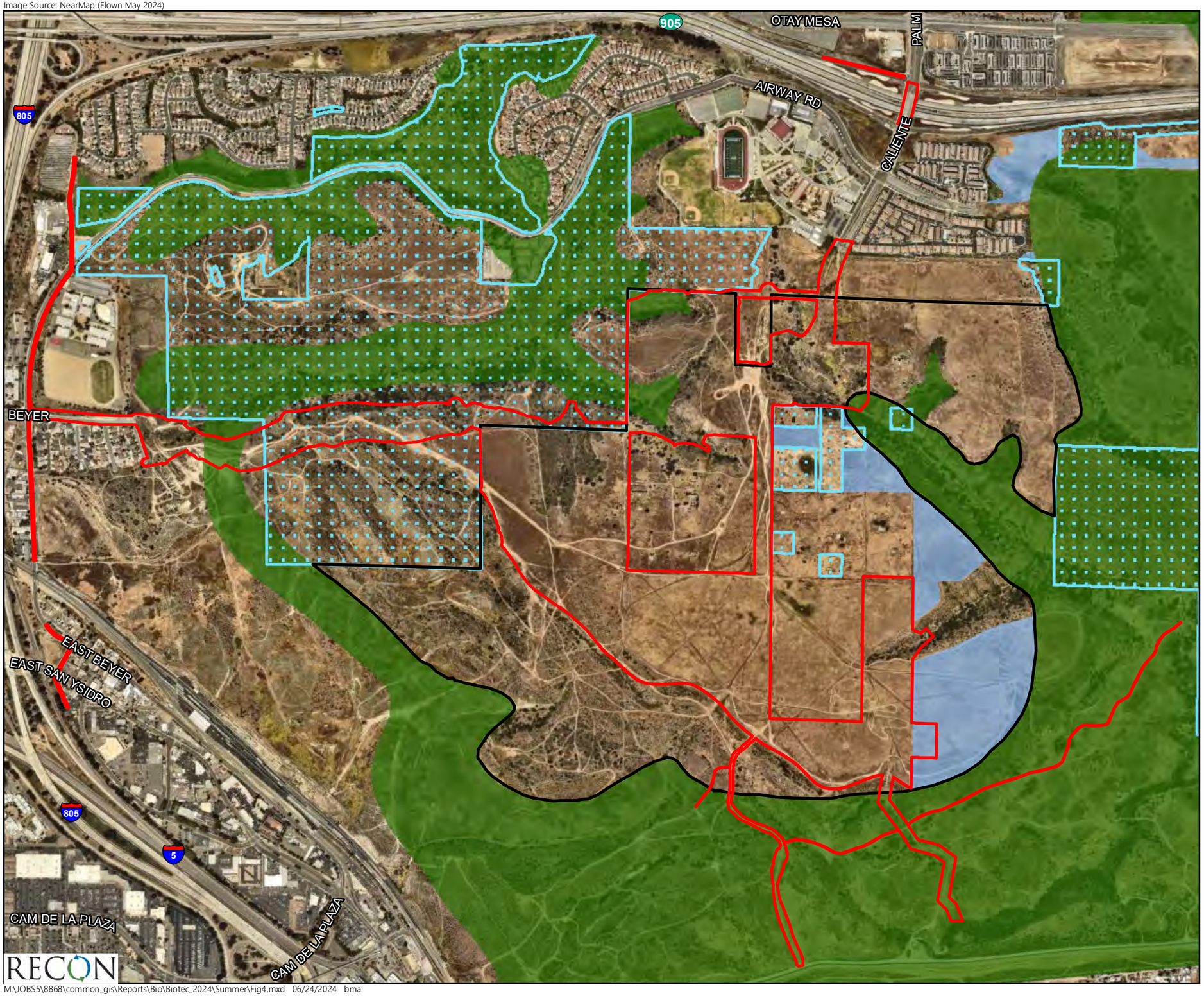

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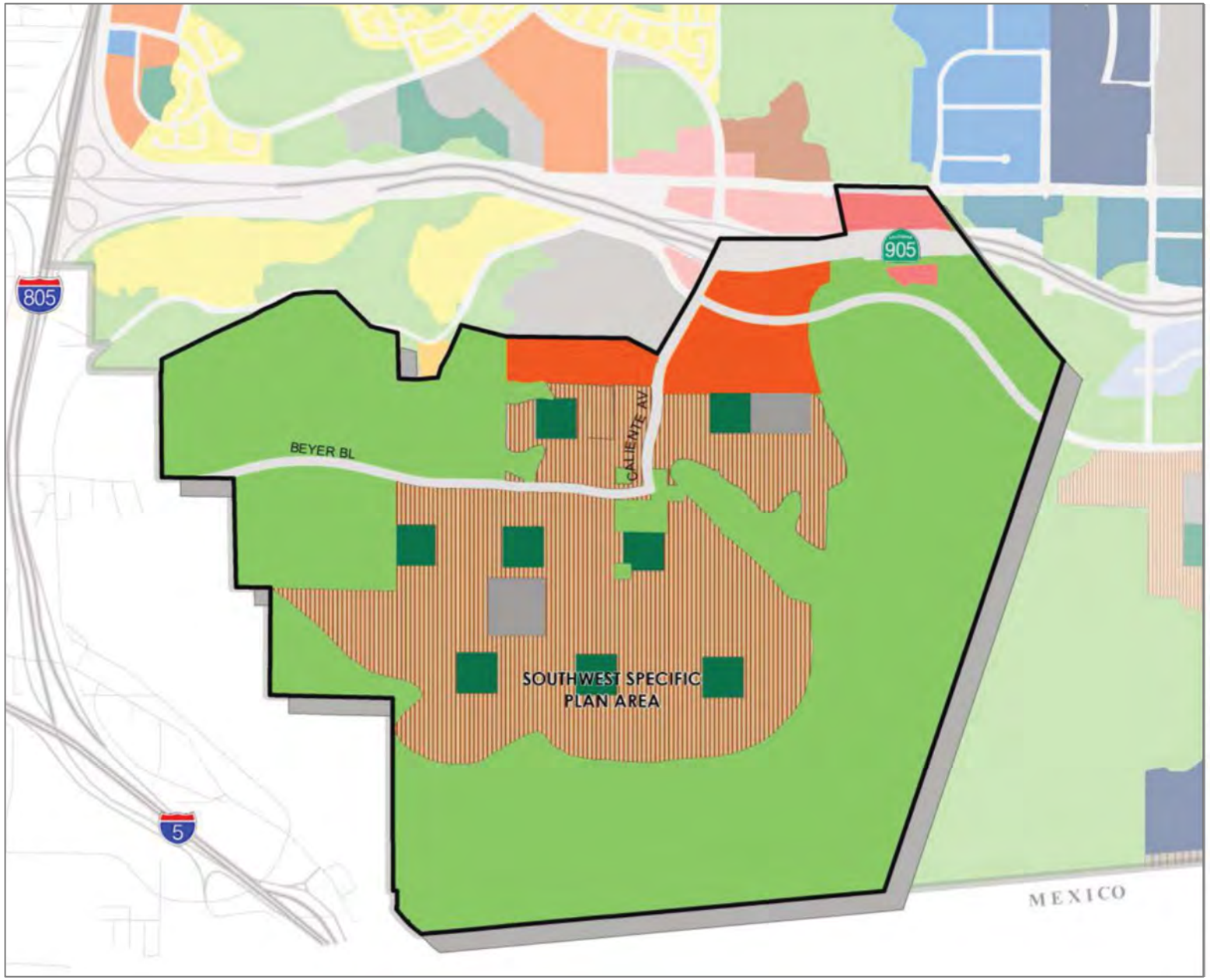
FIGURE 4
Project Location in Relation to MHPA and 100 Percent Conserved Lands

Map Source: SanGIS



RECON

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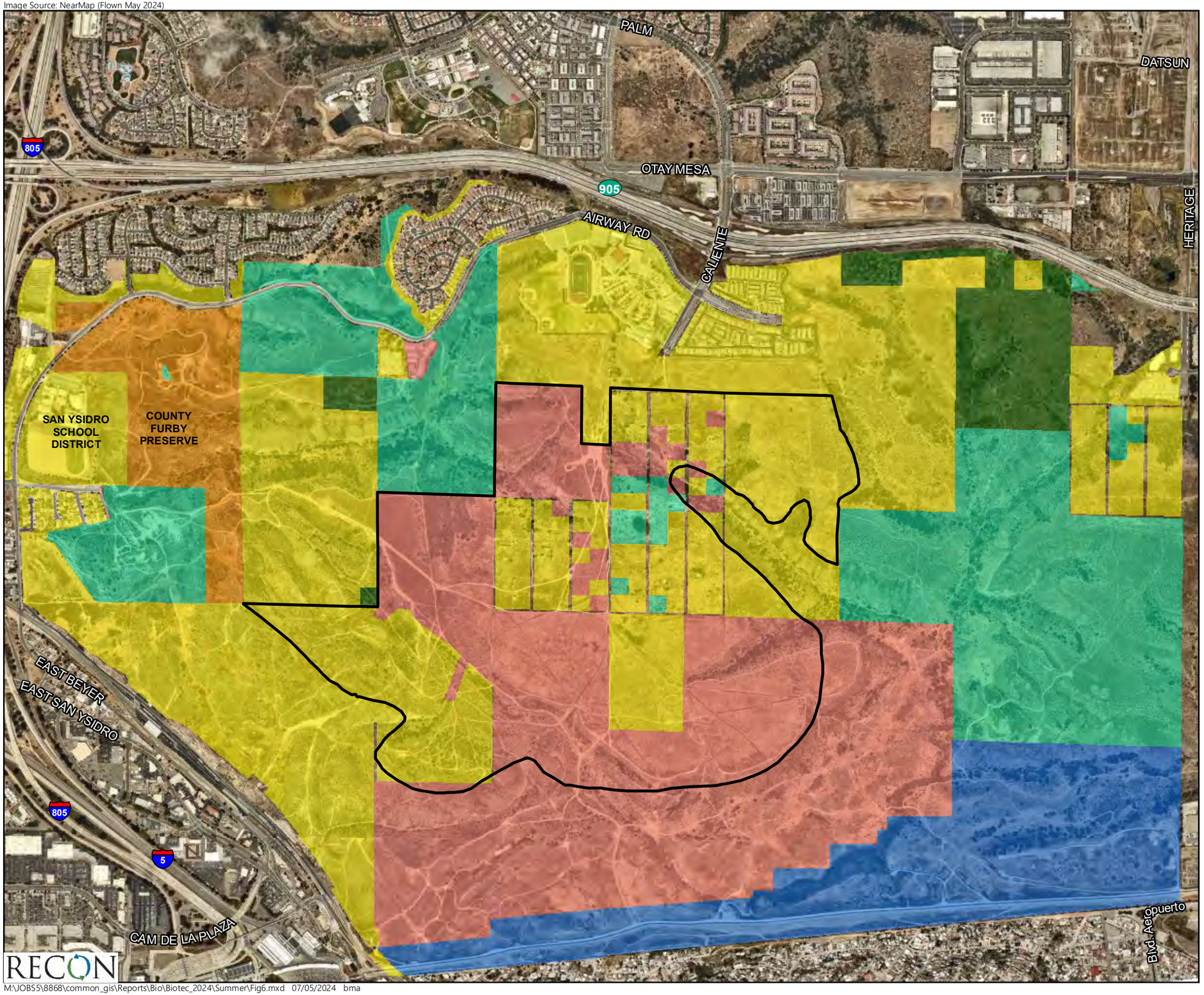
FIGURE 5

Otay Mesa Community Plan Southwest District Map

Image Source: NearMap (Flown May 2024)



Specific Plan Boundary

Parcel Ownership

- City of San Diego
- County of San Diego
- State of California
- Federal Government
- Tri Pointe Homes
- Other Private Ownership

0 Feet 1,100

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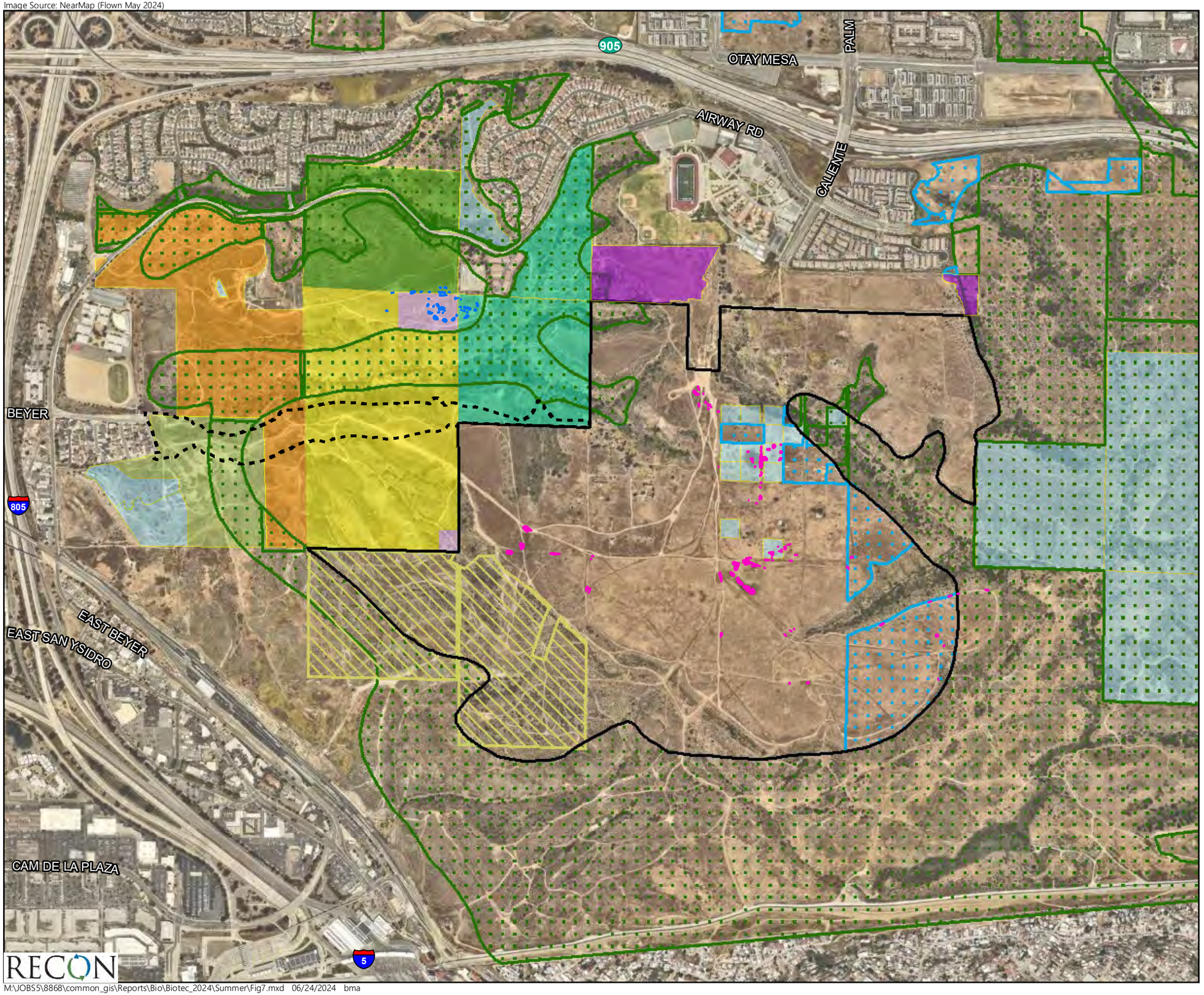
FIGURE 6
Parcel Ownership

Image Source: NearMap (Flown May 2024)



- Specific Plan Boundary
- Planned Beyer Boulevard
- City of SD MHPA
- VPHCP MHPA
- VPHCP Complex J13
- VPHCP Complex J32
- Pipitone Covenant of Easement
- West Otay A (Private/CDFW Easement Holder)
- West Otay A (Caltrans)
- West Otay B (City of SD, CDFW Easement Holder)
- West Otay C (City of SD)
- County of San Diego Furby North Preserve
- Planned Candlelight Preserve
- City of San Diego
- City of San Diego Planned Beyer Park

0 Feet 1,000

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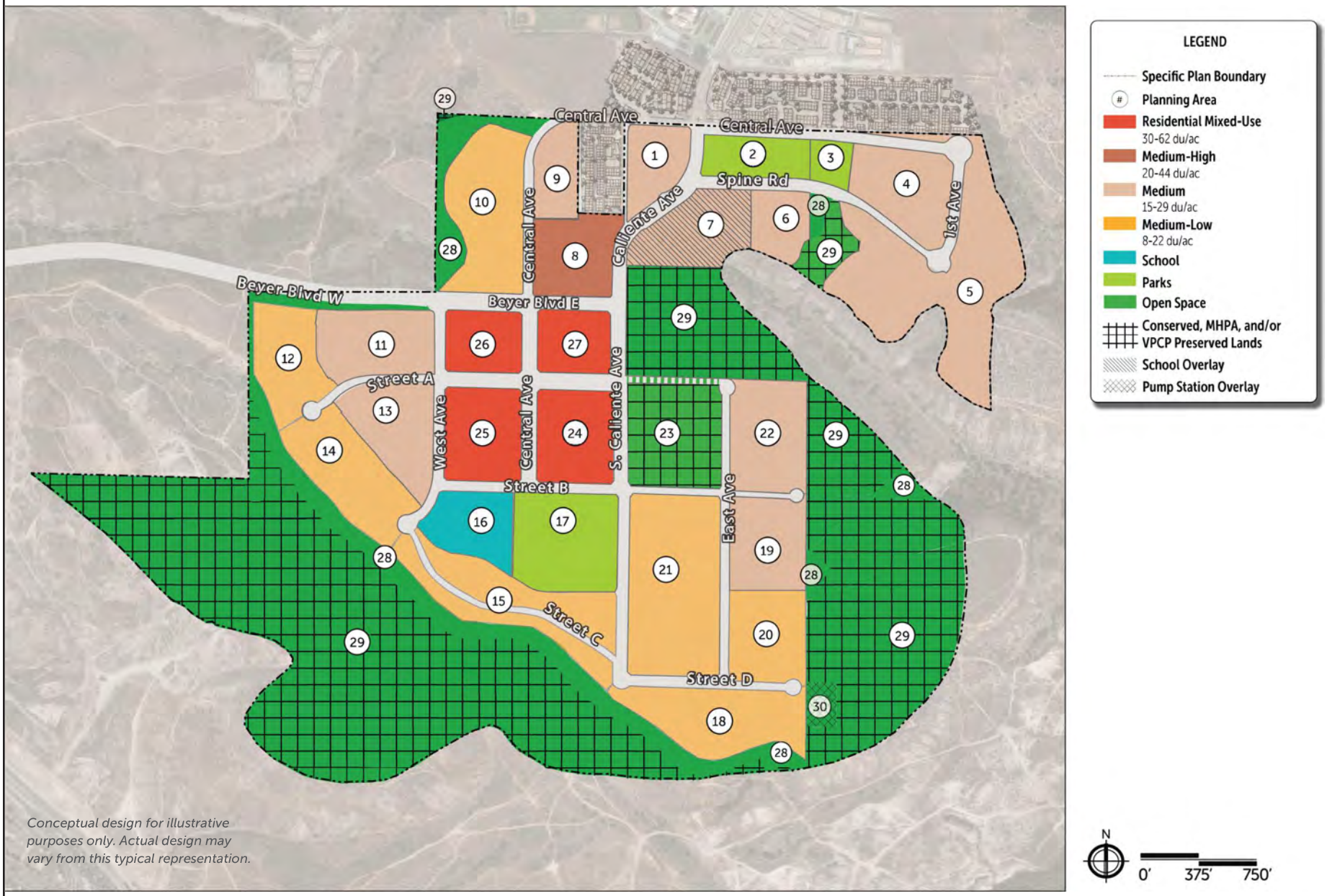
FIGURE 7
Project Location in Relation to
Other Preserve and Open Space Parcels

Map Source: Placeworks



RECON

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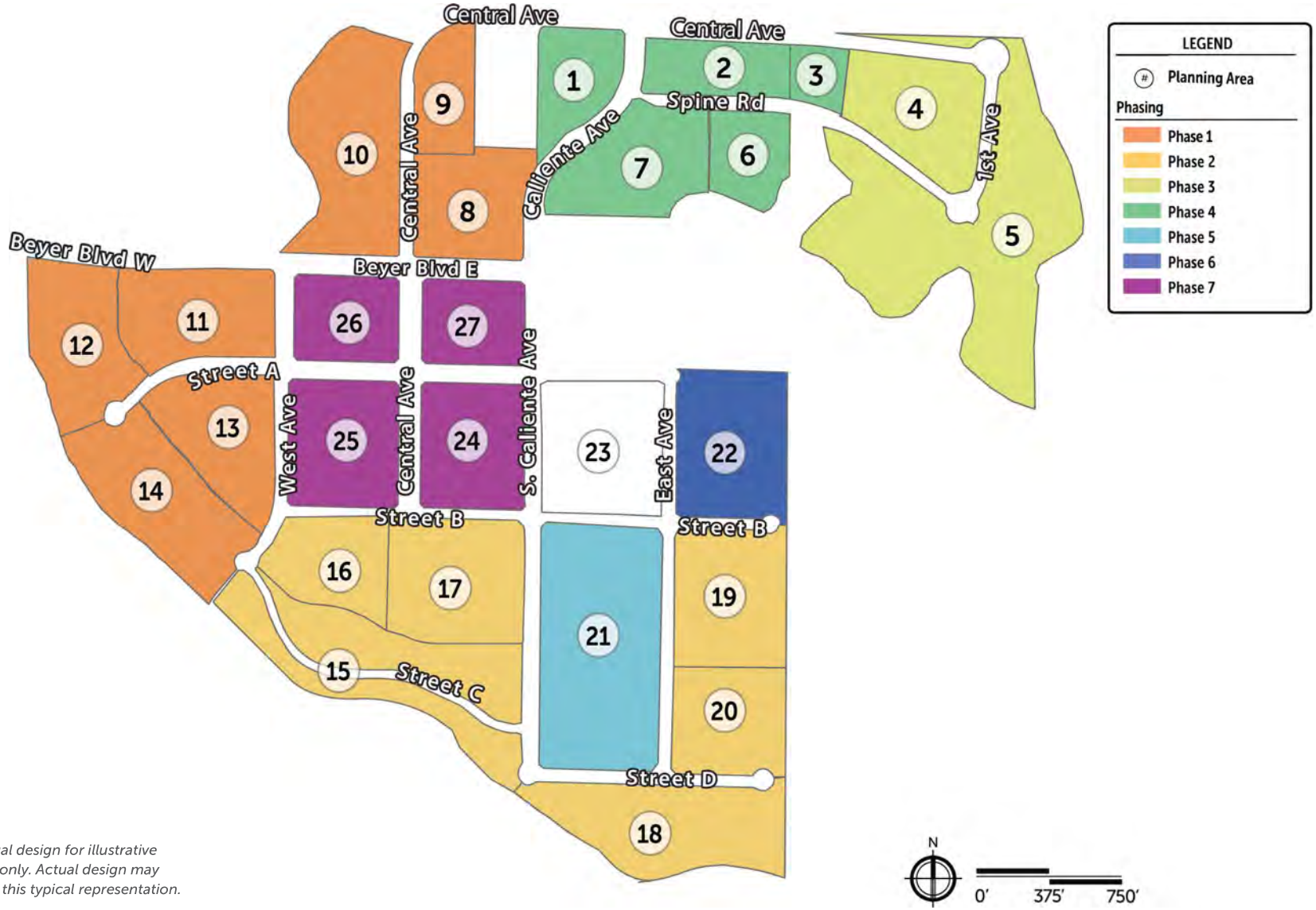
FIGURE 8
Specific Plan Development Concept

Map Source: Placeworks



Conceptual design for illustrative purposes only. Actual design may vary from this typical representation.

RECON

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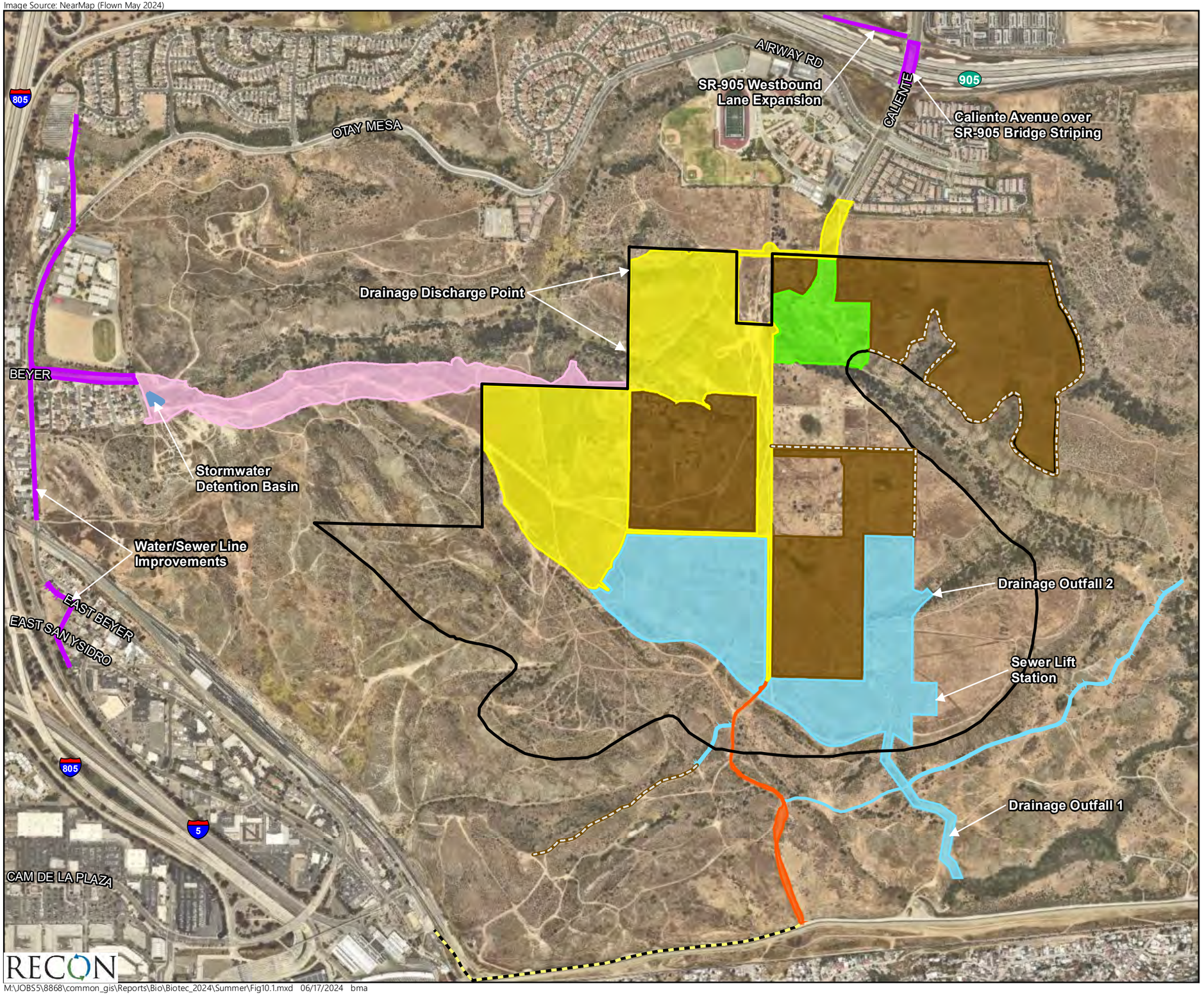
FIGURE 9
Specific Plan Development Phasing

Image Source: NearMap (Flown May 2024)



- Specific Plan Boundary
- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Emergency Vehicle Access Road - No Improvements Required (Existing Road)
- Program-level Analysis Phases 3-7
- Program-level Conceptual Trails*

* Program-level Conceptual trails require further evaluation and study to identify final alignments. The identification of conceptual trail alignments graphic does authorize public use of trails.

0 Feet 900

FIGURE 10.1
Grading Phasing

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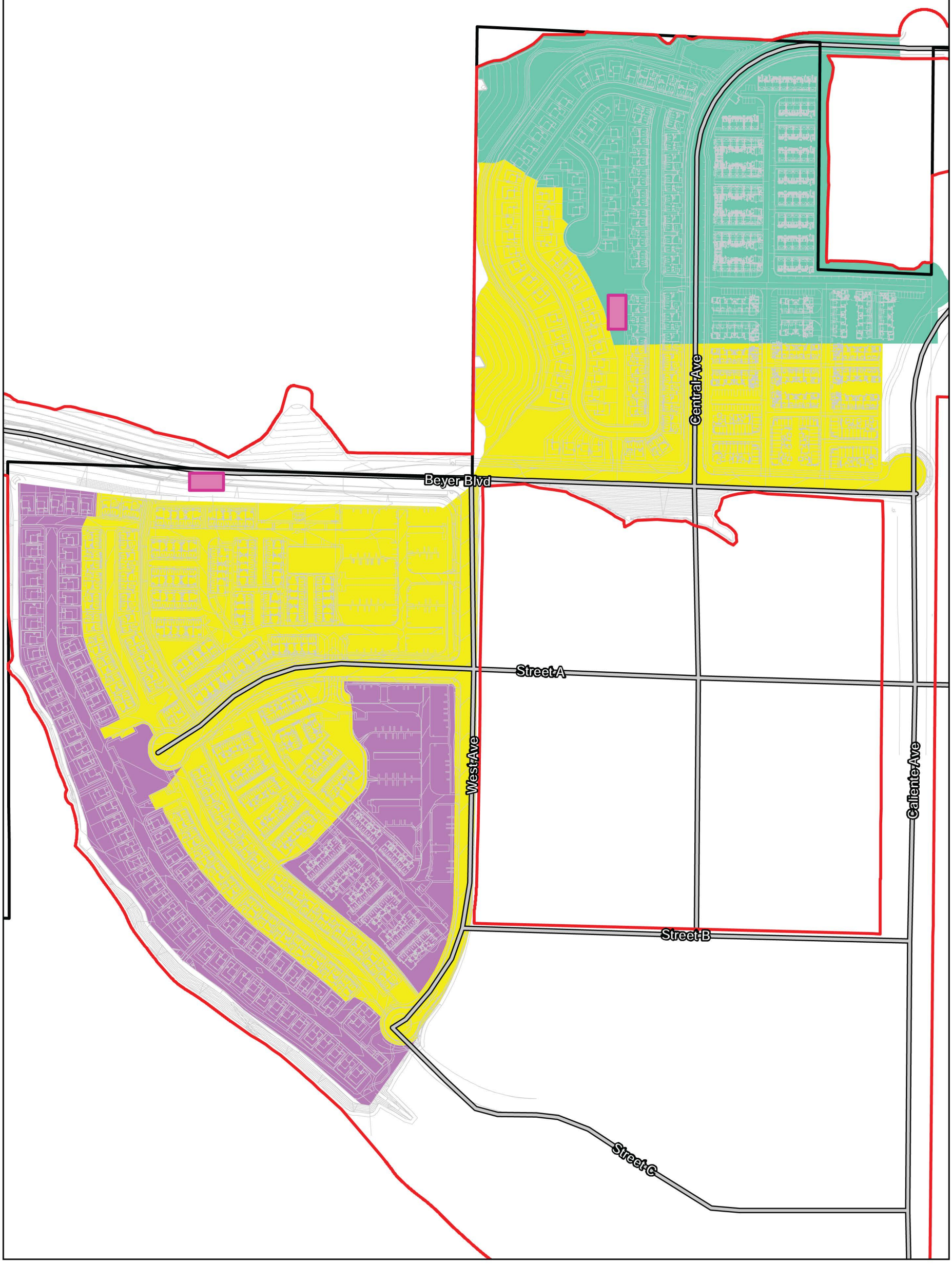
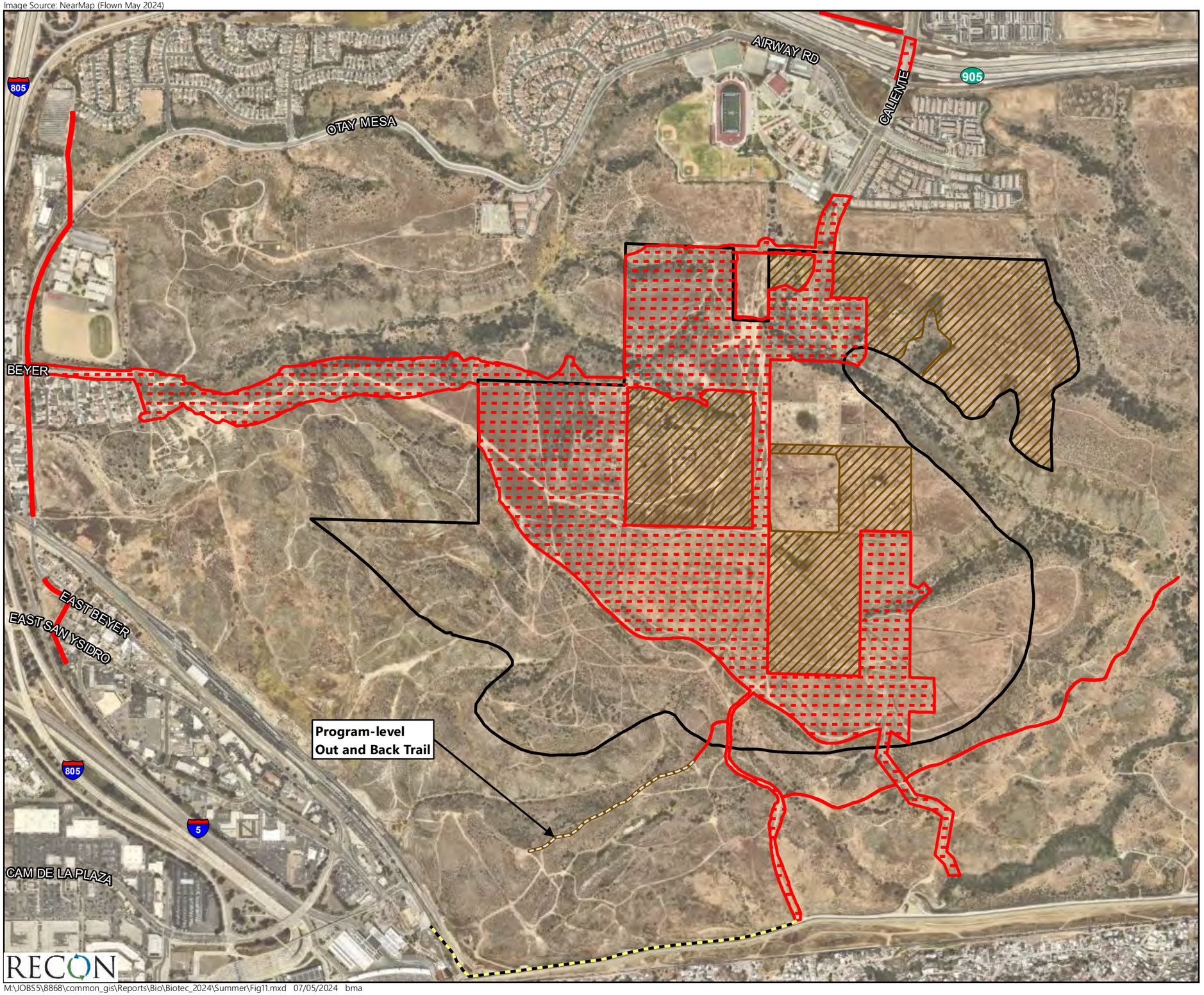


RECON

M:\JOBS5\8868\common_gis\Reports\Bio\Biotec_2024\Summer\Fig10.2.mxd 06/17/2024 bma

FIGURE 10.2
Phase 1

Image Source: NearMap (Flown May 2024)



Project-level Analysis Area

Emergency Vehicle Access Road -
No Improvements Required (Existing Road)

Specific Plan Boundary

Program-level Analysis Area

Program-level Conceptual Trails*

* Program-level Conceptual trails require further evaluation and study to identify final alignments. The identification of conceptual trail alignments graphic does authorize public use of trails.

0 Feet 900

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FIGURE 11
Project-level and
Program-level Analysis Areas

Image Source: NearMap (Flown May 2024)

Specific Plan Boundary

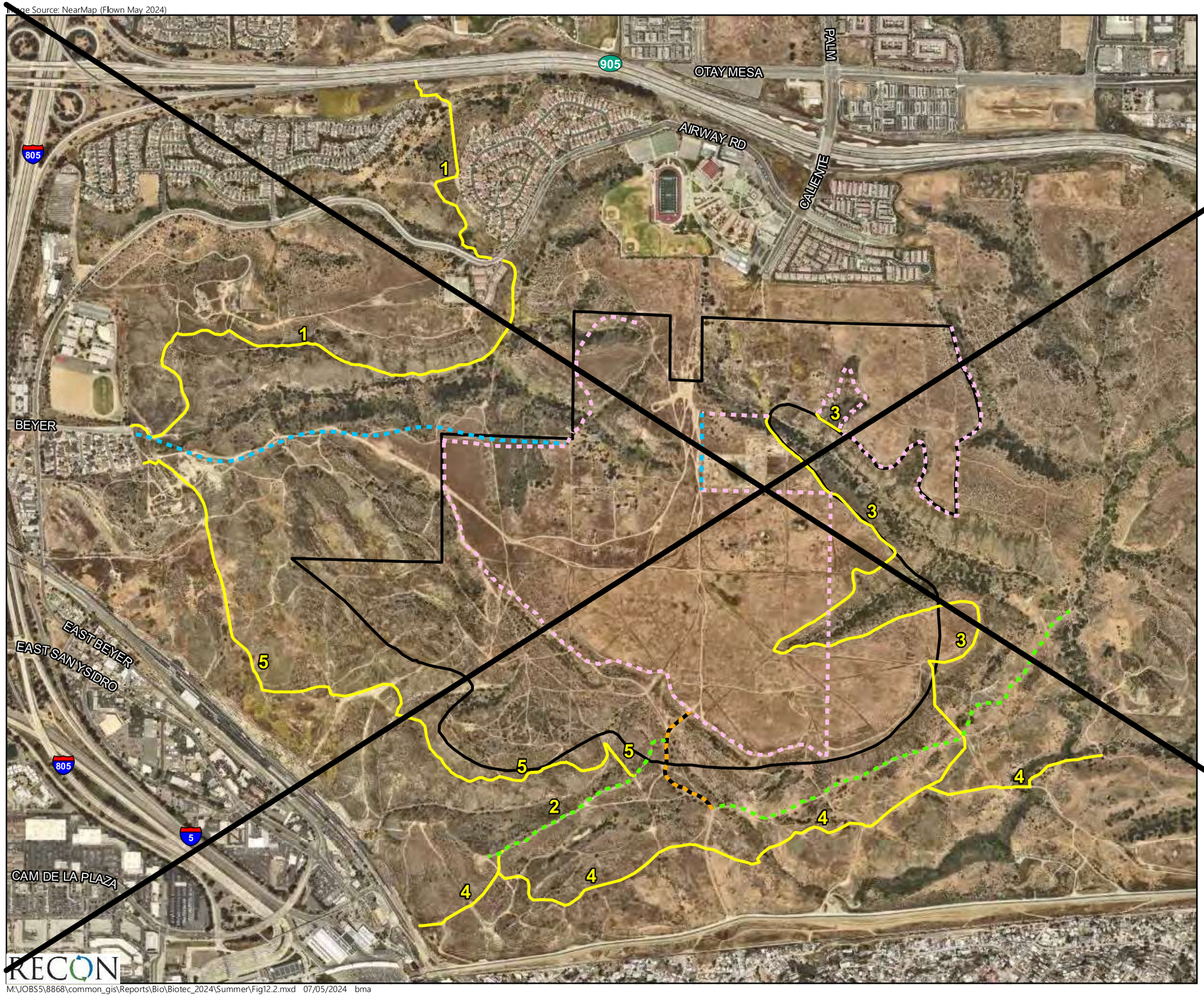
Otay Mesa Adopted Trails

0 Feet 1,300

FIGURE 12.1
Otay Mesa Community Plan
Adopted Trails Map

M:\JOBS5\8868\common_gis\Reports\Bio\Biotec_2024\Summer\Fig12.1.mxd 07/05/2024 bma

Image Source: NearMap (Flown May 2024)



- Specific Plan Boundary
- Existing Utility Road
- Primitive Trail Alignments (1.29 miles)
- Perimeter Trail (3.79 miles)
- Public Sidewalk (1.01 mile)*
- Adopted OMCP Conceptual Trail Alignments to be Eliminated (6.47 miles)
- # Numbers Correspond to Descriptions in the Biology Report Section 1.3.1.3

*Note: Sidewalks would also be provided throughout the Specific Plan

Depiction of trail alignments is conceptual and does authorize public use of trails. Formal trail establishment requires project level evaluation, determination of consistency with the City of San Diego MSCP Subarea Plan, and further CEQA review prior to implementation.

0 Feet 900

RECON

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FIGURE 12.2
Otay Mesa Community Plan
Conceptual Trail Map Revisions

Image Source: NearMap (Flown May 2024)

Specific Plan Boundary

Existing Utility Road

Primitive Trail Alignments (1.29 miles)

Perimeter Trail (~~3.79~~ 3.90 miles)

Public Sidewalk (1.01 mile)*

Adopted OMCP Conceptual Trail Alignments to be Eliminated (6.47 miles)

Numbers Correspond to Descriptions in the Biology Report Section 1.3.1.3

*Note: Sidewalks would also be provided throughout the Specific Plan

Depiction of trail alignments is conceptual and does authorize public use of trails. Formal trail establishment requires project level evaluation, determination of consistency with the City of San Diego MSCP Subarea Plan, and further CEQA review prior to implementation.

0 Feet 900

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FIGURE 12.2
Otay Mesa Community Plan
Conceptual Trail Map Revisions

Image Source: NearMap (Flown May 2024)

OTAY MESA

EAST BEYER

EAST SAN YSIDRO

CAM DE LA PLAZA

805

5

- Specific Plan Boundary

Proposed Trails (Project-level)

- Public Sidewalk
- Perimeter Trail (7 to 8 ft Tread, Borders Development Area)
- Primitive Trail (Maximum 4-foot Tread)
- Existing Utility Road

Conceptual Trail Alignments (Program-level)*

- Perimeter Trail (7 to 8 ft Tread, Borders Development Area)
- Primitive Trail (Maximum 4-foot Tread)

* Conceptual trail alignments require further evaluation and study to identify final alignment. The identification of conceptual trail alignments on this graphic does authorize public use of trails.

0 Feet 800

FIGURE 12.3
Proposed Trail Network and Conceptual Trails

RECON

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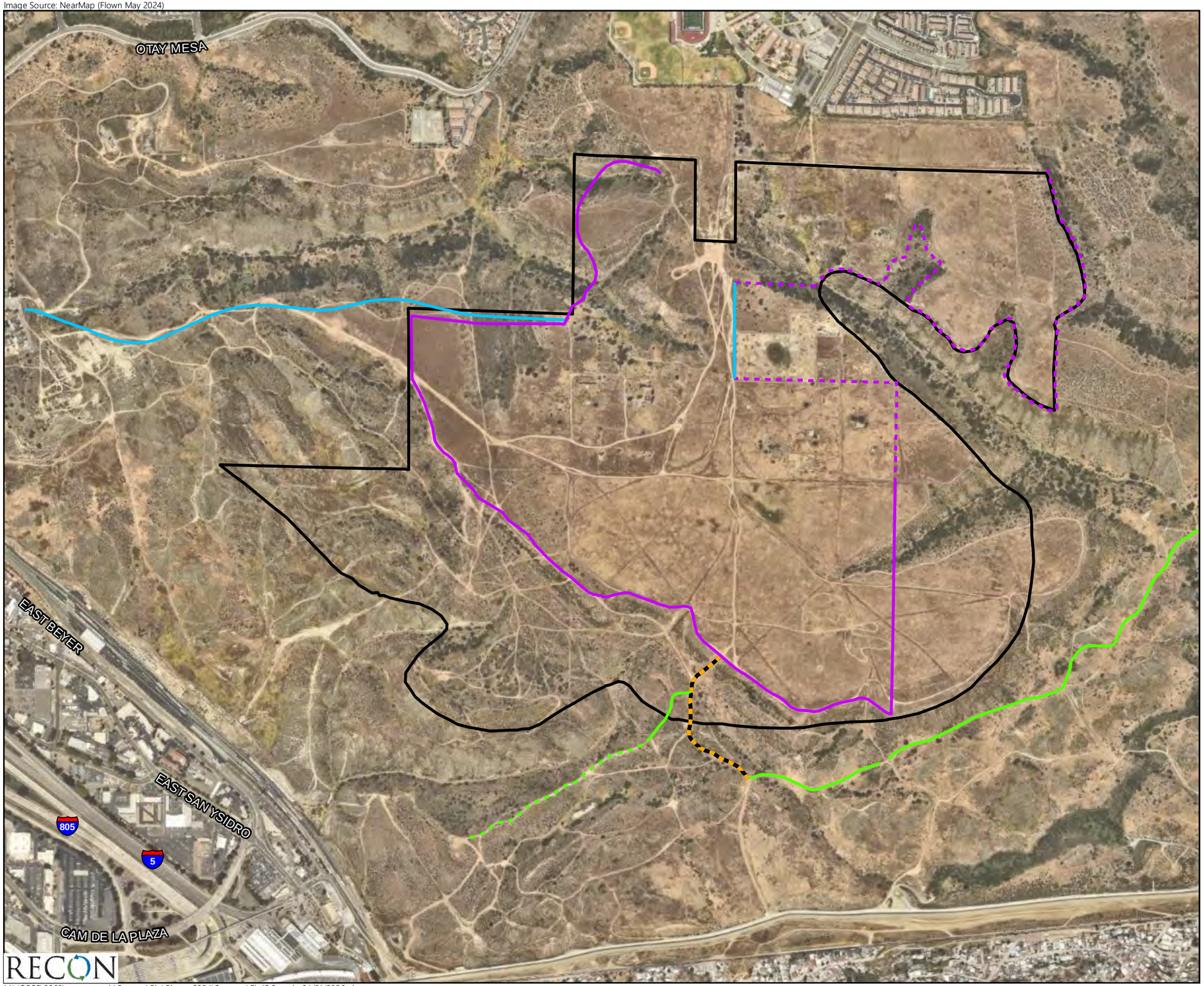
Image Source: NearMap (Flown May 2024)



Specific Plan Boundary

Proposed Trails (Project-level)

- Public Sidewalk
- Perimeter Trail (7 to 8 ft Tread, Borders Development Area)
- Primitive Trail (Maximum 4-foot Tread)
- Existing Utility Road

Conceptual Trail Alignments (Program-level)*

- Perimeter Trail (7 to 8 ft Tread, Borders Development Area)
- Primitive Trail (Maximum 4-foot Tread)

* Conceptual trail alignments require further evaluation and study to identify final alignment. The identification of conceptual trail alignments on this graphic does authorize public use of trails.

0 Feet 800

FIGURE 12.3
Proposed Trail Network
and Conceptual Trails

RECON

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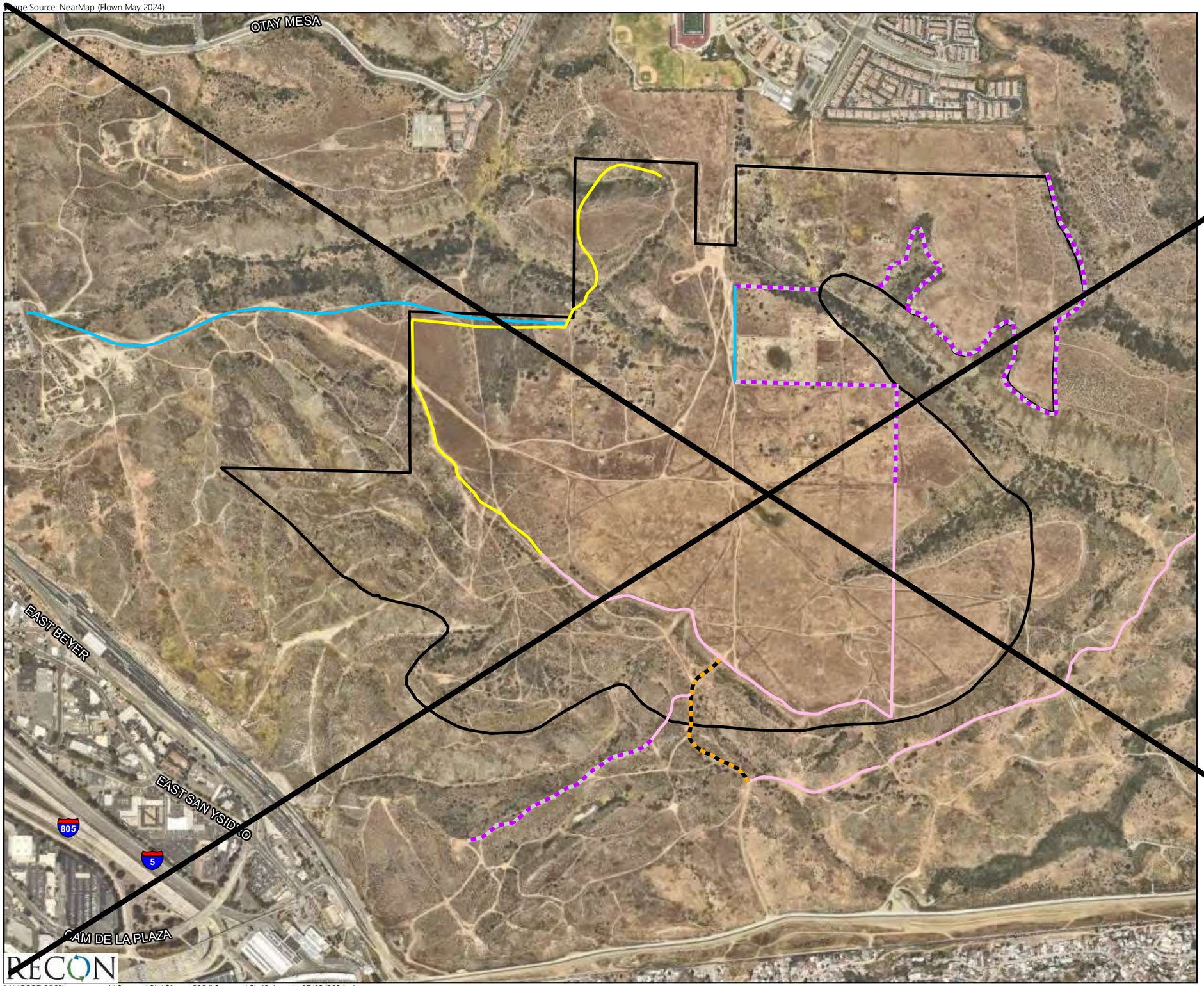
Image Source: NearMap (Flown May 2024)



Specific Plan Boundary

Trail Network Phasing

- Phase 1 Trail
- Phase 2 Trail
- Phases 3-7 Program Level Conceptual Trail Alignments*
- Public Sidewalk
- Existing Utility Road

* Conceptual trail alignments require further evaluation and study to identify final alignment. The identification of conceptual trail alignments on this graphic does authorize public use of trails.

0 Feet 800

FIGURE 12.4
Trail Network Phasing

RECON

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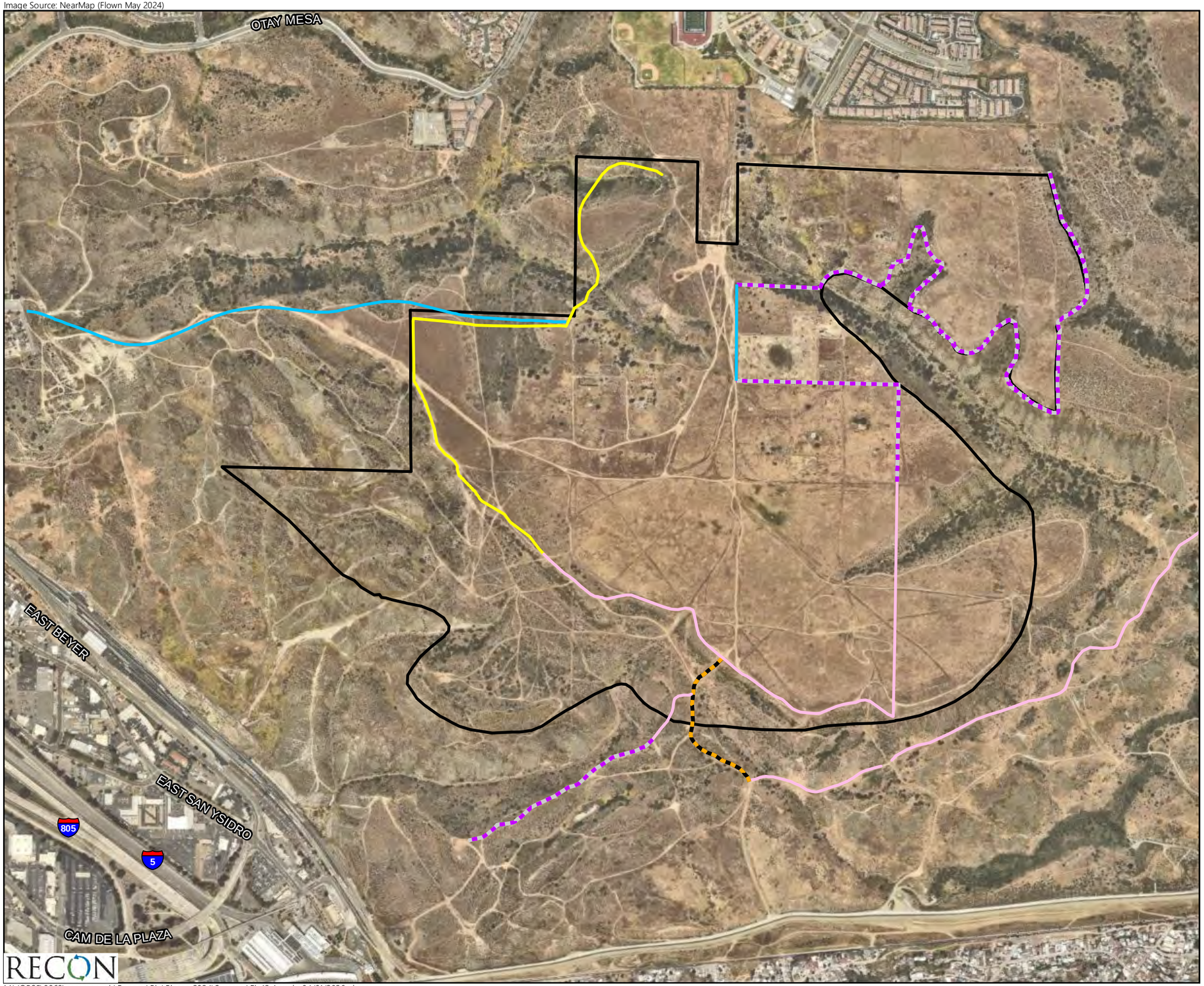
Image Source: NearMap (Flown May 2024)



Specific Plan Boundary

Trail Network Phasing

- Phase 1 Trail
- Phase 2 Trail
- Phases 3-7 Program Level Conceptual Trail Alignments*
- Public Sidewalk
- Existing Utility Road

* Conceptual trail alignments require further evaluation and study to identify final alignment. The identification of conceptual trail alignments on this graphic does authorize public use of trails.

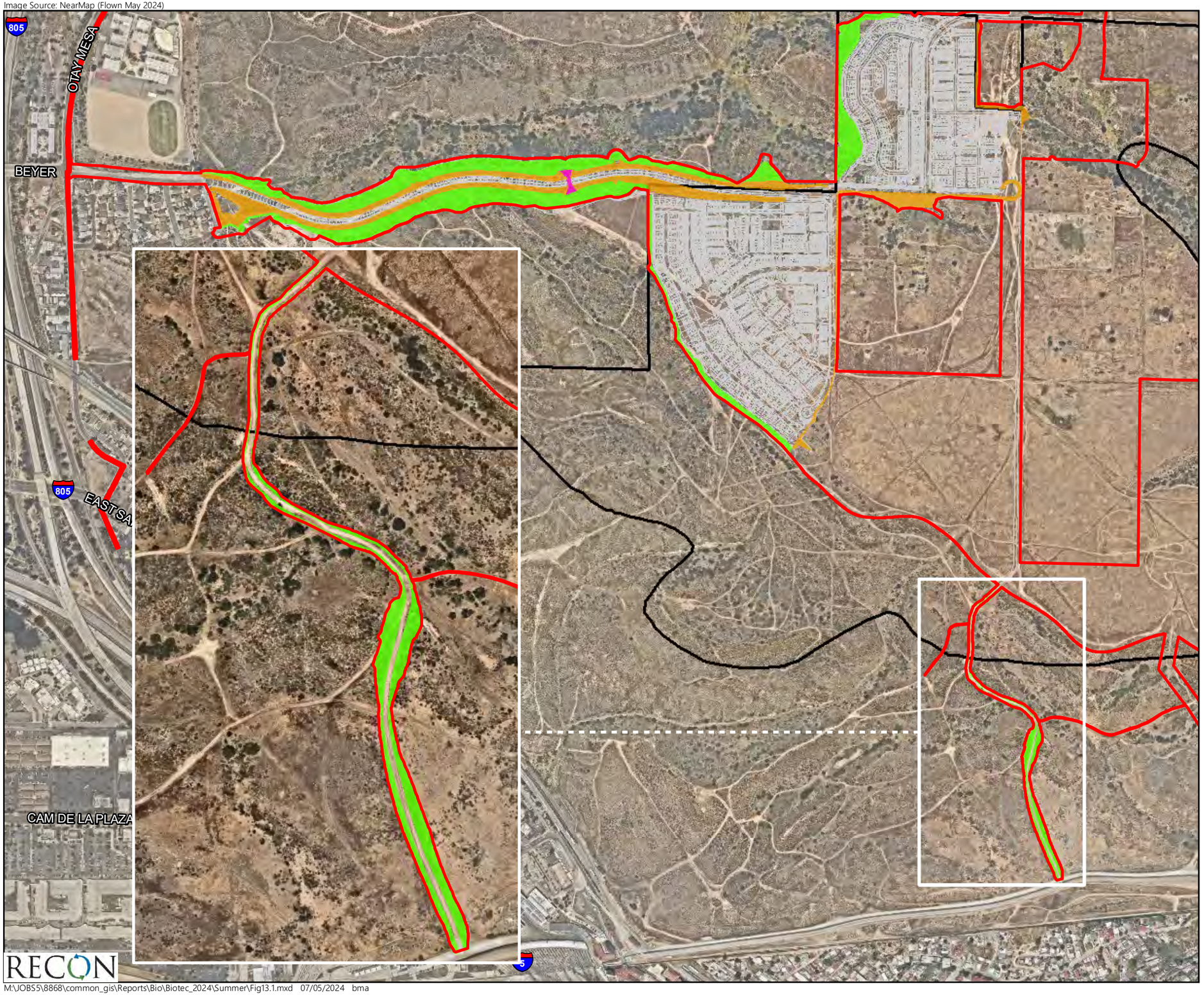
0 Feet 800

FIGURE 12.4
Trail Network Phasing

RECON

M:\JOBS5\8868\common_gis\Reports\Bio\Biotec_2024\Summer\Fig12.4.mxd 04/01/2026 bma

Image Source: NearMap (Flown May 2024)



Project-level Analysis Area

Specific Plan Boundary

Site Plan

Revegetation Planting Palette*

Exterior Manufactured Slopes

MHPA Adjacent Lands and BMZ2

Wildlife Overcrossing

*Refer to the project landscapre plan for planting details for each plant palette

0 Feet 700

RECON

M:\JOBS5\8868\common_gis\Reports\Bio\Biotec_2024\Summer\Fig13.1.mxd 07/05/2024 bma

FIGURE 13.1
Slope Native Revegetation Areas

Image Source: NearMap (Flown May 2024)

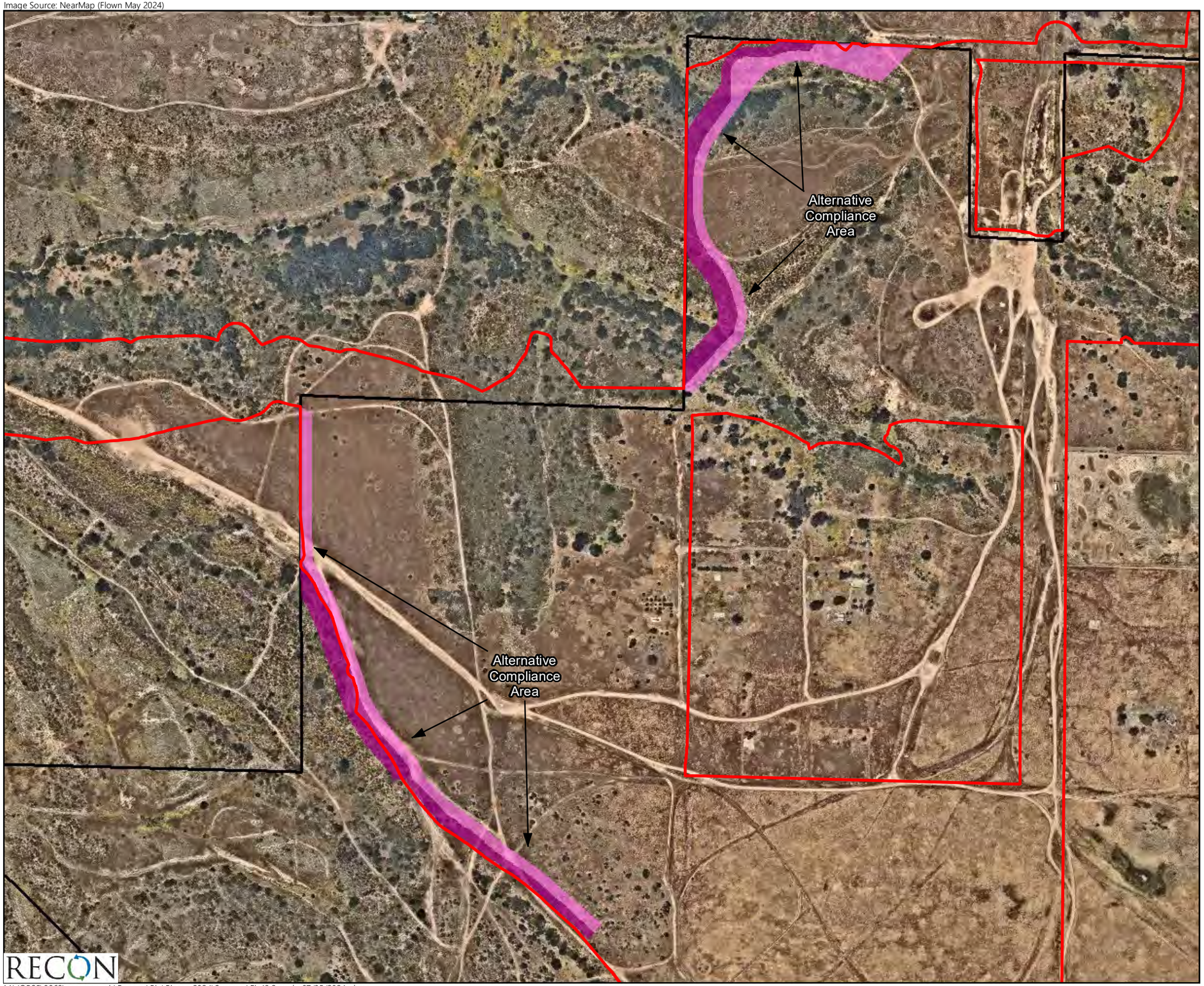


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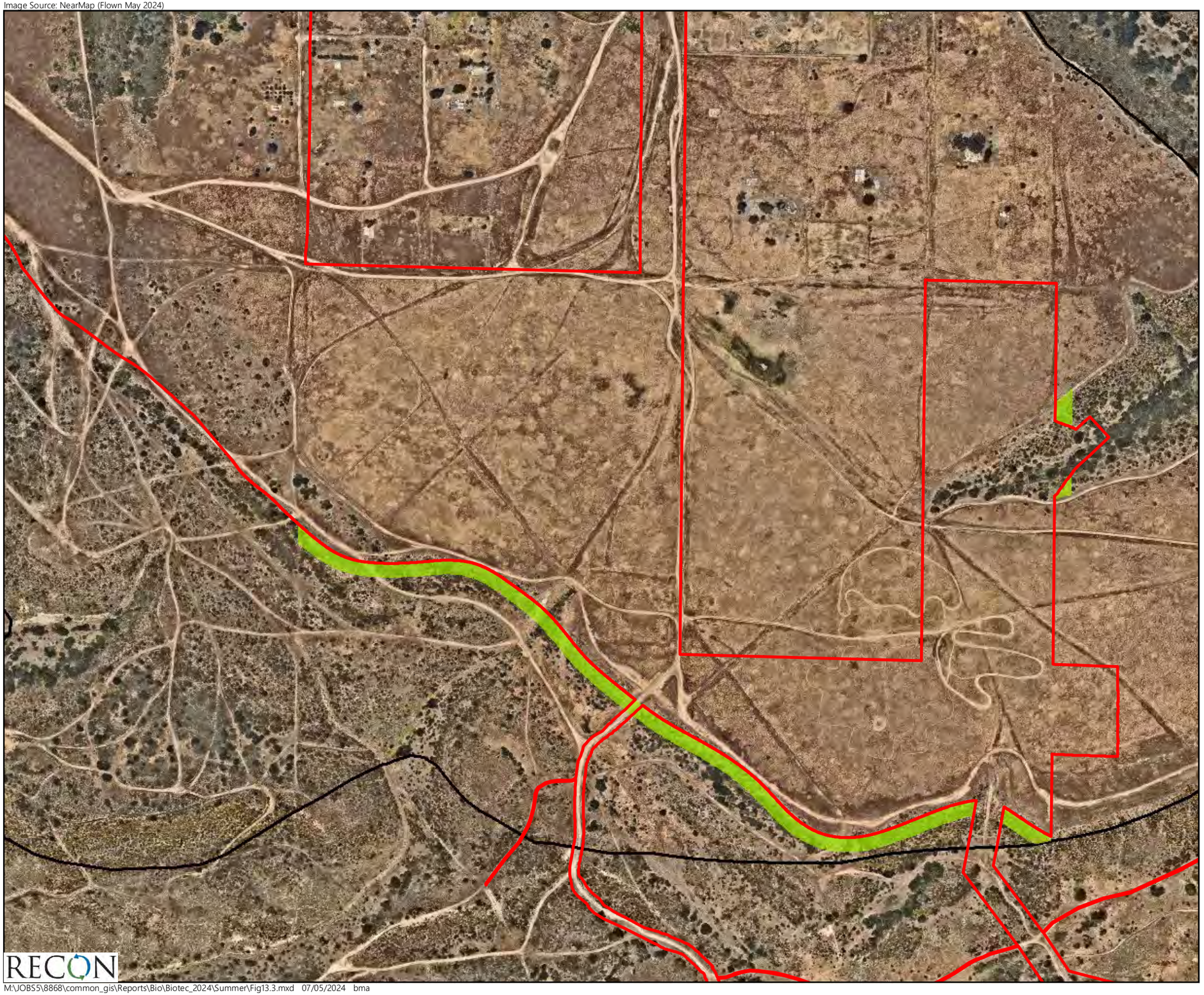
FIGURE 13.2
Phase 1 Brush Management

Image Source: NearMap (Flown May 2024)



Project-level Analysis Area

Specific Plan Boundary

Phase 2 Concept Brush Management Zone 2

Note: Phase 2 brush management zones would be defined during Phase 2 Implementation and would be required to comply with the City's Land Development Code (LDC), providing 100 feet of defensible space or approval of alternative compliance.

0 Feet 350

FIGURE 13.3

Phase 2 Impact Neutral Brush Management Zone 2 areas outside of the Impact Footprint

RECON

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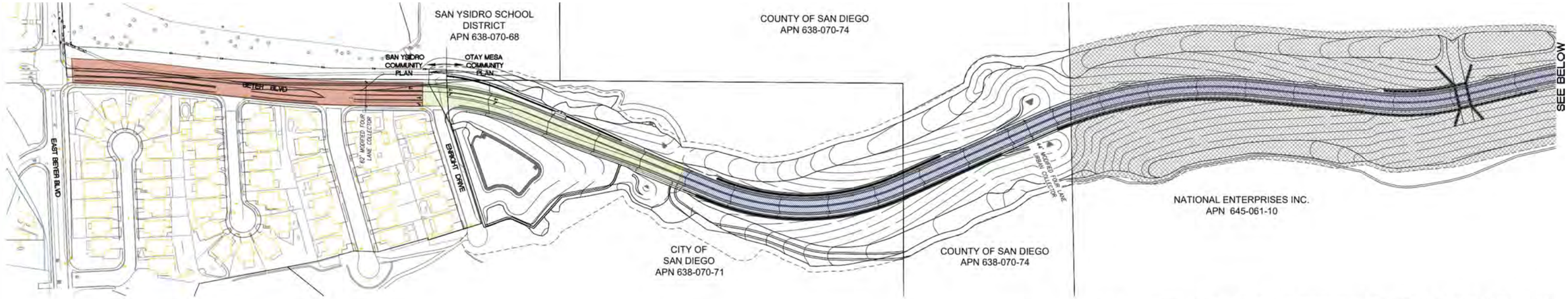
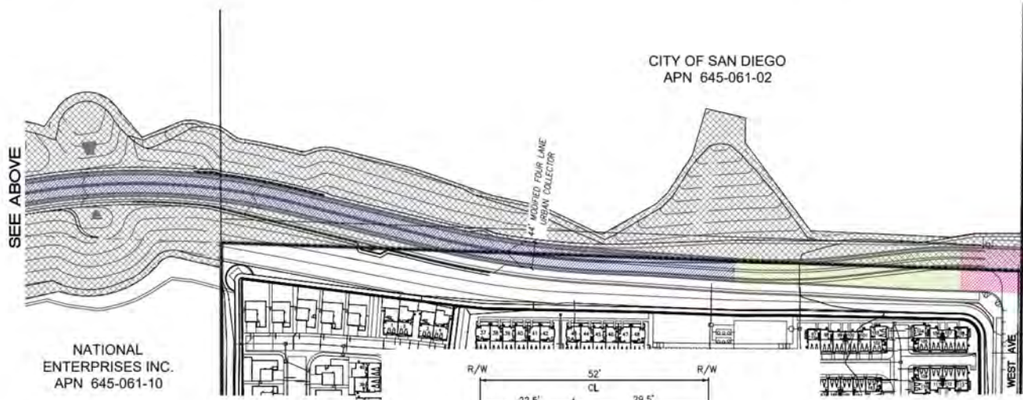
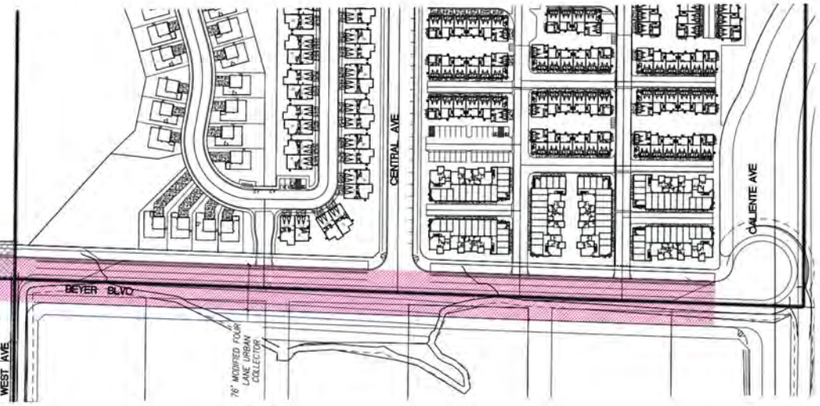
Map Source: CivilSense, Inc.





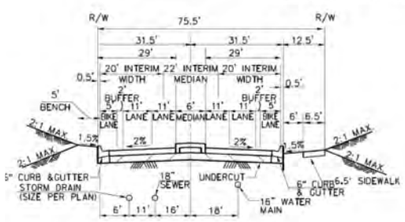


LEGEND

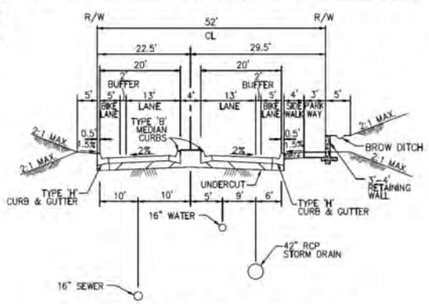
- FOUR LANE COLLECTOR WITHIN SAN YSIDRO COMMUNITY PLAN
- TRANSITION AREA TO FOUR LANES WHEN WARRANTED
- MODIFIED 4 LANE URBAN COLLECTOR CONSTRUCTED WITH TWO LANES DUE TO ENVIRONMENTALLY SENSITIVE HABITAT
- FOUR LANE URBAN MAJOR
- APPROXIMATE LIMITS OF CONSERVATION EASEMENT MODIFICATION

TOTAL LENGTH OF BEYER BLVD (FROM EAST BEYER BLVD TO CALIENTE AVE) = 6,800 FEET

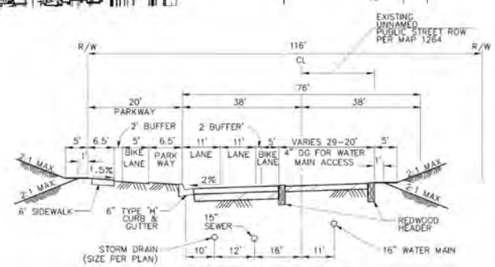
TOTAL LENGTH OF 2 LANE SECTION (FROM END OF TRANSITION EAST OF ENRIGHT DRIVE TO START OF TRANSITION WEST OF WEST AVE) = 3,500 FEET



MODIFIED 4 LANE URBAN COLLECTOR
CITY SUPPORTED MODIFIED BEYER BLVD SECTION
(FROM ENRIGHT DRIVE TO WEST AVE)
NOT TO SCALE



MODIFIED 4 LANE URBAN COLLECTOR
PROPOSED BEYER BLVD SECTION
(FROM ENRIGHT DRIVE TO WEST AVE)
NOT TO SCALE



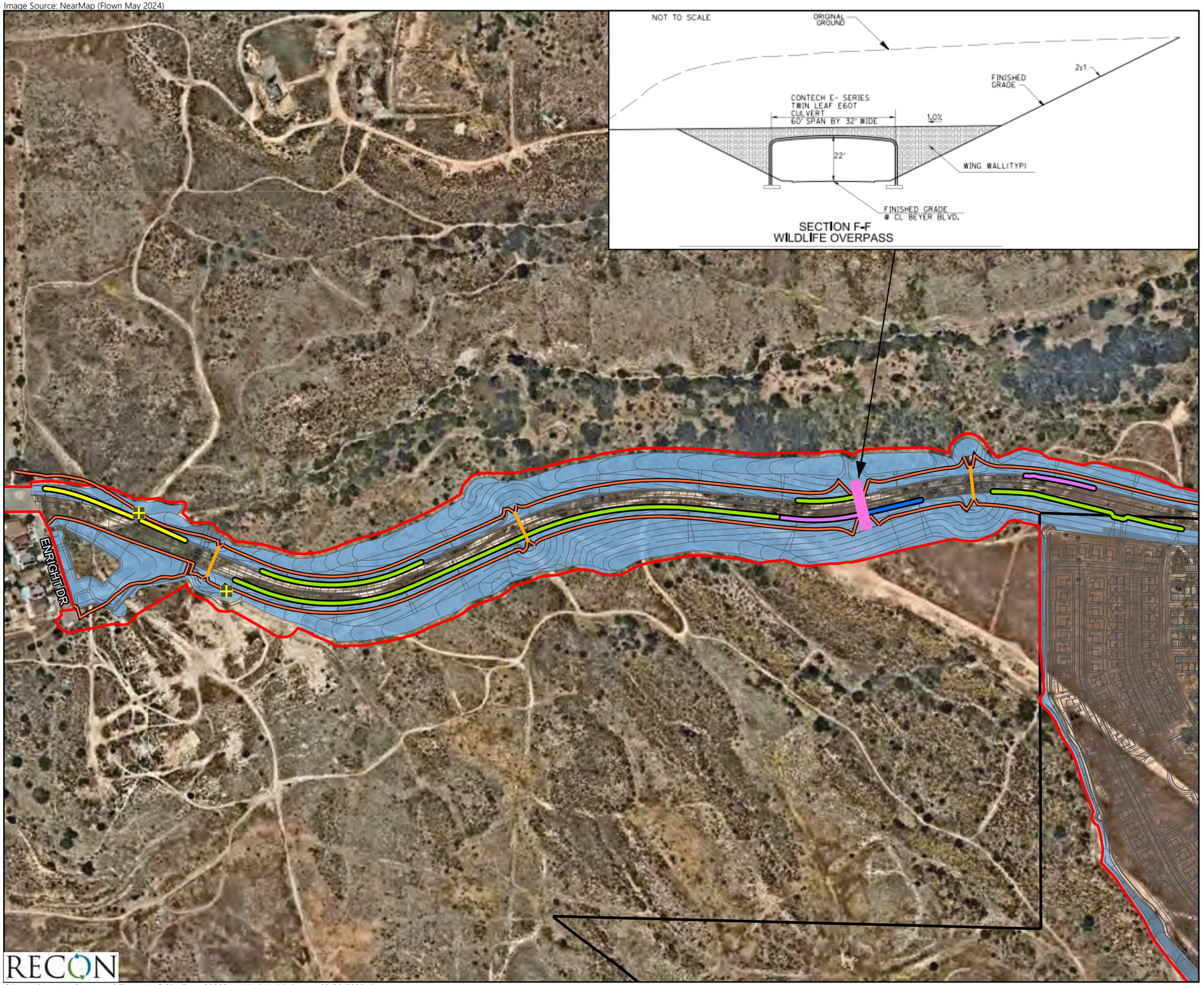
4 LANE URBAN MAJOR
INTERIM BEYER BLVD EAST SECTION
(FROM WEST AVE TO CALIENTE AVE)
NOT TO SCALE

RECON

M:\JOBS5\8868\bio\graphics\Biotec\2024\Summer\Fig14.1.afdesign 07/05/24 bma

FIGURE 14.1
Beyer Boulevard

Image Source: NearMap (Flown May 2024)



Project-level Analysis Area
Specific Plan Boundary
4-foot Retaining Wall
6-foot Masonry Noise Wall
0 - 8-foot Retaining Wall
12-foot Retaining Wall
SDG&E Access Gate
Wildlife Fence
Critter Crossing Culvert (6' dia.)
Wildlife Overcrossing (32' wide by 60' long)
Site Plan
Beyer_Slopes — Manufactured Slopes to be Revegetated with Native Species

0 Feet 300

FIGURE 14.2
Beyer Boulevard Wildlife Crossings, Wildlife Fencing, and Retaining Walls

RECON

C:\Users\bma\AppData\Local\Temp\ArcGISProTemp30508\Untitled\Untitled.aprx 03/20/2025 bma

Map Source: Leppert Engineering Corp.

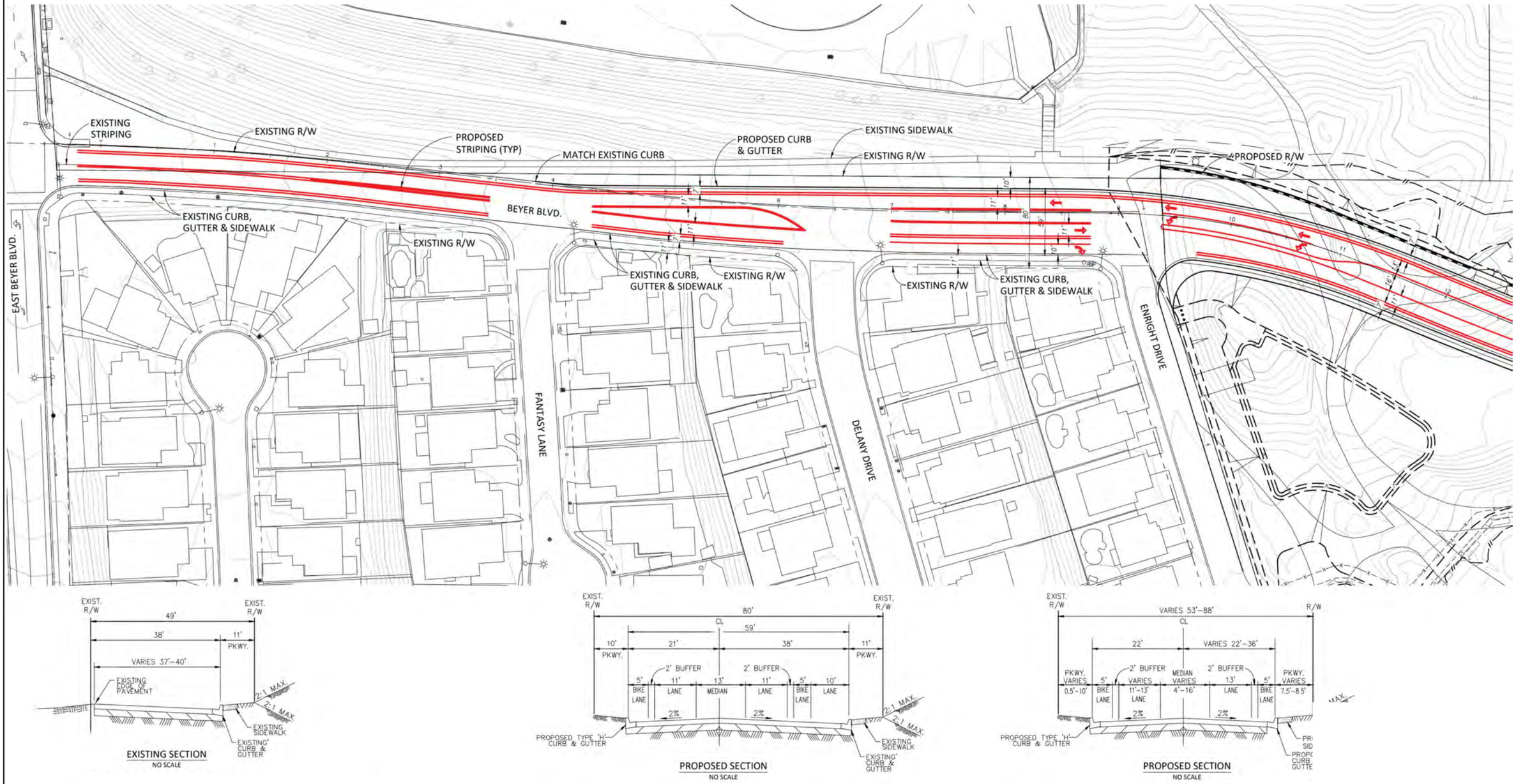


FIGURE 15.1
Beyer Boulevard between Enright Drive and East Beyer Boulevard - Interim Condition

RECON
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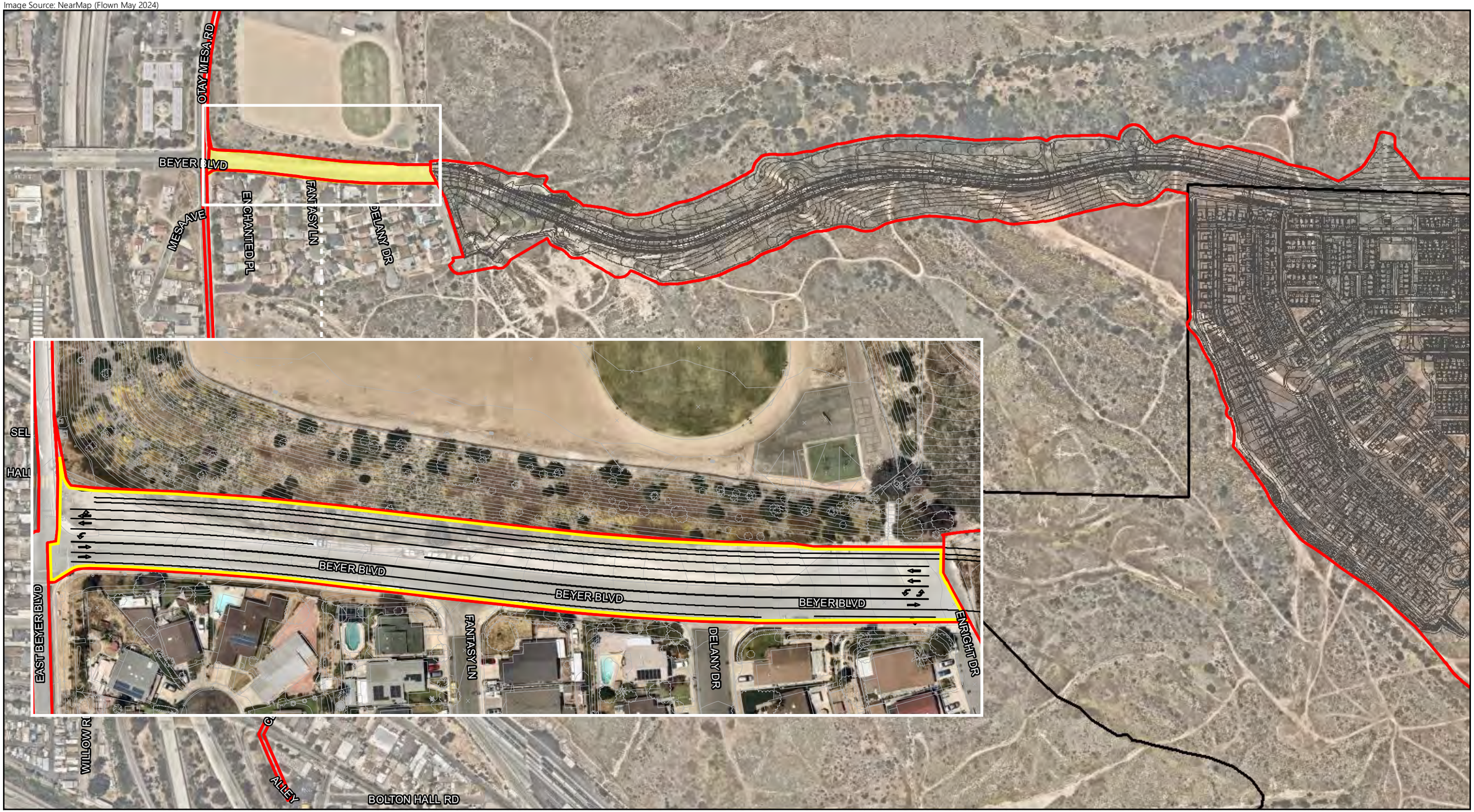
Image Source: NearMap (Flown May 2024)



Project-level Analysis Area
Beyer Boulevard Widening
Specific Plan Boundary
Site Plan

0 Feet 400

RECON

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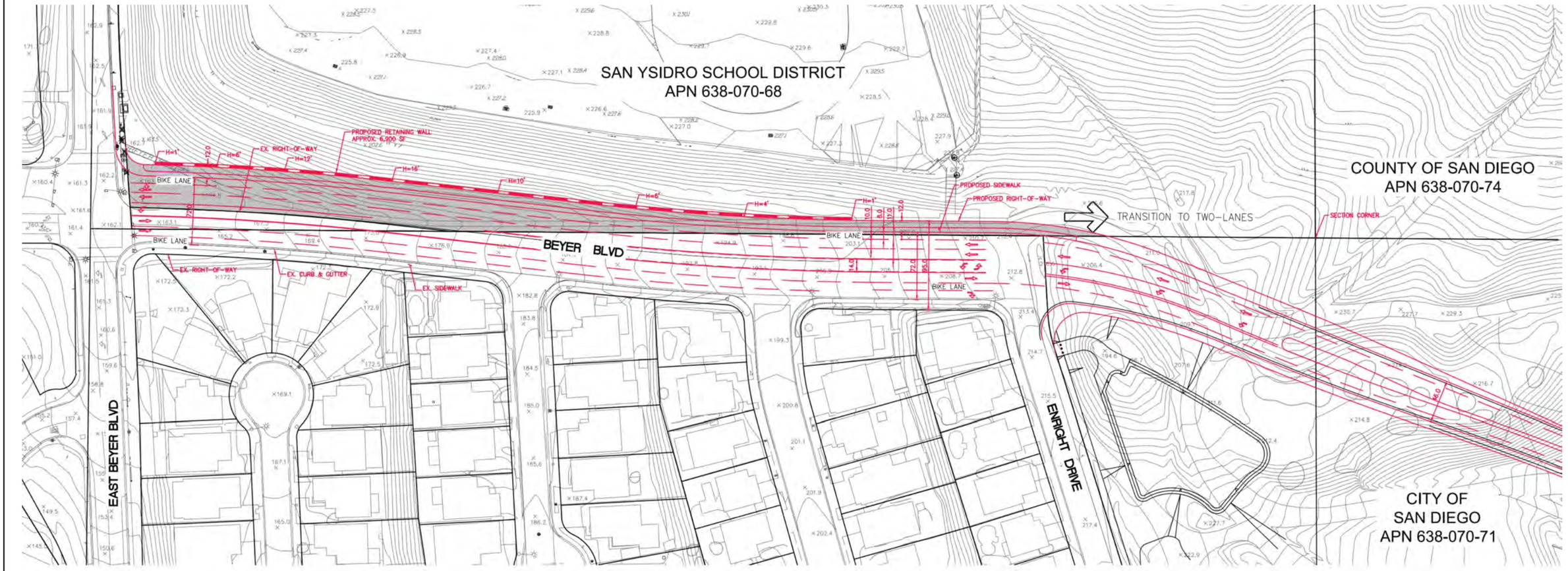
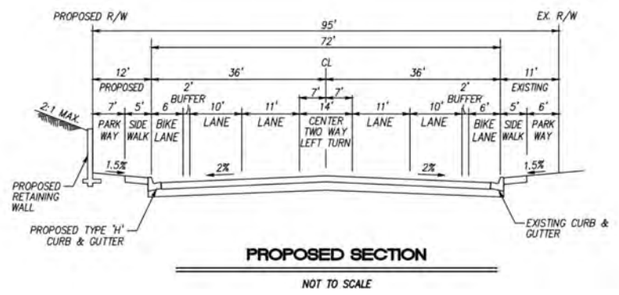
FIGURE 15.2
Beyer Boulevard Widening between Enright Drive and East Beyer Boulevard - Ultimate Condition

Map Source: Civil Sense





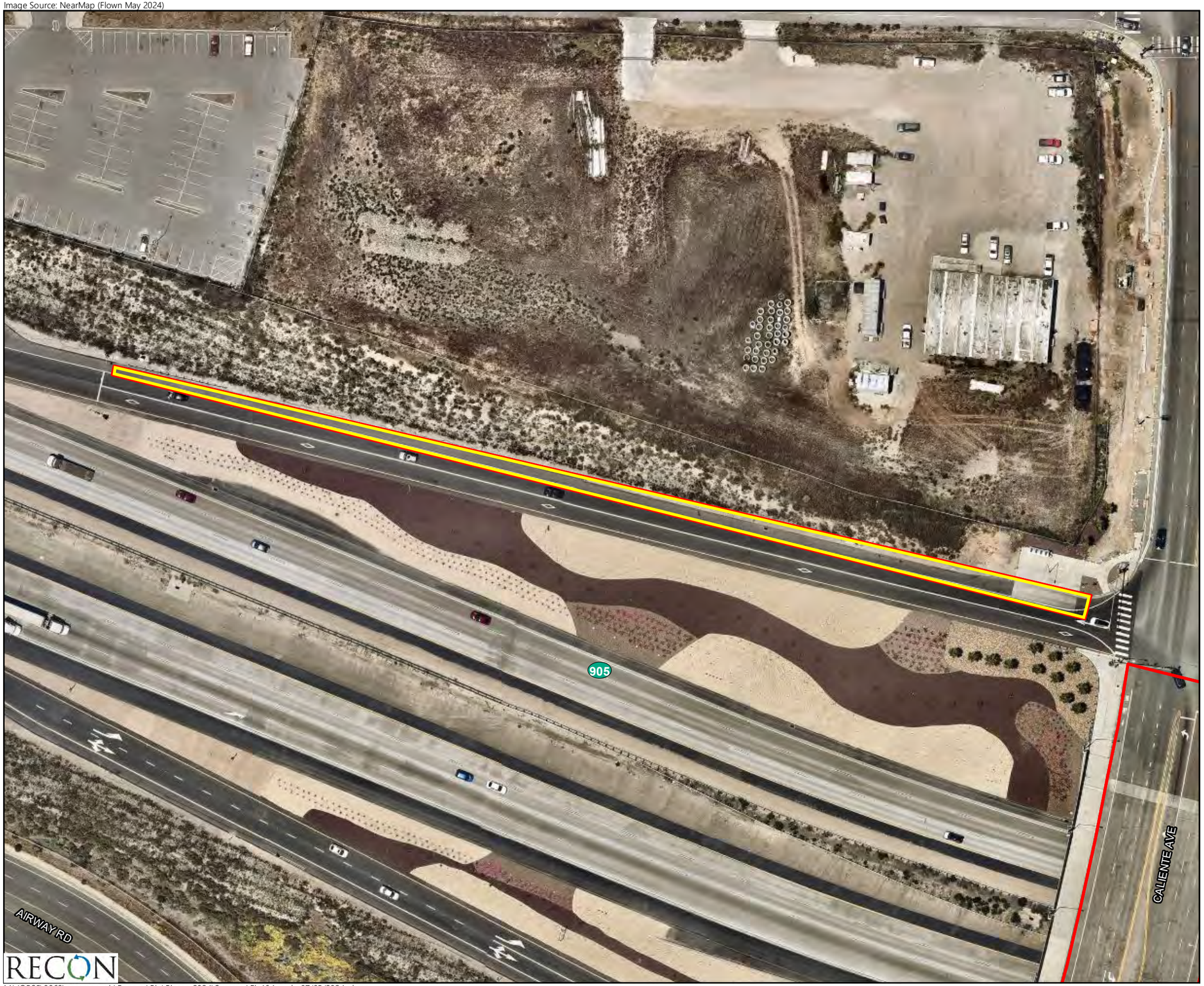
PROPOSED SECTION

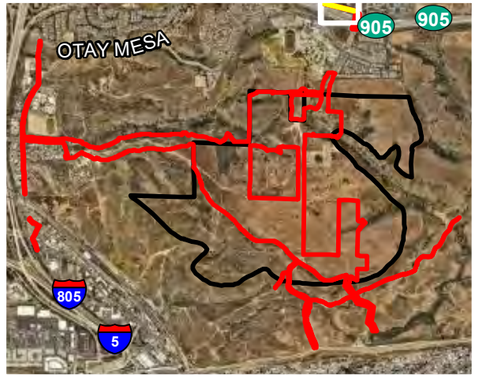
NOT TO SCALE

FIGURE 15.3
Beyer Boulevard between Enright Drive and East Beyer Boulevard - Ultimate Four Lane Option

RECON
M:\JOBS5\8868\bio\graphics\Biotec\2024\Summer\Fig15.3.afdesign 07/05/24 bma

Image Source: NearMap (Flown May 2024)





Project-level Analysis Area
Road Widening
Specific Plan Boundary

0 Feet 75

RECON

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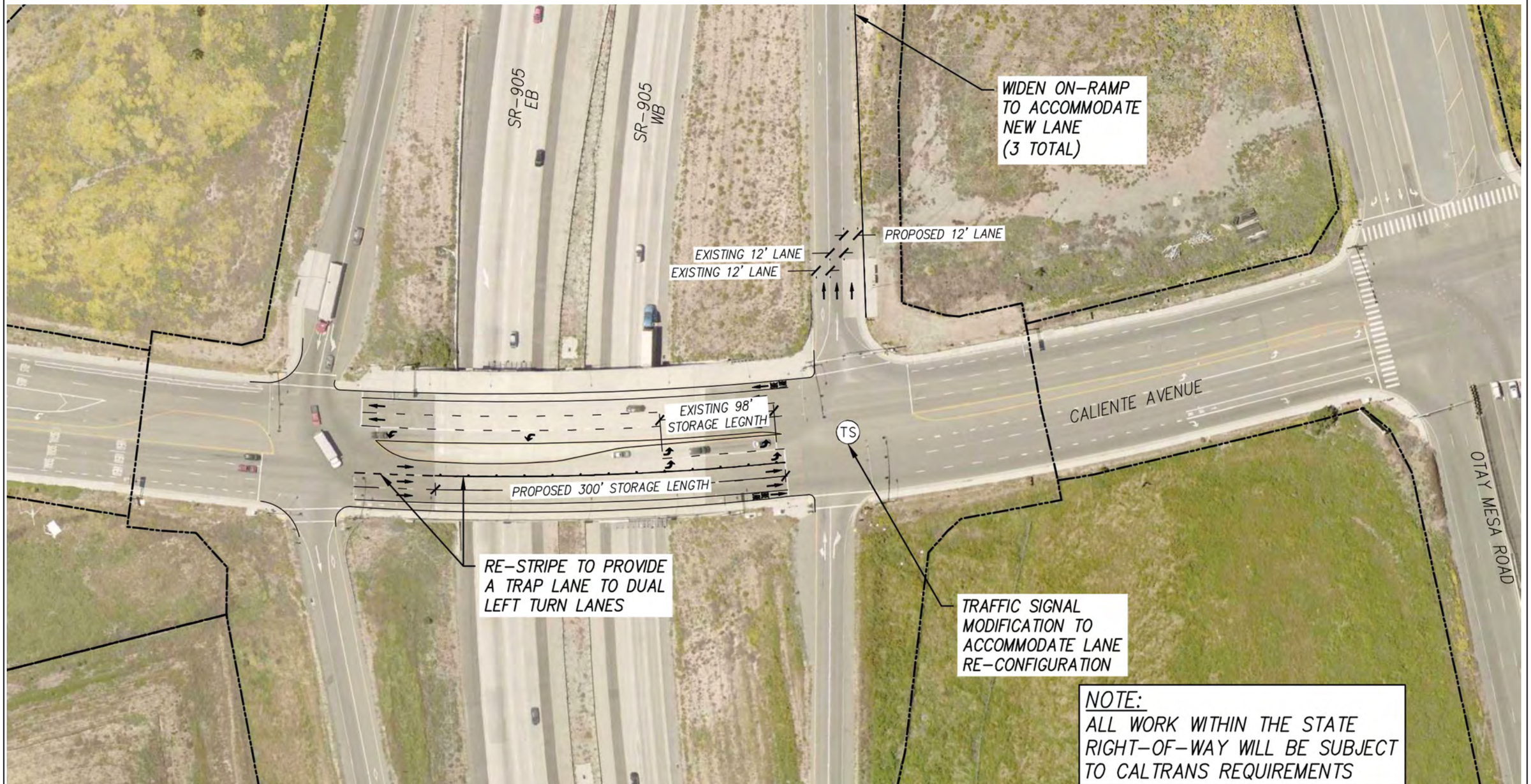
FIGURE 16.1
State Route 905 & Caliente Avenue
Westbound On-Ramp

Map Source: Civil Sense, Inc.

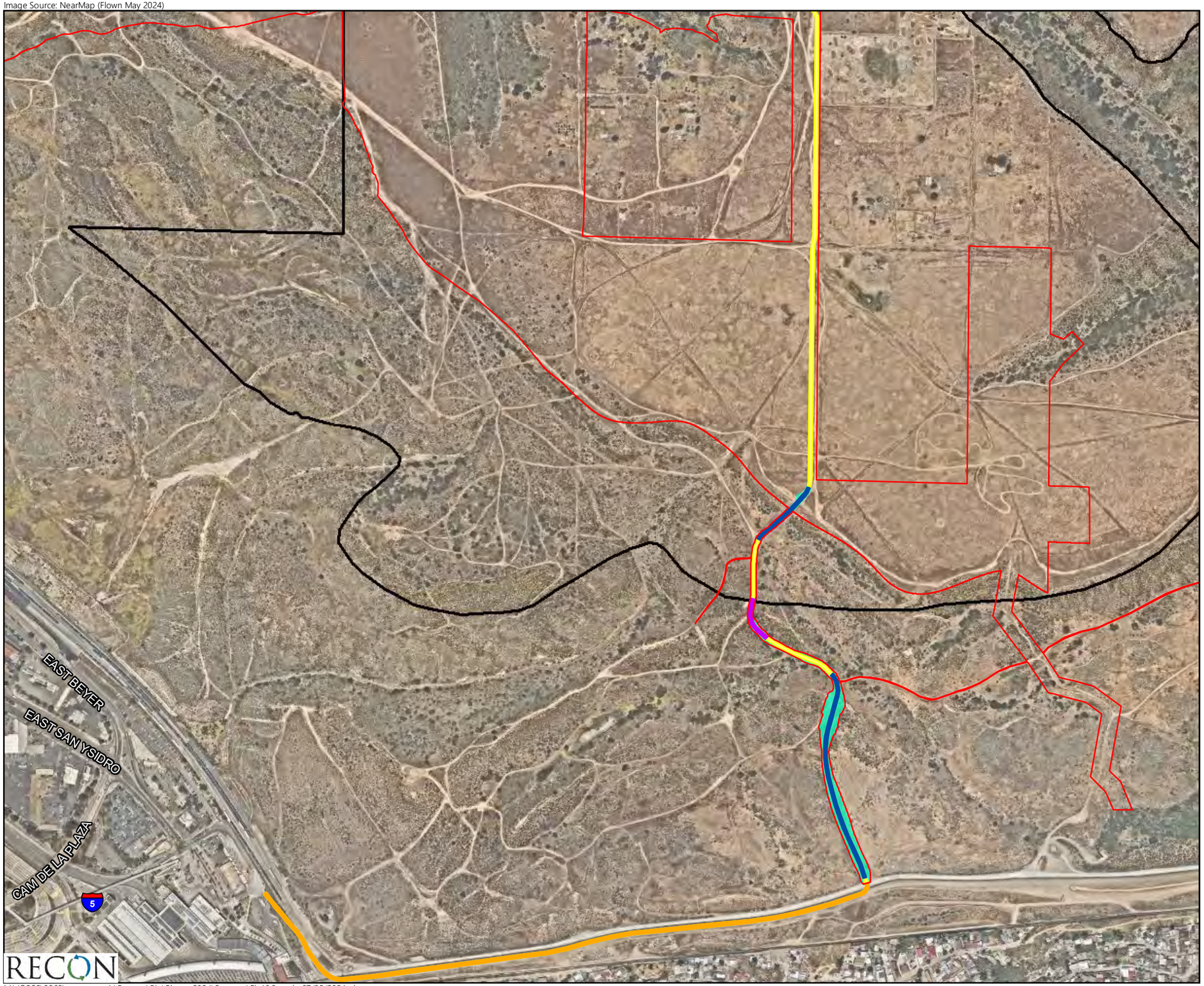


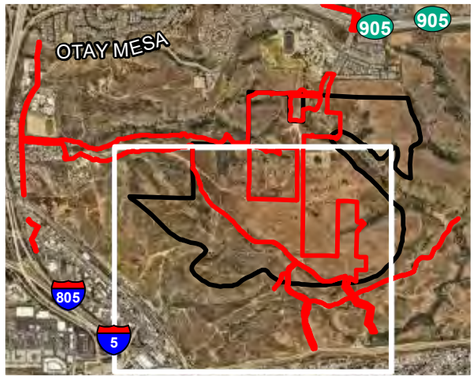
RECON

M:\JOBS5\8868\bio\graphics\Biotec\2024\Summer\Fig16.2.afdesign 07/05/23 bma

FIGURE 16.2
Caliente Avenue SR-905 Bridge Restriping and Signal Improvements

Image Source: NearMap (Flown May 2024)





Project-level Analysis Area

Specific Plan Boundary

20-foot Wide Emergency Vehicle Access (EVA)*

Asphalt Paving Required

Concrete Paving Required (15% Grade)

Decomposed Granite/Gravel Surfacing

Existing Access Road

Grading

*Narrows to 14 feet to avoid grading into sensitive resources

Note: The ultimate location of the emergency access route on the top of the mesa is conceptual and may shift within the project-level grading footprint based on need.

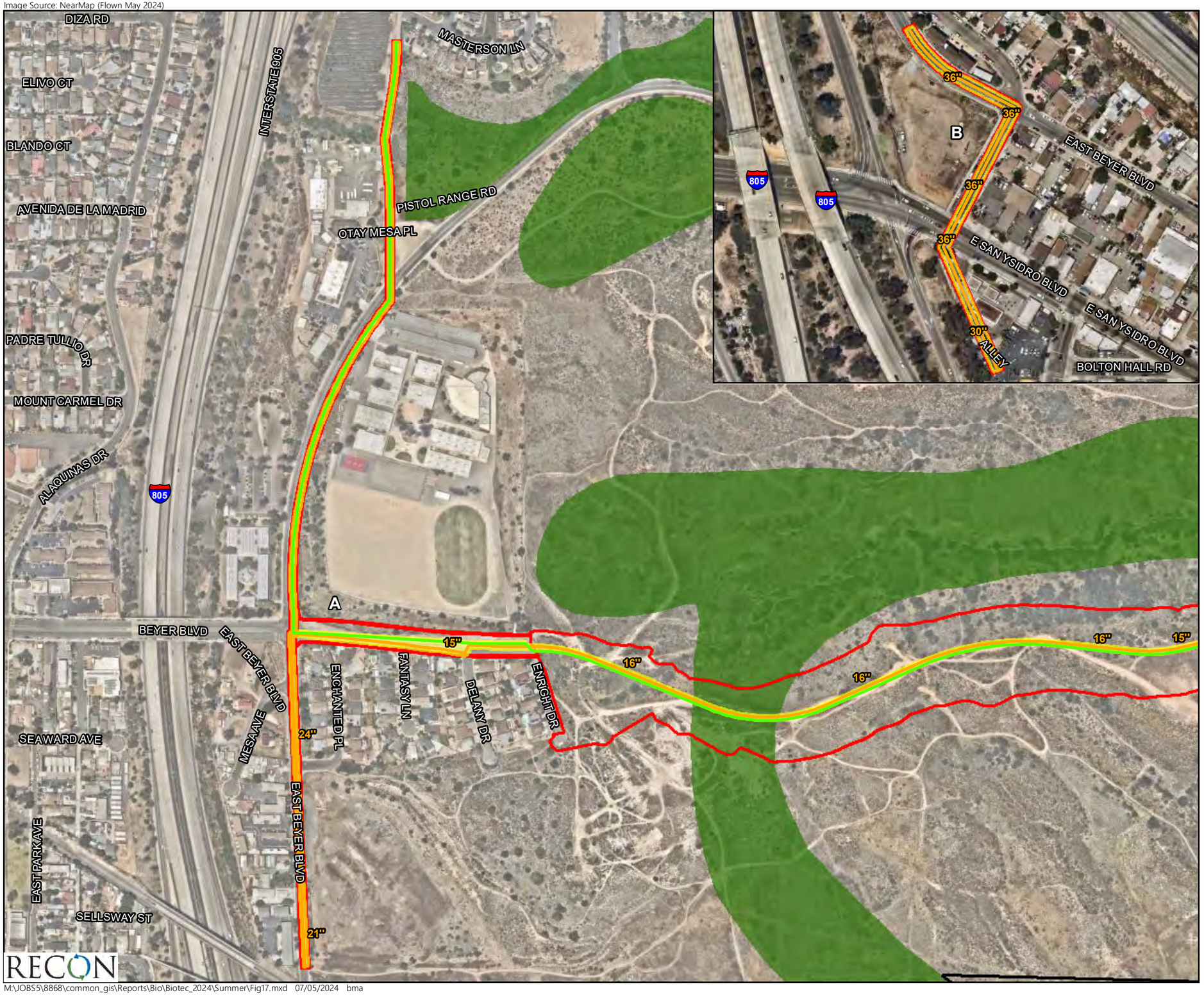
0 Feet 550

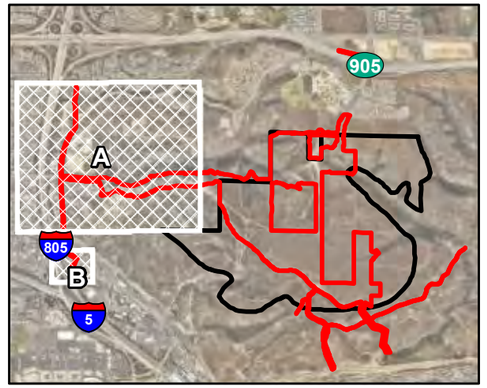
RECON

M:\JOBS5\8868\common_gis\Reports\Bio\Biotec_2024\Summer\Fig16.3.mxd 07/05/2024 bma

FIGURE 16.3
Emergency Vehicle Access Road

Image Source: NearMap (Flown May 2024)





Project-level Analysis Area

Specific Plan Boundary

Construction Area

Water Line Improvement
(16" Pipeline Installation)

Sewer Line Improvement
(15" - 36" Pipeline Installation)

City of SD MHPA

Note: Water and Sewer improvements assume a 20-foot disturbance limit

0 Feet 400

FIGURE 17
Water and Sewer Lines

RECON

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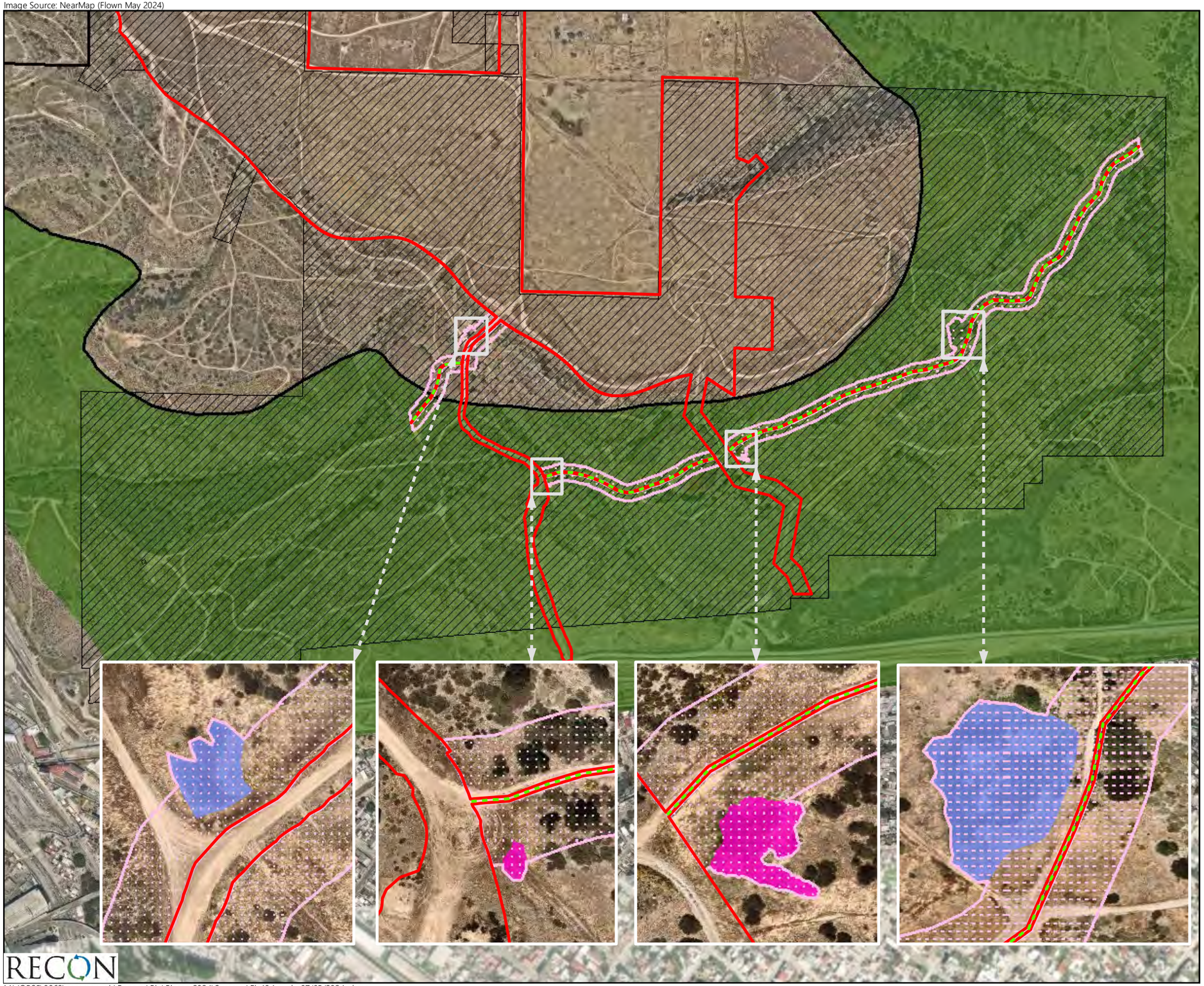
Image Source: NearMap (Flown May 2024)



Project-level Analysis Area
Primitive Trail Alignment
Trail Restoration (100-foot wide corridor)
Specific Plan Boundary
Tri Pointe Homes Ownership
City of SD MHPA
Vernal Pool with Fairy Shrimp
Disturbed Wetland

0 Feet 600

RECON

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FIGURE 18.1
Project-level Trail Restoration

Image Source: NearMap (Flown May 2024)

- Project-level Analysis Area
- Trail Restoration
- Specific Plan Boundary
- Primitive Trail Alignment

Vegetation Communities

- Diegan Coastal Sage Scrub
- Maritime Succulent Scrub
- Disturbed Maritime Succulent Scrub
- Non-native Grassland
- Disturbed Wetland
- Disturbed Land

0 Feet 80

RECON

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FIGURE 18.2
Trail Restoration Areas

Image Source: NearMap (Flown May 2024)

- Project-level Analysis Area
- Trail Restoration
- Specific Plan Boundary
- Primitive Trail Alignment

Vegetation Communities

- Maritime Succulent Scrub
- Disturbed Maritime Succulent Scrub
- Non-native Grassland
- Vernal Pool with Fairy Shrimp
- Disturbed Land

0 Feet 80

FIGURE 18.3
Trail Restoration Areas

RECON

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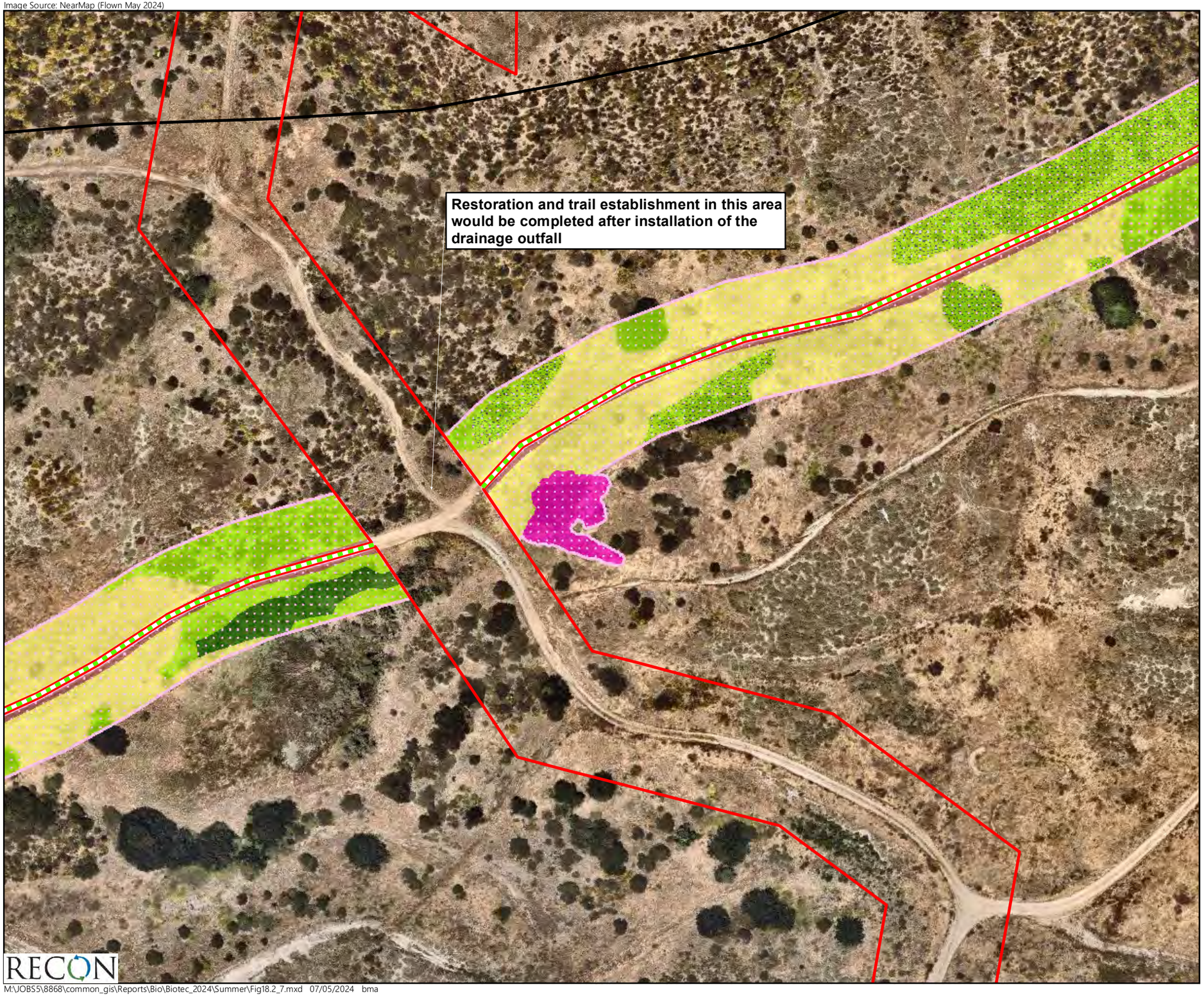
Image Source: NearMap (Flown May 2024)



Project-level Analysis Area
Trail Restoration
Specific Plan Boundary
Primitive Trail Alignment

Vegetation Communities

Maritime Succulent Scrub
Disturbed Maritime Succulent Scrub
Non-native Grassland
Tamarisk Scrub
Vernal Pool with Fairy Shrimp
Disturbed Land

0 Feet 80

RECON

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FIGURE 18.4
Trail Restoration Areas

Image Source: NearMap (Flown May 2024)

- Project-level Analysis Area
- Trail Restoration
- Specific Plan Boundary
- Primitive Trail Alignment

Vegetation Communities

- Maritime Succulent Scrub
- Disturbed Maritime Succulent Scrub
- Non-native Grassland
- Disturbed Wetland
- Disturbed Land

0 Feet 80

FIGURE 18.5
Trail Restoration Areas

RECON

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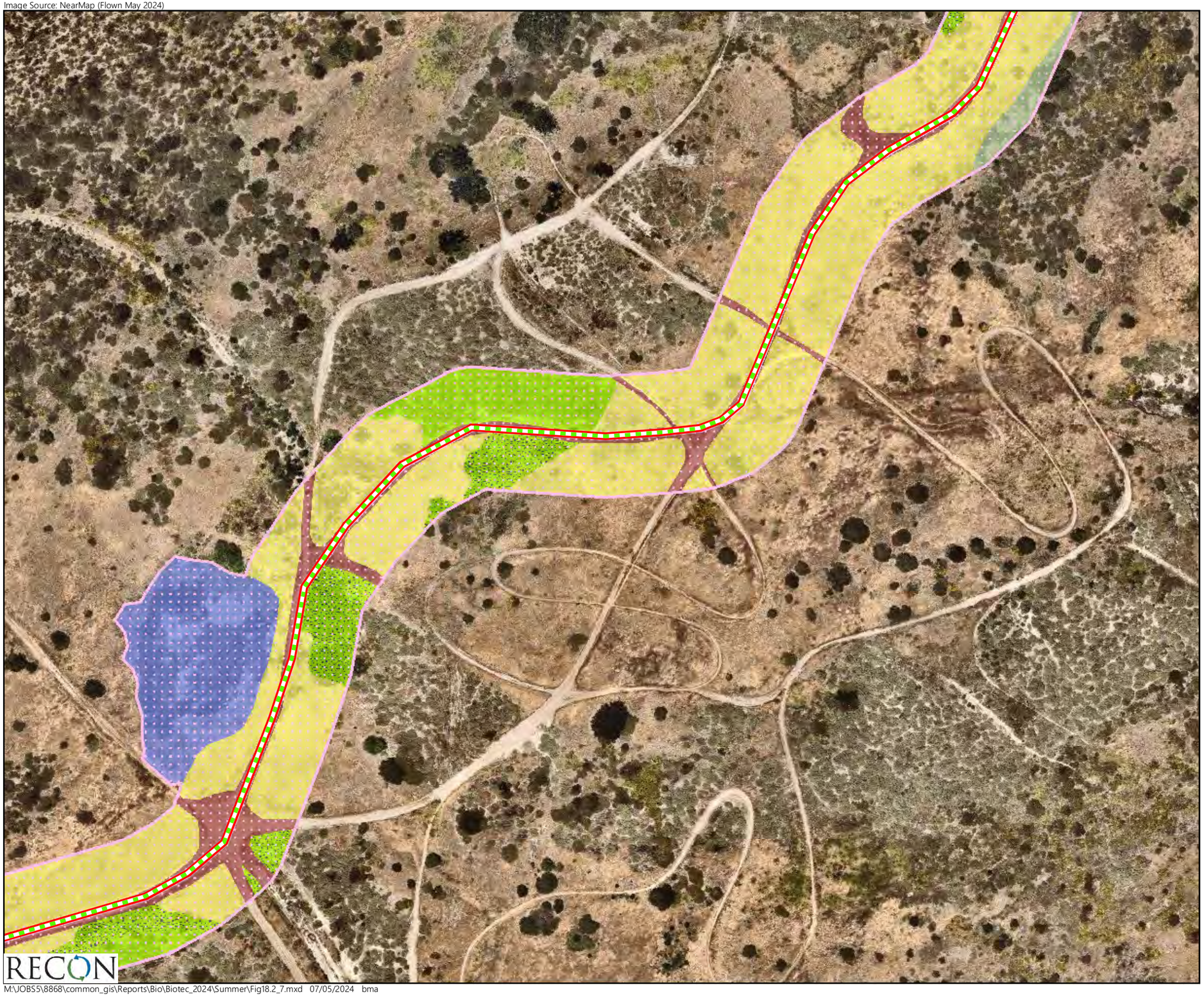
Image Source: NearMap (Flown May 2024)



- Project-level Analysis Area
- Trail Restoration
- Primitive Trail Alignment

Vegetation Communities

- Diegan Coastal Sage Scrub
- Maritime Succulent Scrub
- Disturbed Maritime Succulent Scrub
- Non-native Grassland
- Disturbed Wetland
- Disturbed Land

0 Feet 80

RECON

M:\JOBS5\8868\common_gis\Reports\Bio\Biotec_2024\Summer\Fig18.2_7.mxd 07/05/2024 bma

FIGURE 18.6
Trail Restoration Areas

Image Source: NearMap (Flown May 2024)

- Project-level Analysis Area
- Trail Restoration
- Primitive Trail Alignment

Vegetation Communities

- Diegan Coastal Sage Scrub
- Disturbed Maritime Succulent Scrub
- Non-native Grassland
- Disturbed Land

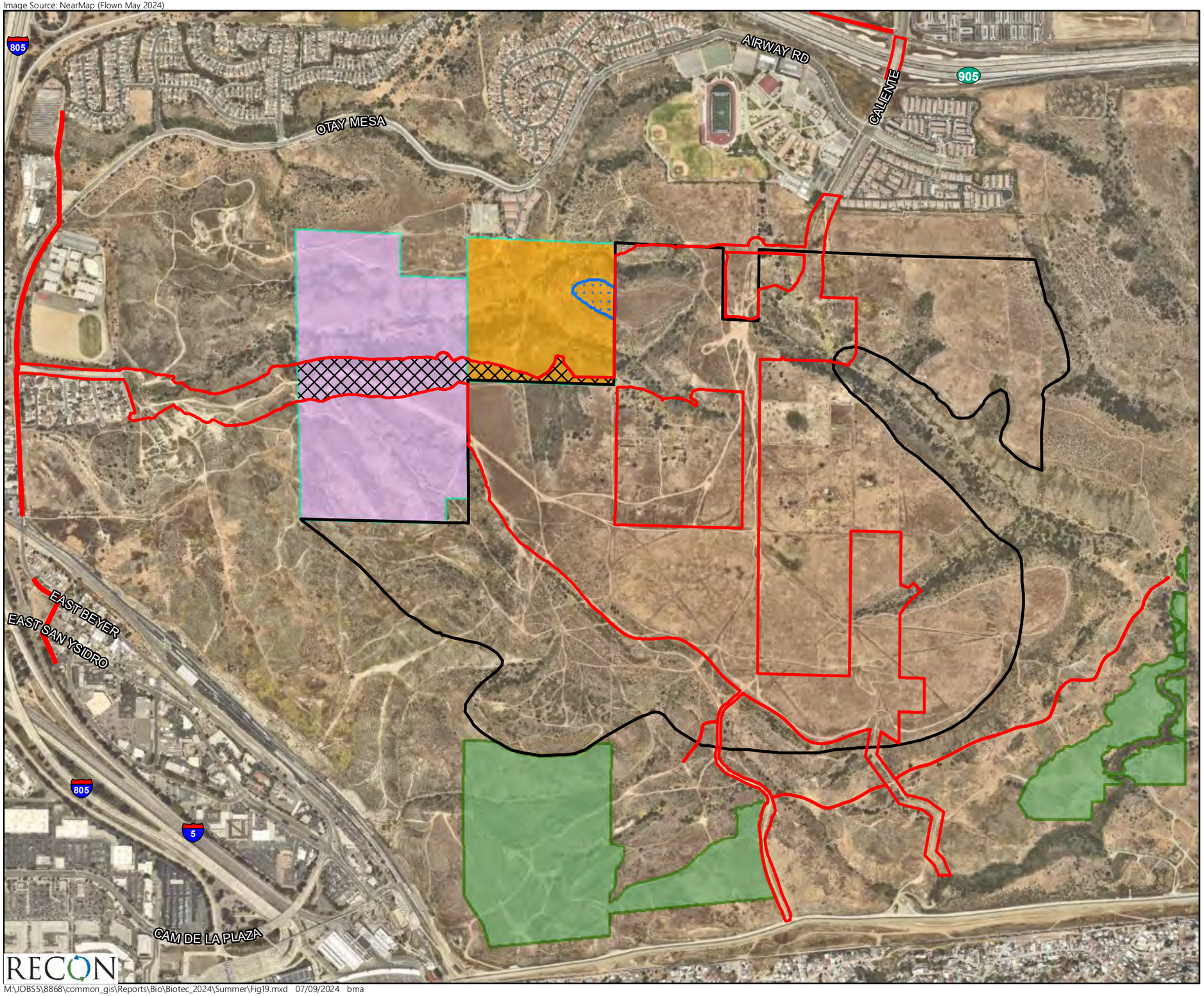
0 Feet 80

RECON

M:\JOBS5\8868\common_gis\Reports\Bio\Biotec_2024\Summer\Fig18.2_7.mxd 07/05/2024 bma

FIGURE 18.7
Trail Restoration Areas

Image Source: NearMap (Flown May 2024)



- Project-Level Impacts
- Specific Plan Boundary
- CDFW Conservation Easements - West Otay A
- CDFW Conservation Easements - West Otay B
- CDFW Conservation Easement Area to be Amended to Allow Beyer Boulevard
- Potential Vernal Pool Restoration Area
- Additional Potential Habitat Preservation

0 Feet 900

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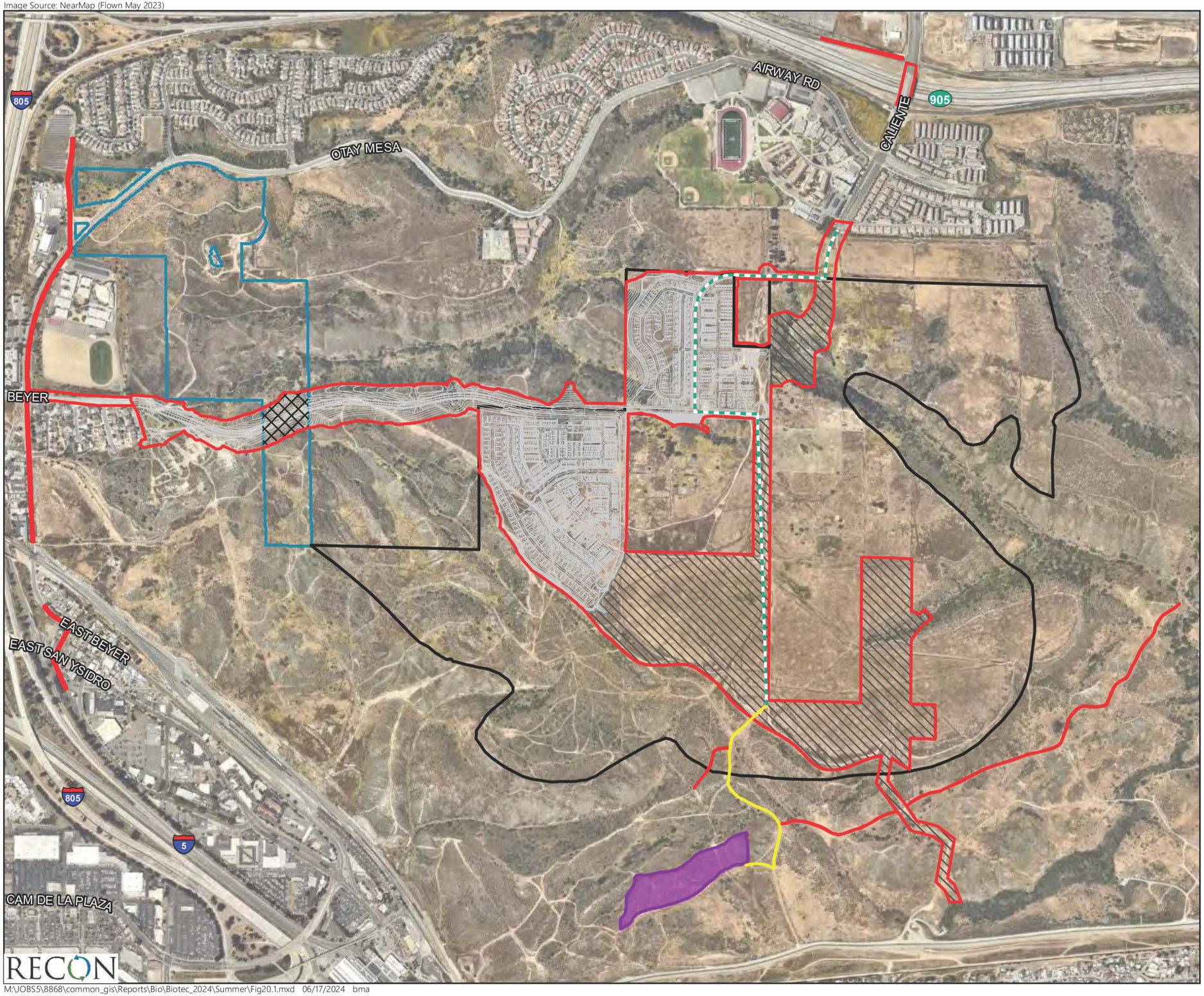
FIGURE 19
CDFW Conservation Easements

Image Source: NearMap (Flown May 2023)



- Project-level Analysis Area
- Project-level Analysis - Rough Grading Only
- Phase 1 Site Plan
- Specific Plan Boundary
- Furby North Preserve
- Furby North Preserve Area to be Quitclaimed to the City for Public Road
- Land to be conveyed to the County of San Diego for ownership, with City of San Diego long term management
- Interim Access Easement to be Extinguished after Public Roads Constructed
- Permanent Access Easement to be Granted to the County of San Diego

0 Feet 900

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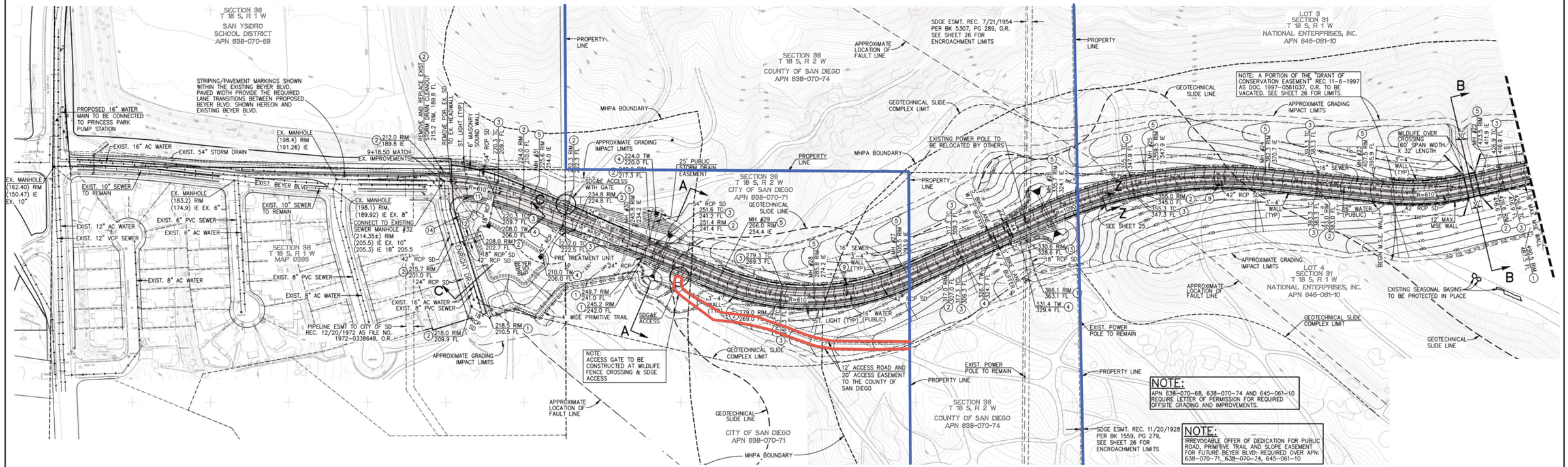
FIGURE 20.1

Proposed Furby North Preserve
Exchange Lands and Legal Access

Map Source: CivilSense



Furby North Preserve

20 Foot Access Easement to the County of San Diego

FIGURE 20.2

Proposed Legal Access to Southern Portion of the Furby North Preserve from Beyer Boulevard

RECON

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2.0 Methods

This section describes the survey methods for both the program and project-level areas for the Specific Plan.

2.1 Program-level Methods

The analysis for the program-level analysis areas of the Specific Plan is largely based on review of secondary source data and mapping information to provide a general overview of resources present, with the exception of the surveys described below. Future development areas within the program-level analysis area of the Specific Plan would require site-specific biological surveys prior to development. A number of studies would be required at the time future development is proposed, including a wetland delineation, fairy shrimp surveys, burrowing owl surveys, rare plant surveys, Quino checkerspot butterfly (*Euphydryas editha quino*) surveys, and coastal California gnatcatcher (*Polioptila californica californica*) surveys.

2.1.1 General Biological Surveys

General biological surveys were completed in April 2020 along program-level Specific Plan trail alignments in order to identify any key biological resources present and to identify the surveys that would be required in order to implement future program-level trails.

2.1.2 Wildlife Tracking Surveys

Wildlife Tracking Company conducted spring and summer wildlife tracking surveys in 2020 within the Specific Plan and surrounding area in order to identify wildlife movement regimens in the surrounding area, species presence/absence, connectivity (gene pool exchange integrity), prey presence/absence available in the vicinity, and habitat quality related to specific species (Wildlife Tracking Company 2020; Attachment 2a). Presence of wildlife was documented by observation or by sign (e.g. tracks, scat, scraps, rubs, kill sites, cache sites, dens, burrows, trails, runs, hair, or feathers). Eighty-two specific survey collection points were positioned within and surrounding the Specific Plan area and surveyed for animal sign, and cameras were set in key locations for five to seven days. In 2022, an addendum to the Wildlife Study was prepared to address the proposed Beyer Boulevard West wildlife overcrossing and culverts/under crossings and provide design recommendations for these project features (Wildlife Tracking Company 2022; Attachment 2b).

2.2 Project-level Survey Area

Site-specific surveys were completed for the project-level survey area which totals 611.99 acres, as shown in Figure 21. Surveys conducted included general biological surveys, rare plant surveys, wet and dry season vernal pool fairy shrimp focused surveys, Quino checkerspot butterfly focused surveys and habitat assessments, coastal California gnatcatcher focused surveys, burrowing owl (*Athene cunicularia*) breeding season surveys, western spadefoot surveys, Crotch's bumble bee

habitat assessment, and jurisdictional resource delineations. For reporting convenience, all survey dates, times, personnel, and weather conditions are summarized in Attachment 3.

The impact analysis presented in this report is broken down according to the anticipated grading phasing (see Figure 10.1), to reflect the fact that the project-level areas would be implemented in phases. Additionally, within each phase, certain areas are reported separately to provide clarity on higher mitigation ratios required for certain areas and to specify impacts that may be mitigated by other projects. For example, there are two projects, the Candlelight and Southwind projects, whose footprint overlaps with portions of the Southwest Village project-level footprint (Figure 22). These project areas are reported separately throughout this report as the first project to proceed would be required to implement mitigation for those project areas. Biological resource data for the Candlelight project area is based on the certified Candlelight Environmental Impact Report (Project No. 40329; SCH No. 2013101036) and the associated Biological Technical Report prepared by Alden Environmental Inc. dated June 27, 2013, which are incorporated by reference herein. Impacts associated with conserved lands along the Beyer Boulevard West extension are also reported separately since these areas are subject to additional approval processes and mitigation requirements.

2.2.1 General Biological Resources Surveys

General biological surveys were conducted by RECON Environmental Inc. (RECON) biologists between November 2017 and 2024, covering all survey areas as detailed in Attachment 3. Biological surveys were completed in phases, as project areas were added or modified ultimately covering the entire project-level survey area. In order to verify resources and document updated site conditions, a general biological resources survey update was conducted in February, March, June, and October 2023 and January through June 2024 to provide any necessary updates to vegetation mapping and to verify conditions within the EVA road and water/sewer line improvement areas and additional areas within the Phase 4 grading area. Results of the survey updates for each resource are discussed in the subsections below. The survey updates included vegetation mapping and spring rare plant surveys for the entire project-level analysis area. The survey updates included confirming the boundaries of the suitable coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*) habitat, the extent of Otay tarplant within and adjacent to the limits of the Beyer Boulevard West alignment, updating the boundaries of suitable habitat for Quino checkerspot butterfly, verifying the location of snake cholla (*Cylindropuntia californica* var. *californica*), and checking for signs of burrowing owl use. Additionally, during these survey updates, the project-level area was assessed for suitability for Crotch's bumble bee (*Bombus crotchii*). A focused search of ponding basins that previously did not support vernal pool indicator plants was conducted to verify the appropriate categorization of these basins. Vegetation community classifications follow Holland (1986) as modified by Oberbauer (1996). All plant species observed were also noted, and plants that could not be identified in the field were identified later in the laboratory using taxonomic keys. The general biological surveys included a directed search for sensitive plants that would have been apparent during the time of those surveys. Limitations to the compilation of a comprehensive floral checklist were imposed by seasonal factors, such as blooming period. All wildlife observed during the surveys were also noted. Animal species observed directly or detected from calls, tracks, scat, nests, or other sign were noted.

Floral nomenclature for common plants follows the Jepson Online Herbarium (Jepson Flora Project 2023), for ornamental plants Brenzel (2001), and for sensitive plants CNPS (2022). Vegetation community classifications follow Oberbauer et al. (2008), which is based on Holland's 1986 Preliminary Descriptions of the Terrestrial Natural Communities of California. Zoological nomenclature for birds is in accordance with the American Ornithological Society Checklist (Chesser et al. 2021); for mammals with Bradley et al. (2014); and for reptiles with Crother (2017). Determination of the potential occurrence for listed, sensitive, or noteworthy species is based upon known ranges and habitat preferences for the species (Jennings and Hayes 1994; Unitt 2004; CNPS 2023; Reiser 2001) and species occurrence records from the California Natural Diversity Database (CNDDB; CDFW 2022a), the All Species Occurrences Database (USFWS 2022), and SanBIOS (County of San Diego 2022).

2.2.2 Rare Plant Surveys

Rare plant surveys were conducted within the entire project-level survey area as detailed in Attachment 3. An analysis of potential rare plant occurrence was done prior to the field surveys to identify which species would require rare plant surveys. Determination of the potential occurrence for listed, sensitive, or noteworthy species is based upon known ranges and habitat preferences for the species (CNPS 2023, Reiser 2001), species occurrence records from the CNDDB (CDFW 2022a), the City's MSCP, and other sites in the vicinity of the project-level survey area. The known blooming period for potentially occurring species was also taken into account when scheduling the focused rare plant surveys so that the detectability of these species was maximized.

The project-level survey area was traversed on-foot during the focused surveys, with portions of the site given extra focus, depending on the blooming period of the rare plant and level of disturbance. Special attention was given to potential vernal pools and areas supporting native scrub or native herbaceous vegetation. Determinations were made in the field as to the suitability of the observed habitat conditions in the project-level survey area to support rare plant species. For instance, some areas contain steep slopes and dense vegetation which decreased accessibility and the likelihood to detect small, inconspicuous plant species in those areas. Surveyors recorded the locations of all rare plant species when encountered via a combination of hand-mapping on an aerial map and using a tablet linked to a sub-meter global positioning system (GPS) unit. In addition, a species list of all plants observed was compiled during the course of the surveys (Attachment 4).

Updated verification surveys were completed in spring and summer 2023 to verify the extent of rare plants and update mapping as needed (see Attachment 3).

2.2.3 San Diego and Riverside Fairy Shrimp Surveys

Both wet season and dry season vernal pool branchiopod/fairy shrimp focused surveys were conducted within the project-level survey areas between 2017 and 2020 (see Attachment 3). The purpose of these surveys was to determine the presence of federally listed endangered San Diego fairy shrimp (*Branchinecta sandiegonensis*) and Riverside fairy shrimp (*Streptocephalus woottoni*). The USFWS survey requirements for fairy shrimp have been accomplished for the project through one complete round of wet season and dry season focused surveys within a three-year period. Due to the time that has passed since fairy shrimp surveys were completed and the substantial time and

effort required to complete updates surveys, for the purposes of this report, any unoccupied pools are assumed to be occupied.

2.2.3.1 Wet Season Surveys

During the 2017/2018 wet season, surveys were conducted in Beyer Boulevard West and Phases 1 and 2 within 113 depressions to determine the presence or absence of San Diego fairy shrimp and Riverside fairy shrimp. Wet season surveys were also conducted during the 2018/2019 rainy season within 170 mapped depressions. Since the 2017/2018 wet season surveys were conducted under drought conditions and may have been inconclusive, and because new survey areas were added, 2018/2019 wet season fairy shrimp surveys were conducted within 74 basins that did not inundate, or only inundated to less than 3 centimeters in depth during the previous rainy season, as well as additional areas in the southeast portion of the project-level survey area. A third wet season survey was conducted in the 2019/2020 rainy season to cover an additional 129 basins. All surveys were conducted in accordance with the USFWS Survey Guidelines for the Listed Vernal Pool Branchiopods (USFWS 1997a).

2.2.3.2 Dry Season Surveys

Per the 2017 USFWS survey guidelines, in order to be considered adequately surveyed, one wet season survey and one dry season survey conducted within all basins within a 3-year period. Soil collection for all sample years were conducted according to these USFWS survey guidelines by personnel authorized under RECON's permit number TE-797665.

Soil samples were collected in phases over the various survey years including soil collections within 115 basins during 2018 surveys; 125 basins during 2019 surveys, and 126 basins in 2020. In each year, soil samples were shipped to Peter Balfour of ECORP for cyst analysis. Helm Biological conducted cyst rearing on the soils that were found to support cysts. After several hatching attempts, all results were provided to RECON for inclusion with our survey results.

2.2.4 Quino Checkerspot Butterfly Surveys

Surveys for Quino checkerspot butterfly were completed within the project-level survey area between the years 2018 through 2023 (see Attachment 3). Table 1 identifies the locations, acreages, and years of all Quino checkerspot butterfly surveys.

RECON conducted surveys in 2018 within suitable Quino checkerspot butterfly habitat within north-central portions of the project-level analysis area (RECON 2018a). Additional focused surveys were conducted in 2019, 2020, 2021, and 2022 within new areas added to the development footprint. Typically, each year's survey areas did not overlap with areas surveyed in the previous year. However, repeat protocol surveys were conducted in 2020 within the same areas as the 2018 surveys during an above average rain year to confirm the presence/absence of Quino checkerspot butterfly and further document the extent of host and nectar plants. Additionally, the 2023 protocol surveys covered the entire project-level analysis area where suitable habitat existed.

Table 1 Quino Checkerspot Butterfly Protocol Survey Years and Locations	
Year	Locations
2018	Portions of Phase 1 and Beyer Boulevard West (76 acres)
2019	Existing VPHCP/MHPA areas within the southern project-level survey area, 1-acre parcel associated with Phase 1b, small area within southern portion of Phase 1b, and small area at tip of western storm drain (38.16 acres)
2020	Phase 1, a Portion of Phase 2, and Beyer Boulevard West, and program-level trails (138.5 acres)
2021	New portions of Phase 2, portions of Phase 1 and Phase 4 (27.9 acres)
2022	New portions of Beyer Boulevard West and Phase 2 and a portion of the project-level trails in the south (6.58 acres)
2023	The entire project-level analysis area with suitable habitat, including the project-level trails
2024	Extensive habitat assessments of the proposed mitigation lands conducted.

Protocol adult flight season surveys for this species were conducted in accordance with the Quino checkerspot butterfly Survey Guidelines (USFWS 2014) by qualified biologists under recovery permit TE-797665. Surveys were conducted weekly beginning the third week of February with surveys conducted no fewer than four days apart and were completed by the second Saturday in May. RECON followed USFWS recommendations which require that site assessments be conducted for all projects within this species' potential range, as defined by the recommended Quino Survey Area (USFWS 2014), to determine if a site contains areas where surveys should be conducted. If surveys are not conducted for a site within this species' potential range, any portion of the site containing suitable habitat would be assumed to be occupied by Quino checkerspot butterfly (USFWS 2009a).

During the focused surveys, the surveyors walked throughout suitable habitat, including slopes and mesa tops, at a slow pace (fewer than 10 acres per hour). Surveys were conducted when ground temperatures were at least 60 degrees Fahrenheit (ºF) on sunny days or 70ºF during overcast conditions, with sustained wind speeds below 15 miles per hour. Surveyors recorded all butterflies and potential nectar plants observed during the surveys, and mapped primary and secondary host plant locations, making note of significant patches of nectar plants using GPS receivers with sub-meter accuracy.

A single Quino checkerspot butterfly was identified within the southeastern portion of the survey area (outside the project-level grading footprint) during the 2019 focused surveys. As a result of the observation, a large portion of Phases 1, Beyer Boulevard West, and Phase 2 previously surveyed in 2018 were resurveyed in 2020 to ensure the presence or absence of this species and to facilitate a streamlined consultation process with USFWS. For portions of the project-level survey area that fell within a 1-kilometer radius of the observation, extensive habitat assessments were conducted to document the habitat condition and suitability within these areas. During these habitat assessments, all host and nectar patches were mapped. All focused surveys were conducted under USFWS Permit TE-797665 by RECON permitted biologists and habitat assessments were conducted by permitted biologists and botanists familiar with Quino habitat resources.

In March 2023, USFWS requested that project-wide protocol surveys begin which included habitat assessments within the project-level analysis areas and the vernal pool preserve areas. Updated findings were incorporated into all results and mapping.

In February 2024, an additional protocol survey was initiated within the boundary of the EVA road in the southern portion of the project-level analysis area and an expanded project area within the Caliente Road/Phase 4 project component.

In addition, an extensive habitat assessment of the mitigation lands was conducted during the 2024 adult flight season to document the extent of the potential Quino checkerspot butterfly habitat, supporting host plant and nectar sources. RECON performed two survey visits within the APNs 6670103000 6670103100, 6670102800, 6670401300, and the southern halves of APNs 6670101500 and 6670100600; totaling 326 acres, excluding the EVA road footprint.

2.2.5 Coastal California Gnatcatcher Surveys

Focused surveys for the federally threatened coastal California gnatcatcher were conducted in suitable habitat in 2018 within the MHPA and areas in the southern portion of the project-level survey area (see Attachment 3). Additional gnatcatcher surveys were completed in 2020 to cover all remaining suitable habitat areas. The coastal California gnatcatcher focused surveys were conducted in accordance with USFWS survey protocol (USFWS 1997b) under USFWS Permit #TE-797665 by RECON permitted biologists. All bird species observed during the surveys were noted. Since all suitable habitat areas are assumed occupied, updated gnatcatcher surveys are not warranted.

2.2.6 Burrowing Owl Surveys

Burrowing owl breeding season surveys were performed in Phases 1, Beyer Boulevard West and portion of Phase 2 in 2018 and in remaining portions of Phases 1, 2 and 4 in 2020 within all suitable habitat areas plus a 150-meter buffer from the edge of mapped suitable habitat (see Attachment 3). Verification surveys were conducted in spring 2023. In some areas, the 150-meter buffer was surveyed using binoculars, where access onto private property was restricted. Surveys were also conducted within the southern portion of the project-level survey area, including around the EVA road, to identify the mitigation potential of these areas. Burrowing owl surveys were conducted in accordance with the guidelines developed by the CDFW (2012) to determine the presence or absence of the species. Meandering transects were walked through all suitable habitat within the project-level survey areas.

2.2.7 Western Spadefoot Surveys

A focused survey for western spadefoot was conducted during the 2024 rainy season to update occupancy of this species within the project-level survey area and the mitigation lands (see Attachment 3). RECON biologists familiar with western spadefoot identification (eggs, tadpoles, and adults) visited 338 vernal pools/ponding basins within the project-level impact area, including Tri Pointe Homes' owned lands south of the development (APNs 6670103000 6670103100, 6670102800, 6670401300, and the southern halves of APNs 6670101500 and 6670100600) to document if western spadefoot is present. Each pool was visited once to verify the presence/absence of all basins that ponded sufficiently during the 2024 season.

2.2.8 Crotch's Bumble Bee Habitat Assessment Surveys

A habitat assessment for Crotch's bumble bee was conducted during the 2024 flight season to map potential habitat within the project-level survey area and the proposed mitigation areas by qualified biologists (see Attachment 3). The surveys focused on flowering native and non-native plants, excluding areas that are paved in urban/developed land, and evaluated the survey area for potential nesting. The habitat assessment was conducted in accordance with current CDFW guidance (CDFW 2023). A habitat assessment was conducted rather than a presence/absence survey in coordination with CDFW based on the expectation that the project would assume occupancy based on presence of suitable habitat. Several Crotch's bumble bees were incidentally observed within the south and southeastern mitigation areas.

2.2.9 Jurisdictional Resource Delineation

Jurisdictional resource delineations were completed in 2018 through 2022 for the project-level survey areas. A detailed description of the wetland delineations can be found in the wetland delineation report prepared for the project (RECON 2024a; Attachment 5). The jurisdictional resource delineations performed for the project followed the guidelines set forth by the U.S. Army Corps of Engineers (USACE), including the 1987 Corps of Engineers Wetlands Delineation Manual, the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, and the 2008 Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (USACE 1987, 2008a, 2008b, respectively). All potential jurisdictional resources were assessed for the presence of any of the three USACE wetland parameters, including hydrophytic vegetation, hydric soils, and wetland hydrology. The project-level survey areas were examined for potential USACE non-wetland waters of the U.S., Regional Water Quality Control Board (RWQCB) and CDFW waters of the State, and City wetlands. In areas where signs of ponding were evident, special attention was paid to USACE vernal pool indicator species (USACE 1997).

2.2.10 Wildlife Tracking Surveys

The wildlife tracking surveys described in Section 2.1.2 address the project-level survey areas (see Attachment 2a). The Wildlife Tracking Institute additionally evaluated wildlife movement specifically related to the proposed Beyer Boulevard West extension (see Attachment 2b).

Image Source: NearMap (Flown May 2024)

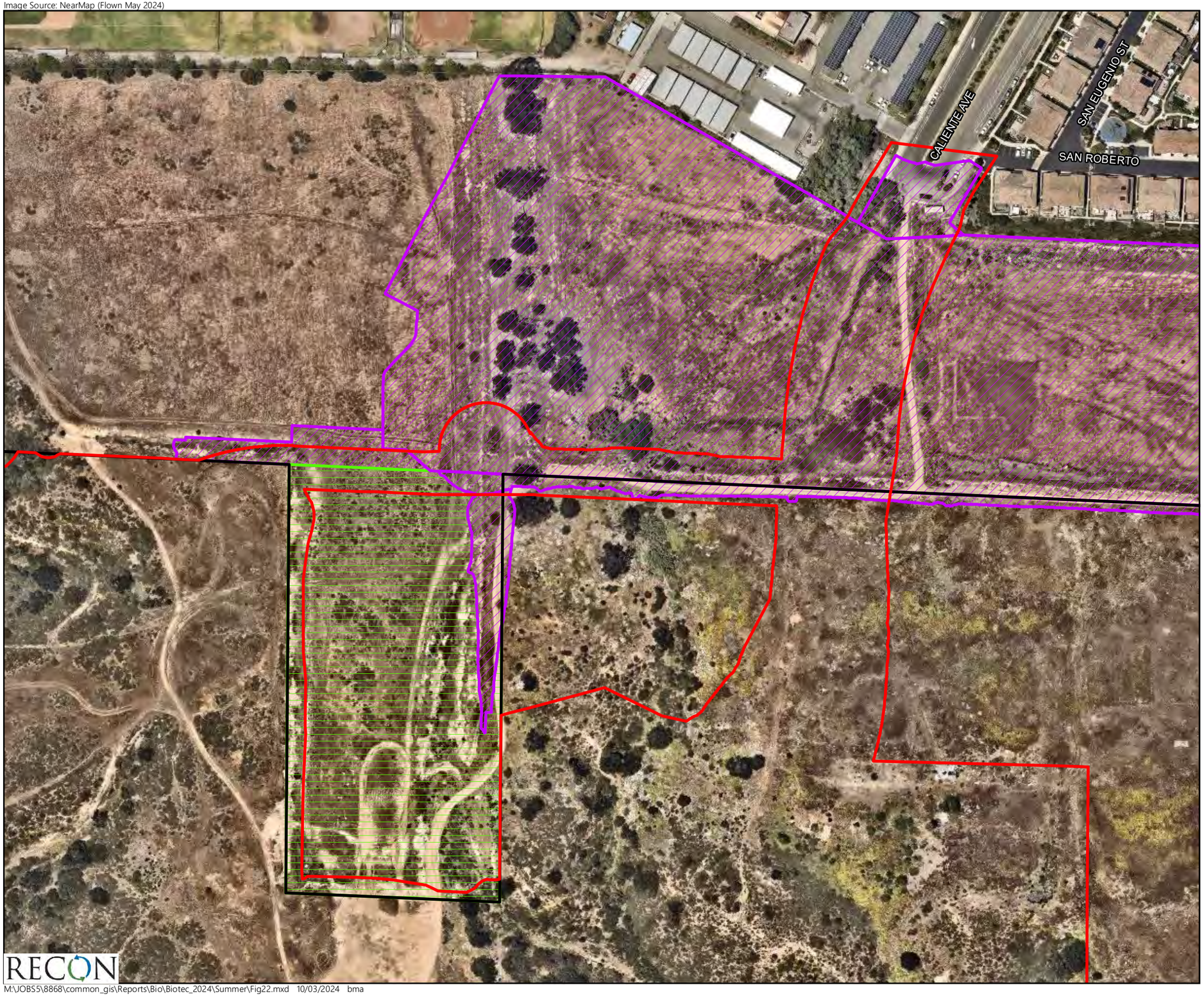
Project-level Survey Area

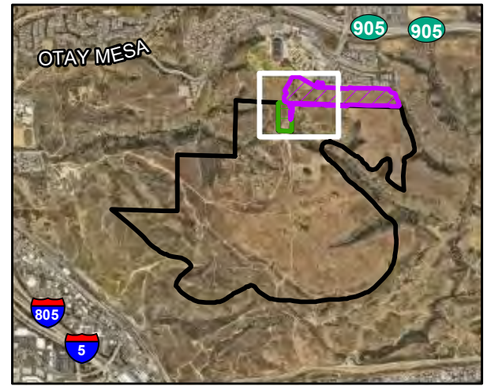
0 Feet 900

FIGURE 21
Project-level Survey Areas

M:\JOBS5\8868\common_gis\Reports\Bio\Biotec_2024\Summer\Fig21.mxd 06/27/2024 bma

Image Source: NearMap (Flown May 2024)





Project-Level Analysis Area
Candlelight Project Impacts
Southwind Project in Entitlements
Specific Plan Boundary

0 Feet 150

RECON

M:\JOBS5\8868\common_gis\Reports\Bio\Biotec_2024\Summer\Fig22.mxd 10/03/2024 bma

FIGURE 22
Candlelight and Southwind Projects

3.0 Regulatory Framework

The following is a summary of key regulations relevant to the biological analysis.

3.1 Federal Regulations

The Federal Endangered Species Act (FESA) provides the legal framework for the listing and protection of species (and their habitats) that are identified as being endangered or threatened with extinction. Actions that jeopardize endangered or threatened species and the habitats upon which they rely are considered 'take' under the FESA. Section 9(a) of the FESA defines 'take' as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." The FESA is administered by the USFWS.

The federal ~~Migratory Bird Treaty Act (~~MBTA~~)~~ was established to provide protection to the breeding activities of migratory birds throughout the United States. The MBTA protects migratory birds and their breeding activities from take and harassment. The project is designed to comply with MBTA, which precludes direct impacts to nesting birds and raptors.

Bald and Golden Eagle Protection Act (BGEPA) was passed in 1940 to protect the bald eagle and amended in 1962 to include the golden eagle (16 United States Code 668 et seq.). This act prohibits the take, possession, sale, purchase, barter, offering to sell or purchase, export or import, or transport of bald eagles and golden eagles and their parts, eggs, or nests without a permit issued by the USFWS. The act prohibits any form of possession or taking of either eagle species and the statute imposes criminal and civil sanctions as well as an enhanced penalty provision for subsequent offenses. In November 2009, the USFWS published the Final Eagle Permit Rule (74 FR 46836–46879) providing a mechanism to permit and allow for incidental (i.e., non-purposeful) take of bald and golden eagles pursuant to the BGEPA. In February 2011, the USFWS released Draft Eagle Conservation Plan Guidance, aimed at clarifying expectations for take permit acquisition by wind power projects consistent with the 2009 rule.

3.2 State Regulations

The California ESA (CESA) is similar to FESA in that it provides the legal framework for the listing and protection of species (and their habitats) that are identified as being endangered or threatened with extinction. Section 2081 subdivision (b) of the California Fish and Game Code allows CDFW to authorize take of species listed as endangered, threatened, or candidate pursuant to CESA.

Under Section 3503 of the California Fish and Game Code, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.3 of the California Fish and Game Code prohibits take, possession, or destruction of any birds in the orders Falconiformes (raptors) or Strigiformes (owls), or of their nests and eggs.

The California Fish and Game Code, Section 3511, dealing with fully protected species states that these species "... may not be taken or possessed at any time and no provision of this code or any

other law shall be construed to authorize the issuance of permits or licenses to take any fully protected" species, although take may be authorized for necessary scientific research. This language arguably makes the "fully protected" designation the strongest and most restrictive regarding the "take" of these species. The project is designed to comply with Sections 3503, 3503.3, and 3511, which precludes direct impacts to nesting birds and raptors, including fully protected species.

3.3 Local Regulations

3.3.1 City of San Diego ESL Regulations

The purpose of the Environmentally Sensitive Lands (ESL) Regulations (LDC §143.0101 through §143.0160) is to protect, preserve and, where damaged, restore environmentally sensitive lands and the viability of the species supported by those lands. The ESL Regulations apply to all proposed development when environmentally sensitive lands, including sensitive biological resources, steep hillsides, floodplains, or coastal bluffs, are present. The regulations are designed to ensure that development occurs in a manner that protects natural resources and the natural and topographic character of the area and retains biodiversity and interconnected habitats.

The City's Biology Guidelines (2018a) and the ESL Regulations state that impacts to wetlands should be avoided and unavoidable impacts should be minimized to the maximum extent practicable. A wetland buffer shall be maintained around all remaining wetlands as appropriate to protect the functions and values of the wetland.

3.3.2 Multiple Species Conservation Program

The MSCP is a comprehensive habitat conservation planning program for southwestern San Diego County. A goal of the MSCP is to preserve a network of habitat and open space, thereby protecting biodiversity, while streamlining environmental permitting for development. Local jurisdictions, including the City, implement their portions of the MSCP through subarea plans, which describe specific implementing mechanisms.

The City's MSCP Subarea Plan was approved in March 1997. The MSCP Subarea Plan is a plan and process for the issuance of permits under the federal and state Endangered Species Act and the California Natural Communities Conservation Planning Act of 1991. The primary goal of the MSCP Subarea Plan is to conserve viable populations of sensitive species and to conserve regional biodiversity while allowing for reasonable economic growth.

In July 1997, the City signed an Implementing Agreement with USFWS and CDFW. The Implementing Agreement serves as a binding contract between the City, USFWS, and CDFW that identifies the roles and responsibilities of the parties to implement the MSCP and Subarea Plan. The agreement became effective on July 17, 1997 and allows the City to issue Incidental Take Authorizations under the provisions of the MSCP. Applicable state and federal permits are still required for wetlands and listed species that are not covered by the MSCP.

3.3.3 MSCP Subarea Plan

The City's subarea encompasses 206,124 acres within the MSCP study area. The subarea is characterized by urban land uses with approximately three-quarters either built out or retained as open space/park system. The City's MHPA represents a "hard line" preserve, in which boundaries have been specifically determined. It is considered an urban preserve which is constrained by existing or approved development and is comprised of linkages connecting several large areas of habitat. The City's MHPA is approximately 56,831 acres and includes approximately 47,910 acres within City jurisdiction, and additional City-owned lands (8,921 acres) in the unincorporated areas around San Vicente Reservoir, Otay Lakes, and Marron Valley.

The MHPA is the area within which the permanent MSCP preserve would be assembled and managed for its biological resources. The MHPA contains specific conservation goals and objectives based on a project's specific location within the MHPA and whether the land is public or private. Within the MHPA, limited development may occur.

3.3.3.1 MHPA Land Use Adjacency Guidelines

To avoid indirect impacts to the MHPA, Land Use Adjacency Guidelines were developed to manage land uses adjacent to the MHPA. The MHPA Land Use Adjacency Guidelines would be incorporated as conditions of approval to preclude indirect project impacts from proposed adjacent development. These guidelines address the issues of drainage, toxins, lighting, noise, barriers, invasive species, brush management, and grading/development.

3.3.3.2 MSCP Subarea Plan: Otay Mesa MHPA Management Directives

Otay Mesa is in the southern area of the MHPA. The MSCP Subarea Plan describes the Otay Mesa areas of the MHPA and its vision as a network of open and relatively undisturbed canyons containing a full ensemble of native species and providing functional wildlife habitat and movement capability. The City's MHPA Guidelines for Otay Mesa are described in Section 1.2.1 of the City's Subarea Plan (1997).

3.3.3.3 MSCP Subarea Plan: Specific Management Policies and Directives for Otay Mesa

Section 1.5.3 of the City of San Diego MSCP Subarea Plan (1997) describes the specific management and directives for the Otay Mesa area. The major issues that require consideration for management in the Otay Mesa area include intense land uses and activities adjacent to and in covered species habitat and linkages; off-road-vehicle activity; dumping, litter, and vandalism; enhancement and restoration needs; exotic (non-native), invasive plants and animals; illegal immigration and U.S. Border Patrol (USBP) activities; and utility, facility and road repair, construction, and maintenance activities.

3.3.4 Vernal Pool Habitat Conservation Plan

As introduced in Section 1.2.2, the City's VPHCP, adopted in 2018, provides a framework to protect, enhance, and restore vernal pool resources within the City, while improving and streamlining the environmental permitting process for impacts to threatened and endangered species associated with vernal pools. The VPHCP provides coverage for threatened and endangered vernal pool species that do not currently have federal coverage under the MSCP Subarea Plan. The VPHCP is compatible with and expands existing MHPA lands to conserve additional lands with vernal pool resources. VPHCP covered species includes the following seven threatened and endangered species:

1. Otay Mesa mint (*Pogogyne nudiuscula*)
2. San Diego Mesa mint (*Pogogyne abramsii*)
3. Spreading navarretia (*Navarretia fossalis*)
4. San Diego button-celery (*Eryngium aristulatum* var. *parishii*)
5. California Orcutt grass (*Orcuttia californica*)
6. Riverside fairy shrimp (*Streptocephalus woottoni*)
7. San Diego fairy shrimp (*Branchinecta sandiegonensis*)

The VPHCP includes measures to avoid or minimize the impact of the taking of covered species. Development on premises that does not contain ESL but is located adjacent to a premise that does contain ESL shall comply with the Land Use Adjacency Guidelines in MSCP Subarea Plan Section 1.4.3 and VPHCP Section 5.2.1.

3.3.5 Otay Mesa Community Plan

As discussed in Section 1.2.1, the OMCP provides the land use, mobility, and policy framework for the proposed Southwest Village Specific Plan. The OMCP provides a long-range, comprehensive policy framework for growth and development in the Otay Mesa community through 2062. The OMCP identifies a land use strategy with land use designation proposals to create villages, activity centers, and industrial/employment centers along major transportation corridors, while strengthening cultural and business linkages to Tijuana, Mexico via the Otay Mesa Port of Entry. The Land Use Element established a number of land use planning goals for the planning area, such as providing a distribution of land uses that provides sufficient capacity for a variety of uses, facilities, and services needed to serve Otay Mesa, providing distinct villages that include places to live, work, and recreate; diversified commercial uses that serve local, community, and regional needs; and sufficient industrial land capacity to maintain Otay Mesa as a subregional employment center, among others. The OMCP included the same nine elements contained in the City's 2008 General Plan, with goals and policies for each element. The nine elements are: Land Use; Mobility; Urban Design; Economic Prosperity; Public Facilities, Services, and Safety; Recreation; Conservation; Noise; and Historic Preservation.

The OMCP Conservation Element in particular contains the following policies relevant to biological resources:

Policy 8.1-6: Implement Area Specific Management Directives and Conditions of Coverage as stated in Table 3-5 of the MSCP Subarea Plan for Species protected in Otay Mesa and identified in Table 8-1.

Policy 8.1-7: Require preservation, restoration, management, and monitoring within identified vernal pool preservation areas in accordance with City, state, and federal policies and regulations. The boundaries of vernal pool preserve areas should be of sufficient size and shape to protect the vernal pool basins, watersheds, functional buffers, and areas necessary to maintain vernal pool ecosystem function and species viability.

a. Design, as feasible, the preserve areas to provide connectivity between vernal pools, surrounding open space, and nearby vernal pool complexes.

b. Conduct management and monitoring of preserved and restored vernal pool sites in accordance with the citywide regulations and Biology Guidelines.

Policy 8.1-8: Amend the Otay Mesa Community Plan as needed for consistency with an adopted Vernal Pool Habitat Conservation Plan (HCP).

Policy 8.1-11: Encourage the development of a comprehensive approach to habitat identification, management, and establishment of preservation nodes in order to address long term survival of the burrowing owl on Otay Mesa.

3.3.6 Otay Mesa Community Plan Final Environmental Impact Report

The OMCP was evaluated in a PEIR (No. 30330/304032; SCH No. 2004051076) that was certified by the San Diego City Council on March 11, 2014, via Resolution No. R-308810. The OMCP Final Environmental Impact Report (FEIR; City of San Diego 2013) concluded that the project would result in significant and unmitigated environmental impacts to air quality, greenhouse gas emissions, noise, traffic/circulation, and utilities. The following issue areas were determined to be significant but mitigated to below a level of significance with mitigation: land use, biological resources, historical resources, hydrology/water quality, geology. and paleontological resources. All other impacts analyzed in the EIR were determined to be less than significant.

Pertinent to biological resources, the OMCP FEIR (Section 5.4) provides an analysis of biological resource impacts associated with implementation of the OMCP. Additionally, the OMCP FEIR Land Use Section 5.1 addressed potential land use conflicts related to consistency with environmental and biological regulations.

The environmental analysis for the Specific Plan tiers from the OMCP FEIR, which anticipated development of the Specific Plan area in addition to the proposed Beyer Boulevard West extension through MHPA and 100 percent conserved lands. This biological analysis provides information for use in preparing a Subsequent EIR tiering from the biological analysis and OMCP FEIR Mitigation Framework. The findings of the OMCP FEIR related to biological resources are detailed below. Details of the OMCP FEIR Mitigation Framework are discussed below and provided in Section 3.3.7.

3.3.6.1 Sensitive Plants and Animals

The OMCP FEIR found that impacts to sensitive plants and animals would be significant, both directly through the loss of habitat and indirectly by placing development adjacent to the MHPA. Additionally, impacts to federal or state listed species, MSCP covered species, and species with a CNPS Rare Plant Ranking would be significant.

The OMCP FEIR concluded that future projects would be required to implement Mitigation Framework BIO-1, which requires site-specific biological surveys to determine the potential for sensitive species, along with the requirement for site-specific mitigation, if necessary, to reduce impacts to sensitive species or habitats. Specifically, BIO-1 requires future projects to conduct a habitat assessment to determine whether or not protocol surveys are needed. BIO-1 identified that if burrowing owl habitat or signs are encountered on or within 150 meters of the project site, breeding season surveys would be required and if burrowing owl are present, site-specific avoidance measures would be required including preparation of a Conceptual Burrowing Owl Mitigation Plan that includes take avoidance (preconstruction) surveys, site surveillance, and the use of buffers, screens, or other measures to minimize construction-related impacts. Implementation of the Mitigation Framework BIO-1 would ensure that impacts to sensitive plants and animals would be less than significant.

3.3.6.2 Migratory Wildlife

The OMCP FEIR concluded that future development, including construction or extension of mobility element roadways, utility lines, and/or temporary construction activities within the MHPA, has the potential to interfere with nesting, reduce foraging habitat, and obstruct wildlife movement as a result of noise, construction activities, habitat loss, and/or fragmentation. The analysis identified that the Beyer Boulevard West would run along Moody Canyon within the MHPA, crossing conserved lands. Direct or indirect impacts to migratory wildlife nesting, foraging, and movement was determined to be significant.

The OMCP FEIR's includes Mitigation Framework BIO-2, which requires a site-specific biological resource survey for projects that may have a potential impact to areas within the MHPA. The report would need to identify the limits of local-scale wildlife corridors or habitat linkages and analyze potential impacts in relation to local fauna, and the effects of conversion of vegetation communities (e.g., non-native grassland to riparian or agricultural to developed land) and include measures to be implemented during construction-related activities to minimize direct impacts on sensitive wildlife species and to provide for continued wildlife movement through the corridor. Measures to minimize direct impacts on wildlife movement, nesting or foraging activities shall be addressed in the biological resources report and shall include recommendations for preconstruction protocol surveys to be conducted during established breeding seasons, construction noise monitoring and implementation of any species-specific mitigation plans (such as a Burrowing Owl Mitigation Plan) in order to comply with the Community Plan Implementation Overlay Zone Type A (CPIOZ A).

3.3.6.3 Sensitive Habitats

The OMCP FEIR determined that future projects could result in significant impacts to sensitive habitat, specifically to Tier I, II, and IIIB habitat areas, which include maritime succulent scrub, native grassland, Diegan coastal sage scrub, non-native grassland, riparian scrub, vernal pools, and basins with fairy shrimp. OMCP FEIR Mitigation Framework BIO-1 was found to reduce impacts to sensitive habitat to a less than significant level as this measure would require preparation of a biological resources report consistent with the City's Biology Guidelines.

3.3.6.4 MSCP

The issue of MSCP compliance was addressed in OMCP FEIR Sections 5.1, Land Use and 5.4, Biological Resources. THE OMCP FEIR found that potential impacts to sensitive vegetation communities from MHPA boundary adjustments would be less than significant because any adjustments would be required to meet the equivalency criteria for approval. In addition, the FEIR found that MHPA adjacency impacts would be addressed at the project-level, and projects adjacent to MHPA would be required to comply with the MHPA Land Use Adjacency Guidelines through implementation of Mitigation Framework LU-2, which would reduce MHPA adjacency impacts to less than significant. The FEIR also determined that the OMCP would be consistent with the vision for the Otay Mesa MHPA as the open space network would remain intact and the OMCP incorporated policies for adhering to the MSCP Management Directives. Therefore, impacts related to MSCP were found to be less than significant.

3.3.6.5 Invasive Plants

In regard to invasive plant impacts, the OMCP FEIR determined that impacts could be potentially significant due to the introduction of invasive plants within the MHPA during future grading and development. The FEIR determined that the introduction of invasive species into the MHPA would be addressed through implementation of OMCP FEIR Mitigation Framework LU-2 which requires implementation of MHPA Land Use Adjacency Guidelines of the MSCP, reducing impacts to less than significant.

3.3.6.6 Wetland Impacts

The OMCP FEIR concluded that future projects implemented in accordance with the OMCP may result in significant impacts to wetlands, vernal pools and vernal pool species, as well as both wetland and non-wetland streambed waters regulated by the USACE, CDFW, and the City of San Diego, and would thus require a deviation from the ESL Regulations. The FEIR determined that future projects implemented in accordance with the OMCP which cannot demonstrate compliance with the Community Plan Implementation Overlay Zone Type A (CPIOZ A) because impacts to wetlands/jurisdictional resources cannot be avoided would be required to implement OMCP FEIR Mitigation Framework BIO-4 which addresses compliance with the City's ESL regulations including requirements for wetland deviations. With implementation of OMCP FEIR Mitigation Framework BIO-4, impacts to wetlands were found to be reduced to less than significant.

3.3.6.7 Noise Generation

The OMCP FEIR determined that there is a potential for temporary noise impacts to wildlife from construction and permanent noise impacts from the introduction of noise generating land uses adjacent to MHPA. Temporary and/or permanent noise impacts to wildlife within the MHPA were found to be significant. The FEIR determined that impacts to sensitive wildlife species (including temporary and permanent noise impacts) resulting from future projects implemented in accordance with the OMCP would be mitigated to less than significant with implementation of OMCP FEIR Mitigation Framework BIO-1 through BIO-4 and LU-2.

3.3.6.8 Land Use Consistency

The OMCP FEIR Land Use section addressed consistency with the biological resources regulations as part of the Regulation Consistency and Environmental Plan Consistency analysis. The FEIR found that at the program-level, the OMCP would not conflict with the City's ESL and that future development would be required to comply with the City's ESL regulations. Therefore, impacts related to conflicts with the City's ESL regulations would be less than significant. The FEIR found that the OMCP would be consistent with General Plan Conservation Element policies in addition to the City's MSCP. The FEIR acknowledged that future MHPA BLAs may be required but that project-specific application of MHPA BLAs, application of MHPA Land Use Adjacency Guidelines (as required through Mitigation Framework LU-2), and application of Specific Management Directives for Otay Mesa would ensure impacts related to MSCP consistency would be reduced to less than significant.

3.3.7 Otay Mesa Community Plan Final Environmental Impact Report Mitigation Monitoring and Reporting Program

The following cites the mitigation framework that was adopted with the approval of the OMCP. The OMCP FEIR envisioned future development with potential environmental impacts within Otay Mesa would be considered in light of this mitigation framework.

OMCP Mitigation Framework LU-2 – MHPA/Land Use Adjacency Guidelines

LU-2: All subsequent development projects that are implemented in accordance with the Community Plan Update (CPU), which is adjacent to designated MHPA areas shall comply with the Land Use Adjacency Guidelines of the MSCP in terms of land use, drainage, access, toxic substances in runoff, lighting, noise, invasive plant species, grading, and brush management requirements. Mitigation measures include, but are not limited to, sufficient buffers and design features, barriers (rocks, boulders, signage, fencing, and appropriate vegetation) where necessary, lighting directed away from the MHPA, and berms or walls adjacent to commercial or industrial areas and any other use that may introduce construction noise or noise from future development that could impact or interfere with wildlife utilization of the MHPA. The project biologist for each proposed project would identify specific mitigation measures needed to reduce impacts to below a level of significance. Subsequent environmental review would be required to determine the significance of impacts from land use adjacency and compliance with the Land Use Adjacency Guidelines of the MSCP. Prior to approval of any subsequent development project in an area adjacent to a designated MHPA, the

City shall identify specific conditions of approval in order to avoid or to reduce potential impacts to adjacent the MHPA.

Specific requirements shall include:

- Prior to the issuance of occupancy permits, development areas shall be permanently fenced where development is adjacent to the MHPA to deter the intrusion of people and/or pets into the MHPA open space areas. Signage may be installed as an additional deterrent to human intrusion as required by the City.
- The use of structural and nonstructural BMPs, including sediment catchment devices, shall be required to reduce the potential indirect impacts associated with construction to drainage and water quality. Drainage shall be directed away from the MHPA or, if not possible, must not drain directly into the MHPA. Instead, runoff shall flow into sedimentation basins, grassy swales, or mechanical trapping devices prior to draining into the MHPA. Drainage shall be shown on the site plan and reviewed satisfactory to the City Engineer.
- All outdoor lighting adjacent to open space areas shall be shielded to prevent light overspill off-site. Shielding shall consist of the installation of fixtures that physically direct light away from the outer edges of the road or landscaping, berms, or other barriers at the edge of development that prevent light overspill.
- The landscape plan for the project shall contain no exotic plant/invasive species and shall include an appropriate mix of native species which shall be used adjacent to the MHPA.
- All manufactured slopes must be included within the Development Footprint and outside the MHPA.
- All brush management areas shall be shown on the site plan and reviewed and approved by the Environmental Designee. Zone 1 brush management areas shall be included within the Development Footprint and outside the MHPA. BMZ 2 may be permitted within the MHPA (considered impact neutral) but cannot be used as mitigation. Vegetation clearing shall be done consistent with City standards and shall avoid/minimize impacts to covered species to the maximum extent possible. For all new development, regardless of the ownership, the brush management in the BMZ 2 area shall be the responsibility of a homeowners association or other private party.
- Access to the MHPA, if any, shall be directed to minimize impacts and shall be shown on the site plan and reviewed and approved by the Environmental Designee.
- Land uses, such as recreation and agriculture, that use chemicals or generate by-products such as manure, that are potentially toxic or impactive to wildlife, sensitive species, habitat, or water quality need to incorporate measures to reduce impacts caused by the application and/or drainage of such materials into the MHPA. Such measures shall include drainage/detention basins, swales, or holding areas with non-invasive grasses or wetland-type native vegetation to filter out the toxic materials. Regular maintenance should be provided. Where applicable, this requirement shall be incorporated into leases on publicly owned property as leases come up for renewal.

OMCP Mitigation Framework BIO-1 – Sensitive Plants and Wildlife

To reduce potentially significant impacts that would cause a reduction in the number of unique, rare, endangered, sensitive, or fully protected species of plants or animals, if present within the CPU area, all subsequent projects implemented in accordance with the CPU shall be analyzed in accordance with the California Environmental Quality Act (CEQA) Significance Thresholds, which require that site-specific biological resources surveys be conducted in accordance with City's Biology Guidelines (2018a). The locations of any sensitive plant species, including listed, rare, and narrow endemic species, as well as the potential for occurrence of any listed or rare wildlife species shall be recorded and presented in a biological resources report. Based on available habitat within CPU area, focused presence/absence surveys shall be conducted in accordance with the City's Biology Guidelines and applicable resource agency survey protocols to determine the potential for impacts resulting from the future projects on these species. Engineering design specifications based on project-level grading and site plans shall be incorporated into the design of future projects to minimize or eliminate direct impacts on sensitive plant and wildlife species consistent with the FESA, MBTA, Bald and Golden Eagle Protection Act, CESA, MSCP Subarea Plan, and ESL Regulations.

In addition to the requirements detailed above, specific measures shall be implemented when the biological survey results in the identification of burrowing owls on the project site. Future projects shall be required to conduct a habitat assessment to determine whether or not protocol surveys are needed. Should burrowing owl habitat or sign be encountered on or within 150 meters of the project site, breeding season surveys shall be conducted. If occupancy is determined, site-specific avoidance and mitigation measures shall be developed in accordance with the protocol established in the Staff Report on Burrowing Owl Mitigation (CDFW 2012). Measures to avoid and minimize impacts to burrowing owl shall be included in a Conceptual Burrowing Owl Mitigation Plan which includes take avoidance (preconstruction) surveys, site surveillance, and the use of buffers, screens, or other measures to minimize construction-related impacts.

Mitigation for Impacts to Sensitive Upland Habitats

Future projects implemented in accordance with the CPU resulting in impacts to sensitive upland Tier I, II, IIIA, or IIIB habitats shall implement avoidance and minimization measures consistent with the City's Biology Guidelines and MSCP Subarea Plan and provide suitable mitigation in accordance with the City's Biology Guidelines (see Table 5.4-7, below) MSCP Subarea Plan. Future project-level grading and site plans shall incorporate project design features to minimize direct impacts on sensitive vegetation communities including but not limited to riparian habitats, wetlands, oak woodlands, and coastal sage scrub consistent with federal, state, and City guidelines. Any required mitigation for impacts on sensitive vegetation communities shall be outlined in a conceptual mitigation plan following the outline provided in the City's Biology Guidelines.

Mitigation for impacts to sensitive vegetation communities shall be implemented at the time future development projects are proposed. Project-level analysis shall determine whether the impacts are within or outside of the MHPA. Any MHPA boundary adjustments shall be processed by the individual project applicants through the City and Wildlife Agencies during the early project planning stage.

Mitigation for impacts to sensitive upland habitats shall occur in accordance with the MSCP mitigation ratios as specified within the City's Biology Guidelines (City of San Diego 2018a). These mitigation ratios are based on Tier level of the vegetation community, the location of the impact and the location of the mitigation site(s). For example, impacts to lands inside of the MHPA and mitigated outside the MHPA would have the highest mitigation ratio whereas impacts to lands outside the MHPA and mitigated inside the MHPA would have the lowest mitigation ratio.

If mobility element roads (i.e., Beyer Boulevard West, Airway Road, and Del Sol Boulevard) impact existing conserved lands, an additional 1:1 ratio consistent with the OMCP FEIR shall be added to the City required mitigation ratio in order to replace the lands that were previously preserved as open space. Mitigation lands purchased to compensate for impacts to areas within conserved lands shall be located in the Otay Mesa area if feasible.

Table 5.4-7 from the City's Biology Guidelines
Mitigation Ratios for Impacts to Upland Vegetation Communities and Land Cover Types

Tier	Habitat Type	Mitigation Ratios
TIER 1 (rare uplands)	Southern Foredunes Torrey Pines Forest Coastal Bluff Scrub Maritime Succulent Scrub Maritime Chaparral Scrub Oak Chaparral Native Grassland Oak Woodlands	Location of Preservation Location of Impact: Inside* — Inside 2:1, Outside 3:1 Location of Impact: Outside — Inside 1:1, Outside 2:1
TIER II (uncommon uplands)	Coastal Sage Scrub Coastal Sage Scrub/ Chaparral	Location of Preservation Location of Impact: Inside* — Inside 1:1, Outside 2:1 Location of Impact: Outside — Inside 1:1, Outside 1.5:1
TIER IIIA (common uplands)	Mixed Chaparral Chamise Chaparral	Location of Preservation Location of Impact: Inside* — Inside 2:1, Outside 3:1 Location of Impact: Outside — Inside 1:1, Outside 2:1
TIER IIIB (common uplands)	Non-Native Grasslands	Location of Preservation Location of Impact: Inside* — Inside 1:1, Outside 1.5:1 Location of Impact: Outside — Inside 0.5:1, Outside 1:1

Notes:
For all Tier I impacts, the mitigation could (1) occur within the MHPA portion of Tier I (in Tier) or (2) occur outside of the MHPA within the affected habitat type (in-kind).
For impacts on Tier II, IIIA, and IIIB habitats, the mitigation could (1) occur within the MHPA portion of Tiers I – III (out-of-kind) or (2) occur outside of the MHPA within the affected habitat type (in-kind). Project-specific mitigation would be subject to applicable mitigation ratios at the time of project submittal.

However, as future development proceeds in the Specific Plan area, impacts to migratory wildlife could occur associated with construction activities. Implementation of OMCP FEIR BIO-2 would ensure that impacts related to migratory wildlife are reduced to less than significant.

OMCP Mitigation Framework BIO-2 – Migratory Wildlife

Mitigation for future projects to reduce potentially significant impacts that would interfere with the nesting, foraging, or movement of wildlife species within the CPU area, shall be identified in site-specific biological resources surveys prepared in accordance with City's Biology Guidelines as further detailed in BIO-1 during the subsequent development review process. The biological resources report shall include results of protocol surveys and recommendations for additional measures to be implemented during construction related activities; shall identify the limits of any identified local-scale wildlife corridors or habitat linkages and analyze potential impacts in relation to local fauna, and the effects of conversion of vegetation communities (e.g., non-native grassland to riparian or agricultural to developed land) to minimize direct impacts on sensitive wildlife species and to provide for continued wildlife movement through the corridor. Measures that shall be incorporated into project-level construction documents to minimize direct impacts on wildlife movement, nesting, or foraging activities shall be addressed in the biological resources report and shall include recommendations for preconstruction protocol surveys to be conducted during established breeding seasons, construction noise monitoring and implementation of any species-specific mitigation plans (such as a Burrowing Owl Mitigation Plan) in order to comply with the FESA, MBTA, Bald and Golden Eagle Protection Act, California Fish and Game Code, and/or the ESL Regulations.

OMCP Mitigation Framework BIO-3

This measure is a reference back to OMCP FEIR Mitigation Framework BIO-1.

OMCP Mitigation Framework BIO-4 – Wetlands

To reduce potential direct impacts to City, state, and federally regulated wetlands, all subsequent projects developed in accordance with the Specific Plan shall be required to comply with USACE Clean Water Act Section 404 requirements and special conditions, RWQCB Clean Water Act Section 401 requirements and special conditions, CDFW Section 1602 Streambed Alteration Agreement requirements and special conditions, and the City of San Diego ESL Regulations for avoiding and minimizing impacts to wetlands or compliance with City guidelines for the wetland deviation. Achieving consistency with these regulations for impacts on wetlands and special aquatic sites would reduce potential impacts to regulated wetlands and provide compensatory mitigation (as required) to ensure no net-loss of wetland habitats.

Prior to obtaining discretionary permits for future actions implemented in accordance with the Specific Plan, a site-specific biological resources survey shall be completed in accordance with the City's Biology Guidelines. In addition, a preliminary or final jurisdictional resource delineation of the program-level areas shall be completed following the methods outlined in the USACE's 1987 Wetlands Delineation Manual and the Regional Supplement to the Corps of Engineers Delineation Manual for the Arid West Region. A determination of the presence/absence and boundaries of any waters of the United States and waters of the state shall also be completed following the appropriate USACE guidance documents for determining the OHWM boundaries. The limits of any riparian habitats within the program-level analysis areas under the sole jurisdiction of CDFW shall also be delineated, as well as any special aquatic sites (excluding vernal pools) that may not meet federal criteria but are regulated by the RWQCB. Engineering design specifications based on project-level

grading and site plans shall be incorporated into the project design to minimize direct impacts to potential wetlands/waters, riparian habitats, vernal pools, etc. consistent with federal, state, and City guidelines. Any required mitigation for impacts shall be outlined in a conceptual wetland plan prepared in accordance with the City's Biology Guidelines (2018a).

Additionally, any impacts to wetlands in the City would require a deviation from the ESL wetland regulations. Under the wetland deviation process, development proposals that have wetland impacts shall be considered only pursuant to one of three options: Essential Public Projects, Economic Viability Option, or Biologically Superior Option (BSO). ESL Regulations require that impacts to wetland be avoided. Unavoidable impacts to wetlands shall be minimized to the maximum extent practicable and mitigated consistent with the City's Biology Guidelines including a no-net loss of wetland resources.

As part of any future project-specific environmental review pursuant to CEQA, all unavoidable wetlands impacts (both temporary and permanent) shall be analyzed and mitigation required in accordance with the City's Biology Guidelines; mitigation shall be based on the impacted type of wetland habitat. For the purposes of mitigation, all impacts are considered permanent to address temporal loss of wetlands functions and values. The following provides operational definitions of the four types of activities that constitute wetland mitigation under the ESL Regulations:

1. Wetland creation is an activity that results in the formation of new wetlands in an upland area. An example is excavation of uplands adjacent to existing wetlands and the establishment of native wetland vegetation.

2. Wetland restoration is an activity that re-establishes the habitat functions of a former wetland. An example is the excavation of agricultural fill from historic wetlands and the re-establishment of native wetland vegetation.

3. Wetland enhancement is an activity that improves the self-sustaining habitat functions of an existing wetland. An example is removal of exotic species from existing riparian habitat.

4. Wetland acquisition may be considered in combination with any of the three mitigation activities above.

Wetland enhancement and wetland acquisition focus on the preservation or the improvement of existing wetland habitat and function and do not result in an increase in wetland area; therefore, a net loss of wetland may result. As such, acquisition and/or enhancement of existing wetlands shall be considered as partial mitigation only for any balance of the remaining mitigation requirement after restoration or creation if wetland acreage is provided at a minimum of a 1:1 ratio.

For permanent wetland impacts that are unavoidable and minimized to the maximum extent feasible, mitigation shall consist of creation of new in-kind habitat to the fullest extent possible and at the appropriate ratios. If on-site mitigation is not feasible, then at least a portion of the mitigation must occur within the same watershed. The City's Biology Guidelines and MSCP Subarea Plan require that impacts on wetlands, including vernal pools, shall be avoided, and that a sufficient wetland buffer shall be maintained, as appropriate, to protect resource functions/values.

The project-specific biology report shall include an analysis of on-site wetlands (including City, state, and federal jurisdiction analysis) and, if present, include project alternatives that fully/substantially avoid wetland impacts. Detailed evidence supporting why there is no feasible less environmentally damaging location or alternative to avoid any impacts must be provided for City staff review, as well as a mitigation plan that specifically identifies how the project is to compensate for any unavoidable impacts.

A conceptual wetland mitigation plan (which includes identification of the mitigation site) shall be approved by City staff prior to the release of the draft environmental document. Avoidance shall be the first requirement; mitigation shall only be used for impacts clearly demonstrated to be unavoidable.

Prior to the commencement of any construction-related activities for projects impacting wetland habitat (including earthwork and fencing) the applicant shall provide evidence of the following to the Assistant Deputy Director/Environmental Designee prior to any construction activity:

1. Compliance with USACE Section 404 nationwide permit;
2. Compliance with the RWQCB Section 401 Water Quality Certification; and
3. Compliance with the CDFW Sections 1601-1603 Streambed Alteration Agreement.

Vernal Pools and Vernal Pool Species

Impacts to vernal pools shall be addressed through project compliance with the VPHCP. This includes required assessments of vernal pool flora and fauna, hydrology, habitat function, and restoration potential and protocol fairy shrimp surveys, in addition to the requirements listed above. Mitigation for projects impacting vernal pools shall be consistent with the VPHCP and City of San Diego Biology Guidelines as determined by completion of a Compensatory Mitigation Plan approved by the City and Wildlife Agencies. Mitigation may include salvage of sensitive species from vernal pools to be impacted, introduction of salvaged material into restored vernal pool habitat where appropriate (e.g., same pool series) and maintenance of vernal pool habitat consistent with the VPHCP.

4.0 Existing Conditions

4.1 Program-level Area - Biological Resources

4.1.1 Physical Characteristics/Setting

The 131-acre program-level area is north of the United States/Mexico international border and south of the southern terminus of Caliente Avenue, and within the OMCP area. Elevations within the program-level areas range from 100 feet above mean sea level to 510 feet above mean sea level. The program-level area is characterized mostly by mesa top and includes isolated tips of narrow finger canyons.

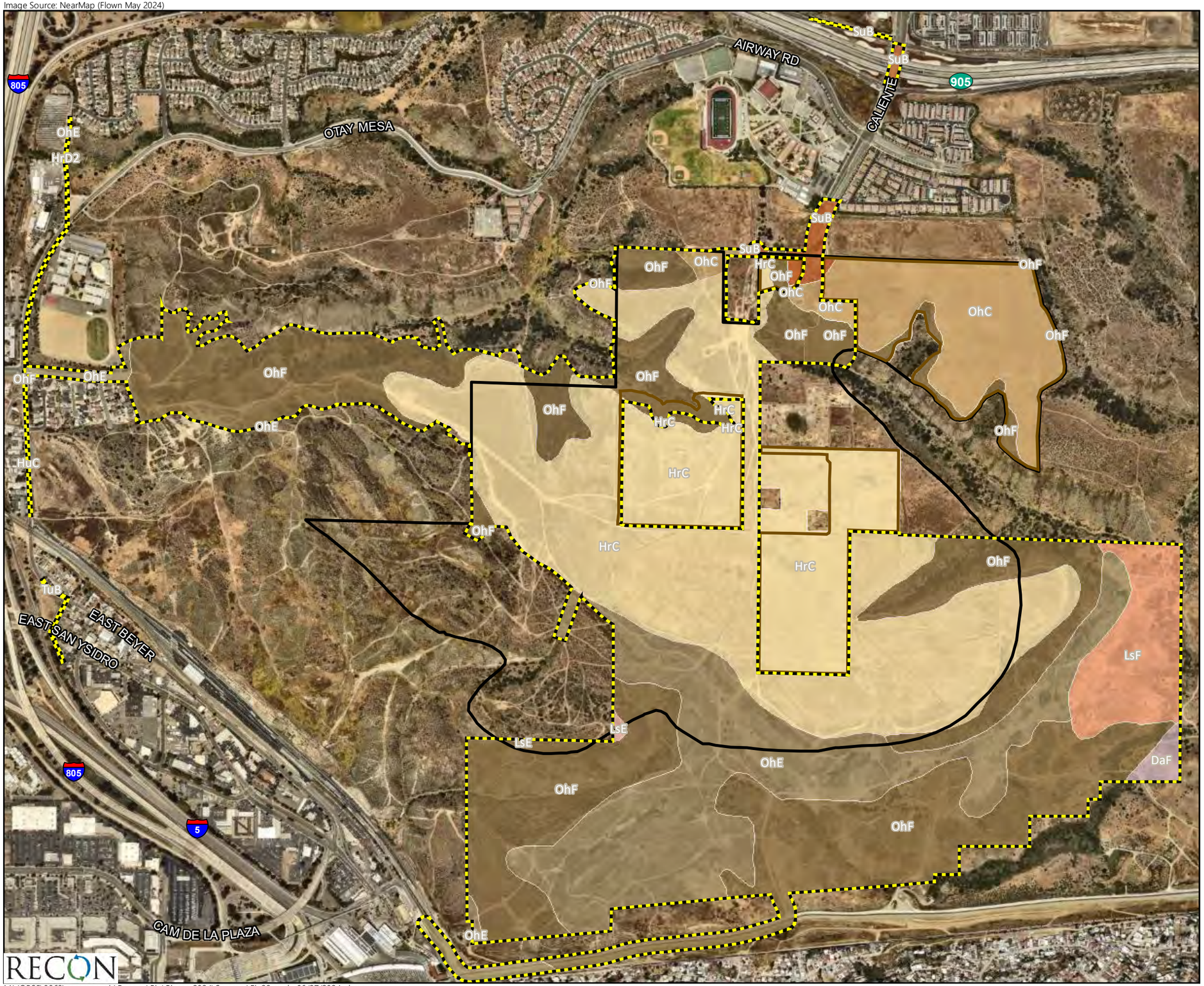
Four soil types within three series are mapped within the program-level analysis area (Figure 23), which include Huerhuero loam, 2 to 9 percent slopes; Olivenhain cobbly loam, 2 to 9 percent slopes; Olivenhain cobbly loam, 30 to 50 percent slopes; and Stockpen gravelly clay loam, 2 to 5 percent slopes. Information on the soil types is summarized from the Soil Survey for San Diego County (U.S. Department of Agriculture [USDA] 1973), the San Diego Association of Governments' 1995 geographic information system data, and the Hydric Soils of San Diego County list obtained from the Natural Resource Conservation Service (NRCS; 2020).

Huerhuero loam – This soil series consists of moderately well drained loams that have clay subsoil and were derived from sandy marine sediments. Permeability is very slow and the runoff is slow to medium. The erosion hazard is slight to moderate. The vegetation supported on these soils is primarily non-native grassland habitat. The Huerhuero loam soil type is found within the southern portions of the program-level analysis areas. This soil type is classified as a hydric soil when occurring in depressions that hold water for extended periods of time (NRCS 2020).

Olivenhain cobbly loam – This soil series consists of well drained, moderately deep to deep cobbly loams that have a very cobbly clay subsoil. This soil type formed in gravelly and cobbly alluvium. Permeability is very slow and the runoff is slow to medium. The erosion hazard is slight to moderate. This soil type can support vegetation found within Diegan coastal sage scrub habitat including California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), and also support maritime succulent scrub habitat which includes species such as jojoba (*Simmondsia chinensis*), San Diego County viguiera, and laurel sumac. The Olivenhain cobbly loam soil type is found within the northern portion of the program-level analysis areas. The Olivenhain cobbly loam soil type is classified as a hydric soil when occurring in depressions that hold water for extended periods of time (NRCS 2020).

Stockpen gravelly clay loam – This soil series consists of moderately well drained, moderately deep gravelly clay loams and is mapped on marine terraces. Runoff is slow and the erosion hazard is slight. Within the soil mapping are small inclusions of Diablo soils, Huerhuero soils, and Salinas soils. The stockpen gravelly clay loam soil type is mapped within the northwestern corner of the program-level analysis areas and classified as a hydric soil when occurring in depressions that hold water for extended periods of time (NRCS 2020).

Image Source: NearMap (Flown May 2024)



Project-level Survey Area

Program-level Analysis Area

Specific Plan Boundary

Soil Type

- DaF | Diablo clay, 30 to 50 percent slopes
- HrC | Huerhuero loam, 2 to 9 percent slopes
- HrD2 | Huerhuero loam, 9 to 15 percent slopes, eroded
- HuC | Huerhuero-Urban land complex, 2 to 9 percent slopes
- LsE | Linne clay loam, 9 to 30 percent slopes
- LsF | Linne clay loam, 30 to 50 percent slopes
- OhC | Olivenhain cobbly loam, 2 to 9 percent slopes
- OhE | Olivenhain cobbly loam, 9 to 30 percent slopes
- OhF | Olivenhain cobbly loam, 30 to 50 percent slopes
- SuB | Stockpen gravelly clay loam, 2 to 5 percent slopes
- TuB | Tujunga sand, 0 to 5 percent slopes

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FIGURE 23
Soil Types

4.1.2 Vegetation Communities

The descriptions below document the vegetation communities and land cover types anticipated within the program-level area based on vegetation mapping available through SanGIS. Vegetation communities and land cover types include Diegan coastal sage scrub, valley and foothill grassland, extensive agriculture—field/pasture, row crops, and disturbed habitat (Figure 24.1). Based on site specific mapping within the project-level areas and familiarity with the area, other native upland and wetland vegetation communities are present and much of the areas mapped as disturbed and valley and foothill grassland would be remapped as non-native grassland. However, future Specific Plan development areas would require focused site-specific biological resources surveys.

The ESL Regulations define sensitive upland vegetation communities into four tiers of sensitivity. Upland vegetation communities that are classified as Tier I (rare uplands), Tier II (uncommon uplands), or Tier III (common uplands) are considered sensitive by the City. Tier IV (other uplands) vegetation communities are not considered sensitive (City of San Diego 2018a). Table 2a provides a general summary of anticipated vegetation communities and land cover types located within the program-level areas.

Table 2a
Vegetation Communities/Land Cover Types within the Program-level Areas

Vegetation Community or Land Cover Type[1]	City of San Diego Tier	Approximate Acres
Upland Vegetation Communities		
Diegan Coastal Sage Scrub	II	15
Valley and Foothill Grassland	I or IIIB[2]	24
Subtotal		*39*
Disturbed/Developed Vegetation Communities		
Disturbed Habitat	IV	34
Extensive Agriculture- Field/pasture, Row Crops	IV	58
Subtotal		*92*
Program-level Total	-	**131**

[1]Data based on SANGIS generalized vegetation, with vegetation communities following Holland Code as modified by Oberbauer et al. 2008.
[2]Project-level surveys would be required to differentiate native and non-native grasslands in accordance with City mapping guidelines.

4.1.2.1 Diegan Coastal Sage Scrub

Diegan coastal sage scrub is the southern form of coastal sage scrub comprised of low-growing, aromatic, drought-deciduous soft-woody shrubs that have an average height of approximately three to four feet. Diegan coastal sage scrub is typically dominated by facultatively drought deciduous species such as California sagebrush, California buckwheat, laurel sumac, and black sage (*Salvia mellifera*). This community is typically found on low moisture-availability sites with steep, xeric slopes or clay rich soils that are slow to release stored water. These sites often include drier south- and west-facing slopes and occasionally north-facing slopes, where the community can act

as a successional phase of chaparral. Diegan coastal sage scrub is found in coastal areas from Los Angeles County south into Baja California (Oberbauer et al. 2008).

4.1.2.2 Valley and Foothill Grassland

Valley and foothill grassland is a plant community comprised of annual and/or perennial grasses and can be characterized as either native or non-native. Native and introduced annuals occur between native perennial bunch grasses, e.g., purple needlegrass, and often actually exceeding the bunch grasses in cover. Valley and foothill grassland often has a large component of non-native grasses but can be distinguished as native grasslands if the percent cover by native grass species is 10 percent or greater. Usually occurs on fine-textured (often clay) soils, moist or even waterlogged during winter, but very dry in summer. In most regions, this plant community has been mainly converted to non-native annual grasslands due to the invasion of exotic annual grasses (Oberbauer et al. 2008). Future project-level surveys would be required to differentiate native and non-native grasslands in accordance with the City's Biology Guidelines (2018a).

4.1.2.3 Disturbed Habitat

Disturbed habitats are areas that have been physically disturbed and are no longer recognizable as a native or naturalized vegetation (Oberbauer et al. 2008). These areas may continue to retain soil substrate. If vegetation is present, it is almost entirely composed of non-native vegetation, such as ornamentals or ruderal exotic species. According to Oberbauer et al. (2008), disturbed habitat refers to areas that are not developed yet lack vegetation and that generally are the result of severe or repeated mechanical perturbation.

4.1.2.4 Extensive Agriculture – Field/Pasture, Row Crops

Extensive agriculture is usually a dense habitat with nearly 100 percent cover. It consists of planted fields of annual and perennial crops grown in rows that are irrigated and usually artificially seeded and maintained. Species composition may change by season and year. Due to the time that has passed since it was in agricultural use and the typical vegetation changes over time for fallow agricultural lands, these areas are conservatively expected to have converted to non-native grassland. Future biological surveys would be required to verify the vegetation community of these areas to determine whether they would remain mapped as agriculture or need to be reclassified based on site conditions at the time of future development applications.

4.1.3 Wildlife

Wildlife use around the Specific Plan area through Spring Canyon is extensive, with high use areas centered around canyons and drainage courses off the mesa. To document wildlife movement patterns, a Wildlife Tracking Study was completed in 2020. Wildlife tracking surveys occurred between the boundaries of Otay Mesa Road to the west, SR-905/Otay Mesa Road to the north, Cactus Road to the east, and the U.S./Mexico border to the south (see Attachment 2; Wildlife Tracking Company 2020). As detailed in the Wildlife Tracking Study, the study area included the

entire Specific Plan area in addition to all undeveloped land east, west and south of the Specific Plan area (Figure 25.1).

As described in Section 2.1.2, the Wildlife Tracking Study evaluated wildlife movement through the entire study area with a focus on the western portion (Area A, Figure 25.2) traversed by the proposed Beyer Boulevard West alignment. Within Area A, movement from Moody Canyon and associated finger canyons to the south was observed in three swale routes (see Figure 25.2).

Large mammal species identified within the study area include coyote and bobcat (Figure 25.3). Additionally, small mammal and reptile species such as California ground squirrel, shrew (*Soricidae* sp.), Bryant's (San Diego) woodrat (*Neotoma bryanti*), southern alligator lizard (*Elgaria multicarinata*), and southern pacific rattlesnake (*Crotalus helleri*); as well as medium-sized mammals including desert cottontail, and northern raccoon were also recorded within the study area (Wildlife Tracking Company 2020). Coyote and bobcat hotspots were identified west, south, and east of the program-level areas (see Figure 25).

4.2 Project-level Survey Area - Biological Resources

4.2.1 Physical Characteristics/Setting

The project-level survey area is immediately north of the United States/Mexico international border; east of I-805; south of SR-905 within the Otay Mesa community plan area. Elevations range from 200 feet above mean sea level within areas along the western end of Beyer Boulevard West to 520 feet above mean sea level at mesa top locations. The project-level survey area is characterized by mesa top bounded by open space and extensive canyon systems that support sensitive biological resources and habitat areas. Drainages (natural flood channels), which are mostly unvegetated, are scattered throughout the project-level survey areas. Some wetland habitat occurs along the drainages within the west end of Beyer Boulevard West and within Phase 4.

Eight soil types within five series are mapped within the project-level survey area (see Figure 23), which include Linne clay loam, 30 to 50 percent slopes; Linne clay loam, 9 to 30 percent slopes; Huerhuero loam, 2 to 9 percent slopes; Diablo clay, 30 to 50 percent, Olivenhain cobbly loam, 2 to 9 percent slopes; Olivenhain cobbly loam, 9 to 30 percent slopes; Olivenhain cobbly loam, 30 to 50 percent slopes; and Stockpen gravelly clay loam, 2 to 5 percent slopes. Information on the soil types is summarized from the Soil Survey for San Diego County (USDA 1973), the San Diego Association of Governments' 1995 geographic information system data, and the Hydric Soils of San Diego County list obtained from the NRCS (2020).

Linne clay loam – This soil series consists of well-drained, moderately deep clay loams derived from soft calcareous sandstone and shale. These soils have slopes of 30 to 50 percent. Linne soils are mainly used for range and some farm crops.

Huerhuero loam – This soil series consists of moderately well drained loams that have clay subsoil and were derived from sandy marine sediments. Permeability is very slow and the runoff is slow to medium. The erosion hazard is slight to moderate. The vegetation supported on these soils is primarily non-native grassland habitat. The Huerhuero loam soil type is found within a majority of

the mesa-top areas. This soil type is classified as a hydric soil when occurring in depressions that hold water for extended periods of time (NRCS 2020).

Diablo clay – This soil series is an upland soil comprising well-drained, moderately deep to deep clays. Derived from soft sandstone and shale. Diablo clay, 30 to 50 percent is found on steep slopes with rapid run-off and high erosion potential.

Olivenhain cobbly loam – This soil series consists of well drained, moderately deep to deep cobbly loams that have a very cobbly clay subsoil. This soil type formed in gravelly and cobbly alluvium. Permeability is very slow and the runoff is slow to medium. The erosion hazard is slight to moderate. This soil type can support vegetation found within Diegan coastal sage scrub habitat including California sagebrush, California buckwheat, and also support maritime succulent scrub habitat which includes species such as jojoba, San Diego County viguiera, and laurel sumac. The Olivenhain cobbly loam soil type is found along Beyer Boulevard West and within canyon areas within and surrounding the Specific Plan area. The Olivenhain cobbly loam soil type is classified as a hydric soil when occurring in depressions that hold water for extended periods of time (NRCS 2020).

Stockpen gravelly clay loam – This soil series consists of moderately well drained, moderately deep gravelly clay loams and is mapped on marine terraces. Runoff is slow and the erosion hazard is slight. Within the soil mapping are small inclusions of Diablo soils, Huerhuero soils, and Salinas soils. The vegetation supported on these soils is primarily non-native grassland habitat and is found within the northern portion of the project-level survey area. The stockpen gravelly clay loam soil type is classified as a hydric soil when occurring in depressions that hold water for extended periods of time (NRCS 2020).

4.2.2 Vegetation Communities

Seventeen vegetation communities and land cover types were identified within the project-level survey area including: maritime succulent scrub, disturbed maritime succulent scrub, Diegan coastal sage scrub, disturbed Diegan coastal sage scrub, native grassland, non-native grassland, natural flood channel, mule fat scrub, southern willow scrub, tamarisk scrub, disturbed riparian, disturbed wetland, vernal pool, vernal pool with fairy shrimp, eucalyptus woodland, disturbed land, and urban/developed land. Descriptions of each vegetation community and land cover type are provided below. Vegetation communities are shown in Figures 24.2 through 24.15 and summarized in Table 2b.

Overall vegetation community acreages associated with the project-level survey areas are reported in Table 2b including the acreage by grading phase (see Figure 10.1) and survey area acreages outside of the project-level areas. Tables 2c through 2h report the vegetation community acreages by grading phase, with acreages reported separately for land within the Furby North Preserve, the West Otay Mesa A and West Otay Mesa B conserved parcels, the Beyer Park parcel, the Candlelight and Southwind projects. Acreages are also reported separately for land within and outside of the MHPA and VPHCP/MHPA lands.

Table 2b Vegetation Communities/Land Cover Types within the Project-level Survey Areas (acres)									
Vegetation Communities/ Land Cover Types	City of San Diego Tier	Phase 1 Development	Phase 2 Development	Beyer Boulevard West	Phase 4 Development	Emergency Vehicle Access Road	Off-site Improve-ments	Remaining Project-Level Survey Area[1]	Total Acres
Upland Vegetation Communities									
Maritime Succulent Scrub	I	4.72	6.51	13.88	2.38	0.87	-	178.54	206.89
Disturbed Maritime Succulent Scrub	I	5.15	1.58	1.85	0.53	-	-	55.00	64.12
Native Grassland	I	-	-	-	0.12	-	-	-	0.12
Diegan Coastal Sage Scrub	II	24.19	1.62	3.17	4.25	0.01	-	47.16	80.40
Disturbed Coastal Sage Scrub	II	8.19	-	0.62	1.29	0.83	-	5.60	16.53
Non-native Grassland	IIIB	42.14	57.26	2.48	3.81	0.16	-	66.91	172.76
Subtotal Upland Vegetation Communities		*84.38*	*66.97*	*21.99*	*12.38*	*1.87*	-		*353.22*
Wetland Vegetation Communities									
Natural Flood Channel[2]	-	0.14	0.08	0.05	0.18	-	-	1.51	1.97
Mule Fat Scrub	-	0.02	-	0.30	0.01	-	-	1.93	2.26
Southern Willow Scrub	-	0.32	-	-	<0.01	-	-	0.21	0.53
Tamarisk Scrub	-	-	0.01	-	-	-	-	1.72	1.73
Disturbed Riparian	-	0.12	-	-	-	-	-	-	0.12
Disturbed Wetland	-	0.30	0.04	<0.01	-	-	-	0.91	1.26
Vernal Pool	-	0.15	0.07	0.03	-	0.01	-	0.10	0.35
Vernal Pool with Fairy Shrimp	-	0.56	0.05	0.01	<0.01	-	-	1.06	1.67
Subtotal Wetland Vegetation Communities		*1.62*	*0.23*	*0.41*	*0.20*	*0.01*	-		*7.43*
Disturbed/Developed Vegetation Communities									
Eucalyptus Woodland	IV	0.13	-	-	-	-	-	1.01	1.14
Disturbed Land	IV	8.48	5.61	5.48	1.90	1.23	0.51	24.45	47.67
Urban/Developed Land	-	0.30	-	0.12	-	0.05	4.73	7.27	12.47
Subtotal Disturbed/Developed Vegetation Communities		*8.92*	*5.61*	*5.60*	*1.90*	*1.28*	*5.23*		*32.73*
Total		**94.92**	**72.80**	**28.01**	**14.48**	3.16	5.23	393.38	611.99

NOTE: Totals may not add due to rounding. Phasing corresponds to grading phasing depicted in Figure 10.1.

[1]Remaining project-level survey areas includes potential mitigation lands in addition to other surveyed areas associated with prior versions of the project.

[2]Although ephemeral drainages are not considered a vegetation community, they are captured within the City of San Diego's designation of "natural flood channel."

Table 2c Vegetation Communities/Land Cover Types within the Phase 1 Project-level Areas[1] (acres)							
Vegetation Community/ Land Cover Type	City of San Diego Tier	Outside MHPA			Inside MHPA	VPHCP 100% Conserved	Total
		Phase 1 Candlelight	Phase 1 Southwind	Phase 1 Development	Phase 1	Phase 1	
Upland Vegetation Communities							
Maritime Succulent Scrub	I	-	0.05	2.15	2.52	-	4.72
Disturbed Maritime Succulent Scrub	I	-	-	5.15	-	-	5.15
Native Grassland	I	-	-	-	-	-	-
Diegan Coastal Sage Scrub	II	-	-	20.57	3.62	-	24.19
Disturbed Coastal Sage Scrub	II	-	0.12	8.07	-	-	8.19
Non-native Grassland	IIIB	1.81	0.34	39.98	-	-	42.14
Subtotal Upland Vegetation Communities		*1.81*	*0.50*	*75.92*	*6.14*	-	*84.38*
Wetland Vegetation Communities							
Natural Flood Channel	-	0.02	-	0.06	0.06	-	0.14
Mule Fat Scrub	-	0.02	-	-	-	-	0.02
Southern Willow Scrub	-	0.32	-	-	-	-	0.32
Disturbed Riparian	-	0.12	-	-	-	-	0.12
Disturbed Wetland	-	0.23	-	0.07	-	<0.01	0.30
Vernal Pool	-	-	0.03	0.13	-	-	0.15
Vernal Pool with Fairy Shrimp	-	0.04	0.01	0.51	-	-	0.56
Subtotal Wetland Vegetation Communities		*0.76*	*0.04*	*0.76*	*0.06*	*<0.01*	*1.62*
Disturbed/Developed Vegetation Communities							
Eucalyptus Woodland	IV	0.03	-	0.10	-	-	0.13
Disturbed Land	IV	0.77	0.26	7.46	-	-	8.48
Urban/Developed	IV	0.30	-	-	-	-	0.30
Subtotal Disturbed/Developed Vegetation Communities		*1.10*	*0.26*	*7.56*	-	-	*8.92*
Phase 1 Total		3.68	0.80	84.24	6.20	<0.01	94.92
NOTE: Totals may not add due to rounding. Phasing corresponds to grading phasing depicted in Figure 10.1.							

Table 2d Vegetation Communities/Land Cover Types within the Phase 2 Project-level Areas[1] (acres)								
Vegetation Community/ Land Cover Type	City of San Diego Tier	Outside MHPA			In MHPA		In VPHCP	Total
		Phase 2 Development	Project-level trails	South Drainage Outfall	Project-level Trails	South Drainage Outfall	Phase 2	
Upland Vegetation Communities								
Maritime Succulent Scrub	I	3.55	-	0.30	-	2.65		6.51
Disturbed Maritime Succulent Scrub	I	1.43	-	-	-	0.16		1.58
Diegan Coastal Sage Scrub	II	1.62	-	-	-	-	-	1.62
Disturbed Coastal Sage Scrub	II	-	-	-	-	-	-	5.24
Non-native Grassland	IIIB	55.26	-	<0.01	<0.01	0.34	1.66	57.26
Subtotal Upland Vegetation Communities		*61.85*	-	*0.31*	*<0.01*	*3.14*	*1.66*	*66.97*
Wetland Vegetation Communities								
Natural Flood Channel	-	0.06	-	-	-	-	-	0.06
Tamarisk Scrub	-	-	-	-	-	0.01	-	0.01
Disturbed Wetland	-	0.04	-	-	-	-	-	0.04
Vernal Pool	-	0.07	-	-	-	-	-	0.07
Vernal Pool with Fairy Shrimp	-	0.05	-	-	-	-	-	0.05
Subtotal Wetland Vegetation Communities		*0.22*	-	-	-	*0.01*	-	*0.23*
Disturbed/Developed Vegetation Communities								
Disturbed Land	IV	4.67	0.03	0.05	0.43	0.41	0.02	5.61
Phase 2 Total		66.74	0.03	0.36	0.43	3.56	1.68	72.80
NOTE: Totals may not add due to rounding. Phasing corresponds to grading phasing depicted in Figure 10.1.								

Table 2e
Vegetation Communities/Land Cover Types within the Beyer Boulevard West Extension Project-level Areas[1]
(acres)

Vegetation Community/ Land Cover Type	City of San Diego Tier	Outside MHPA			Inside MHPA/VPHCP	VPHCP 100% Conservation			Total
		Beyer Boulevard West	Beyer Park	Project Development	Beyer Park	Furby North	West Otay Mesa A	West Otay Mesa B	
Upland Vegetation Communities									
Maritime Succulent Scrub	I	0.03	1.85	<0.01	0.85	3.12	8.03	<0.01	13.38
Disturbed Maritime Succulent Scrub	I	0.01	0.78	-	0.41	0.04	0.61		1.85
Diegan Coastal Sage Scrub	II	-	0.08	-	-	-	0.91	2.18	3.17
Disturbed Coastal Sage Scrub	II	-	0.50	-	-	-	-	0.12	0.62
Non-native Grassland	IIIB	-	-	-	-	-	1.38	1.09	2.48
Subtotal Upland Vegetation Communities		*0.05*	*3.21*	*<0.01*	*1.25*	*3.16*	*10.92*	*3.40*	*21.99*
Wetland Vegetation Communities									
Natural Flood Channel	-	-	0.05	-	-	-	0.01	0.02	0.08
Mule Fat Scrub	-	-	0.30	-	-	-	-	-	0.30
Tamarisk Scrub	-	-	-	-	-	-	-	-	0.01
Disturbed Wetland		-	-	-	-	<0.01	<0.01	-	<0.01
Vernal Pool	-	-	-	-	-	0.01	0.02	-	0.03
Vernal Pool w/fairy shrimp	-	-	-	-	-	0.01	-	-	0.01
Subtotal Wetland Vegetation Communities			*0.35*			*0.01*	*0.03*	*0.02*	*0.41*
Disturbed/Developed Vegetation Communities									
Disturbed Land	IV	0.09	2.59	<0.01	0.98	0.55	1.16	0.11	5.48
Urban/Developed	IV	0.07	0.05	0.01	-	-	-	-	0.12
Subtotal Disturbed/Developed Vegetation Communities		*0.15*	*2.64*	*0.01*	*0.98*	*0.55*	*1.16*	*0.11*	*5.60*
Beyer Boulevard West Total	-	0.20	6.20	0.01	2.24	3.72	12.11	3.53	28.01

NOTE: Totals may not add due to rounding. Phasing corresponds to grading phasing depicted in Figure 10.1.

[1]This area includes only the portions of Beyer Boulevard West located outside of the Specific Plan. Other portions of Beyer Boulevard West are located within the Specific Plan are addressed as part of the overall development footprint.

Table 2f Vegetation Communities/Land Cover Types within the Phase 4 Project Survey Areas (acres)					
Vegetation Community/Land Cover Type	City of San Diego Tier	Outside MHPA	In MHPA	In VPHCP	Total
Upland Vegetation Communities					
Maritime Succulent Scrub	I	1.98	0.40	-	2.38
Disturbed Maritime Succulent Scrub	I	0.53	-	-	0.53
Native Grassland	I	0.11	<0.01	-	0.12
Diegan Coastal Sage Scrub	II	4.19	0.06	0.01	4.25
Disturbed Diegan Coastal Sage Scrub	II	1.29	-	-	1.29
Non-native Grassland	IIIB	3.76	0.05	-	3.81
Subtotal Upland Vegetation Communities		*11.86*	*0.52*	*0.01*	*12.38*
Wetland Vegetation Communities					
Natural Flood Channel	-	0.17	0.01	-	0.18
Mule Fat Scrub	-	0.01	-	-	0.01
Southern Willow Scrub	-	<0.01	-	-	<0.01
Disturbed Wetland	-	-	-	-	-
Vernal Pool	-	-	-	-	-
Vernal Pool with Fairy Shrimp	-	<0.01	-	-	<0.01
Subtotal Wetland Vegetation Communities		*0.18*	*0.01*	-	*0.20*
Disturbed/Developed Vegetation Communities					
Disturbed Land	IV	1.88	0.02	-	1.90
Caliente/Phase 4 Total		13.92	0.54	0.01	14.48
NOTE: Phasing corresponds to grading phasing depicted in Figure 10.1. Totals may not add due to rounding.					

Table 2g Vegetation Communities/Land Cover Types within the Emergency Vehicle Access Road Project Survey Areas (acres)				
Vegetation Community/Land Cover Type	City of San Diego Tier	Outside MHPA EVA Road	In MHPA EVA Road	Total
Upland Vegetation Communities				
Maritime Succulent Scrub	I	0.14	0.73	0.87
Diegan Coastal Sage Scrub	II	-	0.01	0.01
Disturbed Diegan Coastal Sage Scrub	II	-	0.83	0.83
Non-native Grassland	IIIB	0.05	0.11	0.16
Subtotal Upland Vegetation Communities		*0.18*	*1.69*	*1.87*
Wetland Vegetation Communities				
Vernal Pool	-	-	0.01	0.01
Disturbed/Developed Vegetation Communities				
Disturbed Land	IV	0.38	0.85	1.23
Urban/Developed	IV	-	0.05	0.05
Subtotal Disturbed/Developed Vegetation Communities		-	-	-
EVA Road Total		0.56	2.59	3.16
NOTE: Phasing corresponds to grading phasing depicted in Figure 10.1. Totals may not add due to rounding.				

Table 2h Vegetation Communities/Land Cover Types within the Off-Site Improvements Project Survey Areas (acres)						
Vegetation Community/ Land Cover Type	City of San Diego Tier	Outside MHPA				Total
		SR-905 Westbound On-ramp	Caliente Avenue over SR-905	Water/Sewer Improvements	West Beyer Boulevard	
Disturbed/Developed Vegetation Communities						
Disturbed Land	IV	0.04	-	0.05	0.42	0.51
Urban/Developed	IV	0.19	0.93	2.15	1.45	4.73
Off-site Improvements Total		0.23	0.93	2.20	1.87	5.23
NOTE: Phasing corresponds to grading phasing depicted in Figure 10.1. Totals may not add due to rounding.						

4.2.2.1 Maritime Succulent Scrub

Maritime succulent scrub is a low (two to three feet high), open (25–75 percent cover) vegetation community dominated by drought deciduous, somewhat woody, soft-leaved shrubs with a rich mixture of stem and leaf succulents (e.g., cacti). The proportion of cacti in this community is typically highest in inland areas. Ground cover is more or less devoid of vegetation between shrubs. Growth and flowering are concentrated in the spring. Maritime succulent scrub occurs on thin, rocky, or sandy soils, often on steep slopes of coastal headlands and bluffs. This type of succulent scrub transitions to southern coastal bluff scrub on more exposed headlands and bluffs and with coastal sage scrub on better developed, moist soils away from the immediate coast (Oberbauer et al. 2008).

The maritime succulent scrub within the project-level survey area is dominated by California sagebrush, jojoba and San Diego bur-sage. Photograph 1 shows mature maritime succulent scrub within the Beyer Boulevard West portion of project-level analysis area. Other species found within this habitat type include San Diego barrel cactus, cliff spurge, San Diego viguiera, Otay tarplant, and fish-hook cactus (*Mammillaria dioica*). Maritime succulent scrub occurs within Beyer Boulevard West, Phases 1, 2, and 4, and within the south and southeastern survey areas (see Figures 24.2 through 24.14).

4.2.2.2 Disturbed Maritime Succulent Scrub

Disturbed maritime succulent scrub habitat is also considered a Tier I (rare uplands) vegetation community by the City (2018a). It occurs throughout the project-level analysis area and within the mitigation lands, and the dominant shrub species is similar to what occurs in maritime succulent scrub, including California sagebrush and jojoba (see Figures 24.2, 24.4 through 24.5, and Figures 24.7 through 24.14). However, the density of native shrub and herbaceous species is much less in the disturbed community and there are much wider interspaces between the native shrubs. The understory in disturbed maritime succulent scrub consists of brome grasses including ripgut grass (*Bromus diandrus*) and red brome (*Bromus madritensis* ssp. *rubens*), and native species fascicled tarplant (*Deinandra fasciculata*), and ashy spike-moss (*Selaginella cinerascens*). Additionally, there is evidence of trash dumping within this vegetation community.

4.2.2.3 Native Grassland

Native grassland is considered a Tier I habitat under the City's Biology Guidelines. A grassland habitat is distinguished as native grassland if it supports at least 5 percent cover by native grass species (Sawyer et al. 2009). Therefore, many native grasslands often have a large component of non-native grasses. This vegetation community usually occurs on fine-textured (often clay) soils that are moist or even waterlogged during winter, but very dry in summer.

Native grassland within the project area occurs in two small patches within the Phase 4 portion of the survey area interspersed within patches of Diegan coastal sage scrub (see Figure 24.4). The habitat is considered moderate to high quality and is dominated by purple needle grass (*Stipa* [=*Nassella*] *pulchra*) and woody melic (*Melica frutescens)*. Non-native grasses were present as well, mostly *Bromus* sp., and other common plants included southern checkerbloom (*Sidalcea sparsifolia*) and padre's shooting star (*Primula clevelandii* var. *clevelandii)*.

PHOTOGRAPH 1
Maritime Succulent Scrub along the Beyer Boulevard Extension,
Facing South. Photo Date: February 18, 2020

4.2.2.4 Diegan Coastal Sage Scrub

Diegan coastal sage scrub is a vegetation community considered sensitive by federal and state resource agencies, and a Tier II (uncommon uplands) by the City's Biology Guidelines (City of San Diego 2018a). Detailed descriptions of this habitat type can be found in Section 4.1.2.1.

The Diegan coastal sage scrub within the project-level survey area is dominated by California sagebrush, California buckwheat, California encelia, and laurel sumac. The vegetation height ranges from two inches to eight feet in height (Photograph 2). There is also evidence of trash dumping within this vegetation community. Diegan coastal sage scrub occurs within Phases 1, 2, and 4, and in the south and southeastern project-level survey areas (see Figures 24.2 through 24.14).

4.2.2.5 Disturbed Diegan Coastal Sage Scrub

Disturbed Diegan coastal sage scrub is also considered a Tier II (uncommon uplands) vegetation community by the City's Biology Guidelines (City of San Diego 2018a). This vegetation community occurs within small patches within the project-level survey area (see Figures 24.2 through 24.8, 24.13, and 24.14). The species composition is similar to that of the undisturbed stands of Diegan coastal sage scrub. However, the overall vegetation density and height are lower, and/or there is a greater occurrence of non-native plant species including tree tobacco (*Nicotiana glauca*), castor bean (*Ricinus communis*), and non-native grasses. Dumping of trash has also occurred within this vegetation community (Photograph 3).

4.2.2.6 Non-native Grassland

Non-native grassland is considered a Tier IIIB (common uplands) by the City's Biology Guidelines (City of San Diego 2018a). Non-native grassland is a vegetation community characterized by a dense to sparse cover of annual grasses reaching to three feet high, which may include numerous native wildflowers, particularly in years of high rainfall. Typically, non-native grassland includes at least 50 percent cover of the entire herbaceous layer attributable to annual non-native grass species, although other plant species (native and non-native) may be intermixed (City of San Diego 2018a).

Non-native grassland contains species including, but not limited to, bromes (*Bromus* spp.), wild oat (*Avena* spp.), ryegrass (*Lolium* spp.), and fescues (*Vulpia* spp.). These annuals germinate with the onset of the rainy season and set seeds in the late winter or spring. With a few exceptions, the plants are dead through the summer-fall dry season, persisting as seeds.

Non-native grassland is usually found on fine-textured, usually clay soils, that range from being moist or waterlogged in the winter to being very dry during the summer and fall. Typically, the plant community is found in valleys and foothills throughout most of California (except for the north coastal and desert regions) at elevations below 3,000 to 4,000 feet (Holland 1986).

PHOTOGRAPH 2
Diegan Coastal Sage Scrub Near Vernal Pool Restoration Area,
Facing Northeast. Photo Date: April 16, 2018

PHOTOGRAPH 3
Disturbed Diegan Coastal Sage Scrub, Facing Northeast.
Photo Date: September 11, 2019

The non-native grassland within the project-level survey area is dominated by ripgut grass, red brome, and fascicled tarplant. Photograph 4 shows non-native grassland within Phase 1, ranging from six inches to two feet in height. This vegetation community dominates the mesa-tops within the project-level survey area and occurs within both Phases 1, 2, and 4 (see Figures 24.2 through 24.12).

4.2.2.7 Natural Flood Channel

Twenty-one ephemeral drainage courses occur within the project-level survey area and are characterized as natural flood channels (see Figures 24.2 through 24.14). These resources are generally unvegetated. Where vegetation does occur, it is comprised of primarily upland non-native grasses rather than wetland vegetation (Photograph 5).

4.2.2.8 Mule Fat Scrub

Mule fat scrub is considered a sensitive wetland habitat by USACE, CDFW, RWQCB, and the City. Mule fat scrub is a tall, herbaceous riparian scrub strongly dominated by mule fat (*Baccharis salicifolia*). This plant community is an early seral plant community that occurs along drainages with a fairly coarse substrate and a moderate depth to the water table. Mule fat scrub is developed and maintained from flooding or other disturbance but may change through successional processes, to willow-cottonwood or sycamore-dominated riparian forest/woodland, in the absence of disturbance. The community can also occur where dominant riparian scrubs and woodlands are disturbed or open and integrates with the willow scrub. Mule fat scrub typically occurs at elevations below 2,000 feet (Oberbauer et al. 2008).

Mule fat scrub occurs along a few drainages within the project-level survey area. This vegetation community occurs within and adjacent to natural flood channels within the Beyer Boulevard West grading phase (Photograph 6 and Figure 24.2), and within the northern block of Phase 4 within the Candlelight property (see Figure 24.4). The mule fat scrub within Candlelight is noted to be man-made (City of San Diego 2018b). Mule fat scrub is also located within the eastern edge of the survey area within the Spring Canyon drainage (see Figures 24.9, 24.12, and 24.14).

4.2.2.9 Southern Willow Scrub

Southern willow scrub is considered a sensitive wetland habitat by USACE, CDFW, RWQCB, and the City. Southern willow scrub is a dense riparian community dominated by broad-leafed, winter-deciduous trees such as willows (*Salix* spp.), and is often scattered with Fremont cottonwoods (*Populus fremontii*), and sycamores (*Platanus racemosa*). This plant community is typically found along major drainages but also occurs in smaller drainages. The density of the willows typically prevents a dense understory of smaller plants from growing. The representative species typically grow in loose, sandy, or fine gravelly alluvium deposited near stream channels during flood flows. This community requires repeated flooding to prevent succession to community dominated by sycamores and cottonwoods (Oberbauer et al. 2008).

PHOTOGRAPH 4

Non-Native Grassland, Facing North. Photo Date: March 15, 2019

PHOTOGRAPH 5
View of Non-wetland Water (Natural Flood Channel) within the Northern Portion of Phase 1, Facing East;
Photo Date: March 15, 2018

PHOTOGRAPH 6
View of Mule Fat Scrub within the Far Western End of the Beyer Park Parcel, Facing South. Photo Date: February 18, 2020

PHOTOGRAPH 7
View of Southern Willow Scrub within Phase 4 (on left hand side of photo), Looking East. Photo Date: February 13, 2020

Southern willow scrub occurs within the Candlelight property near the existing terminus of Caliente Avenue within Phase 4 as small patches of habitat (Photograph 7 and Figure 24.4) and within the southeastern portion of the survey area within Spring Canyon (see Figure 24.12. This vegetation community is dominated by arroyo willow (*Salix lasiolepis*).

4.2.2.10 Tamarisk Scrub

Tamarisk scrub occurs within the southern portion of the project-level survey area adjacent to large disturbed wetlands (see Figures 24.10 and 24.11). This vegetation community is dominated by salt cedar.

4.2.2.11 Disturbed Riparian

Disturbed riparian is also considered a sensitive wetland habitat by USACE, CDFW, RWQCB, and the City. This vegetation community is dominated by salt cedar and includes very few native species, including arroyo willow and salt cedar. Two patches of disturbed riparian occur within the Candlelight property as wetlands within Caliente Avenue in Phase 1 (see Figure 24.4).

4.2.2.12 Disturbed Wetlands

Fifty-five disturbed wetlands were mapped throughout the project-level survey area (see Figures 24.2 through 24.12). These disturbed wetlands are isolated. While eighteen of these ponding depressions meet the 3-parameter criteria for USACE wetlands and appear similar to vernal pools, they do not support vernal pool flora indicator species and therefore, were characterized as disturbed wetlands (Photographs 8-11). Even though they are not considered City of San Diego vernal pools, they would be considered City of San Diego wetlands.

The other 37 basins support wetland hydrology (seasonal ponding) evidenced by soil surface cracks and biotic crusts and therefore would be considered City wetlands. These ponding depressions do not, however, meet the 3-parameter USACE wetland as they either are not dominated with hydrophytic vegetation or are completely unvegetated (Photographs 12 and 13). No vernal pool flora indicator species were observed in these disturbed wetlands, including during field verification surveys conducted in spring 2023. Similar to vernal pools, these disturbed wetlands may contain San Diego fairy shrimp. San Diego fairy shrimp were detected in all but eight of the disturbed wetland basins.

4.2.2.13 Vernal Pools and Vernal Pools with Fairy Shrimp

San Diego mesa claypan vernal pools are shallow, isolated, seasonal wetlands distinguished from other ephemeral wetlands in the region by characteristic plant and animal species. San Diego mesa claypan vernal pools typically support a characteristic suite of plant and animal species. Plants in vernal pools may be aquatic or may germinate following the drying of the pool. Pool sizes range from very small to moderate (up to 700 square meters).

PHOTOGRAPH 8
View of Disturbed Wetland #234 within Phase 2,
Looking West. Photo Date: March 30, 2020

PHOTOGRAPH 9
View of Disturbed Wetland #278 within the Southeastern Portion of Phase 1, Looking West. Photo Date: February 27, 2020

PHOTOGRAPH 10
View of Disturbed Wetland #314 Adjacent to a Project-level Trail, Looking Northwest;
Photo Date: March 26, 2020

PHOTOGRAPH 11
View of Disturbed Wetland #324 within Phase 2,
Looking East. Photo Date: March 30, 2020

PHOTOGRAPH 12
View of Disturbed Wetland #VPHCP 3153 within
Phase 1a, Looking South. Photo Date: March 26, 2020

PHOTOGRAPH 13
View of Disturbed Wetland #60 within Phase 1
Looking East. Photo Date: March 26, 2018

Vernal pools occur throughout the project-level survey area, most prominently on mesa tops. All 263 depressions identified within the project-level survey area as vernal pools support one or more vernal pool plant indicator species and range from high- to low-quality (Photographs 14-21; see Figures 24.2 through 24.11). High-quality pools are those characterized with plentiful amounts of wetland and vernal pool indicator plants, and these types of pools are found on the mesa top away from the access roads. A majority of the pools are located along roadsides and are regularly disturbed by off-road and passenger vehicles and, therefore, are considered to be low-quality. As a product of the vehicular traffic within the project-level survey area, many of these vernal pools also support the federally listed San Diego fairy shrimp, and three pools support the federally listed Riverside fairy shrimp (two within the project-level analysis area and one within lands proposed to be conserved for mitigation), both of which are vernal pool fauna indicator species. Additionally, some pools contained immature fairy shrimp species that could be identified to the genus of *Branchinecta*, but could not be identified to the species level. Based on these factors, all mapped vernal pools are assumed to be occupied by San Diego fairy shrimp.

4.2.2.14 Eucalyptus Woodland

Eucalyptus trees are not native to the area and are considered invasive species because of their rapid growth rate, broad cover, and the allelopathic chemicals contained in their leaf litter that prevents understory species from growing. Once established, eucalyptus groves often form dense canopies that displace native habitats over time.

The eucalyptus woodland within the project-level survey area is located in patches within Phase 1. It is dominated by blue gum eucalyptus trees (*Eucalyptus globulus*) with an understory of non-native grasses, crown daisy (*Glebionis coronaria*), and tree tobacco (Photograph 22; see Figures 24.3 through 24.6).

4.2.2.15 Disturbed Land

Disturbed land is composed of areas that have been previously disturbed and no longer function as a native or naturalized vegetation community. Vegetation, if present, is dominated by opportunistic non-native species. Disturbed land can also include previously graded lands such as fire breaks, off-road vehicle trails, and construction staging sites (Oberbauer et al. 2008).

The disturbed land occurs throughout the project-level survey areas and is comprised mainly of dirt access roads, roads created by off-road vehicles, and artificial earthen berms. These roads traverse primarily through the non-native grassland vegetation, but also travel through maritime succulent scrub and Diegan coastal sage scrub habitats. For the most part, these disturbed lands are unvegetated or have minimal vegetation comprised of non-native species (see Figures 24.2 through 24.14).

PHOTOGRAPH 14

View of High-Quality Vernal Pool #34 Supporting Dwarf Woollyheads (*Psilocarphus brevissimus*), a Vernal Pool Plant Indicator Species, within Phase 1, Facing Southeast. Photo Date: April 6, 2018

PHOTOGRAPH 15

View of High-Quality Vernal Pool #VPHCP 3139 within Phase 1, Looking West. Photo Date: March 30, 2020

PHOTOGRAPH 16

Close-Up View of Adobe Popcorn-flower (*Plagiobothrys acanthocarpus*), Prairie Plantain (*Plantago elongata*), and Dwarf Woollyheads (*Psilocarphus brevissimus*) within High-Quality Vernal Pool #VPHCP 3139; Photo Date: March 30, 2020

PHOTOGRAPH 17

View of Low-Quality Vernal Pool with San Diego Fairy Shrimp #68 within the Southern Portion of Phase 1, Looking East. Photo Date: March 26, 2018

PHOTOGRAPH 18
View of Low-Quality Vernal Pool #239 within the Southern Portion of Phase 2, Looking Northwest;
Photo Date: March 30, 2020

PHOTOGRAPH 19
View of Low-Quality Vernal Pool with San Diego Fairy Shrimp #260 within the Southeastern Portion of Phase 1, Looking South;
Photo Date: February 27, 2020

PHOTOGRAPH 20
View of Low-Quality Vernal Pool with San Diego Fairy Shrimp #235 within Phase 2, Looking East;
Photo Date: March 30, 2020

PHOTOGRAPH 21
View of Low-Quality Vernal Pool within Phase 1,
Facing South. Photo Date: April 14, 2020

PHOTOGRAPH 22

Eucalyptus Woodland within Phase 1, Facing Southwest;
Photo Date: September 11, 2019

4.2.2.16 Urban/Developed Land

There are a few small areas mapped as urban/developed land within the very western end of Phase 1b associated with the current terminus of Beyer Boulevard West (see Figure 24.2), the terminus of Caliente Avenue (see Figure 24.4), the portion of Beyer Boulevard West between Otay Mesa Road and Enright Drive (see Figure 24.13), and water/sewer lines north and south of the existing Beyer Boulevard West (see Figure 24.14). These areas primarily include paved streets adjacent to residential development, although there are a few patches of landscaped ornamental plants associated with the adjacent development. There are additional urban/developed land areas mapped along the SR-905 on-ramp and Caliente intersection improvement areas (see Figure 24.15).

4.2.3 General and Sensitive Plant Species

A total of 206 plant species were identified on the site during the general and rare plant surveys (see Attachment 4). Of these 206 species, 130 (63 percent) are considered native to California and 76 (37 percent) are considered non-native species. Of the native species identified, the following 19 species are considered sensitive: California adolphia, California box-thorn (*Lycium californicum*), San Diego bur-sage (*Ambrosia chenopodiifolia*), south coast saltscale (*Atriplex pacifica*), San Diego County viguiera, seaside cistanthe (*Cistanthe maritima*), western dichondra (*Dichondra occidentalis*), Otay tarplant, variegated dudleya (*Dudleya variegata*), San Diego button-celery, cliff spurge, snake cholla, San Diego barrel cactus, Palmer's grapplinghook (*Harpagonella palmeri*), bobtail barley (*Hordeum intercedens*), decumbent goldenbush (*Isocoma menziesii* var. *decumbens*), golden-ray pentachaeta (*Pentachaeta aurea* ssp. *aurea*), ashy spike-moss, and San Diego needlegrass (*Stipa diegoensis*) (Figures 26.1 through 26.13). Sensitive species observed or potentially occurring within the project-level survey area are discussed in Section 5.3, Sensitive Plants, of this report.

4.2.4 Wildlife

The wildlife species observed within the project-level survey area are typical of species found in Diegan coastal sage scrub, maritime succulent scrub, and non-native grassland vegetation communities and urban/disturbed areas in San Diego County as noted below in each subsection. A list of the wildlife species detected within the project-level survey area is included in Attachment 6. Sensitive species observed or potentially occurring within the project-level survey area are discussed in Section 5.4, Sensitive Wildlife, of this report.

As discussed in Section 4.1.3 above, the wildlife tracking study (Wildlife Tracking Institute 2020 and 2022) was a regional study to address wildlife movement and characterizes the wildlife conditions within both the program-level and project-level survey areas. Wildlife movement patterns were identified to inform the best location for a wildlife crossing (see Figures 25.1 through 25.3).

4.2.4.1 Invertebrates

Three main types of invertebrates were observed within the project-level survey area: butterflies, aquatic crustacean (fairy shrimp), and bees. The distribution of butterflies is generally defined by the distribution of their larval food plants. Species common in coastal sage scrub and non-native

grassland areas are expected to be the most common butterfly species detected. The ridges within the project-level survey area provide hill-topping areas, which some butterfly species use to search for mates. Fairy shrimp are limited to the basins that pond water where they live out their lifecycle, which is approximately three weeks to four months long, depending on the species. Bees were detected throughout the site wherever flowering plants were present.

Common butterfly species observed during the surveys include cabbage white (*Pieris rappae*), Pacific Sara orangetip (*Anthocharis sara sara*), painted lady (*Vanessa cardui*), Behr's metalmark (*Apodemia mormo virgulti*), and funereal duskywing (*Erynnis funeralis*). A single Quino checkerspot butterfly was also observed with the southeastern project-level survey area in 2019. Two fairy shrimp species, San Diego fairy shrimp and Riverside fairy shrimp, were observed within the project-level survey area (Figures 27.1 through 27.10). The Riverside fairy shrimp was located within one pool during the 2019/2020 dry season sampling as well as within one seasonal basin on the Candlelight property (Alden 2013; see Figure 27.3). Honey bees (*Apis mellifera*) were commonly detected. Several Crotch's bumble bees were incidentally observed within south and southeastern survey areas conducted in 2024 (Figures 27.6, 27.9, and 27.11).

4.2.4.2 Amphibians

Most amphibians require moisture for at least a portion of their lifecycle, with many requiring a permanent water source for habitat and reproduction. Terrestrial amphibians have adapted to more arid conditions and are not completely dependent on a perennial or standing source of water. These species avoid desiccation by burrowing beneath the soil or leaf litter during the day and during the dry season.

Three amphibian species were detected during spring field surveys near vernal pools and other wetland features and include western spadefoot (*Spea hammondii*), southern California toad (*Anaxyrus boreas halophilus*), and Baja California treefrog (*Pseudacris hypochondriaca*). Locations of sensitive western spadefoot are shown on Figure 27.1 through 27.11.

4.2.4.3 Reptiles

The diversity and abundance of reptile species vary with habitat type. Many reptiles are restricted to certain plant communities and soil types, although some of these species would also forage in adjacent communities. Other species are more ubiquitous, using a variety of vegetation types for foraging and shelter.

Twelve reptile species were observed, including six lizards: coast horned lizard (*Phrynosoma blainvillii*), western fence lizard (*Sceloporus occidentalis*), granite spiny lizard (*Sceloporus orcutti*), common side-blotched lizard (*Uta stansburiana*), orange-throated whiptail (*Aspidoscelis hyperythra*), and coastal whiptail (*Aspidoscelis tigris stejnegeri*); and six snake species: southern Pacific rattlesnake (*Crotalus oreganus helleri*), red diamond rattlesnake (*Crotalus ruber*), California nightsnake (*Hypsiglena ochrorhyncha nuchalata*), California kingsnake (*Lampropeltis getula californiae*), San Diego gopher snake (*Pituophis catenifer annectens*), and two-striped gartersnake. Locations of sensitive reptiles consisting of coast horned lizard, orange-throated whiptail, red

diamond rattlesnake, and two-striped gartersnake are shown on Figures 27.1 through Figure 27.7 and Figure 27.10.

4.2.4.4 Birds

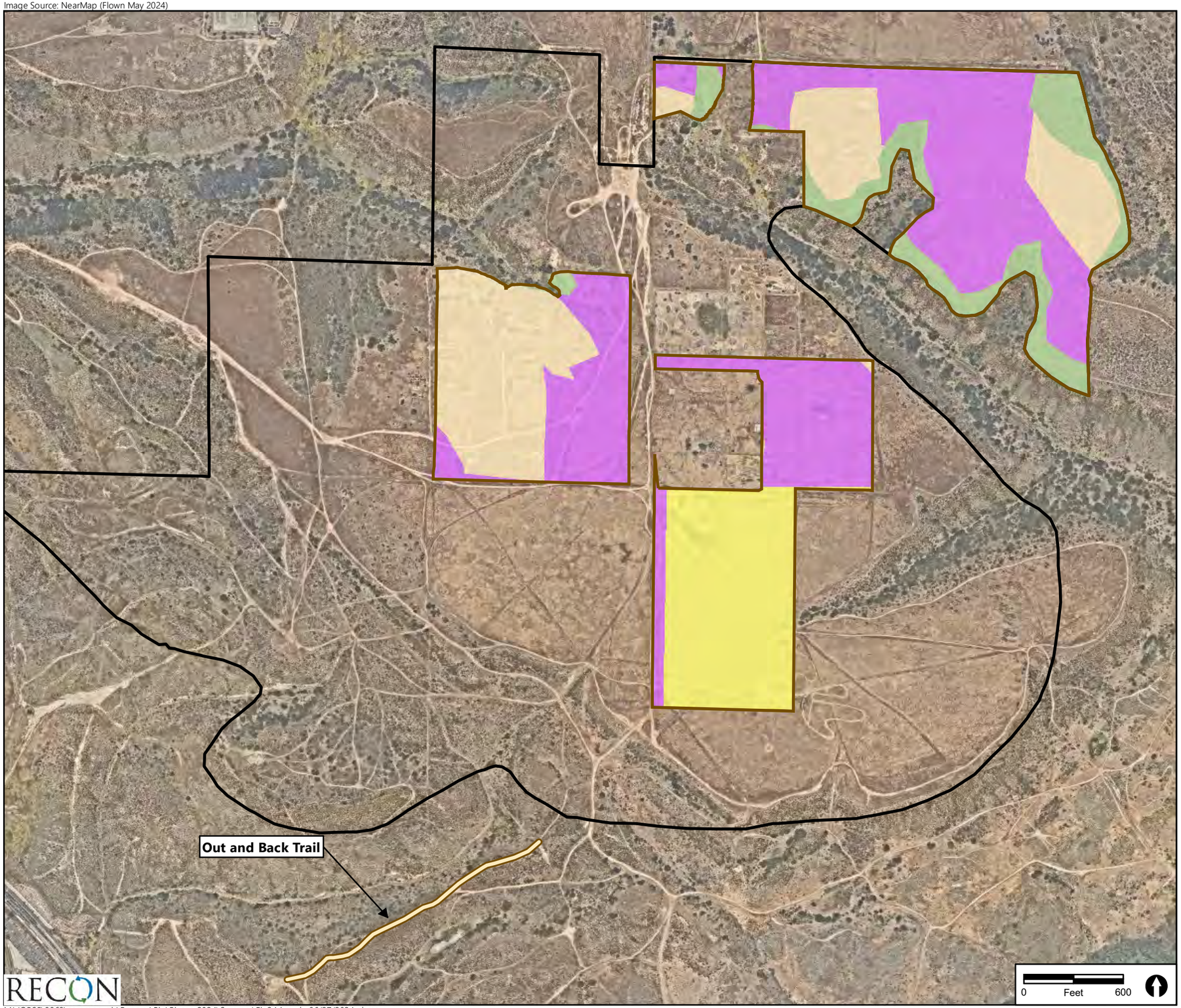
The diversity of bird species varies with respect to the character, quality, and diversity of vegetation communities present on a site. High-quality vegetation communities typically support a moderate to high variety of bird species. The scrub and woodland habitats provide foraging and shelter opportunities for a wide variety of bird species. Disturbed and developed lands are used by bird species adapted to urban settings.

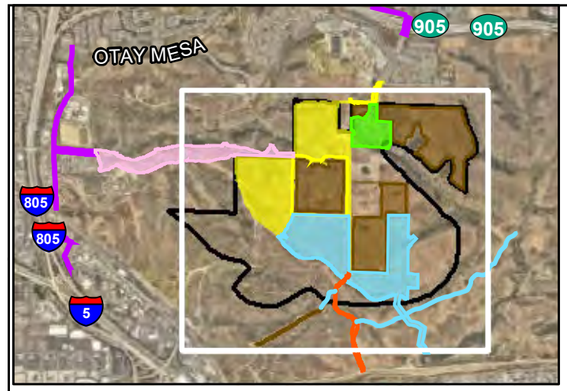
Seventy-two species of bird were observed including Anna's hummingbird (*Calypte anna*), California towhee (*Melozone crissalis*), spotted towhee (*Pipilo maculatus*), northern mockingbird (*Mimus polyglottos polyglottos*), Bewick's wren (*Thyromanes bewickii*), bushtit (*Psaltriparus minimus melanurus*), lesser goldfinch (*Spinus psaltria hesperophilus*), and western meadowlark (*Sturnella neglecta*). Sensitive bird species observed on-site are shown on Figures 27.1 through 27.13.

4.2.4.5 Mammals

Twenty-one species of mammal were observed including desert cottontail (*Sylvilagus audubonii*), California ground squirrel (*Spermophilus beecheyi*), northern raccoon (*Procyon lotor*), common gray fox (*Urocyon cinereoargenteus*), bobcat (*Lynx rufus*), and coyote (*Canis latrans*). Less common, but also detected mammal species included the San Diego black-tailed jackrabbit (*Lepus californicus bennettii*) and San Diego desert woodrat (*Neotoma lepida intermedia*). Sensitive mammals observed on-site are shown in Figure 27.2 through 27.6 and Figure 27.8.

Image Source: NearMap (Flown May 2024)





Project-level Phasing
- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

Specific Plan Boundary

Program-level Analysis Phasing
- Phases 3-7

Vegetation Communities*
- Disturbed Habitat
- Extensive Agriculture - Field/Pasture, Row Crops
- Diegan Coastal Sage Scrub
- Valley and Foothill Grassland

*Vegetation types based on SanGIS vegetation data, site specific surveys required to verify resources

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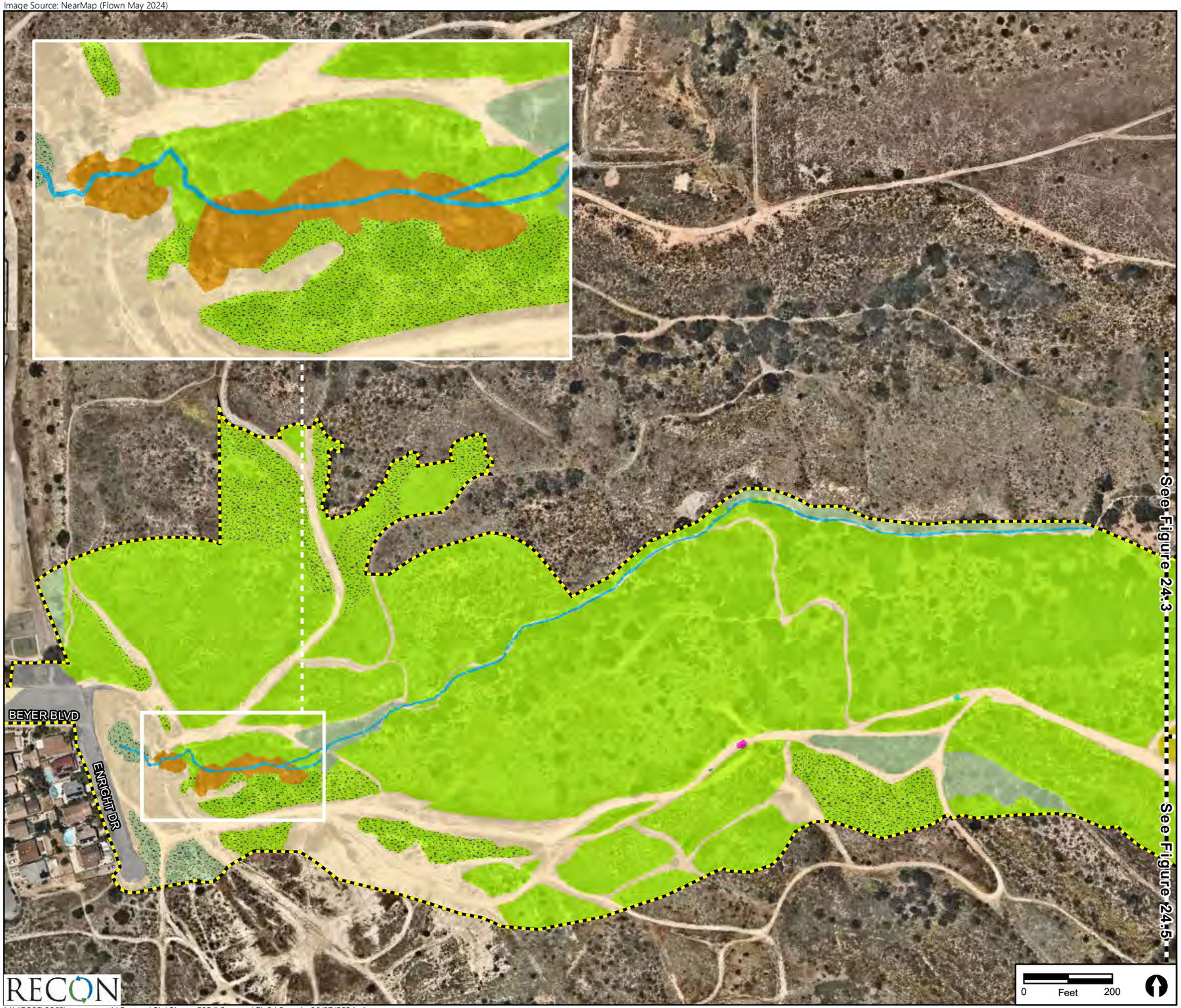
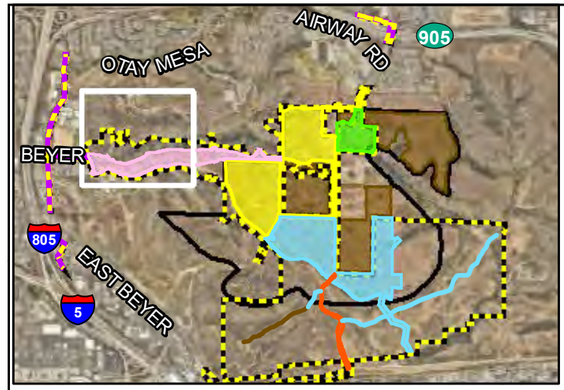
FIGURE 24.1
Existing Biological Resources - Vegetation Communities/Land Cover Types - Program-level

Image Source: NearMap (Flown May 2024)





Project-level Phasing
- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area

Southwest Village Vegetation
- Diegan Coastal Sage Scrub
- Disturbed Diegan Coastal Sage Scrub
- Maritime Succulent Scrub
- Disturbed Maritime Succulent Scrub
- Mule Fat Scrub
- Non-native Grassland
- Vernal Pool
- Vernal Pool with Fairy Shrimp
- Disturbed Wetland
- Natural Flood Channel
- Disturbed Land
- Urban/Developed Land

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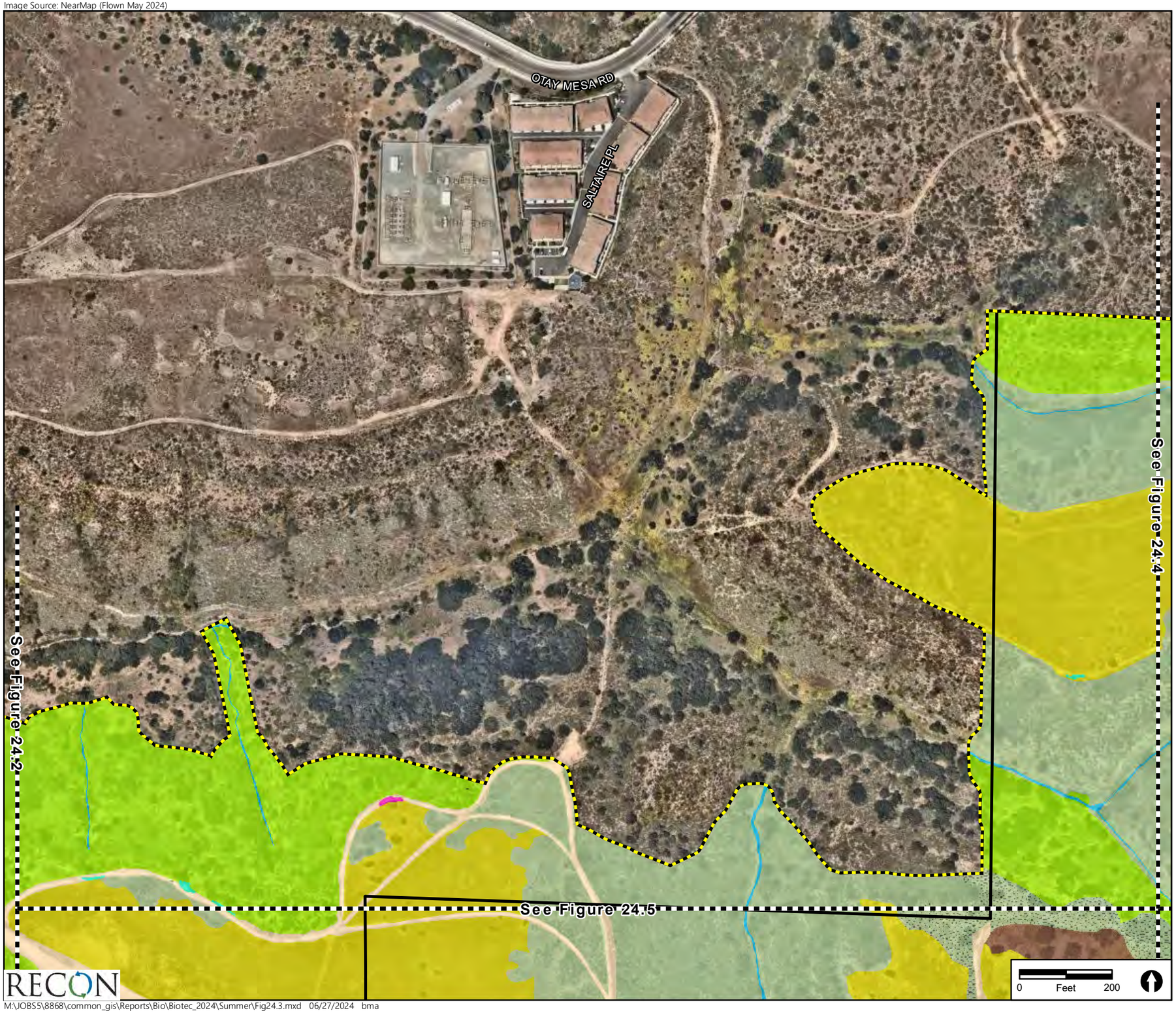
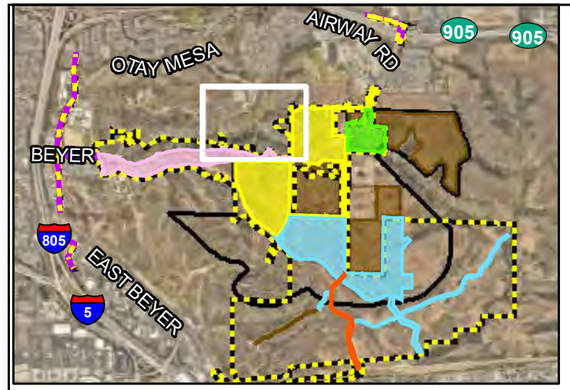
FIGURE 24.2
Existing Biological Resources -
Vegetation Communities/Land Cover Types

Image Source: NearMap (Flown May 2024)





Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area

Southwest Village Vegetation

- Diegan Coastal Sage Scrub
- Disturbed Diegan Coastal Sage Scrub
- Eucalyptus Woodland
- Maritime Succulent Scrub
- Non-native Grassland
- Vernal Pool
- Vernal Pool with Fairy Shrimp
- Disturbed Wetland
- Natural Flood Channel
- Disturbed Land

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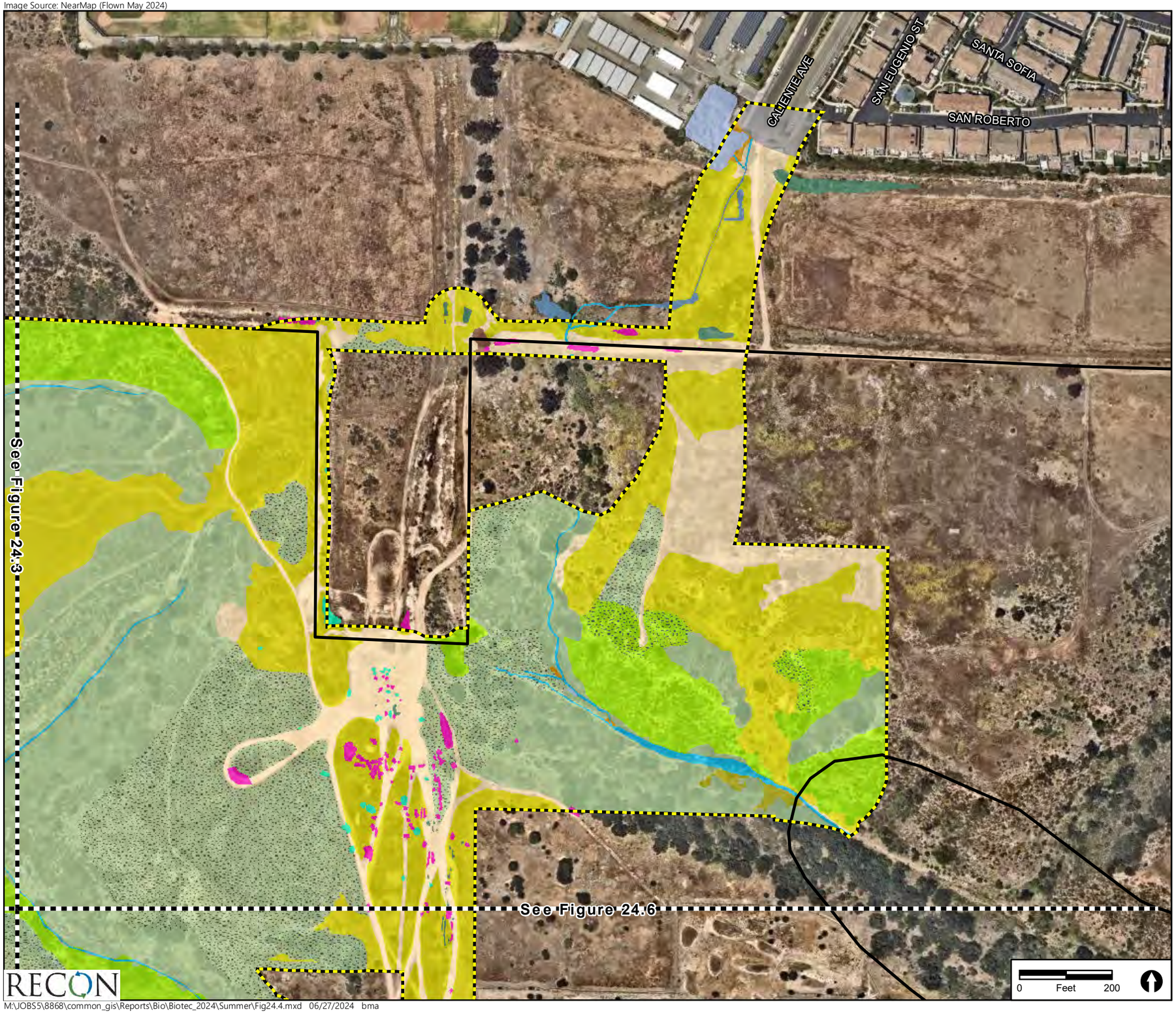
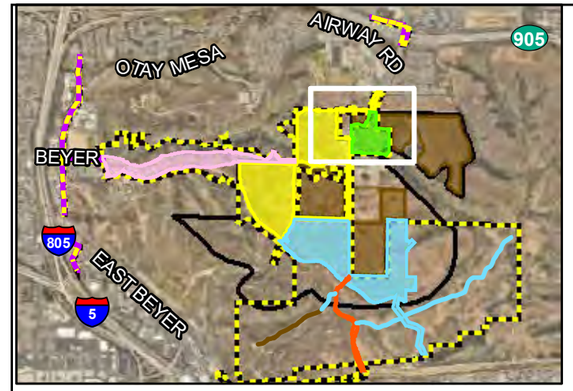
FIGURE 24.3
Existing Biological Resources -
Vegetation Communities/Land Cover Types

Image Source: NearMap (Flown May 2024)





Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area

Southwest Village Vegetation

- Diegan Coastal Sage Scrub
- Disturbed Diegan Coastal Sage Scrub
- Eucalyptus Woodland
- Maritime Succulent Scrub
- Disturbed Maritime Succulent Scrub
- Mule Fat Scrub
- Native Grassland
- Non-native Grassland
- Southern Willow Scrub
- Disturbed Riparian
- Vernal Pool
- Vernal Pool with Fairy Shrimp
- Wetland
- Disturbed Wetland
- Natural Flood Channel
- Disturbed Land
- Urban/Developed Land

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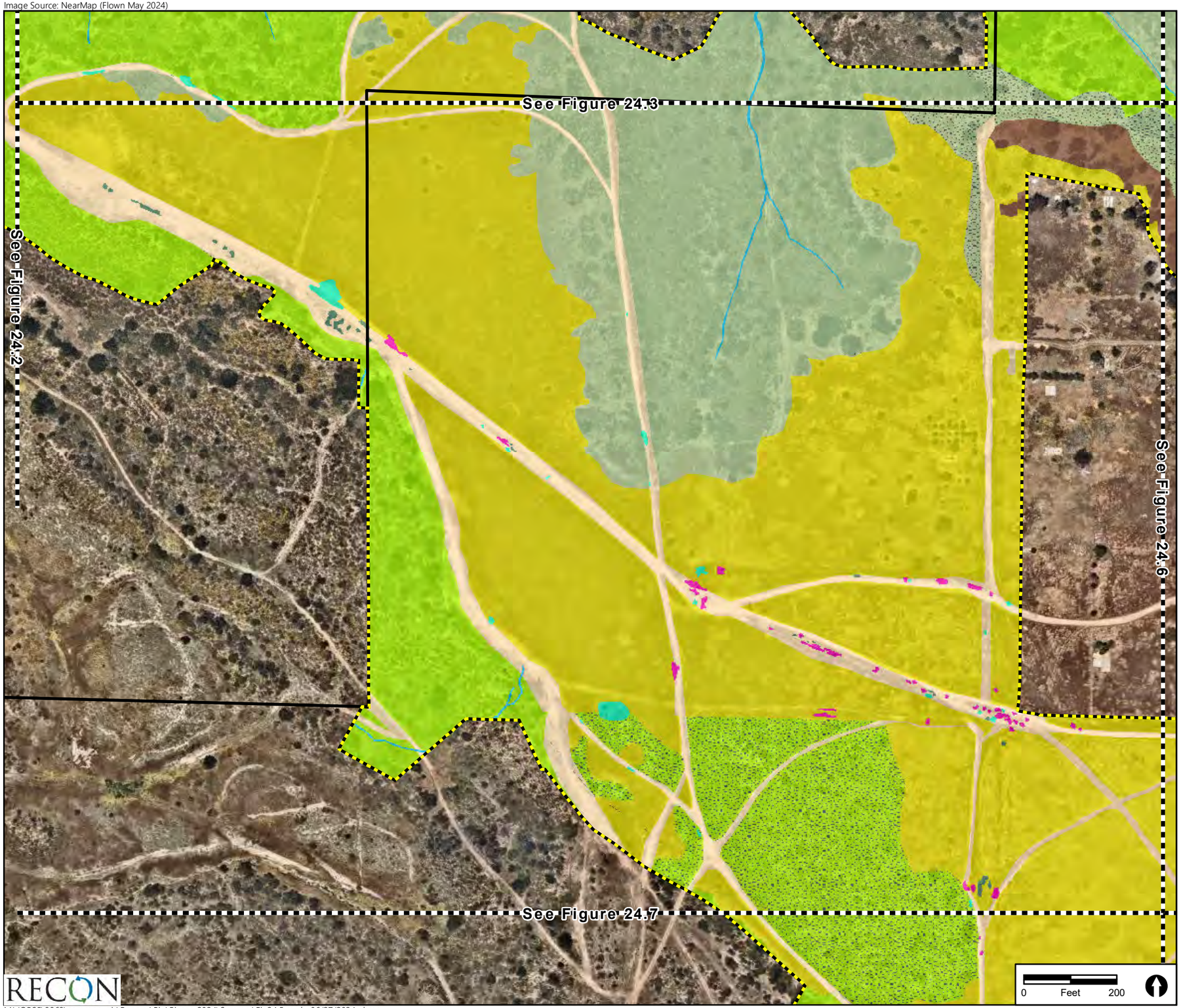
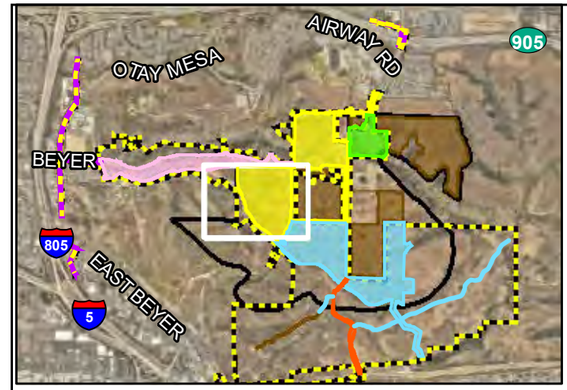
FIGURE 24.4
Existing Biological Resources -
Vegetation Communities/Land Cover Types

Image Source: NearMap (Flown May 2024)





Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area

Southwest Village Vegetation

- Diegan Coastal Sage Scrub
- Disturbed Diegan Coastal Sage Scrub
- Eucalyptus Woodland
- Maritime Succulent Scrub
- Disturbed Maritime Succulent Scrub
- Non-native Grassland
- Vernal Pool
- Vernal Pool with Fairy Shrimp
- Disturbed Wetland
- Natural Flood Channel
- Disturbed Land

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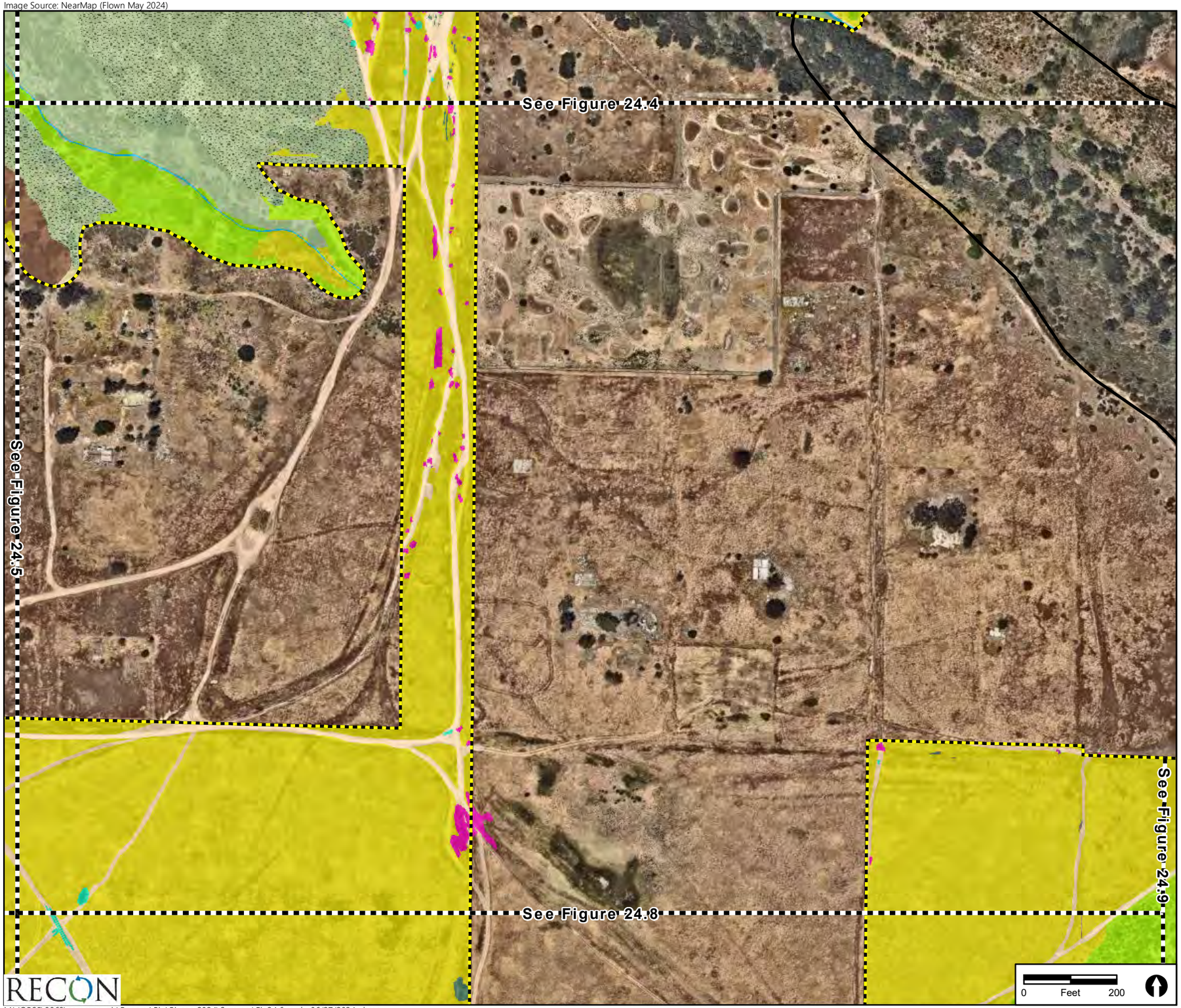
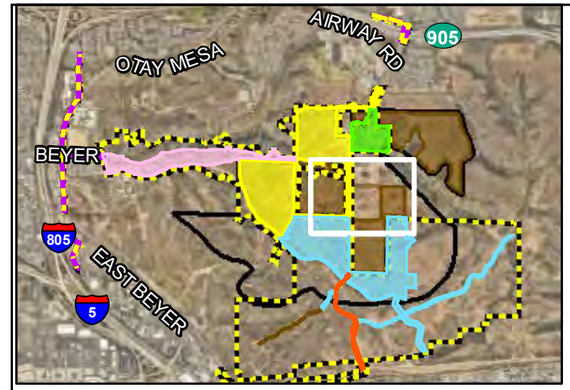
FIGURE 24.5
Existing Biological Resources -
Vegetation Communities/Land Cover Types

Image Source: NearMap (Flown May 2024)





Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area

Southwest Village Vegetation

- Diegan Coastal Sage Scrub
- Disturbed Diegan Coastal Sage Scrub
- Eucalyptus Woodland
- Maritime Succulent Scrub
- Non-native Grassland
- Vernal Pool
- Vernal Pool with Fairy Shrimp
- Disturbed Wetland
- Natural Flood Channel
- Disturbed Land

RECON

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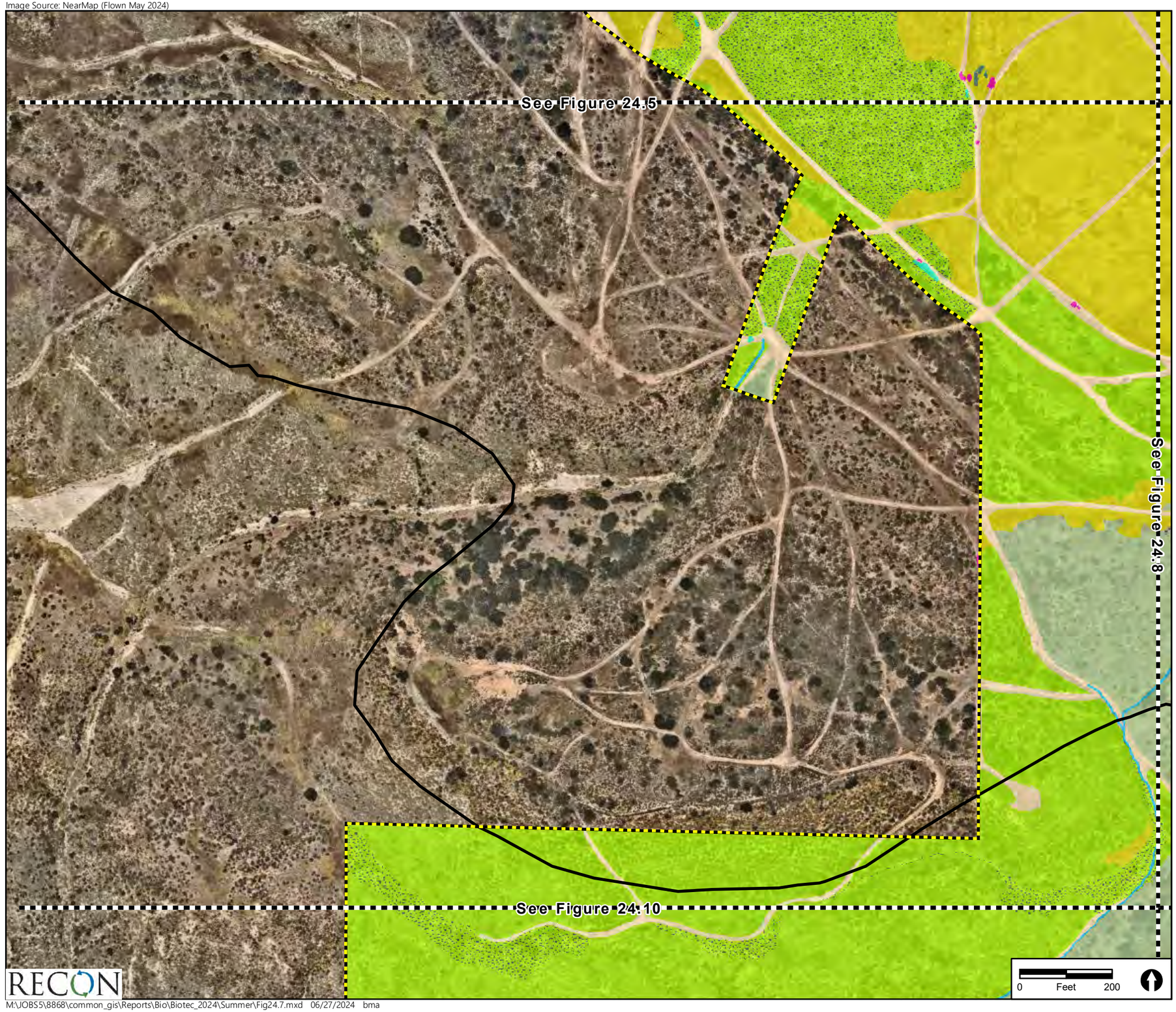
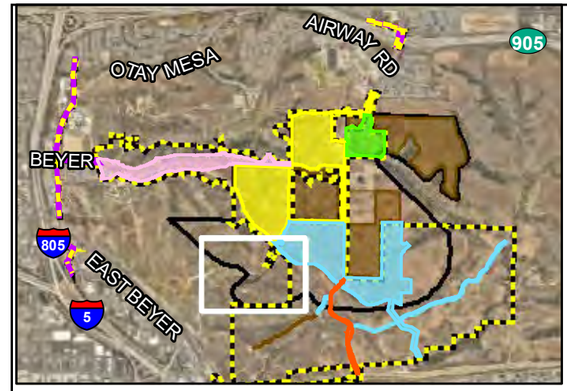
FIGURE 24.6
Existing Biological Resources -
Vegetation Communities/Land Cover Types

Image Source: NearMap (Flown May 2024)





Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area

Southwest Village Vegetation

- Diegan Coastal Sage Scrub
- Disturbed Diegan Coastal Sage Scrub
- Maritime Succulent Scrub
- Disturbed Maritime Succulent Scrub
- Non-native Grassland
- Vernal Pool
- Vernal Pool with Fairy Shrimp
- Disturbed Wetland
- Natural Flood Channel
- Disturbed Land

RECON

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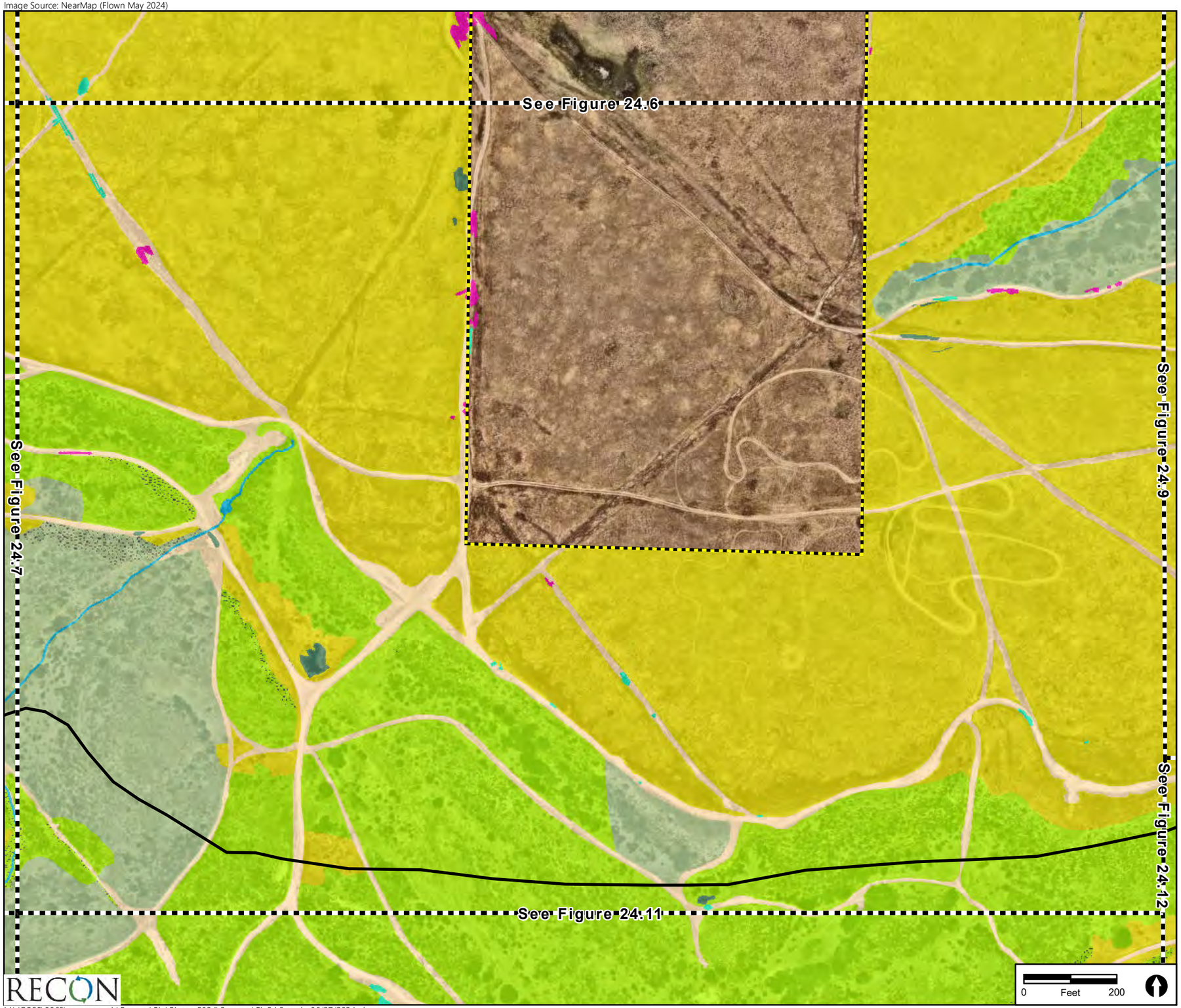
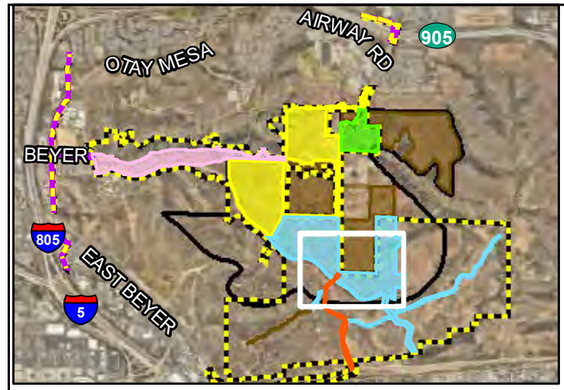
FIGURE 24.7
Existing Biological Resources -
Vegetation Communities/Land Cover Types

Image Source: NearMap (Flown May 2024)





Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area

Southwest Village Vegetation

- Diegan Coastal Sage Scrub
- Disturbed Diegan Coastal Sage Scrub
- Maritime Succulent Scrub
- Disturbed Maritime Succulent Scrub
- Non-native Grassland
- Vernal Pool
- Vernal Pool with Fairy Shrimp
- Disturbed Wetland
- Natural Flood Channel
- Disturbed Land

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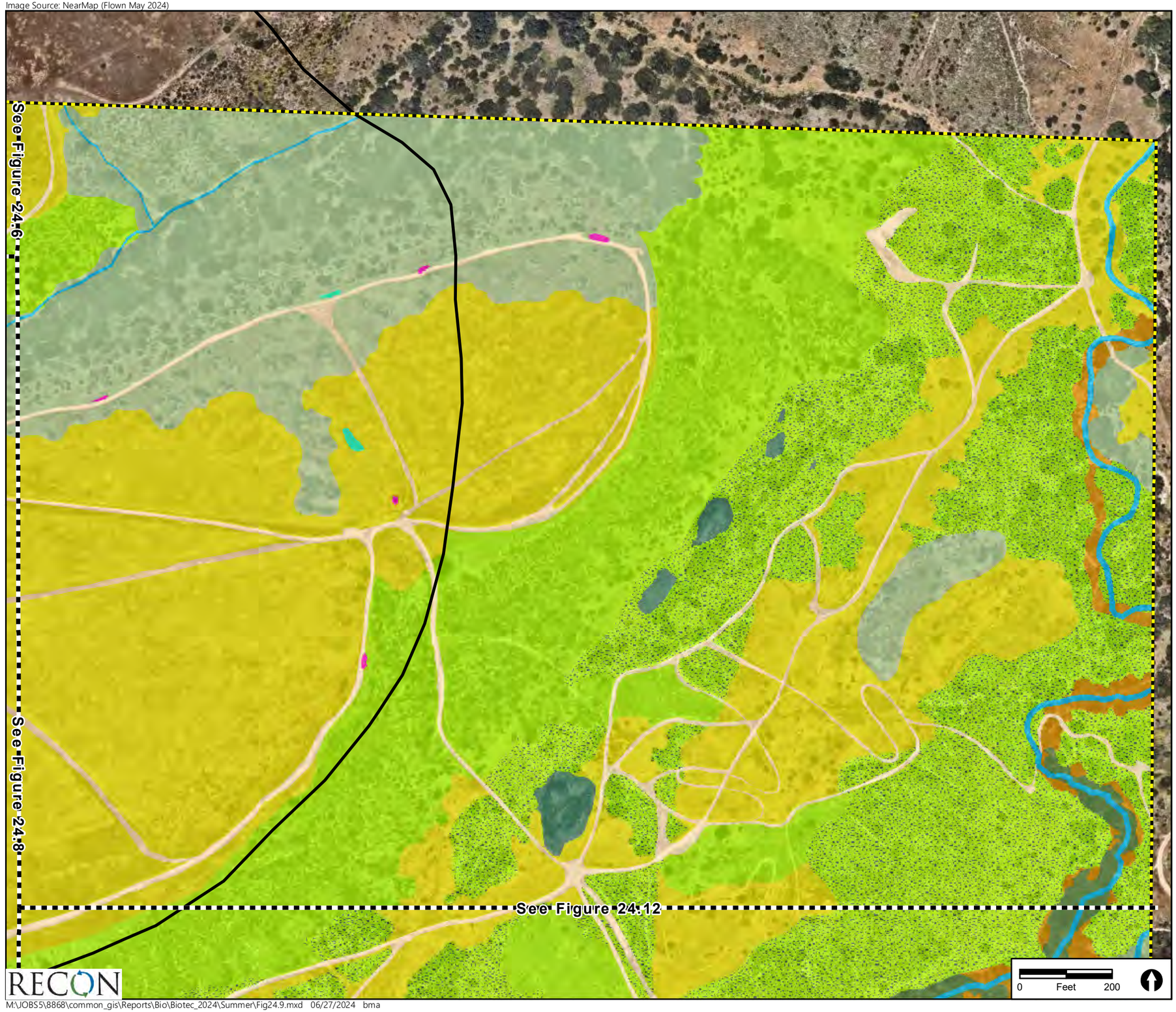
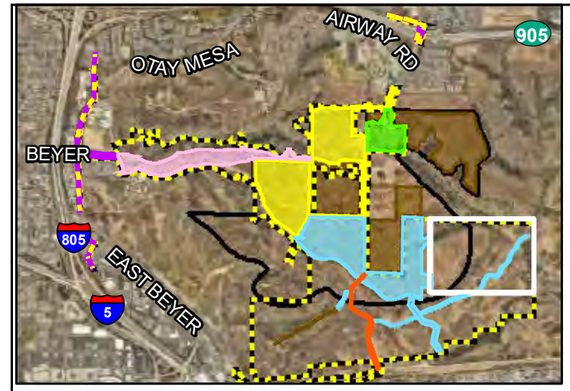
FIGURE 24.8
Existing Biological Resources -
Vegetation Communities/Land Cover Types

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Southwest Village Vegetation

- Diegan Coastal Sage Scrub
- Maritime Succulent Scrub
- Disturbed Maritime Succulent Scrub
- Mule Fat Scrub
- Tamarisk Scrub
- Non-native Grassland
- Vernal Pool
- Vernal Pool with Fairy Shrimp
- Disturbed Wetland
- Natural Flood Channel
- Disturbed Land

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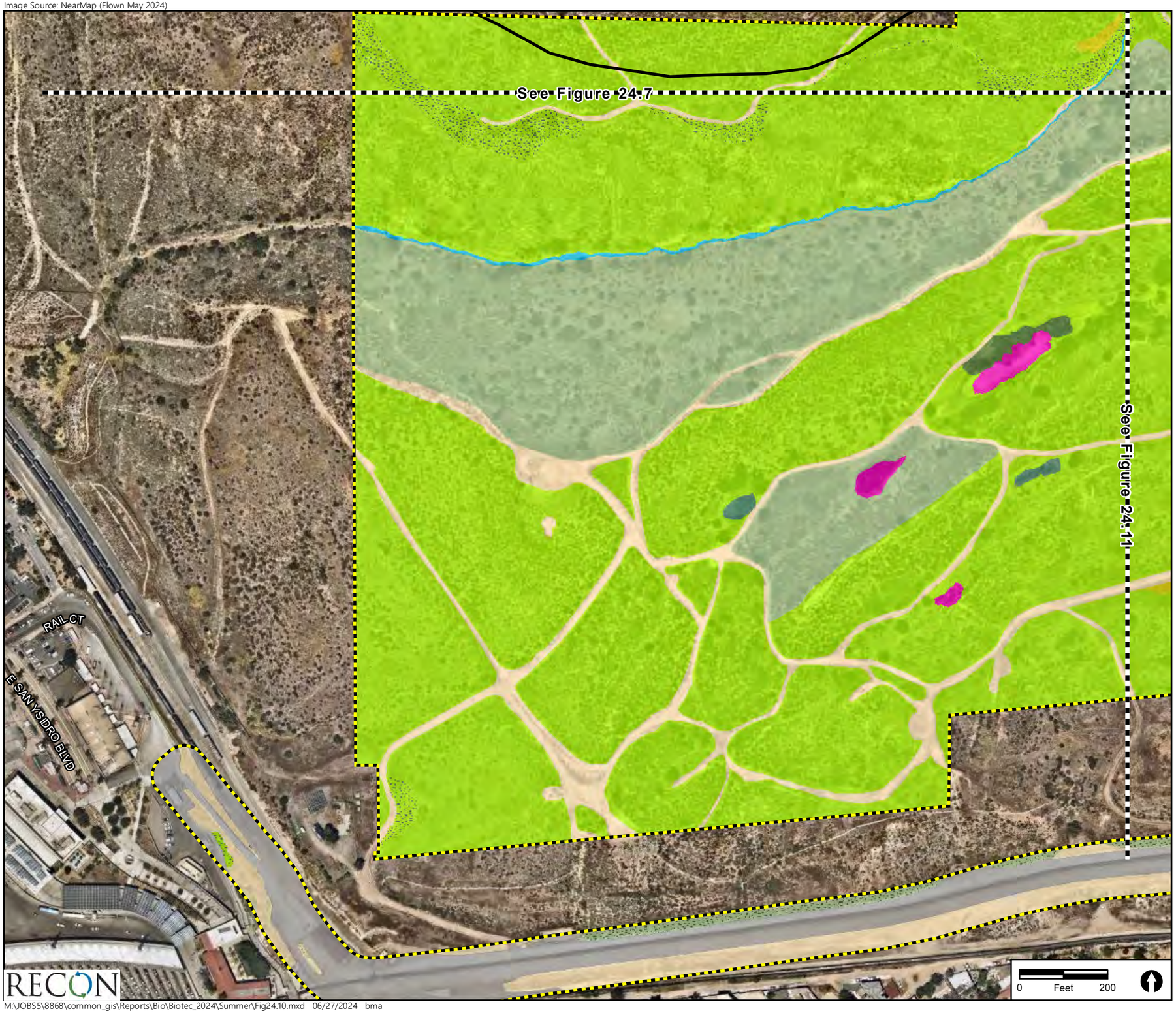
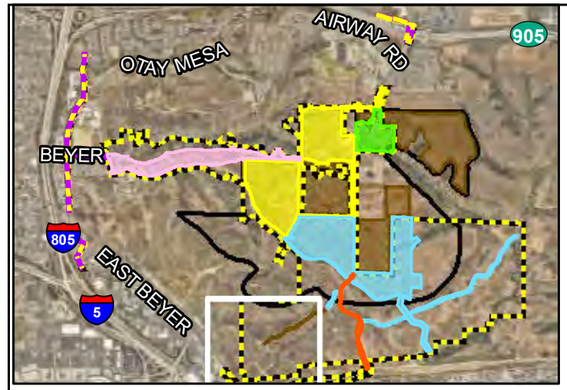
FIGURE 24.9
Existing Biological Resources -
Vegetation Communities/Land Cover Types

Image Source: NearMap (Flown May 2024)





Project-level Phasing
- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area

Southwest Village Vegetation
- Diegan Coastal Sage Scrub
- Disturbed Diegan Coastal Sage Scrub
- Maritime Succulent Scrub
- Disturbed Maritime Succulent Scrub
- Tamarisk Scrub
- Non-native Grassland
- Vernal Pool with Fairy Shrimp
- Disturbed Wetland
- Natural Flood Channel
- Disturbed Land
- Urban/Developed Land

RECON

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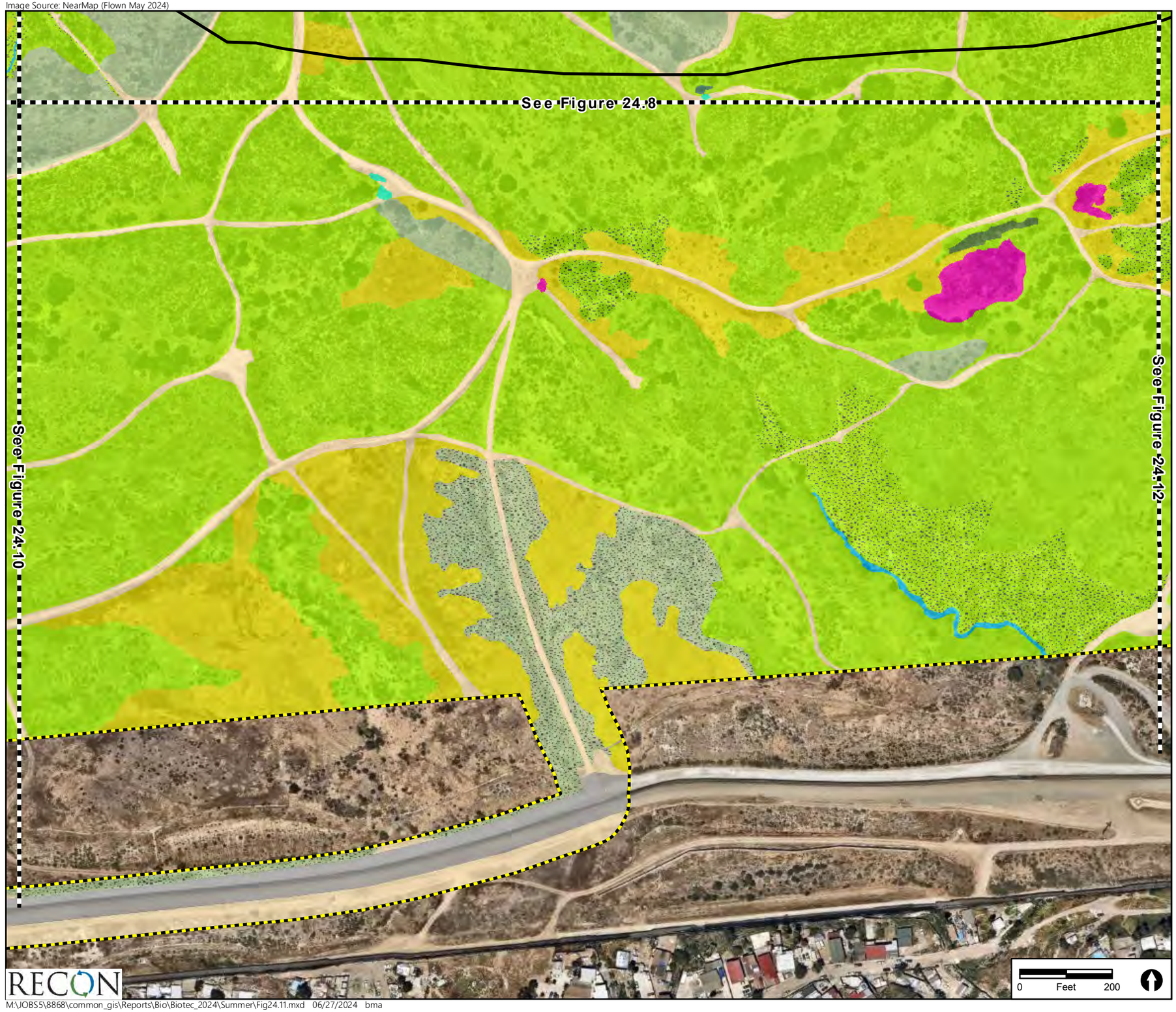
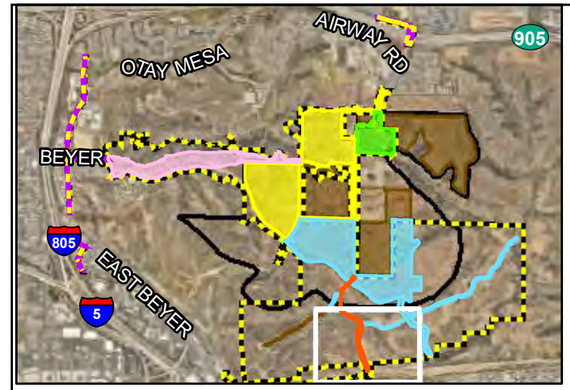
FIGURE 24.10
Existing Biological Resources -
Vegetation Communities/Land Cover Types

Image Source: NearMap (Flown May 2024)





Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area

Southwest Village Vegetation

- Diegan Coastal Sage Scrub
- Disturbed Diegan Coastal Sage Scrub
- Maritime Succulent Scrub
- Disturbed Maritime Succulent Scrub
- Tamarisk Scrub
- Non-native Grassland
- Vernal Pool
- Vernal Pool with Fairy Shrimp
- Disturbed Wetland
- Natural Flood Channel
- Disturbed Land
- Urban/Developed Land

RECON

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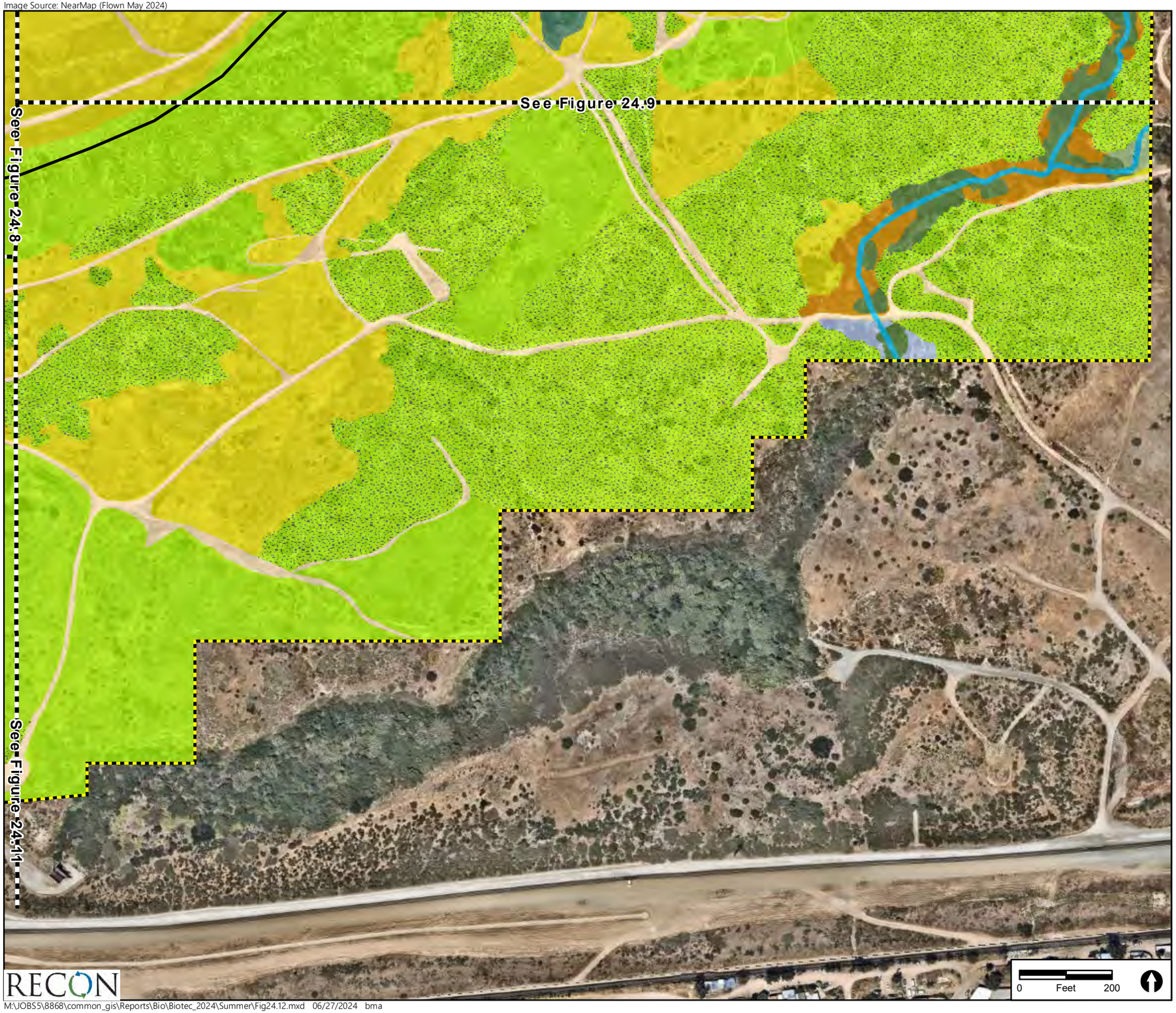
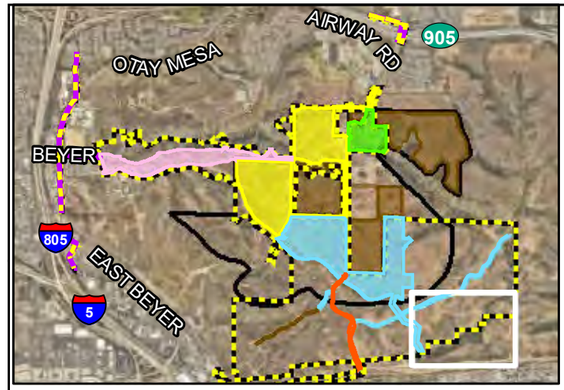
FIGURE 24.11
Existing Biological Resources -
Vegetation Communities/Land Cover Types

Image Source: NearMap (Flown May 2024)





Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area

Southwest Village Vegetation

- Diegan Coastal Sage Scrub
- Maritime Succulent Scrub
- Disturbed Maritime Succulent Scrub
- Mule Fat Scrub
- Tamarisk Scrub
- Non-native Grassland
- Southern Willow Scrub
- Disturbed Wetland
- Natural Flood Channel
- Disturbed Land

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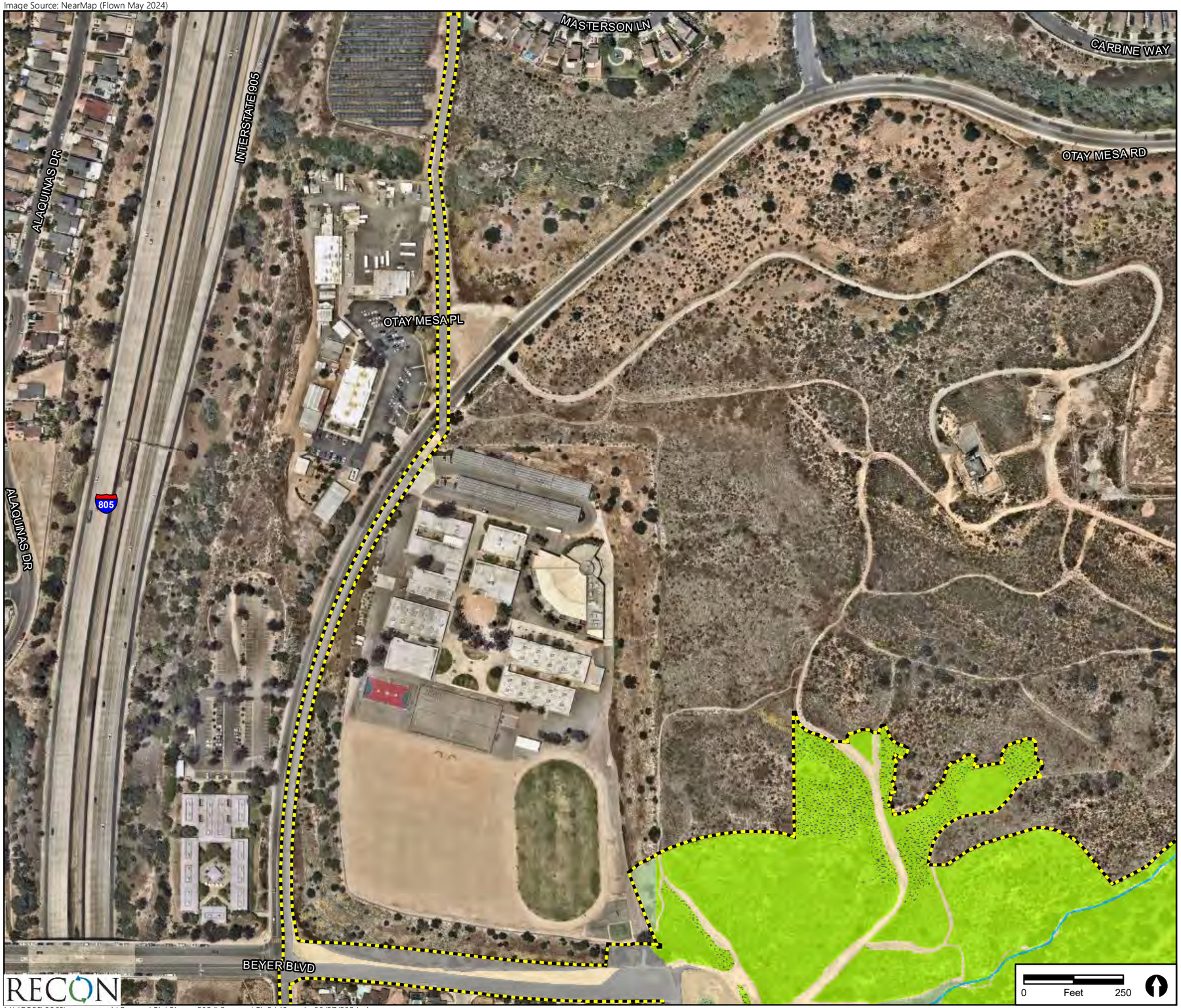
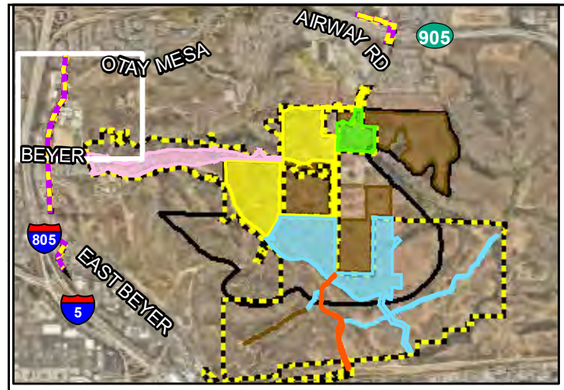
FIGURE 24.12
Existing Biological Resources -
Vegetation Communities/Land Cover Types

Image Source: NearMap (Flown May 2024)





Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area

Southwest Village Vegetation

- Diegan Coastal Sage Scrub
- Disturbed Diegan Coastal Sage Scrub
- Maritime Succulent Scrub
- Disturbed Maritime Succulent Scrub
- Natural Flood Channel
- Disturbed Land
- Urban/Developed Land

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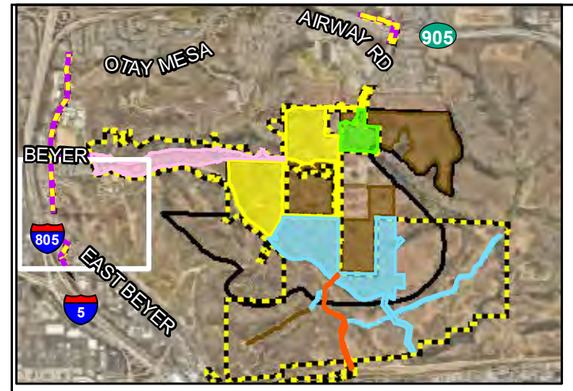
FIGURE 24.13
Existing Biological Resources -
Vegetation Communities/Land Cover Types

Image Source: NearMap (Flown May 2024)



Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area

Southwest Village Vegetation

- Diegan Coastal Sage Scrub
- Disturbed Diegan Coastal Sage Scrub
- Maritime Succulent Scrub
- Disturbed Maritime Succulent Scrub
- Mule Fat Scrub
- Natural Flood Channel
- Disturbed Land
- Urban/Developed Land

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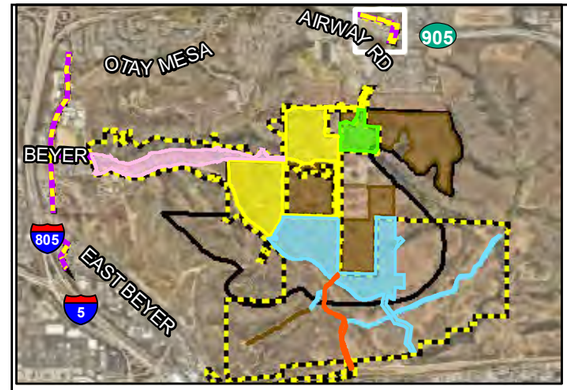
FIGURE 24.14
Existing Biological Resources -
Vegetation Communities/Land Cover Types

Image Source: NearMap (Flown May 2024)



Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area

Southwest Village Vegetation

- Disturbed Land
- Urban/Developed Land

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FIGURE 24.15
Existing Biological Resources -
Vegetation Communities/Land Cover Types

Map Source: Wildlife Tracking Company 2020

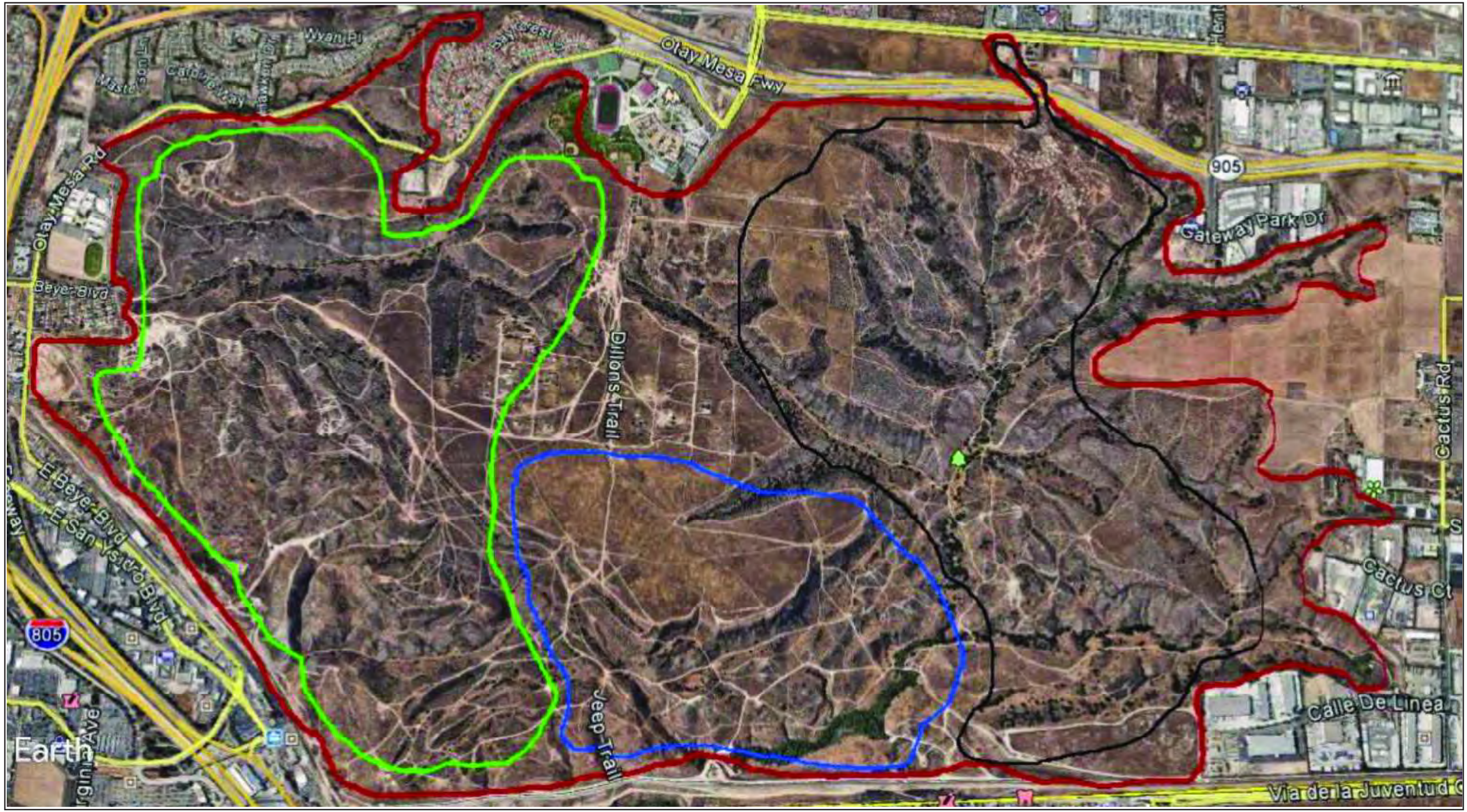

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FIGURE 25.1
Wildlife Tracking Study Area

Map Source: Wildlife Tracking Company 2020

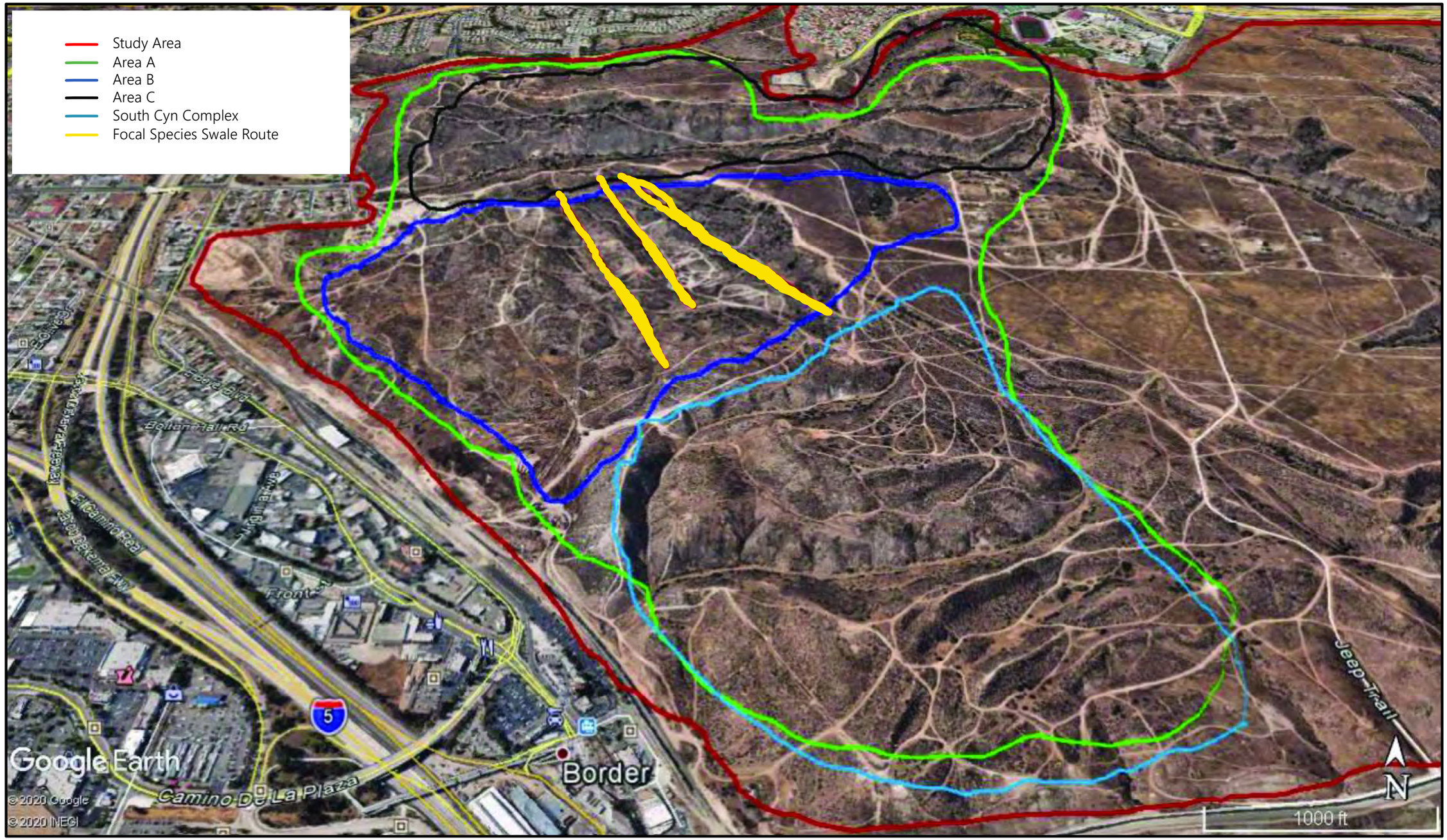

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FIGURE 25.2
Focal Species Swale Routes

Map Source: Wildlife Tracking Company 2020

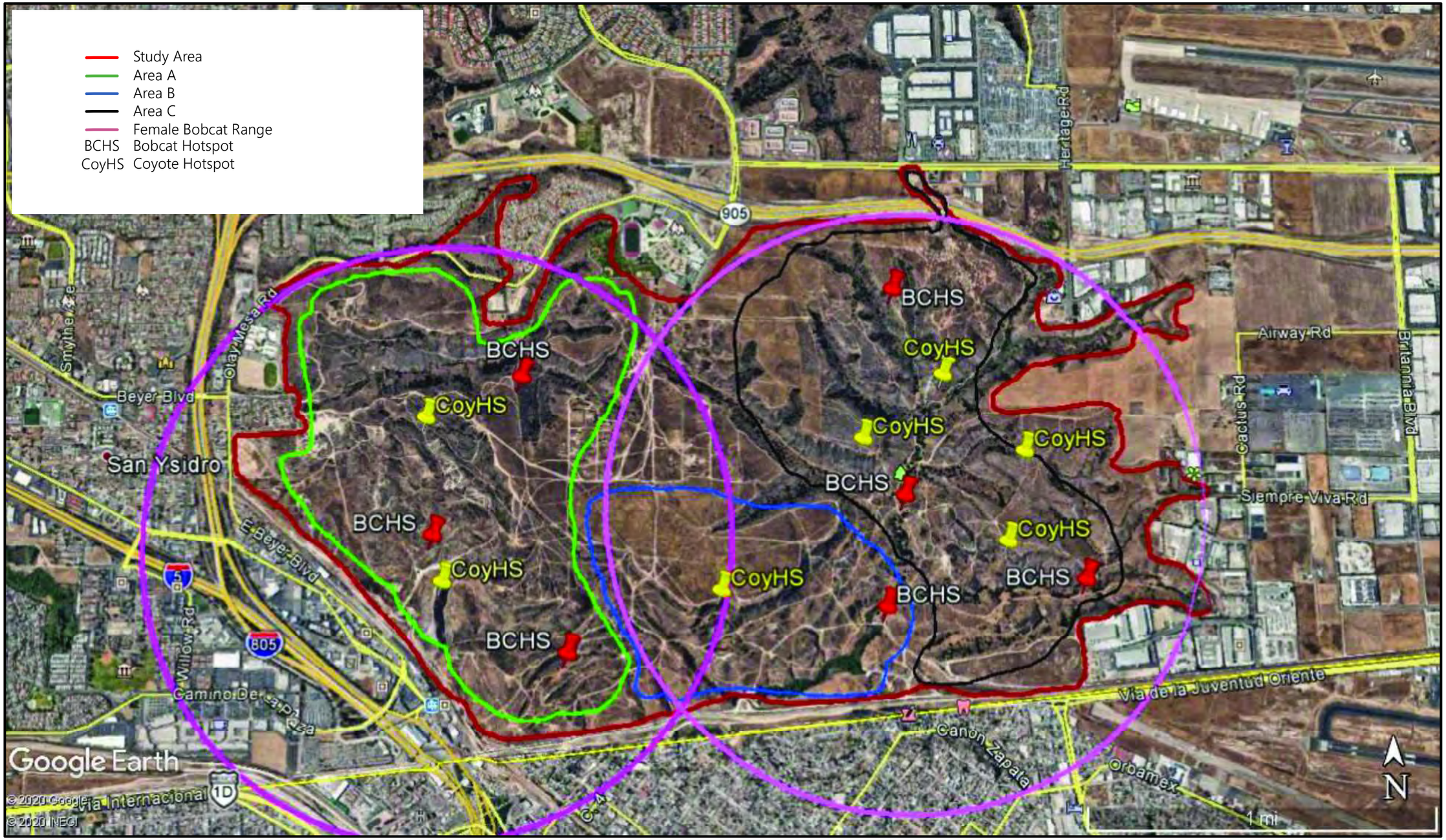

FIGURE 25.3
Coyote and Bobcat Hotspots

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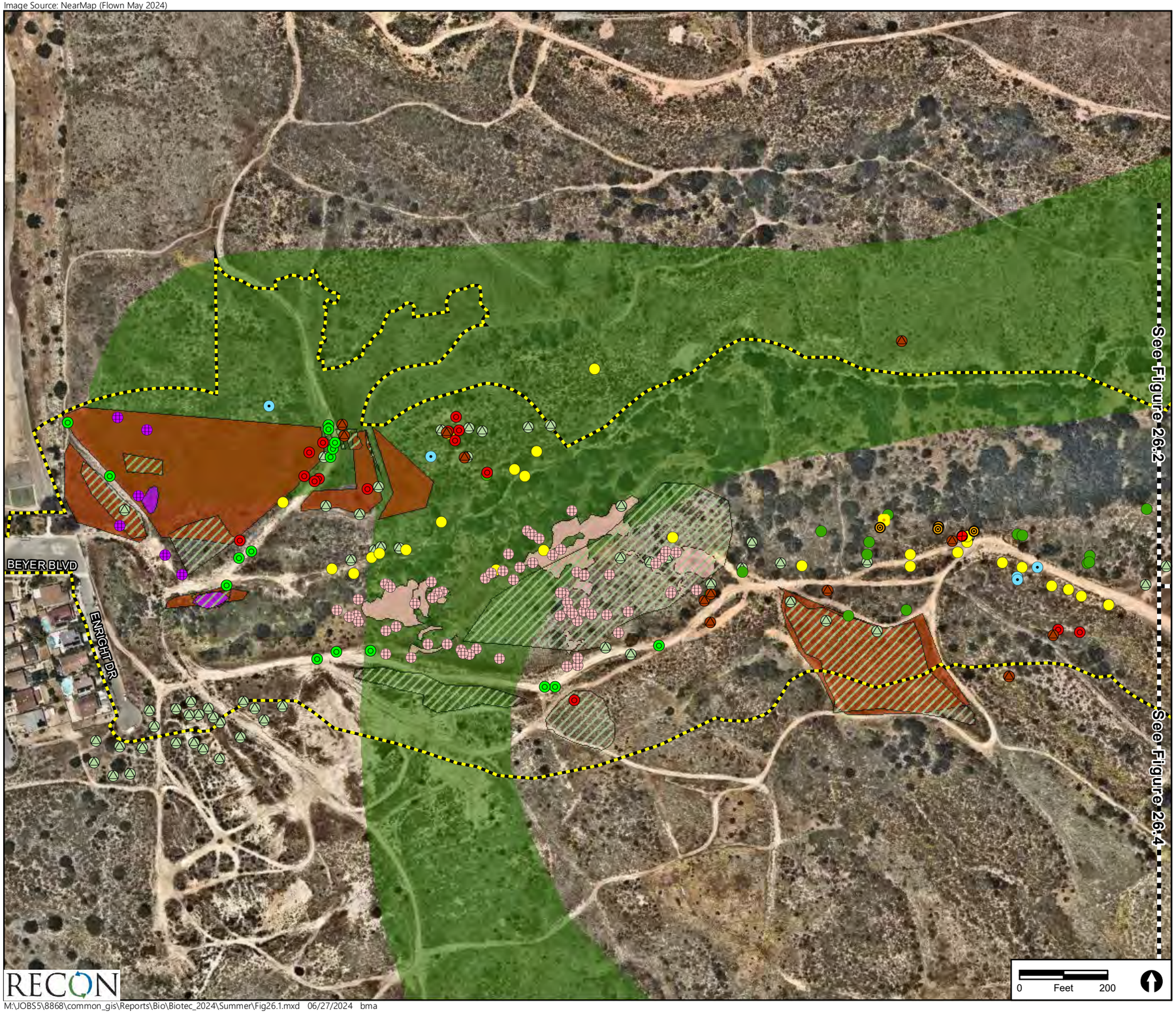
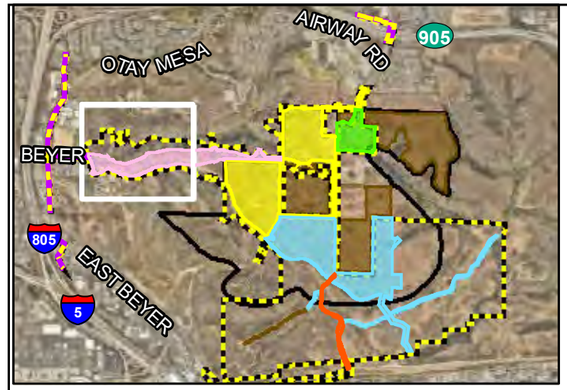
Image Source: NearMap (Flown May 2024)





Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Project-level Survey Area
- City of SD MHPA

Sensitive Plants

- San Diego Bur-sage (*Ambrosia chenopodiifolia*)
- Ashy Spike-moss (*Selaginella cinerascens*)
- California Boxthorn (*Lycium californicum*)
- Cliff Spurge (*Euphorbia misera*)
- Otay Tarplant (*Deinandra conjugens*)
- San Diego Barrel Cactus (*Ferocactus viridescens*)
- San Diego County Viguiera (*Bahiopsis laciniata*)
- Decumbent Goldenbush (*Isocoma menziesii* var. *decumbens*)
- Western Dichondra (*Dichondra occidentalis*)
- San Diego County Needle Grass (*Stipa diegoensis*)
- Snake Cholla (*Cylindropuntia californica* var. *californica*)
- South Coast Saltscale (*Atriplex pacifica*)

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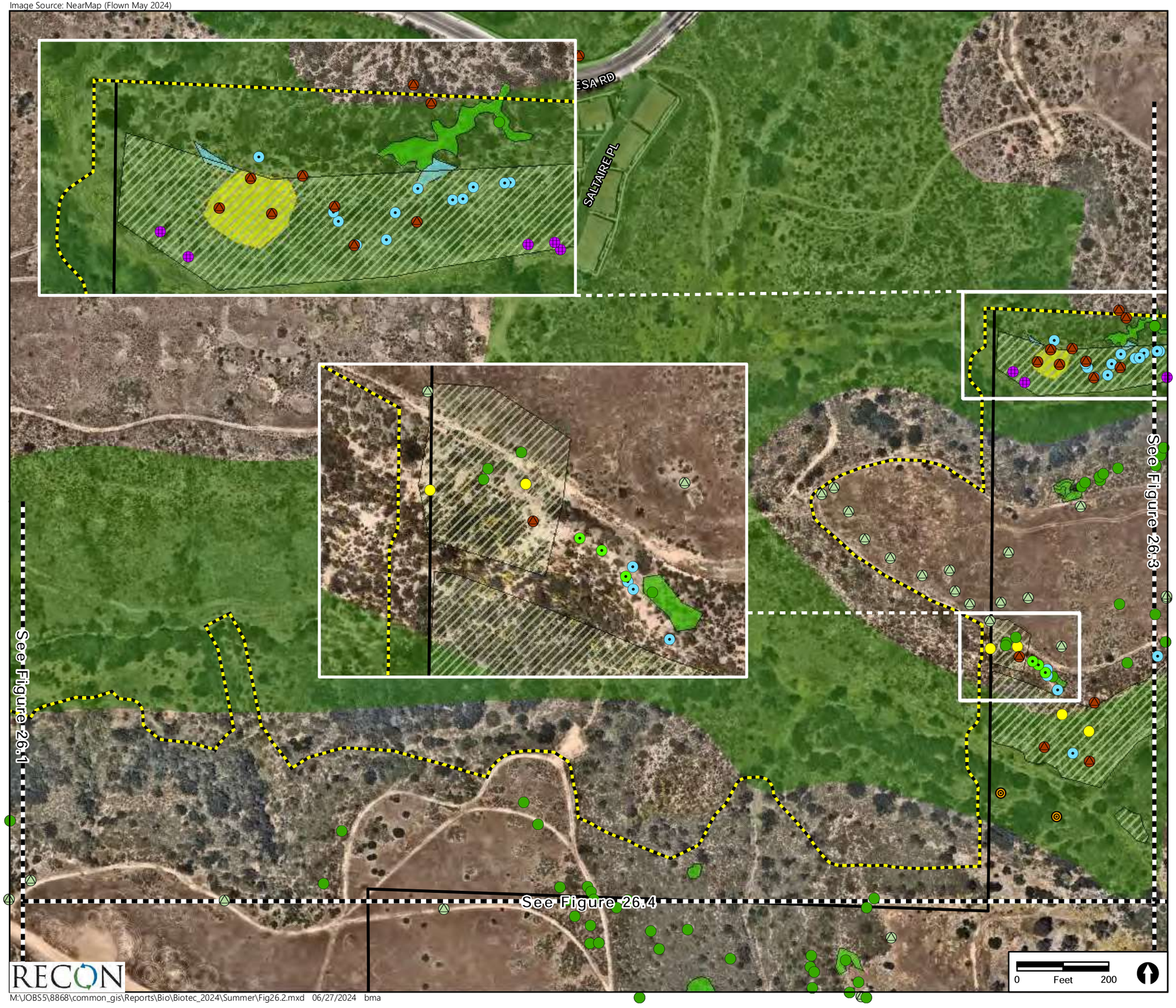
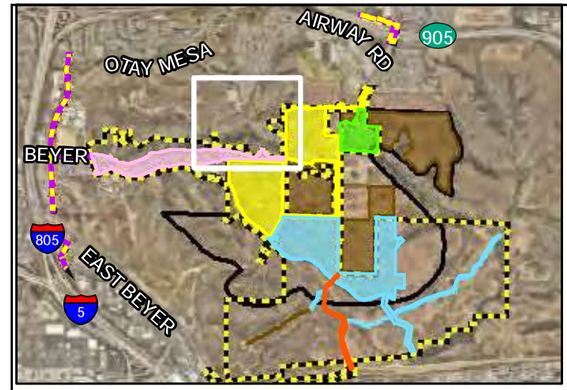
FIGURE 26.1
Existing Biological Resources - Sensitive Plant Species

Image Source: NearMap (Flown May 2024)





Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area
- City of SD MHPA

Sensitive Plants

- San Diego Bur-sage (*Ambrosia chenopodiifolia*)
- Ashy Spike-moss (*Selaginella cinerascens*)
- California Boxthorn (*Lycium californicum*)
- Cliff Spurge (*Euphorbia misera*)
- San Diego Barrel Cactus (*Ferocactus viridescens*)
- San Diego County Viguiera (*Bahiopsis laciniata*)
- Palmer's Grapplinghook (*Harpagonella palmeri*)
- San Diego County Needle Grass (*Stipa diegoensis*)

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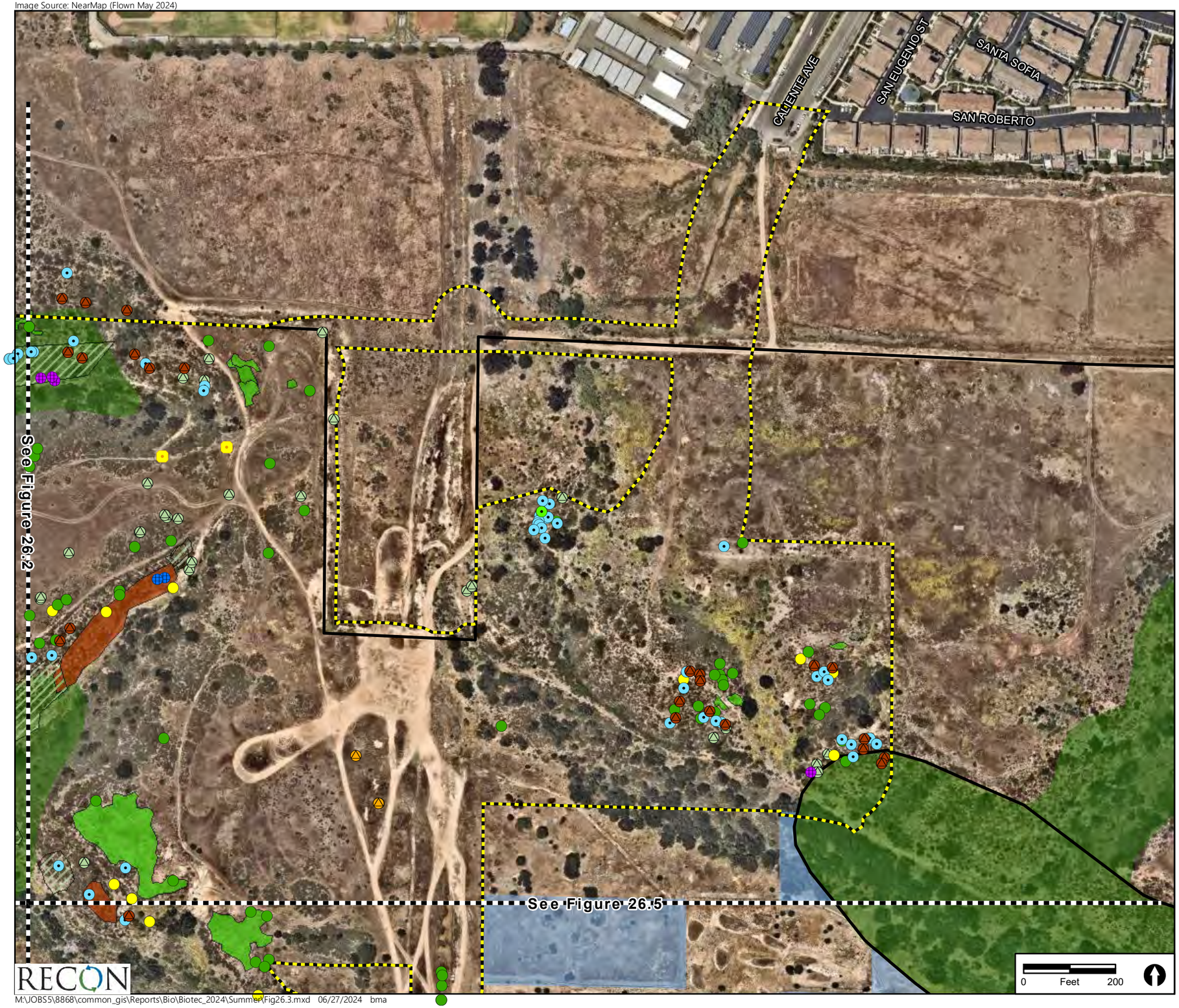
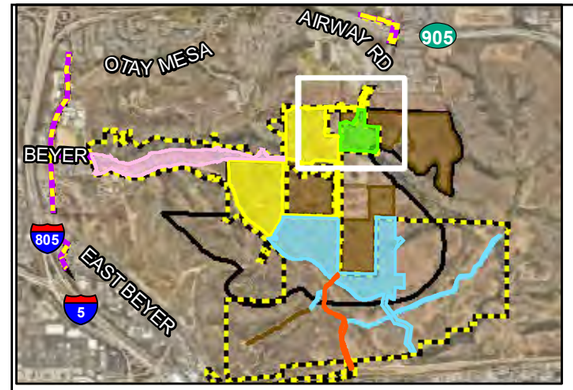
FIGURE 26.2
Existing Biological Resources - Sensitive Plant Species

Image Source: NearMap (Flown May 2024)





Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area
- City of SD MHPA
- VPHCP MHPA

Sensitive Plants

- San Diego Bur-sage (*Ambrosia chenopodiifolia*)
- Ashy Spike-moss (*Selaginella cinerascens*)
- California Boxthorn (*Lycium californicum*)
- Cliff Spurge (*Euphorbia misera*)
- San Diego Barrel Cactus (*Ferocactus viridescens*)
- San Diego County Viguiera (*Bahiopsis laciniata*)
- Decumbent Goldenbush (*Isocoma menziesii* var. *decumbens*)
- Palmer's Grapplinghook (*Harpagonella palmeri*)
- San Diego Button Celery (*Eryngium aristulatum* var. *parishii*)
- Seaside Cistanthe (*Cistanthe maritima*)

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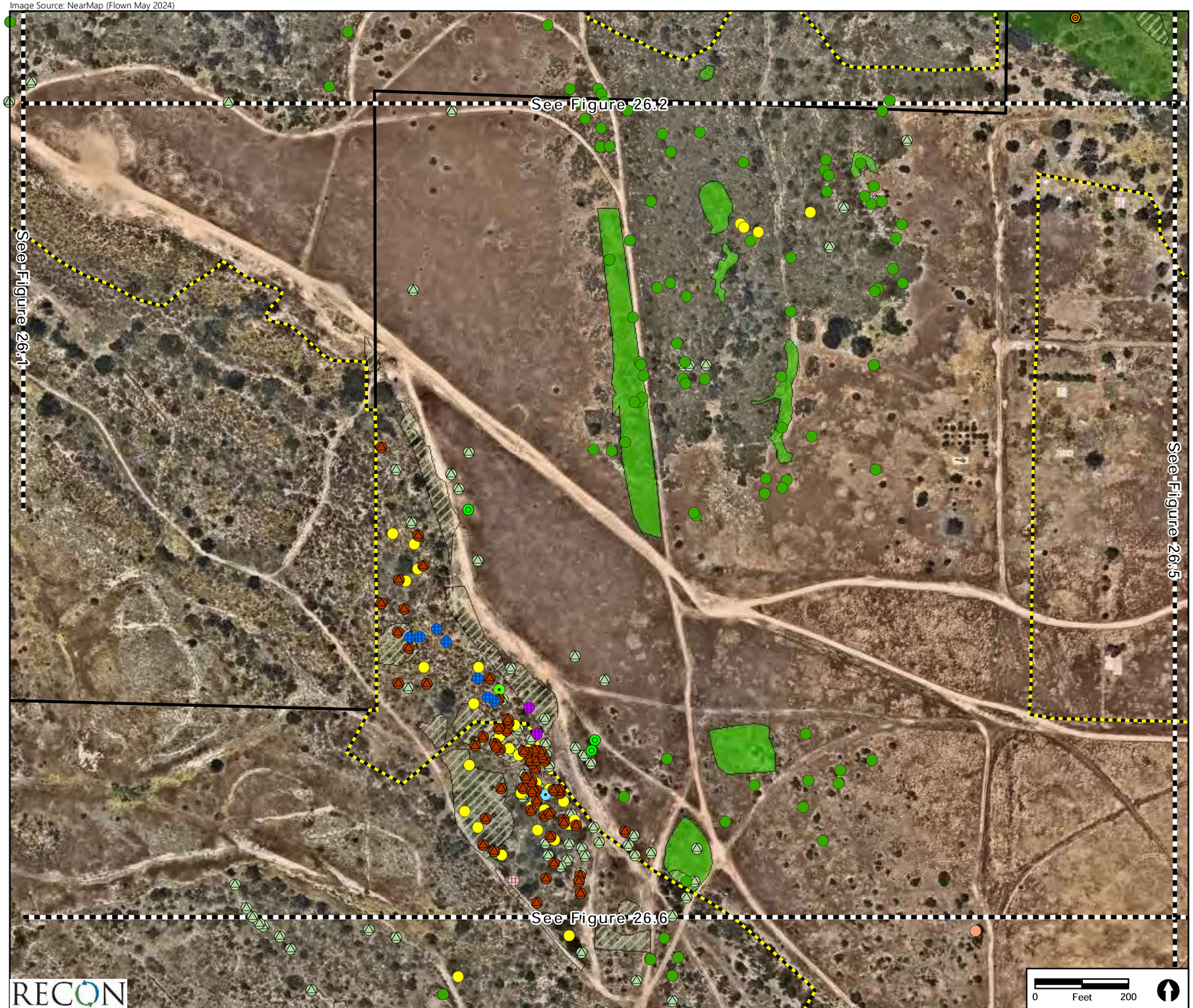
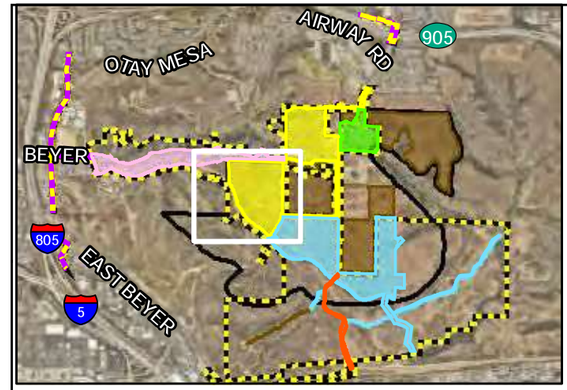
FIGURE 26.3
Existing Biological Resources - Sensitive Plant Species

Image Source: NearMap (Flown May 2024)





Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area
- City of SD MHPA

Sensitive Plants

- San Diego Bur-sage (*Ambrosia chenopodiifolia*)
- Ashy Spike-moss (*Selaginella cinerascens*)
- California Boxthorn (*Lycium californicum*)
- Cliff Spurge (*Euphorbia misera*)
- Otay Tarplant (*Deinandra conjugens*)
- San Diego Barrel Cactus (*Ferocactus viridescens*)
- San Diego County Viguiera (*Bahiopsis laciniata*)
- Palmer's Grapplinghook (*Harpagonella palmeri*)
- San Diego County Needle Grass (*Stipa diegoensis*)
- California Adolphia (*Adolphia californica*)
- Seaside Cistanthe (*Cistanthe maritima*)
- South Coast Saltscale (*Atriplex pacifica*)

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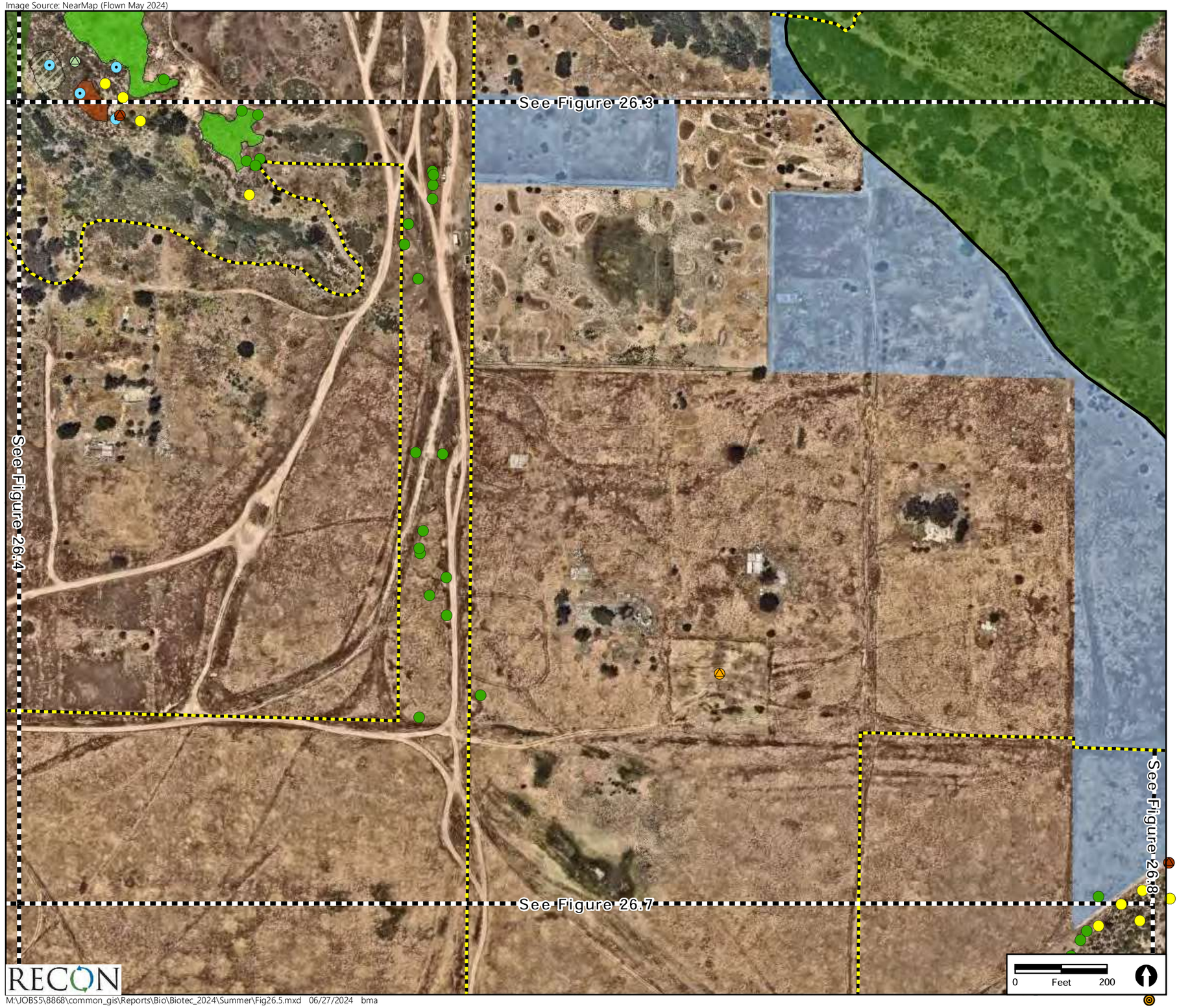
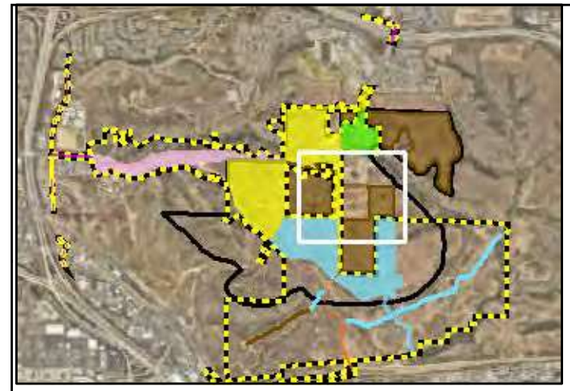
FIGURE 26.4
Existing Biological Resources - Sensitive Plant Species

Image Source: NearMap (Flown May 2024)





Project-level Phasing
- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area
- City of SD MHPA
- VPHCP MHPA

Sensitive Plants
- San Diego Bur-sage (*Ambrosia chenopodiifolia*)
- Ashy Spike-moss (*Selaginella cinerascens*)
- Cliff Spurge (*Euphorbia misera*)
- San Diego Barrel Cactus (*Ferocactus viridescens*)
- San Diego County Viguiera (*Bahiopsis laciniata*)
- San Diego Button Celery (*Eryngium aristulatum* var. *parishii*)

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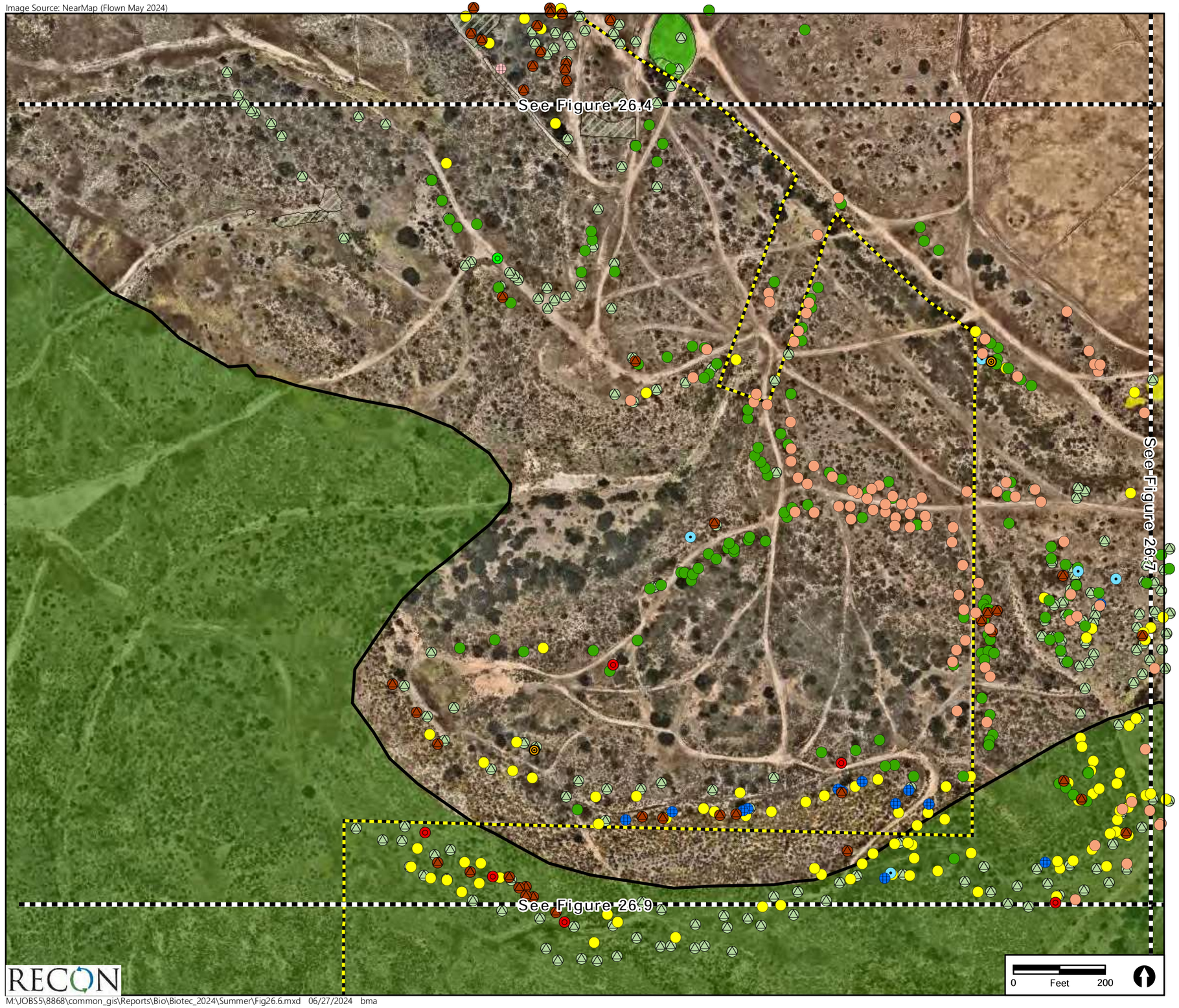
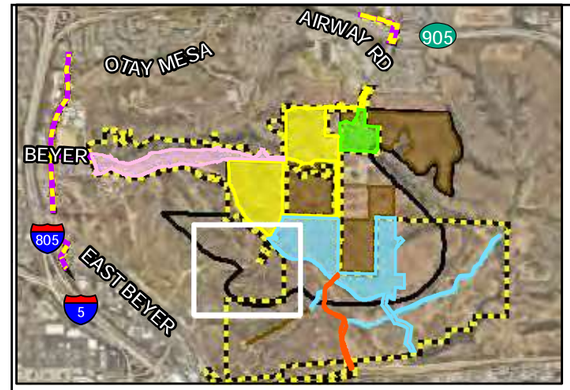
FIGURE 26.5
Existing Biological Resources - Sensitive Plant Species

Image Source: NearMap (Flown May 2024)





Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area
- City of SD MHPA

Sensitive Plants

- San Diego Bur-sage (*Ambrosia chenopodiifolia*)
- Ashy Spike-moss (*Selaginella cinerascens*)
- Cliff Spurge (*Euphorbia misera*)
- Otay Tarplant (*Deinandra conjugens*)
- San Diego Barrel Cactus (*Ferocactus viridescens*)
- San Diego County Viguiera (*Bahiopsis laciniata*)
- California Adolphia (*Adolphia californica*)
- San Diego County Needle Grass (*Stipa diegoensis*)
- Seaside Cistanthe (*Cistanthe maritima*)
- Snake Cholla (*Cylindropuntia californica* var. *californica*)
- South Coast Saltscale (*Atriplex pacifica*)

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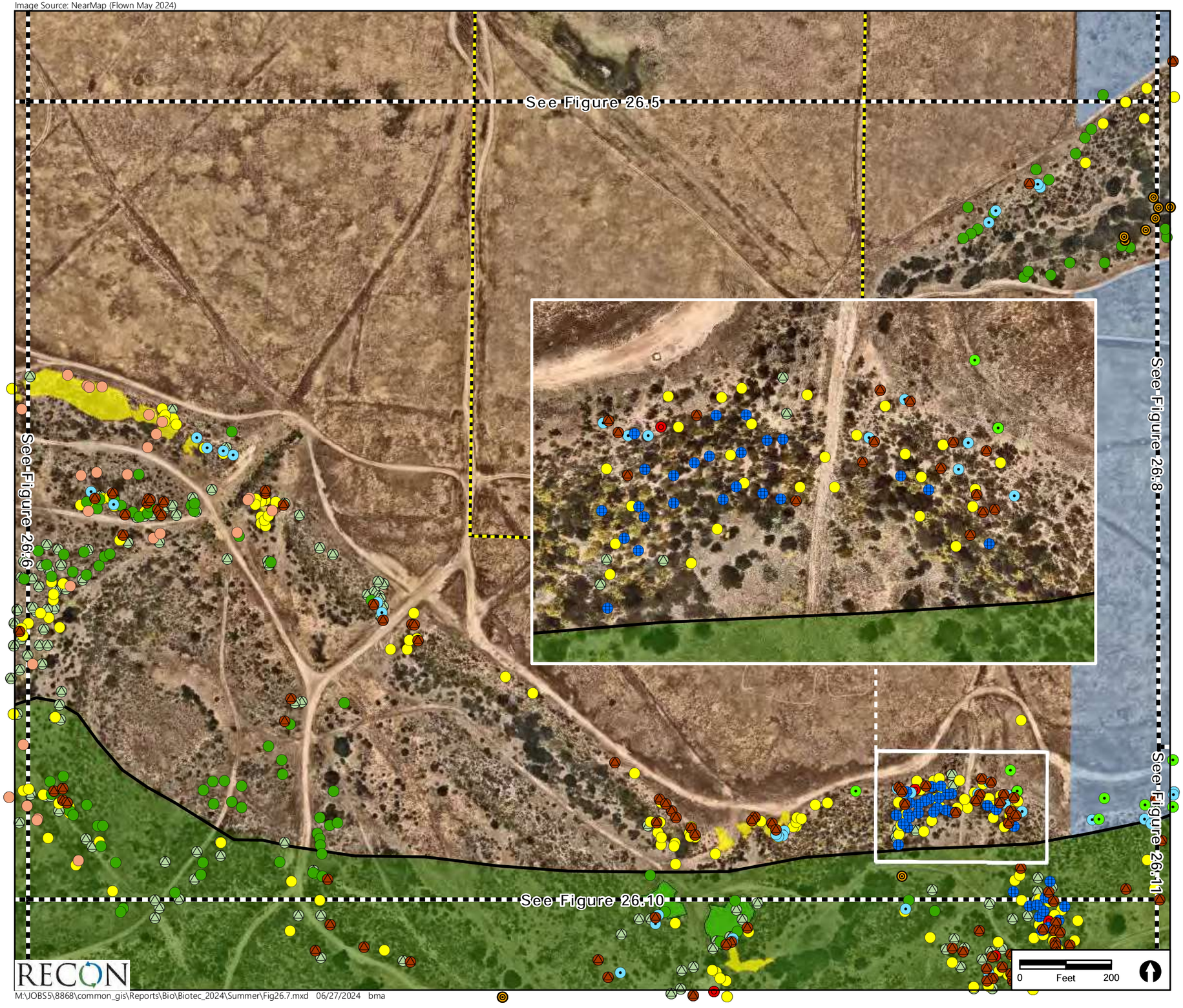
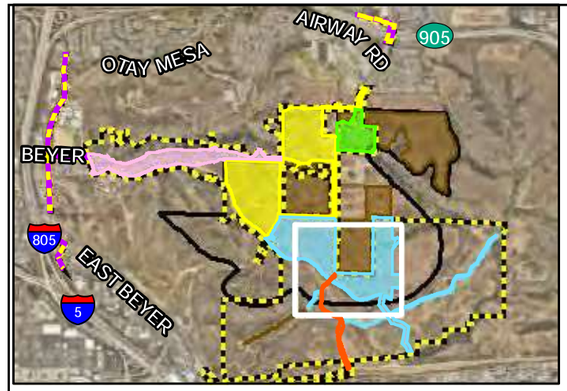
FIGURE 26.6
Existing Biological Resources - Sensitive Plant Species

Image Source: NearMap (Flown May 2024)





Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area
- City of SD MHPA
- VPHCP MHPA

Sensitive Plants

- San Diego Bur-sage (*Ambrosia chenopodiifolia*)
- Ashy Spike-moss (*Selaginella cinerascens*)
- Cliff Spurge (*Euphorbia misera*)
- San Diego Barrel Cactus (*Ferocactus viridescens*)
- San Diego County Viguiera (*Bahiopsis laciniata*)
- California Adolphia (*Adolphia californica*)
- Palmer's Grapplinghook (*Harpagonella palmeri*)
- San Diego County Needle Grass (*Stipa diegoensis*)
- Seaside Cistanthe (*Cistanthe maritima*)
- Snake Cholla (*Cylindropuntia californica* var. *californica*)

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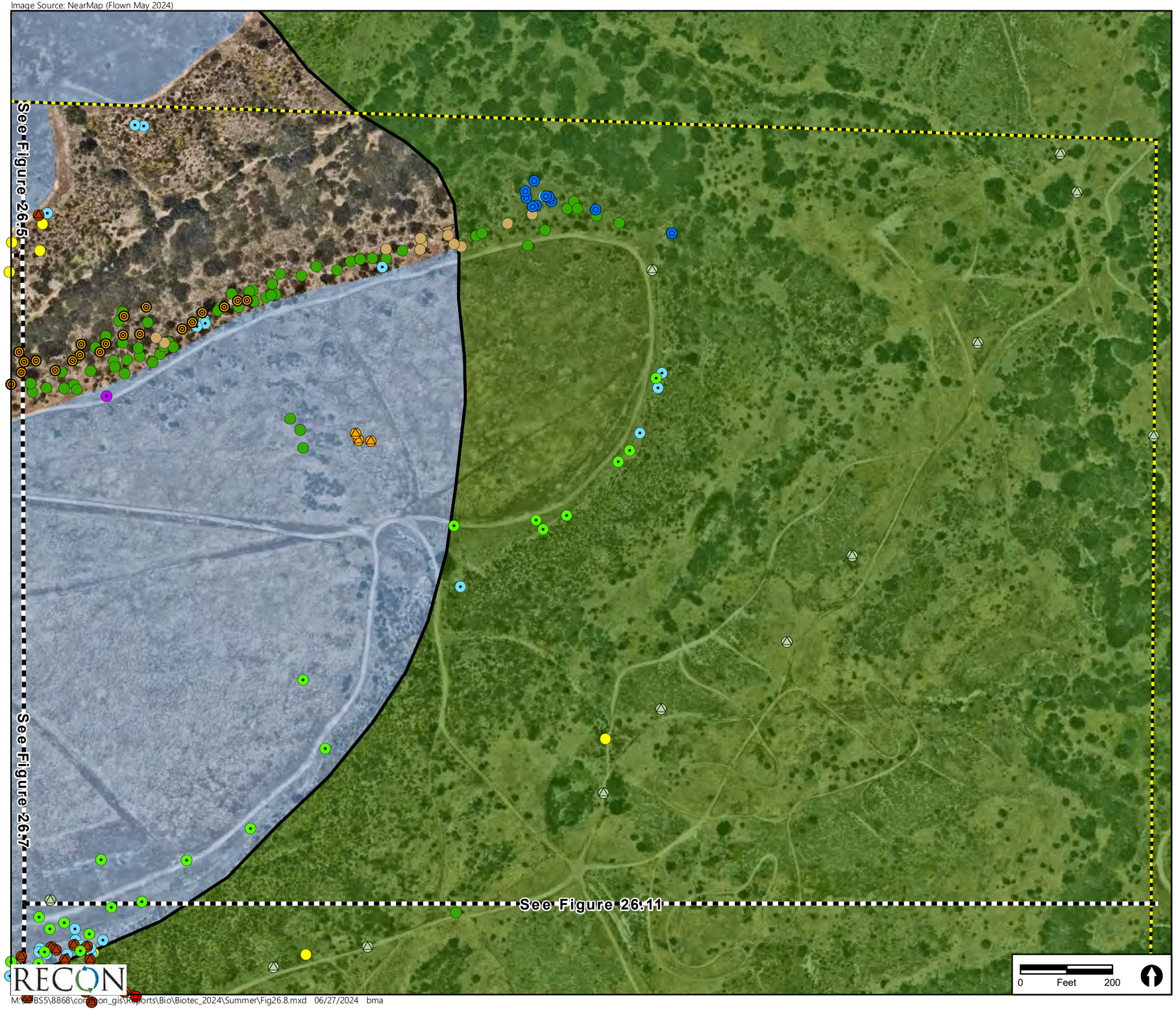
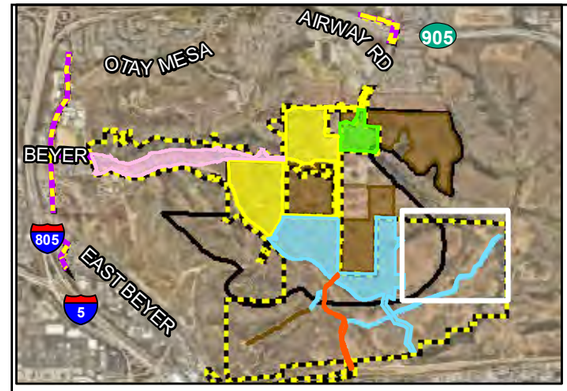
FIGURE 26.7
Existing Biological Resources - Sensitive Plant Species

Image Source: NearMap (Flown May 2024)





Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area
- City of SD MHPA
- VPHCP MHPA

Sensitive Plants

- San Diego Bur-sage (*Ambrosia chenopodiifolia*)
- Ashy Spike-moss (*Selaginella cinerascens*)
- Cliff Spurge (*Euphorbia misera*)
- San Diego Barrel Cactus (*Ferocactus viridescens*)
- Golden-ray Pentachaeta (*Pentachaeta aurea* ssp. *aurea*)
- San Diego County Viguiera (*Bahiopsis laciniata*)
- San Diego Button Celery (*Eryngium aristulatum* var. *parishii*)
- San Diego County Needle Grass (*Stipa diegoensis*)
- Snake Cholla (*Cylindropuntia californica* var. *californica*)
- Bobtail Barley (*Hordeum intercedens*)
- Palmer's Grapplinghook (*Harpagonella palmeri*)
- Variegated Dudleya (*Dudleya variegata*)

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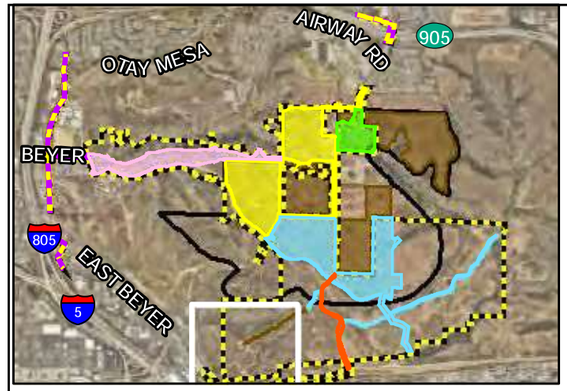
FIGURE 26.8
Existing Biological Resources - Sensitive Plant Species

Image Source: NearMap (Flown May 2024)



Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area
- City of SD MHPA

Sensitive Plants

- San Diego Bur-sage (*Ambrosia chenopodiifolia*)
- Cliff Spurge (*Euphorbia misera*)
- San Diego County Viguiera (*Bahiopsis laciniata*)
- California Adolphia (*Adolphia californica*)
- Seaside Cistanthe (*Cistanthe maritima*)
- Snake Cholla (*Cylindropuntia californica* var. *californica*)

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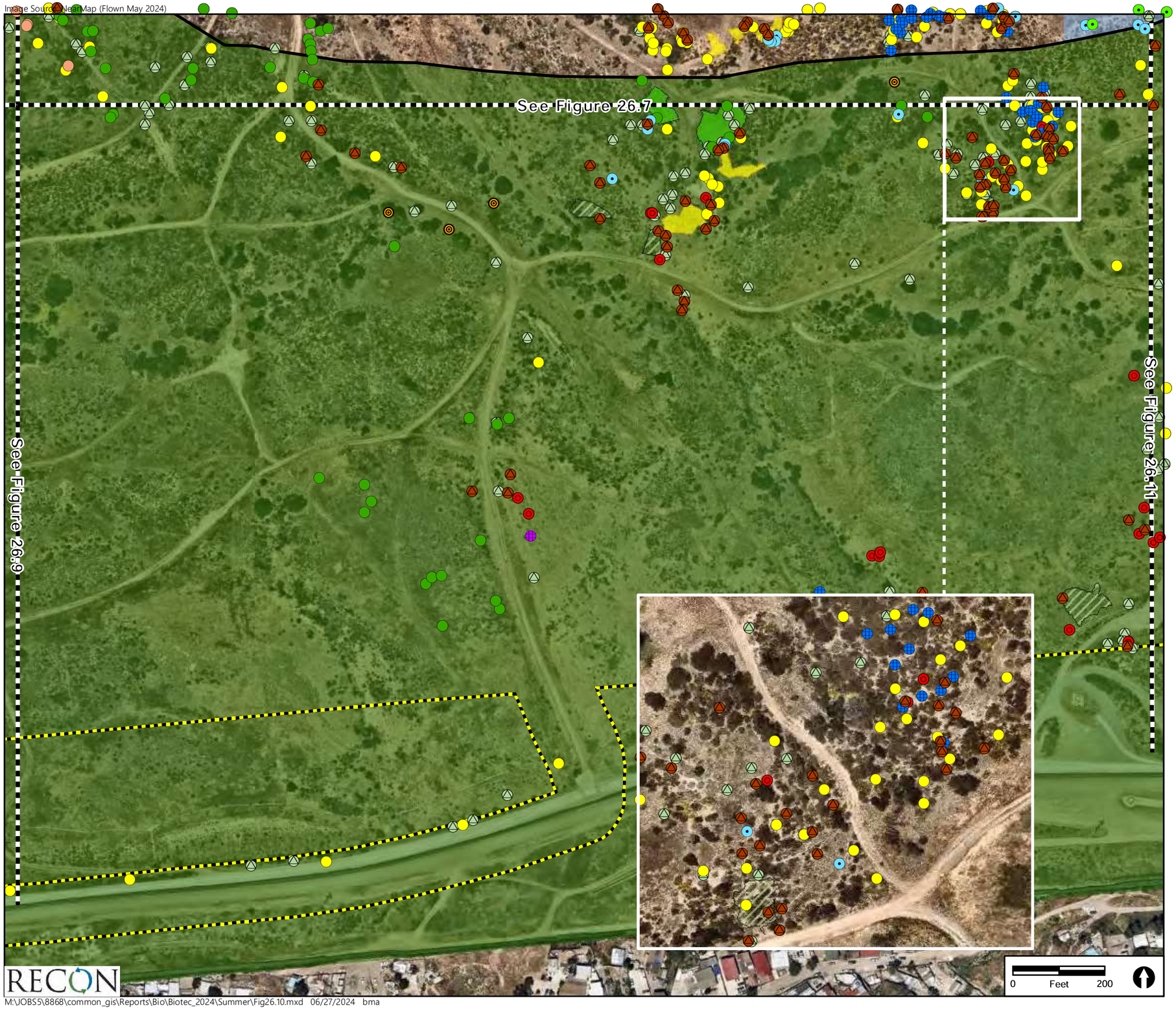
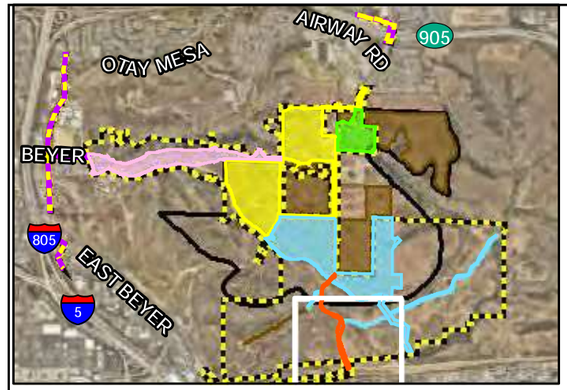
FIGURE 26.9
Existing Biological Resources - Sensitive Plant Species

Image Source: NearMap (Flown May 2024)





Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-Level Survey Area
- City of SD MHPA
- VPHCP MHPA

Sensitive Plants

- San Diego Bur-sage (*Ambrosia chenopodiifolia*)
- Ashy Spike-moss (*Selaginella cinerascens*)
- California Boxthorn (*Lycium californicum*)
- Cliff Spurge (*Euphorbia misera*)
- San Diego Barrel Cactus (*Ferocactus viridescens*)
- San Diego County Viguiera (*Bahiopsis laciniata*)
- California Adolphia (*Adolphia californica*)
- Palmer's Grapplinghook (*Harpagonella palmeri*)
- San Diego County Needle Grass (*Stipa diegoensis*)
- Seaside Cistanthe (*Cistanthe maritima*)
- Snake Cholla (*Cylindropuntia californica* var. *californica*)

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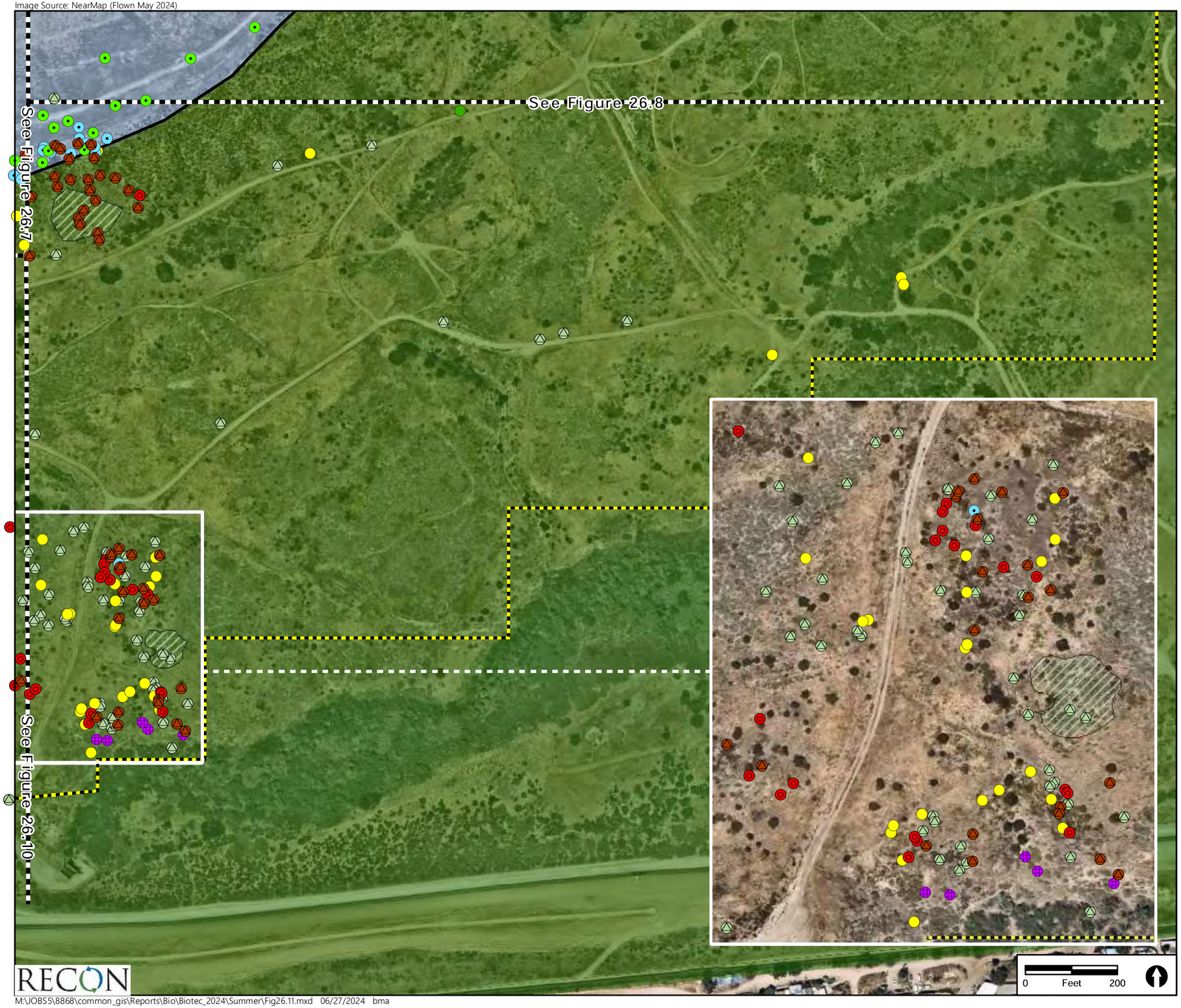
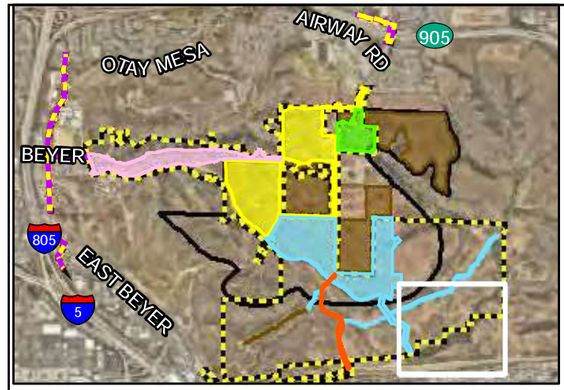
FIGURE 26.10
Existing Biological Resources -
Sensitive Plant Species

Image Source: NearMap (Flown May 2024)





Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area
- City of SD MHPA
- VPHCP MHPA

Sensitive Plants

- San Diego Bur-sage (*Ambrosia chenopodiifolia*)
- Ashy Spike-moss (*Selaginella cinerascens*)
- California Boxthorn (*Lycium californicum*)
- Cliff Spurge (*Euphorbia misera*)
- San Diego Barrel Cactus (*Ferocactus viridescens*)
- San Diego County Viguiera (*Bahiopsis laciniata*)
- Palmer's Grapplinghook (*Harpagonella palmeri*)
- Snake Cholla (*Cylindropuntia californica* var. *californica*)

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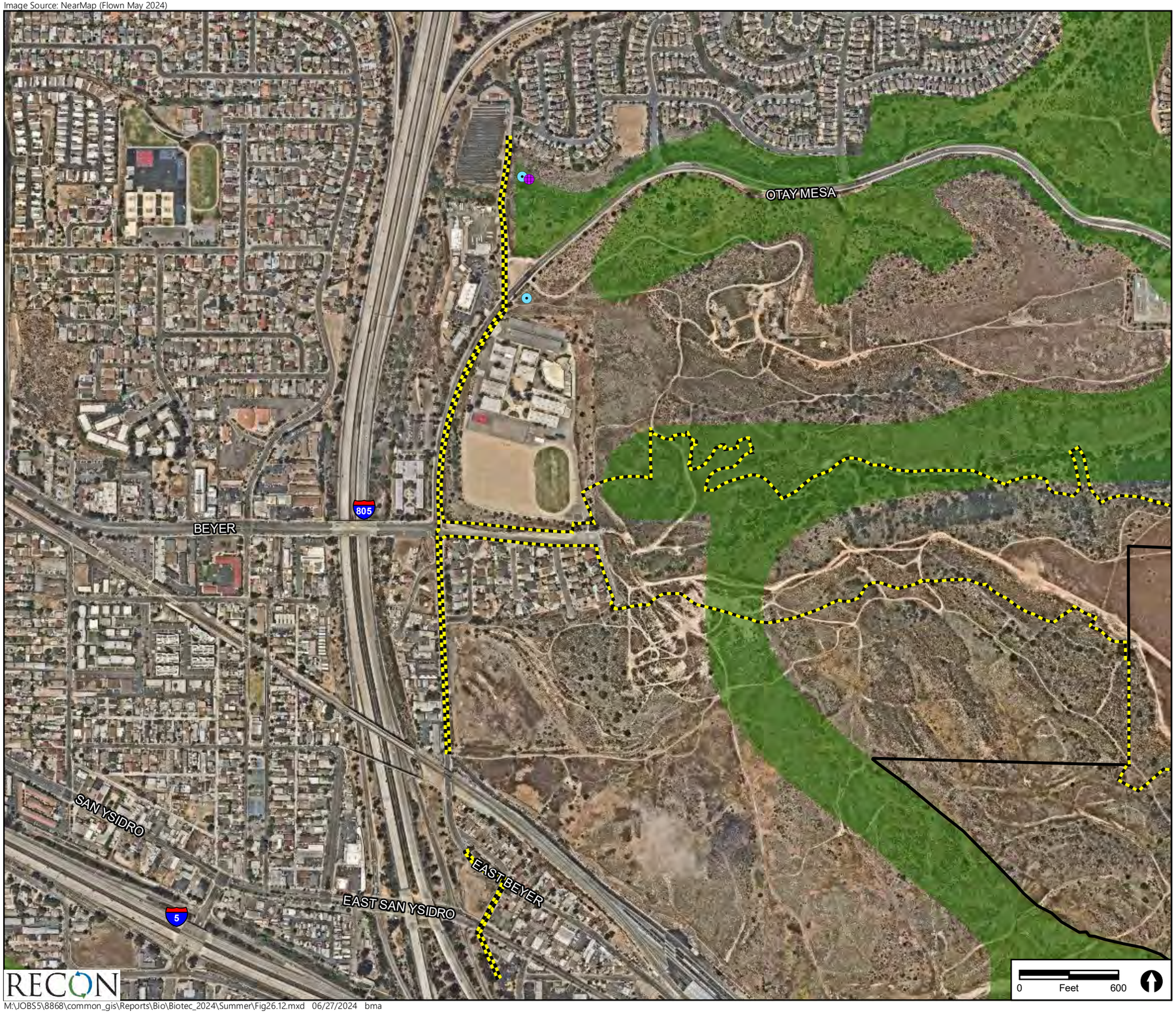
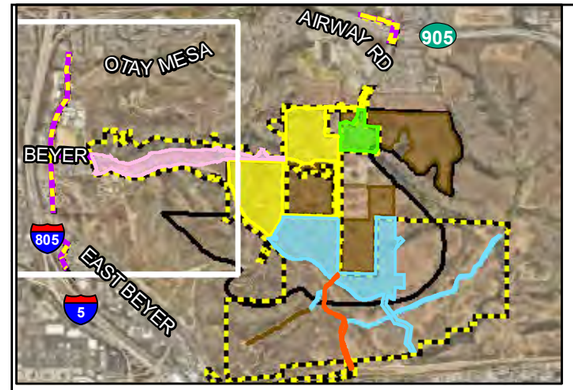
FIGURE 26.11
Existing Biological Resources - Sensitive Plant Species

Image Source: NearMap (Flown May 2024)





Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area
- City of SD MHPA

Sensitive Plants (SanBIOS)

- California Box Thorn (*Lycium californicum*)
- Coast Barrel Cactus (*Ferocactus viridescens*)

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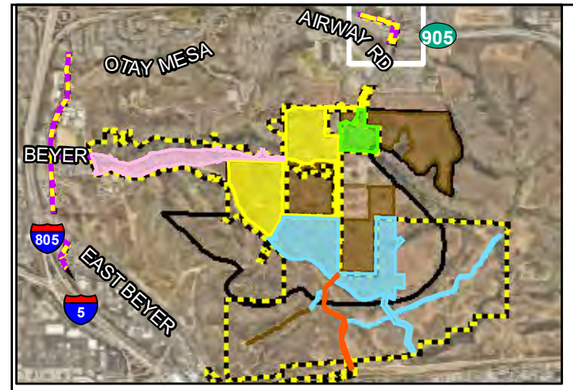
FIGURE 26.12
Existing Biological Resources - Sensitive Plant Species

Image Source: NearMap (Flown May 2024)



Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

Project-level Survey Area

RECON

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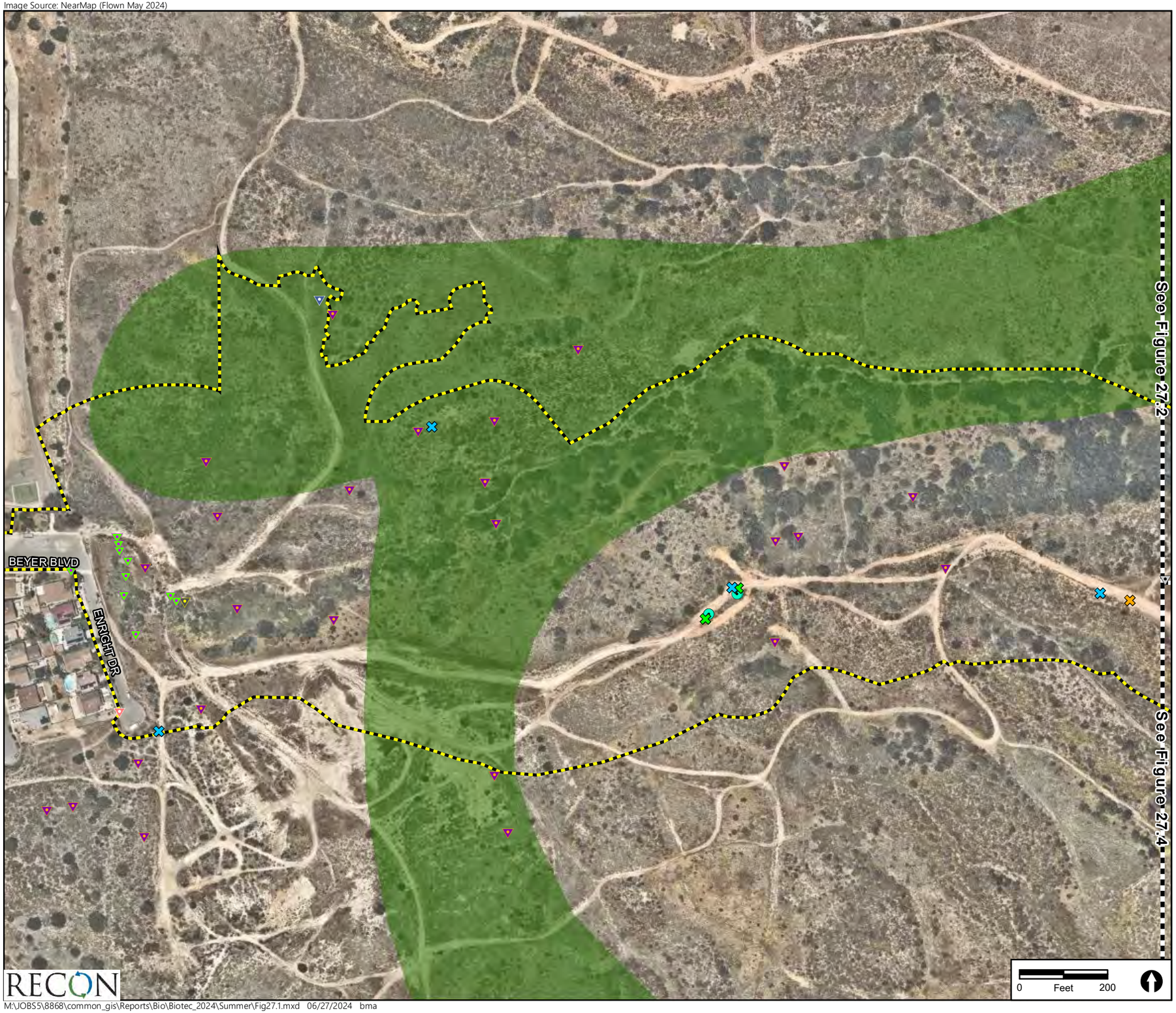
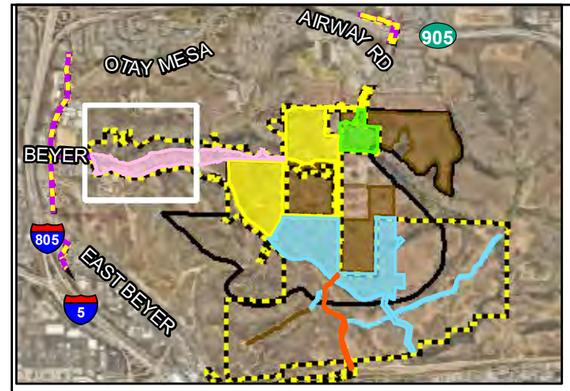
FIGURE 26.13
Existing Biological Resources -
Sensitive Plant Species

Image Source: NearMap (Flown May 2024)





Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

Project-level Survey Area

City of SD MHPA

Sensitive Animals

Birds

- Southern California Rufous-crowned Sparrow (*Aimophila ruficeps canescens*)
- Coastal California Gnatcatcher (*Polioptila californica californica*)
- Cooper's Hawk (*Accipiter cooperii*)
- Least Bell's Vireo (*Vireo bellii pusillus*)
- Northern Harrier (*Circus hudsonius*)
- (Yellow-breasted Chat (*Icteria virens*)

Reptiles and Amphibians

- Orange-throated Whiptail (*Aspidoscelis hyperythra*)
- Coast Horned Lizard (*Phrynosoma blainvillii*)
- Western Spadefoot (*Spea hammondii*)

Crustaceans

- San Diego Fairy Shrimp (*Branchinecta sandiegonensis*)

FIGURE 27.1
Existing Biological Resources - Sensitive Animal Species

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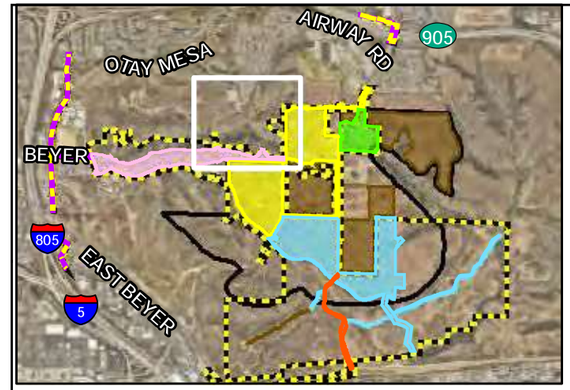
Image Source: NearMap (Flown May 2024)



Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area
- City of SD MHPA

Sensitive Animals

Birds

- Southern California Rufous-crowned Sparrow (*Aimophila ruficeps canescens*)
- Coastal California Gnatcatcher (*Polioptila californica californica*)
- Burrowing Owl (*Athene cunicularia*)
- Cooper's Hawk (*Accipiter cooperii*)
- Merlin (*Falco columbarius*)
- Northern Harrier (*Circus hudsonius*)

Reptiles and Amphibians

- Orange-throated Whiptail (*Aspidoscelis hyperythra*)
- Coast Horned Lizard (*Phrynosoma blainvillii*)
- Coastal Whiptail (*Aspidoscelis tigris steinegeri*)
- Western Spadefoot (*Spea hammondii*)

Crustaceans

- San Diego Fairy Shrimp (*Branchinecta sandiegonensis*)

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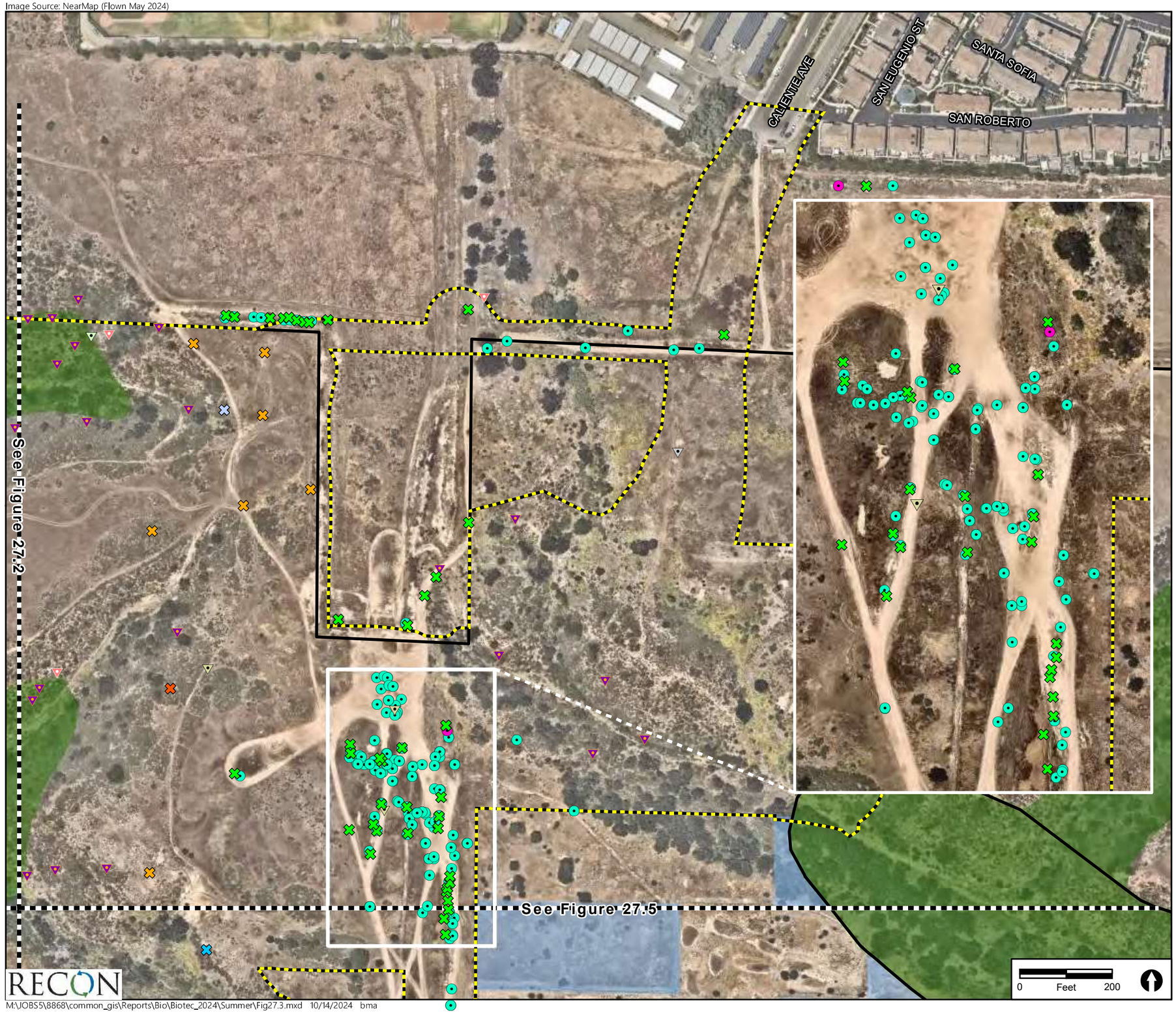
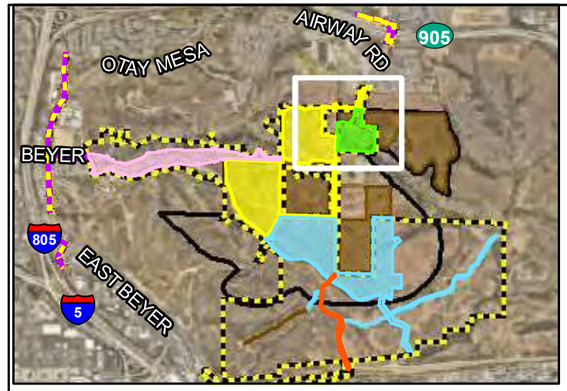
FIGURE 27.2
Existing Biological Resources - Sensitive Animal Species

Image Source: NearMap (Flown May 2024)





Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area
- City of SD MHPA
- VPHCP MHPA

Sensitive Animals

Birds

- Coastal California Gnatcatcher (*Polioptila californica californica*)
- Grasshopper Sparrow (*Ammodramus savannarum*)
- California Horned Lark (*Eremophila alpestris actia*)
- Cooper's Hawk (*Accipiter cooperii*)
- Least Bell's Vireo (*Vireo bellii pusillus*)
- Northern Harrier (*Circus hudsonius*)

Reptiles and Amphibians

- Orange-throated Whiptail (*Aspidoscelis hyperythra*)
- Red Diamond Rattlesnake (*Crotalus ruber*)
- Coronado Skink (*Plestiodon skiltonianus interparietalis*)
- Coast Horned Lizard (*Phrynosoma blainvillii*)
- Western Spadefoot (*Spea hammondii*)

Crustaceans

- Riverside Fairy Shrimp (*Streptocephalus woottoni*)
- San Diego Fairy Shrimp (*Branchinecta sandiegonensis*)

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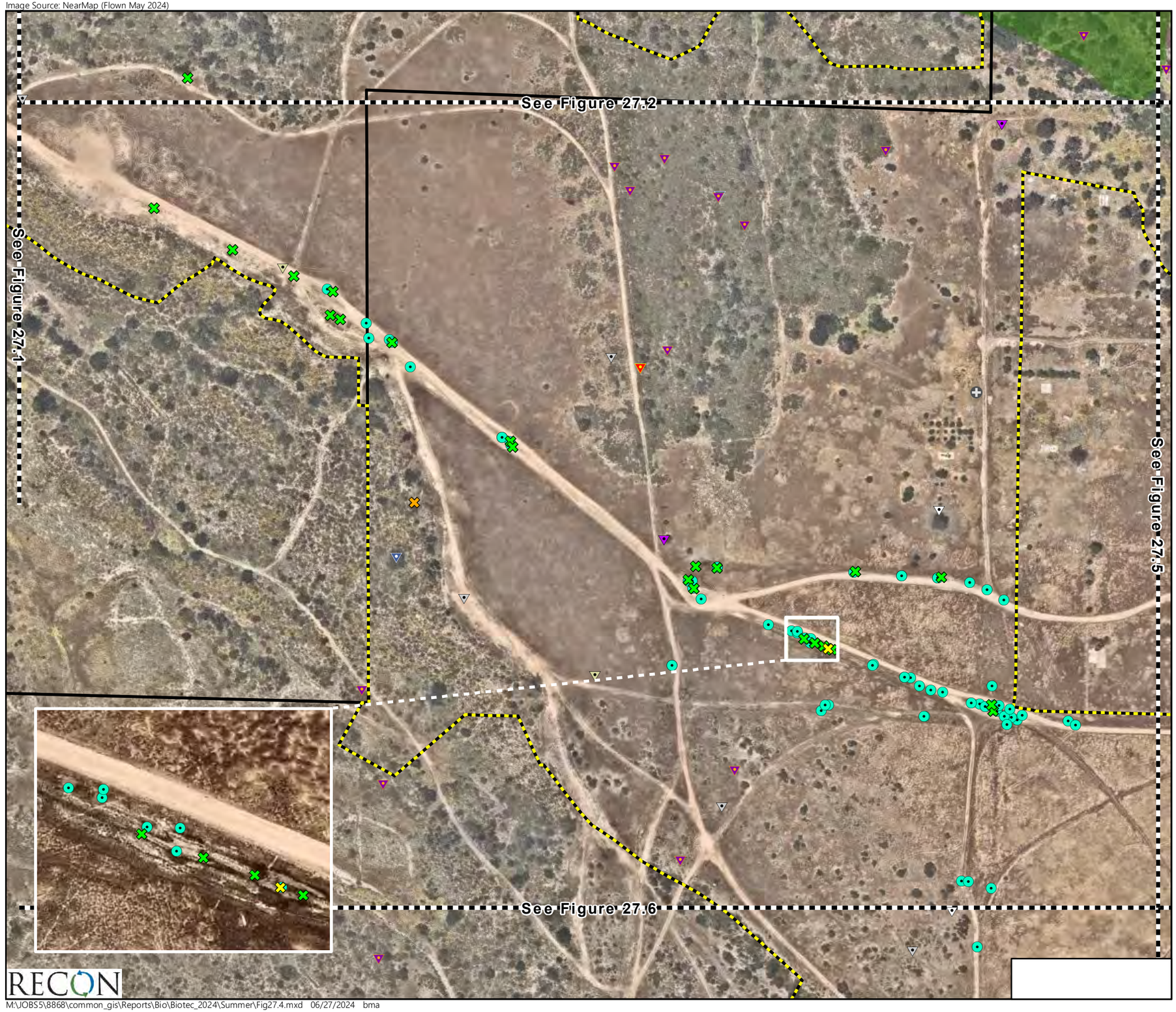
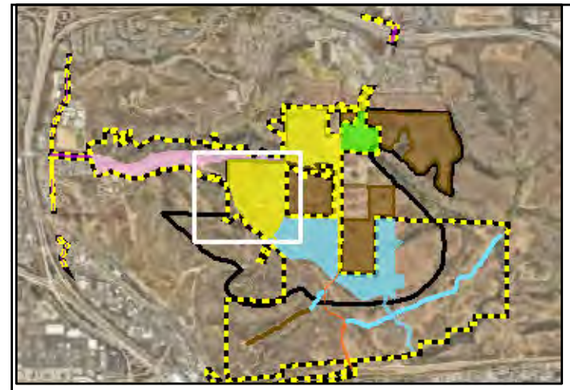
FIGURE 27.3
Existing Biological Resources - Sensitive Animal Species

Image Source: NearMap (Flown May 2024)





Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- City of SD MHPA
- Project-level Survey Area

Sensitive Animals

Birds

- Southern California Rufous-crowned Sparrow (*Aimophila ruficeps canescens*)
- Coastal California Gnatcatcher (*Polioptila californica californica*)
- California Horned Lark (*Eremophila alpestris actia*)
- Bald Eagle (*Haliaeetus leucocephalus*)
- Merlin (*Falco columbarius*)
- Northern Harrier (*Circus hudsonius*)
- White-tailed Kite (*Elanus leucurus*)

Mammals

- San Diego Desert Woodrat (*Neotoma lepida intermedia*)

Reptiles and Amphibians

- Coast Horned Lizard (*Phrynosoma blainvillii*)
- Two-striped Garter Snake (*Thamnophis hammondii*)
- Western Spadefoot (*Spea hammondii*)

Crustaceans

- San Diego Fairy Shrimp (*Branchinecta sandiegonensis*)

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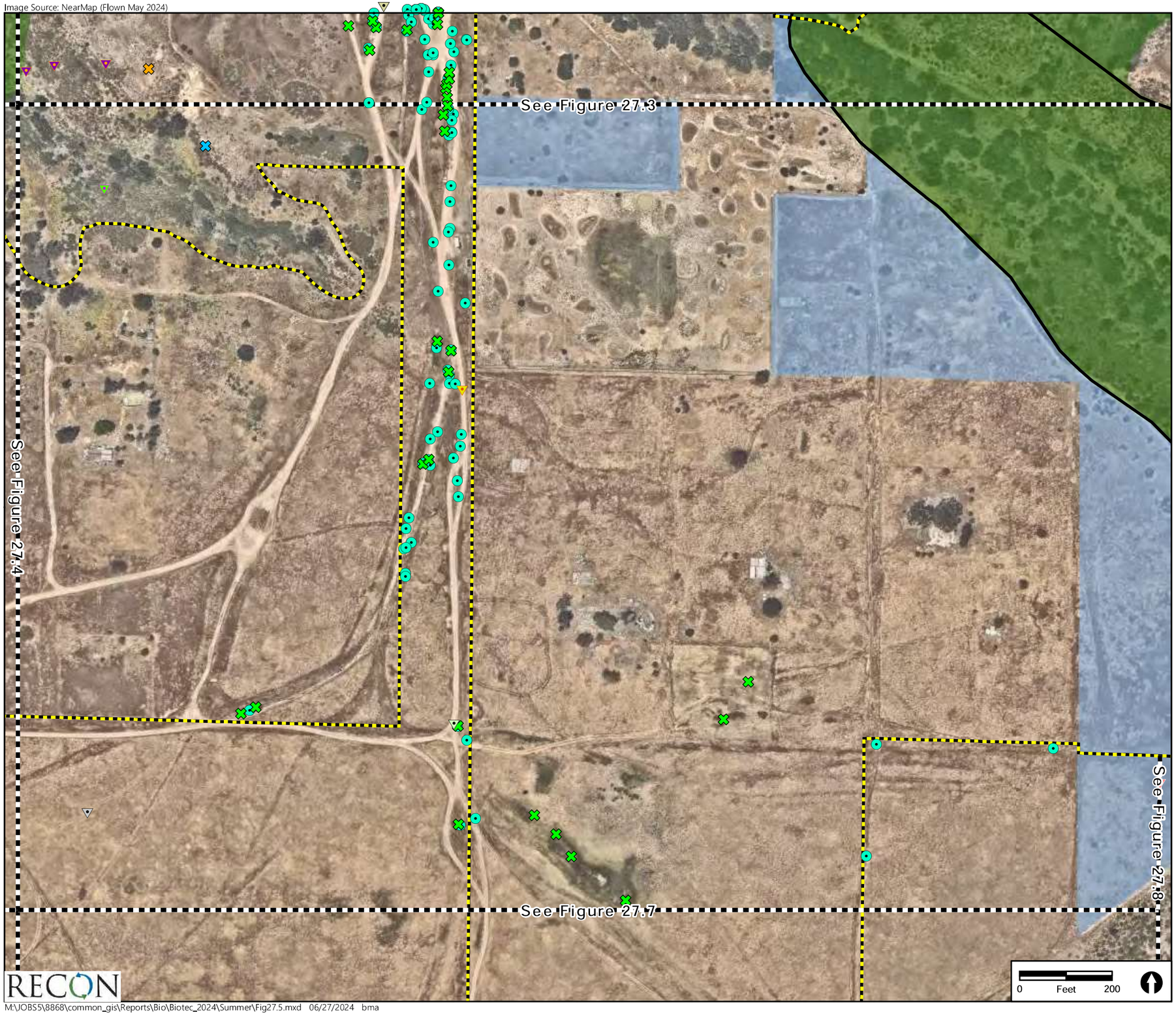
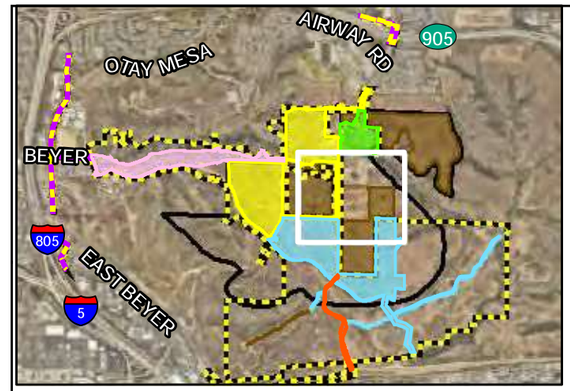
FIGURE 27.4
Existing Biological Resources - Sensitive Animal Species

Image Source: NearMap (Flown May 2024)





Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area
- City of SD MHPA
- VPHCP MHPA

Sensitive Animals

Birds

- Coastal California Gnatcatcher (*Polioptila californica californica*)
- Grasshopper Sparrow (*Ammodramus savannarum*)
- Golden Eagle (*Aquila chrysaetos*)
- Cooper's Hawk (*Accipiter cooperii*)
- Least Bell's Vireo (*Vireo bellii pusillus*)
- Northern Harrier (*Circus hudsonius*)

Reptiles and Amphibians

- Orange-throated Whiptail (*Aspidoscelis hyperythra*)
- Coast Horned Lizard (*Phrynosoma blainvillii*)
- Western Spadefoot (*Spea hammondii*)

Crustaceans

- San Diego Fairy Shrimp (*Branchinecta sandiegonensis*)

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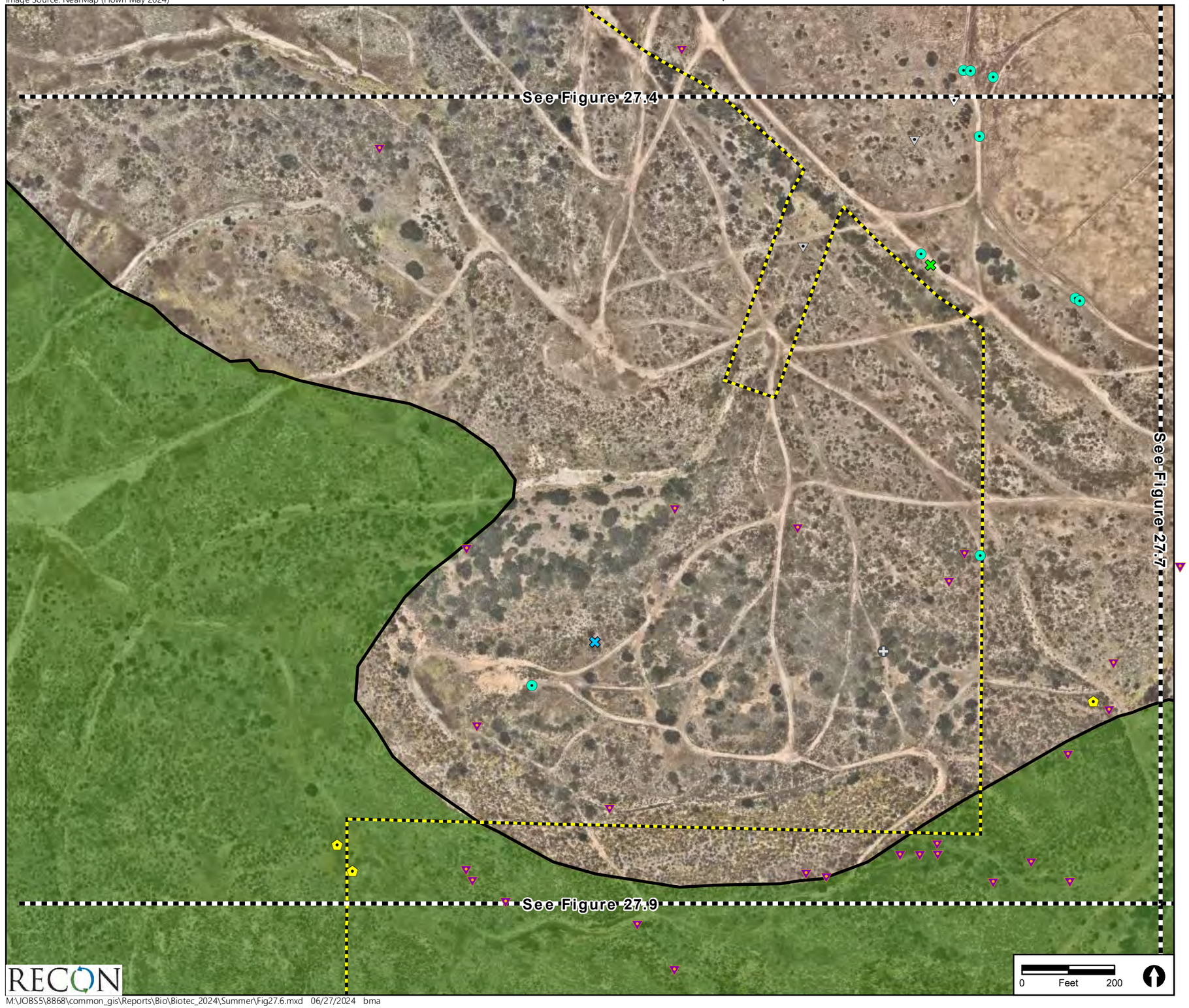
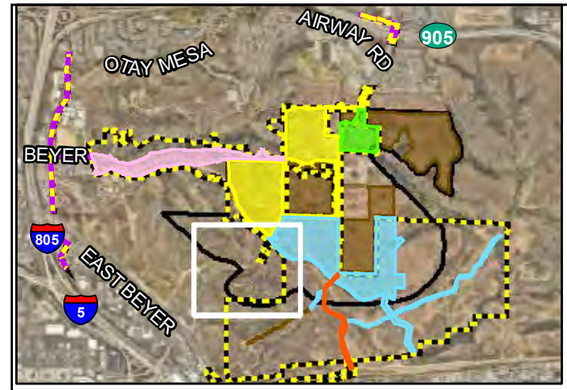
FIGURE 27.5
Existing Biological Resources -
Sensitive Animal Species

Image Source: NearMap (Flown May 2024)





Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area
- City of SD MHPA

Sensitive Animals

Birds

- Coastal California Gnatcatcher (*Polioptila californica californica*)
- Northern Harrier (*Circus hudsonius*)
- White-tailed Kite (*Elanus leucurus*)

Mammals

- San Diego Desert Woodrat (*Neotoma lepida intermedia*)

Reptiles and Amphibians

- Orange-throated Whiptail (*Aspidoscelis hyperythra*)
- Western Spadefoot (*Spea hammondii*)

Insects

- Crotch's Bumble Bee (*Bombus crotchii*)

Crustaceans

- San Diego Fairy Shrimp (*Branchinecta sandiegonensis*)

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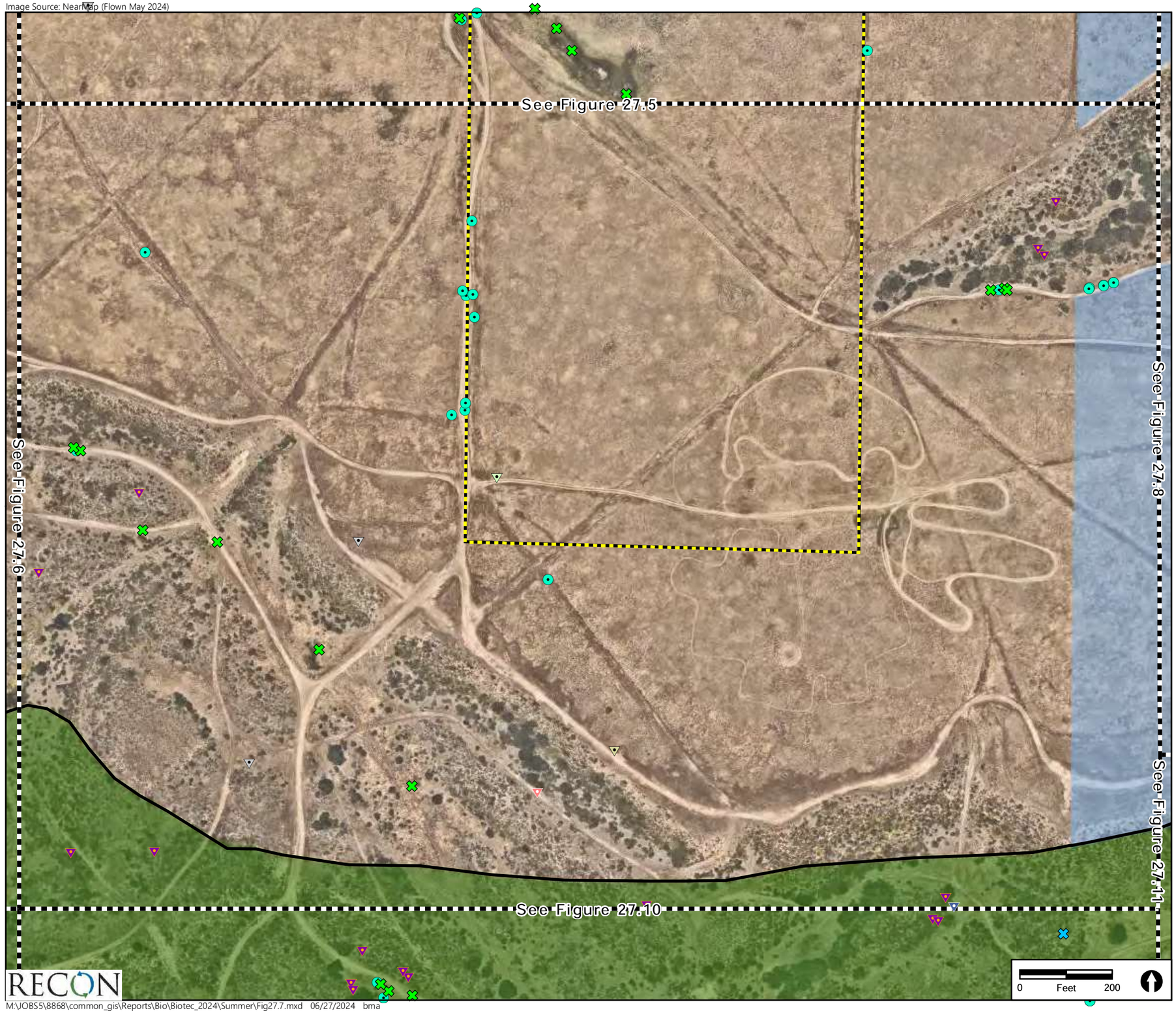
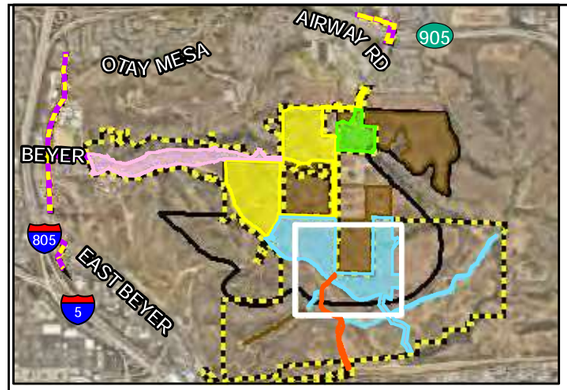
FIGURE 27.6
Existing Biological Resources - Sensitive Animal Species

Image Source: NearMap (Flown May 2024)





Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area
- City of SD MHPA
- VPHCP MHPA

Sensitive Animals

Birds

- Southern California Rufous-crowned Sparrow (*Aimophila ruficeps canescens*)
- Coastal California Gnatcatcher (*Polioptila californica californica*)
- Grasshopper Sparrow (*Ammodramus savannarum*)
- California Horned Lark (*Eremophila alpestris actia*)
- Cooper's Hawk (*Accipiter cooperii*)
- Northern Harrier (*Circus hudsonius*)

Reptiles and Amphibians

- Orange-throated Whiptail (*Aspidoscelis hyperythra*)
- Western Spadefoot (*Spea hammondii*)

Crustaceans

- San Diego Fairy Shrimp (*Branchinecta sandiegonensis*)

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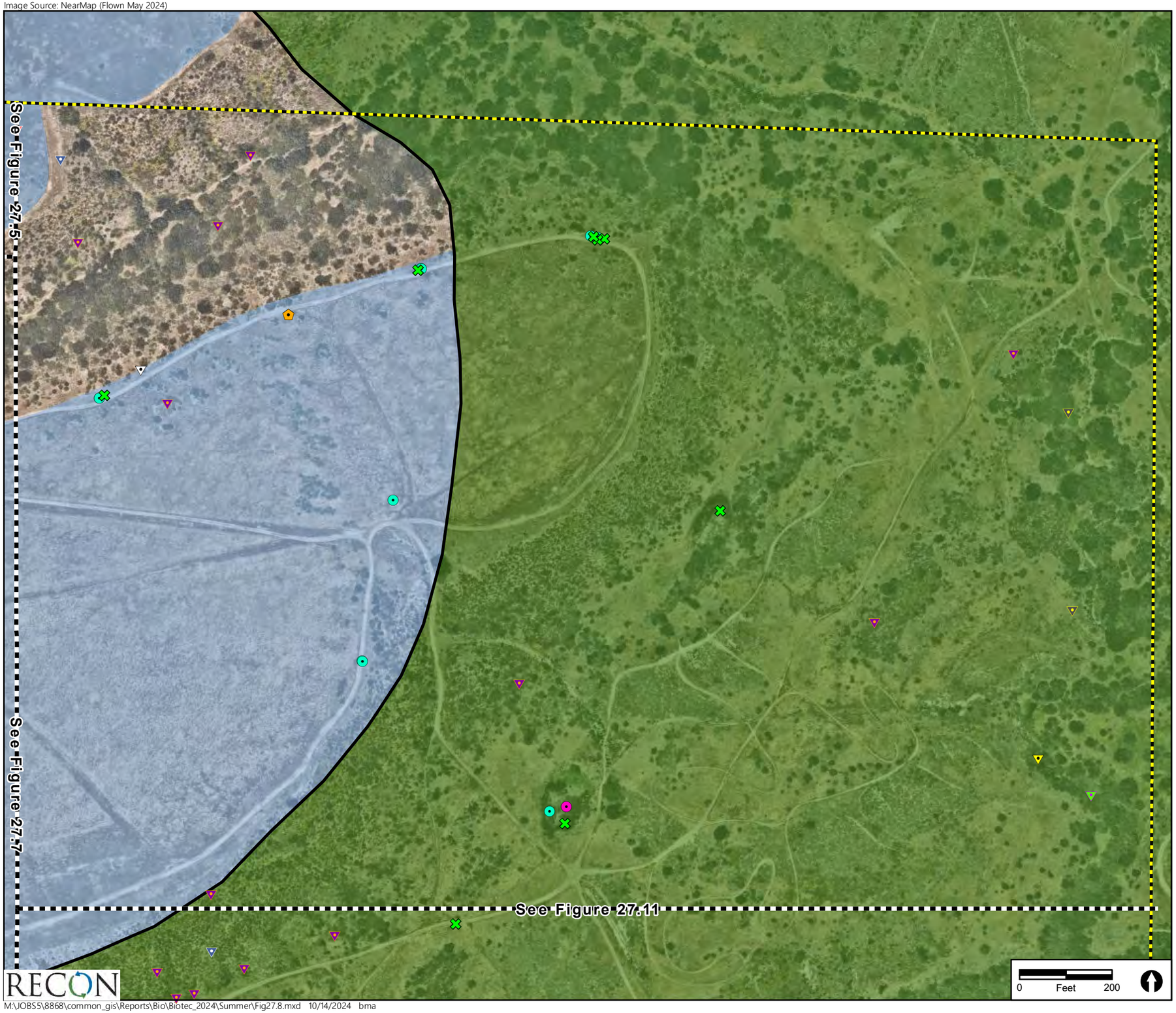
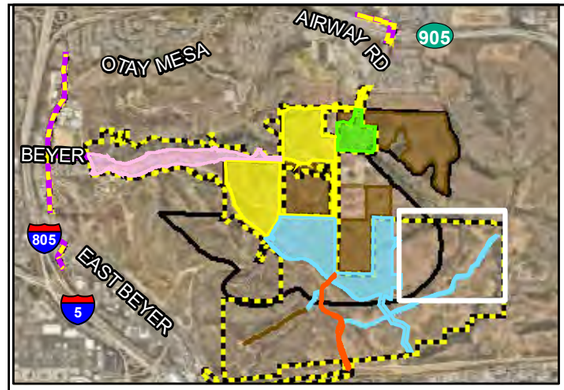
FIGURE 27.7
Existing Biological Resources - Sensitive Animal Species

Image Source: NearMap (Flown May 2024)





Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area
- City of SD MHPA
- VPHCP MHPA

Sensitive Animals

Birds

- Southern California Rufous-crowned Sparrow (*Aimophila ruficeps canescens*)
- Coastal California Gnatcatcher (*Polioptila californica californica*)
- Cooper's Hawk (*Accipiter cooperii*)
- Least Bell's Vireo (*Vireo bellii pusillus*)
- (Yellow-breasted Chat (*Icteria virens*)
- White-tailed Kite (*Elanus leucurus*)
- Yellow Warbler (*Setophaga petechia*)

Reptiles and Amphibians

- Western Spadefoot (*Spea hammondii*)

Insects

- Quino Checkerspot Butterfly (*Euphydryas editha quino*)

Crustaceans

- Riverside Fairy Shrimp (*Streptocephalus woottoni*)
- San Diego Fairy Shrimp (*Branchinecta sandiegonensis*)

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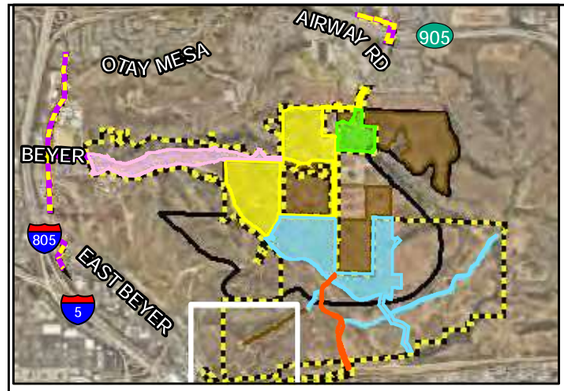
FIGURE 27.8
Existing Biological Resources - Sensitive Animal Species

Image Source: NearMap (Flown May 2024)



Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area
- City of SD MHPA

Sensitive Animals

Birds

- Southern California Rufous-crowned Sparrow (*Aimophila ruficeps canescens*)
- Coastal California Gnatcatcher (*Polioptila californica californica*)
- Least Bell's Vireo (*Vireo bellii pusillus*)

Reptiles and Amphibians

- Western Spadefoot (*Spea hammondii*)

Insects

- Crotch's Bumble Bee (*Bombus crotchii*)

Crustaceans

- San Diego Fairy Shrimp (*Branchinecta sandiegonensis*)

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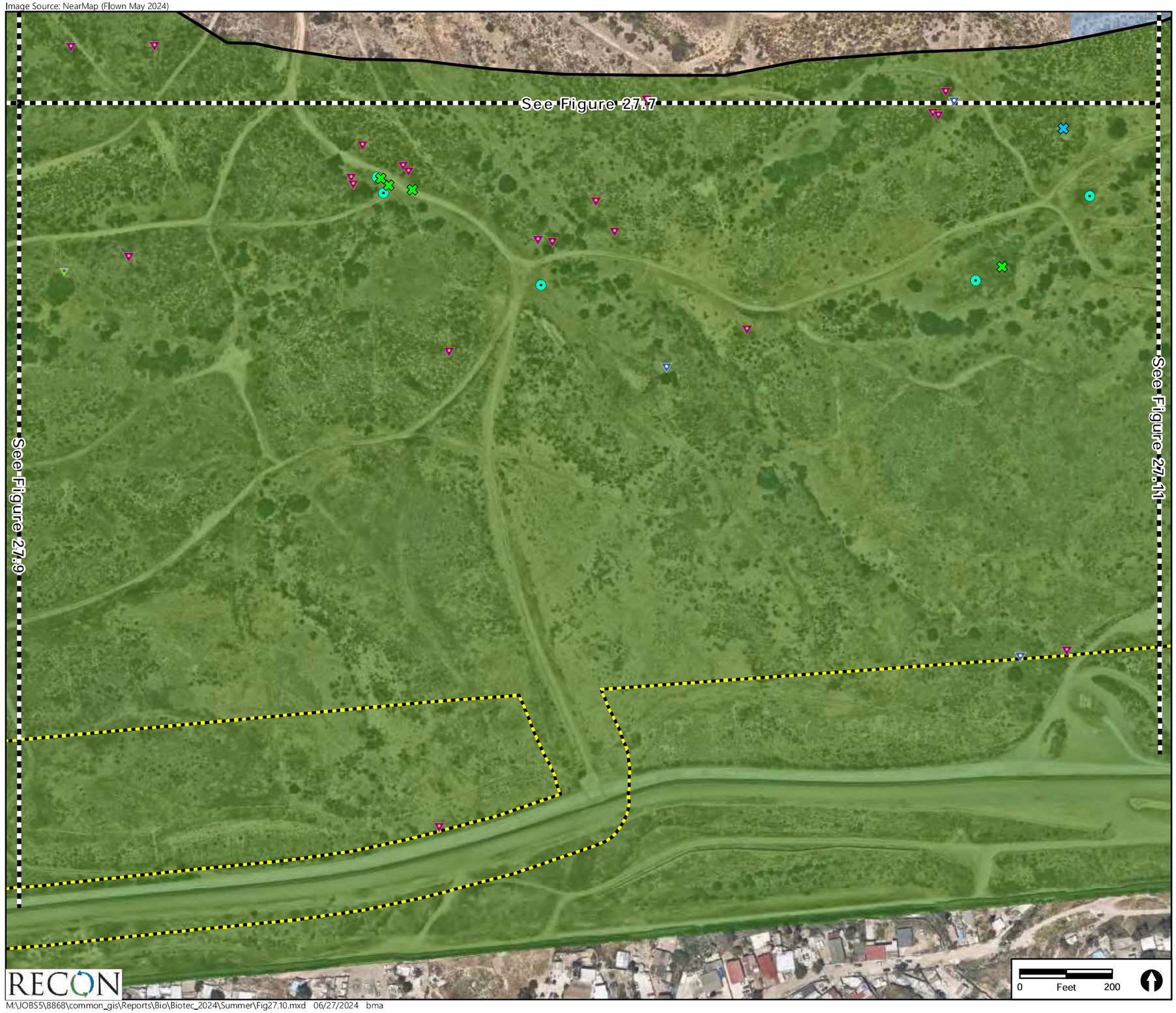
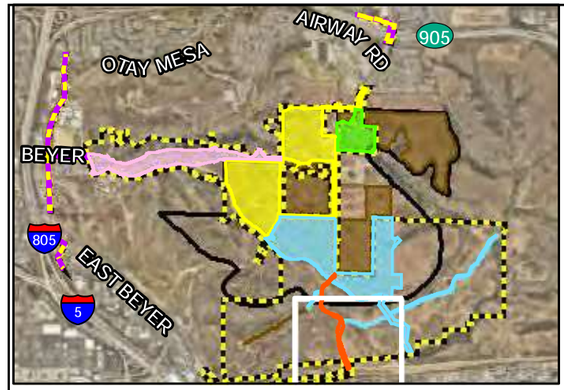
FIGURE 27.9
Existing Biological Resources - Sensitive Animal Species

Image Source: NearMap (Flown May 2024)





Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area
- City of SD MHPA
- VPHCP MHPA

Sensitive Animals

Birds

- Southern California Rufous-crowned Sparrow (*Aimophila ruficeps canescens*)
- Coastal California Gnatcatcher (*Polioptila californica californica*)
- Least Bell's Vireo (*Vireo bellii pusillus*)

Reptiles and Amphibians

- Orange-throated Whiptail (*Aspidoscelis hyperythra*)
- Western Spadefoot (*Spea hammondii*)

Crustaceans

- San Diego Fairy Shrimp (*Branchinecta sandiegonensis*)

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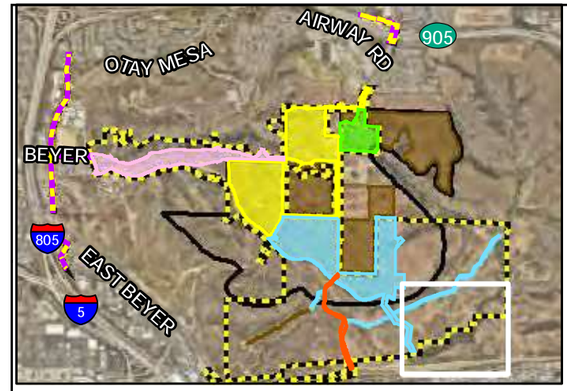
FIGURE 27.10
Existing Biological Resources - Sensitive Animal Species

Image Source: NearMap (Flown May 2024)



Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area
- City of SD MHPA
- VPHCP MHPA

Sensitive Animals

Birds

- Southern California Rufous-crowned Sparrow (*Aimophila ruficeps canescens*)
- Coastal California Gnatcatcher (*Polioptila californica californica*)
- Grasshopper Sparrow (*Ammodramus savannarum*)
- California Horned Lark (*Eremophila alpestris actia*)
- Least Bell's Vireo (*Vireo bellii pusillus*)
- Yellow Warbler (*Setophaga petechia*)

Reptiles and Amphibians

- Western Spadefoot (*Spea hammondii*)

Insects

- Crotch's Bumble Bee (*Bombus crotchii*)

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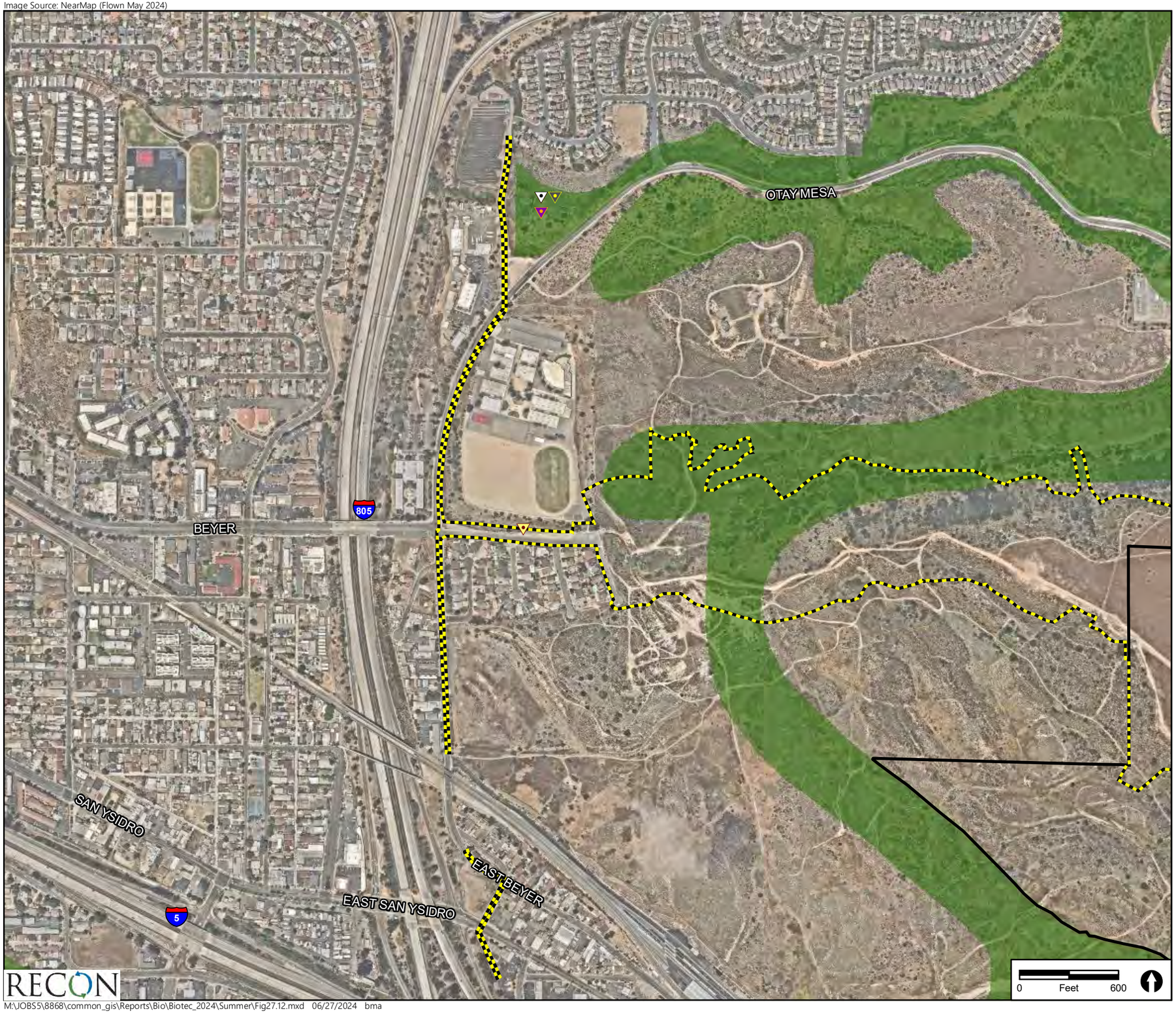
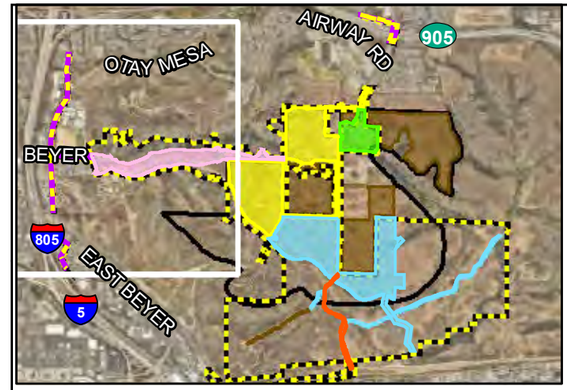
FIGURE 27.11
Existing Biological Resources - Sensitive Animal Species

Image Source: NearMap (Flown May 2024)





Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

- Specific Plan Boundary
- Project-level Survey Area
- City of SD MHPA

Sensitive Animals (SanBIOS)

- California Gnatcatcher (*Polioptila californica*)
- San Diego Cactus Wren (*Campylorhynchus brunneicapillus sandiegensis*)
- White Tailed Kite (*Elanus leucurus majusculus*)
- Yellow-breasted Chat (*Icteria virens*)

RECON

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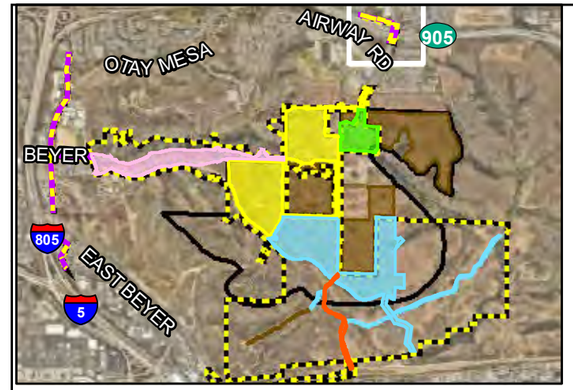
FIGURE 27.12
Existing Biological Resources - Sensitive Animal Species

Image Source: NearMap (Flown May 2024)



Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Off-site Improvements
- Emergency Vehicle Access Road
- Program-level Phases 3-7

Project-level Survey Area

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FIGURE 27.13
Existing Biological Resources -
Sensitive Animal Species

5.0 Sensitive Resources

5.1 Sensitivity Criteria

For purposes of this report, species would be considered sensitive if they are: (1) covered species or narrow endemic species under the City of San Diego MSCP or the City's VPHCP; (2) listed by state or federal agencies as threatened or endangered or are proposed for listing; (3) on California Rare Plant Rank (CRPR) 1B (considered endangered throughout its range), CRPR 2 (considered endangered in California but more common elsewhere) of the CNPS Inventory of Rare and Endangered Vascular Plants of California, CRPR 3 (more information about the plant's distribution and rarity needed), and CRPR 4 (plants of limited distribution) of the CNPS Inventory (2022); or (4) considered rare, endangered, or threatened by the CNDDB (CDFW 2022a, 2022b, 2022c, 2022d, 2022e), the City's Biology Guidelines (City of San Diego 2018a), or local conservation organizations or specialists. Sensitive vegetation communities are those identified by the CNDDB (CDFW 2022a) or identified by the City (2018a).

City of San Diego Regulations: As stated in the City's Biology Guidelines (City of San Diego 2018a), a project site is considered to contain sensitive biological resources if:

1. Portions of the site occur within the MHPA as shown in the City's MSCP Subarea Plan or the VPHCP.
2. The site supports or could support (e.g., in different seasons/rainfall conditions, etc.) Tier I, II, or IIIA and IIIB vegetation communities (such as grassland, chaparral, coastal sage scrub, etc.). The CEQA determination of significant impacts may be based on what was on the site (e.g., if illegal grading or vegetation removal occurred, etc.), as appropriate.
3. The site contains or comes within 100 feet of a natural or manufactured drainage (determine whether it is vegetated with wetland vegetation). The site occurs within the 100-year flood plain established by the Federal Emergency Management Agency (FEMA) or the floodplain/floodway zones.
4. The site does not support a vegetation community identified in Tables 2a, 2b or 3 (Tier I, II, IIIA or IIIB) of the Biology Guidelines; however, wildlife species listed as threatened or endangered or other protected species may use the site (e.g., California least terns [*Sterna antillarum browni*] on dredge spoil, wildlife using agricultural land as a wildlife corridor, etc.).

Jurisdictional Resources: All wetland areas, including vernal pools, and non-wetland waters of the U.S. are considered sensitive. Wetlands and non-wetland waters are under the jurisdiction of the USACE. Streambeds and associated wetland vegetation are under the jurisdiction of the CDFW. RWQCB typically takes jurisdiction over all the same areas as USACE and most surface waters. The City defines wetlands as:

> Wetlands are areas which are characterized by any of the following conditions: (1) all areas persistently or periodically containing naturally occurring wetland vegetation communities characteristically dominated by hydrophytic vegetation; (2) areas that have hydric soils or wetland hydrology and lack naturally occurring wetland

vegetation communities because human activities have removed the historic wetland vegetation; (3) areas lacking wetland vegetation communities, hydric soils, and wetland hydrology due to non-permitted filling of previously existing wetlands (City of San Diego 2018a).

5.2 Sensitive Vegetation Communities

5.2.1 Program-level Area

Sensitive vegetation communities are those communities that are of highly limited distribution. These communities may also support concentrations of sensitive plant or wildlife species. Two sensitive upland vegetation communities, Diegan coastal sage scrub (Tier II habitat) and Valley and Foothill Grassland (Tier I or IIIB, to be determined during subsequent project-level surveys) are mapped by SANGIS within the program-level analysis areas (see Figure 24.1). Additionally, it is anticipated that additional sensitive upland and wetland communities and vernal pools would be present in the program-level areas. The upland vegetation communities are considered sensitive to the City (City of San Diego 2018a) and the wetland vegetation communities are considered sensitive by the City, USACE, CDFW, and RWQCB. The presence and extent of sensitive vegetation communities would need verification through future site-specific surveys as development is proposed.

5.2.2 Project-level Area

Fourteen sensitive vegetation communities, maritime succulent scrub (Tier I), disturbed maritime succulent scrub (Tier I), Diegan coastal sage scrub (Tier II habitat), disturbed Diegan coastal sage scrub (Tier II habitat), native grassland (Tier I), non-native grassland (Tier IIIB habitat), mule fat scrub, southern willow scrub, disturbed riparian, disturbed wetlands, tamarisk scrub, vernal pools (with and without fairy shrimp), and natural flood channel occur within the project-level survey area (see Figures 24.2 through 24.14). These habitats are considered sensitive under the City's Biology Guidelines (2018a), and mule fat scrub, southern willow scrub, disturbed riparian, disturbed southern willow scrub, disturbed wetlands, tamarisk scrub, vernal pools (with and without fairy shrimp), and non-wetland waters/streambed (natural flood channels), are also considered sensitive by the USACE, CDFW, RWQCB, and the City of San Diego.

5.3 Sensitive Plants

5.3.1 Program-level Area

Sensitive plant species either documented on-site or within one mile of the program-level area based on information obtained from the literature review including, but limited to, CNDDB, (CDFW 2022a), the All Species Occurrences Database (USFWS 2022), and SanBIOS (County of San Diego 2022) were evaluated for potential to occur. In addition to those plants appearing in database searches as occurring on-site or within the project vicinity, a number of sensitive species were observed within the project-level areas during surveys, indicating they also have a potential to occur

in the program-level areas. Sensitive plant species with a moderate to high potential to occur based on database searches, in addition to those species observed during project-level surveys are listed in Table 3. While these species have been documented in the project vicinity, their presence within the program-level areas is not confirmed, with the exception of San Diego button-celery which is present within one of the City's one-acre conserved parcels located within the program-level area (see Figure 26.5). The presence or potential for sensitive plant species to occur within the program-level areas would need to be evaluated after site-specific surveys are conducted analysis in conjunction with proposed future development. However, based on known occurrences and site conditions, Attachment 7 identifies plant species that are federally listed threatened or endangered, considered City of San Diego narrow endemic, or have a CNPS ranking that have potential to occur based on species range. All sensitive species with a moderate or high potential to occur are described below.

Ashy spike-moss (*Selaginella cinerascens*). Ashy spike-moss is a CRPR 4.1 species (CNPS 2023). This plant is a perennial, rhizomatous herb composed of a loose tangle of prostrate runners pale green in color and aging tan to white. This species is distributed mostly in San Diego County and northern Baja California below 1,800 feet in elevation (Baldwin et al. 2012). It is found at many sites in San Diego County, primarily south of State Route 78, on the periphery of the city of San Diego, and in MCAS Miramar, where it can be the dominant ground cover (Reiser 2001). It occurs in sunny spots or under shrubs within chaparral and coastal sage scrub (Baldwin et al. 2012; CNPS 2023), and on many soil types (Reiser 2001). This species is a good indicator of site degradation, as it rarely inhabits disturbed soils. Within the program-level study area, ashy spike moss has a high potential to occur.

Bobtail barley (*Hordeum intercedens*). Bobtail barley is a CRPR 3.2 species (CNPS 2023). It is an annual grass (Poaceae family) that grows up to 16 inches high and blooms from March to June (Hickman 1993, CNPS 2023). It is relatively widespread in California, being documented from Glenn County to Baja California; in southern California it occurs in the Channel Islands, Santa Barbara, Ventura, Los Angeles, Orange, Riverside, and San Diego counties (CNPS 2023). Bobtail barley grows in vernal pools, dry saline streambeds, and alkaline flats and depressions in coastal dune, coastal scrub, and grassland plant communities below 3,300 feet (CNPS 2023, Hickman 1993). This species was observed growing in a single vernal pool within the northern limits of the southern existing VPHCP/MPHA area within the southern project-level survey area. Within the program-level study area, bobtail barley has a moderate potential to occur.

California adolphia (*Adolphia californica*). California adolphia has a CNPS CRPR of 2B.1 (rare, threatened, or endangered in California, but more common elsewhere; seriously endangered in California) (CNPS 2023). This small shrub in the buckthorn family (Rhamnaceae) flowers from December to April and loses its leaves in late summer and fall. Its spiny stems are identifiable at close range year-round. This species generally occurs in Diegan coastal sage scrub, near the edge of chaparral, particularly in dry canyons or washes. It is associated with San Miguel and Friant soils (Reiser 2001). Its range is limited to San Diego County and northern Baja California, Mexico at elevations below 1,000 feet. In San Diego County, it is found from the Carlsbad area south into the Proctor Valley and the Otay area (Beauchamp 1986).

Table 3 Sensitive Plant Species Observed within the Project level Analysis Area or with a Moderate Potential to Occur in the Program or Project level Analysis Areas					
Common Name	Scientific Name	Federal/ State Listing	CRPR/ Threat Ranking	City of San Diego Listing	Potential or Observed During Project-Level Surveys
ashy spike-moss	*Selaginella cinerascens*	–/–	4.1	–	Observed
bobtail barley	*Hordeum intercedens*	–/–	3.2	–	Observed
California adolphia	*Adolphia californica*	–/–	2B.1	–	Observed
California box-thorn	*Lycium californicum*	–/–	4.2	–	Observed
cliff spurge	*Euphorbia misera*	–/–	2B.2	–	Observed
decumbent goldenbush	*Isocoma menziesii* var. *decumbens*	–/–	1B.2	–	Observed
golden-ray pentachaeta	*Pentachaeta aurea* ssp. *aurea*	–/–	4.2	–	Observed
graceful tarplant	*Holocarpha virgata ssp. elongata*	–/–	4.2	–	Moderate
Orcutt's bird's-beak	*Dicranostegia orcuttiana* [=*Cordylanthus orcuttianus*]	–/–	2B.1	MSCP	Moderate
Otay tarplant	*Deinandra conjugens*	FT/CE	1B.1	MSCP, NE	Observed
Palmer's grapplinghook	*Harpagonella palmeri*	–/–	4.2	–	Observed
San Diego barrel cactus	*Ferocactus viridescens*	–/–	2B.1	MSCP	Observed
San Diego bur-sage	*Ambrosia chenopodiifolia*	–/–	2B.1	–	Observed
San Diego button-celery	*Eryngium aristulatum* var. *parishii*	FT/CE	1B.1	VPHCP, NE	Observed
San Diego County viguiera	*Bahiopsis laciniata*	–/–	4.3	–	Observed
San Diego goldenstar	*Bloomeria [=Muilla] clevelandii*	–/–	1B.1	MSCP	Moderate
San Diego needlegrass	*Stipa diegoensis*	–/–	4.2	–	Observed
seaside cistanthe	*Cistanthe maritima*	–/–	4.2	–	Observed
small-flowered microseris	*Microseris douglasii* ssp. *platycarpha*	–/–	4.2	–	Moderate
snake cholla	*Cylindropuntia californica* var. *californica*	–/–	1B.1	MSCP, NE	Observed
south coast saltscale / south coast saltbush	*Atriplex pacifica*	–/–	1B.2	–	Observed
thread-leaved brodiaea	*Brodiaea filifolia*	FT/CE	1B.1	MSCP, NE	Moderate
variegated dudleya	*Dudleya variegata*	–/–	1B.2	MSCP, NE	Observed
western dichondra	*Dichondra occidentalis*	–/–	4.2	–	Observed

Table 3
Sensitive Plant Species Observed within the Project level Analysis Area or with a Moderate Potential to Occur in the Program or Project level Analysis Areas

FEDERAL CANDIDATES AND LISTED PLANTS

FE = Federally listed endangered
FT = Federally listed threatened
FC = Federal candidate for listing as endangered or threatened

STATE LISTED PLANTS

CE = State listed endangered
CR = State listed rare
CT = State listed threatened

CALIFORNIA NATIVE PLANT SOCIETY (CNPS): CALIFORNIA RARE PLANT RANKS (CRPR)

1A = Species presumed extinct.
1B = Species rare, threatened, or endangered in California and elsewhere. These species are eligible for state listing.
2A = Plants presumed extirpated in California, but more common elsewhere.
2B = Species rare, threatened, or endangered in California but more common elsewhere. These species are eligible for state listing.
3 = Species for which more information is needed. Distribution, endangerment, and/or taxonomic information is needed.
4 = A watch list of species of limited distribution. These species need to be monitored for changes in the status of their populations.
.1 = Species seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat).
.2 = Species fairly threatened in California (20-80% occurrences threatened; moderate degree and immediacy of threat).
.3 = Species not very threatened in California (<20% of occurrences threatened; low degree and immediacy of threat or no current threats known).
CBR = Considered but rejected

CITY OF SAN DIEGO

NE = Narrow endemic
MSCP = Multiple Species Conservation Program covered species
VPHCP = Vernal Pool Habitat Conservation Plan covered species

California adolphia was observed growing in clusters, primarily along the southern boundary of Beyer Boulevard West and in the southern project-level survey areas. This species was observed within Diegan coastal sage scrub and maritime succulent scrub habitats. Within the program-level study area, California adolphia has a high potential to occur.

California box-thorn (*Lycium californicum*). California box-thorn is a CRPR 4.2 species (CNPS 2023). This shrub in the nightshade family (Solanaceae) has stiff, spiny branches, small fleshy leaves, and white, purple-tinged flowers that bloom from March to July (Munz 1974). California box-thorn is distributed coastally, on the Channel Islands and from Los Angeles County south to Baja California, Mexico (Munz 1974, Hickman 1993). The general habitat for this species is coastal bluff scrub and coastal sage scrub below 500 feet elevation; in San Diego County it occupies a band in upper coastal salt marshes and on sandstone steppes (Reiser 2001). California box-thorn differs from all other plants in its genus because it has leaves that are more or less round in cross section and produces only two seeds per fruit (Hickman 1993).

This species was observed in clusters within the maritime succulent scrub and Diegan coastal sage scrub within the Phases 1, 2, Beyer Boulevard West, and the southern project-level survey areas. Within the program-level study area, California box-thorn has a moderate potential to occur.

California Orcutt grass (*Orcuttia californica*). California Orcutt grass is a state and federally endangered species (CDFW 2022b). It is a CRPR 1B.1 species (rare, threatened, or endangered in California and elsewhere; seriously endangered in California) (CNPS 2023). This prostrate, sticky, bright green annual grass (Poaceae family) grows about four inches tall and flowers in May and June (USFWS 1993). Populations are known from Ventura, Los Angeles, Riverside, and San Diego Counties, and Baja California. This species is known to occur within eight pool complexes in Otay Mesa. (AECOM 2012). California Orcutt grass grows in vernal pools below 2,100 feet elevation, preferring deeper pools (USFWS 1993). Within the program-level study area, California Orcutt grass has a low to moderate potential to occur.

Cliff spurge (*Euphorbia misera*). Cliff spurge is a CRPR 2B.2 species (CNPS 2023). Cliff spurge is a shrub in the spurge family (Euphorbiaceae) that grows to about three feet tall and may flower from December to August. It is found coastally from Orange County south to Baja California and in the Channel Islands, with a disjunct population in the Sonoran Desert near Whitewater, Riverside County. It typically occurs in coastal bluff scrub or maritime succulent scrub below 1,700 feet (CNPS 2023). The largest populations in San Diego County are found on Point Loma and Otay Mesa, with occurrences as far north as Carlsbad (Reiser 2001). Soil series associated with this species include Olivenhain cobbly loam and Gaviota fine sandy loam (Reiser 2001). This spiny, low-growing shrub with brittle branches is readily recognizable year-round. This species was observed in the project-level area, especially on south-facing undisturbed slopes. Within the program-level study area, cliff spurge has a moderate potential to occur.

Decumbent goldenbush (*Isocoma menziesii* var. *decumbens*). Decumbent goldenbush is a CRPR 1B.2 species (CNPS 2023). This is a low, spreading shrub in the sunflower family (Asteraceae) with stems up to 20 inches long that blooms between April and November (Munz 1974). This variety is found in the Channel Islands, Orange and San Diego counties, and in Baja California (CNPS 2023a). Decumbent goldenbush grows in dry sandy mesas in coastal sage scrub (Munz 1974) intermixed with grassland. In San Diego County, this variety is concentrated in the vicinity of Bonita northward

to the MCAS Miramar, but has been reported as far south as Otay Mesa and as far north as Carlsbad (Reiser 2001). Decumbent goldenbush can be distinguished by being a relatively short shrub, with grayish leaves with cobwebby hairs that typically have a few (but variable in number) shallow teeth on the tip (Nesom 1991, cited in Reiser 2001). This species was observed in the project-level area of the Specific Plan. Within the program-level study area, decumbent goldenbush has a high potential to occur.

Golden-ray pentachaeta (*Pentachaeta aurea* ssp. *aurea*). Golden-rayed pentachaeta is a CRPR 4.2 species (CNPS 2023). This slender annual herb in the sunflower family (Asteraceae) grows three to twelve inches high and is topped with small flowers with yellow to brownish-orange centers and yellow rays that bloom from April to July (Hickman 1993, Munz 1974). This species is found in open, grassy areas below 6,000 feet in coastal sage scrub, cismontane woodland, and lower montane coniferous forest (Munz 1974, CNPS 2023). Its range is throughout southern California and Baja California, but it is rarer north of San Diego County (Reiser 2001). It was once a common plant on the mesas around the city of San Diego, and now can be found at MCAS Miramar, Torrey Pines State Park, on Del Mar Mesa, and around Cuyamaca Lake and the Laguna Lakes (Reiser 2001). This species was observed in the project-level area of the Specific Plan. Within the program-level study area, golden-rayed pentachaeta has a high potential to occur.

Graceful tarplant (*Holocarpha virgata* ssp. *elongata*). Graceful tarplant is a CRPR 4.2 species (CNPS 2023). This strongly aromatic, sticky, annual herb in the sunflower family (Asteraceae) has a slender stem that may grow four feet tall and flowers between July and November. It occurs in Orange, Riverside and San Diego counties. It may occur in coastal sage scrub, chaparral, grasslands, and cismontane woodland (CNPS 2023), but it is most commonly found in grasslands below 2,500 feet (Hickman 1993). Usually there is little shrub cover where graceful tarplant is found, but non-native grasses and herbs may dominate the area (Reiser 2001). This species is threatened by urban development (CNPS 2023). This species has been known to occur within one mile of the program-level analysis area (CDFW 2022b). Within the program-level study area, graceful tarplant has a moderate potential to occur.

Orcutt's bird's-beak (*Dicranostegia orcuttianus*). Orcutt's bird's-beak is covered under the MSCP and is a CRPR 2B.1 species (rare, threatened, or endangered in California, but more common elsewhere; seriously endangered in California) (City of San Diego 1997, CNPS 2023). This semi-parasitic annual in the broomrape family (Orobanchaceae) flowers from March to July. Its range extends from southern San Diego County into Baja California. Its habitat is coastal scrub below 1,000 feet elevation (Hickman 1993, CNPS 2023), although Reiser (2001) considers seasonally dry drainages and upland adjacent to riparian habitat as its preferred habitat. The largest United States population is located in the Otay River drainage. Within the program-level study area, Orcutt's bird's-beak has a moderate potential to occur.

Otay tarplant (*Deinandra conjugens*). Otay tarplant is listed as a California endangered species and a federally threatened species (CDFW 2022c). It is a CRPR 1B.1 species (CNPS 2023) and is a covered species and narrow endemic species under the City's MCSP Subarea Plan (City of San Diego 1997). This small, aromatic annual herb in the sunflower family (Asteraceae) produces mostly solitary yellow flower heads in May and June (Munz 1974). It ranges from southwestern San Diego County into Baja California, in open coastal sage scrub and grassland habitats below 1,000 feet elevation (CNPS 2023).

It typically occurs in herbaceous plant communities on slopes and mesas with expansive clay soils, and may occur in non-native grasslands and fallow agricultural fields where clay soils are present (Reiser 2001). Otay tarplant is considered to be declining. Residential and commercial development and highway construction have led to this decline (Reiser 2001). Populations of Otay tarplant are substantially declining throughout San Diego County. Extant populations are threatened by pressures from urban development, habitat disturbance, and invasion of non-native species. There is no designated critical habitat for Otay tarplant within the program-level area. This species was observed in the project-level area of the Specific Plan. Within the program-level study area, Otay tarplant has a high potential to occur.

Palmer's grapplinghook (*Harpagonella palmeri*). Palmer's grapplinghook is a CRPR 4.2 species (CNPS 2023). This small herbaceous annual in the borage family (Boraginaceae) flowers from March to May, then produces spiny nutlets that look like tiny grapplinghooks. Palmer's grapplinghook is found in Los Angeles, Orange, Riverside, and San Diego counties, Arizona, Baja California, and Sonora, Mexico (CNPS 2023). It may be found in grasslands, coastal sage scrub, and chaparral habitats below 2,700 feet (CNPS 2023), but in San Diego is typically found in open grassy slopes or open coastal sage scrub habitat on clay soils. This inconspicuous plant can most reliably be identified in late spring or early summer, when its distinctive fruit can be observed. This species was observed in the project-level area of the Specific Plan. Within the program-level study area, Palmer's grapplinghook has a high potential to occur.

San Diego barrel cactus (*Ferocactus viridescens*). San Diego barrel cactus is a CRPR 2B.1 species and is a covered species under the MSCP (CNPS 2023; City of San Diego 1997). This globular succulent in the cactus family (Cactaceae) grows up to eight inches tall and flowers in May and June (Baldwin et al. 2012). It is found only in coastal San Diego County and Baja California, Mexico. Although found as far north as Oceanside coastally and Poway inland, the largest populations of San Diego barrel cactus occur in Otay Mesa and Otay Valley, Point Loma, and Marine Corps Air Station (MCAS) Miramar (Reiser 2001). This species generally occurs in sandy, rocky or dry hills of coastal sage scrub, grassland, chaparral, and vernal pool habitats below 500 feet elevation (University of California 2018, Munz 1974). It is typically found in soil types such as San Miguel-Exchequer rocky silt loams and Redding gravelly loams and is associated with species such as variegated dudleya, foothill needle grass (*Stipa lepida*), and California sagebrush (Reiser 2001). It is the only barrel cactus found in coastal areas. San Diego cactus is threatened by urbanization, off-road vehicles, and collecting (Baldwin et al. 2012). This species was observed in the project-level area of the Specific Plan. Within the program-level study area, San Diego barrel cactus has a high potential to occur.

San Diego bur-sage (*Ambrosia chenopodiifolia*). San Diego bur-sage is a CRPR 2B.1 species (CNPS 2023). This perennial shrub is in the sunflower family (Asteraceae), has hairy grayish leaves, and flowers from April to June. Its range is restricted to extreme southern San Diego County, near Otay Mesa, and northern Baja California, Mexico. It is generally found in dry, fairly open, Diegan coastal sage scrub below 600 feet in elevation, where it often grows in association with low-growing California sagebrush (*Artemisia californica*) and black sage (*Salvia mellifera*). It has also been known to occur on Olivenhain cobbly loam soil (Reiser 2001). This species was observed in the project-level area of the Specific Plan. Within the program-level study area, San Diego bur-sage has a high potential to occur.

San Diego button-celery (*Eryngium aristulatum* var. *parishii*). San Diego button-celery is federally and state listed as endangered, is a MSCP-covered species under the VPHCP, and is a CRPR 1B.1 species (CDFW 2022e; City of San Diego 2019; CNPS 2023). San Diego button-celery is a low-growing emergent aquatic plant in the carrot family (Apiaceae) that can be either an annual or perennial plant, with heads of greenish flowers, observed between March and July. San Diego button-celery is limited to vernal pools in coastal sage scrub and grassland habitats. Its current range extends from Marine Corps Base Camp Pendleton in northern San Diego County through San Diego County into Baja California. The appearance of the plant can differ from an erect plant with bright green leaves emerging from shallow pools in the spring, to a spiny, prostrate, gray-green plant during flowering and fruiting. San Diego button-celery is considered to be declining due to loss or conversion of habitat. More than half of the 80 known occurrences of this species have been extirpated (CNPS 2023). Within the program-level study area, San Diego button-celery was observed on one of the City-owned 1-acre parcels

Small-flowered microseris (*Microseris douglasii* ssp. *platycarpha*). Small-flowered microseris is a CRPR 4.2 species (CNPS 2023). This annual herb in the sunflower family (Asteraceae) grows from one to ten inches tall and produces yellow or white flowers in March and May. The range of this subspecies of the widespread *M. douglasii* includes Los Angeles, Orange, Riverside, and San Diego counties and the southern Channel Islands (CNPS 2023). Small-flowered microseris occur in grasslands, cismontane woodland, coastal scrub, and vernal pool habitats (CNPS 2023); more specifically, in San Diego it typically occurs on clay lenses among native bunchgrasses, on the edge of vernal pools, or in openings in sage scrub (Reiser 2001). This plant dries up quickly after setting seed, so directed surveys must be conducted during its short flowering season (Reiser 2001). In order to distinguish this plant from the other subspecies that grow along the south coast, it is necessary to examine the bristles below the flower (Hickman 1993). This species is severely threatened by urbanization and non-native plan invasions into native habitats (CNPS 2023). This species has been known to occur within one mile of the program-level analysis area (CDFW 2022b.) Within the program-level study area, small-flowered microseris has a high potential to occur.

Snake cholla (*Cylindropuntia californica var. californica*). is CRPR 1B.1 species (CNPS 2023) and is a narrow endemic species under the MSCP. It is a generally prostrate cactus (Cactaceae family) that may grow up to 9 feet and blooms with yellow or green-yellow flowers in April and May. This variety grows only in southern San Diego County and Baja California, with the many known populations within the Otay Mesa area of San Diego, Chula Vista, and Bonita (Reiser 2001). Snake cholla occurs in coastal sage scrub and chaparral habitats between 100 and 500 feet elevation (CNPS 2023), most often on dry hillsides. It is associated with Huerhuero loam, Gaviota fine sandy loam, and Redding cobbly loam soils (Reiser 2001). Snake cholla was observed within the maritime succulent scrub within the southern project-level survey areas and within portions of Moody Canyon. Within the program-level study area, snake cholla has a high potential to occur.

San Diego County viguiera (*Bahiopsis laciniata*). San Diego County viguiera is a CRPR 4.2 species (CNPS 2023). This shrub in the sunflower family (Asteracae) has shiny, resinous leaves and showy yellow flowers that bloom from February to August (University of California 2018, Munz 1974). Its range extends from Sonora and Baja California, Mexico northward into San Diego and Orange County (CNPS 2023), although the population in Orange County may not be native (Reiser 2001). In San Diego County it is rare north of State Route 78, becoming increasingly common to the south,

until it is the dominant coastal sage shrub in non-coastal southern San Diego County (Reiser 2001). San Diego County viguiera occurs on dry, shrubby slopes in Diegan coastal sage scrub and chaparral habitats between 200 and 2,500 feet in elevation. This species was observed in the project-level area of the Specific Plan. Within the program-level study area, San Diego County viguiera has a high potential to occur.

San Diego goldenstar (*Bloomeria* [=*Muilla*] *clevelandii*). San Diego goldenstar is a CRPR 1B.1 species (CNPS 2023). This herbaceous perennial in the lily family (Liliaceae) grows one foot tall and has bright yellow flowers in May (Munz 1974). San Diego goldenstar is found below 1500 feet in southwestern San Diego County and northern Baja California, Mexico. It grows in grasslands and vernal pool habitats, and on the edges of coastal sage scrub and chaparral (CNPS 2023). San Diego goldenstar looks somewhat like common goldenstar (*Bloomeria crocea*), but the filaments of San Diego goldenstar sit on a conspicuously raised base (Reiser 2001). This species is threatened by urbanization, road construction, invasion of non-native plants, and illegal dumping (CNPS 2023). This species has been known to occur within one mile of the program-level analysis area (CDFW 2022b). Within the program-level study area, San Diego goldenstar has a high potential to occur.

San Diego County needle grass (*Stipa* [*=Achnatherum*] *diegoensis*). San Diego County needle grass is a CRPR 4.2 species (CNPS 2023). This species is a tufted perennial grass (Poaceae family) that grows up to four feet tall, blooming from February to June. It occurs in the Channel Islands, San Diego County, and Baja California (CNPS 2023). San Diego County needle grass grows in rocky areas of coastal sage scrub and chaparral at elevations below 1,200 feet; mainland populations often occur near streams (Hickman 1993). In San Diego County, this grass is found between 1,000 and 2,400 feet elevation along vernal streams and on clay slopes (Reiser 2001). Known San Diego County locations for this species include Proctor Valley, Jamul Mountain, McGinty Mountain, near Lee Valley, Otay Mesa, and Otay Mountain (Beauchamp 1986). This species was observed in the project-level area of the Specific Plan. Within the program-level study area, San Diego County needle grass has a high potential to occur.

Seaside cistanthe (*Cistanthe maritima*). Seaside cistanthe is a CRPR 4.2 species (CNPS 2023). This low, spreading, succulent annual herb in the purslane family (Portulacaeae) flowers from March through May (Munz 1974). Its range extends along the coast from Santa Barbara County southward into Baja California and on the Channel Islands (CNPS 2023). It is typically found on sandy bluffs and openings in coastal sage scrub flats near the beach. It has been mapped on Gaviota fine sandy loam and Terrace Escarpment soils (Reiser 2001). This species was observed in the project-level area of the Specific Plan on undisturbed south-facing slopes. Within the program-level study area, seaside cistanthe has a high potential to occur.

South coast saltscale (*Atriplex pacifica*). South coast saltscale, also known as South coast saltbush, is a CRPR 1B.2 species (CNPS 2023). It is a prostrate annual herb in the goosefoot family (Chenopodiaceae) that forms tangled masses up to three feet in diameter and produces inconspicuous flowers between March and October. This species is distributed coastally from Los Angeles south to Baja California and on the Channel Islands, with disjunct populations in Arizona and Sonora, Mexico (CNPS 2023). It is found below 300 feet in elevation, in coastal bluff scrub, coastal dunes, and coastal scrub; it can also occur in alkaline playas in the desert (CNPS 2023). In San Diego County, it typically grows in dry, often mildly disturbed sites in open Diegan coastal sage

scrub; host soils include Linne clay loam and Huerhuero-urban land (Reiser 2001). This species was observed in the project-level area of the Specific Plan. Within the program-level study area, south coast saltscale has a high potential to occur.

Spreading navarretia (*Navarretia fossalis*). Spreading navarretia is federally listed as threatened (CDFW 2022b). It is a CRPR 1B.1 species (rare, threatened, or endangered in California and elsewhere; seriously endangered in California) (CNPS 2023). This low-growing annual herb in the phlox family (Polemoniaceae) grows about five inches tall and flowers from April to June. Its range includes northwestern Los Angeles County, western Riverside County, coastal San Diego County, and northwestern Baja California (USFWS 1998a); it is presumed extirpated from San Luis Obispo County (CNPS 2023). This species occurs in vernal pools and ditches below 4,300 feet (Hickman 1993). Numbers of prostrate navarretia increase during wet years, and this species is seldom noted in shallow vernal pools. Two other species of navarretia occur in similar habitats: *N. intertexta* has ovate, rather than linear, corolla lobes and *N. prostrata* is prostrate, with its bluish flowers almost buried in its basal leaves. USFWS-designated critical habitat is present for this species within the program-level areas (Figure 28.1). Within the program-level study area, spreading navarretia has a low to moderate potential to occur.

Thread-leaved brodiaea (*Brodiaea filifolia*). This species was listed by California as endangered in 1982 and by the U.S. as a threatened species in 1998 (USFWS 1998a). Thread-leaved brodiaea is a narrow endemic species covered under the MSCP and is a CRPR 1B.1 species (CNPS 2023). This perennial bulbiferous herb in the lily family (Liliaceae) has several linear leaves that may reach 16 inches in height, its leafless flowering stalk bears blue to red-purple flowers in May and June. This plant may occur in coastal sage scrub, chaparral, cismontane woodland, alkali scrub and floodplains (CNPS 2023), but is most commonly found in heavy clay soils in native grasslands or in association with vernal pools (USFWS 1998a). Its range extends from the foothills of the San Gabriel and San Bernardino Mountains, through Orange County and western Riverside County, to Carlsbad in northwestern San Diego County. Nearly half of known existing populations are clustered around the cities of Vista, San Marcos, and Carlsbad. Thread-leaved brodiaea is restricted to clay, loamy sand, or alkaline silty-clay soils, and is typically found on gentle hillsides, in valleys, or in floodplains (USFWS 1998a). This species is difficult to distinguish from grasses, unless surveyed during its flowering season. Thread-leaved brodiaea is considered to be declining, with many of its occurrences threatened by residential and agricultural development (CNPS 2023). This species has been known to occur within one mile of the program-level analysis area (CDFW 2022b). Within the program-level study area, thread-leaved brodiaea has a moderate potential to occur.

Variegated dudleya (*Dudleya variegata*). Variegated dudleya is a CRPR 1B.2 species (CNPS 2023) and is a narrow endemic species covered by the MSCP. This small succulent perennial in the stonecrop family (Crassulaceae) emerges from a corm in spring and produces yellow flowers in May and June. Its range extends from southwestern San Diego County to Baja California. It occurs in coastal sage scrub, grassland, and chaparral habitats below 500 feet. It usually grows in stony places lacking shrub cover, on isolated rocky substrate in grasslands, and on mima mounds near vernal pools. It often occurs on gravelly loam soils (Reiser 2001). Although the largest populations are known to occur in Otay Mesa, it has been reported as far north as Black Mountain Road (CDFW 2022b). This species is difficult to detect given the small size, cryptic form, and short season of detectability between spring and early summer.

Urban growth threatens the continued existence of variegated dudleya in San Diego County (Reiser 2001). Major populations within Otay Mesa have been removed due to the widespread development that has occurred in this region during the past few decades. This species was observed in the project-level area of the Specific Plan. Within the program-level study area, variegated dudleya has a moderate potential to occur.

Western dichondra (*Dichondra occidentalis*). Western dichondra is a CRPR 4.2 species (CNPS 2023). This small perennial herb in the morning-glory family (Convolvulaceae) can form a ground cover and flowers from March to May. It occurs below 1,500 feet in coastal southern California south of Santa Barbara County, in the Channel Islands, and in Baja California. Western dichondra is found in chaparral, cismontane woodland, coastal sage scrub, where it often grows hidden beneath shrubs. It also may occur after fire in these habitats as well as in rocky outcrops in grasslands. This species was observed in the project-level area of the Specific Plan. Within the program-level study area, western dichondra has a moderate potential to occur.

5.3.2 Project-level Area

A total of 19 sensitive plant species were observed during the focused rare plant surveys and other biological surveys conducted in project-level areas. Sensitive plant species observed include: ashy spike-moss, bobtail barley, California adolphia, California box-thorn, cliff spurge, decumbent goldenbush, golden-ray pentachaeta, Otay tarplant, Palmer's grapplinghook, San Diego barrel cactus, San Diego bur-sage, San Diego button-celery, San Diego County viguiera, San Diego County needle grass, seaside cistanthe, snake cholla, south coast saltscale, variegated dudleya, and western dichondra (see Figures 26.1 through 26.11). These species are described in Section 5.3.1 and their occurrences within the project-level area is described below.

Ashy spike-moss (*Selaginella cinerascens*). Ashy spike-moss is a CRPR 4.1 species (CNPS 2023). This species was found in clustered mats throughout Phases 1, 2, Beyer Boulevard West, and the southern and southeastern project-level survey areas, primarily on undisturbed portions of mesa tops in maritime succulent scrub habitat.

Bobtail barley (*Hordeum intercedens*). Bobtail barley is a CRPR 3.2 species (CNPS 2023). This species was observed growing in a single vernal pool within the northern limits of the southern existing VPHCP/MPHA area within the southern project-level survey area.

California adolphia (*Adolphia californica*). California adolphia has a CNPS CRPR of 2B.1 (rare, threatened, or endangered in California, but more common elsewhere; seriously endangered in California) (CNPS 2023). California adolphia was observed growing in clusters, primarily along the southern boundary of Phase 1 and in the southern project-level survey areas. This species was observed within Diegan coastal sage scrub and maritime succulent scrub habitats.

California box-thorn (*Lycium californicum*). California box-thorn is a CRPR 4.2 species (CNPS 2023). This species was observed in clusters within the maritime succulent scrub and Diegan coastal sage scrub within the Phase 1, Beyer Boulevard West, and the southern project-level survey areas.

Cliff spurge (*Euphorbia misera*). Cliff spurge is a CRPR 2B.2 species (CNPS 2023). Cliff spurge occurs in the project-level Phases 1, 2, and Beyer Boulevard West areas on the south- and west-facing slopes within maritime succulent scrub in the southern project-level survey areas. It was observed occurring in the highest numbers on south-facing slopes and areas with little disturbance.

Decumbent goldenbush (*Isocoma menziesii* var. *decumbens*). Decumbent goldenbush is a CRPR 1B.2 species (CNPS 2023). This species was observed within the project-level survey area for Beyer Boulevard West within Diegan coastal sage scrub (Photograph 23). The habitat had other native shrubs, non-native grass, and loamy or clay textured soil. Only individuals were observed but others could occur hidden within the Diegan coastal sage scrub.

Golden-ray pentachaeta (*Pentachaeta aurea* ssp. *aurea*). Golden-rayed pentachaeta is a CRPR 4.2 species (CNPS 2023). Golden-ray pentachaeta was only observed growing within the non-native grassland habitat immediately north of the southern existing VPHCP/MHPA area within the southern project-level survey area but outside of Phases 1 and 2 areas (Photograph 24) Given the level of survey effort conducted, it is expected that this plant would have been detected within the impact area if present.

Otay tarplant (*Deinandra conjugens*). Otay tarplant is listed as a California endangered species and a federally threatened species (CDFW 2022c). It is a CRPR 1B.1 species (CNPS 2023) and is a covered species and narrow endemic species under the City's MCSP Subarea Plan (City of San Diego 1997). Otay tarplant occurs within the western portion of the project-level survey area along the north-facing slope of Moody Canyon in areas mapped as maritime succulent scrub and disturbed land (Photograph 25). This species appears to be more concentrated in areas that have previously been disturbed, such as lightly used trails and a previously graded road and are also scattered within the slope.

Palmer's grapplinghook (*Harpagonella palmeri*). Palmer's grapplinghook is a CRPR 4.2 species (CNPS 2023). This species was observed within the southern and southeastern project-level survey areas in the non-native grassland and disturbed areas and on a south-facing slope within the Beyer Boulevard West survey area. Palmer's grapplinghook was frequently scattered within the large patches of low-growing annual flowers and along the roadsides.

San Diego barrel cactus (*Ferocactus viridescens*). San Diego barrel cactus is a CRPR 2B.1 species and is a covered species under the MSCP (CNPS 2023; City of San Diego 1997). San Diego barrel cactus was observed in the project-level Phases 1, 4, Beyer Boulevard West, and south- and west-facing slopes within Phase 2 within maritime succulent scrub and within Diegan coastal sage scrub along the rims of mesas. It was observed to occur in the highest numbers on south-facing slopes and areas with little disturbance (Photograph 26). This species also occurs around the edges of the southern existing VPHCP/MHPA area within the southern project-level survey area.

San Diego bur-sage (*Ambrosia chenopodiifolia*). San Diego bur-sage is a CRPR 2B.1 species (CNPS 2023). San Diego bur-sage occurs throughout the project-level survey area within the maritime succulent scrub, disturbed maritime succulent scrub, and Diegan coastal sage scrub. It occurs as the dominant plant species within some of the maritime succulent scrub; and also occurs within some disturbed areas, such as roads and project-level trails (Photograph 27).

PHOTOGRAPH 23

Decumbent Goldenbush (*Isocoma menziesii* var. *decumbens*) Observed along Edge of Diegan Coastal Sage Scrub in Phase 1. Photo Date: March 26, 2019

PHOTOGRAPH 24

Golden-ray Pentachaeta (*Pentachaeta aurea* ssp. *aurea*) Observed in Non-native Grassland within Mitigation Lands. Photo Date: May 8, 2019

PHOTOGRAPH 25

Otay Tarplant (*Deinandra conjugens*) Observed in Disturbed Land within the Western Portion of Phase 1b. Photo Date: June 8, 2020

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PHOTOGRAPH 26

Flowering San Diego Barrel Cactus (*Ferocactus viridescens*) in Maritime Succulent Scrub, within the Northern Portion of Phase 1;
Photo Date: April 1, 2019

PHOTOGRAPH 27

San Diego Bur-sage (*Ambrosia chenopodiifolia*) Growing in Maritime Succulent Scrub within the Southern Portion of Phase 1;
Photo Date: February 26, 2018

San Diego button-celery (*Eryngium aristulatum* var. *parishii*). San Diego button-celery is federally and state listed as endangered, is a MSCP-covered species under the VPHCP, and is a CRPR 1B.1 species (CDFW 2022e; City of San Diego 2019; CNPS 2023). San Diego button-celery was observed in one vernal pool located within Phase 1 (Photograph 28).

San Diego County needle grass (*Stipa* [*=Achnatherum*] *diegoensis*). San Diego County needle grass is a CRPR 4.2 species (CNPS 2023). This species was observed in Phase 1, 2, Beyer Boulevard West, and southern survey areas on north-facing slopes within openings of maritime succulent scrub. The habitat had other native bunch grasses, bulbs, and a rocky surface. Additionally, this species occurs within a canyon in the easternmost project-level survey areas.

San Diego County viguiera (*Bahiopsis laciniata*). San Diego County viguiera is a CRPR 4.2 species (CNPS 2023). San Diego viguiera occurs throughout Phases 1, 2, 4, Beyer Boulevard West, and the southern project-level survey areas. Individuals occur both scattered and in groups within maritime succulent scrub and Diegan coastal sage scrub. Areas of the site that appear to undergo a high amount of disturbance were not found to contain this species.

Seaside cistanthe (*Cistanthe maritima*). Seaside cistanthe is a CRPR 4.2 species (CNPS 2023). Seaside cistanthe was observed within the coastal sage scrub habitat within the project-level Phase 1 and within maritime succulent scrub habitat within the southern project-level survey areas. Typically, groups of this species generally occur on undisturbed south-facing slopes (Photograph 29).

Snake cholla (*Cylindropuntia californica var. californica*). Snake cholla is CRPR 1B.1 species (CNPS 2023) and is a narrow endemic species under the MSCP. Snake cholla was observed within the maritime succulent scrub within the project-level Phase 2 and Beyer Boulevard West and southern project-level survey areas and within portions of Moody Canyon outside of the project-level impact area.

South coast saltscale (*Atriplex pacifica*). South coast saltscale, also known as South coast saltbush, is a CRPR 1B.2 species (CNPS 2023). South coast saltscale was observed within both disturbed maritime succulent scrub and non-native grassland habitats within the project-level areas, along the southwestern edge of the mesa top within Phases 1 and 2 and within the Beyer Boulevard West survey area.

Variegated dudleya (*Dudleya variegata*). Variegated dudleya is a CRPR 1B.2 species (CNPS 2023) and is a narrow endemic species covered by the MSCP. Variegated dudleya was observed immediately to the north of the southern existing VPHCP/MHPA area, within the southeastern project-level survey area. It was found in two separate clumps within Diegan coastal sage scrub habitat. Given the level of survey effort conducted, it is expected that this plant would have been detected within the impact area if present.

Western dichondra (*Dichondra occidentalis*). Western dichondra is a CRPR 4.2 species (CNPS 2023). This species was observed within the maritime succulent scrub within the western portion of the Beyer Boulevard West survey area. A small clump of five individuals occurs just off the existing disturbed road in the native habitat.

PHOTOGRAPH 28

San Diego Button-celery (*Eryngium aristulatum* var. *parishii*) Observed in Vernal Pool #3145 in Phase 1.
Photo Date: April 23, 2019

PHOTOGRAPH 29

Flowering Seaside Cistanthe (*Cistanthe maritima*) (Foreground) Observed Just Outside of the Southwestern Corner of Phase 1;
Photo Date: April 1, 2019

Two of these observed species, Otay tarplant and San Diego button-celery, are federally and state listed endangered and covered under the MSCP and VPHCP, respectively. Otay tarplant, variegated dudleya, San Diego button-celery, and snake cholla are narrow endemic, MSCP-covered species. San Diego barrel cactus is a MSCP-covered species. The remaining sensitive plant species are considered locally sensitive and have a rare plant ranking as assigned by CNPS. All sensitive plant species observed in the project-level survey area and their corresponding listing status are included in Table 3.

Sensitive plant species known to occur in the project vicinity (within one mile of the project-level survey area), based on CNDDB records, were evaluated for their potential to occur as detailed in Attachment 7. Sensitive plant species that are federally listed threatened or endangered, considered City narrow endemic, or that have potential to occur based on species range were evaluated. After rare plant surveys and many years of work within the project-level survey area, plants were either noted as high potential to occur, a moderate potential to occur, or a low potential to occur. Additionally, the following species were identified as having a moderate potential to occur: graceful tarplant (*Holocarpha virgata* ssp. *elongate),* Orcutt's bird's-beak (*Dicranostegia orcuttiana* [=*Cordylanthus orcuttianus*]), San Diego goldenstar (*Bloomeria [=Muilla] clevelandii*), small-flowered microseris (*Microseris douglasii ssp. platycarpha*), and thread-leaved brodiaea (*Brodiaea filifolia*). Refer to Attachment 7 for a summary of all plant species evaluated and their potential to occur.

In addition, there is USFWS-designated critical habitat for spreading navarretia present within the project-level areas (see Figure 28.1); however, this species was not observed during any of the rare plant and fairy shrimp surveys conducted and the potential to occur has been identified as low.

5.4 Sensitive Wildlife

5.4.1 Program-level Area

Three sensitive wildlife species are known to occur within the program-level analysis area based on information obtained from the literature review including, but are not limited to, CNDDB (CDFW 2022a), the All Species Occurrences Database (USFWS 2022), and SanBIOS (County of San Diego 2022): San Diego fairy shrimp, western spadefoot, and coastal cactus wren. Their corresponding listing status are listed in Table 4a and are discussed further below.

Additional species observed within the project-level survey areas (Section 5.4.2) were determined to have high potential to occur and several other species have a moderate potential to occur based on habitat characteristics present in the program-level analysis area. Precise locations and presence of sensitive wildlife species within the program-level areas would be identified through on-site reconnaissance and project-level analysis in conjunction with proposed future development. An expanded description of species identified with a moderate to high potential to occur is included in Section 5.4.2. Sensitive wildlife species known to occur in the project vicinity (within one mile of the program-level areas) that are federally listed threatened or endangered, or that have potential to occur based on species range are also addressed in Attachment 8.

Table 4a Sensitive Wildlife Species Observed and with a Moderate to High Potential to Occur within the Program-level Analysis Area			
Scientific Name	Common Name	Listing Status	Potential to Occur[1]
Invertebrates			
Bombus crotchii	Crotch's bumble bee	SC	Moderate
Branchinecta sandiegonensis	San Diego fairy shrimp	FE, VPHCP	Observed
Euphydryas editha quino	Quino checkerspot butterfly	FE	Moderate
Streptocephalus woottoni	Riverside fairy shrimp	FE, VPHCP	Moderate
Amphibians			
Spea hammondii	western spadefoot	FPT, CSC	Observed
Reptiles			
Aspidoscelis hyperythra	orange-throated whiptail	CSC, MSCP	High
Aspidoscelis tigris stejnegeri	coastal whiptail	CSC	High
Crotalus ruber	red diamond rattlesnake	CSC	High
Phrynosoma blainvillii	coast horned lizard	CSC, MSCP	High
Plestiodon skiltonianus interparietalis	Coronado skink	CSC	Moderate
Thamnophis hammondii	two-striped gartersnake	CSC	High
Birds			
Accipiter cooperii	Cooper's hawk	WL, MSCP	High
Artemisiospiza belli belli	Bell's sage sparrow	WL	Moderate
Athene cunicularia	burrowing owl	SC, MSCP	High
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	WL, MSCP	High
Ammodramus savannarum	grasshopper sparrow	CSC	High
Campylorhynchus brunneicapillus sandiegensis	coastal cactus wren	CSC, MSCP	Observed
Circus hudsonius	northern harrier	CSC, MSCP	High
Elanus leucurus	white-tailed kite	CFP	High
Eremophila alpestris actia	California horned lark	WL	High
Falco columbarius	merlin	WL	High
Aquila chrysaetos	golden eagle	WL, CFP, BGEPA, MSCP	High
Haliaeetus leucocephalus	bald eagle	CE, CFP, BGEPA, MSCP	High
Icteria virens	yellow-breasted chat	CSC	High
Lanius ludovicianus	loggerhead shrike	CSC	Moderate
Polioptila californica californica	coastal California gnatcatcher	FT, CSC, MSCP	High
Setophaga petechia	yellow warbler	CSC	High
Vireo bellii pusillus	least Bell's vireo	FE, CE, MSCP	High
Mammals			
Neotoma lepida intermedia	San Diego desert woodrat	CSC	High
Odocoileus hemionus fuliginata	southern mule deer	MSCP	Moderate

[1]Additional detail regarding the potential to occur is provided in Attachment 8.

Listed/Proposed

CE = Listed as endangered by the state of California
FE = Listed as endangered by the federal government
FPT = Proposed to be listed as threatened by the federal government
FT = Listed as threatened by the federal government
SC = State of California candidate for listing as threatened or endangered

Other

BGEPA = Bald and Golden Eagle Protection Act
CFP = California fully protected species
CSC = California Department of Fish and Wildlife species of special concern
WL = California Department of Fish and Wildlife watch list species
MSCP = City and County of San Diego Multiple Species Conservation Program covered species
VPHCP = City of San Diego Vernal Pool Habitat Conservation Plan

San Diego fairy shrimp (*Branchinecta sandiegonensis*) is federally listed as endangered and is a covered species under the VPHCP (CDFW 2022e, City of San Diego 2019). USFWS designated revised final critical habitat for this species in December 2007 (see Figure 28.3). This fairy shrimp occurs in limited populations in Santa Barbara and Orange counties, and in San Diego County from San Marcos and Ramona south to Otay Mesa and into northwestern Baja California, Mexico, at Valle de Las Palmas (USFWS 1997a). The majority of San Diego fairy shrimp populations are located in San Diego County. San Diego fairy shrimp are found in vernal pools and prefer cool water temperatures. This species can also be found in ditches and road ruts that are located in degraded vernal pool habitat. Fairy shrimp remain dormant in cysts until pools fill during the rainy season. Nauplii emerge from cysts and develop into adults sometime between mid-December and early May (Eriksen and Belk 1999). Development takes from 10 to 20 days and is dependent on water temperature. Primary threats to this species are habitat destruction and fragmentation, alterations of wetland hydrology, off-road vehicle activity, and grazing (USFWS 1997a). This species was observed within the program-level study area.

Western spadefoot (*Spea hammondii*). The western spadefoot is proposed to be federally listed as threatened and a CDFW species of special concern. This species ranges from central northern California through the Coast Ranges from San Francisco south into Baja California, Mexico, at elevations from sea level to 4,500 feet (Stebbins 2003; Zeiner et al. 1988-1990a). Habitat for the western spadefoot includes lowlands, washes, floodplains of rivers, alluvial fans, alkali flats, temporary ponds, and vernal pools. Although this species is generally found in areas of open vegetation with sandy or gravelly soil (Stebbins 2003), it has been observed in vernal pools containing clay soils on Otay Mesa. Surface activity can occur from October through April depending on rainfall, and oviposition occurs between late February and May (Jennings and Hayes 1994). The western spadefoot diet consists of crickets, butterflies, ants, flies, and earthworms (Morey and Gullin, as cited in Jennings and Hayes 1994). Decline in western spadefoot populations is primarily due to habitat loss and fragmentation, and possibly pesticide use. This species was observed within the program-level study area.

Coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*). The coastal cactus wren is a CDFW species of concern and a City of San Diego MSCP-covered species (CDFW 2022e; City of San Diego 1997). This subspecies ranges from southern Orange County through San Diego County into extreme northwestern Baja California (Proudfoot and Sherry 2000). Year-round residents, coastal cactus wrens inhabit coastal sage and maritime succulent scrub containing thickets of coastal cholla (*Cylindropuntia prolifera*) and two species of prickly pear, shore cactus (*Opuntia littoralis*) and chaparral prickly pear (*Opuntia oricola*) (Rea and Weaver 1990). Coastal cactus wrens build their nests in the cacti approximately 3 feet in height (Solek and Szijj 2004), and egg laying occurs from mid-March through early June. Males often build multiple nests throughout the year, which are used for roosting by adults and fledglings, and nesting for subsequent broods (Unitt 2004). This species is considered a shrubbery skulker, foraging primarily on open areas on the ground or low in the vegetation for insects. In high temperatures, the coastal cactus wren prefers to forage under the canopy of shrubs (Solek and Szijj 2004).

Shuford and Gardali (2008) summarize that in San Diego County the coastal cactus wren is concentrated in four core regions: southern Camp Pendleton/Fallbrook Naval Weapons Station, Lake Hodges/San Pasqual, Lake Jennings, and Sweetwater/Otay Mesa. The primary cause for the

decline of this species is degradation and loss of breeding habitat to urbanization. Human-caused disturbance, such as increased fire frequency and intensity, is also problematic for this species, as cactus recovery after a fire can be slow (Solek and Szijj 2004). This species was observed within the program-level study area.

5.4.2 Project-level Area

A total of 25 sensitive wildlife species were observed or assumed present within the project-level survey area during the general and focused surveys conducted for this project: Quino checkerspot butterfly, San Diego fairy shrimp, Riverside fairy shrimp, Crotch's bumble bee, western spadefoot, coastal California gnatcatcher, orange-throated whiptail, coastal whiptail, coast horned lizard, red diamond rattlesnake, two-striped gartersnake, Cooper's hawk, burrowing owl, northern harrier, white-tailed kite, merlin, bald eagle (*Haliaeetus leucocephalus*), golden eagle (*Aquila chrysaetos*), California horned lark, yellow warbler (*Setophaga petechia*), yellow-breasted chat (*Icteria virens*), least Bell's vireo, southern California rufous-crowned sparrow, grasshopper sparrow, and San Diego desert woodrat (see Figure 27.1 through 27.11).

Five additional wildlife species were not observed but have a moderate to high potential to occur within the project-level analysis area, including Coronado skink (*Plestiodon skiltonianus interparietalis*), Bell's sage sparrow (*Artemisiospiza belli belli*), loggerhead shrike (*Lanius ludovicianus*), southern mule deer (*Odocoileus hemionus fuliginata),* and coastal cactus wren. All sensitive wildlife species with a moderate or high potential to occur including all sensitive wildlife species observed in the project-level survey area and their corresponding listing status are included in Table 4b and described in Section 5.4.2.1. All sensitive wildlife species that are federally listed threatened or endangered, or that have potential to occur based on species range are addressed in Attachment 8. Species not observed but with a moderate or high potential to occur within the project-level areas are described in Section 5.4.2.2

Table 4b Sensitive Wildlife Species Observed and with a Moderate to High Potential to Occur within the Project-level Survey Area			
Scientific Name	Common Name	Listing Status	Potential to Occur[1]
Invertebrates			
Bombus crotchii	Crotch's bumble bee	SC	Observed
Branchinecta sandiegonensis	San Diego fairy shrimp	FE, VPHCP	Observed
Euphydryas editha quino	Quino checkerspot butterfly	FE	Observed
Streptocephalus woottoni	Riverside fairy shrimp	FE, VPHCP	Observed
Amphibians			
Spea hammondii	western spadefoot	FPT, CSC	Observed
Reptiles			
Aspidoscelis hyperythra	orange-throated whiptail	CSC, MSCP	Observed
Aspidoscelis tigris stejnegeri	coastal whiptail	CSC	Observed
Crotalus ruber	red diamond rattlesnake	CSC	Observed
Phrynosoma blainvillii	coast horned lizard	CSC, MSCP	Observed
Plestiodon skiltonianus interparietalis	Coronado skink	CSC	Moderate
Thamnophis hammondii	two-striped gartersnake	CSC	Observed
Birds			
Accipiter cooperii	Cooper's hawk	WL, MSCP	Observed
Artemisiospiza belli belli	Bell's sage sparrow	WL	Moderate
Athene cunicularia	burrowing owl	SC, MSCP	Observed
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	WL, MSCP	Observed
Ammodramus savannarum	grasshopper sparrow	CSC	Observed
Campylorhynchus brunneicapillus sandiegensis	coastal cactus wren	CSC, MSCP	High
Circus hudsonius	northern harrier	CSC, MSCP	Observed
Elanus leucurus	white-tailed kite	CFP	Observed
Eremophila alpestris actia	California horned lark	WL	Observed
Falco columbarius	merlin	WL	Observed
Aquila chrysaetos	golden eagle	WL, CFP, BGEPA, MSCP	Observed
Haliaeetus leucocephalus	bald eagle	CE, CFP, BGEPA, MSCP	Observed
Icteria virens	yellow-breasted chat	CSC	Observed
Lanius ludovicianus	loggerhead shrike	CSC	Moderate
Polioptila californica californica	coastal California gnatcatcher	FT, CSC, MSCP	Observed
Setophaga petechia	yellow warbler	CSC	Observed
Vireo bellii pusillus	least Bell's vireo	FE, CE, MSCP	Observed
Mammals			
Neotoma lepida intermedia	San Diego desert woodrat	CSC	Observed
Odocoileus hemionus fuliginata	southern mule deer	MSCP	Moderate

[1]Additional detail regarding the potential to occur is provided in Attachment 8.

Listed/Proposed

CE = Listed as endangered by the state of California
FE = Listed as endangered by the federal government
FPT = Proposed to be listed as threatened by the federal government
FT = Listed as threatened by the federal government
SC = State of California candidate for listing as threatened or endangered

Other

BGEPA = Bald and Golden Eagle Protection Act
CFP = California fully protected species
CSC = California Department of Fish and Wildlife species of special concern
WL = California Department of Fish and Wildlife watch list species
MSCP = City and County of San Diego Multiple Species Conservation Program covered species
VPHCP = City of San Diego Vernal Pool Habitat Conservation Plan

5.4.2.1 Observed

a. Invertebrates

A general description of San Diego fairy shrimp (*Branchinecta sandiegonensis*) is provided in Section 5.4.1 above. Within the project-level survey area, qualified biologists conducted wet season surveys during the 2017–2018 wet season, at which time San Diego fairy shrimp were detected within 24 of 113 mapped depressions (RECON 2018b). No common or other listed fairy shrimp species, i.e., versatile fairy shrimp (*Branchinecta lindahli*) or Riverside fairy shrimp, respectively, were detected in any of the depressions during the 2017–2018 wet season.

Wet season surveys during the 2018–2019 rainy season were conducted in 96 depressions mapped within new areas added to impact boundary, and within 74 depressions that did not inundate sufficiently during the 2017–2018 wet season survey effort, for a total of 170 depressions surveyed. San Diego fairy shrimp was present in 52 depressions.

Dry season sampling was conducted on 113 depressions and two new depressions for a total of 115 depressions in 2018 (RECON 2019a). An additional 125 depressions that were not sampled during the 2018 dry season surveys were sampled during the 2019 season and San Diego fairy shrimp cysts were detected in 15 basins of the 125 basins (ECORP 2020).

Wet season surveys for the 2019–2020 rainy season were conducted in 188 depressions, within areas not previously surveyed. San Diego fairy shrimp were detected in 51 pools, and dry season sampling occurred within 126 basins that have not yet been sampled.

Combined over the three seasons, permitted biologists surveyed a total of 336 basins and 67 disturbed wetlands. The federally endangered San Diego fairy shrimp was detected in approximately 75 percent of those basins.

Quino checkerspot butterfly (*Euphydryas editha quino*) is federally listed as endangered (CDFW 2022e). The Quino checkerspot butterfly's historic range includes the coastal plain and inland valleys of southern California from the Santa Monica Mountains south to northern Baja California. Currently, the species is known from southern San Diego County and southwestern Riverside County. The distribution of Quino checkerspot butterfly is primarily defined by the distribution of its principal host plant, dot-seed plantain (*Plantago erecta*). Female Quino checkerspot butterfly have also been observed depositing eggs on woolly plantain (*Plantago patagonia*), white snapdragon (*Antirrhinum coulterianum*), and thread-leaved bird's beak (*Cordylanthus rigidus*) (USFWS 2009a). It is possible that members of the figwort family (Scrophulariaceae), including purple owl's clover (*Castilleja exserta*), are also used (Brown 1991; Mattoni et al. 1997). Threats to this species include habitat loss, fragmentation, and habitat type conversion. In April 2002, the USFWS designated critical habitat for the Quino checkerspot butterfly in portions of San Diego and Riverside counties (USFWS 2002). The project-level survey area does not contain any USFWS designated critical habitat for the Quino checkerspot butterfly.

Of all the protocol surveys conducted for this species, only a single Quino checkerspot butterfly was observed during the 2019 survey effort in an open area with abundant popcornflower (*Plagiobothrys* sp.) within the southern project-level survey area in the VPHCP MHPA area (RECON 2019b; Photograph 30; Figure 27.8). Other nectar plant species, such as farinose ground-pink and goldfields, were also observed within the area. In general, the areas surveyed in 2019, especially the

areas located within and adjacent to the proposed vernal pool restoration areas, support much higher quality habitat than the areas within Phases 1 and 2 given the abundance of host and nectar species. These higher quality areas also have lower shrub cover and more open non-native grassland which are more favorable for this species, especially where dot-seed plantain occurs (RECON 2019b).

In early consultation efforts, USFWS stated that any land with contiguous suitable habitat within one kilometer of a Quino checkerspot butterfly observation would be considered to be occupied. The areas within the one-kilometer buffer were evaluated for suitable habitat for this species in 2020 and 2023. Suitable habitat identified along canyon edges and roadsides within the one-kilometer buffer was characterized by the presence of host and nectar plants such as common goldfields, farinose ground pink and adobe popcornflower (Figure 29.1). A majority of the remaining lands within the one-kilometer buffer were dominated with dense and tall non-native grasses. These non-native grasses include rye grass (*Festuca perennis*), ripgut grass (*Bromus diandrus*), wall barley (*Hordeum murinum*), and slender wild oat (*Avena barbata*), considered poor-quality habitat for Quino checkerspot butterfly.

Updated mapping of suitable habitat within the project-level analysis areas was conducted in spring 2023, including updated mapping of host and nectar plant patches as detailed in the 2023 Quino checkerspot butterfly post-survey report and a total of 0.93 acre of host plant and nectar resources was identified (see Figure 29.1, RECON 2023; Attachment 9). No Quino checkerspot butterfly was observed in 2023. Mapping of suitable habitat within the mitigation lands was conducted during the spring of 2024 to characterize the extent of potential habitat present (see Figure 29.1).

Riverside fairy shrimp (*Streptocephalus wootton*i) is federally listed as endangered and is a covered species under the VPHCP (CDFW 2022e, City of San Diego 2019), and is an MSCP narrow endemic species (City of San Diego 2018a). USFWS has designated revised final critical habitat for this species in December 2012 (see Figure 28.3). This species occurs in vernal pools, pool-like ephemeral ponds, and human-modified depressions from Orange, San Diego, and western Riverside counties south to into Baja California, Mexico, and has the most restricted range of any fairy shrimp found in California. Riverside fairy shrimp are typically found in pools that are greater than 30 centimeters deep. Riverside fairy shrimp can require over 21 days of inundation to emerge. The species hatches in 7 to 12 days and develops to the adult stage in 48 to 56 days, depending on water temperature. The primary threats to this species are habitat destruction and fragmentation, alterations of wetland hydrology, off-road activity, and grazing. Information regarding the occurrence of this species is from the CNDDB (CDFW 2022c, 2022e).

The wet season fairy shrimp survey report (Busby Biological Services 2019) for the 2018/2019 wet season documented that the federally endangered Riverside fairy shrimp was detected in one vernal pool in Phase 1 (Photograph 31; see Figure 27.3). A seasonal basin within the Candlelight project area was also identified as supporting this species (see Figure 27.3; Alden 2013). This vernal pool also held San Diego fairy shrimp. This species was not identified within the 2017/2018 wet season focused surveys, 2018 and 2019 dry season samplings, or in the additional pools covered during the 2019/2020 wet season focused surveys. However, during the 2019/2020 dry season sampling, one pool within the southeastern portion of the project-level survey area within lands proposed to be conserved as a part of project mitigation was found to support *Streptocephalus* cysts (see Figure 27.8), which indicates that this basin also supports Riverside fairy shrimp.

PHOTOGRAPH 30
Quino Checkerspot Butterfly (*Euphydryas editha quino*) Observed within the Vernal Pool Restoration Area. Photo Date: April 1, 2019

PHOTOGRAPH 31
Riverside Fairy Shrimp (*Streptocephalus woottoni*) Observed in Vernal Pool #150 during Protocol Surveys. Photo Date: March 19, 2019

Crotch's bumble bee (*Bombus crotchii*). Crotch's bumble bee is a Candidate Species for listing under CESA (California Fish and Game Commission 2019). This species prefers open grassland and shrub habitats and can also be found in desert areas including Joshua tree and creosote scrub and may occur in urban settings. In California, its distribution is exclusive to coastal areas from San Diego to Redding. This species is less common in Nevada and Mexico. Crotch's bumble bee feeds on snapdragon, phacelia (*Phacelia* spp.), clarkia (*Clarkia* spp.), bush poppy (*Dendromecon* spp.), California poppy (*Eschscholzia californica*), and buckwheat (*Eriogonum* spp.).

Crotch's bumble bee was incidentally observed within four locations within the mitigation lands during the habitat assessment conducted for the species (see Figure 27.6, 27.9, and 27.11). This species has potential to occur within all habitats and land cover types, outside of the disturbed trails and roads, developed lands, vernal pools and natural flood channels based on the species range and available nectar sources on-site. The habitat assessment survey area (project-level survey area and mitigation lands) covered 510.73 acres. The majority of the survey area, approximately 430 acres, supports low (0-5 percent cover by nectar resources) or low-to-moderate (6-15 percent cover) foraging habitat suitability based on presence, cover, and density of nectar resources (see Figure 29.2). Areas with moderate (16-25 percent cover), moderate-to-high (25-50 percent cover), and high (>50 percent cover) foraging habitat suitability are scattered across the project-level survey area and mitigation lands and total approximately 80 acres. The entire survey area is considered suitable for nesting.

b. Amphibians

Western spadefoot (*Spea hammondii*). A general description of this species is provided in Section 5.4.1 above. Within the project-level survey area, this species was observed as eggs and tadpoles during fairy shrimp protocol surveys and general biological surveys. Based on the 2024 focused surveys, currently occupied breeding habitat within the project-level impact area comprises 66 basins, which represents approximately 43 percent of all ponded basins in 2024 for a total area of 0.62 acre. If a similar level of occupancy is extrapolated across all mapped basins, there is a potential of 172 basins for a total of 1.82 acres of occupied habitat. Western spadefoot were observed within vernal pools in Phases 1, 2, 4, Beyer Boulevard West, and southern survey areas including the existing VPHCP/MHPA areas (see Figures 27.1 through 27.10). Western spadefoot was detected in 23 basins covering 1.96 acres within other parts of the survey area, including lands proposed to be conserved as a part of project mitigation (see Figures 27.5 and 27.7 through 27.10). An additional 14 basins in these areas were negative for spadefoot and 14 basins did not pond during the 2024 survey.

c. Reptiles

Orange-throated whiptail (*Aspidoscelis hyperythra*). The orange-throated whiptail is a CDFW species of special concern and an MSCP-covered species. This species ranges from the coast to the Peninsular Mountain ranges from Orange and southwestern San Bernardino counties to the tip of Baja California, Mexico (Stebbins 2003). It occurs in a variety of habitats and is most common in sandy areas of low, open sage scrub or chaparral, particularly where there is California buckwheat, sage (*Salvia* spp.), or chamise (*Adenostoma fasciculatum*; Lemm 2006). This species feeds primarily on the western subterranean termite (*Reticulitermes hesperus*), which comprises 86 percent or more

of the lizard's diet (Bostic 1966). It is active during spring and summer, but is largely dormant during the fall and winter, when temperatures drop (Jennings and Hayes 1994). Breeding occurs from May through July. The decline of this species is attributed to habitat loss and fragmentation (McGurty 1980).

The orange-throated whiptail was observed during focused Quino checkerspot butterfly surveys within disturbed Diegan coastal sage scrub and maritime succulent scrub habitats within Phase 1 and Beyer Boulevard West survey area and southern survey areas (see Figures 27.1 through 27.3, 27.5 through 27.7 and 27.10).

Coastal whiptail (*Aspidoscelis tigris stejnegeri*). The coastal whiptail is a CDFW species of special concern. The coastal whiptail ranges predominantly on the coastal slope from Santa Barbara County south into northwestern Baja California, Mexico (Stebbins 2003). In San Diego County, the whiptail occurs in coastal sage scrub and chaparral, as well as in woodlands and streamsides. Its diet consists of a wide variety of insects, spiders, scorpions, and other lizards. The decline of populations of coastal western whiptail is attributed to habitat loss and fragmentation. This species was observed basking within the maritime succulent scrub within Phase 1 (see Figure 27.2).

Red diamond rattlesnake (*Crotalus ruber*). The red diamond rattlesnake is a CDFW species of special concern. This species occurs from sea level to about 4,000 to 5,000 feet on both sides of the Peninsular Ranges from southern San Bernardino County south through western Riverside and San Diego counties to Baja California, Mexico (Jennings and Hayes 1994). It inhabits coastal sage scrub, chaparral, and pinyon–juniper woodland particularly where there are abundant rock outcrops (Jennings and Hayes 1994; Lemm 2006). This species is active year-round with peak activity occurring in April and May, and breeding from February through September (Jennings and Hayes 1994). Its diet consists principally of small mammals, lizards, birds, and other snakes. Population declines of the red diamond rattlesnake are generally attributable to a reduction of habitat in the snake's restricted range due to urbanization and agriculture.

A red diamond rattlesnake was observed in Diegan coastal sage scrub habitat within Phase 1 during general surveys for the project (see Figure 27.3).

Coast horned lizard (*Phrynosoma blainvillii*). The coast horned lizard is a CDFW species of special concern and an MSCP-covered species (CDFW 2022d; City of San Diego 1997). This lizard ranges from coastal southern California to the desert foothills and into Baja California. In San Diego County, it has a wide range but spotty distribution. It is often associated with coastal sage scrub, especially in areas of level to gently sloping ground and with well-drained loose or sandy soil, but can also be found in annual grasslands, chaparral, oak woodland, riparian woodland, and coniferous forest between 30 and 7,030 feet (Mills 1991; Jennings and Hayes 1994). This animal usually avoids dense vegetation, preferring 20 to 40 percent bare ground in its habitat. Adults are active from late March to late August; young are active from August to November or December. They are largely dependent upon native harvester ants (*Pogonomyrmex* sp.) for food. Populations along the coast and inland have been severely reduced by loss of habitat.

Coast horned lizard have been detected during surveys in the disturbed Diegan coastal sage scrub habitat and disturbed lands within Phases 1, Beyer Boulevard West survey area, and the southern project-level survey areas (Photograph 32 and see Figures 27.1 through 27.5).

PHOTOGRAPH 32

Coast Horned Lizard (*Phrynosoma blainvillii*) in Non-native Grassland within Phase 1a;
Photo Date: April 16, 2018

Two-striped garter snake (*Thamnophis hammondii*). The two-striped garter snake is a CDFW species of special concern (CDFW 2022d). The two-striped garter snake ranges from San Luis Obispo County south to El Rosario in Baja California, Mexico, from sea level to 8,000 feet (Jennings and Hayes 1994). They are normally found in or near permanent fresh water, inhabiting streams, ponds, and lakes throughout their range (Stebbins 2003) and can even be found in temporary bodies of water such as vernal pools. The two-striped garter snake inhabits riparian areas during summer months and occupies adjacent coastal sage scrub and grasslands during the winter (Jennings and Hayes 1994). The two-striped garter begins breeding in April and continues throughout the summer months. Adults feed on tadpoles, toads, insect larvae, fish, fish eggs, and earthworms. Population declines in the two-striped garter snake are generally attributable to impacts related to the loss of natural wetlands and increased development near and in suitable habitat.

A two-striped garter snake was observed swimming within a vernal pool basin within Phase 1 during fairy shrimp surveys (Photograph 33 and see Figure 27.4).

d. Birds

Cooper's hawk (*Accipiter cooperii*). The Cooper's hawk is a CDFW watch list species and is an MSCP-covered species (CDFW 2022d and City of San Diego 1997). The Cooper's hawk ranges year-round throughout most of the United States; its wintering range extends south to Central America and its breeding range extends north to southern Canada (Rosenfeld and Bielefeldt 1993). Breeding birds are widespread over San Diego County's coastal slope and most abundant in lowland and foothill canyons and in urban areas. It is a common breeder in both oak and willow riparian woodlands and urban environments, with eucalyptus trees used nearly as often as oaks (Unitt 2004). Additionally, this species has been known to nest within planted trees including pine, redwood, and avocado (Unitt 2004). Breeding occurs from March to June and nests are typically located high in the tree, but under the canopy. This hawk forages primarily on medium-sized birds but is also known to eat small mammals such as chipmunks and other rodents (Rosenfeld and Bielefeldt 1993). Although urbanization and loss of habitat have contributed to the decline of this species, the Cooper's hawk's adaptation to city living over the last 20 years has generously increased their numbers (Unitt 2004).

Cooper's hawk was observed flying overhead in Phase 1 and Beyer Boulevard West survey areas. This species was additionally observed foraging within the southern and southeastern project-level survey areas during vegetation surveys (see Figures 27.1, 27.2, 27.3, 27.5, 27.7, and 27.8).

PHOTOGRAPH 33
Two-Striped Garter Snake (Thamnophis hammondii)
Observed within a Vernal Pool in VTM South;
Photo Date: December 17, 2018

Western burrowing owl (*Athene cunicularia,* burrowing owl). The burrowing owl is a Candidate Species for listing under CESA and a City of San Diego MSCP-covered species (California Fish and Game Commission 2024; City of San Diego 1997). Burrowing owl is primarily restricted to the western United States and Mexico. A year-round resident in San Diego County, breeding burrowing owls remain in only five primary areas in San Diego County including Otay Mesa, Imperial Beach, North Island Naval Air Station, Warner Valley, and Borrego Valley (Unitt 2004). Habitat for the burrowing owl includes dry, open, short-grass areas with level to gentle topography and well-drained soils (CDFW 2012). These areas are also often associated with burrowing mammals (Haug et al. 1993). The burrowing owl is diurnal and perches during daylight at the entrance to its burrow or on low posts. Nesting occurs from March through August. Burrowing owls form a pair–bond for more than one year and exhibit high site fidelity, reusing the same burrow year after year (Haug et al. 1993). The female remains inside the burrow during most of the egg laying and incubation period and is fed by the male throughout brooding. Burrowing owls are opportunistic feeders, consuming a diet that includes arthropods, small mammals, and birds, and occasionally amphibians and reptiles (Haug et al. 1993). Urbanization has greatly reduced the amount of suitable habitat for this species, thereby leading to the decline in the San Diego population (Lincher and Bloom 2007). Other contributions to the decline of this species include the poisoning of squirrels and prairie dogs, road and ditch maintenance, and collisions with automobiles (CDFW 2012).

Breeding season focused surveys were conducted in 2018 and 2020 within suitable habitat in Phases 1, 2, and southern project-level survey areas; all surveys had negative results for this species (RECON 2018c, 2018d, and 2020a). However, one burrowing owl was incidentally observed during a Quino checkerspot butterfly survey within a south-facing slope, dominated by maritime succulent scrub in Phase 1 (see Figure 27.2). No active burrows were detected in the vicinity of the sighting and the bird was not observed again during the remainder of the Quino checkerspot butterfly focused surveys (RECON 2021a). Additional breeding season surveys were conducted in 2021 within suitable habitat that was not previously surveyed due to shifts in the project boundary. These 2021 surveys were also negative for burrowing owl (RECON 2021b).

Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*). The southern California rufous-crowned sparrow is a CDFW watch list species and a MSCP-covered species (City of San Diego 1997). This subspecies of rufous-crowned sparrow is a resident and ranges throughout southern California from Los Angeles County to Baja California, Mexico (Collins 1999). Southern California rufous-crowned sparrows are found in chaparral and coastal sage scrub habitats and occasionally in grasslands adjacent to these habitats. The species exhibits a strong preference for moderate to steep, dry, rocky slopes interspersed with grasses and rock outcrops (Unitt 2004; Collins 1999). Breeding occurs from March through June and pair bonds are formed that may last year-round (Collins 1999). Urbanization, range restrictions, and loss of habitat have decreased the amount of suitable habitat for southern California rufous-crowned sparrows.

Southern California rufous-crowned sparrow was observed in Diegan coastal sage scrub habitat within Phase 1, the Beyer Boulevard West survey area, and southern project-level survey areas. This species was also detected within the non-native grassland within the southern project-level survey areas during field surveys (see Figures 27.1, 27.2, 27.4, 27.7, 27.8, 27.10, and 27.11).

Grasshopper sparrow (*Ammodramus savannarum*). The grasshopper sparrow is a CDFW species of special concern. Grasshopper sparrows are migratory and in San Diego County seldom seen away from their breeding habitat (Unitt 2004). This species' ideal habitat is native grassland, but it also uses non-native grasslands and other habitats, such as salt marshes and alkaline meadows dominated by saltgrass (*Distichlis* sp.). It prefers larger tracts of habitat composed of short to middle-high moderately open grasslands (Shuford and Gardali 2008). Additionally, its habitat typically includes shrubs, common in coastal sage scrub, and may be shrubby enough to be classified as coastal sage scrub (Unitt 2004). This sparrow's range within San Diego County is represented by five main locations: Camp Pendleton, Los Peñasquitos Canyon Preserve, MCAS Miramar/Mission Trails Regional Park, areas between McGinty and Otay mountains, and Rancho Jamul (Unitt 2004). Nests are built on the ground and are screened by overhanging grasses, which make them very difficult to detect (Vickery 1996). Population declines are caused by the loss of grassland habitats due to development and agriculture, and by the destruction of nests caused by mowing of cultivated grasslands (Vickery 1996).

This species was detected by vocalizations during field surveys in Diegan coastal sage scrub habitat within Phase 1 during focused surveys. Additionally, this species was detected by vocalizations within the southern project-level survey areas (see Figures 27.3, 27.5, and 27.7).

Northern harrier (*Circus hudsonius*). The northern harrier is a CDFW species of special concern and an MSCP-covered species (City of San Diego 1997, CDFW 2022e). In addition, their nesting sites are considered sensitive by CDFW. Northern harriers winter throughout most of North America from southern Canada to Central America and the Caribbean Islands (MacWhirter and Bildstein 1996). Their breeding range extends from Canada and Alaska to the northwestern United States, with some year-round residents in coastal California and northern Baja California. In San Diego County, the northern harrier is a fairly common migrant in the winter and a rare summer breeder (Unitt 2004). The northern harrier most commonly nests on the ground at the edge of marshes but would also nest on grasslands, in fields, or in areas of sparse shrubs (MacWhirter and Bildstein 1996). The northern harrier hovers close to the ground while foraging in grasslands, agricultural fields, and coastal marshes. Their diet consists of small- and medium-sized rodents, birds, reptiles, and frogs. The range of this species has been reduced due to urbanization and agricultural development.

Northern harrier was observed during surveys performed in Phases 1, Beyer Boulevard West survey area, and the southern project-level survey areas. This species was observed flying overhead near the non-native grassland habitat (see Figures 27.1, 27.2, 27.4, 27.6, and 27.7).

White-tailed kite (*Elanus leucurus*). The white-tailed kite is a California fully protected species (CDFW 2022c). This raptor is widespread within the coastal region of San Diego County, and its preferred nesting habitat includes riparian woodlands, oaks, or sycamore groves that border grassland or open fields. It also uses non-native trees freely, including citrus orchards (Unitt 2004). The white-tailed kite forages over open areas and grasslands feeding primarily on small rodents and insects. This species is known to roost in large communal groups (Unitt 2004). Lightly grazed or ungrazed fields also provide suitable hunting grounds for the kite, as they support larger prey populations. Areas with extensive winter freezes are generally avoided by this species (Dunk 1995). White-tailed kite populations in southern California have declined due to the loss of nesting and foraging habitat.

A juvenile white-tailed kite was observed within the southern project-level survey areas perched on a dead snag. Also, this species was detected flying overhead within Phase 1 (see Figures 27.4 and 27.8).

California horned lark (*Eremophila alpestris actia*). The California horned lark is a CDFW watch list species (CDFW 2022c). This coastal subspecies' year-round range is fragmented in San Diego County and includes the coastal strand, arid grasslands, and sandy desert floors in Anza-Borrego Desert (Unitt 2004). Plowed fields, graded lands, and other disturbed areas attract the California horned lark. One of these habitats is the coastal strand that encompasses salt flats around lagoons and fills in Mission and San Diego bays. The coastal mesas and inland valleys, such as Warner Valley, also provide pockets of sparsely vegetated habitats suitable for this species. Substantial numbers are also found in the upper basin of Lake Cuyamaca and Santa Maria Valley (Ramona grasslands). California horned larks are typically not found in chaparral (Unitt 2004; Zeiner et al. 1988-1990b). Breeding occurs during the months of March through July with peak activity occurring in May, and nests are made on the ground. The decline of this species is attributed to the general loss of habitat, urbanization, and habitat fragmentation (Unitt 2004).

This species was observed in the disturbed Diegan coastal sage scrub and non-native grassland areas in Phase 1, the Beyer Boulevard West survey area, and southern project-level survey areas (see Figures 27.3, 27.4, 27.5, 27.7, and 27.11).

Merlin (*Falco columbarius*). The merlin (wintering) is a CDFW watch list species (CDFW 2022d). Merlins breed in boreal forests from Oregon and Washington north to Alaska and all of Canada (Warkentin et al. 2005). In San Diego County, merlins are rare winter visitors to areas with grasslands, agricultural fields, and mudflats (Unitt 2004). Wintering birds may be found throughout San Diego County but are more abundant in the coastal lowlands and less frequent in the Anza–Borrego Desert. Its primary prey consists of small birds; therefore, this species tends to hunt in places where small birds flock (Unitt 2004). Merlin populations suffered from Dichloro-diphenyl-trichloroethane, commonly known as DDT, contamination in the 1960s and have modestly increased in number since the 1990s (Warkentin et al. 2005). Loss of foraging habitat is the main threat to this species in San Diego County.

During field surveys, two merlins were observed within Phase 1 (see Figures 27.2 and 27.4).

Golden eagle (*Aquila chrysaetos*). The golden eagle is listed as a CDFW watch list species and State of California fully protected species and is protected under the federal Bald and Golden Eagle Protection Act (CDFW 2022d). It is also a City of San Diego MSCP-covered species (City of San Diego 1997).

Golden eagles nest on cliffs of all heights and in large trees in open areas, most frequently using rugged open habitats with canyons and escarpments (Zeiner et al.1988–1990). Alternative nest sites are maintained, and old nests are reused. Golden eagles build large platform nests, often 10 feet across and 3 feet high of sticks, twigs, and greenery. Breeding season is considered to be early January to early June (Unitt 2004). This species forages over large areas of grassland, desert, and open chaparral or sage scrub where it primarily preys upon rabbits and ground squirrels. Golden eagles forage close to and far from their nests (i.e., within 3-4 miles from the center of their territories), but have been observed traveling between 5-6 miles from the center of their territories

in favorable habitat (USFWS 2010). These distances may be greater in xeric habitats (USFWS 2010). Urbanization, agricultural development, and other human disturbances have eliminated several golden eagle territories and continue to threaten this species' population in San Diego County (Unitt 2004; Zeiner et al. 1988-1990).

One golden eagle juvenile was observed incidentally during a Quino checkerspot butterfly survey in April 2022. This lone bird was observed flying over the disturbed land and non-native grassland within Phase 1 and has not been observed in subsequent surveys (see Figure 27.4).

Bald eagle (*Haliaeetus leucocephalus*). The bald eagle (nesting and wintering) is listed as state endangered and a State of California fully protected species. It is also protected under the federal Bald and Golden Eagle Protection Act, is a City of San Diego MSCP-covered species (CDFW 2022e; and City of San Diego 1997). The bald eagle was federally listed as endangered in 1967 due to a decline in population from shooting and DDT poisoning, but has since recovered. This species was delisted by the federal government on July 9, 2007 (USFWS 2007a).

Bald eagles migrate to San Diego County in October and depart as early as March and as late as May. Large inland bodies of water within San Diego County where they are known to overwinter in low numbers include Lake Henshaw, Lake Cuyamaca, and Lake Morena (Unitt 2004). Prior to 2004 the bald eagle was considered to be a rare but annual winter visitor in San Diego County until an active nest was detected in 2006 near Lake Henshaw, which marked the first reported nest in San Diego County since 1934 (Zieralski 2006). Nesting has also been confirmed near Lake Henshaw within the subsequent years. Nests are enormous and consist of large sticks built in mature old-growth forest. Typically, nests are built relatively close (approximately two kilometers) to water, but distance may vary depending on the quality of foraging habitat available. Quality of habitat is defined by several parameters including structure of aquatic habitat such as the presence of shallow water; the diversity, abundance, and vulnerability of the prey base such as rabbits and other birds; and the absence of human development and disturbance. In areas with substantial shoreline development, nests would be located farther from the shoreline (Buehler 2000). The successful management of the habitat and reduction in the use of such harmful pesticides as DDT have allowed for an increase in bald eagle numbers.

One bald eagle was observed incidentally during a burrowing owl survey in May 2020. This lone bird was observed perching on a power pole within Phase 1 and has not been observed in subsequent surveys (see Figure 27.4).

Yellow-breasted chat (*Icteria virens*). The yellow-breasted chat is a CDFW species of special concern (CDFW 2022c). Yellow-breasted chat breeding range extends from southern California south to central Mexico, including most of the United States (Eckerle and Thompson 2001). Breeding occurs in dense brush or scrub, usually along streams or marshy areas with dense riparian woodlands. Yellow-breasted chats arrive in California to breed during April or May. Their diet consists mainly of insects and berries (Eckerle and Thompson 2001). Destruction of riparian woodlands by development and other human activities has caused population declines and it is possible that brown-headed cowbird parasitism may also have contributed to the decline of the species.

Yellow-breasted chat was detected by vocalizations during field surveys in 2018 within the mule fat scrub within the southern project-level survey areas. In 2020, this species was observed within the mule fat scrub within the area of the Beyer Boulevard West extension (see Figures 27.1 and 27.8).

Coastal California gnatcatcher (*Polioptila californica californica*). The coastal California gnatcatcher is federally listed as threatened, is a CDFW species of special concern, and is an MSCP-covered species (CDFW 2022e; City of San Diego 1997). The coastal California gnatcatcher is a non-migratory, resident species found on the coastal slopes of southern California, ranging from Ventura County southward through Los Angeles, Orange, Riverside, and San Diego counties into Baja California, Mexico (Atwood and Bontrager 2001). This species typically occurs in or near sage scrub habitat, although chaparral, grassland, and riparian woodland habitats are used where they occur adjacent to sage scrub. Breeding occurs from February through August, and nests are constructed most often in California sagebrush. The coastal California gnatcatcher diet consists mainly of sessile small arthropods, such as leafhoppers, spiders, beetles, and true bugs (Atwood and Bontrager 2001). The primary cause of decline in the coastal California gnatcatcher population is due to habitat loss and degradation.

Focused surveys were performed in 2018 within the MHPA in Phases 1 and the Beyer Boulevard West survey area, and four coastal California gnatcatcher pairs and three additional individuals were identified within the parcel but outside the MHPA (RECON 2018e; see Figure 27.1 through 27.11). Focused surveys were also performed in the spring of 2018 within the southern project-level survey areas. In total, 11 coastal California gnatcatcher pairs were identified inside and outside of the MHPA surveyed (RECON 2018f; see Figures 27.1 through 27.11). In each case, coastal California gnatcatcher were observed foraging or quietly calling. Two additional individuals were observed during the surveys. These individuals may be associated with one of the observed pairs, but that could not be confirmed at the time of the survey.

In 2020, focused surveys were conducted and two pairs were observed within the western end of the Beyer Boulevard West survey area and 10 pairs were observed within the boundaries of the storm drain outfalls and within the southern project-level survey areas (RECON 2020b; see Figures 27.1 through 27.11).

Yellow warbler (*Setophaga petechia*). The yellow warbler is a CDFW species of special concern (CDFW 2022d). Yellow warblers commonly breed in San Diego County and are considered to be a rare winter visitor (Unitt 2004). This species is an obligate riparian species, nesting and foraging almost exclusively in mature riparian corridors on the coastal slopes and within the desert in San Felipe Valley (Unitt 2004). Shuford and Gardali (2008) describe yellow warblers as showing a high degree of site fidelity, with 60 to 64.5 percent of males and 32 to 44 percent of females returning to their previous year's territory. They are often observed in riparian habitat where surface water is evident, although it is not necessary. Nesting occurs from April (Unitt 2004) through early August, and nests are typically three to five feet from the ground (Lowther et al. 1999). This species is declining due to the loss of riparian habitat and as a result of nest parasitism by brown-headed cowbirds (Unitt 2004; Zeiner et al. 2005).

Yellow warbler was detected by vocalizations during field surveys. This species was detected within the mule fat scrub within the southern project-level survey areas. There is also moderate potential

for this species to nest within the riparian vegetation that occurs within the western end of the Beyer Boulevard West survey area (see Figure 27.8).

Least Bell's vireo (*Vireo bellii pusillus*). The least Bell's vireo is federally and state listed as endangered, a MSCP-covered species (CDFW 2022e; City of San Diego 1997). Its historical breeding range once extended from northwestern Baja California, Mexico, to interior northern California, as far north as Red Bluff in Tehama County, California (Franzreb 1989). Its current distribution is now restricted to eight southern counties, the majority occurring in San Diego County (USFWS 1998). The species is exclusively found in riparian habitats, including cottonwood–willow woodlands and forests, oak woodlands, and mule fat scrub, and requires dense canopy for foraging and a dense understory for nesting (Unitt 2004; USFWS 1998b). Least Bell's vireos migrate to San Diego County, arriving at the breeding grounds in mid-March and remaining until September or October. Populations are concentrated in the coastal lowlands of the County and are scattered within the foothills (Unitt 2004).

Populations of least Bell's vireo have declined drastically due to extensive loss of riparian habitat from urban development, including flood control and damming, introduction of non-native invasive plant species such as giant reed (*Arundo donax*) and saltcedar, and nest parasitism by brown-headed cowbird (*Molothrus ater*) (USFWS 2009b). The population has increased as a result of extensive brown-headed cowbird trapping programs (Unitt 2004). Least Bell's vireos respond well to restored riparian woodland, especially if it is adjacent to mature riparian habitat, and also to cowbird trapping.

Least Bell's vireo was incidentally detected by vocalizations within the mule fat scrub within the southern project-level survey areas during focused western burrowing owl surveys in 2018. Seven incidental detections were made in April and May 2020 within the western end of the Beyer Boulevard West survey area, within the Beyer Park parcel during other surveys (see Figures 27.1, 27.9, 27.10, and 27.11). Focused surveys were not conducted in 2020; therefore, the pairing status of this vireo is unknown. Least Bell's vireo is assumed present within riparian habitat on and adjacent to the project-level area.

e. Mammals

San Diego desert woodrat (*Neotoma lepida intermedia*). The San Diego desert woodrat is a CDFW species of special concern (CDFW 2022d). Its range extends through coastal areas from San Luis Obispo well into Baja California, inland to the San Bernardino Mountains and Julian (Hall 1981). The San Diego desert woodrat occurs west of the mountains in San Diego County within chaparral areas with a preference for rock outcrops (Bond 1977). The desert woodrat is adept at moving among spiny cactuses without injury. This species is herbivorous and can eat a large variety of plants, with cacti often being consumed as an important source of water (Tremor et al. 2017). Threats to this species include habitat fragmentation and fire (Tremor et al. 2017).

San Diego woodrat and its nests were detected in the non-native grassland within Phase 1 within the Diegan coastal sage scrub habitat (Photograph 34 and see Figures 27.4 and 27.6).

PHOTOGRAPH 34

San Diego Desert Woodrat (*Neotoma lepida intermedia*) Observed under a Wooden Board within Non-Native Grassland within the Project-level Area.
Photo Date: May 8, 2018

5.4.2.2 Not Observed

Coronado skink (*Plestiodon skiltonianus interparietalis*). The Coronado skink is a CDFW watch list species (CDFW 2022d). The Coronado skink ranges from approximately La Jolla in San Diego County south to western Baja California, Mexico (Jennings and Hayes 1994). In northern San Diego County, this species intergrades with Skilton's skink (*Plestiodon skiltonianus skiltonianus*), whose range extends north through the Pacific states into British Columbia, Canada. The Coronado skink is found in a variety of plant communities including grassland, open woodland, forest, and chaparral habitats with sunny openings. It is often associated with heavily vegetated streams. The Coronado skink is diurnal and most active from early spring until fall, and breeding occurs in June or July (Jennings and Hayes 1994). Its diet consists of a variety of insects, particularly spiders and sow bugs. This species is threatened by habitat loss and fragmentation resulting from urbanization and agriculture.

Coronado skink has moderate potential to occur within the project-level analysis area due to the presence of non-native grassland within Phases 1 and 2 and the southern area of the project-level survey area.

Bell's sage sparrow (*Artemisiospiza belli*). Bell's sage sparrow is a CDFW watch list species (CDFW 2022d). In San Diego County, it prefers chaparral and coastal sage scrub that is not too dense or encumbered by leaf litter (Unitt 2004) and can easily be overlooked as it moves from shrub to shrub by running on the ground instead of flying (Martin and Carlson 1998). In addition, this species shows a strong preference to post-burn chaparral, shrub habitats growing on mesa tops or on south-facing slopes, and chaparral stunted by magnesium-laden gabbro soils (Unitt 2004). In higher elevations the sparrow will also breed within big sagebrush. This species nests low in shrubs or on the ground (Martin and Carlson 1998). Urbanization has reduced the breeding territories of this species to occupying only scattered undeveloped patches throughout the county (Unitt 2004). The major threat to this species is the loss of breeding habitat to urbanization and habitat fragmentation. As a result, the Bell's sage sparrow is usually found within large tracts of habitat (Unitt 2004).

Bell's sage sparrow has moderate potential to occur within the project-level analysis area and the southern area of the project-level survey area due to the presence of Diegan coastal sage scrub and maritime succulent scrub areas within Phases 1 and 2.

Loggerhead shrike (*Lanius ludovicianus*). The loggerhead shrike is a CDFW species of special concern (CDFW 2022d). This species inhabits most of the continental United States and Mexico and is an uncommon year-round resident of southern California. In San Diego County, loggerhead shrikes are most numerous in the Anza-Borrego Desert, where they are widespread on both the desert floor and in desert-edge scrub on the east slopes of the mountains (Unitt 2004). They prefer washes with scattered trees or shrubs, or valley floors with scattered thickets of mesquite (*Prosopis* spp.) or saltbush (*Atriplex* spp.). Outside the desert they inhabit grasslands, agricultural fields, open sage scrub, and chaparral (Unitt 2004), requiring open habitat with tall shrubs or trees to use as perches for hunting and fairly dense shrubs for nesting. They may also use fences or power lines for hunting perches (Shuford and Gardali 2008; Yosef 1996). Loggerhead shrikes are highly territorial and usually live in pairs in permanent territories (Yosef 1996). This bird may also be associated with freshly plowed or mowed fields, as these activities present foraging opportunities for this species (Yosef 1996). Loggerhead shrike populations are declining, likely due to urbanization and loss of

habitat and, to a lesser degree, pesticide use (Yosef 1996). This species has also shown a decline in undeveloped areas, which suggests that it is susceptible to habitat fragmentation (Unitt 2004).

This species was not observed during any project surveys; however, an observation within the project-level survey area was posted to a citizen science mobile application (I-Naturalist) and there is suitable habitat present to support a moderate potential for this species to occur within the project-level analysis area and the southern area of the project-level survey area.

Coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*) is described in more detail in Section 5.4.1 above. While coastal cactus wren was not detected during site visits, this species has been known to occur within the maritime succulent scrub habitat at the western end of the proposed Beyer Boulevard West extension area in 2017 (RECON 2019c); and, therefore assumed to be present within the maritime succulent scrub areas dominated by prickly pear cactus located along the western end of Beyer Boulevard West. Maritime succulent scrub dominated with coastal cholla and prickly pear suitable for cactus wren nesting was not observed on other project-level areas.

Southern mule deer (*Odocoileus hemionus fuliginatus*). The southern mule deer is not state or federally listed but is an MSCP-covered species. It is a wide-ranging species, occurring from central Canada through the United States into central Mexico. The southern subspecies occurs from Orange and Riverside counties, south through San Diego to central Baja California, Mexico (Tremor et al. 2017). In San Diego County, it is widespread throughout undeveloped areas from Camp Pendleton to the Laguna Mountains, Sweetwater River, and Otay Lakes at elevations of 400 to 3,600 feet (Bleich and Holl 1982). This species requires relatively large, undisturbed tracts of chaparral, coastal sage scrub, mixed grassland/shrub habitats, oak woodlands, and/or coniferous forests (Tremor et al. 2017). The reproductive cycle begins with the male rutting season as early as September, with breeding continuing through January, and fawning between June and August (Tremor et al. 2017). The diet of the southern mule deer consists of forbs, grasses, and nuts. Populations of mule deer appear to show a long-term decline, primarily as a result of urbanization and habitat fragmentation (Tremor et al. 2017).

This species has not been observed; however, there is a moderate potential for the species to occur. The relatively large, undisturbed tracts of coastal sage scrub and mixed grassland/shrub habitats within the project-level survey area provide suitable habitat for this species; however, habitat fragmentation has limited this species range and frequent human disturbance may reduce habitat value.

5.5 Jurisdictional Resources

5.5.1 Program-level Area

As detailed in the OMCP FEIR, wetlands habitats in the area consist primarily of vernal pools, basins with fairy shrimp, freshwater marsh, mule fat scrub, alkali seep, and riparian habitat. Figure 30 shows the potential categories of wetlands within the program-level areas, although additional resources may be identified at the time of site-specific surveys and jurisdictional delineations.

5.5.2 Project-level Area

Jurisdictional resource delineations were conducted within the project-level survey areas. These delineations evaluated for the presence of drainages, wetlands, and vernal pools.

The summary of findings from the wetland delineations found potential USACE federal waters of the U.S. and CDFW and RWQCB waters of the state within the project-level survey area. These resources include non-wetland waters/streambed, and various wetlands waters including disturbed wetlands, vernal pools, and vernal pools with San Diego and Riverside fairy shrimp. Wetlands potentially under the jurisdiction of the City include mule fat scrub, southern willow scrub, wetlands, disturbed wetlands, tamarisk scrub, disturbed riparian, and vernal pools. As stated in Section 4.2.2.12, many vernal pools include San Diego fairy shrimp, while one vernal pool contained Riverside fairy shrimp.

Results of the delineation are further summarized in the wetland delineation report prepared for the project (RECON 2024a). Tables 5a-5f summarize the jurisdictional resources present within the project area as well as by each phase. Jurisdictional resources within the Candlelight, Southwind, West Otay Mesa A, West Otay Mesa B, Furby North Preserve, and Beyer Park projects are presented below.

Table 5a Existing Potential Jurisdictional Resources within the Project-level Survey Areas (acres)							
Jurisdictional Resource	Phase 1	Phase 2	Beyer Boulevard West	Phase 4	Emergency Vehicle Access Road	Remaining Project-Level Survey Area[1]	Total Acres
Waters of the U.S. – USACE							
Non-wetland Waters							
Ephemeral Stream Channel (Non-vegetated Channel)	0.14	0.06	0.07	0.17	-	1.22	1.67
Subtotal Non-wetland Waters	*0.14*	*0.06*	*0.07*	*0.17*	-	*1.22*	*1.67*
Wetland Waters							
Wetland (Mule Fat Scrub, Southern Willow Scrub, Disturbed Wetlands, Disturbed Riparian)	0.50	0.04	<0.01	-	-	0.95	1.49
Vernal Pools	0.15	0.07	0.02	-	-	0.04	0.27
Vernal Pools with Fairy Shrimp	0.56	0.05	0.01	<0.01	0.02	0.90	1.54
Subtotal Wetland Waters	*1.21*	*0.16*	*0.03*	*<0.01*	*0.02*	*1.89*	*3.30*
Total Potentially Jurisdictional Area	**1.33**	**0.21**	**0.10**	**0.17**	**0.02**	**3.11**	**4.97**
Waters of the U.S. – CDFW							
Non-wetland Waters/Streambed							
Ephemeral Stream Channel (Non-vegetated Channel)	0.14	0.06	0.08	0.17	-	1.24	1.69
Subtotal Non-wetland Waters/Streambed	*0.14*	*0.06*	*0.08*	*0.17*	-	*1.24*	*1.69*
Wetland or Riparian Areas							
Wetland (Mule Fat Scrub, Southern Willow Scrub, Disturbed Riparian)	0.44	-	0.35	0.01	-	5.52	6.34
Vernal Pools[2]	0.01	-	-	-	-	0.02	0.03
Subtotal Wetland/Riparian	*0.45*	-	*0.35*	*0.01*	-	*5.55*	*6.36*
Total Potentially Jurisdictional Area	**0.59**	**0.06**	**0.43**	**0.19**	**-**	**6.79**	**8.06**
Waters of the U.S. – RWQCB							
Non-wetland Waters							
Ephemeral Stream Channel (Non-vegetated Channel)	0.14	0.06	0.08	0.17	-	1.24	1.69
Subtotal Non-wetland Waters	*0.14*	*0.06*	*0.08*	*0.17*	-	*1.24*	*1.69*
Wetland or Riparian Areas							
Wetland (Mule Fat Scrub, Southern Willow Scrub, Disturbed Wetlands, Disturbed Riparian)	0.55	0.04	<0.01	-	-	0.95	1.54
Vernal Pools	0.16	0.07	0.02	-	-	0.04	0.28
Vernal Pools with Fairy Shrimp	0.58	0.05	0.02	<0.01	0.02	0.90	1.57
Seasonal Basins	0.26	<0.01	<0.01	-	-	0.39	0.66
Subtotal Wetland/Riparian	*1.45*	*0.16*	*0.03*	*<0.01*	*0.02*	*2.28*	*3.94*
Total Potentially Jurisdictional Area	**1.59**	**0.22**	**0.11**	**0.17**	**0.02**	**3.53**	**5.63**
City of San Diego Wetlands							
Wetland (Mule Fat Scrub, Southern Willow Scrub, Disturbed Riparian)	-	-	0.35	0.01	-	5.76	6.13
Disturbed Wetlands	0.07	0.04	-	-	-	1.12	1.23
Vernal Pools	0.67	0.12	0.03	<0.01	0.02	0.94	1.77
Total Potentially Jurisdictional Area	**0.74**	**0.16**	**0.38**	**0.01**	**0.02**	**7.81**	**9.13**

NOTE: Totals may not add due to rounding. Phasing corresponds to grading phasing depicted in Figure 10.1.
[1]Remaining project-level survey areas include potential mitigation lands in addition to other surveyed areas associated with prior versions of the project.
[2]Includes only the vernal pools that support a state-listed endangered plant species, San Diego button-celery.

Table 5b Existing Potential Jurisdictional Resources within the Phase 1 Project-level Survey Areas (acres)				
Jurisdictional Resource	Phase 1	Phase 1 - Candlelight	Phase 1 - Southwind	Total Acres
Waters of the U.S. – USACE				
Non-wetland Waters				
Ephemeral Stream Channel (Non-vegetated Channel)	0.12	0.02	-	0.14
Subtotal Non-wetland Waters	*0.12*	*0.02*	-	*0.14*
Wetland Waters				
Wetland (Mule Fat Scrub, Southern Willow Scrub, Disturbed Wetlands, Disturbed Riparian)	0.04	0.46	-	0.50
Vernal Pools	0.12	-	0.02	0.15
Vernal Pools with Fairy Shrimp	0.51	0.04	0.01	0.56
Subtotal Wetland Waters	*0.67*	*0.50*	*0.04*	*1.21*
Total Potentially Jurisdictional Area	**0.79**	**0.52**	**0.04**	**1.35**
Waters of the U.S. – CDFW				
Non-wetland Waters/Streambed				
Ephemeral Stream Channel (Non-vegetated Channel)	0.12	0.02	-	0.14
Subtotal Non-wetland Waters/Streambed	*0.12*	*0.02*	-	*0.14*
Wetland or Riparian Areas				
Wetland (Mule Fat Scrub, Southern Willow Scrub, Disturbed Riparian)	-	0.44	-	0.44
Vernal Pools[1]	0.01	-	-	0.01
Subtotal Wetland/Riparian	*0.01*	*0.44*	-	*0.59*
Total Potentially Jurisdictional Area	**0.13**	**0.46**	**-**	**0.59**
Waters of the U.S. – RWQCB				
Non-wetland Waters				
Ephemeral Stream Channel (Non-vegetated Channel)	0.12	0.02	-	0.14
Subtotal Non-wetland Waters	*0.12*	*0.02*	-	*0.14*
Wetland or Riparian Areas				
Wetland (Mule Fat Scrub, Southern Willow Scrub, Disturbed Wetlands, Disturbed Riparian)	0.04	0.44	-	0.48
Vernal Pools	0.12	-	0.02	0.15
Vernal Pools with Fairy Shrimp	0.51	0.04	0.01	0.56
Seasonal Basins	0.03	0.23	-	0.26
Subtotal Wetland/Riparian	*0.70*	*0.71*	*0.04*	*1.45*
Total Potentially Jurisdictional Area	**0.81**	**0.74**	**0.04**	**1.59**
City of San Diego Wetlands				
Wetland (Mule Fat Scrub, Southern Willow Scrub, Disturbed Riparian)	-	-	-	-
Disturbed Wetlands	0.07	-	-	0.07
Vernal Pools	0.63	-	0.04	0.67
Total Potentially Jurisdictional Area	**0.70**	**-**	**0.04**	**0.74**
NOTE: Totals may not add due to rounding. Phasing corresponds to grading phasing depicted in Figure 10.1. [1]Includes only the vernal pools that supports a state-listed endangered plant species, San Diego button-celery.				

Table 5c Existing Potential Jurisdictional Resources within the Phase 2 Project-level Survey Areas (acres)	
Jurisdictional Resource	Phase 2 Development Area[1]
Waters of the U.S. – USACE	
Non-wetland Waters	
Ephemeral Stream Channel (Non-vegetated Channel)	0.06
Subtotal Non-wetland Waters	*0.06*
Wetland Waters	
Wetland (Mule Fat Scrub, Southern Willow Scrub, Disturbed Wetlands, Disturbed Riparian)	0.04
Vernal Pools	0.07
Vernal Pools with Fairy Shrimp	0.05
Subtotal Wetland Waters	*0.16*
Total Potentially Jurisdictional Area	**0.21**
Waters of the U.S. – CDFW	
Non-wetland Waters/Streambed	
Ephemeral Stream Channel (Non-vegetated Channel)	0.06
Subtotal Non-wetland Waters/Streambed	*0.06*
Wetland or Riparian Areas	
Wetland (Mule Fat Scrub, Southern Willow Scrub, Disturbed Riparian)	-
Vernal Pools	-
Subtotal Wetland/Riparian	*0.06*
Total Potentially Jurisdictional Area	**0.06**
Waters of the U.S. – RWQCB	
Non-wetland Waters	
Ephemeral Stream Channel (Non-vegetated Channel)	0.06
Subtotal Non-wetland Waters	*0.06*
Wetland or Riparian Areas	
Wetland (Mule Fat Scrub, Southern Willow Scrub, Disturbed Wetlands, Disturbed Riparian)	0.04
Vernal Pools	0.07
Vernal Pools with Fairy Shrimp	0.05
Seasonal Basins	<0.01 (179 sq ft)
Subtotal Wetland/Riparian	*0.16*
Total Potentially Jurisdictional Area	**0.22**
City of San Diego Wetlands	
Wetland (Mule Fat Scrub, Southern Willow Scrub, Disturbed Riparian)	-
Disturbed Wetlands	0.04
Vernal Pools	0.12
Total Potentially Jurisdictional Area	**0.16**
NOTE: Totals may not add due to rounding. Phasing corresponds to grading phasing depicted in Figure 10.1. [1]Includes the project level trails and south drainage outfall	

Table 5d Existing Potential Jurisdictional Resources within the Beyer Boulevard Project-level Survey Areas (acres)					
Jurisdictional Resource	Beyer Park	Furby North Preserve	West Otay Mesa A	West Otay Mesa B	Total Acres
Waters of the U.S. – USACE					
Non-wetland Waters					
Ephemeral Stream Channel (Non-vegetated Channel)	0.05	-	-	0.02	0.07
Subtotal Non-wetland Waters	*0.05*	-	-	*0.02*	*0.07*
Wetland Waters					
Wetland (Mule Fat Scrub, Southern Willow Scrub, Disturbed Wetlands, Disturbed Riparian)	-	-	<0.01 (19 sq ft)	-	<0.01 (19 sq ft)
Vernal Pools	-	-	0.02	-	0.02
Vernal Pools with Fairy Shrimp	-	0.01	-	-	0.01
Subtotal Wetland Waters	-	*0.01*	*0.02*	-	*0.03*
Total Potentially Jurisdictional Area	**0.05**	**0.01**	**0.02**	**0.02**	**0.10**
Waters of the U.S. – CDFW					
Non-wetland Waters/Streambed					
Ephemeral Stream Channel (Non-vegetated Channel)	0.05	-	0.01	0.02	0.14
Subtotal Non-wetland Waters/Streambed	*0.05*	-	*0.01*	*0.02*	*0.08*
Wetland or Riparian Areas					
Wetland (Mule Fat Scrub, Southern Willow Scrub, Disturbed Riparian)	0.35	-	-	-	0.35
Vernal Pools	-	-	-	-	-
Subtotal Wetland/Riparian	*0.35*	-	-	-	*0.35*
Total Potentially Jurisdictional Area	**0.40**	**-**	**0.01**	**0.02**	**0.43**
Waters of the U.S. – RWQCB					
Non-wetland Waters					
Ephemeral Stream Channel (Non-vegetated Channel)	0.05	-	0.01	0.02	0.08
Subtotal Non-wetland Waters	*0.05*	-	*0.01*	*0.02*	*0.08*
Wetland or Riparian Areas					
Wetland (Mule Fat Scrub, Southern Willow Scrub, Disturbed Wetlands, Disturbed Riparian)	-	-	<0.01 (19 sq ft)	-	<0.01 (19 sq ft)
Vernal Pools	-	-	0.02	-	0.02
Vernal Pools with Fairy Shrimp	-	0.01	-	-	0.01
Seasonal Basins	-	<0.01 (54 sq ft)	-	-	<0.01 (54 sq ft)
Subtotal Wetland/Riparian	-	*0.01*	*0.02*	-	*0.03*
Total Potentially Jurisdictional Area	**0.05**	**0.01**	**0.03**	**0.02**	**0.11**
City of San Diego Wetlands					
Wetland (Mule Fat Scrub, Southern Willow Scrub, Disturbed Riparian)	0.35	-		-	0.35
Disturbed Wetlands	-	<0.01 (54 sq ft)	<0.01 (19 sq ft)	-	<0.01 (73 sq ft)
Vernal Pools	-	0.01 (264 sq ft)	0.02 (847 sq ft)	-	0.03 (1,111 sq ft)
Total Potentially Jurisdictional Area	**0.35**	**0.01**	**0.02**	**-**	**0.38**
NOTE: Totals may not add due to rounding. Phasing corresponds to grading phasing depicted in Figure 10.1.					

Table 5e Existing Potential Jurisdictional Resources within the Phase 4 Project-level Survey Areas (acres)	
Jurisdictional Resource	Phase 4 Development Area
Waters of the U.S. – USACE	
Non-wetland Waters	
Ephemeral Stream Channel (Non-vegetated Channel)	0.17
Subtotal Non-wetland Waters	*0.17*
Wetland Waters	
Wetland (Mule Fat Scrub, Southern Willow Scrub, Disturbed Wetlands, Disturbed Riparian)	-
Vernal Pools	-
Vernal Pools with Fairy Shrimp	<0.01 (35 sq ft)
Subtotal Wetland Waters	*0.17*
Total Potentially Jurisdictional Area	**0.17**
Waters of the U.S. – CDFW	
Non-wetland Waters/Streambed	
Ephemeral Stream Channel (Non-vegetated Channel)	0.17
Subtotal Non-wetland Waters/Streambed	*0.17*
Wetland or Riparian Areas	
Wetland (Mule Fat Scrub, Southern Willow Scrub, Disturbed Riparian)	0.01
Vernal Pools	-
Subtotal Wetland/Riparian	*0.01*
Total Potentially Jurisdictional Area	**0.19**
Waters of the U.S. – RWQCB	
Non-wetland Waters	
Ephemeral Stream Channel (Non-vegetated Channel)	0.17
Subtotal Non-wetland Waters	*0.17*
Wetland or Riparian Areas	
Wetland (Mule Fat Scrub, Southern Willow Scrub, Disturbed Wetlands, Disturbed Riparian)	-
Vernal Pools	-
Vernal Pools with Fairy Shrimp	<0.01 (35 sq ft)
Seasonal Basins	-
Subtotal Wetland/Riparian	<0.01 (35 sq ft)
Total Potentially Jurisdictional Area	**0.17**
City of San Diego Wetlands	
Wetland (Mule Fat Scrub, Southern Willow Scrub, Disturbed Riparian)	0.01
Disturbed Wetlands	-
Vernal Pools	<0.01 (35 sq ft)
Total Potentially Jurisdictional Area	**0.01**
NOTE: Totals may not add due to rounding. Phasing corresponds to grading phasing depicted in Figure 10.1.	

Table 5f Existing Potential Jurisdictional Resources within the Emergency Vehicle Access Road Project-level Survey Areas (acres)	
Jurisdictional Resource	EVA Road
Waters of the U.S. – USACE	
Non-wetland Waters	
Ephemeral Stream Channel (Non-vegetated Channel)	-
Subtotal Non-wetland Waters	-
Wetland Waters	
Wetland (Mule Fat Scrub, Southern Willow Scrub, Disturbed Wetlands, Disturbed Riparian)	-
Vernal Pools	-
Vernal Pools with Fairy Shrimp	0.02
Subtotal Wetland Waters	*0.02*
Total Potentially Jurisdictional Area	**0.02**
Waters of the U.S. – CDFW	
Non-wetland Waters/Streambed	
Ephemeral Stream Channel (Non-vegetated Channel)	-
Subtotal Non-wetland Waters/Streambed	-
Wetland or Riparian Areas	
Wetland (Mule Fat Scrub, Southern Willow Scrub, Disturbed Riparian)	-
Vernal Pools	-
Subtotal Wetland/Riparian	-
Total Potentially Jurisdictional Area	**-**
Waters of the U.S. – RWQCB	
Non-wetland Waters	
Ephemeral Stream Channel (Non-vegetated Channel)	-
Subtotal Non-wetland Waters	-
Wetland or Riparian Areas	
Wetland (Mule Fat Scrub, Southern Willow Scrub, Disturbed Wetlands, Disturbed Riparian)	-
Vernal Pools	-
Vernal Pools with Fairy Shrimp	0.02
Seasonal Basins	-
Subtotal Wetland/Riparian	0.02
Total Potentially Jurisdictional Area	**0.02**
City of San Diego Wetlands	
Wetland (Mule Fat Scrub, Southern Willow Scrub, Disturbed Riparian)	-
Disturbed Wetlands	-
Vernal Pools	0.02
Total Potentially Jurisdictional Area	**0.02**
NOTE: Totals may not add due to rounding. Phasing corresponds to grading phasing depicted in Figure 10.1.	

5.5.2.1 Waters of the U.S. – USACE

According to the USACE manual (USACE 1987), wetlands are defined as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances, do support a prevalence of vegetation typically adapted for life in saturated soil conditions." In accordance with Section 404 of the Clean Water Act, USACE regulates the discharge of dredged or fill material into waters of the U.S.

Wetlands are delineated using three parameters: hydrophytic vegetation, wetland hydrology, and hydric soils. According to USACE, positive indicators for all three parameters (hydrophytic vegetation, hydric soils, and wetland hydrology) must be present to qualify as a wetland. USACE also requires the delineation of non-wetland waters. These waters must have strong hydrology indicators such as the presence of seasonal flows and an ordinary high water mark.

Potential USACE jurisdictional resources located in the project-level survey area include non-wetland waters, isolated wetlands, vernal pools, and vernal pools with fairy shrimp (see Tables 5a-5f and Figure 31.1 through 31.37). These waters of the U.S. are discussed below.

a. Non-Wetland Waters of the U.S.

Twenty-one ephemeral drainage courses were mapped within project-level survey area. These drainages are largely unvegetated, lacking hydrophytic vegetation, hydric soils, and wetland hydrology, but do exhibit an ordinary high-water mark.

b. Wetland Waters of the U.S.

Twenty-five disturbed wetlands that contain hydrophytic vegetation, but no vernal pool flora indicator species occur within the project-level survey area. The presence of hydrophytic vegetation, in conjunction with evidence of ponding (i.e., soil surface cracks, biotic crusts), were used to determine that wetland hydrology were present. All depressions occur within soils mapped as hydric soils (NRCS 2020). The waters type for these aquatic features is considered "isolate", as these depressions do not have a distinct connection to any wetland or non-wetland water drainage courses.

c. Vernal Pools and Vernal Pools with Listed Fairy Shrimp and Immature Fairy Shrimp

Two hundred and sixty-three depressions were identified as vernal pools given that they support one or more vernal pool plant indicator species (USACE 1997). Some of the vernal pools also support a federally listed fairy shrimp, a vernal pool fauna indicator species (see Figure 27.1 through 27.11). Additionally, some pools contain immature fairy shrimp species that could be identified to the genus of *Branchinecta* but could not be identified to species. The presence of vernal pool flora and fauna, in conjunction with evidence of ponding (i.e., soil surface cracks, biotic crusts), were used to conclude that wetland hydrology was present. The waters type for these aquatic features is considered "isolate", as these depressions do not have a distinct connection to any wetland or non-wetland water drainage courses.

5.5.2.2 Waters of the State – CDFW

Waters of the state potentially under the jurisdiction of CDFW within the project-level area include 21 ephemeral streambeds, the four riverine wetlands along Drainage C-A potentially under USACE jurisdiction, the additional 10 riverine wetland areas along Drainages O, G, and S, and the vernal pool that supports a state-listed plant species (see Table 3b and Figure 32.1 through 32.37). In 2019, San Diego button-celery, a state listed endangered species, was detected within two vernal pools within the project-level survey area. San Diego button-celery is also a vernal pool indicator plant species (USACE 1997). Vernal pools with San Diego button-celery are covered under the CESA.

5.5.2.3 Waters of the State – RWQCB

Waters of the state potentially under the jurisdiction of the RWQCB include wetlands, vernal pools, and vernal pools that include those pools that support the federally listed fairy shrimp species, and seasonal depressions (basins with San Diego fairy shrimp), that support fairy shrimp (see Tables 5a-5d and Figure 32.1 through 32.37). RWQCB jurisdiction is anticipated to include the same areas as USACE (as described earlier in this report) as well as the ephemeral drainages and the seasonal basins, which are discussed below.

a. Seasonal Basins (Basins with San Diego fairy shrimp)

Forty-two depressions that contain San Diego fairy shrimp, but no vernal pool flora indicator species occur within the project-level survey area. These depressions are either not dominated with hydrophytic vegetation or have no vegetation at all. However, there was either evidence of ponding (i.e., soil surface cracks, biotic crusts) or observed ponding, which was used to determine that wetland hydrology was present. Based on the presence of ponding conditions sufficient to support federal listed fairy shrimp, the features may be considered surface waters of the state.

5.5.2.4 City of San Diego Wetlands

City wetlands include the same areas identified as CDFW wetlands which includes areas of mule fat scrub, southern willow scrub, disturbed southern willow scrub, disturbed riparian and disturbed wetlands, and vernal pools. Some, but not all of the ponding basins within the project-level survey areas contain vernal pool indicator plants. As defined by the Biology Guidelines, all depressions that contain the presence of one or more USACE vernal pool plant indicator species fall under the jurisdiction of the City and are identified as vernal pools (City of San Diego 2019).

An additional 25 isolated ponding basins occur within the project-level survey area that do not contain vernal pool plant indicator species, but do contain hydrophytic vegetation, hydric soils, and hydrology; therefore, these basins have been mapped as disturbed wetlands (see Tables 5a-5d and Figure 33.1 through 33.32). Additionally, 42 basins designated as seasonal basins by the RWQCB (ponding depressions that are not a wetland or vernal pool, but contain shrimp), as described in Section 5.5.2.3, are also classified as City disturbed wetlands as these basins meet the hydrology parameter.

5.6 Wildlife Corridors

Wildlife movement corridors are defined as areas that connect suitable wildlife habitat areas in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. Natural features such as canyon drainages, ridgelines, or areas with vegetation cover provide corridors for wildlife travel. Wildlife movement corridors are important, because they provide access to mates, food, and water; allow the dispersal of individuals away from high population density areas; and facilitate the exchange of genetic traits between populations (Beier and Loe 1992). Wildlife movement corridors are considered sensitive by resource and conservation agencies.

5.6.1 Program-level Area

The Specific Plan area is located on mesa tops and occurs within a large block of undeveloped land, just north of the U.S./Mexico border, east of I-805 and south of SR-905. Wildlife movement within and between designated core biological resource areas is currently restricted south of the mesa tops by development in Mexico and the U.S. Mexico border wall. Movement to the west is restricted by the community of San Ysidro and I-805 located west of the Specific Plan area. Movement north of the Specific Plan area is restricted by Otay Mesa Road and SR-905, although a bridge under SR-905 to the east provides a connection to habitat blocks to the north (Figure 34).

In 2020, the Wildlife Tracking Institute conducted a large-scale wildlife tracking study which included the entire Specific Plan area and additional areas outside of the Specific Plan boundary (see Attachment 2). The study area was broken into three survey areas (A, B and C) known to support the highest wildlife use. Survey areas are depicted on Figure 35. As shown, the majority of wildlife use is within the canyons surrounding the Specific Plan area. Wildlife movement is supported by extensive canyon networks through Moody Canyon, west of the Specific Plan area, and Spring Canyon. Moody and Spring canyons are designated as MSCP regional wildlife corridors (City of San Diego 1997). East of the Specific Plan area, a large block of habitat associated with Spring Canyon provides access to the SR-905 undercrossing to Dennery Canyon. Beyond Spring Canyon to the east, wildlife movement is restricted by existing industrial and commercial developments (Wildlife Tracking Institute 2020).

The Otay Mesa Road culvert, occurring in Study Area C, is large enough to allow movement for coyote and bobcat and small animals, but it is not large enough to support movement of mule deer (*Odocoileus hemionus fuliginata*). As wildlife moves south from Dennery Canyon, the canyons, mesa tops and existing dirt roads provide opportunities for local movement within the Specific Plan area. Within the program-level areas, significant wildlife movement patterns were noted (see Figure 35).

All study areas provide wildlife movement opportunities for large and small mammals, and reptiles, and it was determined that the large mammals that frequently used Moody and Spring Canyons were predominantly coyote and bobcat (Wildlife Tracking Institute 2020).

5.6.2 Project-level Area

As detailed above, an overview of the wildlife movement paths based on the findings of the wildlife tracking study is shown on Figure 35 and species identified as part of this study are included in Section 4.1.3. As shown on Figure 35, Survey Areas A and B occur within the project-level survey area. Survey Area A, which covers most of Phase 1 and the Beyer Boulevard West survey area, contains a system of east-west ridges and two deep canyons within the southern portion of this study area. Additionally, there are three north-south swales that are south of Moody Canyon and allow movement from the canyon into the mesa top areas. Bobcat and coyote were found to frequently use these swales. Moody Canyon, an east-west canyon, provides a regional corridor for local movement (City of San Diego 1997). The focus of the wildlife tracking study was to provide recommendations for wildlife crossings as with the implementation of Beyer Boulevard West (within Study Area A), movement through Moody Canyon would be interrupted by this road.

Study Area B covers a portion of the Beyer Boulevard West survey area and all of Phase 2 and includes dirt roads along the mesa edges and a drainage with riparian habitat that are commonly used by large and small mammals. The southeastern portion of Area B contains the southwestern extent of the Spring Canyon drainage area located further east within the southern portion of Survey Area A. This is a key drainage and wildlife movement corridor, allowing wildlife to move through Study Areas B and C (see Figure 35).

Study Area C includes the Spring Canyon Drainage and surrounding open space and associated finger canyons. Wildlife movement coming south from Dennery Canyon through the Otay Mesa Road culvert may enter into the area using canyons, mesa tops and existing dirt roads which provide opportunities for local movement within area (see Figure 35).

5.7 Designated Critical Habitats

The USFWS has designated revised critical habitat for San Diego fairy shrimp, Riverside fairy shrimp, and spreading navarretia within the Otay Mesa area (USWFS 2007b, 2012, and 2010, respectively). Critical habitats for these species occur within and surrounding the Specific Plan area (see Figure 28.1 through 28.3). No critical habitat is designated for Quino checkerspot butterfly or Otay tarplant within either the program-level or project-level areas.

5.7.1 Program-level Area

San Diego fairy shrimp, Riverside fairy shrimp, and spreading navarretia critical habitats occur within the program-level areas (see Figure 28.1 through 28.3 and Table 6a). Future project-level surveys would be required to determine if these species are present within these areas.

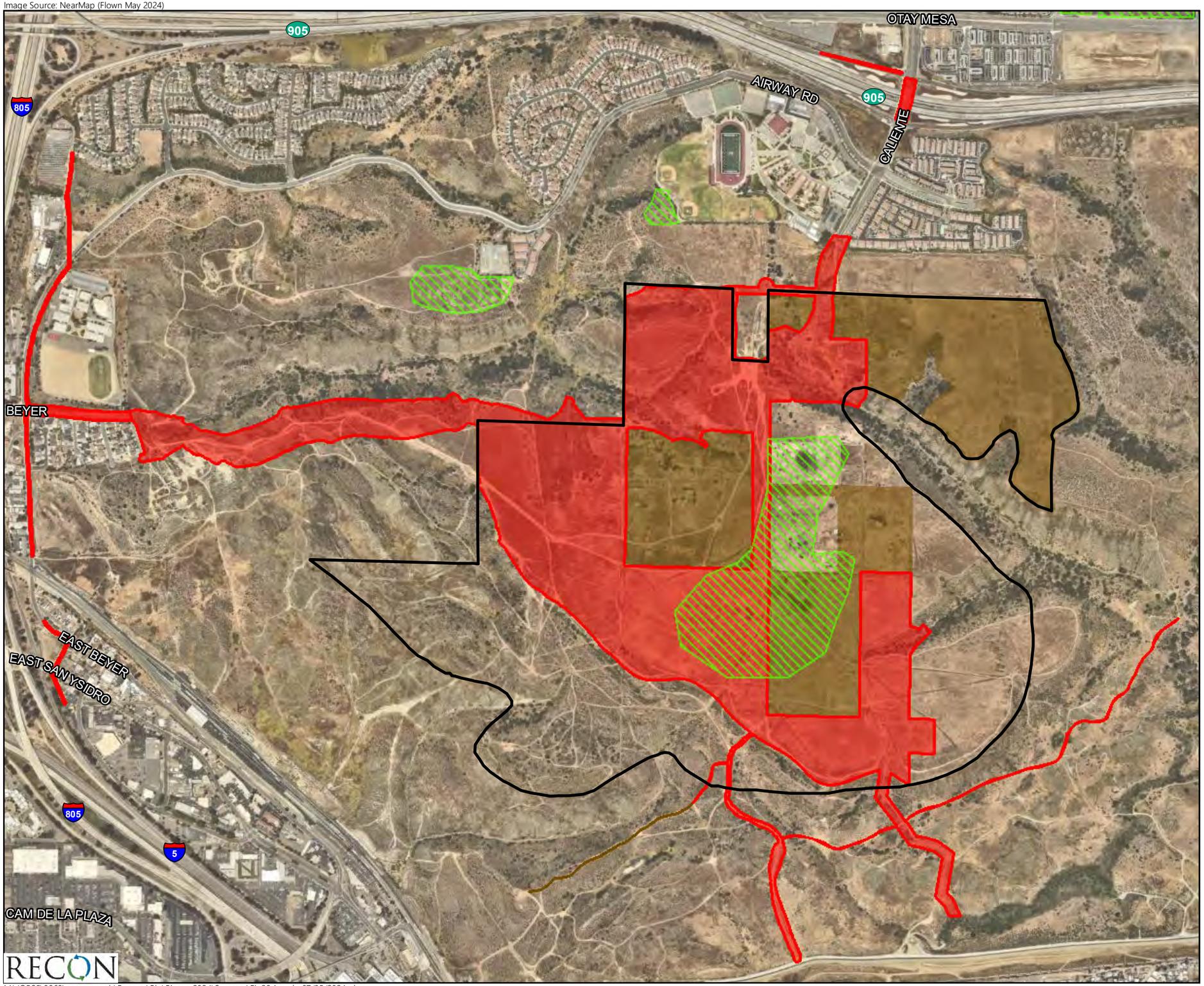
Table 6a Critical Habitats Located within the Program-level Survey Area	
Critical Habitat	Acres
San Diego fairy shrimp	37.35
Riverside fairy shrimp	0.07
Spreading navarretia	12.27

5.7.2 Project-level Area

Critical habitats for San Diego fairy shrimp, Riverside fairy shrimp, and spreading navarretia occur within the project-level survey area (see Figure 28 and Table 6b). To date, San Diego fairy shrimp have been detected within the project-level survey area, both inside and outside of the designated critical habitat areas. Riverside fairy shrimp was detected in one vernal pool located north of the designated critical habitat for this species (refer to Figure 40.2 for the location of the detected Riverside fairy shrimp). No spreading navarretia has been observed within the project-level survey areas.

Table 6b Critical Habitats Located within the Project-level Survey Area		
Critical Habitat	Survey Area (acres)	Development Areas (acres)[1]
San Diego fairy shrimp	311.90	77.94
Riverside fairy shrimp	160.14	4.09
Spreading navarretia	18.15	18.15
[1]Includes Phases 1, 2, 4, Beyer Boulevard West, and EVA Road		

Image Source: NearMap (Flown May 2024)



Project-level Analysis Area

Project-level Analysis Trails

Program-level Analysis Area

Program-level Analysis Trails

Specific Plan Boundary

Critical Habitat for Spreading Navarretia (*Navarretia fossalis*)

0 Feet 900

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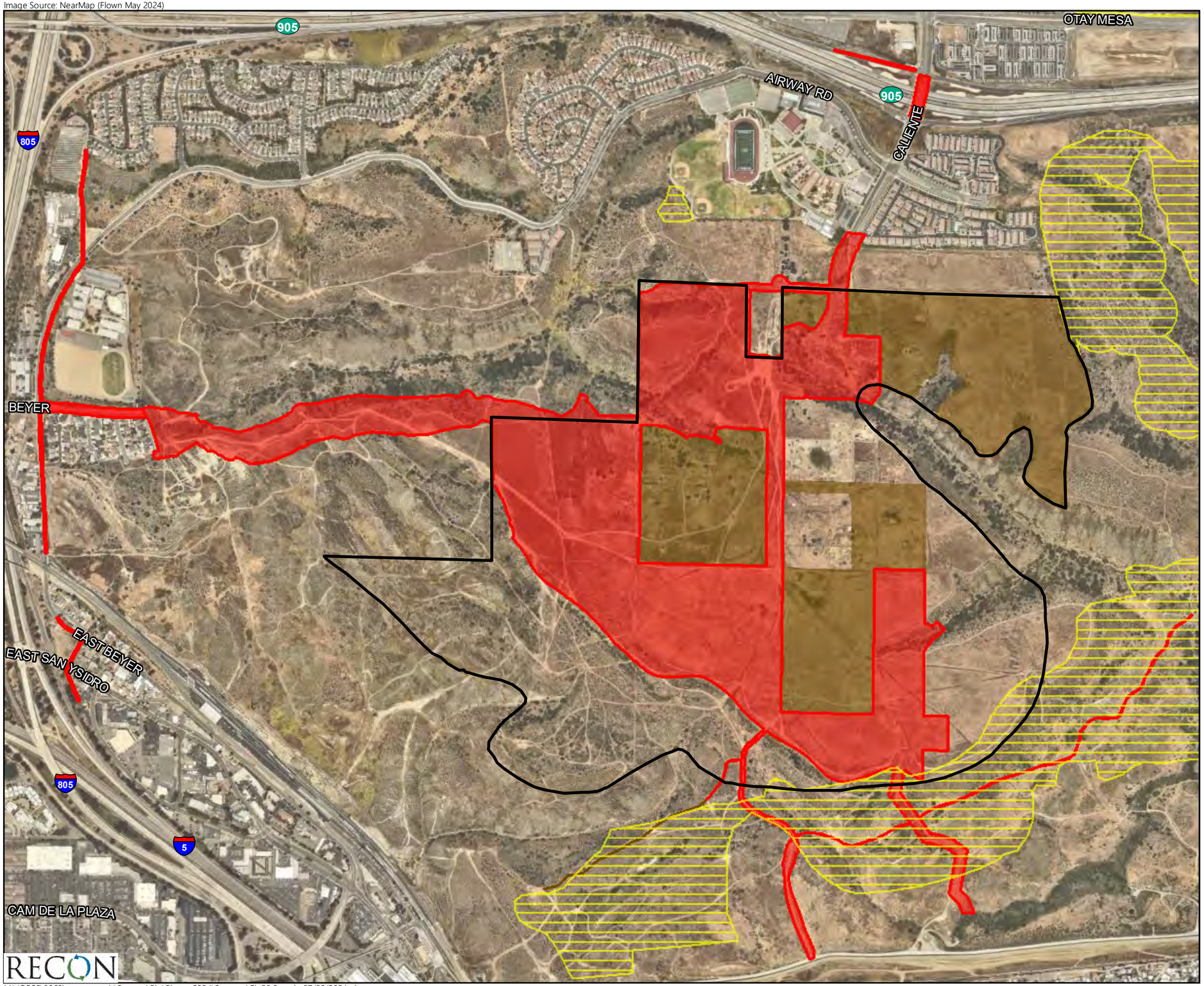
FIGURE 28.1
Project Location in Relation to
Spreading Navarretia Critical Habitat

Image Source: NearMap (Flown May 2024)



Project-level Analysis Area
Project-level Analysis Trails
Program-level Analysis Area
Program-level Analysis Trails
Specific Plan Boundary
Critical Habitat for Riverside Fairy Shrimp (*Streptocephalus woottoni*)

0 Feet 900

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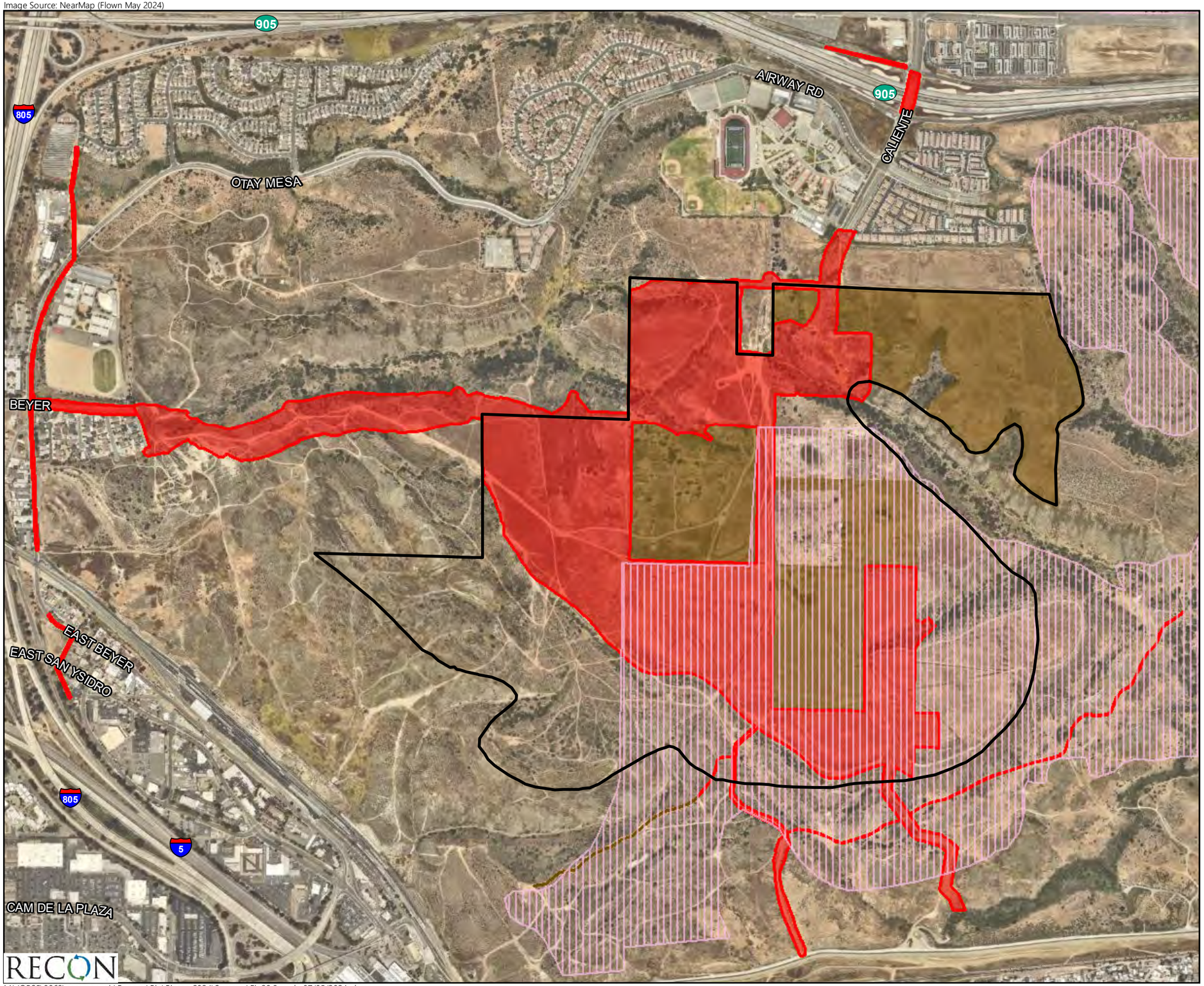
FIGURE 28.2
Project Location in Relation to
Riverside Fairy Shrimp Critical Habitat

Image Source: NearMap (Flown May 2024)



Project-level Analysis Area
Project-level Analysis Trails
Program-level Analysis Area
Program-level Analysis Trails
Specific Plan Boundary
Critical Habitat for San Diego Fairy Shrimp (*Branchinecta sandiegonensis*)

0 Feet 850

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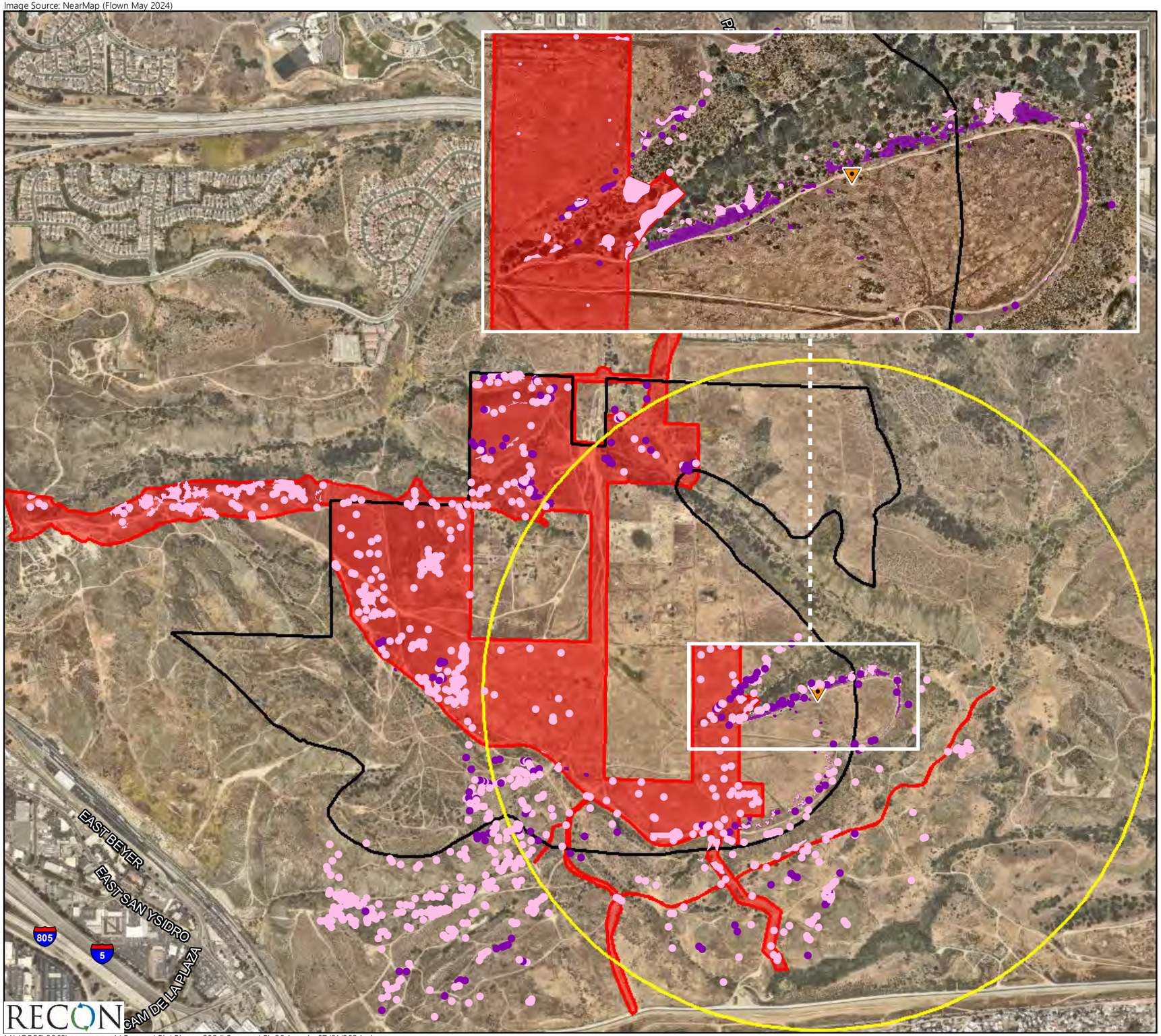
FIGURE 28.3
Project Location in Relation to
San Diego Fairy Shrimp Critical Habitat

Image Source: NearMap (Flown May 2024)



Project-level Analysis Area
Specific Plan Boundary
Quino Checkerspot Butterfly 2019 Observation (*Euphydryas editha quino*)
2019 QCB Observation 1 KM Radius

Quino Checkerspot Butterfly Habitat

Host Plant Area
Nectar Plant Area

0 Feet 1,000

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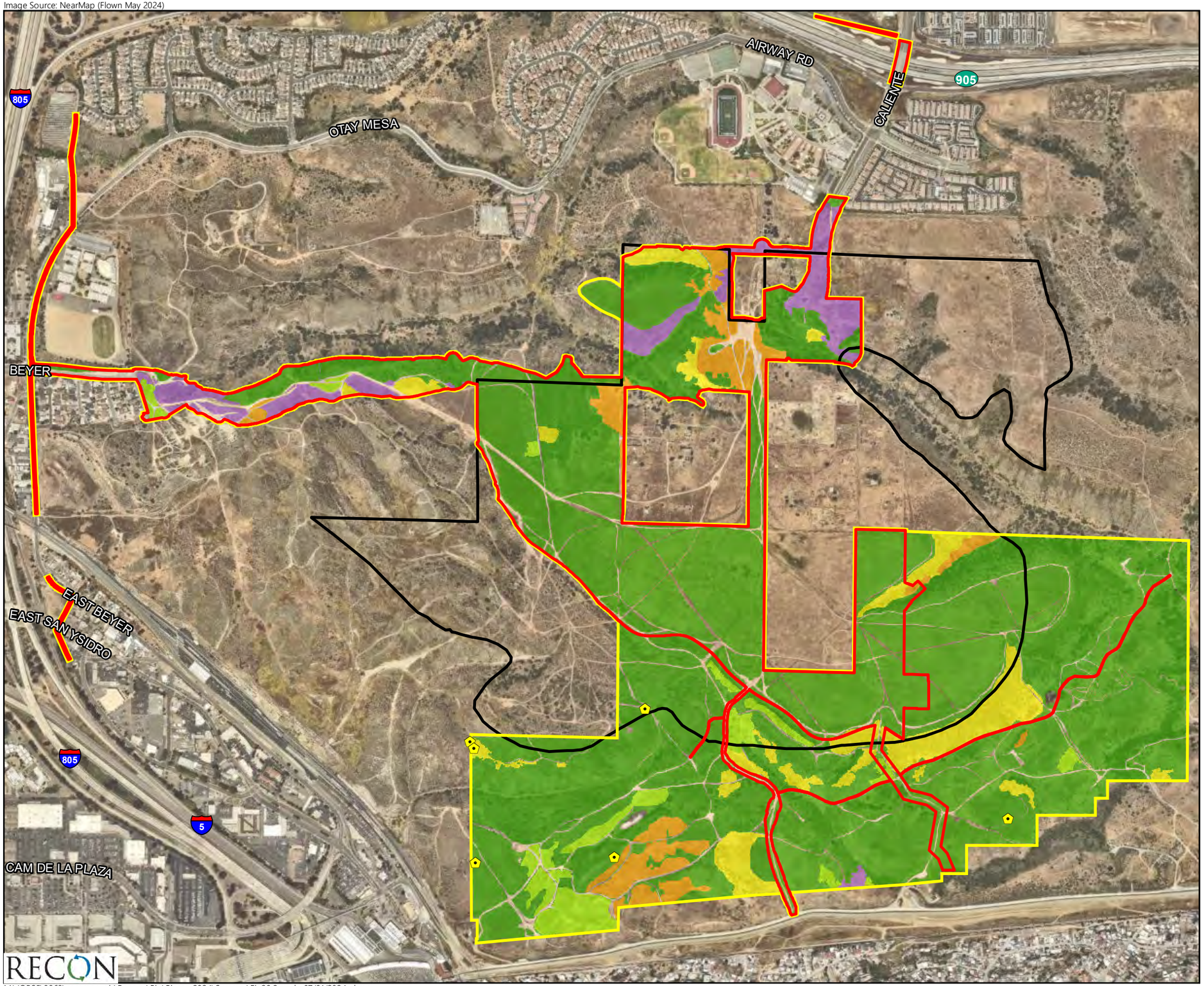
FIGURE 29.1
Suitable Quino Checkerspot Bufferfly Habitat

Image Source: NearMap (Flown May 2024)



Project-level Analysis Area

Specific Plan Boundary

Crotch's Bumble Bee Survey Area

Crotch's Bumble Bee Observation (*Bombus crotchii*)

Nectar Source Cover

- Low: 0-5%
- Low to Moderate: 6-15%
- Moderate: 16-25%
- Moderate to High: 26-50%
- High: 50% +

0 Feet 900

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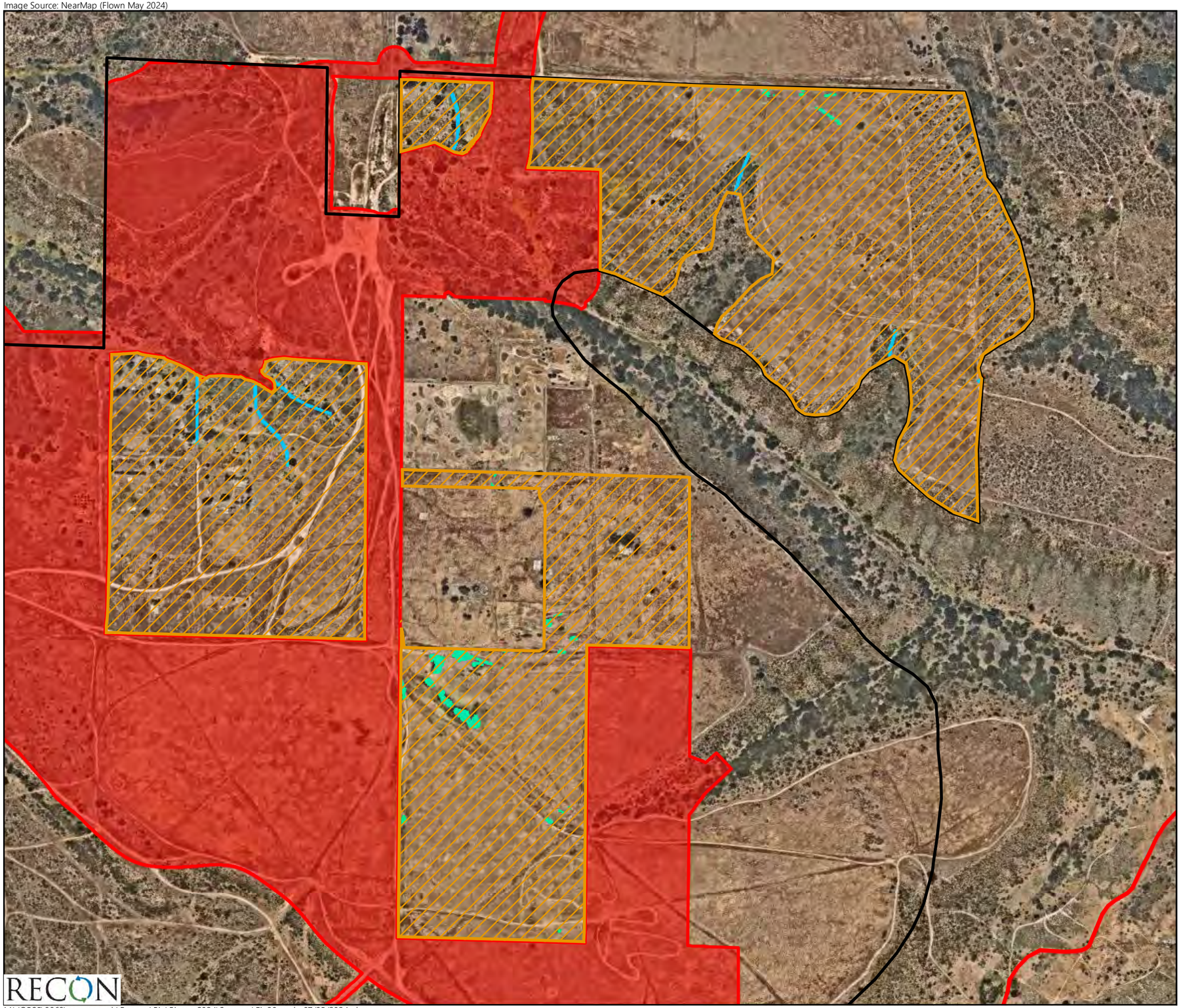
FIGURE 29.2
Crotch's Bumble Bee Habitat Assessment

Image Source: NearMap (Flown May 2024)



Program-level Analysis Area

Project-level Analysis Area

Specific Plan Boundary

Potential Aquatic Resources*

Wetland

Non-wetland Waters

*Resources mapped based on SanGIS and National Wetlands Inventory (NWI) data. Site specific surveys required to verify resources

0 Feet 450

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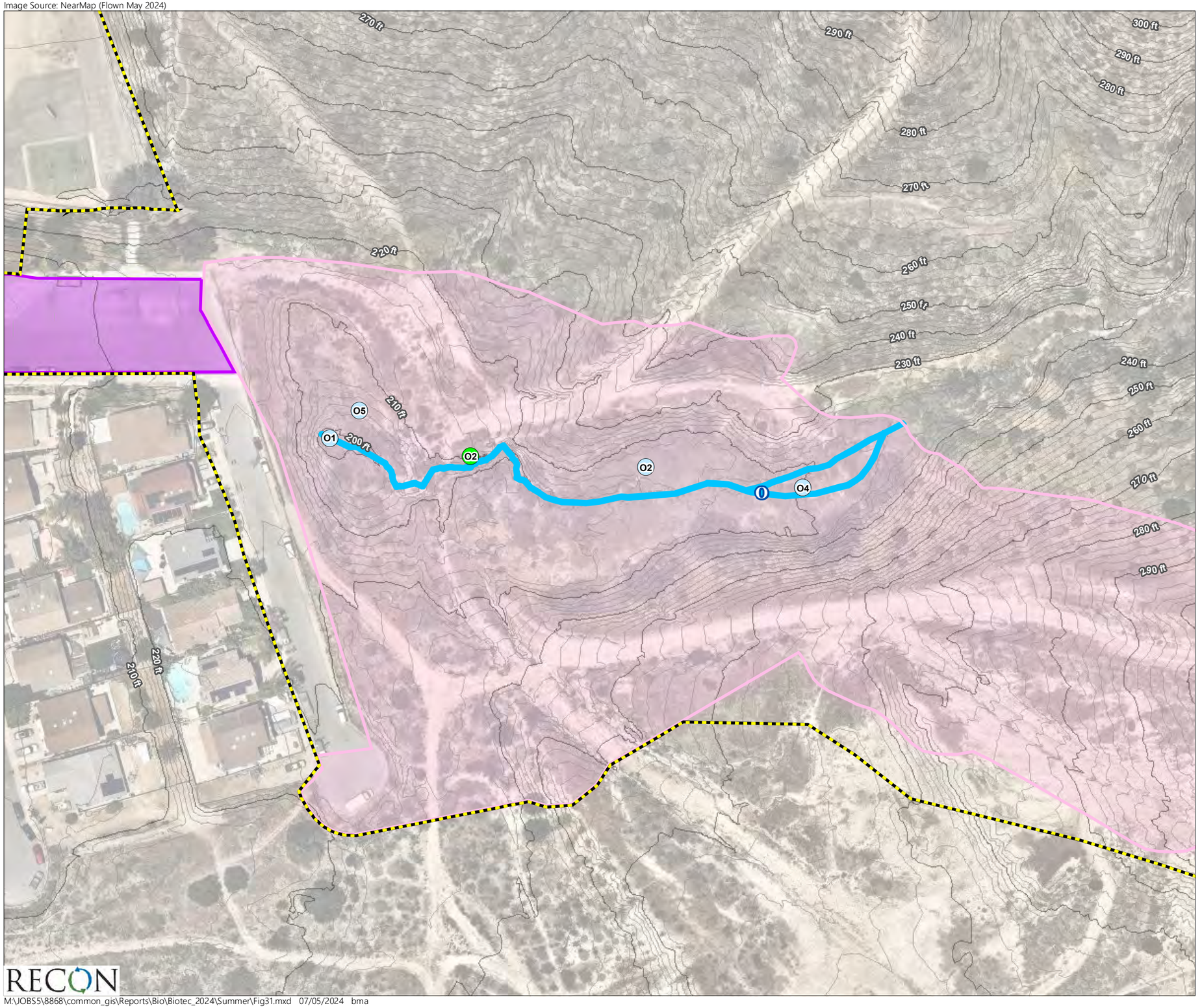
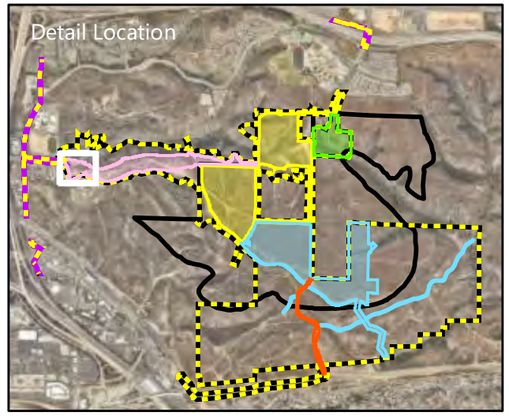
FIGURE 30
Potential Jurisdictional Resources - Program-level Analysis Areas

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

Waters of the U.S. (USACE)

Non-wetland Waters (Waters ID)

Wetland Data Form Point (WDP)

OHWM Data Sheet Point (ODP)

0 Feet 70

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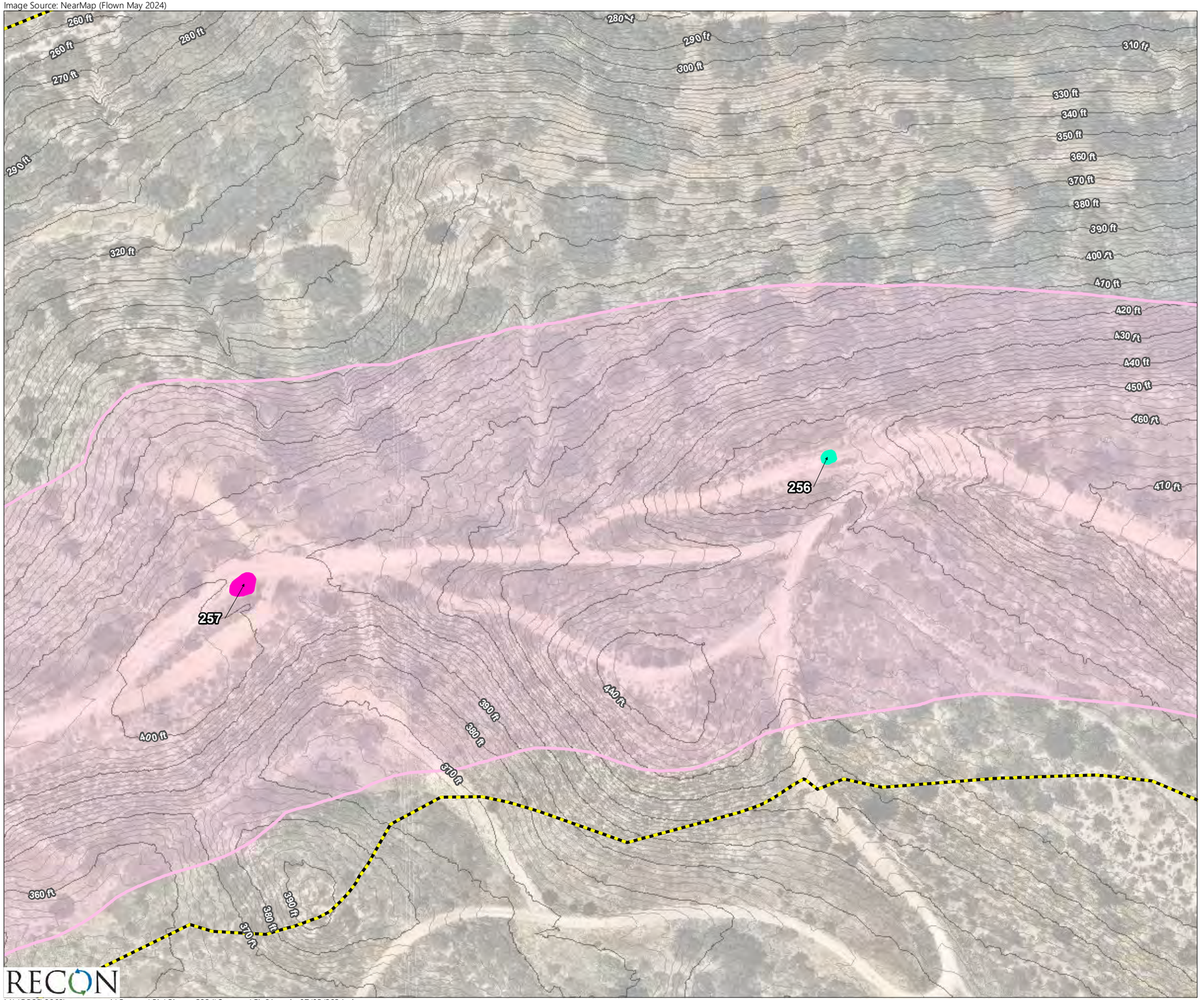
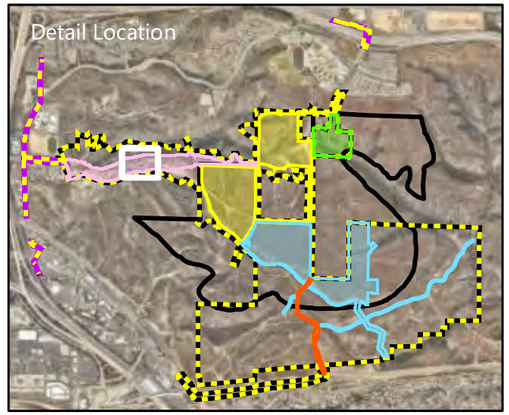
FIGURE 31.1
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

Waters of the U.S. (USACE)

Vernal Pool (Waters ID)

Vernal Pool with Fairy Shrimp (Waters ID)

0 Feet 70

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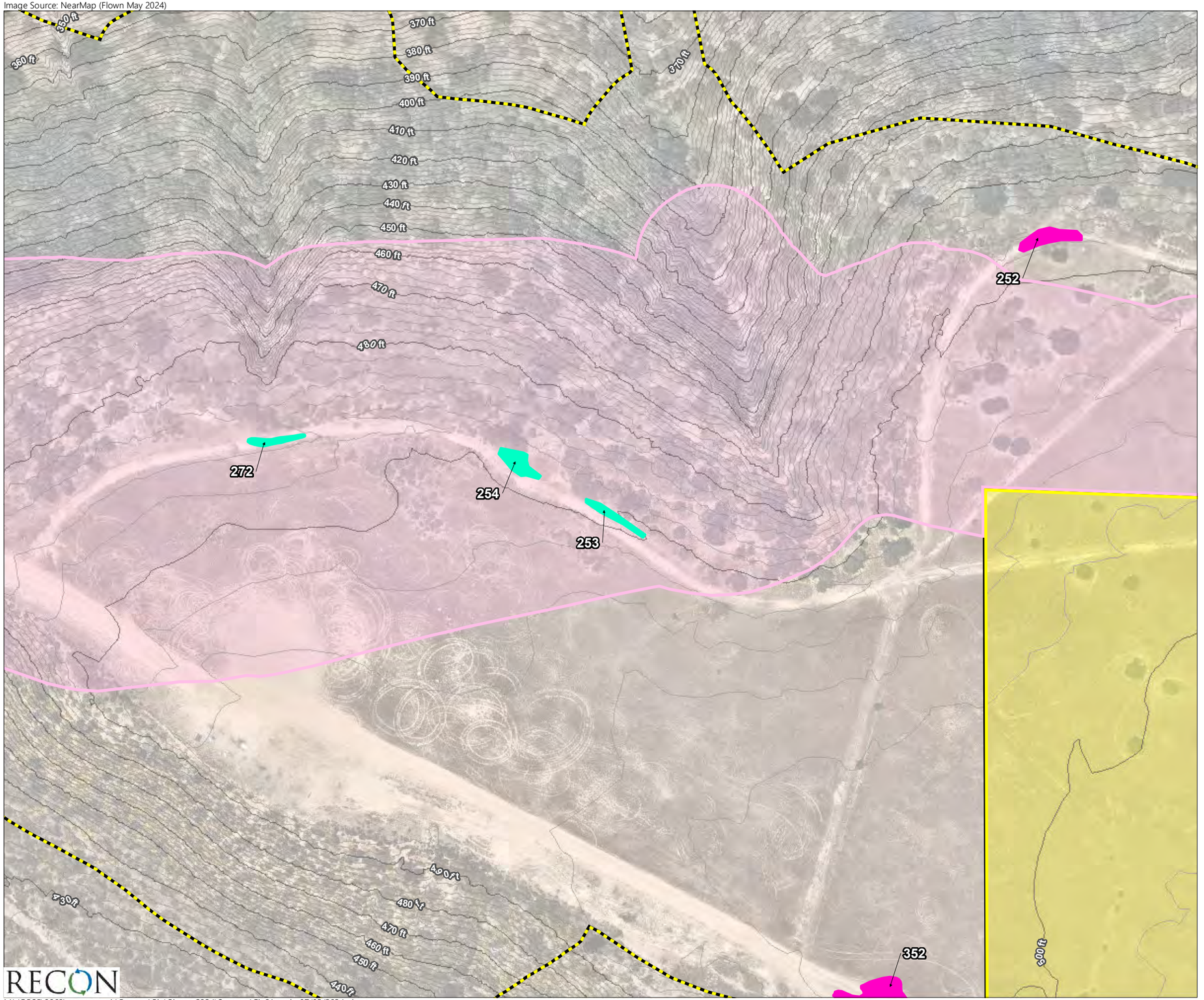
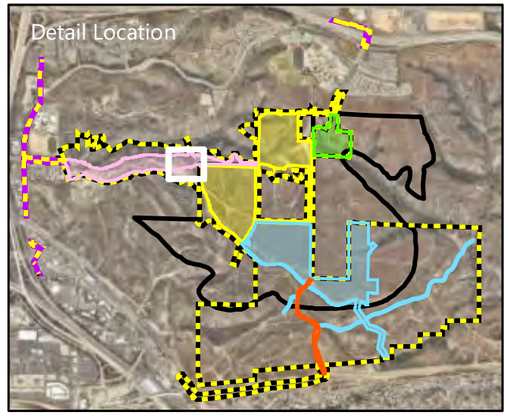
FIGURE 31.2
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

Waters of the U.S. (USACE)

Vernal Pool (Waters ID)

Vernal Pool with Fairy Shrimp (Waters ID)

0 Feet 70

RECON

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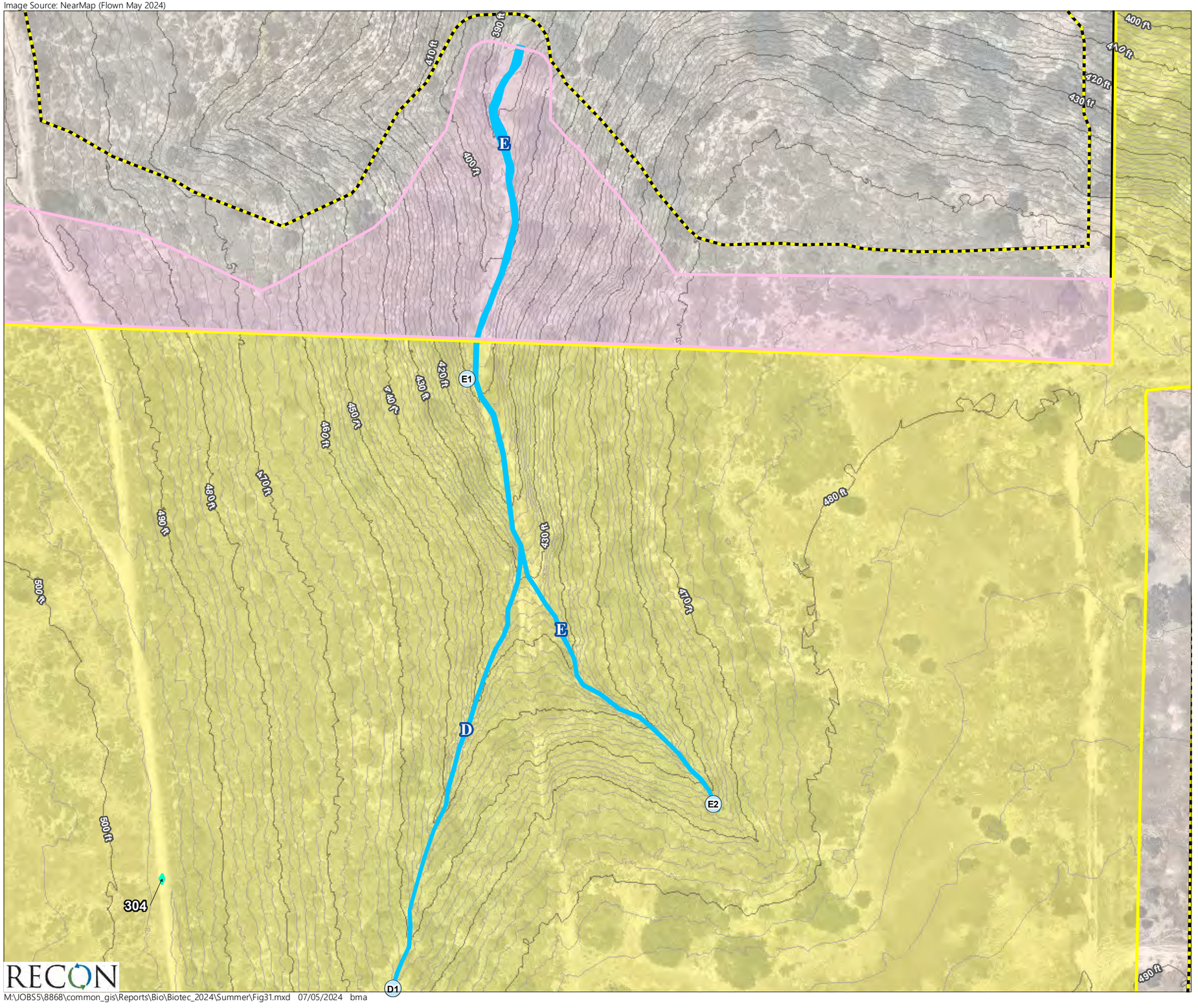
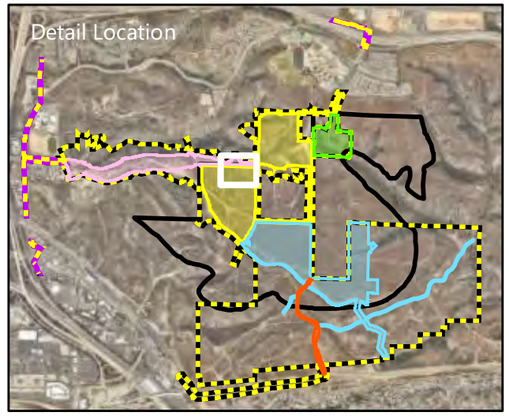
FIGURE 31.3
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

Waters of the U.S. (USACE)

- Vernal Pool (Waters ID)
- Non-wetland Waters (Waters ID)
- Wetland Data Form Point (WDP)

0 Feet 70

RECON

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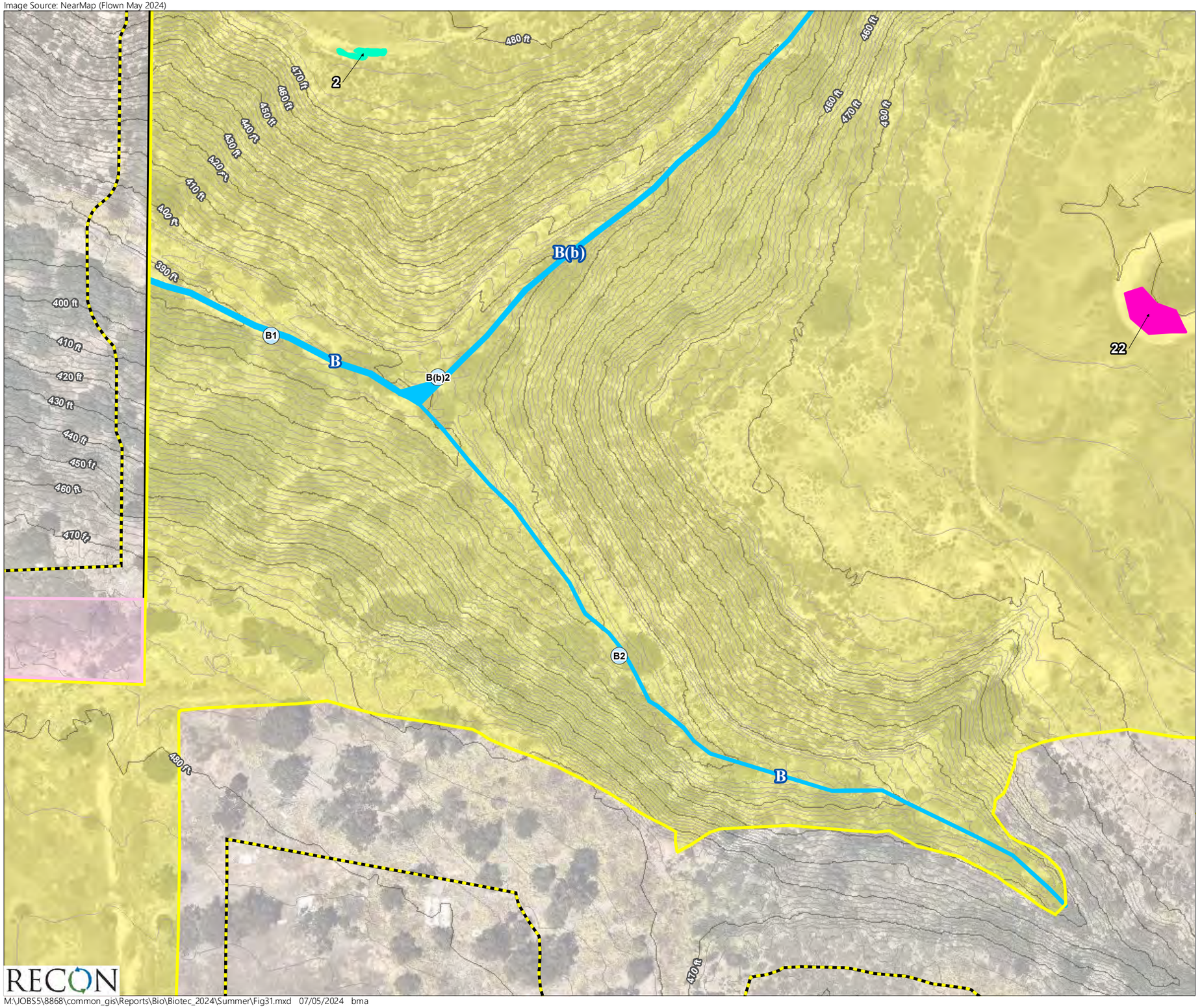
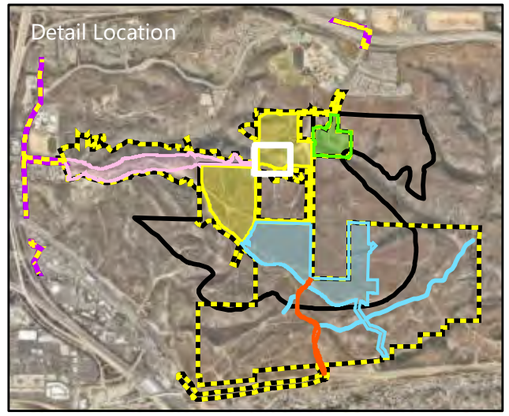
FIGURE 31.4
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary
Project-level Survey Area

Project-level Phasing

Phase 1
Phase 2
Phase 4
Beyer Boulevard
Emergency Vehicle Access
Off-site Improvements

Waters of the U.S. (USACE)

Vernal Pool (Waters ID)
Vernal Pool with Fairy Shrimp (Waters ID)
Non-wetland Waters (Waters ID)
Wetland Data Form Point (WDP)

0 Feet 70

RECON

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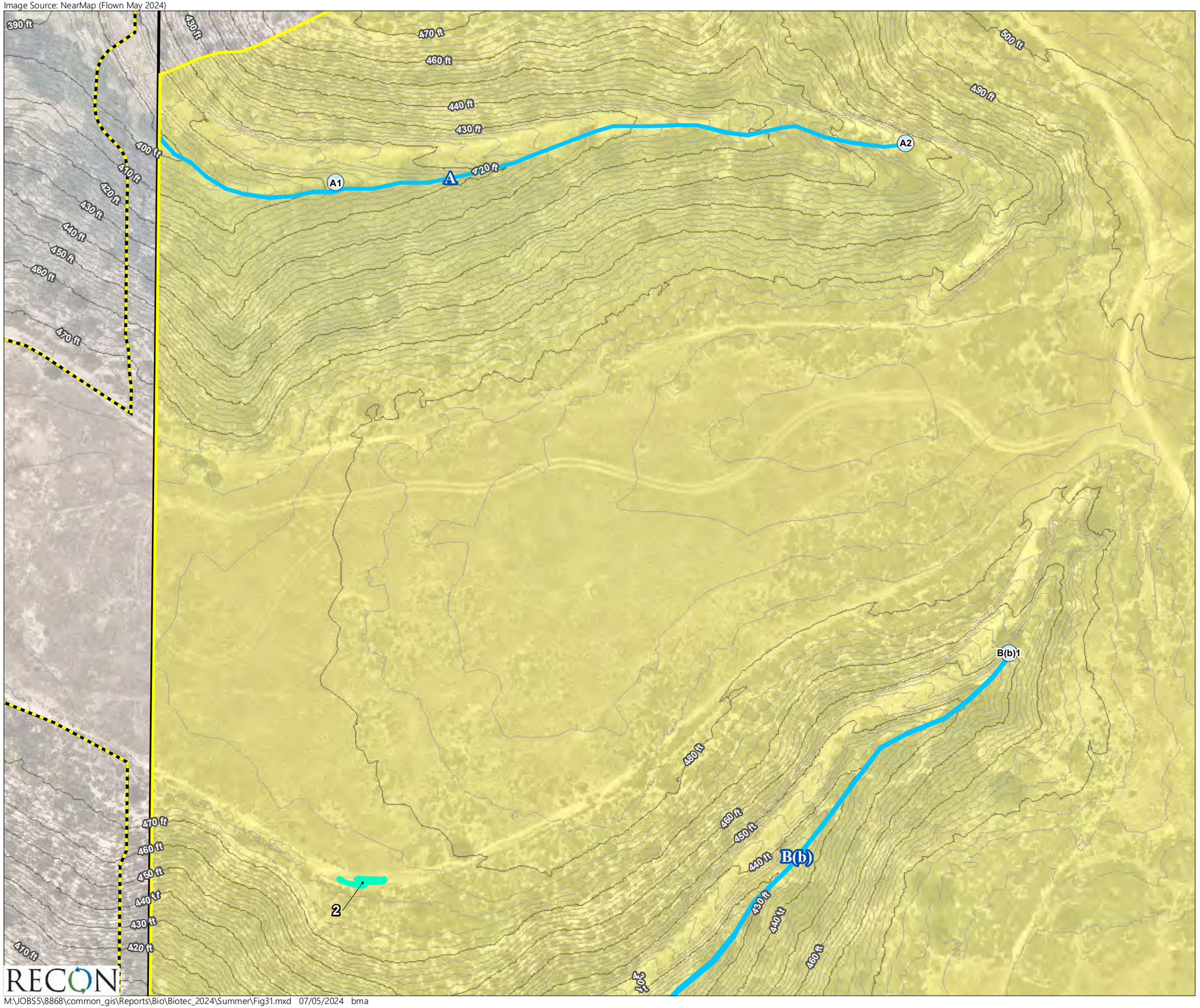
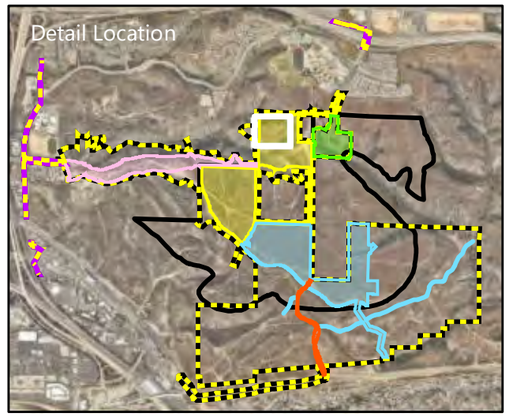
FIGURE 31.5
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

Waters of the U.S. (USACE)

Vernal Pool (Waters ID)

Non-wetland Waters (Waters ID)

Wetland Data Form Point (WDP)

0 Feet 70

RECON

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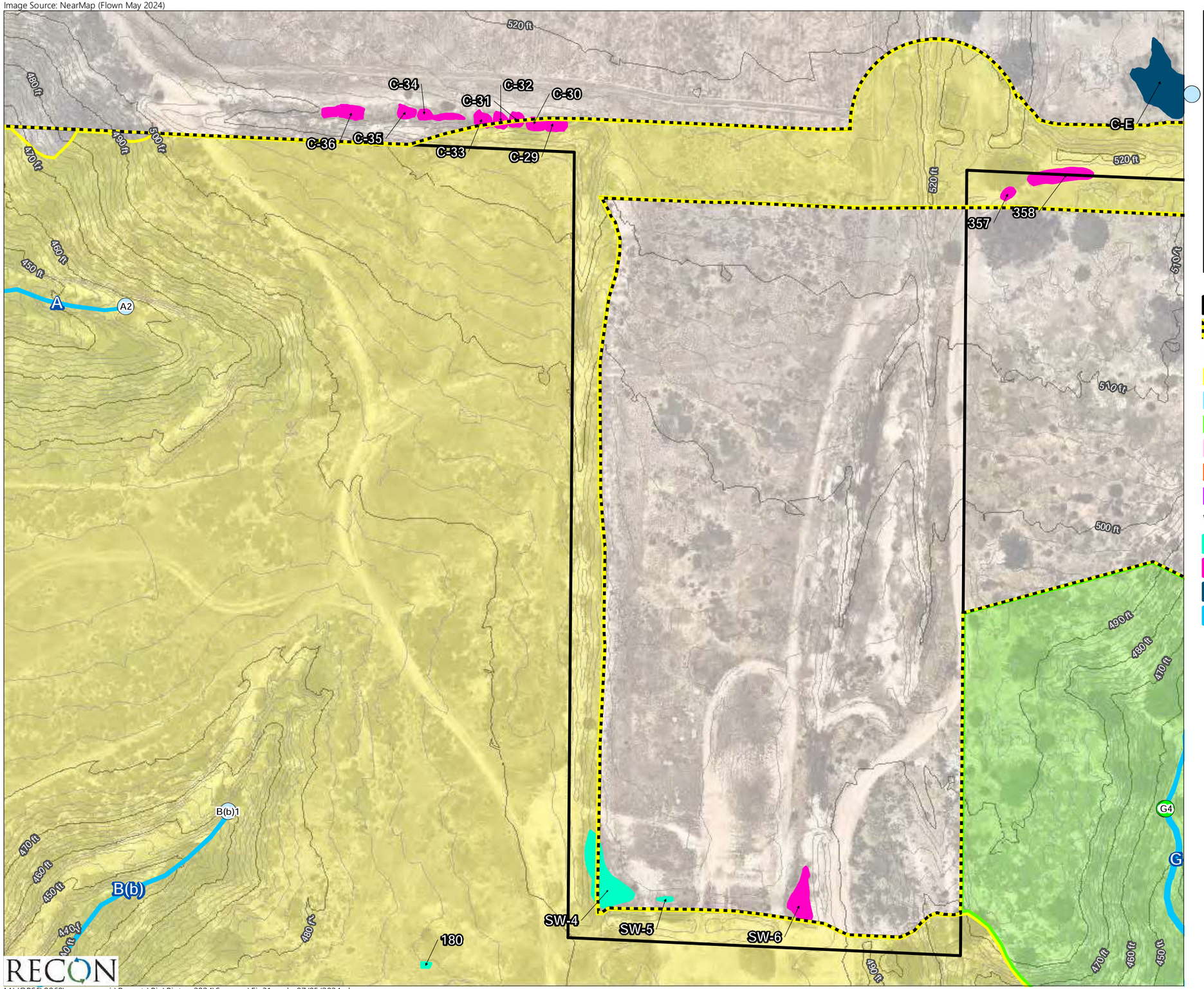
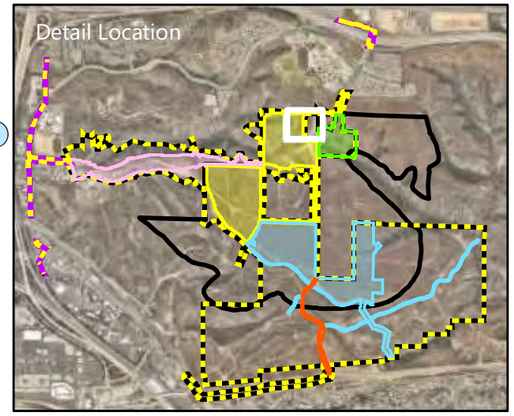
FIGURE 31.6
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

Waters of the U.S. (USACE)

- Vernal Pool (Waters ID)
- Vernal Pool with Fairy Shrimp (Waters ID)
- Wetland (Waters ID)
- Non-wetland Waters (Waters ID)
- Wetland Data Form Point (WDP)
- OHWM Data Sheet Point (ODP)

0 Feet 70

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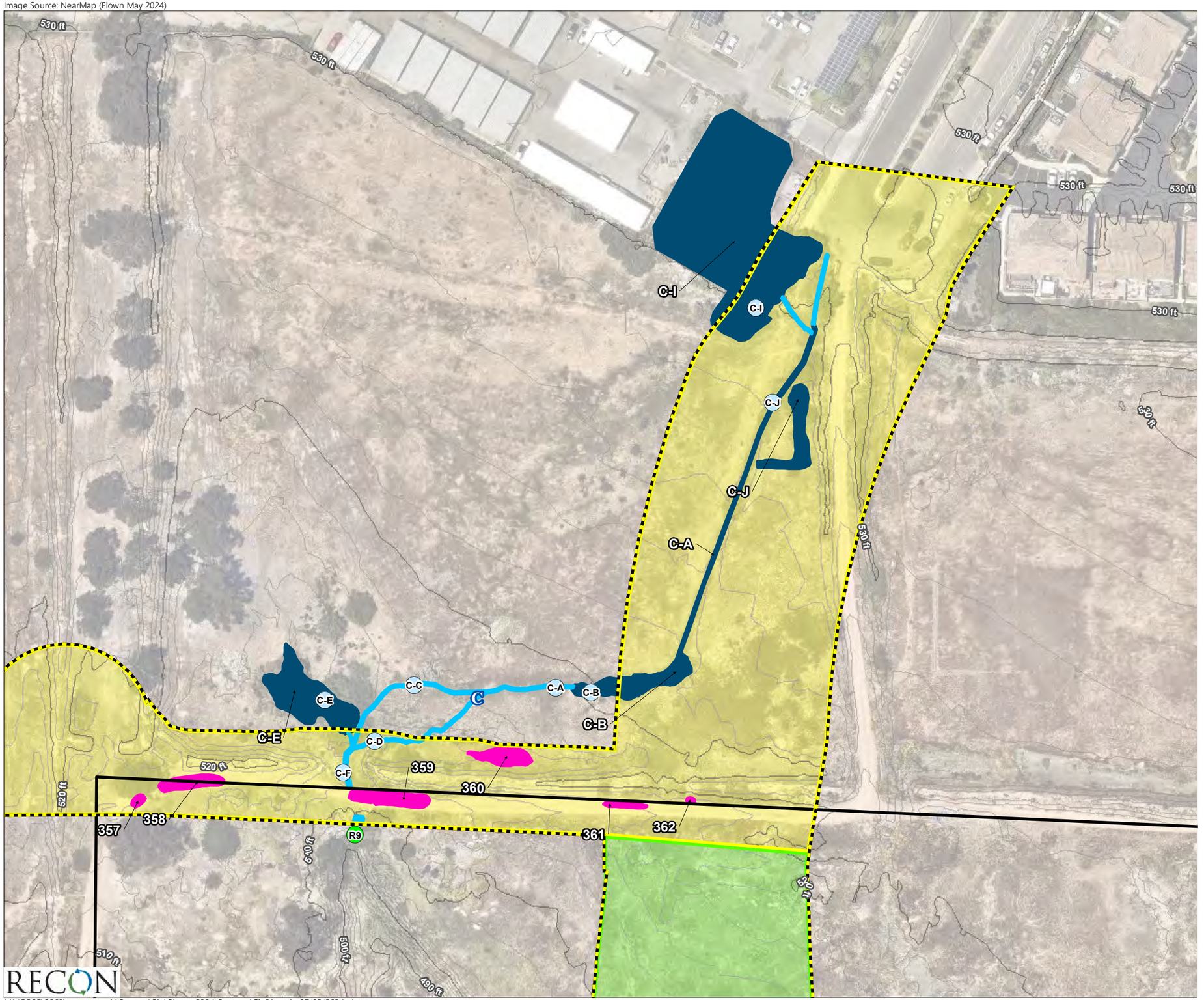
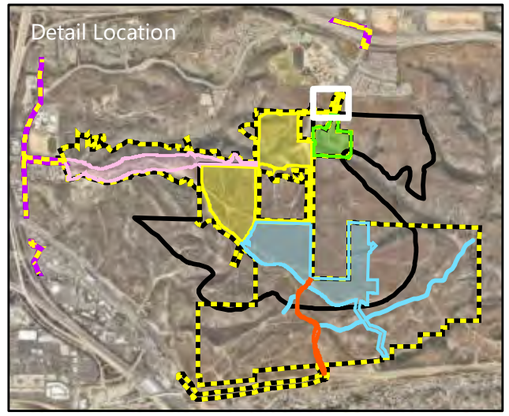
FIGURE 31.7
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)





- Specific Plan Boundary
- Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

Waters of the U.S. (USACE)

- Vernal Pool with Fairy Shrimp (Waters ID)
- Wetland (Waters ID)
- Non-wetland Waters (Waters ID)
- Wetland Data Form Point (WDP)
- OHWM Data Sheet Point (ODP)

Wetland deviations within this area previously approved as part of the City of San Diego entitled Candlelight Development Project (PTS #30329)

0 Feet 70

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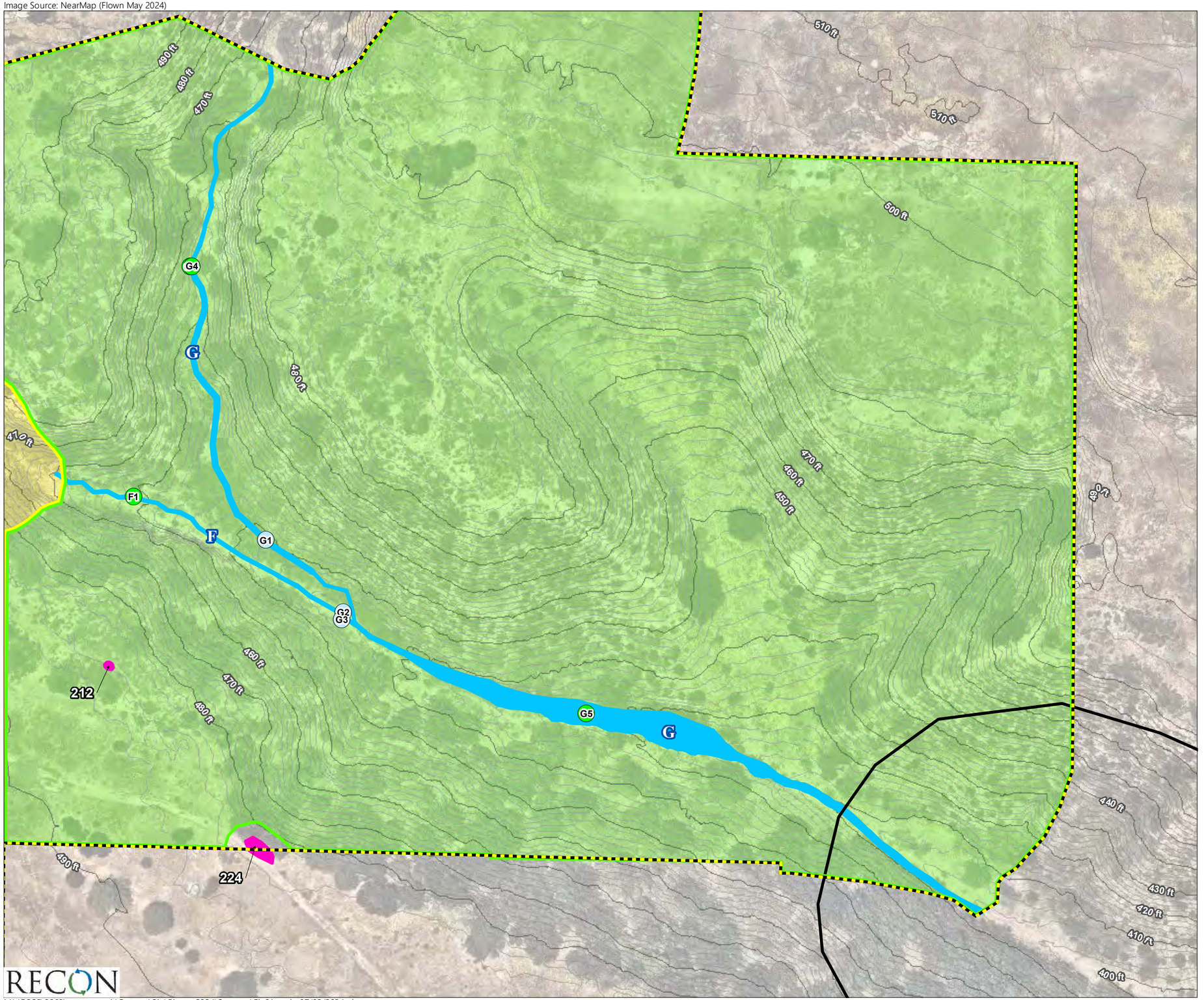
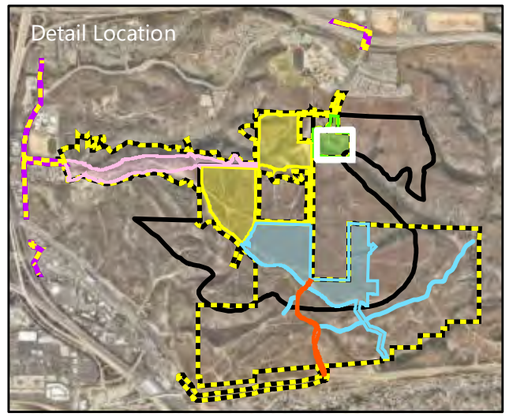
FIGURE 31.8
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

Waters of the U.S. (USACE)

Vernal Pool with Fairy Shrimp (Waters ID)

Non-wetland Waters (Waters ID)

Wetland Data Form Point (WDP)

OHWM Data Sheet Point (ODP)

0 Feet 70

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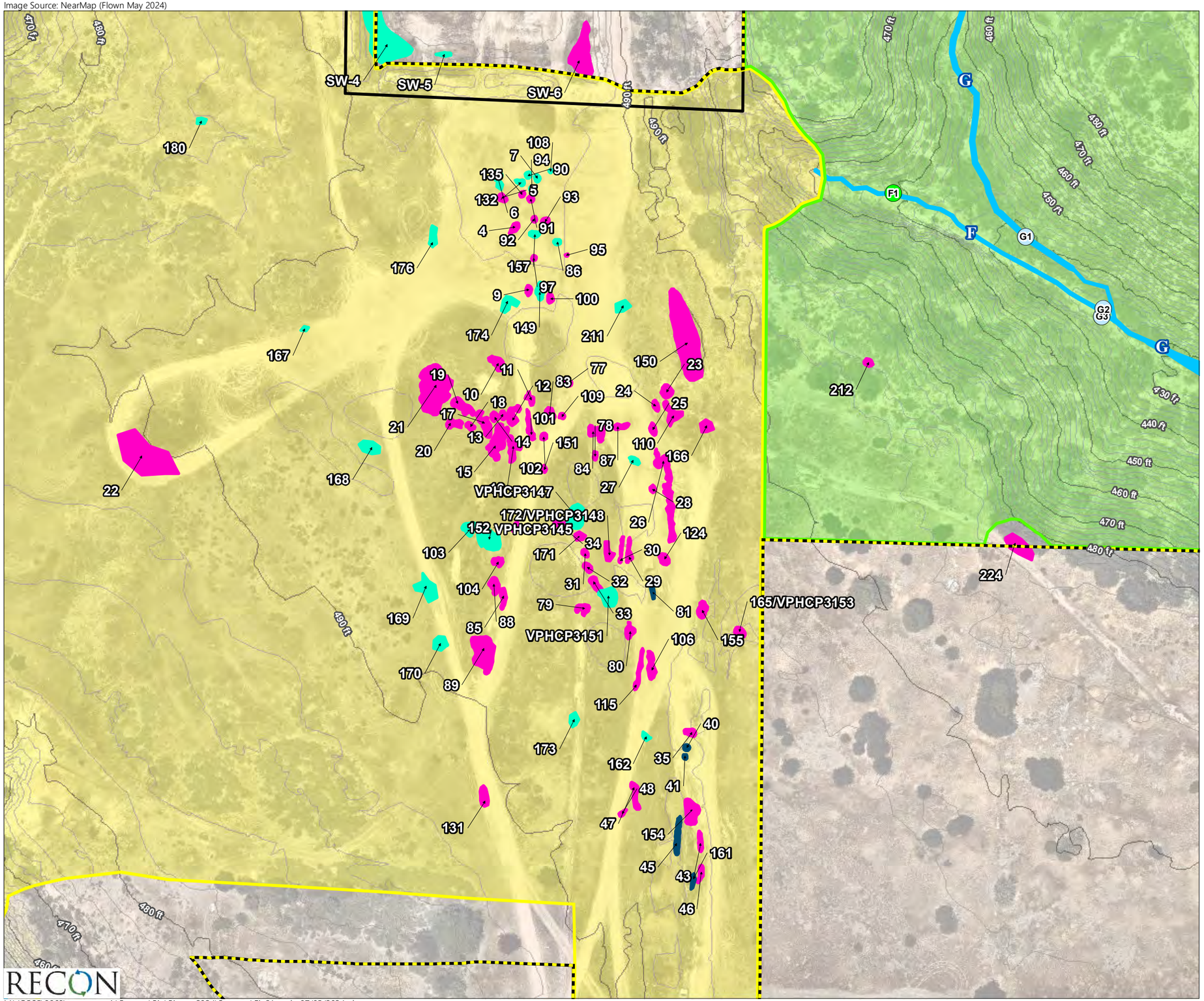
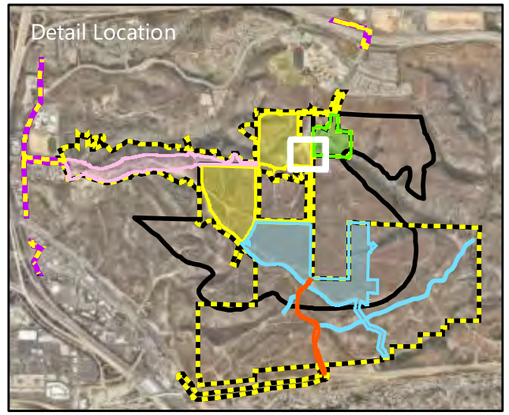
FIGURE 31.9
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)





- Specific Plan Boundary
- Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

Waters of the U.S. (USACE)

- Vernal Pool (Waters ID)
- Vernal Pool with Fairy Shrimp (Waters ID)
- Wetland (Waters ID)
- Non-wetland Waters (Waters ID)
- Wetland Data Form Point (WDP)
- OHWM Data Sheet Point (ODP)

0 Feet 70

RECON

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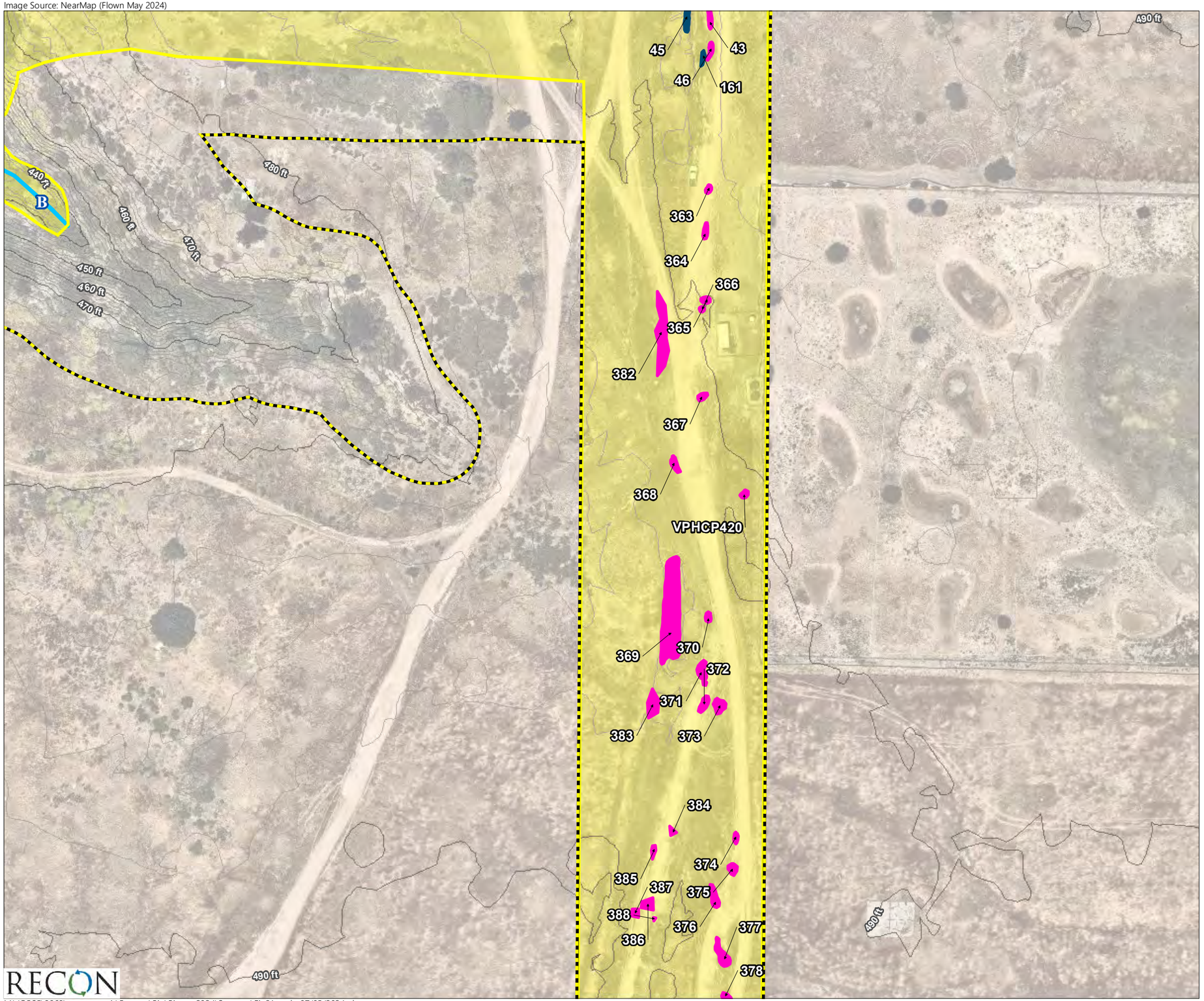
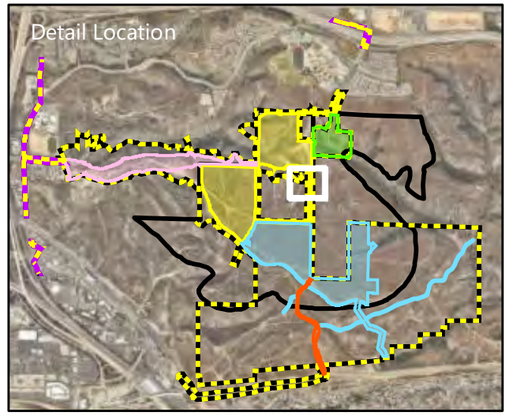
FIGURE 31.10
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

Waters of the U.S. (USACE)

- Vernal Pool with Fairy Shrimp (Waters ID)
- Wetland (Waters ID)
- Non-wetland Waters (Waters ID)

0 Feet 70

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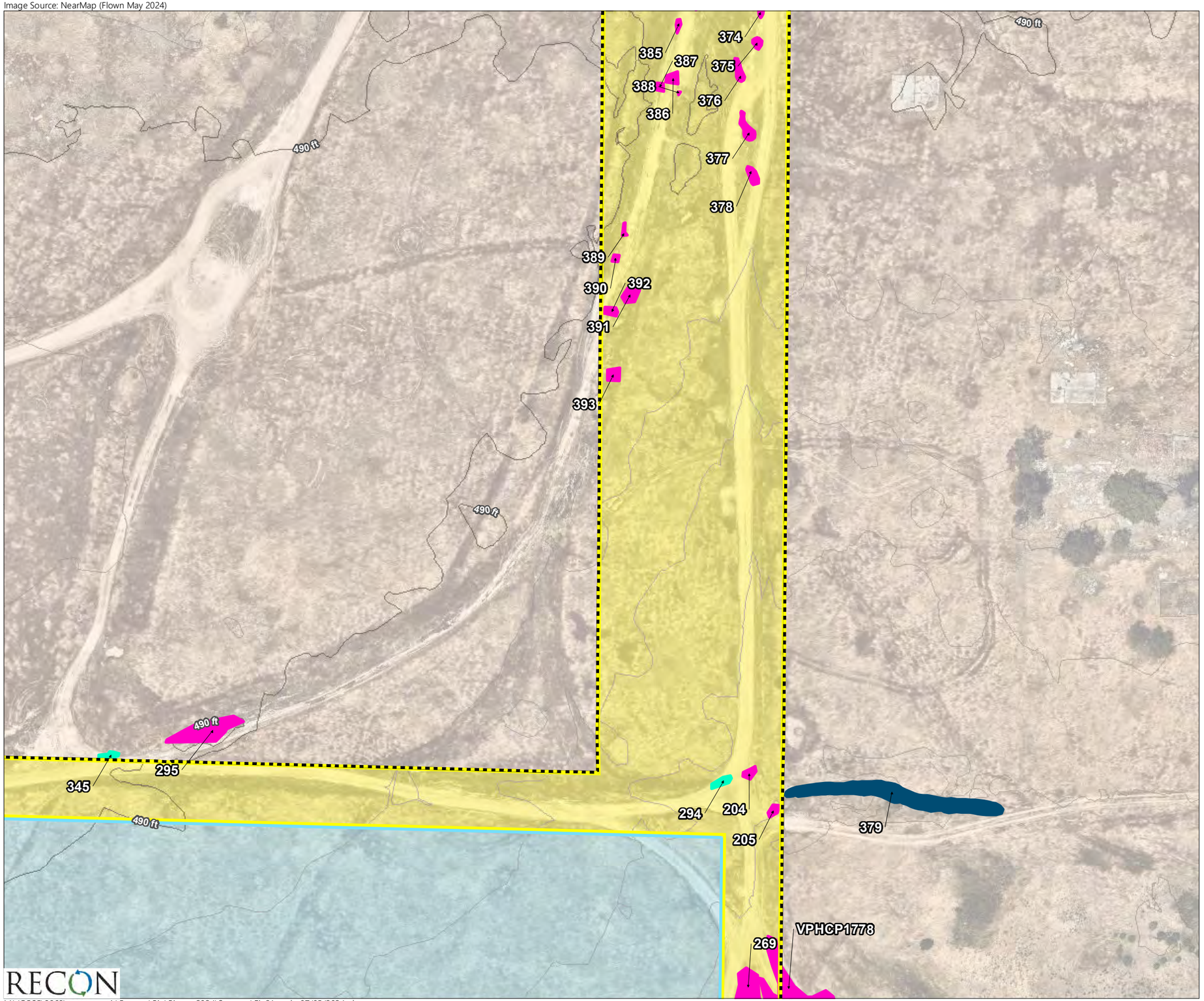
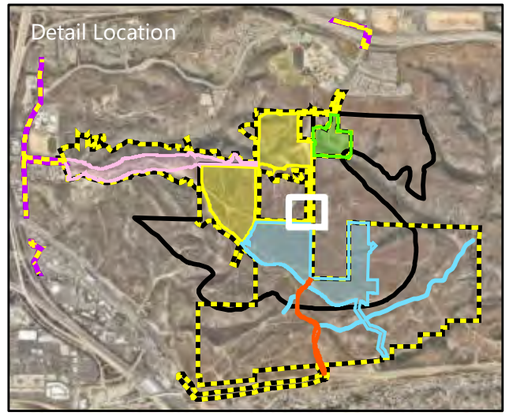
FIGURE 31.11
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

Waters of the U.S. (USACE)

Vernal Pool (Waters ID)

Vernal Pool with Fairy Shrimp (Waters ID)

Wetland (Waters ID)

0 Feet 70

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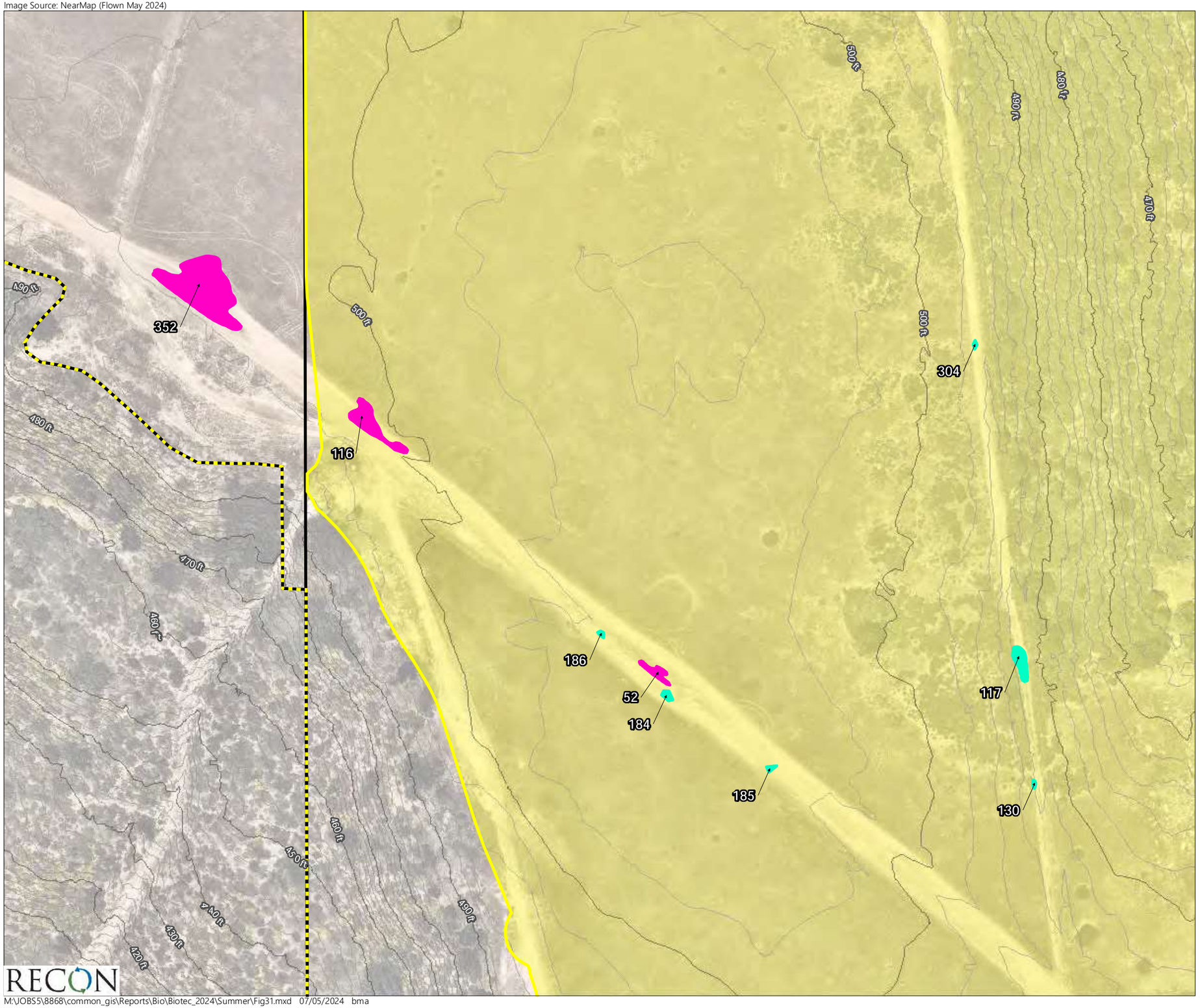
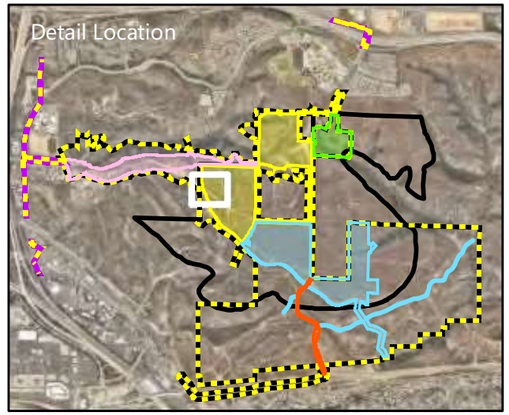
FIGURE 31.12
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)





- Specific Plan Boundary
- Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

Waters of the U.S. (USACE)

- Vernal Pool (Waters ID)
- Vernal Pool with Fairy Shrimp (Waters ID)

0 Feet 70

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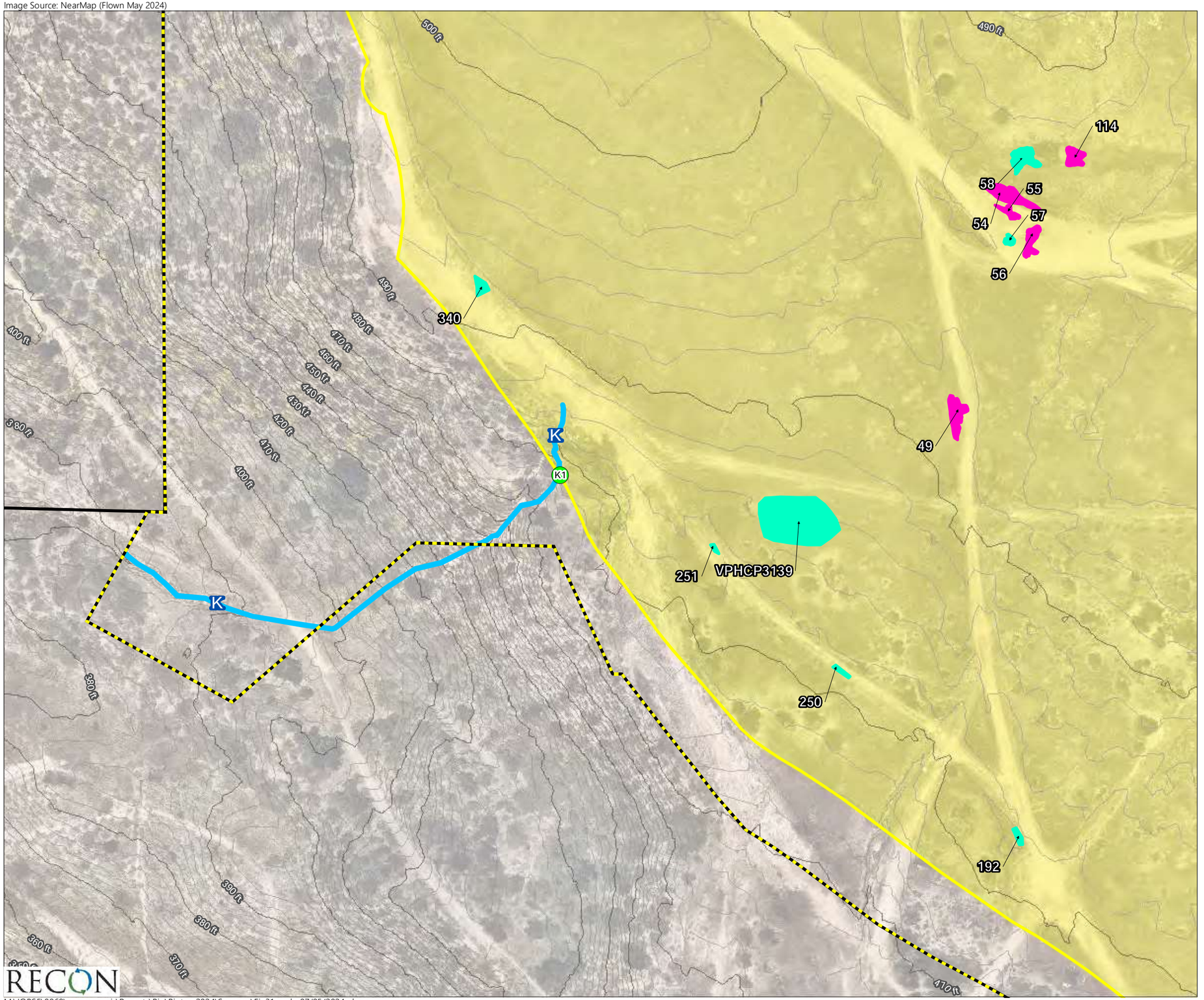
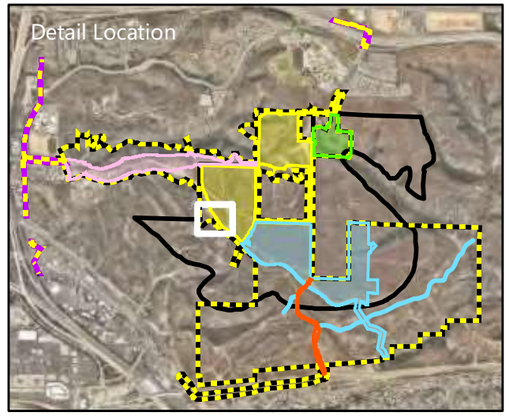
FIGURE 31.13
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

Waters of the U.S. (USACE)

- Vernal Pool (Waters ID)
- Vernal Pool with Fairy Shrimp (Waters ID)
- Non-wetland Waters (Waters ID)
- OHWM Data Sheet Point (ODP)

0 Feet 70

RECON

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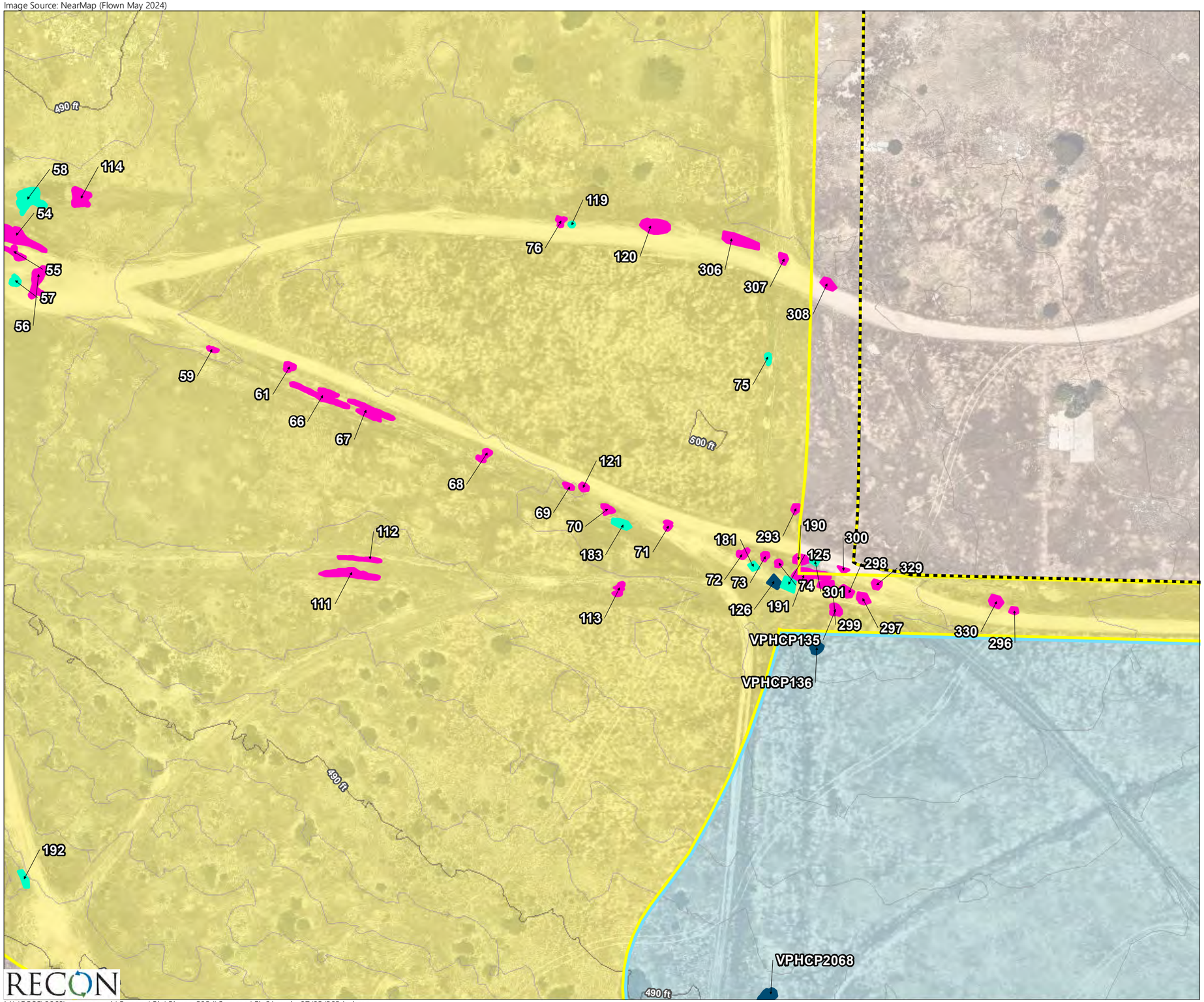
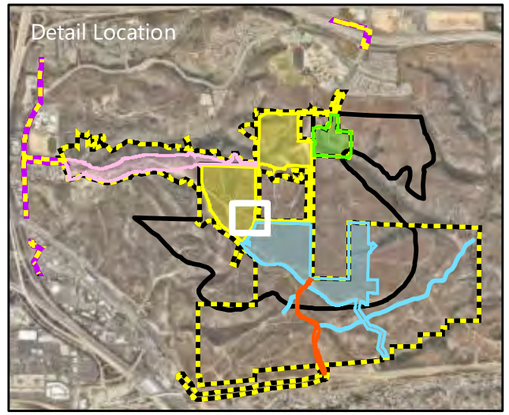
FIGURE 31.14
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

Waters of the U.S. (USACE)

- Vernal Pool (Waters ID)
- Vernal Pool with Fairy Shrimp (Waters ID)
- Wetland (Waters ID)

0 Feet 70

RECON

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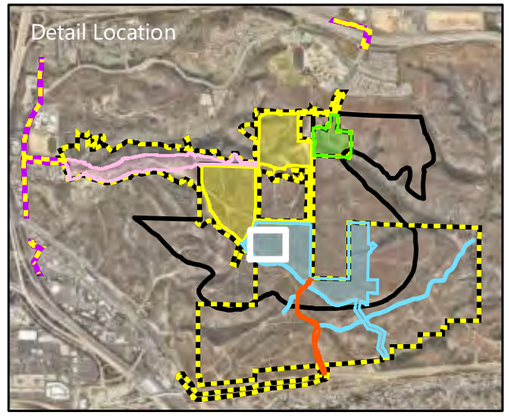
FIGURE 31.15
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)



Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

Waters of the U.S. (USACE)

- Vernal Pool (Waters ID)
- Vernal Pool with Fairy Shrimp (Waters ID)
- Wetland (Waters ID)

0 Feet 70

RECON

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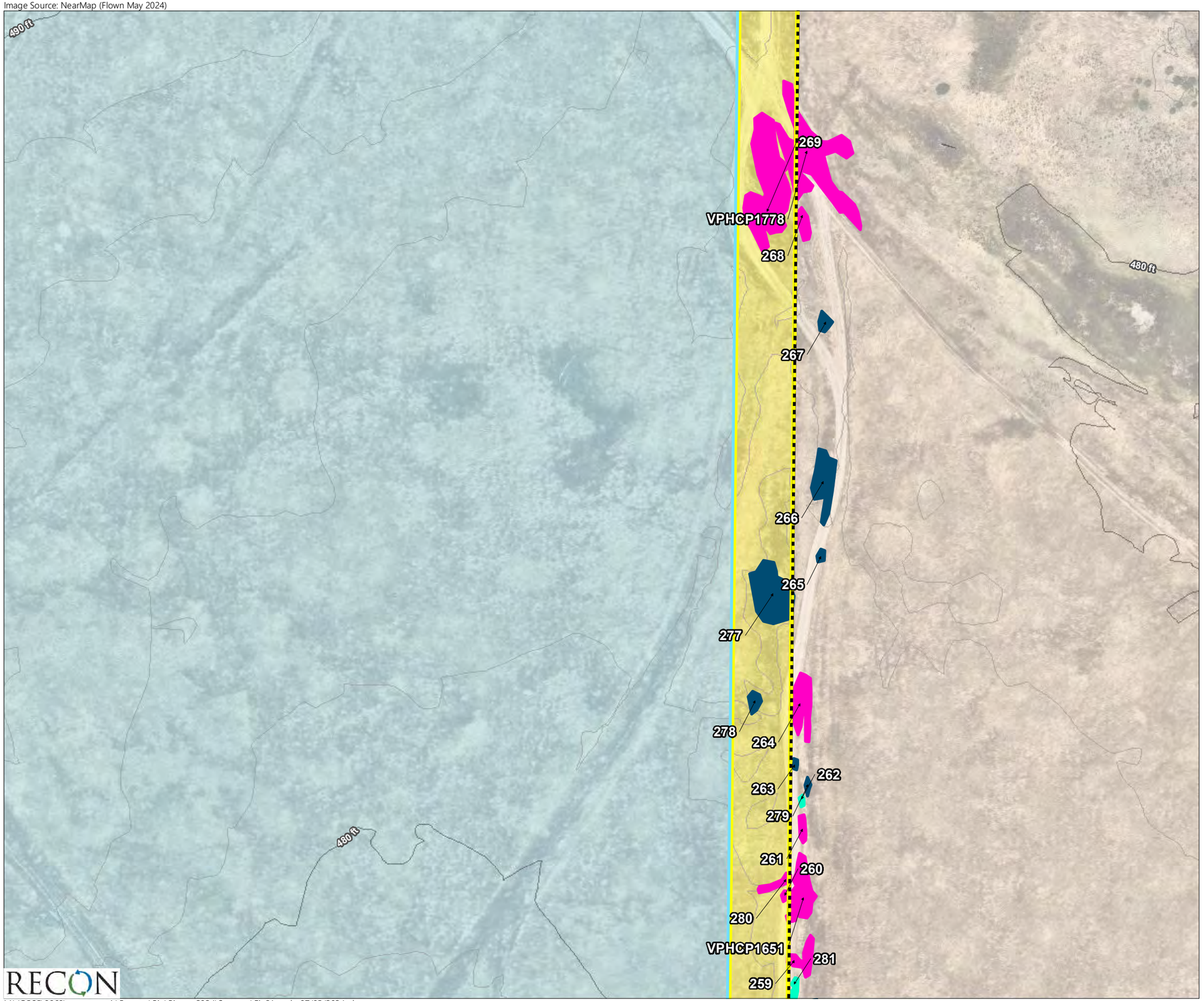
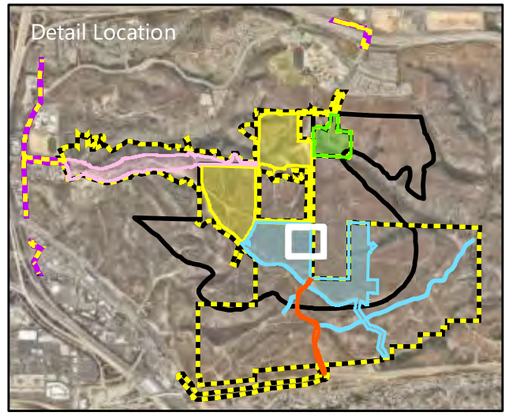
FIGURE 31.16
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary
Project-level Survey Area

Project-level Phasing

Phase 1
Phase 2
Phase 4
Beyer Boulevard
Emergency Vehicle Access
Off-site Improvements

Waters of the U.S. (USACE)

Vernal Pool (Waters ID)
Vernal Pool with Fairy Shrimp (Waters ID)
Wetland (Waters ID)

0 Feet 70

RECON

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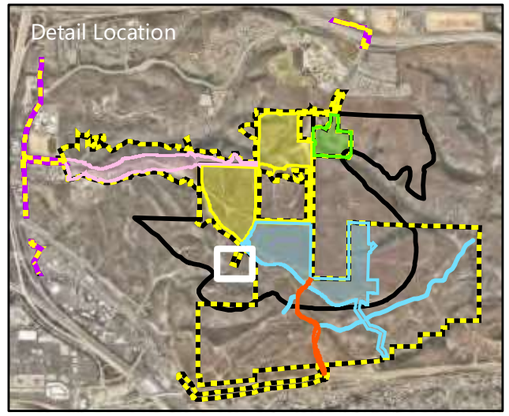
FIGURE 31.17
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)



Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

Waters of the U.S. (USACE)

Vernal Pool (Waters ID)

Vernal Pool with Fairy Shrimp (Waters ID)

Non-wetland Waters (Waters ID)

OHWM Data Sheet Point (ODP)

0 Feet 70

RECON

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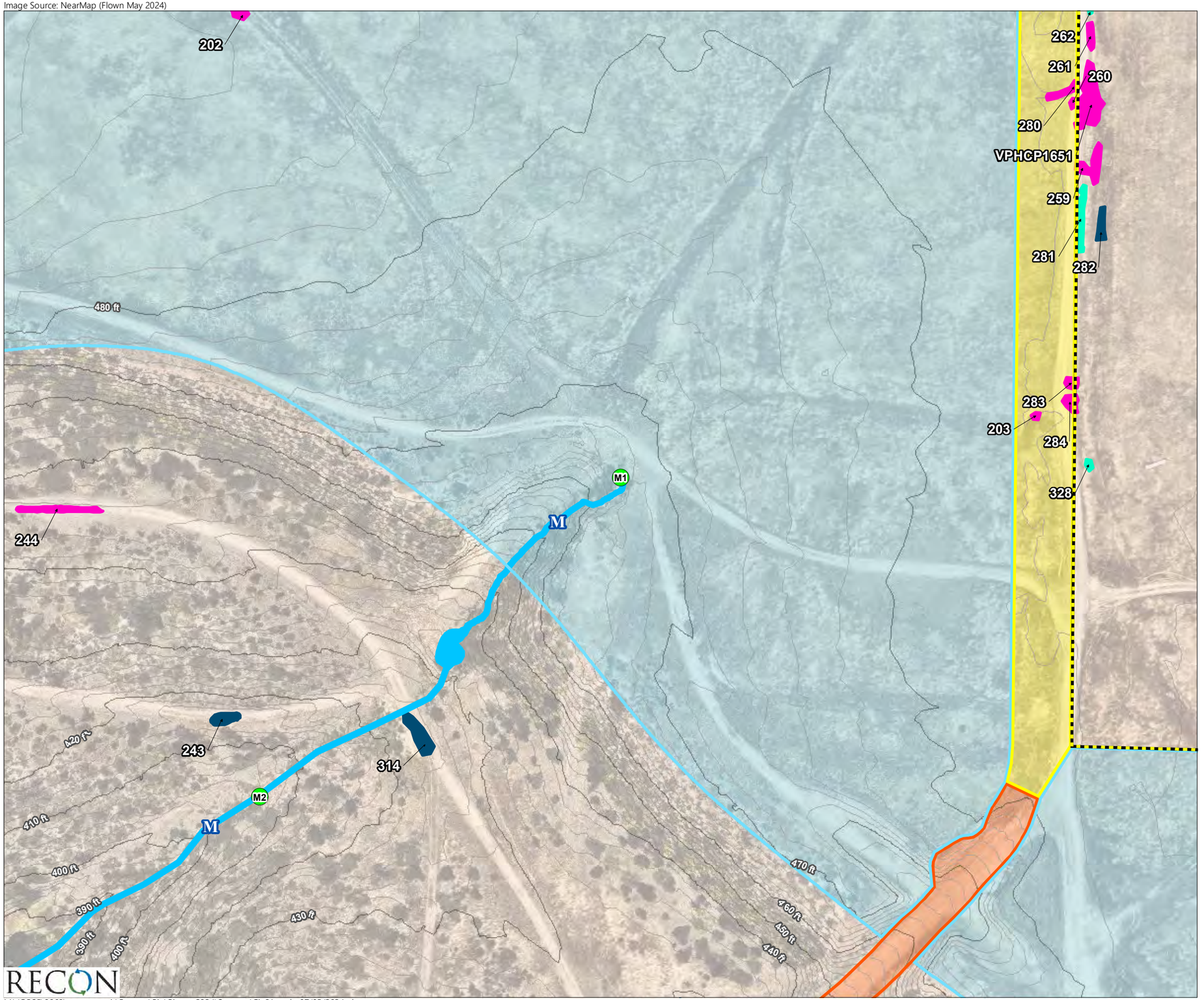
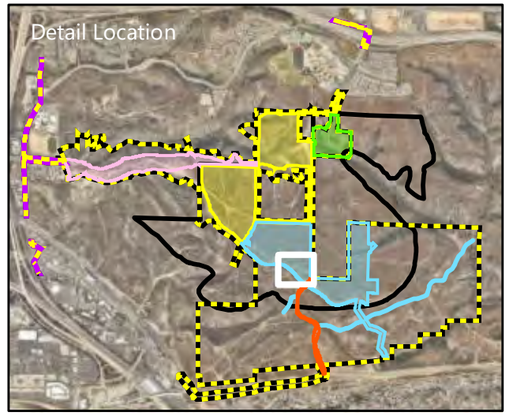
FIGURE 31.18
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)





- Specific Plan Boundary
- Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

Waters of the U.S. (USACE)

- Vernal Pool (Waters ID)
- Vernal Pool with Fairy Shrimp (Waters ID)
- Wetland (Waters ID)
- Non-wetland Waters (Waters ID)
- OHWM Data Sheet Point (ODP)

0 Feet 70

RECON

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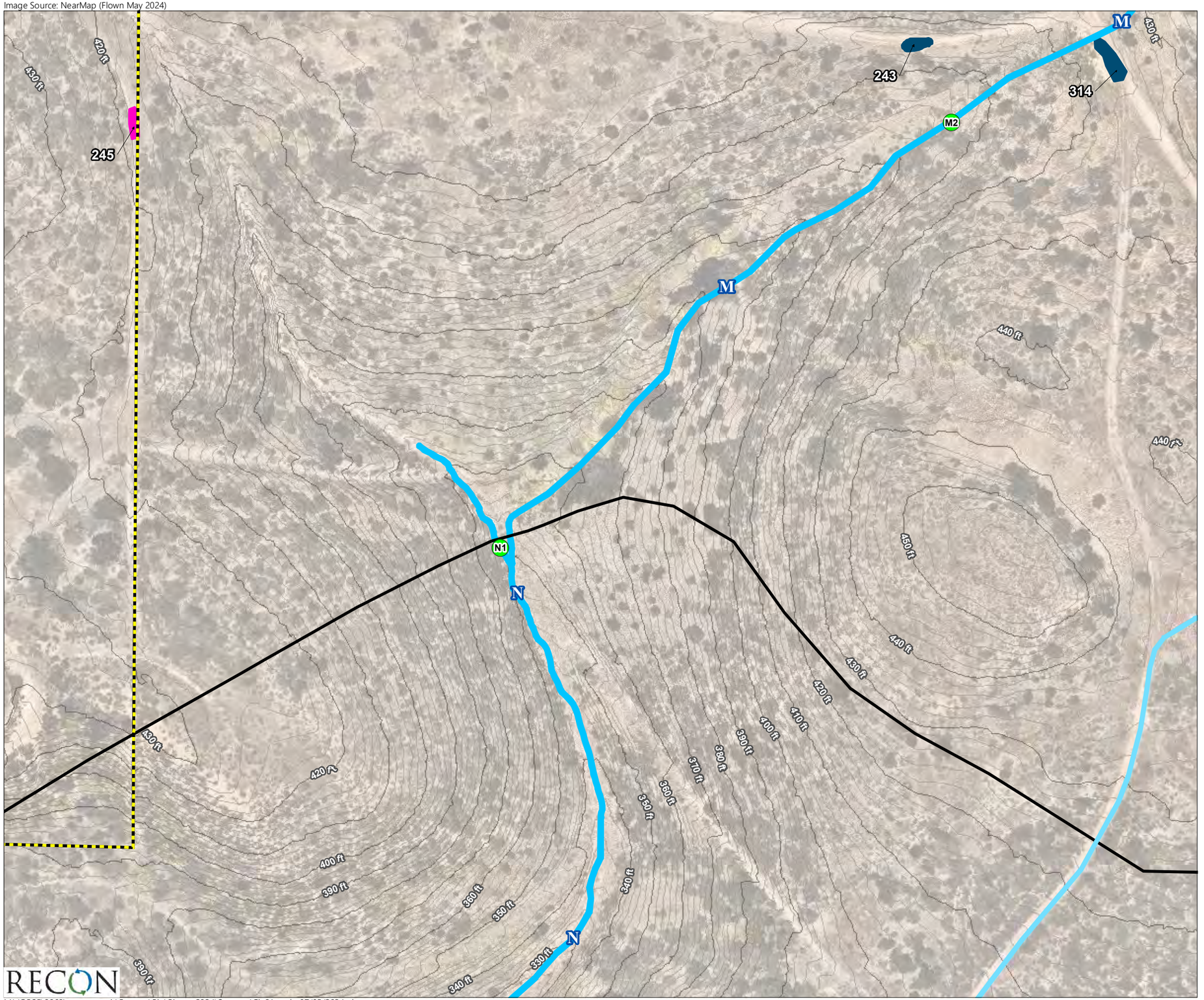
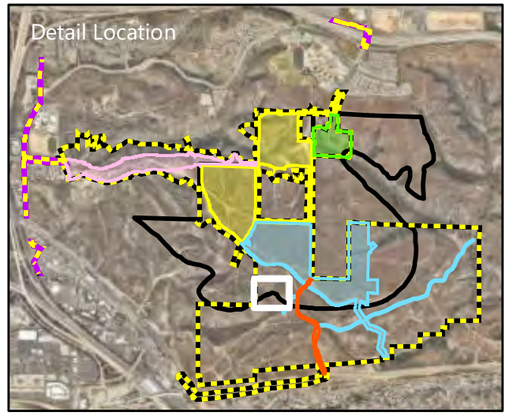
FIGURE 31.19
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

Waters of the U.S. (USACE)

- Vernal Pool with Fairy Shrimp (Waters ID)
- Wetland (Waters ID)
- Non-wetland Waters (Waters ID)
- OHWM Data Sheet Point (ODP)

0 Feet 70

RECON

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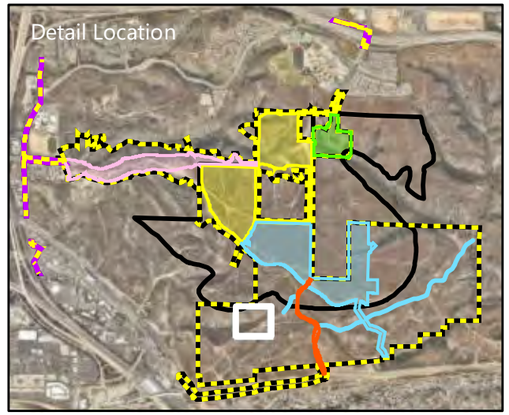
FIGURE 31.20
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)



Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

Waters of the U.S. (USACE)

- Wetland (Waters ID)
- Non-wetland Waters (Waters ID)
- Wetland Data Form Point (WDP)
- OHWM Data Sheet Point (ODP)

0 Feet 70

RECON

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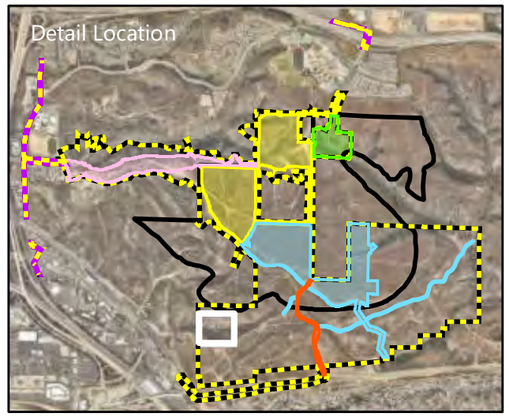
FIGURE 31.21
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)



Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

Waters of the U.S. (USACE)

Non-wetland Waters (Waters ID)

0 Feet 70

RECON

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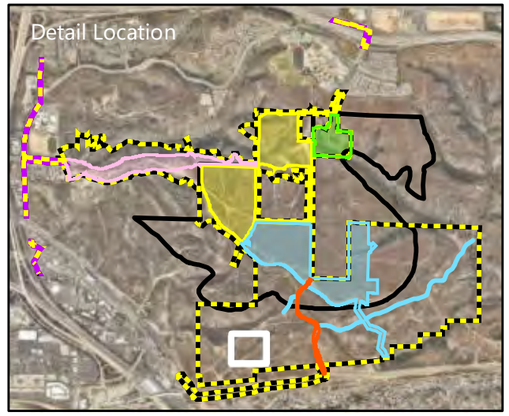
FIGURE 31.22
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)



Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

Waters of the U.S. (USACE)

Vernal Pool with Fairy Shrimp (Waters ID)

Wetland (Waters ID)

Wetland Data Form Point (WDP)

0 Feet 70

RECON

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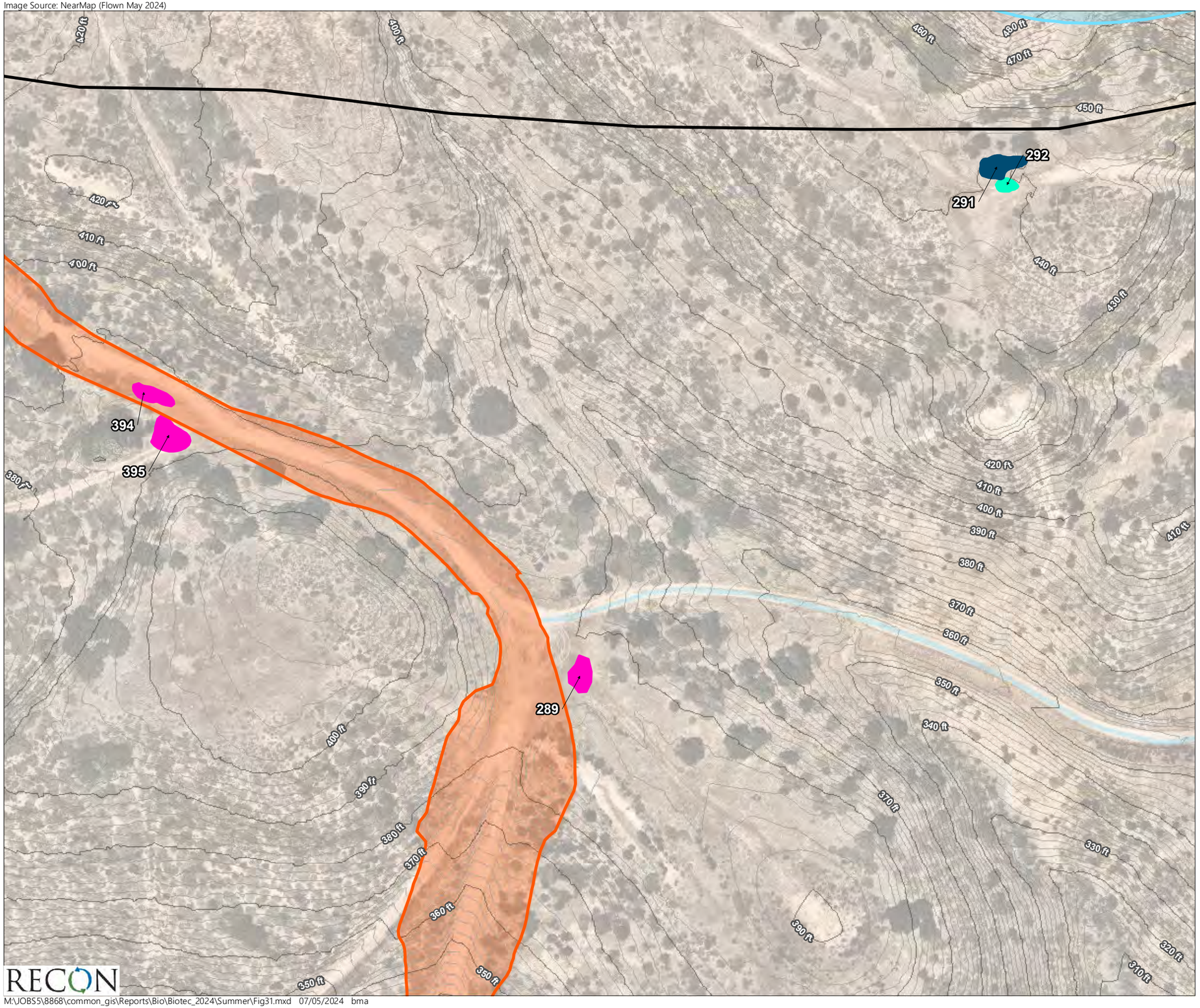
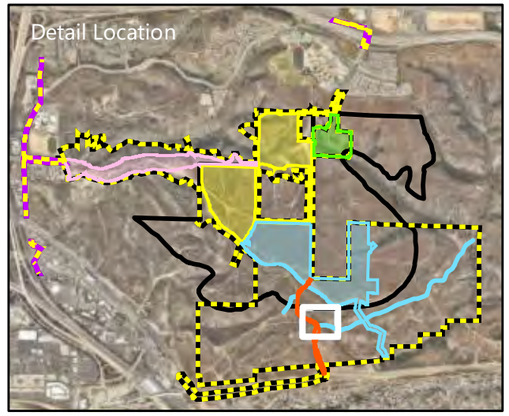
FIGURE 31.23
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

Waters of the U.S. (USACE)

Vernal Pool (Waters ID)

Vernal Pool with Fairy Shrimp (Waters ID)

Wetland (Waters ID)

0 Feet 70

RECON

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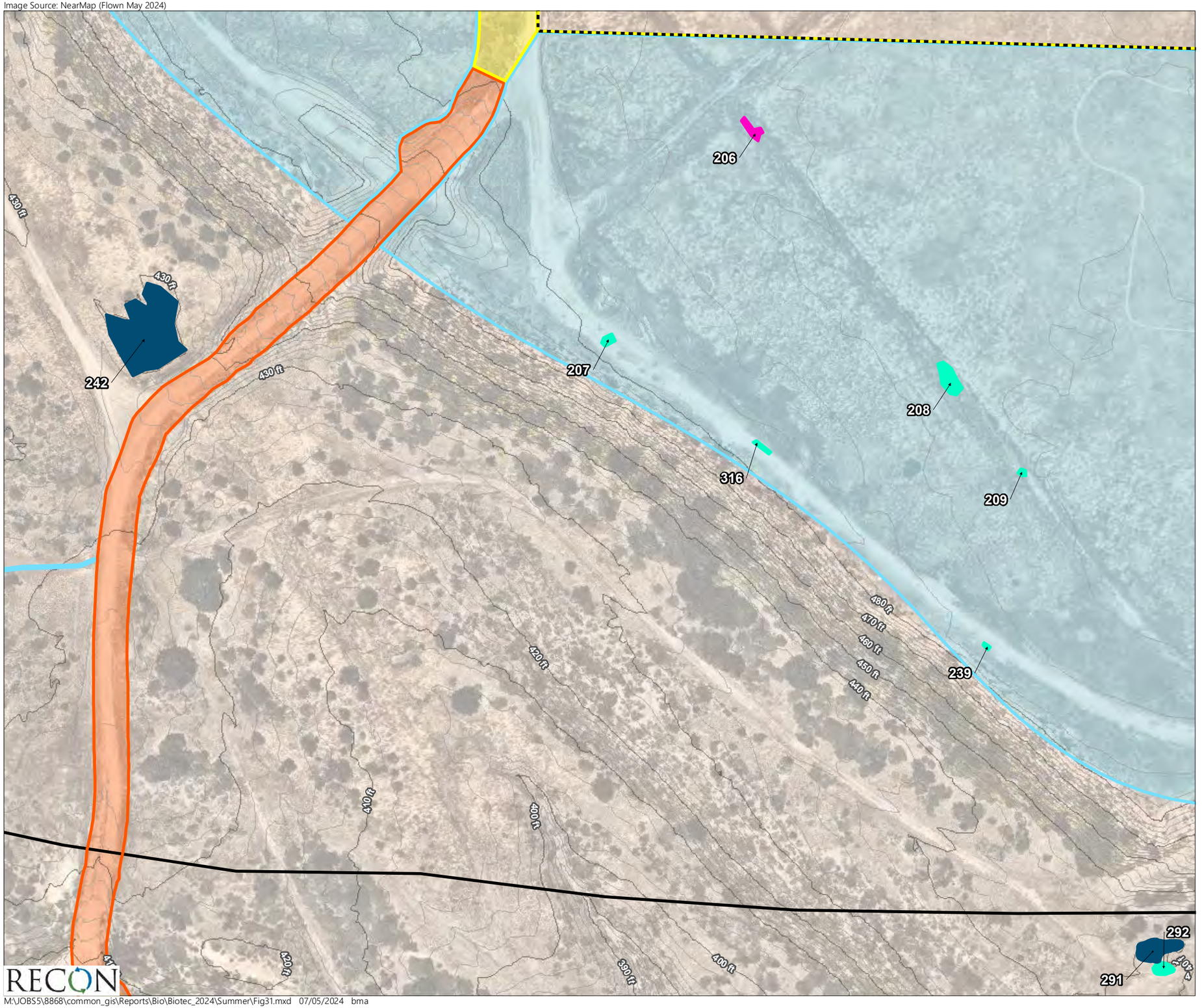
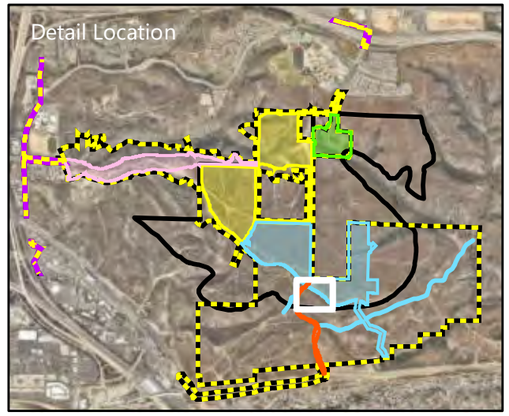
FIGURE 31.24
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary
Project-level Survey Area

Project-level Phasing

Phase 1
Phase 2
Phase 4
Beyer Boulevard
Emergency Vehicle Access
Off-site Improvements

Waters of the U.S. (USACE)

Vernal Pool (Waters ID)
Vernal Pool with Fairy Shrimp (Waters ID)
Wetland (Waters ID)

0 Feet 70

RECON

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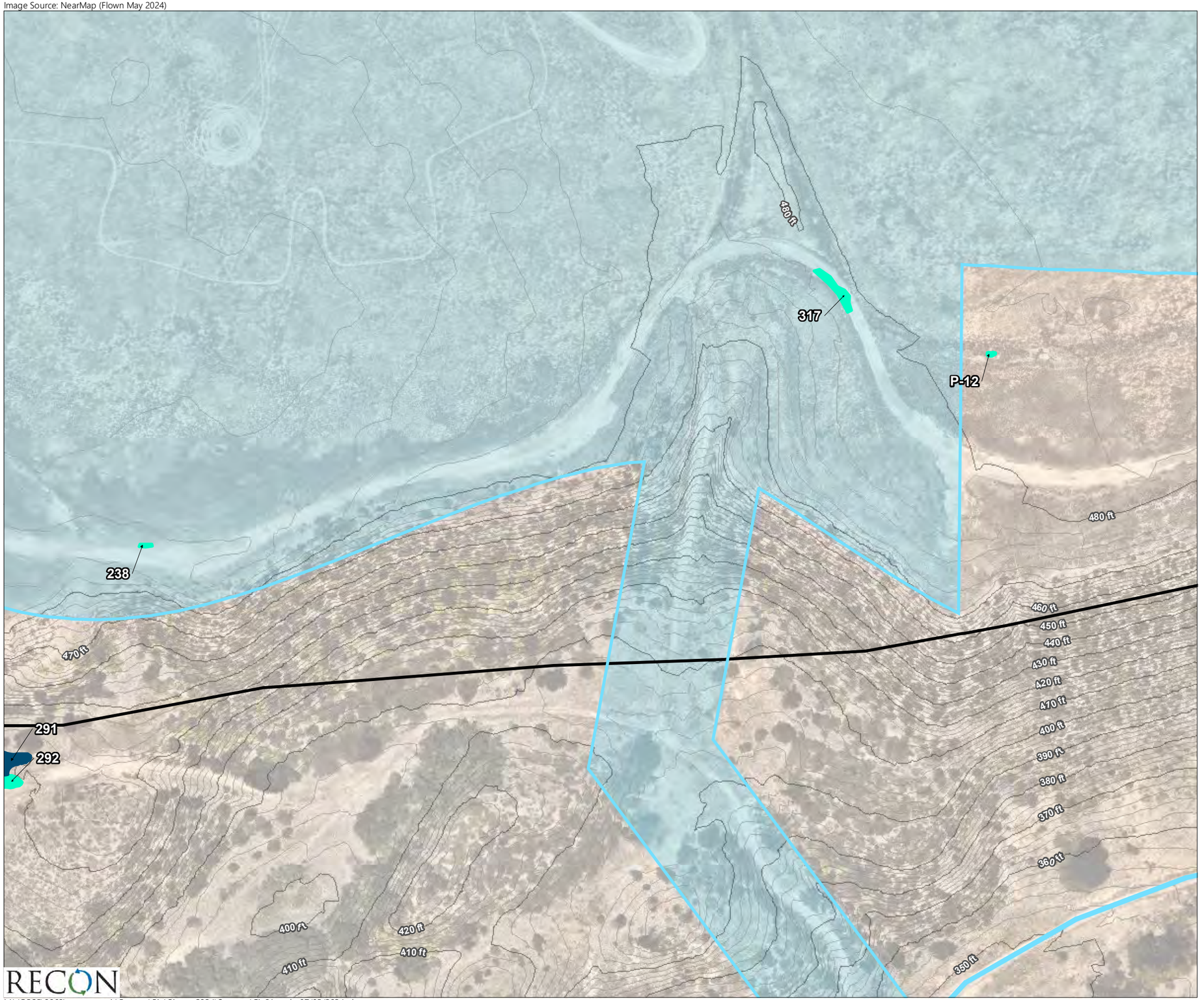
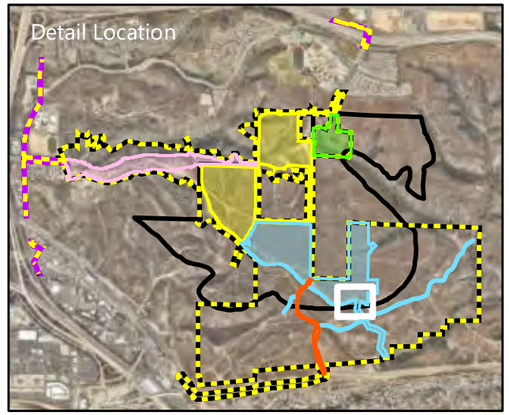
FIGURE 31.25
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary
Project-level Survey Area

Project-level Phasing

Phase 1
Phase 2
Phase 4
Beyer Boulevard
Emergency Vehicle Access
Off-site Improvements

Waters of the U.S. (USACE)

Vernal Pool (Waters ID)
Wetland (Waters ID)

0 Feet 70

RECON

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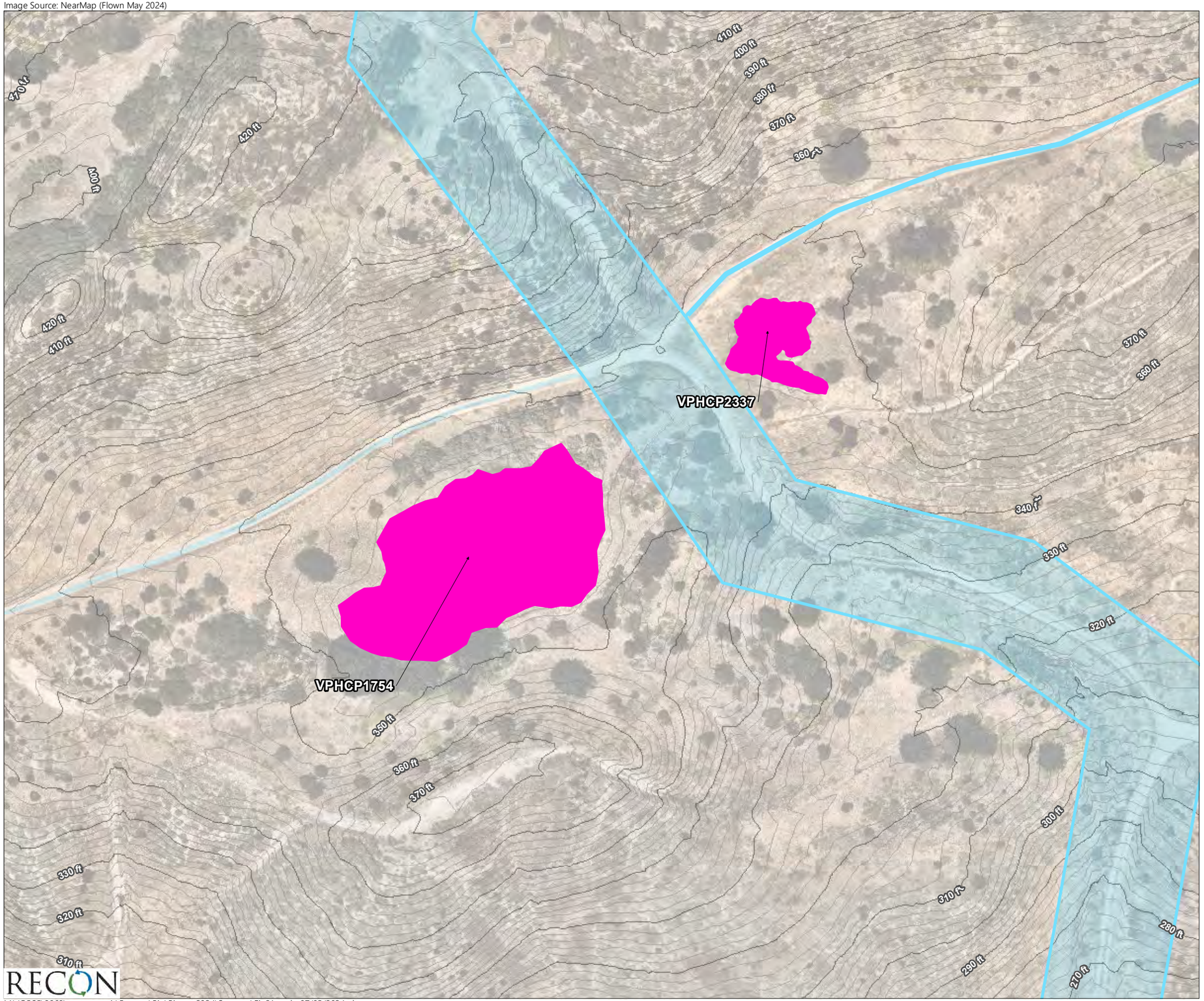
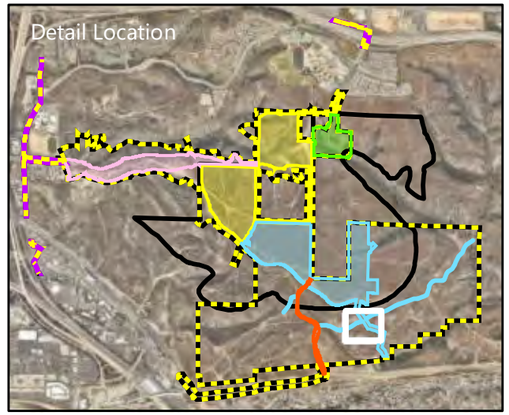
FIGURE 31.26
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

Waters of the U.S. (USACE)

Vernal Pool with Fairy Shrimp (Waters ID)

0 Feet 70

RECON

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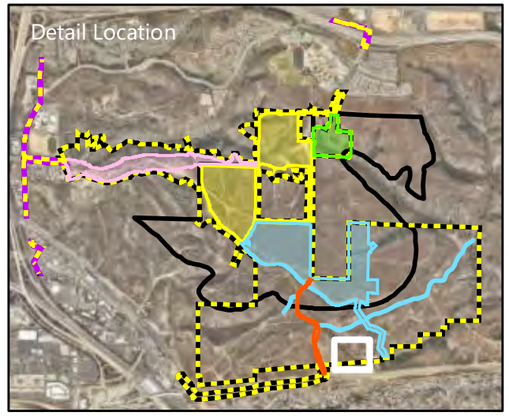
FIGURE 31.27
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)



Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

Waters of the U.S. (USACE)

Non-wetland Waters (Waters ID)

OHWM Data Sheet Point (ODP)

0 Feet 70

RECON

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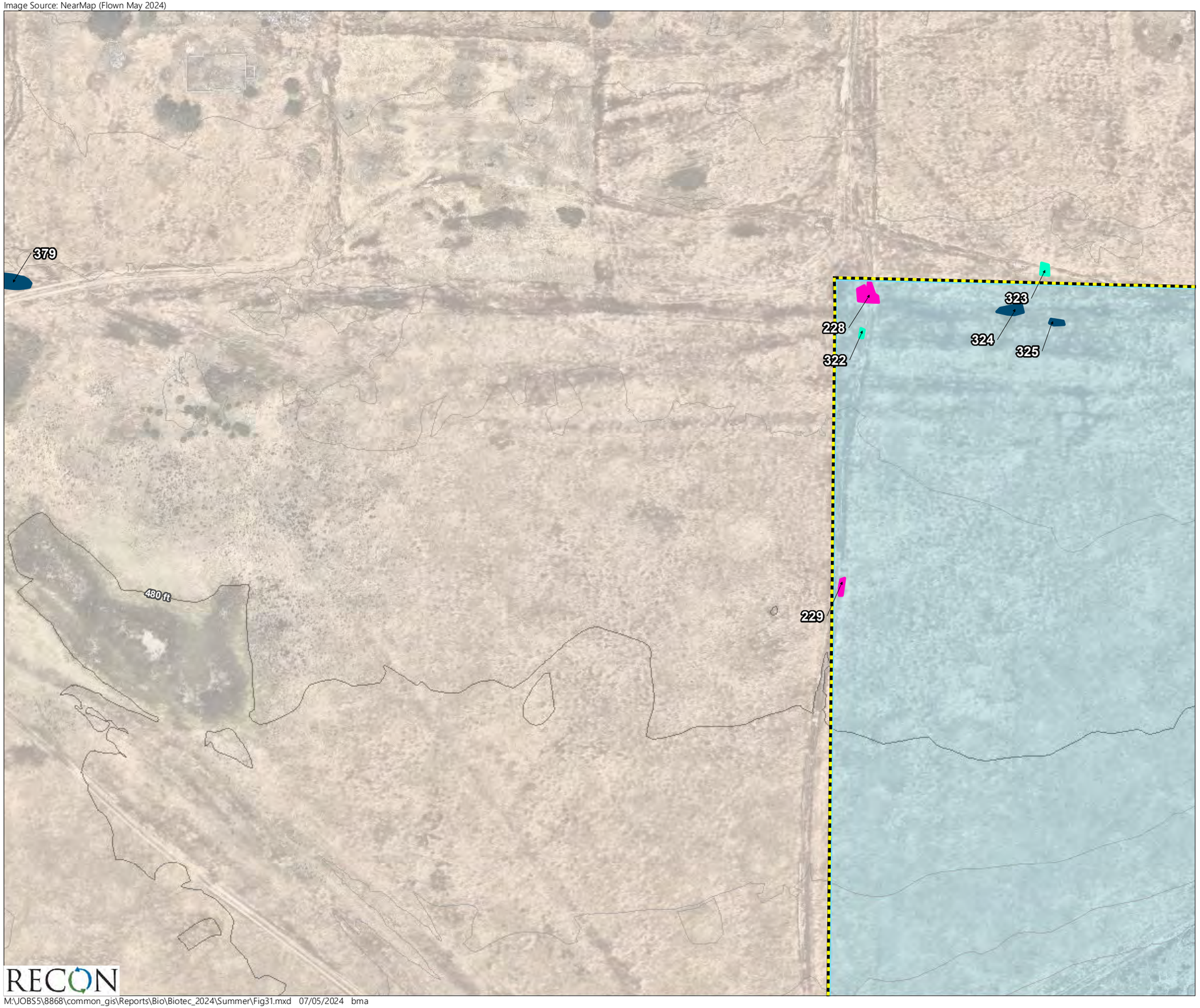
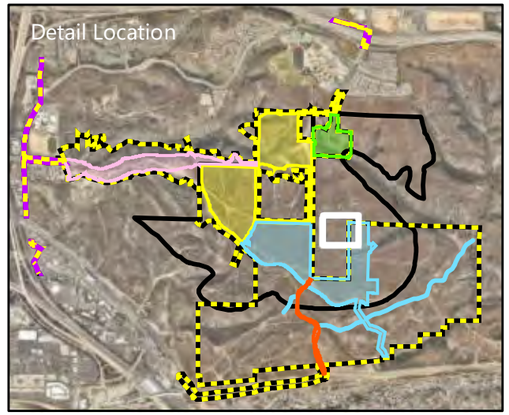
FIGURE 31.28
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary
Project-level Survey Area

Project-level Phasing

Phase 1
Phase 2
Phase 4
Beyer Boulevard
Emergency Vehicle Access
Off-site Improvements

Waters of the U.S. (USACE)

Vernal Pool (Waters ID)
Vernal Pool with Fairy Shrimp (Waters ID)
Wetland (Waters ID)

0 Feet 70

RECON

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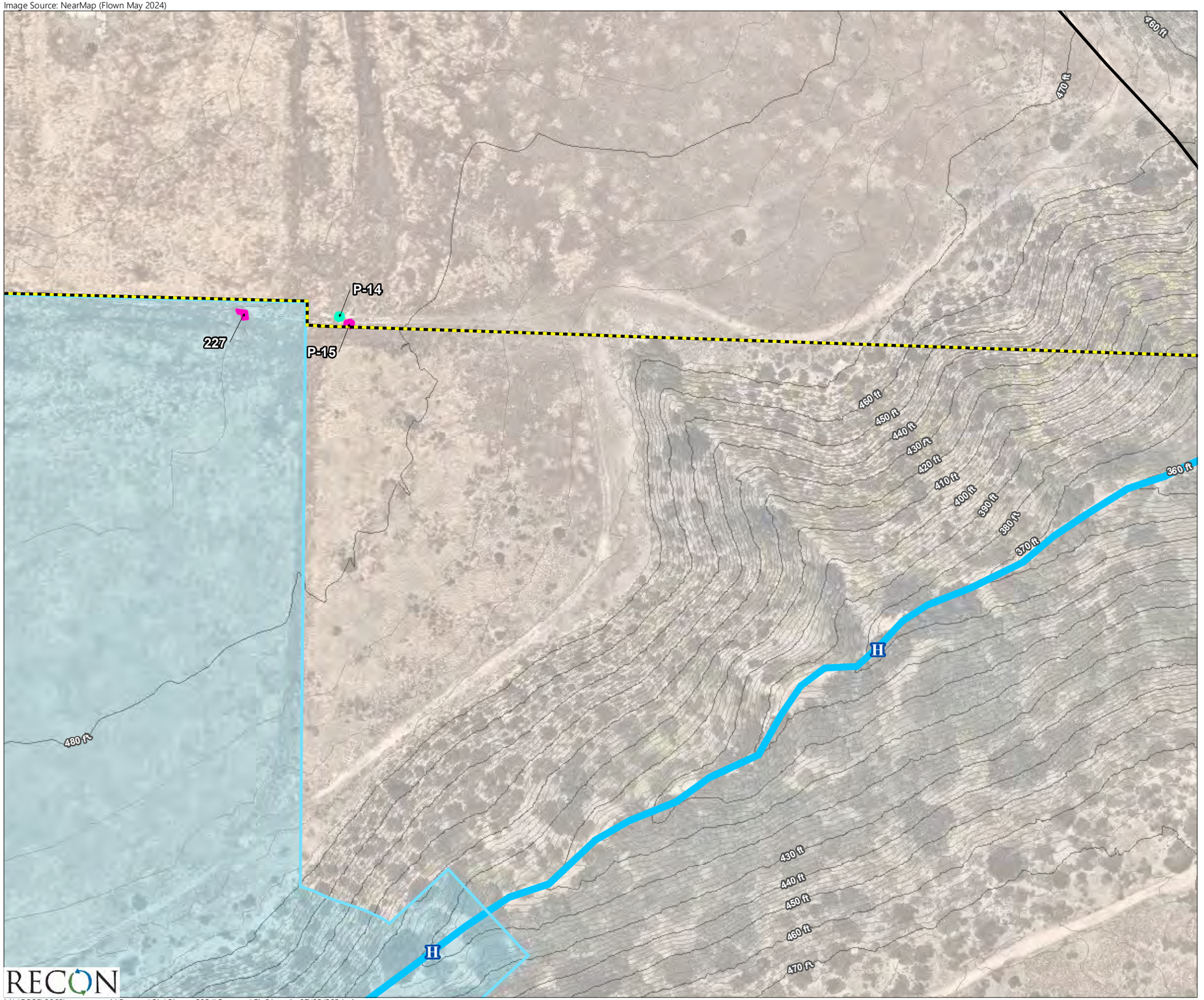
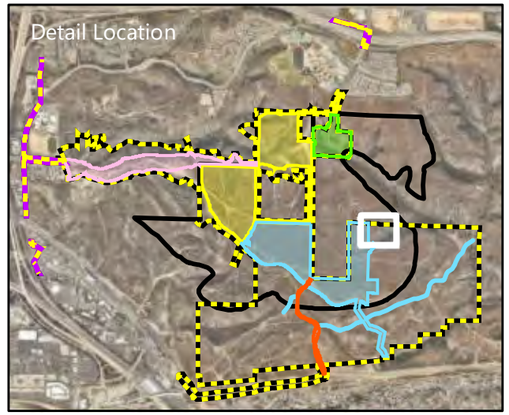
FIGURE 31.29
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary
Project-level Survey Area

Project-level Phasing

Phase 1
Phase 2
Phase 4
Beyer Boulevard
Emergency Vehicle Access
Off-site Improvements

Waters of the U.S. (USACE)

Vernal Pool (Waters ID)
Vernal Pool with Fairy Shrimp (Waters ID)
Non-wetland Waters (Waters ID)

0 Feet 70

RECON

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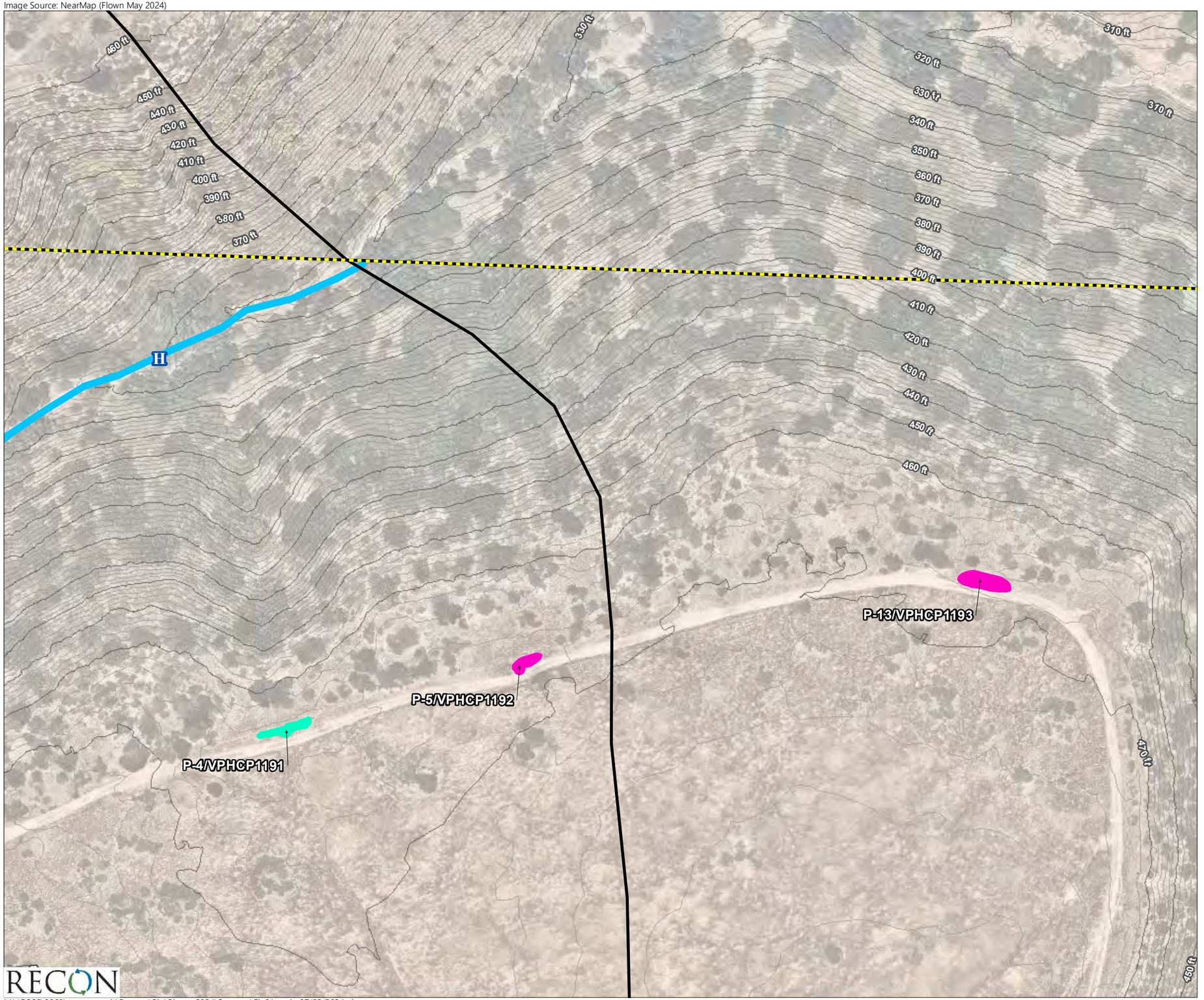
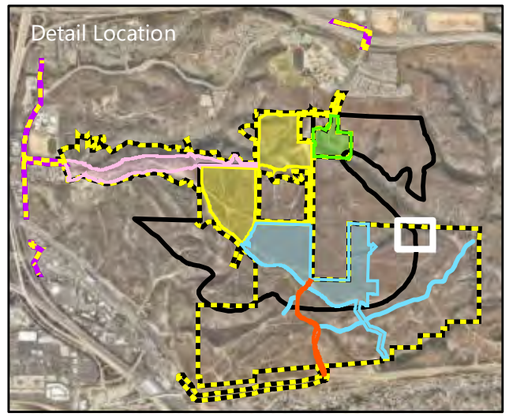
FIGURE 31.30
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

Waters of the U.S. (USACE)

Vernal Pool (Waters ID)

Vernal Pool with Fairy Shrimp (Waters ID)

Non-wetland Waters (Waters ID)

0 Feet 70

RECON

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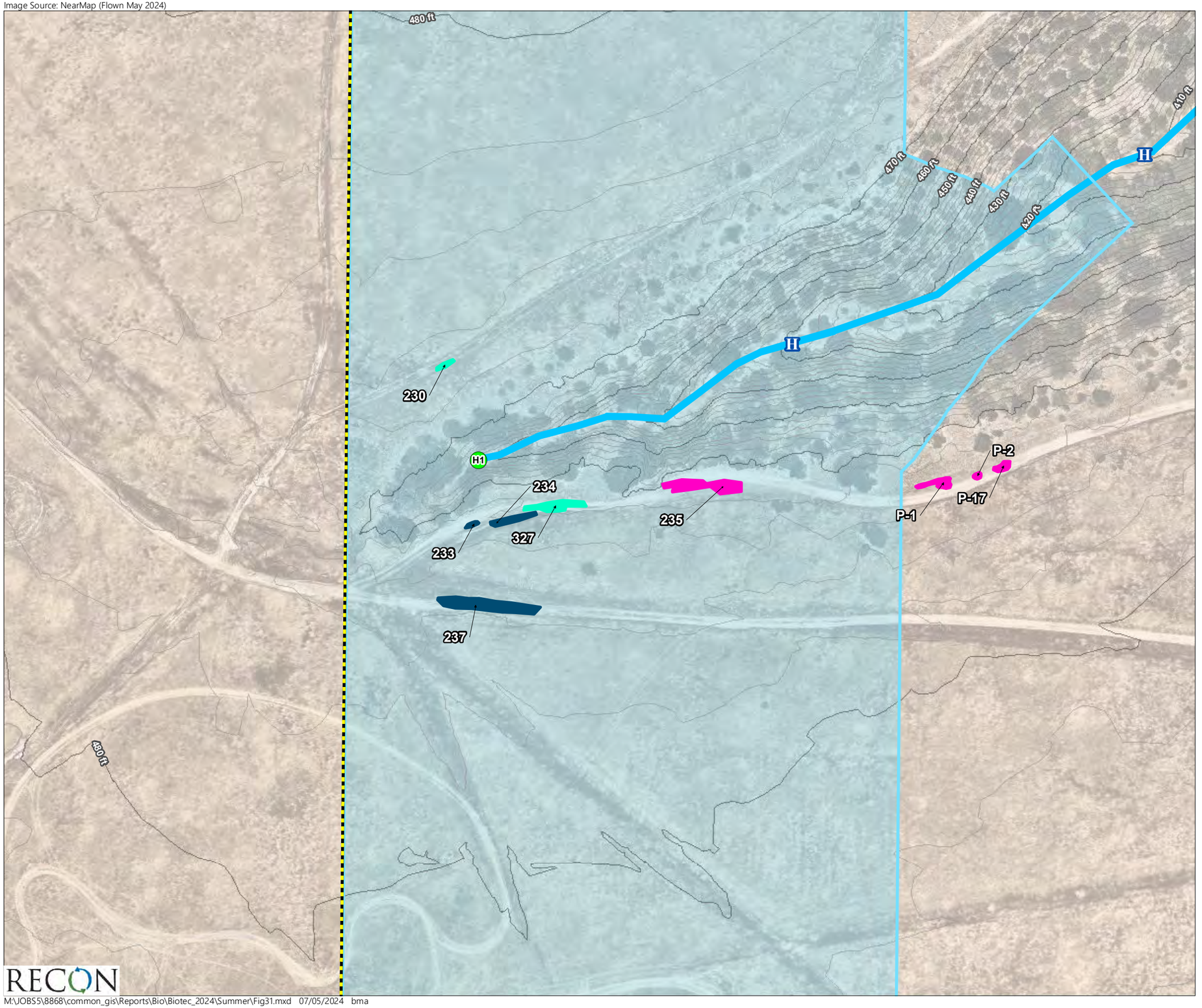
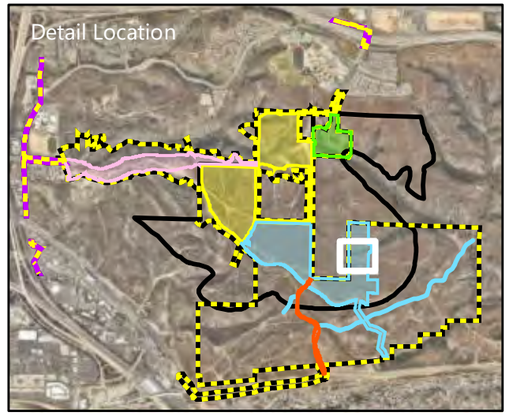
FIGURE 31.31
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)





- Specific Plan Boundary
- Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

Waters of the U.S. (USACE)

- Vernal Pool (Waters ID)
- Vernal Pool with Fairy Shrimp (Waters ID)
- Wetland (Waters ID)
- Non-wetland Waters (Waters ID)
- OHWM Data Sheet Point (ODP)

0 Feet 70

RECON

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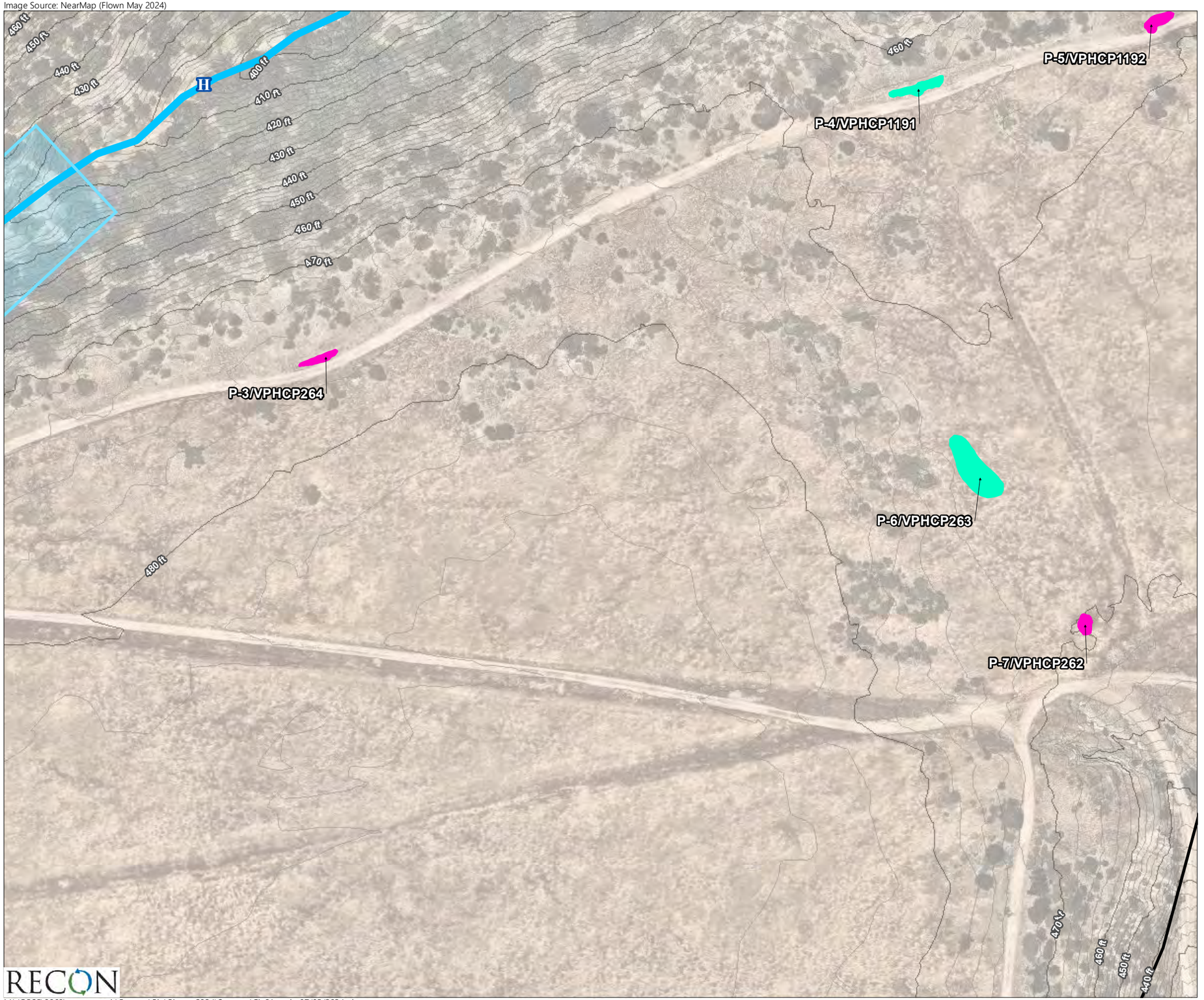
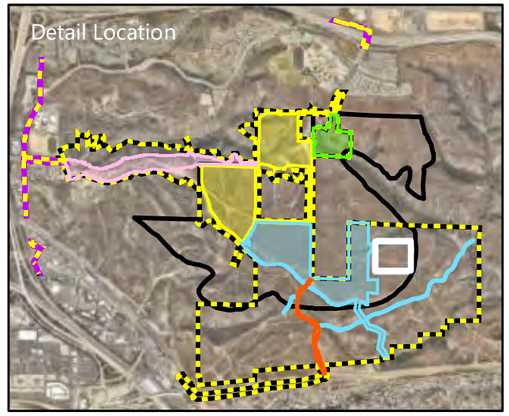
FIGURE 31.32
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary
Project-level Survey Area

Project-level Phasing

Phase 1
Phase 2
Phase 4
Beyer Boulevard
Emergency Vehicle Access
Off-site Improvements

Waters of the U.S. (USACE)

Vernal Pool (Waters ID)
Vernal Pool with Fairy Shrimp (Waters ID)
Non-wetland Waters (Waters ID)

0 Feet 70

RECON

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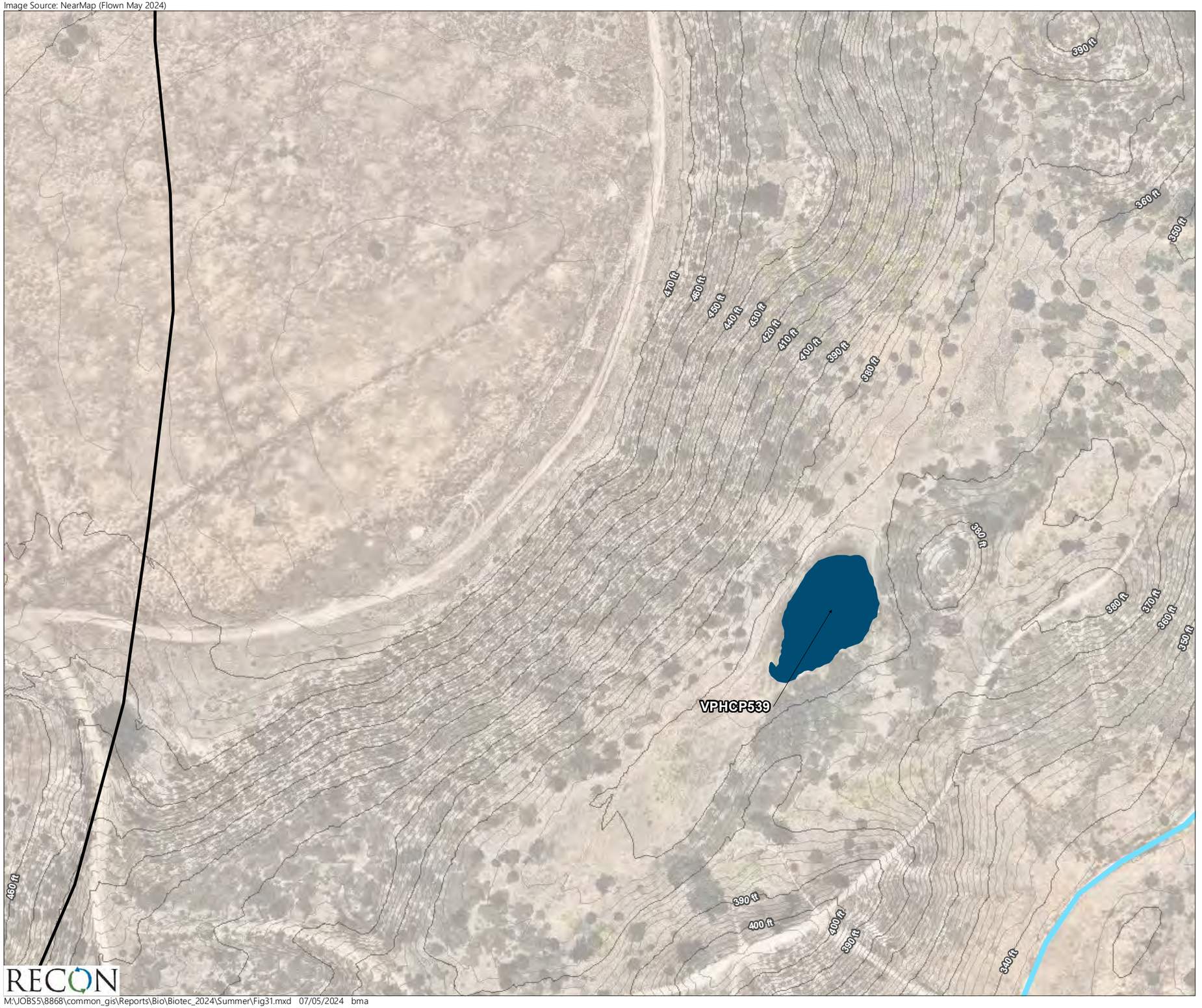
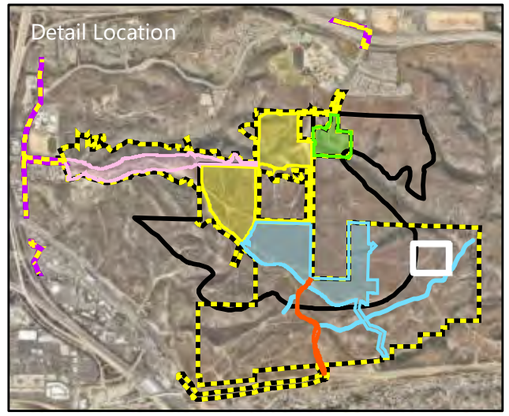
FIGURE 31.33
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

Waters of the U.S. (USACE)

Wetland (Waters ID)

0 Feet 70

RECON

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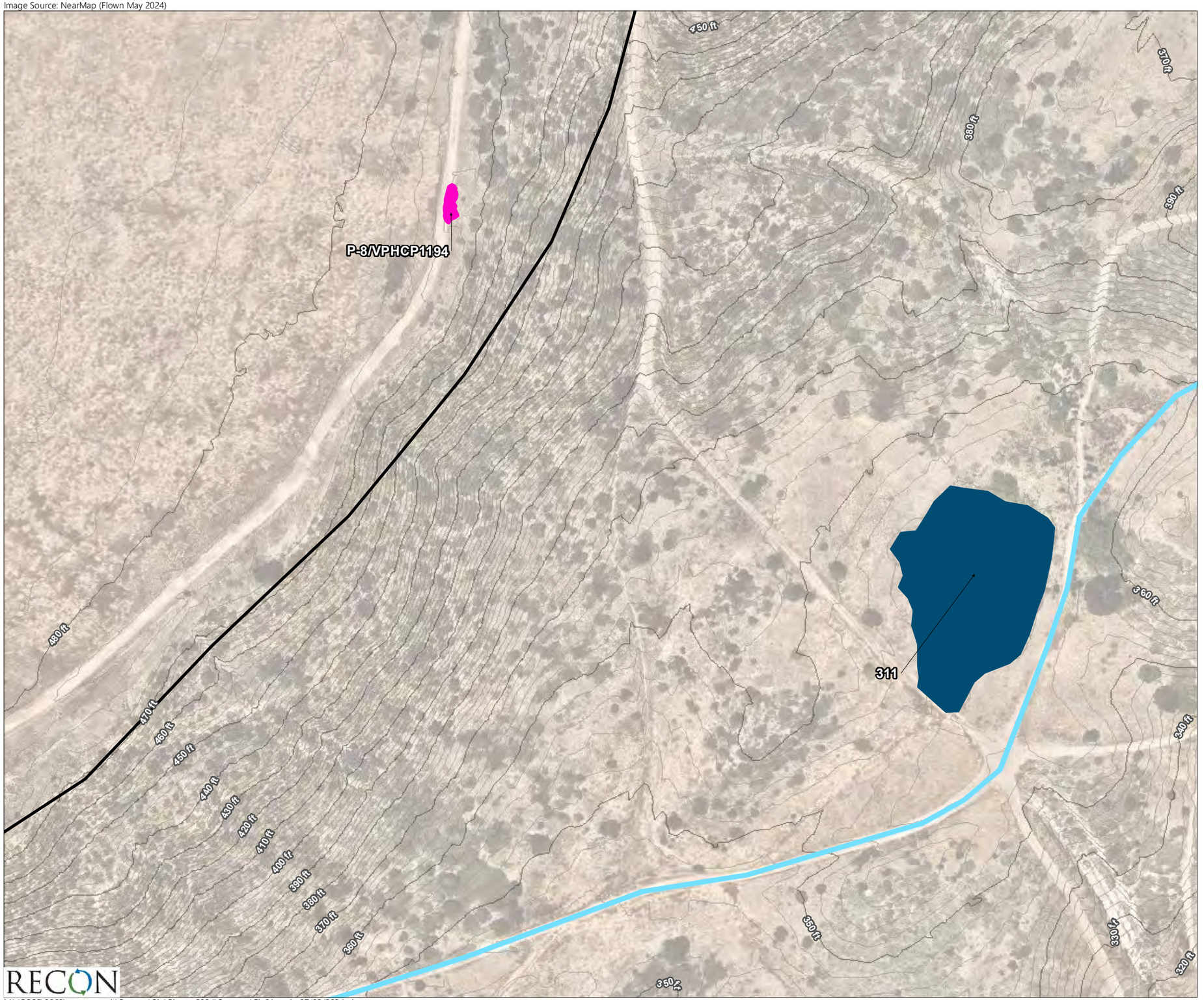
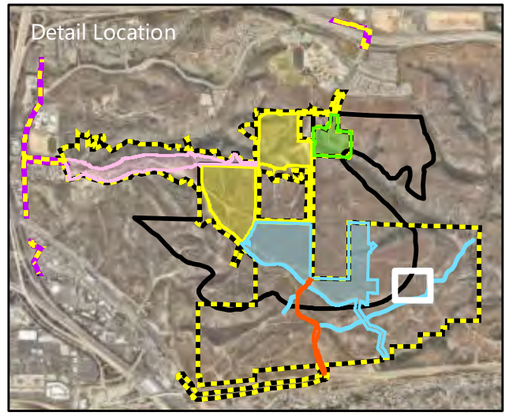
FIGURE 31.34
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary
Project-level Survey Area

Project-level Phasing

Phase 1
Phase 2
Phase 4
Beyer Boulevard
Emergency Vehicle Access
Off-site Improvements

Waters of the U.S. (USACE)

Vernal Pool with Fairy Shrimp (Waters ID)
Wetland (Waters ID)

0 Feet 70

RECON

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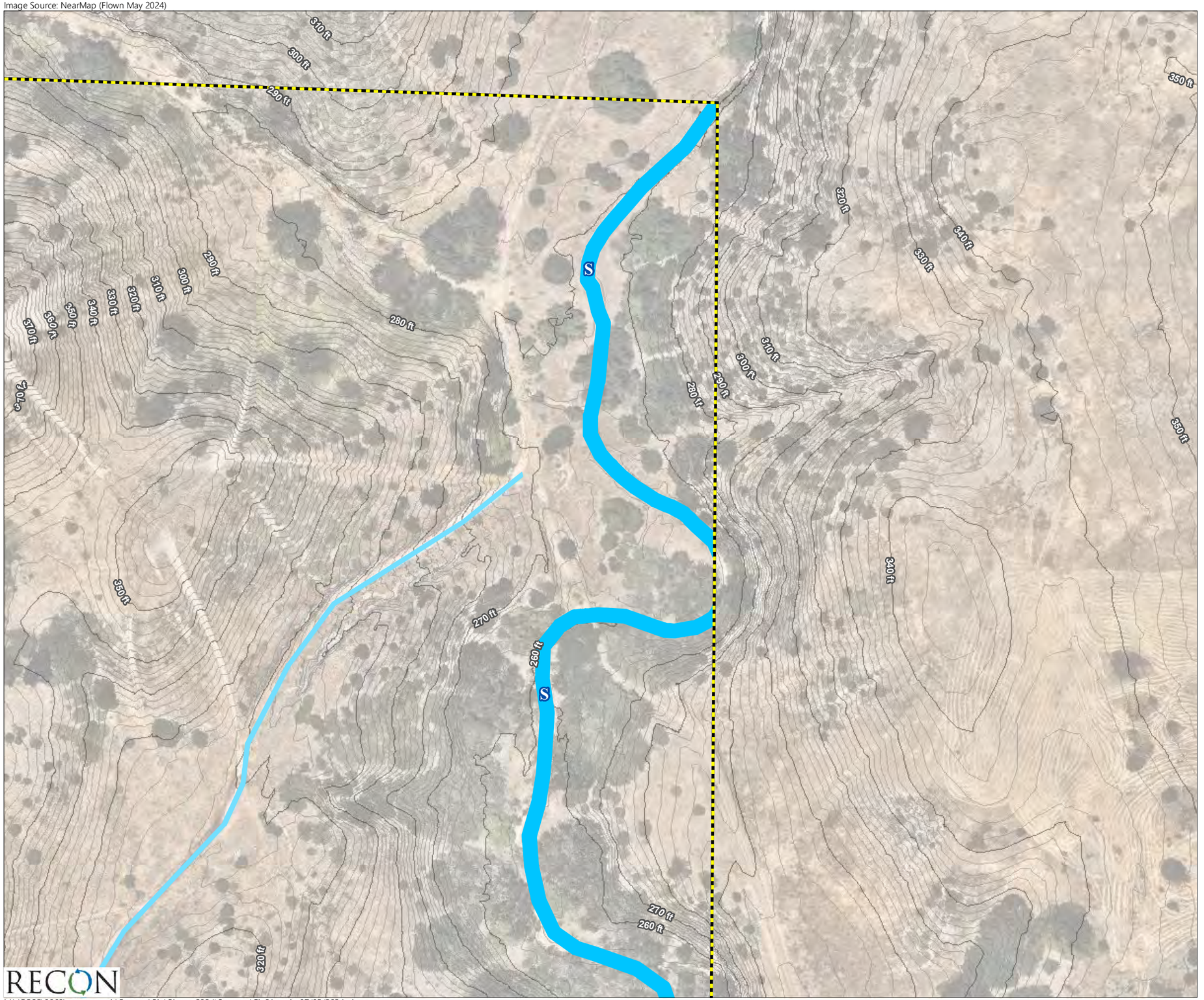
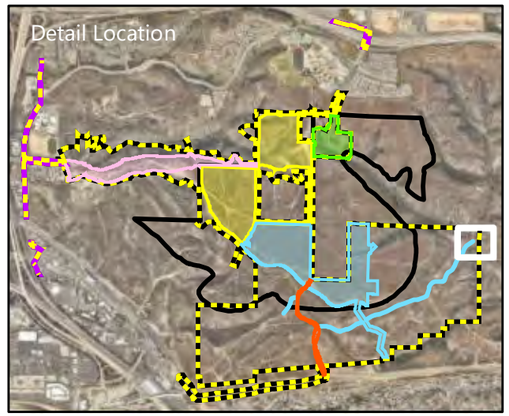
FIGURE 31.35
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

Waters of the U.S. (USACE)

Non-wetland Waters (Waters ID)

0 Feet 70

RECON

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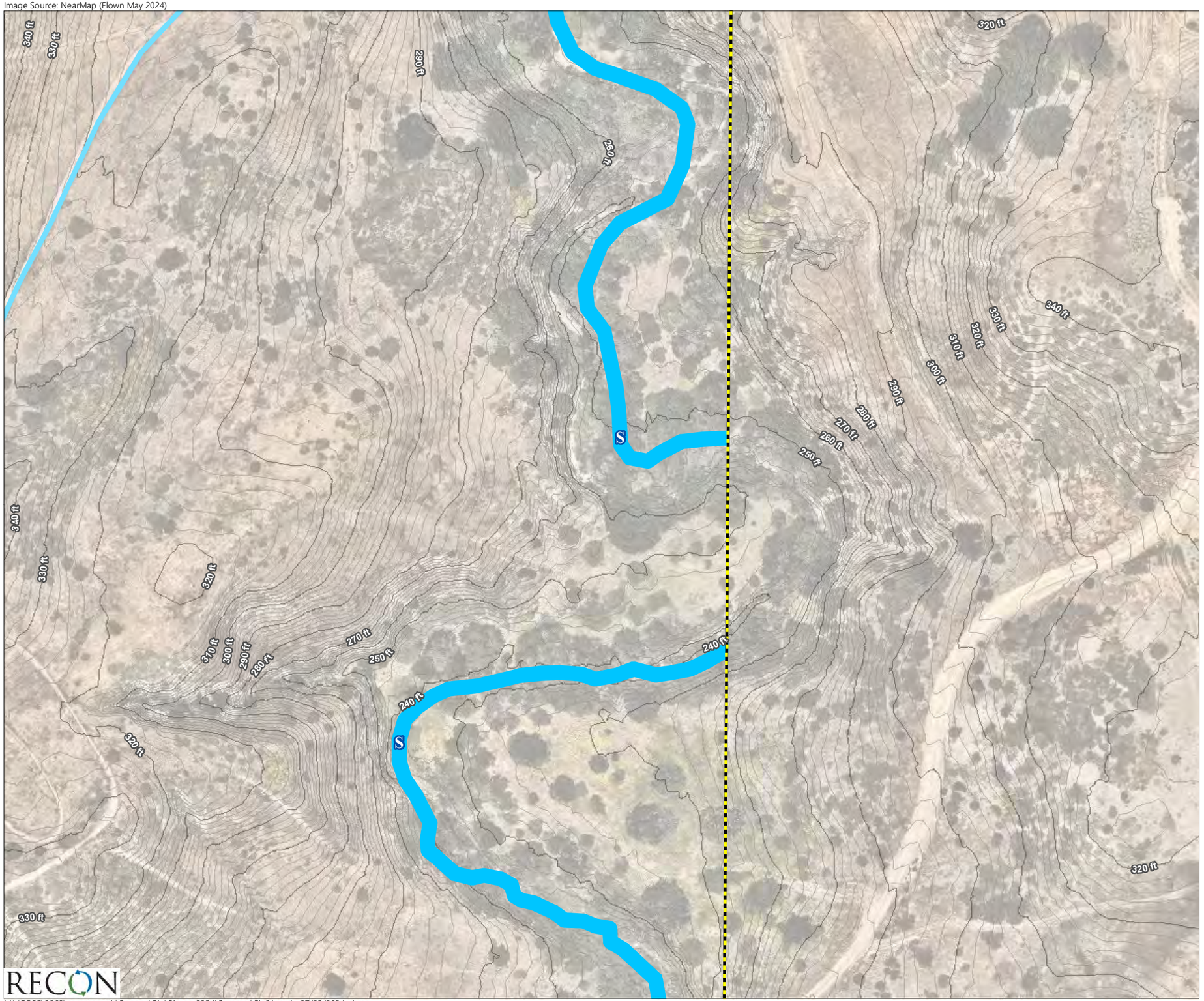
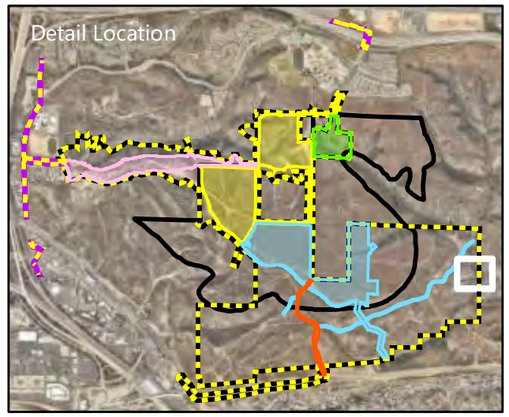
FIGURE 31.36
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

Waters of the U.S. (USACE)

Non-wetland Waters (Waters ID)

0 Feet 70

RECON

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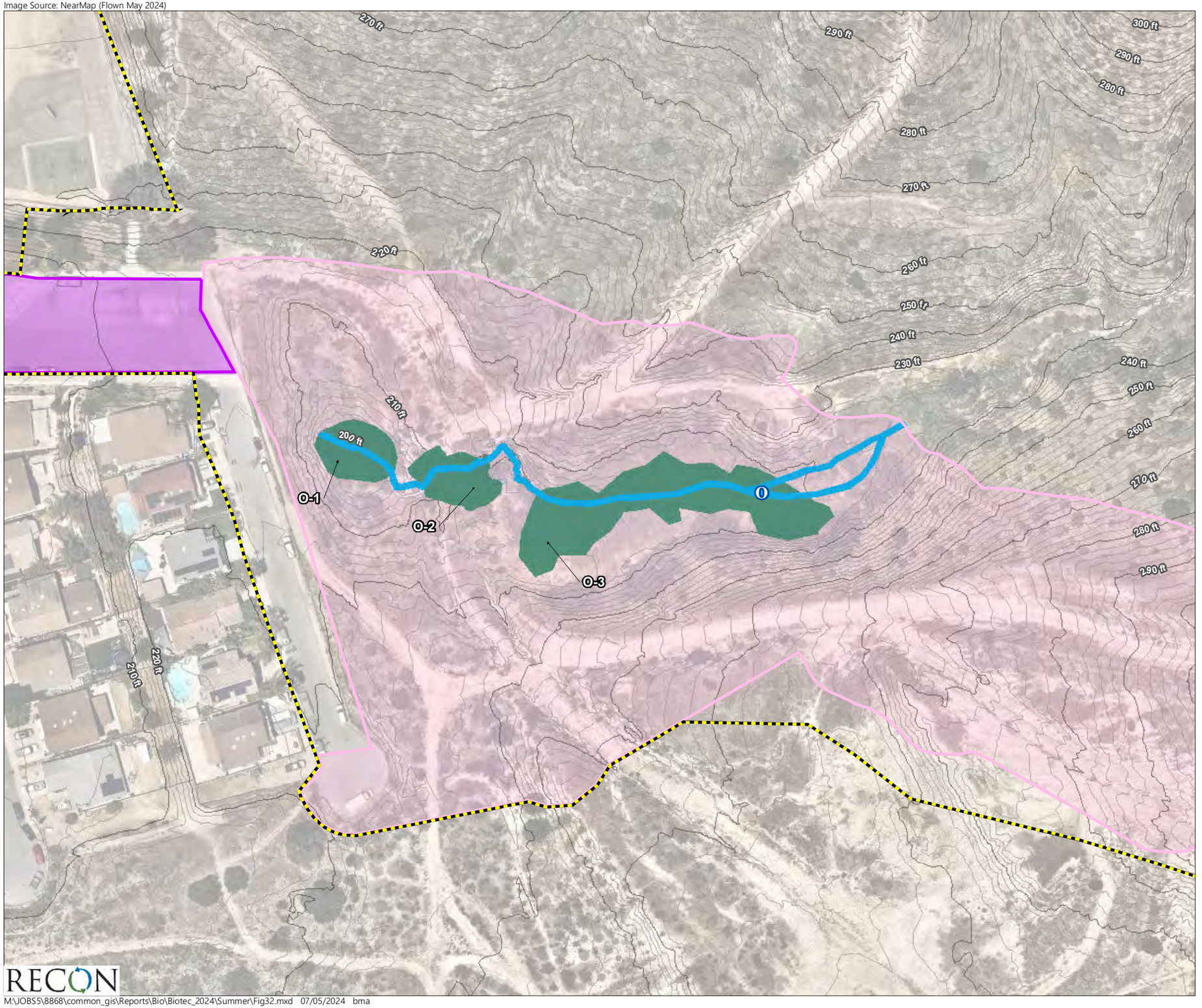
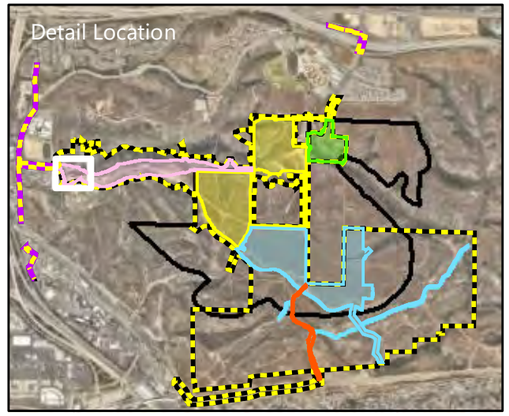
FIGURE 31.37
Potential USACE Waters of the U.S.

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

Waters of the State (CDFW)

Wetland (Waters ID)

Waters of the State (CDFW & RWQCB)

Non-Wetland Waters (Waters ID)

0 Feet 70

RECON

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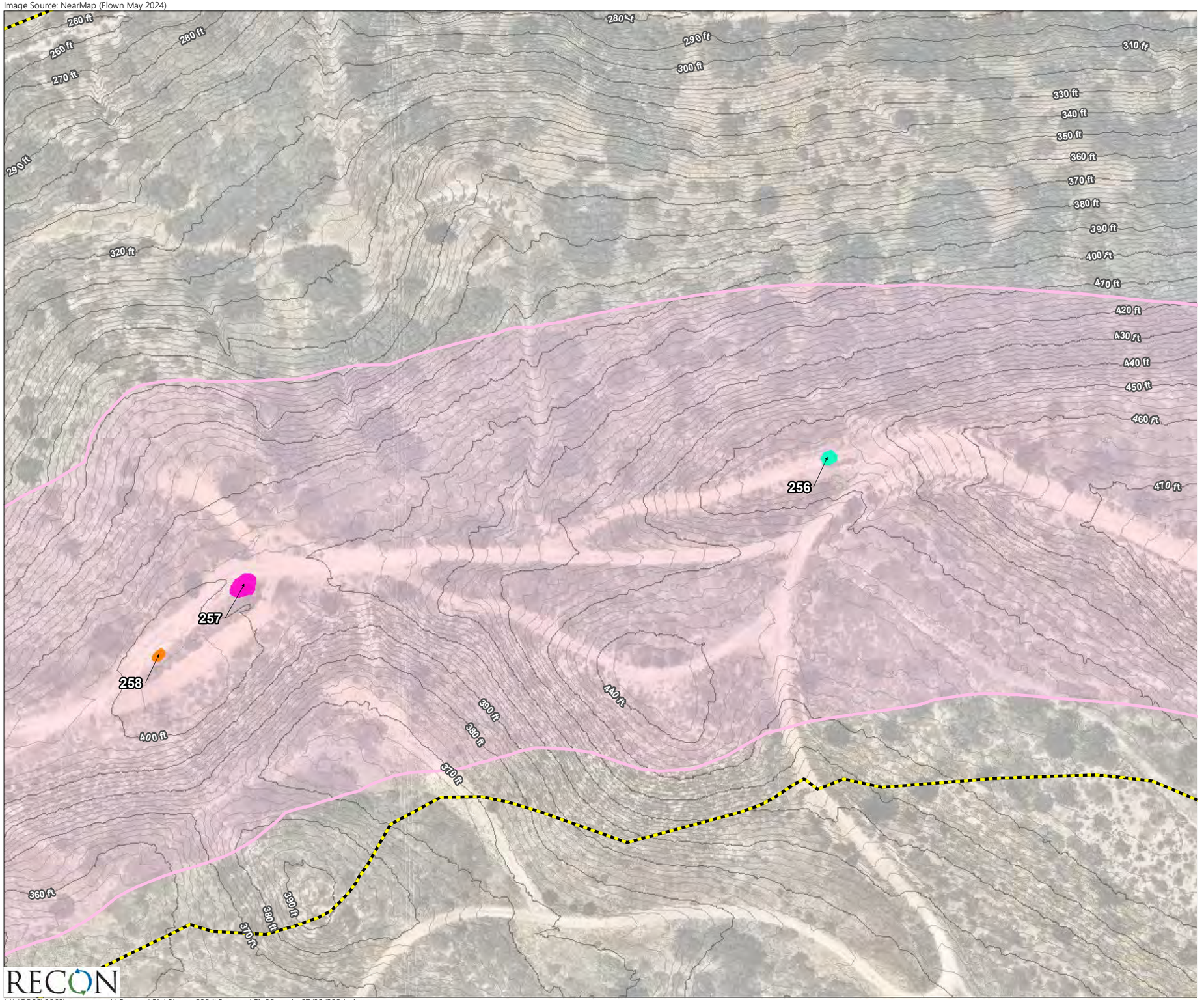
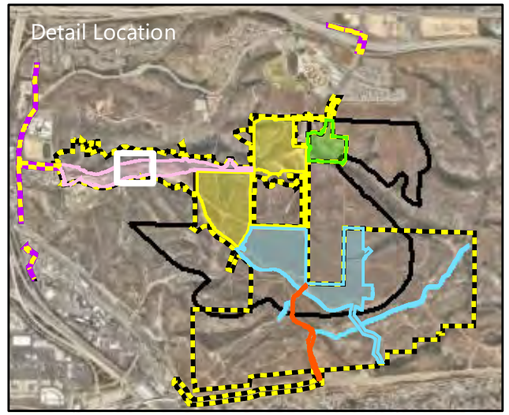
FIGURE 32.1
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

Waters of the State (RWQCB)

- Vernal Pool (Waters ID)
- Vernal Pool with Fairy Shrimp (Waters ID)
- Seasonal Basin (Waters ID)

0 Feet 70

RECON

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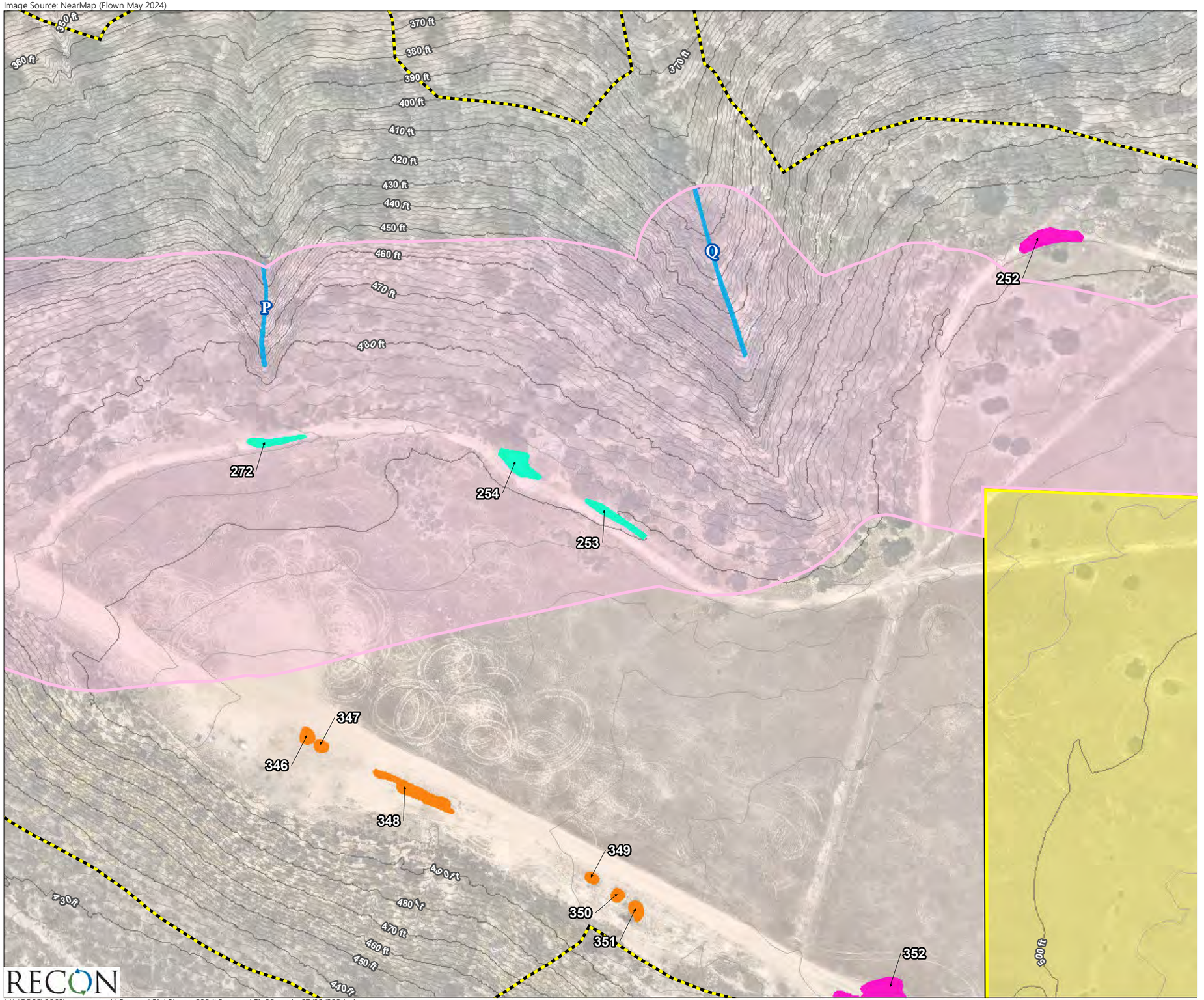
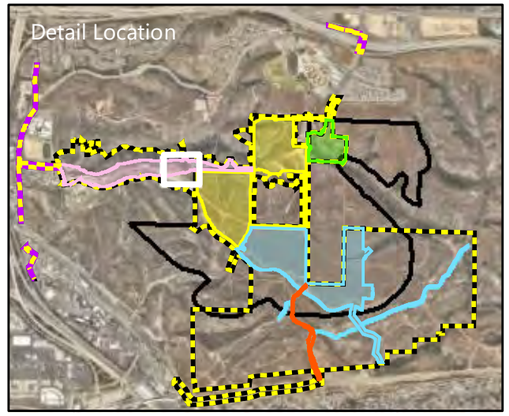
FIGURE 32.2
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

Waters of the State (RWQCB)

- Vernal Pool (Waters ID)
- Vernal Pool with Fairy Shrimp (Waters ID)
- Seasonal Basin (Waters ID)

Waters of the State (CDFW & RWQCB)

- Non-Wetland Waters (Waters ID)

0 Feet 70

RECON

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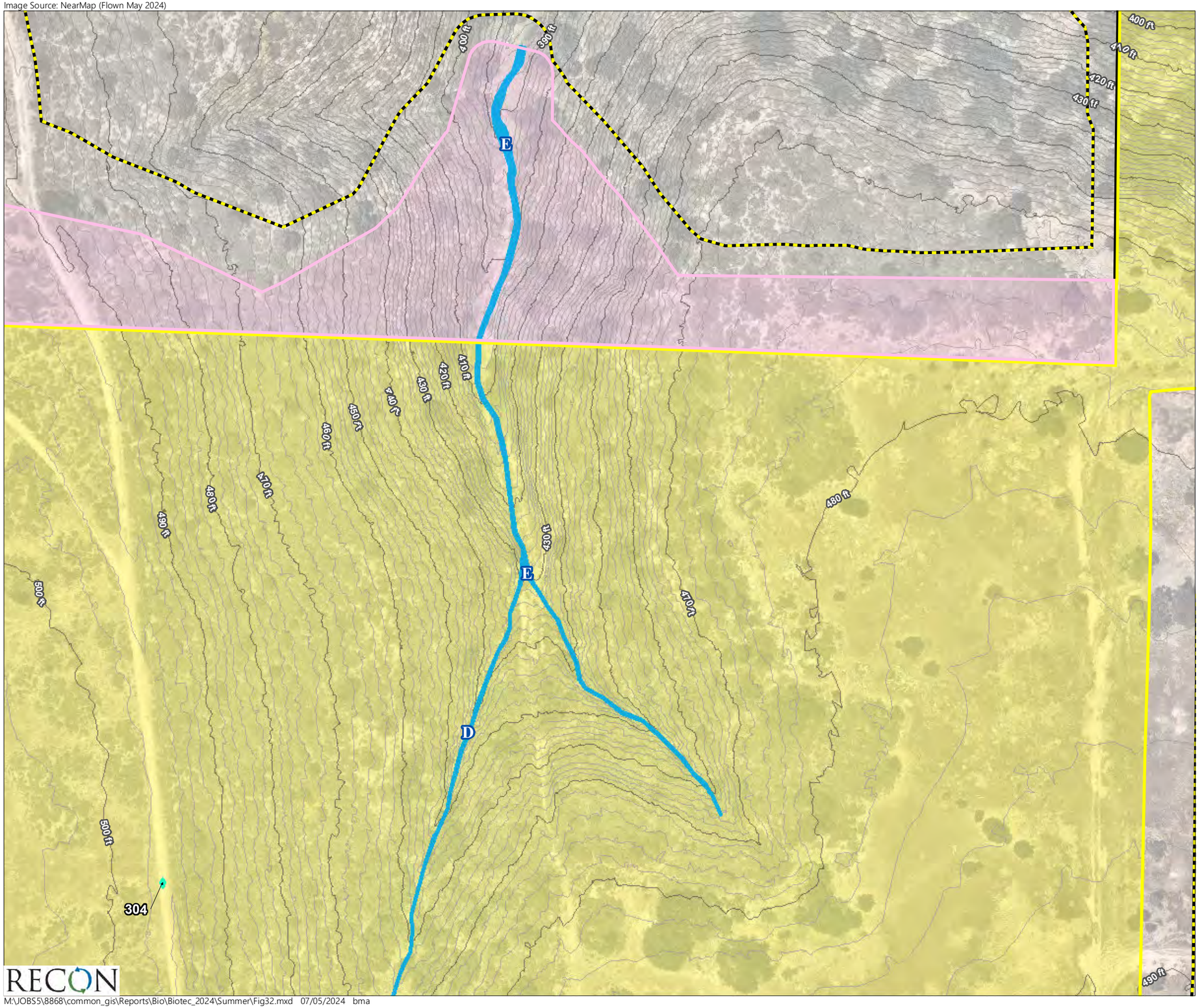
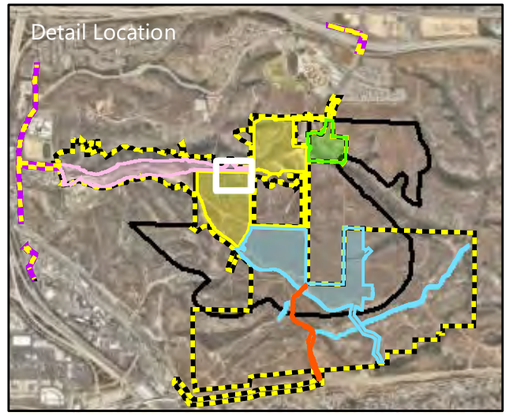
FIGURE 32.3
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

Waters of the State (RWQCB)

- Vernal Pool (Waters ID)

Waters of the State (CDFW & RWQCB)

- Non-Wetland Waters (Waters ID)

0 Feet 70

RECON

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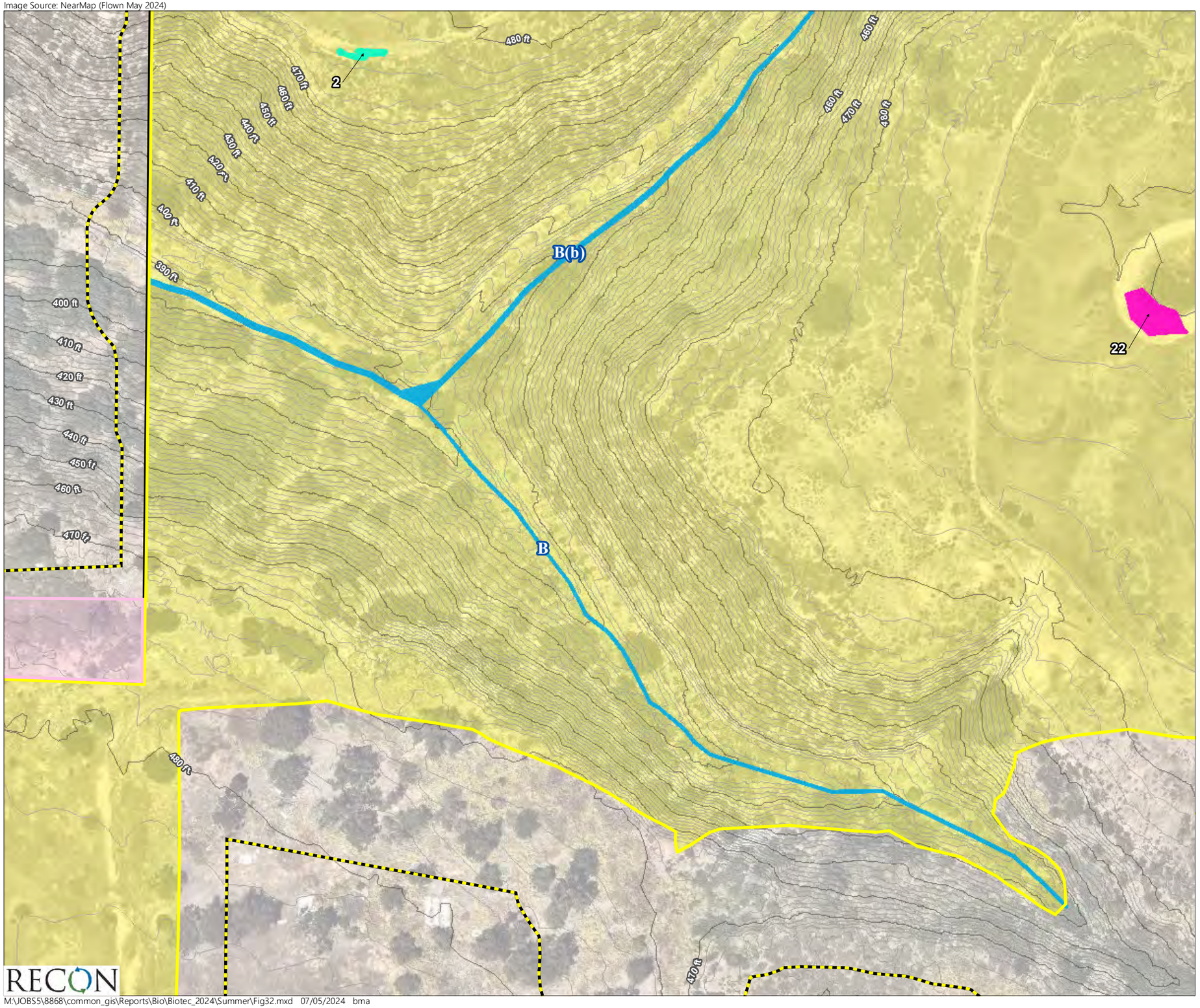
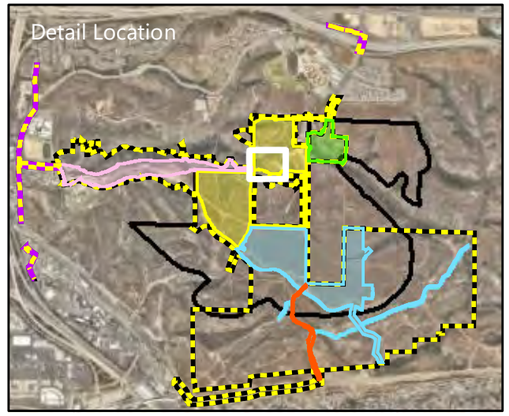
FIGURE 32.4
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary
Project-level Survey Area

Project-level Phasing

Phase 1
Phase 2
Phase 4
Beyer Boulevard
Emergency Vehicle Access
Off-site Improvements

Waters of the State (RWQCB)

Vernal Pool (Waters ID)
Vernal Pool with Fairy Shrimp (Waters ID)

Waters of the State (CDFW & RWQCB)

Non-Wetland Waters (Waters ID)

0 Feet 70

FIGURE 32.5
Potential CDFW and RWQCB
Waters of the State

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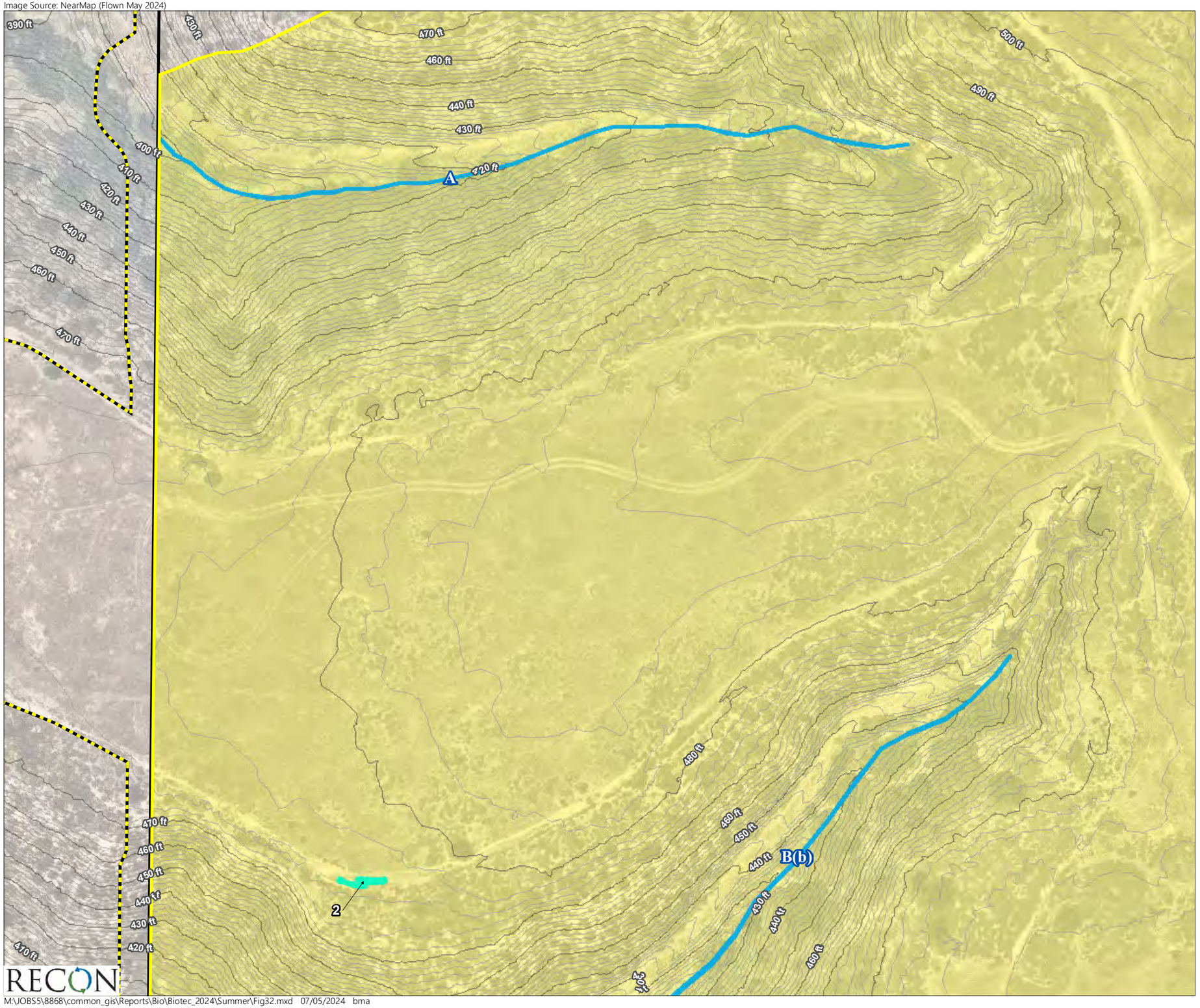
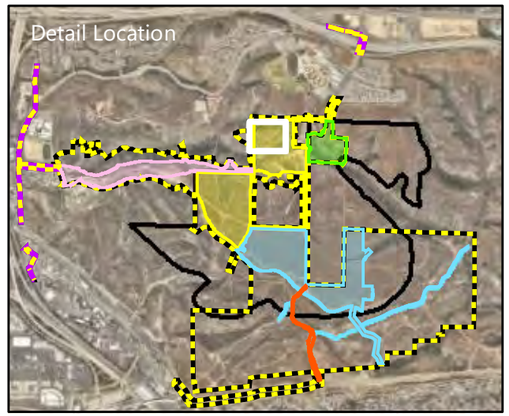
Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

Waters of the State (RWQCB)

Vernal Pool (Waters ID)

Waters of the State (CDFW & RWQCB)

Non-Wetland Waters (Waters ID)

0 Feet 70

RECON

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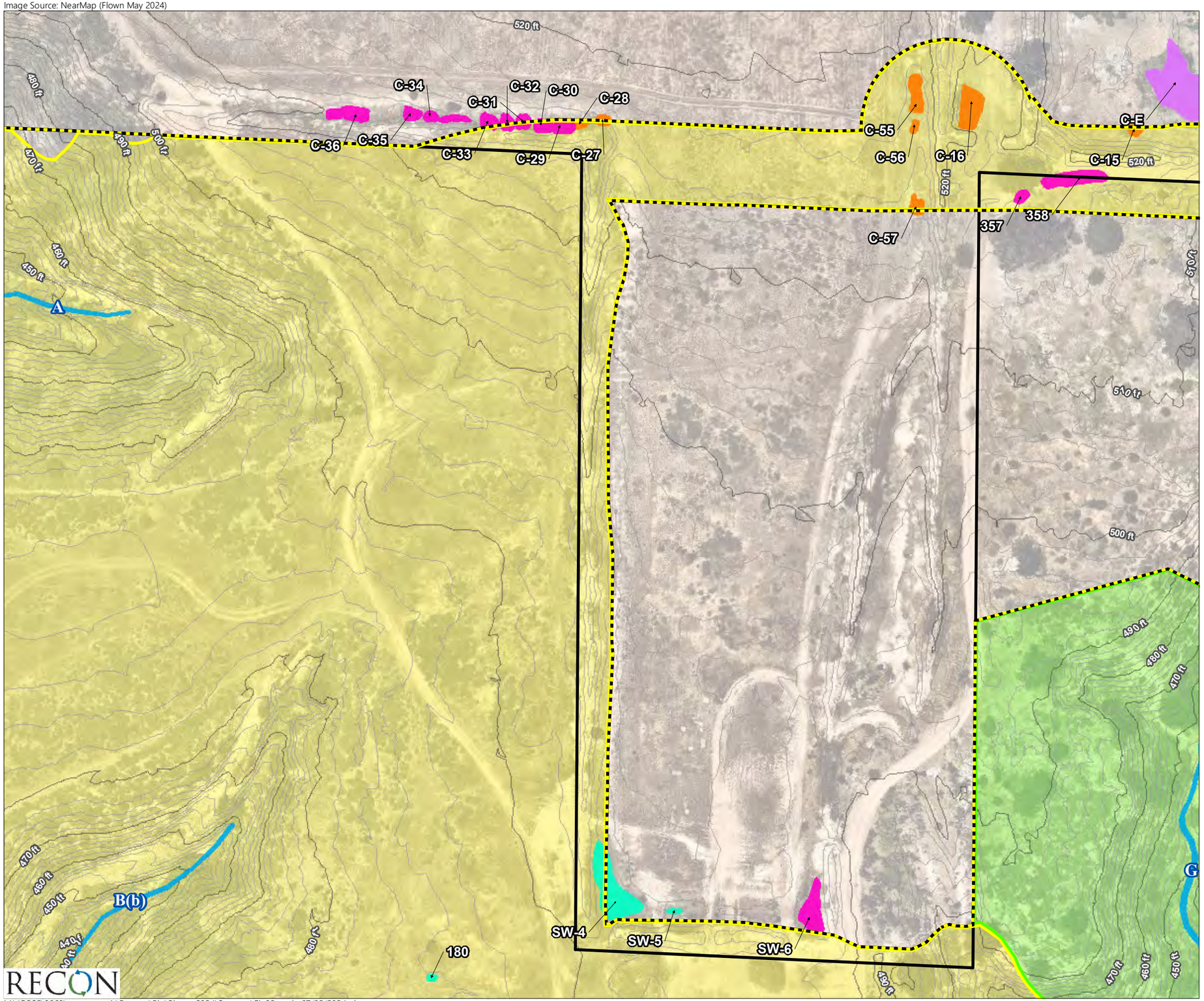
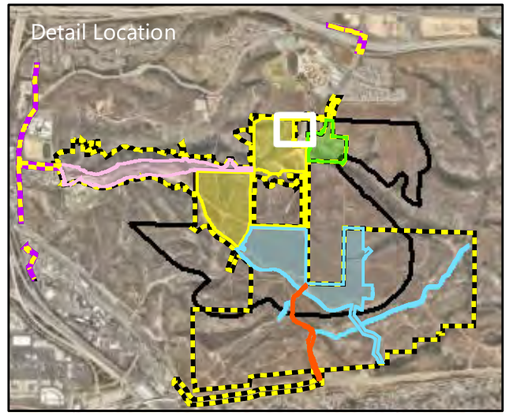
FIGURE 32.6
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary
Project-level Survey Area

Project-level Phasing
- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

Waters of the State (RWQCB)
- Vernal Pool (Waters ID)
- Vernal Pool with Fairy Shrimp (Waters ID)
- Seasonal Basin (Waters ID)

Waters of the State (CDFW & RWQCB)
- Wetland (Waters ID)
- Non-Wetland Waters (Waters ID)

0 Feet 70

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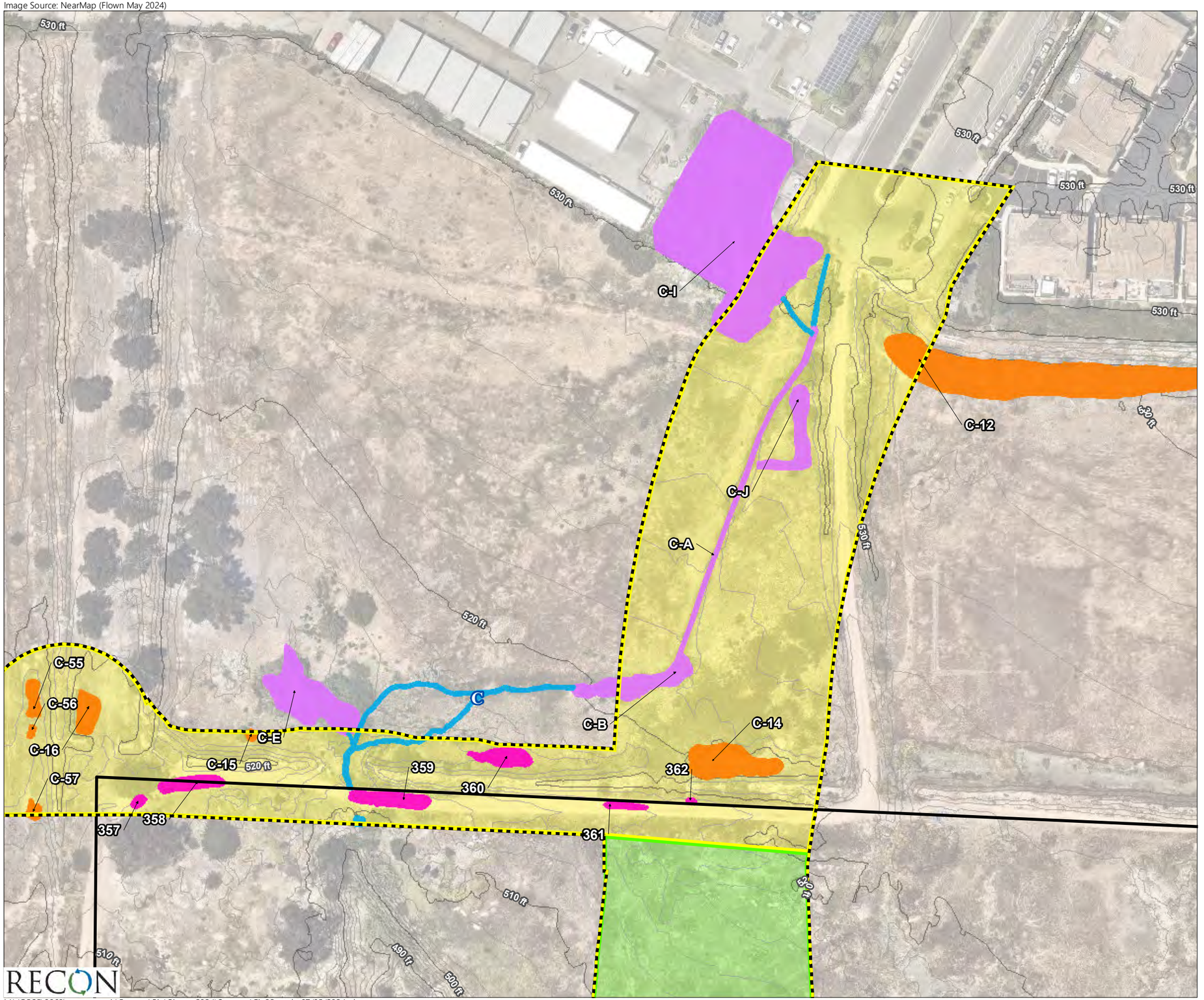
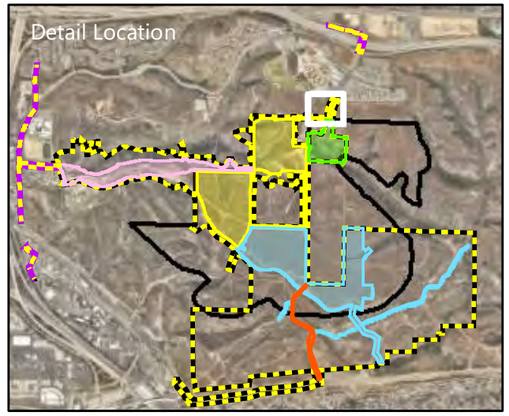
FIGURE 32.7
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)





- Specific Plan Boundary
- Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

Waters of the State (RWQCB)

- Vernal Pool with Fairy Shrimp (Waters ID)
- Seasonal Basin (Waters ID)

Waters of the State (CDFW & RWQCB)

- Wetland (Waters ID)
- Non-Wetland Waters (Waters ID)

0 Feet 70

RECON

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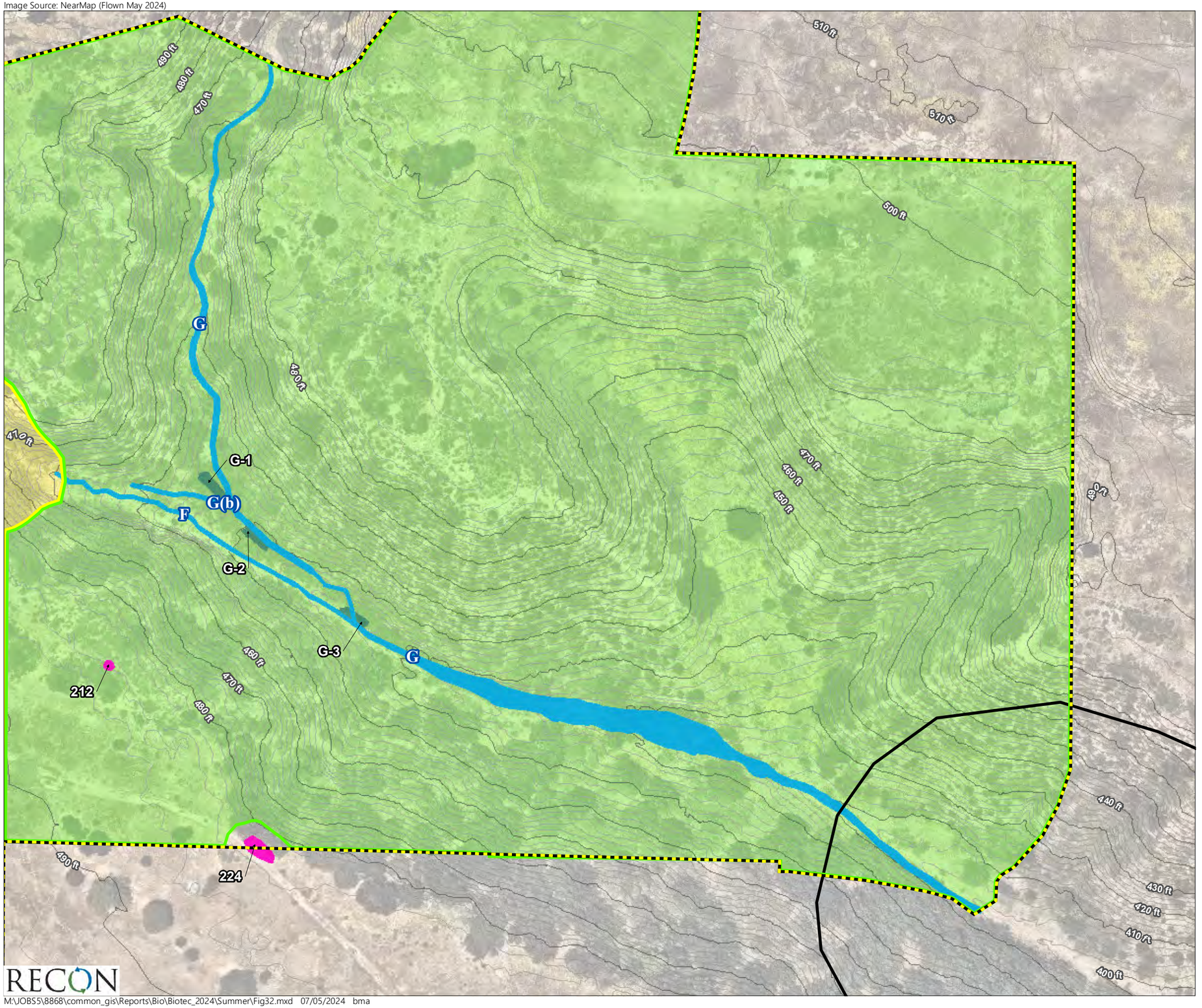
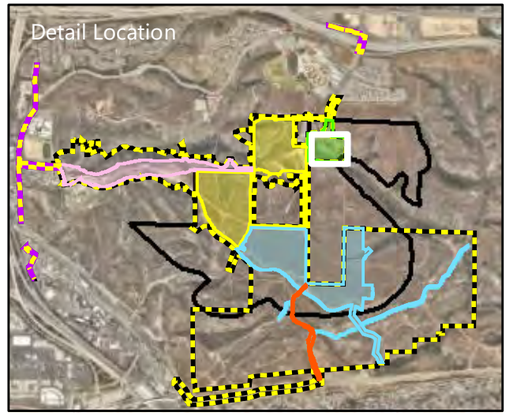
FIGURE 32.8
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

Waters of the State (RWQCB)

Vernal Pool with Fairy Shrimp (Waters ID)

Waters of the State (CDFW)

Wetland (Waters ID)

Waters of the State (CDFW & RWQCB)

Non-Wetland Waters (Waters ID)

0 Feet 70

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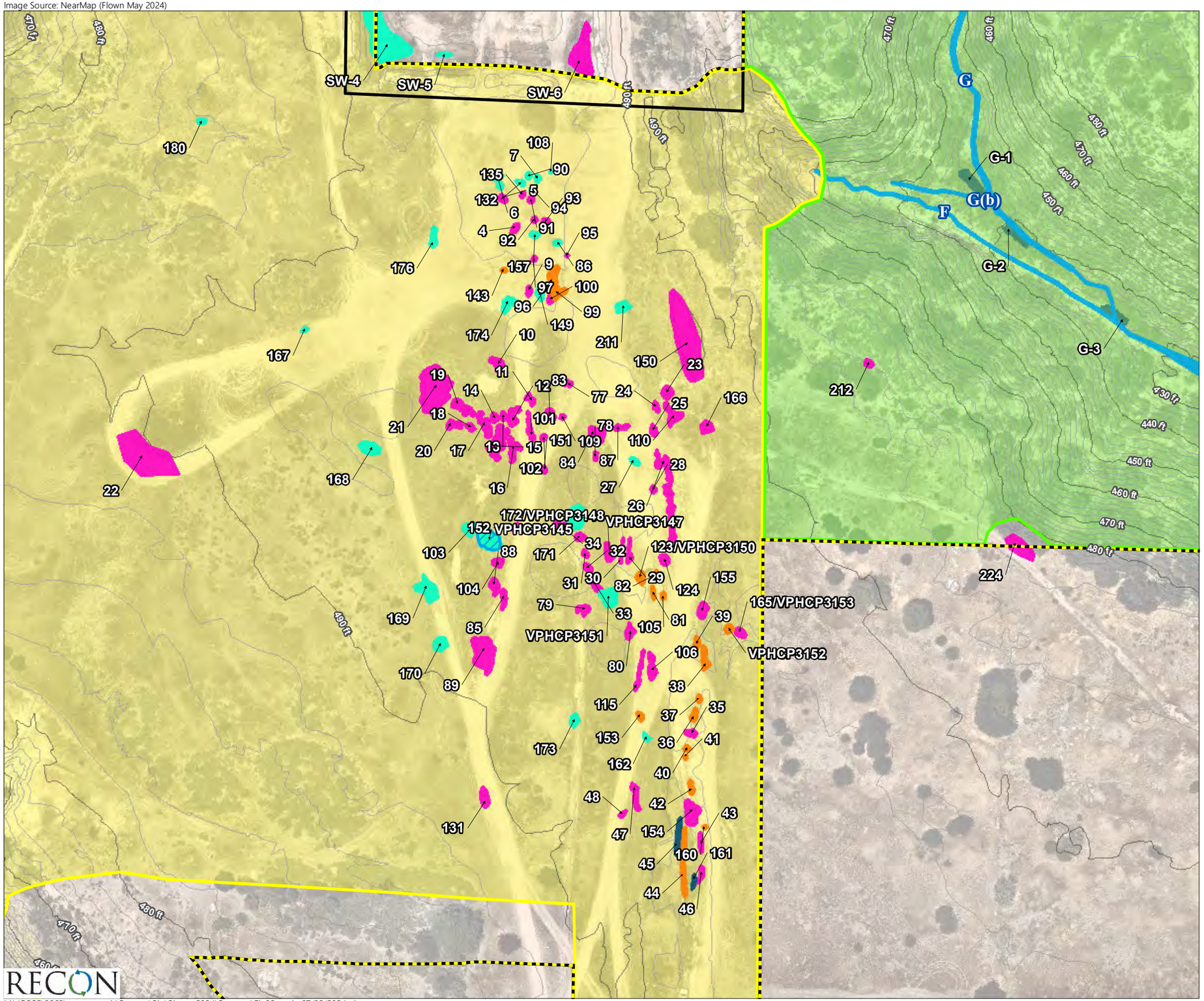
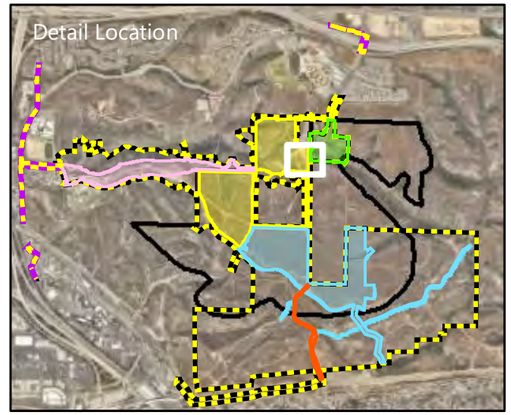
FIGURE 32.9
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary
Project-level Survey Area

Project-level Phasing
- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

Waters of the State (RWQCB)
- Vernal Pool (Waters ID)
- Vernal Pool with Fairy Shrimp (Waters ID)
- Seasonal Basin (Waters ID)
- Wetland (Waters ID)

Waters of the State (CDFW)
- Wetland (Waters ID)

Waters of the State (CDFW & RWQCB)
- Non-Wetland Waters (Waters ID)
- Vernal Pool (Waters ID)

0 Feet 70

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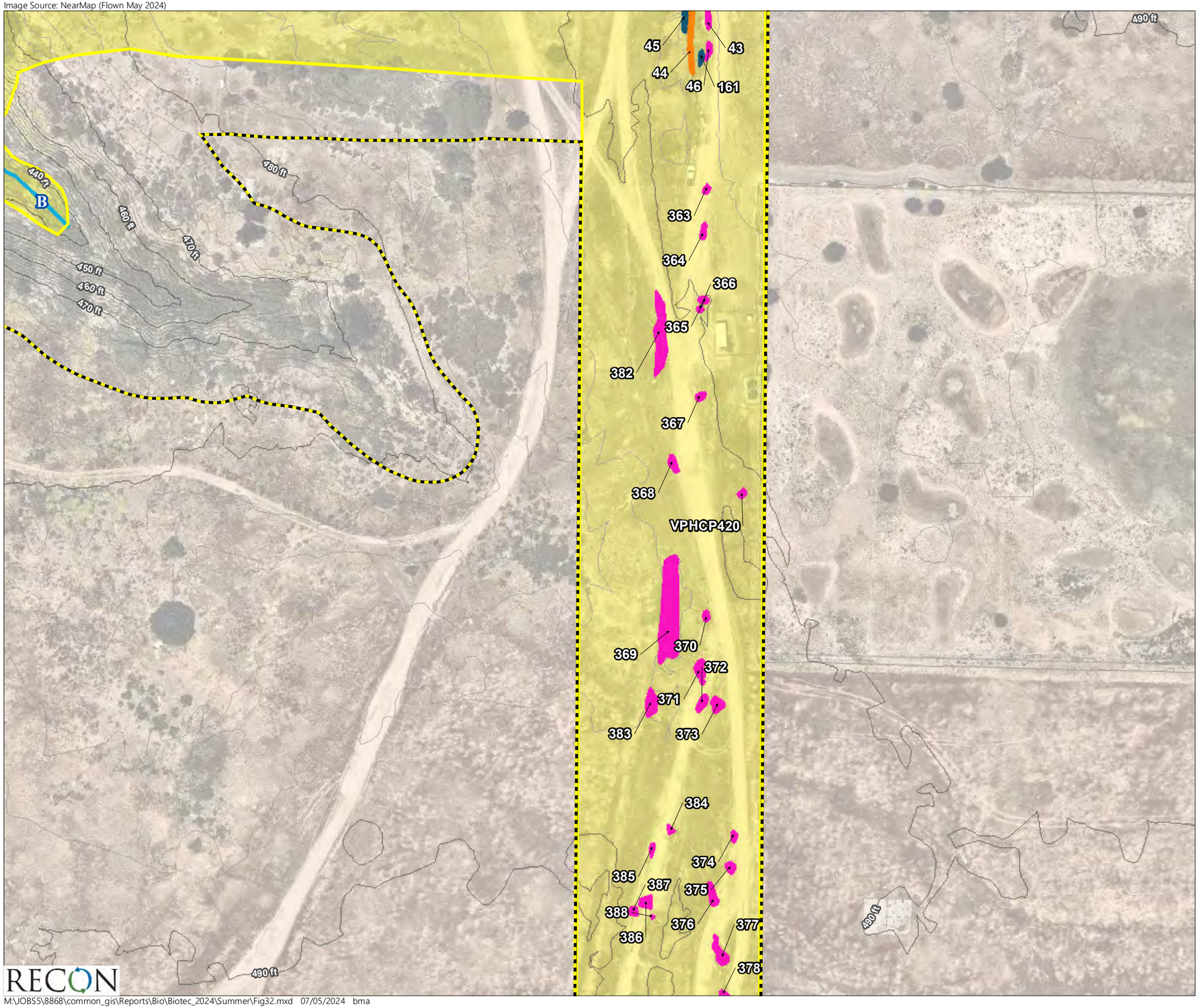
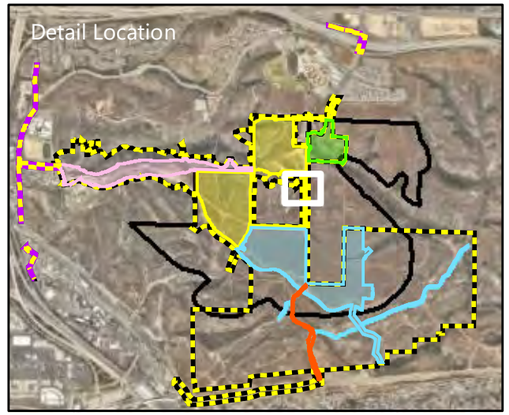
FIGURE 32.10
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

Waters of the State (RWQCB)

- Vernal Pool with Fairy Shrimp (Waters ID)
- Seasonal Basin (Waters ID)
- Wetland (Waters ID)

Waters of the State (CDFW & RWQCB)

- Non-Wetland Waters (Waters ID)

0 Feet 70

RECON

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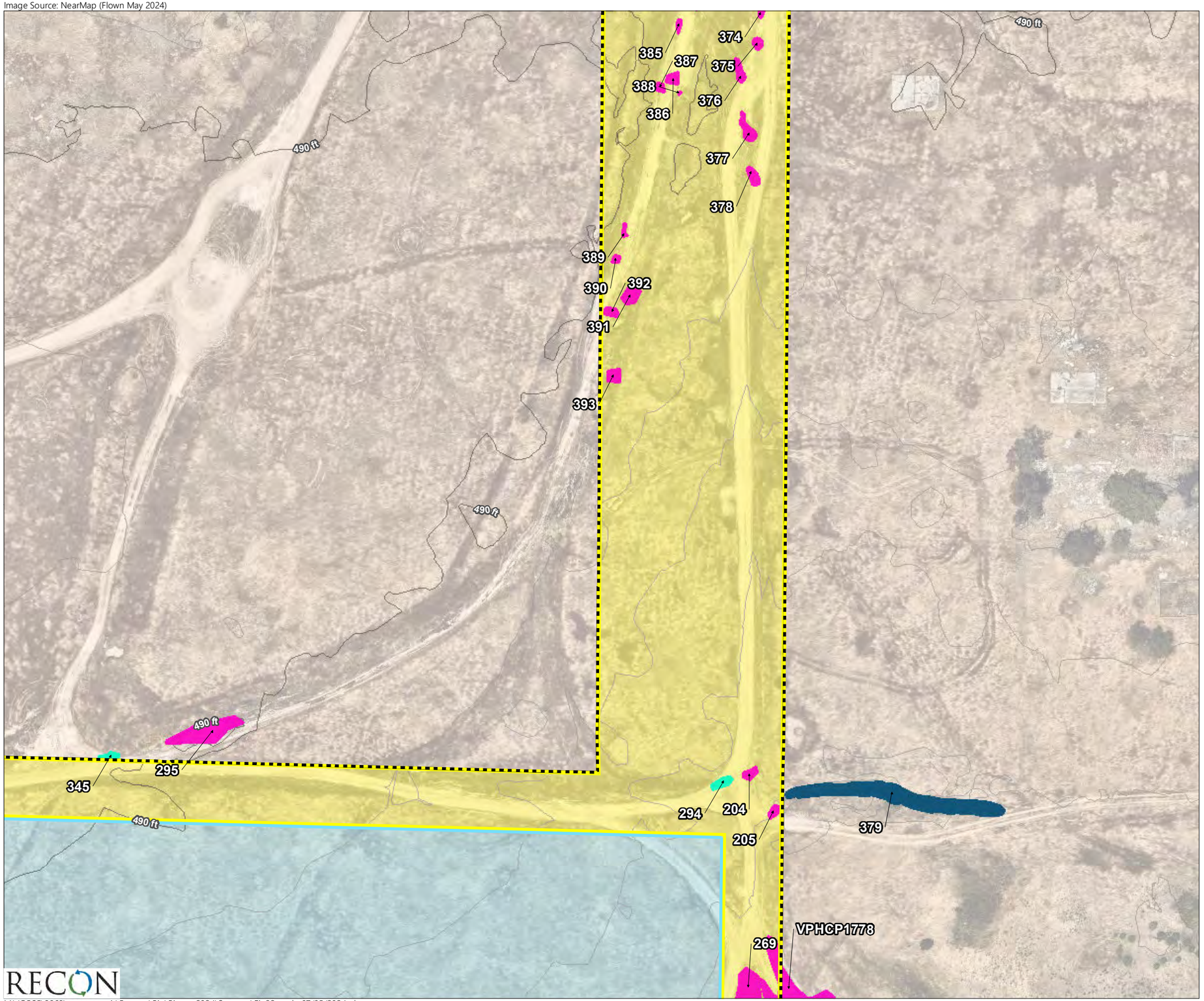
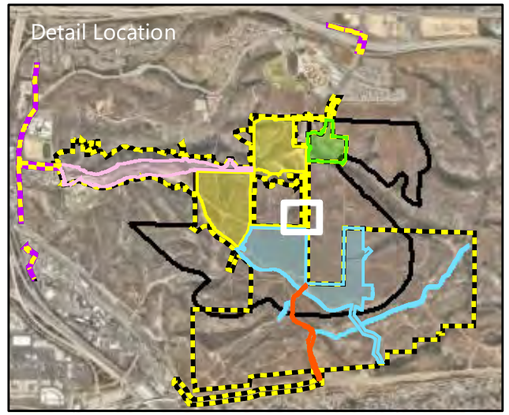
FIGURE 32.11
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

Waters of the State (RWQCB)

Vernal Pool (Waters ID)

Vernal Pool with Fairy Shrimp (Waters ID)

Wetland (Waters ID)

0 Feet 70

RECON

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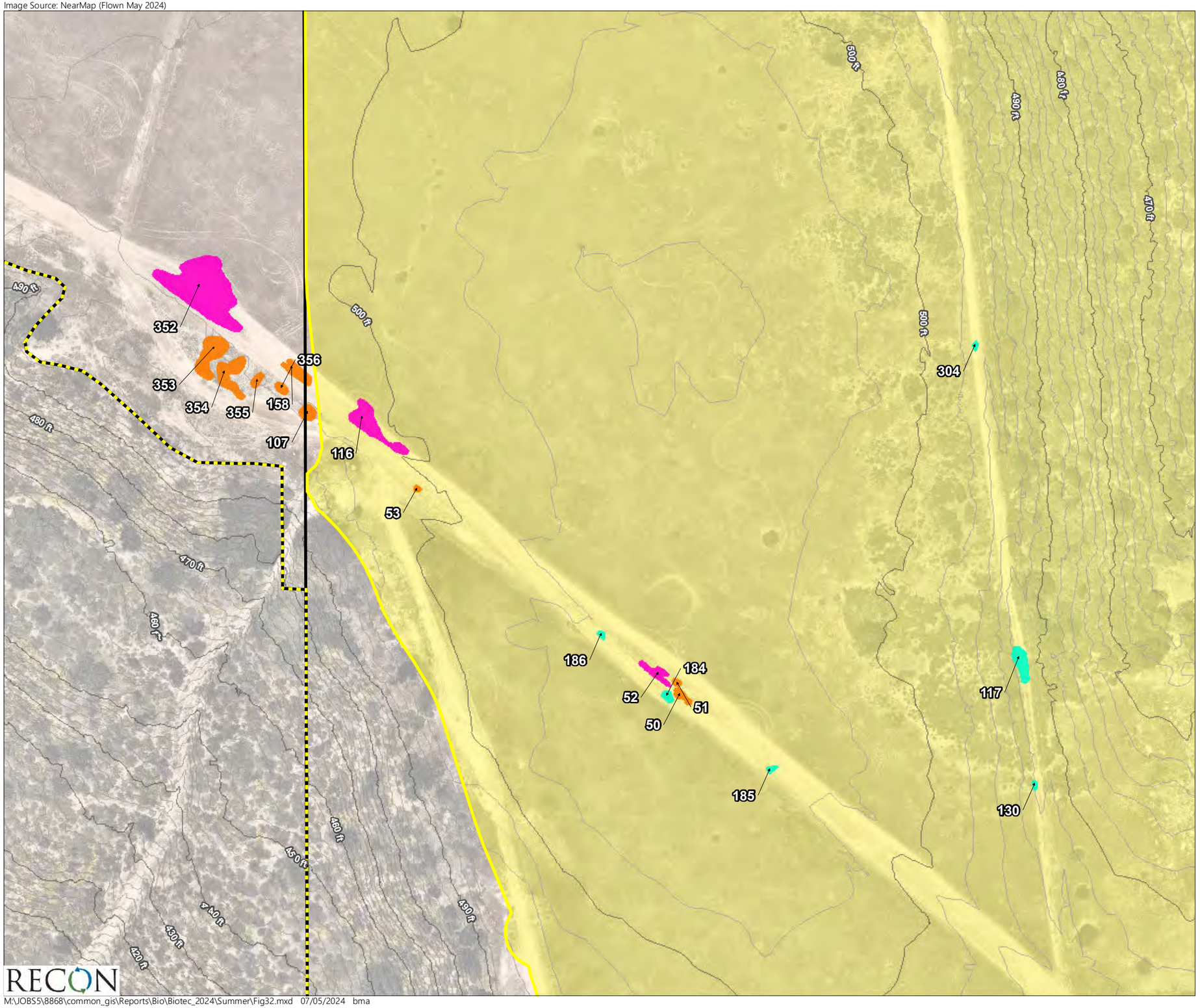
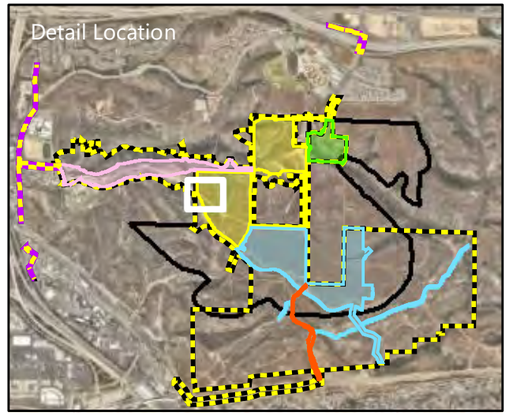
FIGURE 32.12
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

Waters of the State (RWQCB)

- Vernal Pool (Waters ID)
- Vernal Pool with Fairy Shrimp (Waters ID)
- Seasonal Basin (Waters ID)

0 Feet 70

FIGURE 32.13
Potential CDFW and RWQCB
Waters of the State

RECON

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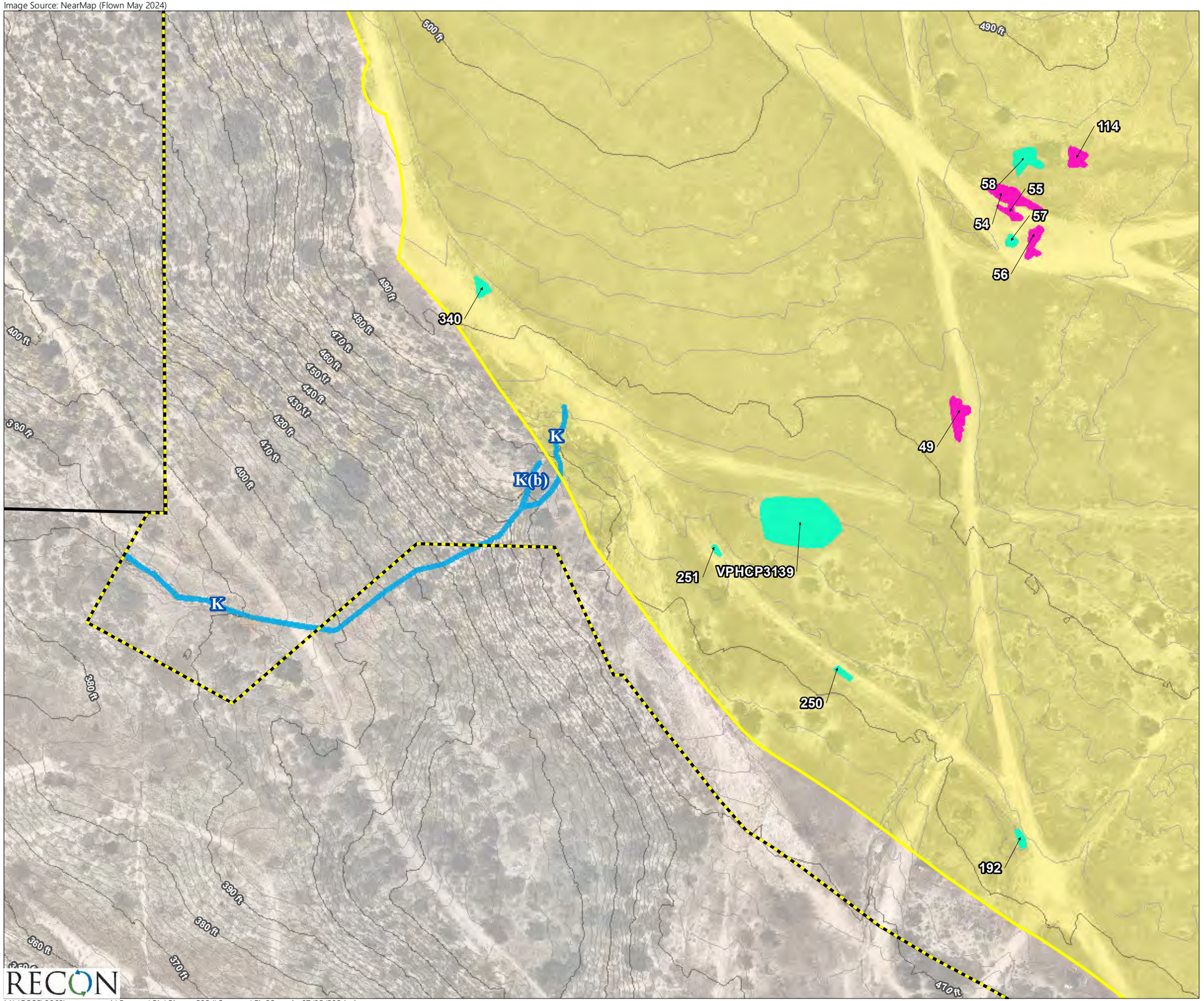
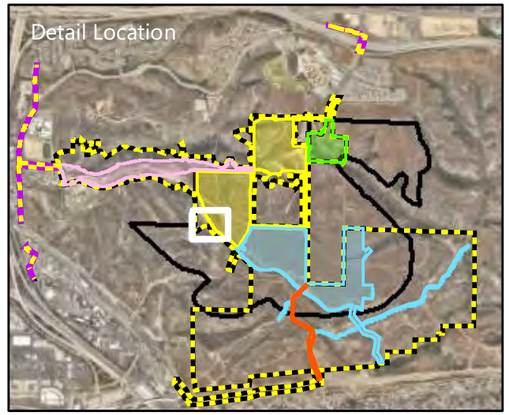
Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

Waters of the State (RWQCB)

- Vernal Pool (Waters ID)
- Vernal Pool with Fairy Shrimp (Waters ID)

Waters of the State (CDFW & RWQCB)

- Non-Wetland Waters (Waters ID)

0 Feet 70

RECON

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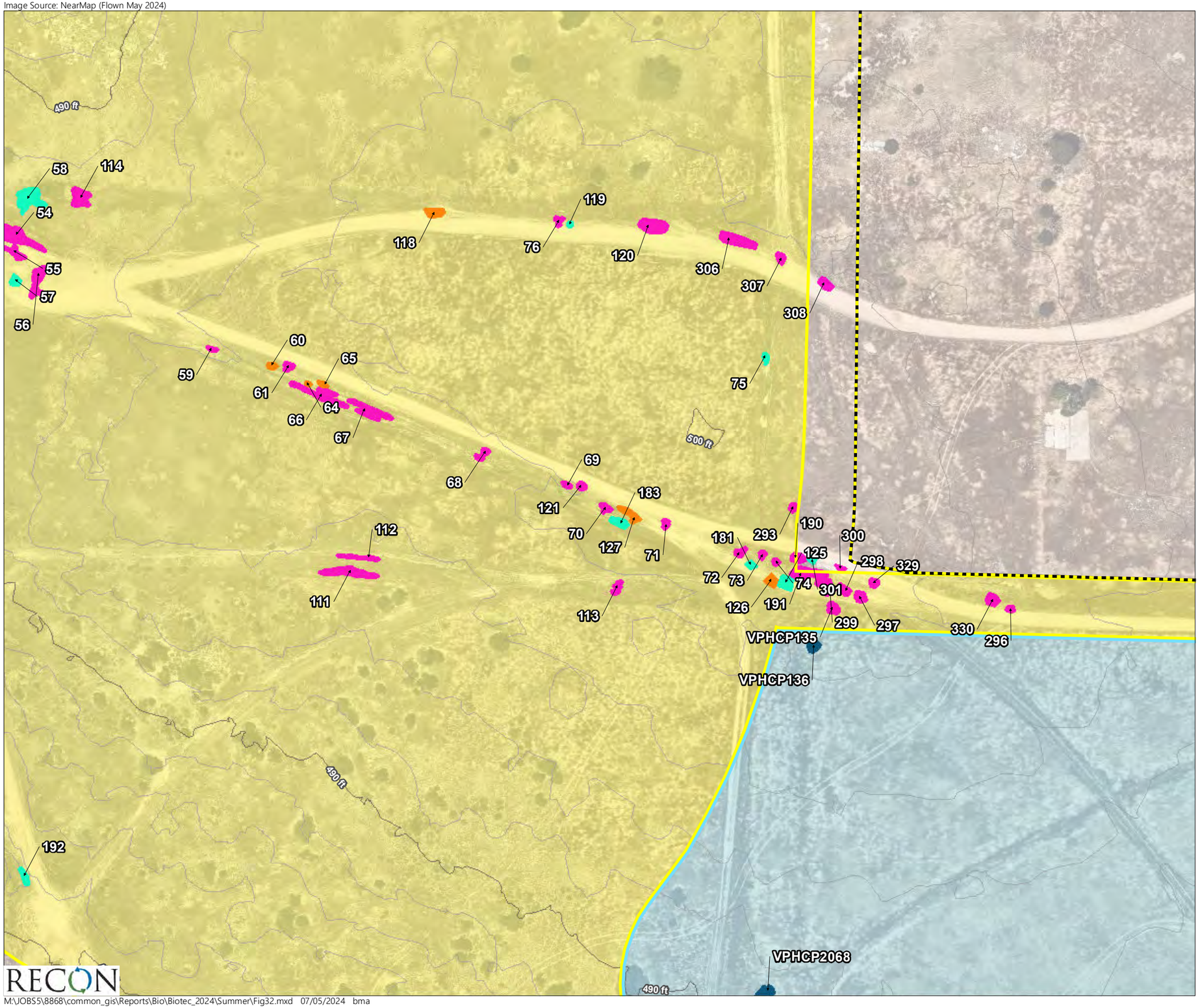
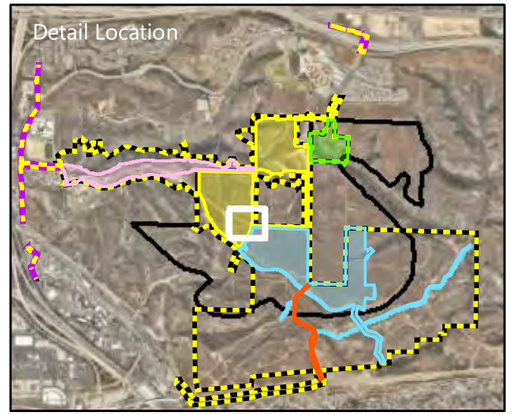
FIGURE 32.14
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary
Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

Waters of the State (RWQCB)

- Vernal Pool (Waters ID)
- Vernal Pool with Fairy Shrimp (Waters ID)
- Seasonal Basin (Waters ID)
- Wetland (Waters ID)

0 Feet 70

RECON

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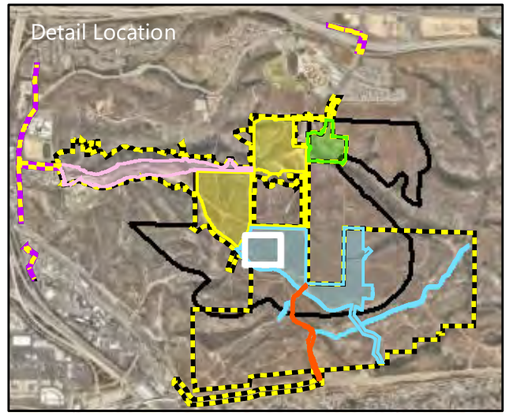
FIGURE 32.15
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)



Specific Plan Boundary
Project-level Survey Area

Project-level Phasing

Phase 1
Phase 2
Phase 4
Beyer Boulevard
Emergency Vehicle Access
Off-site Improvements

Waters of the State (RWQCB)

Vernal Pool (Waters ID)
Vernal Pool with Fairy Shrimp (Waters ID)
Wetland (Waters ID)

0 Feet 70

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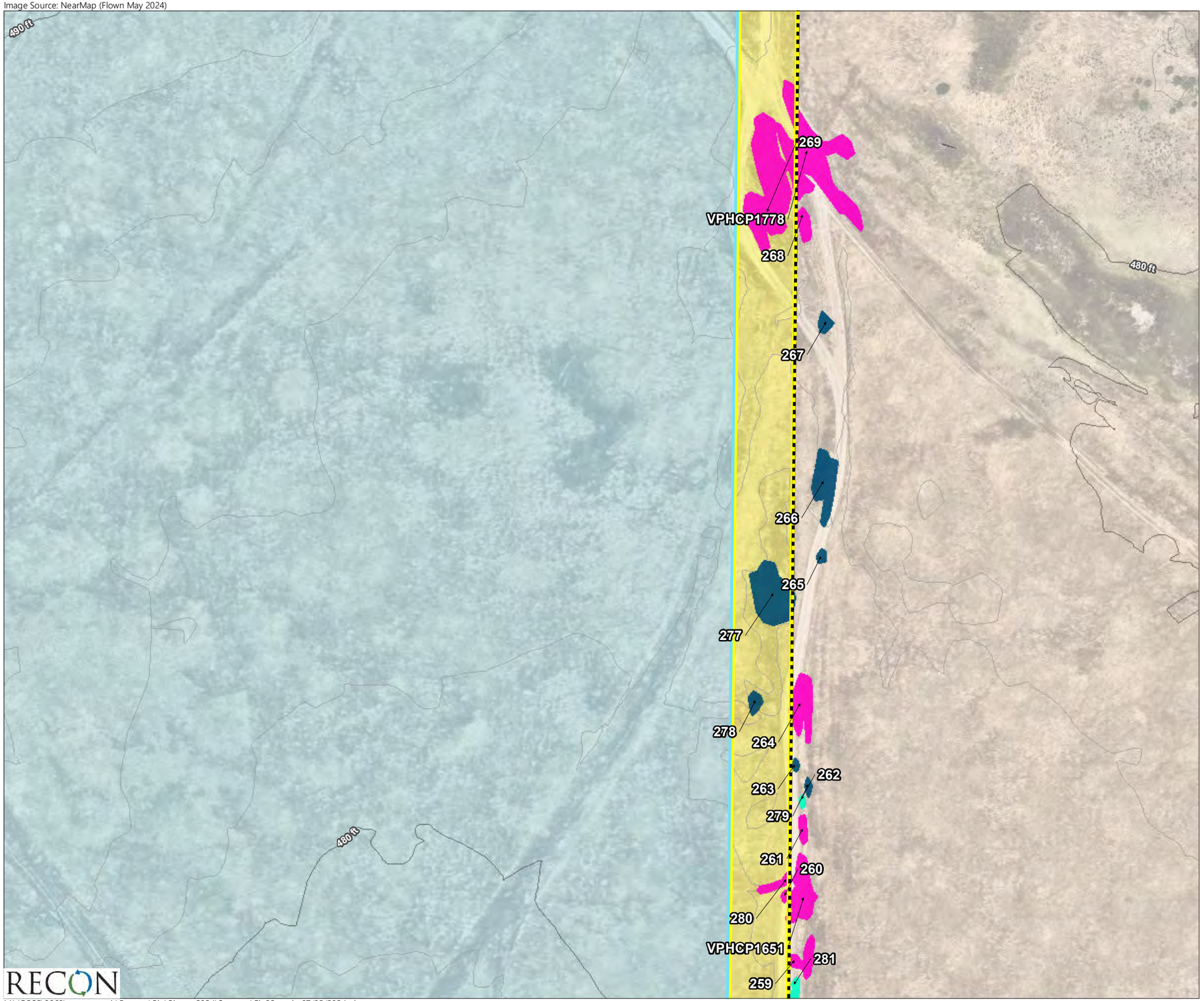
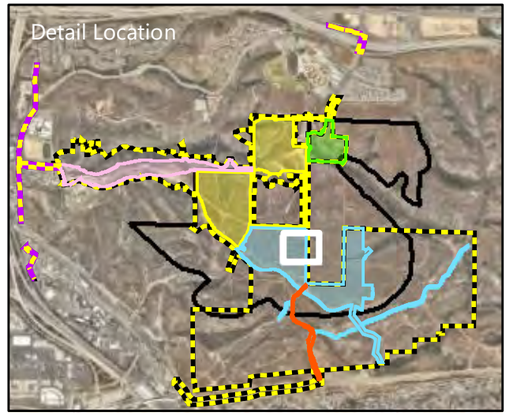
FIGURE 32.16
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary
Project-level Survey Area

Project-level Phasing

Phase 1
Phase 2
Phase 4
Beyer Boulevard
Emergency Vehicle Access
Off-site Improvements

Waters of the State (RWQCB)

Vernal Pool (Waters ID)
Vernal Pool with Fairy Shrimp (Waters ID)
Wetland (Waters ID)

0 Feet 70

RECON

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FIGURE 32.17
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)

RECON

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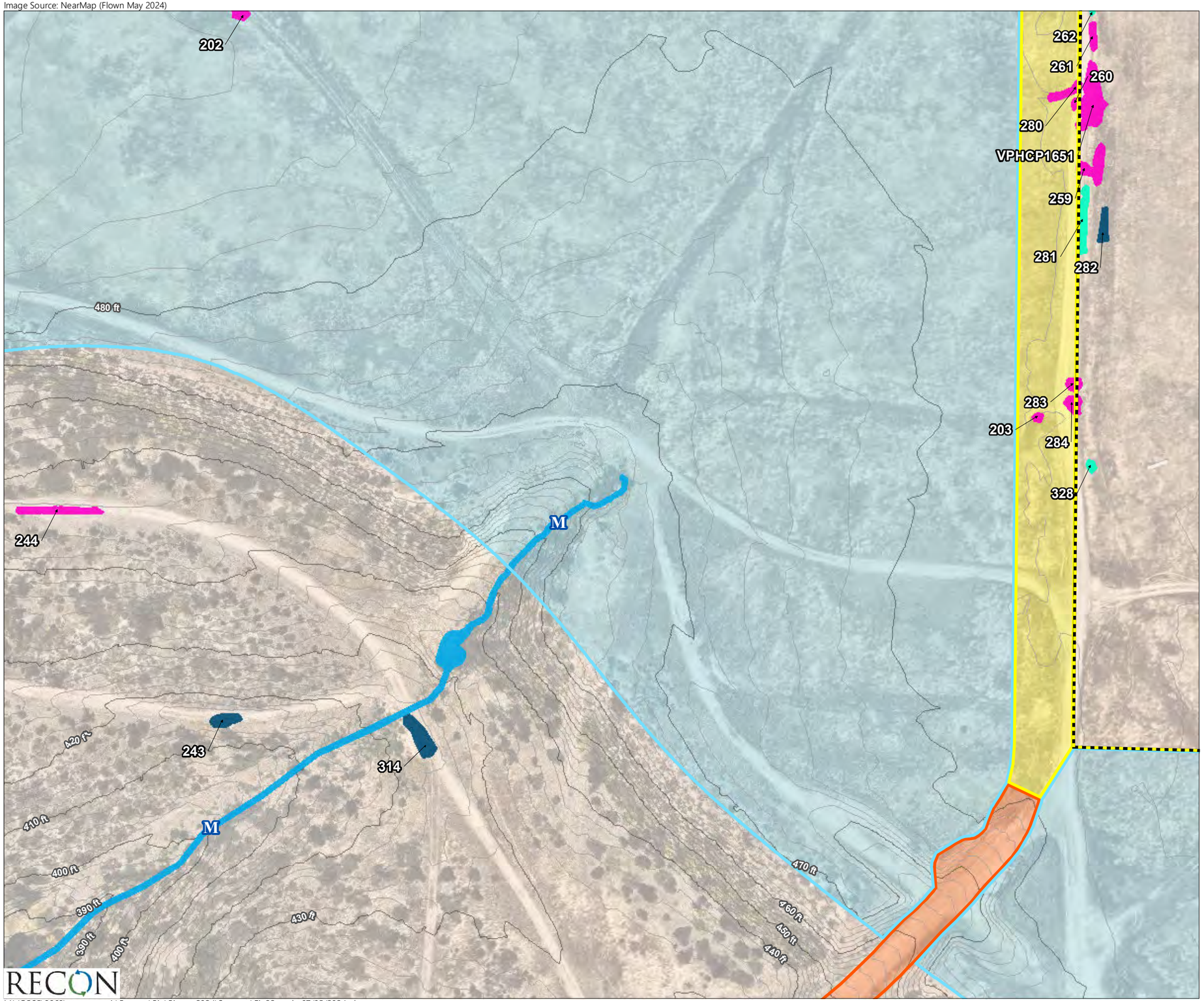
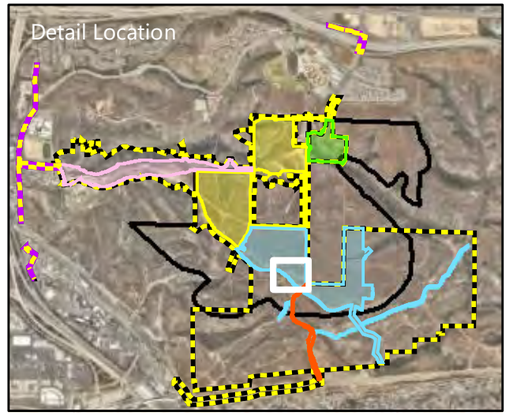
FIGURE 32.18
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)





- Specific Plan Boundary
- Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

Waters of the State (RWQCB)

- Vernal Pool (Waters ID)
- Vernal Pool with Fairy Shrimp (Waters ID)
- Wetland (Waters ID)

Waters of the State (CDFW & RWQCB)

- Non-Wetland Waters (Waters ID)

0 Feet 70

RECON

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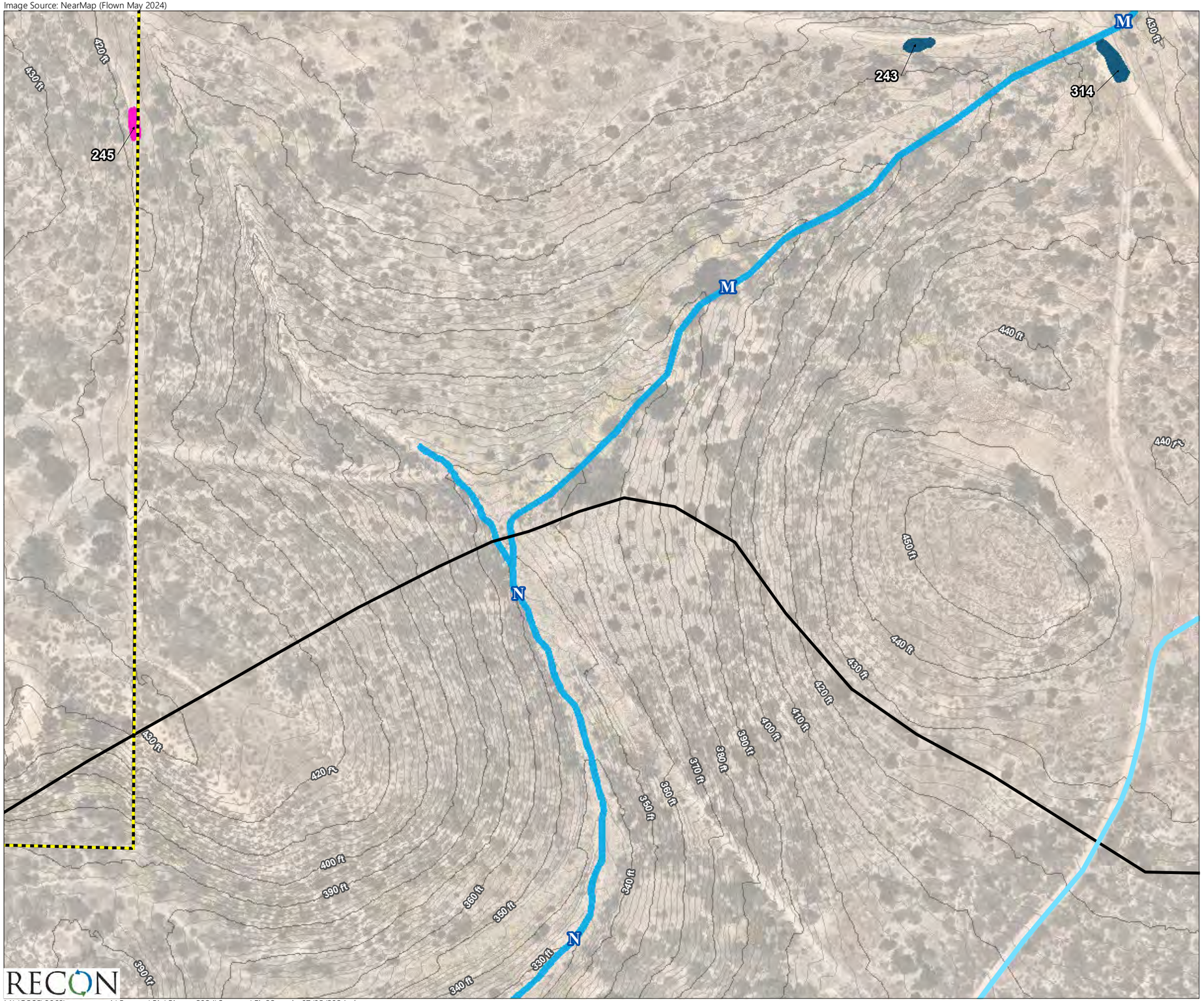
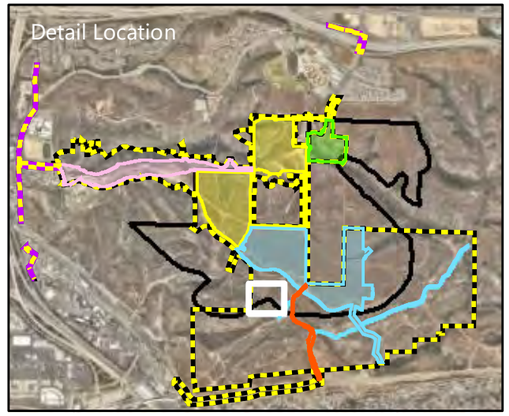
FIGURE 32.19
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

Waters of the State (RWQCB)

- Vernal Pool with Fairy Shrimp (Waters ID)
- Wetland (Waters ID)

Waters of the State (CDFW & RWQCB)

- Non-Wetland Waters (Waters ID)

0 Feet 70

RECON

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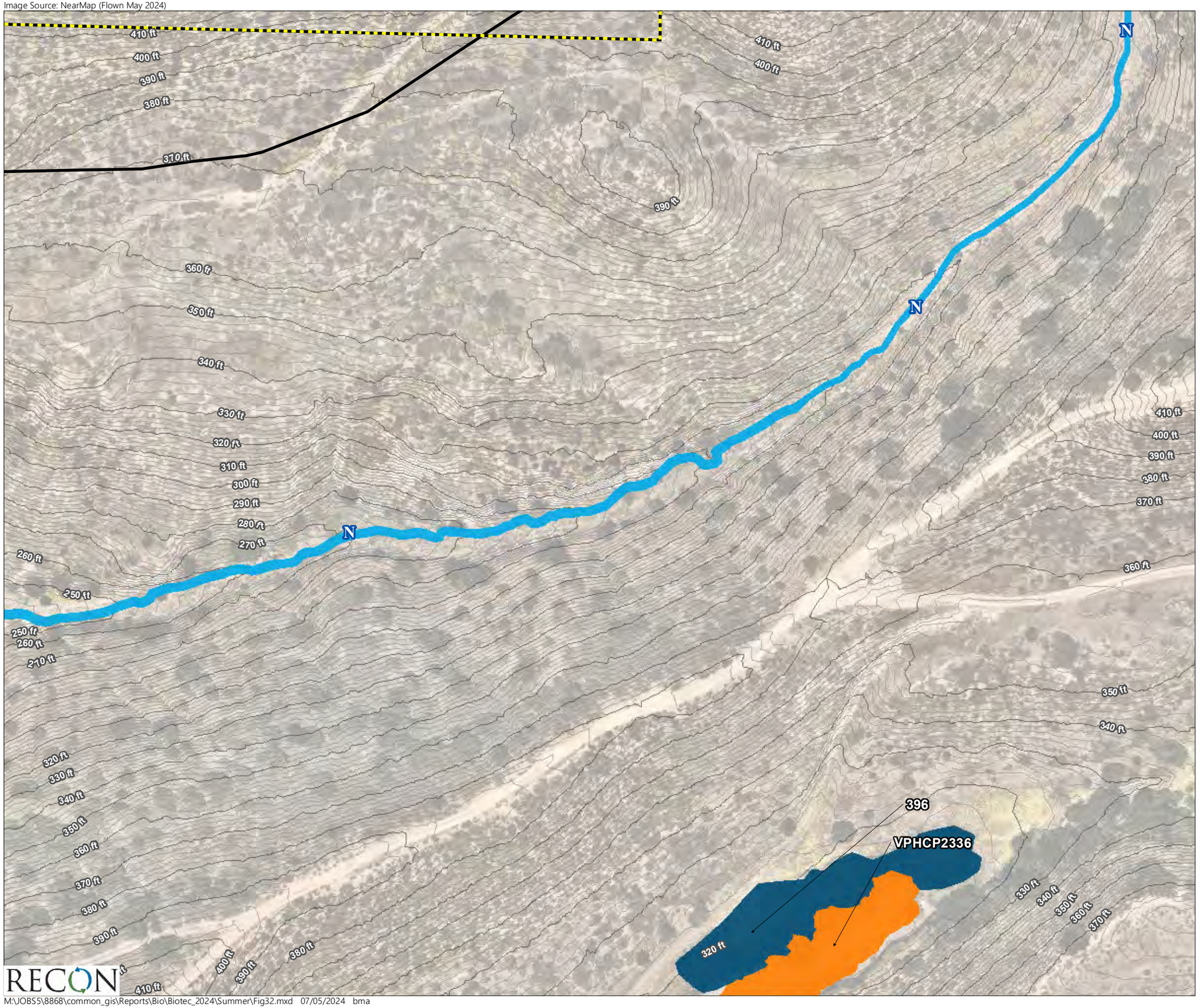
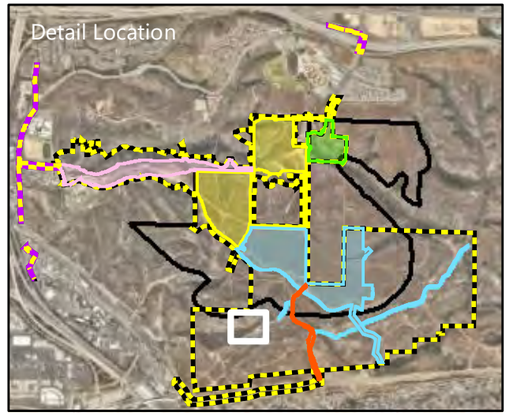
FIGURE 32.20
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

Waters of the State (RWQCB)

Seasonal Basin (Waters ID)

Wetland (Waters ID)

Waters of the State (CDFW & RWQCB)

Non-Wetland Waters (Waters ID)

0 Feet 70

RECON

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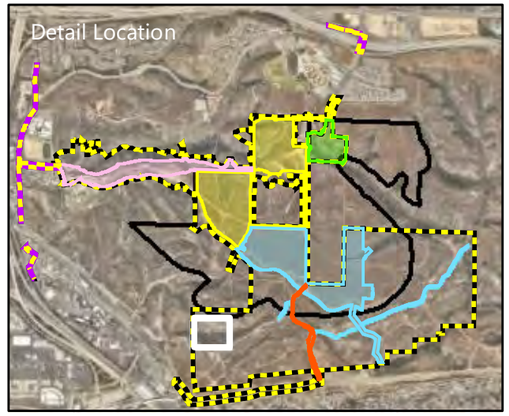
FIGURE 32.21
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)



Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

Waters of the State (CDFW & RWQCB)

Non-Wetland Waters (Waters ID)

0 Feet 70

FIGURE 32.22
Potential CDFW and RWQCB
Waters of the State

RECON

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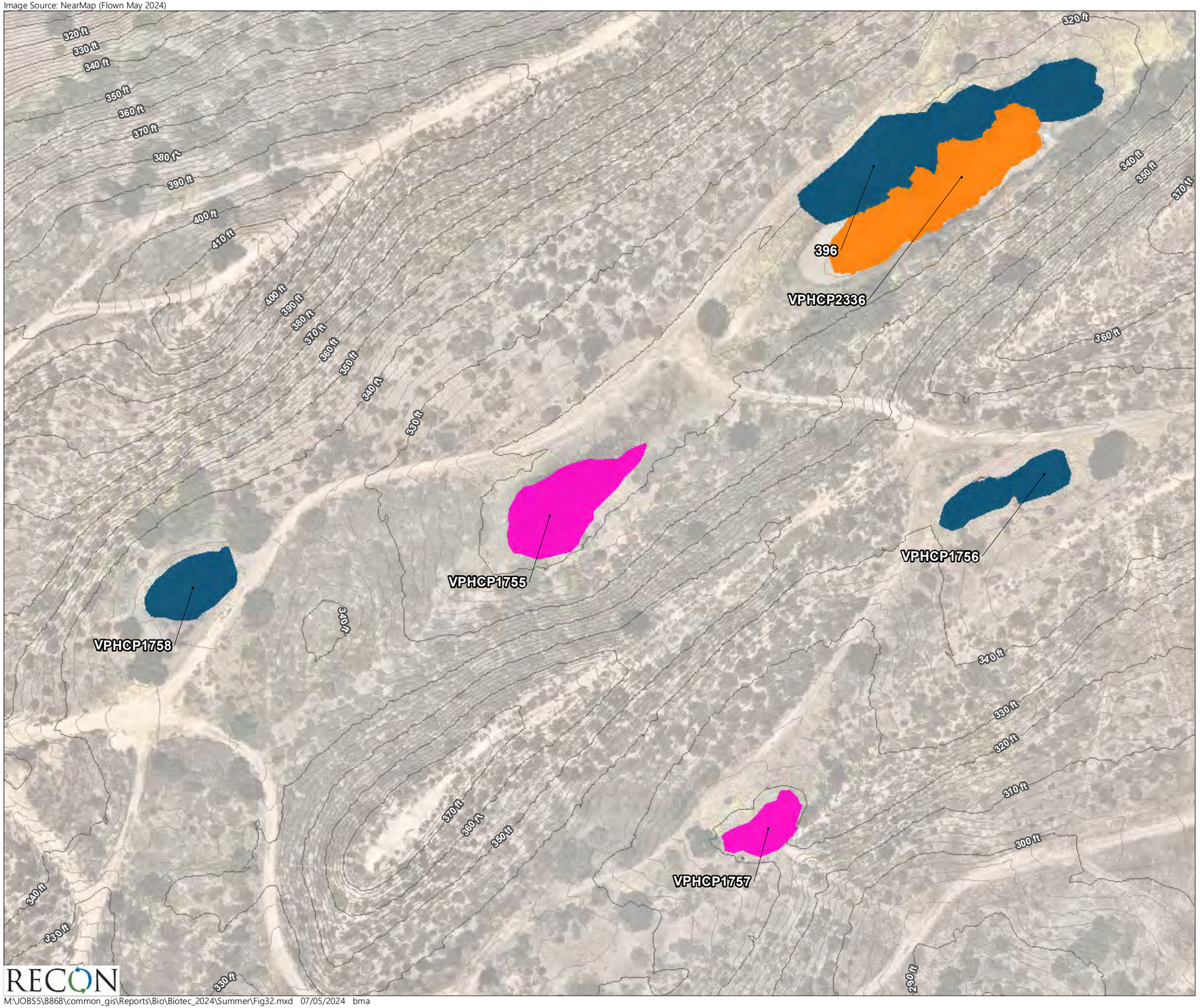
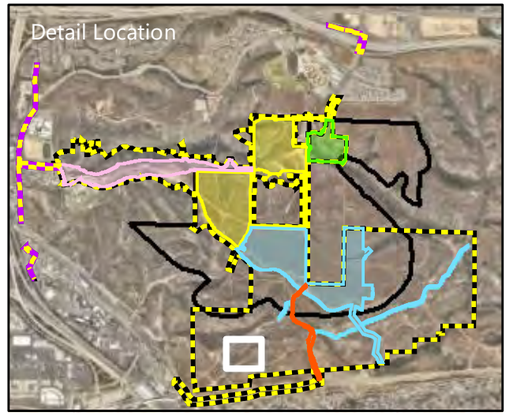
Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

Waters of the State (RWQCB)

Vernal Pool with Fairy Shrimp (Waters ID)

Seasonal Basin (Waters ID)

Wetland (Waters ID)

0 Feet 70

RECON

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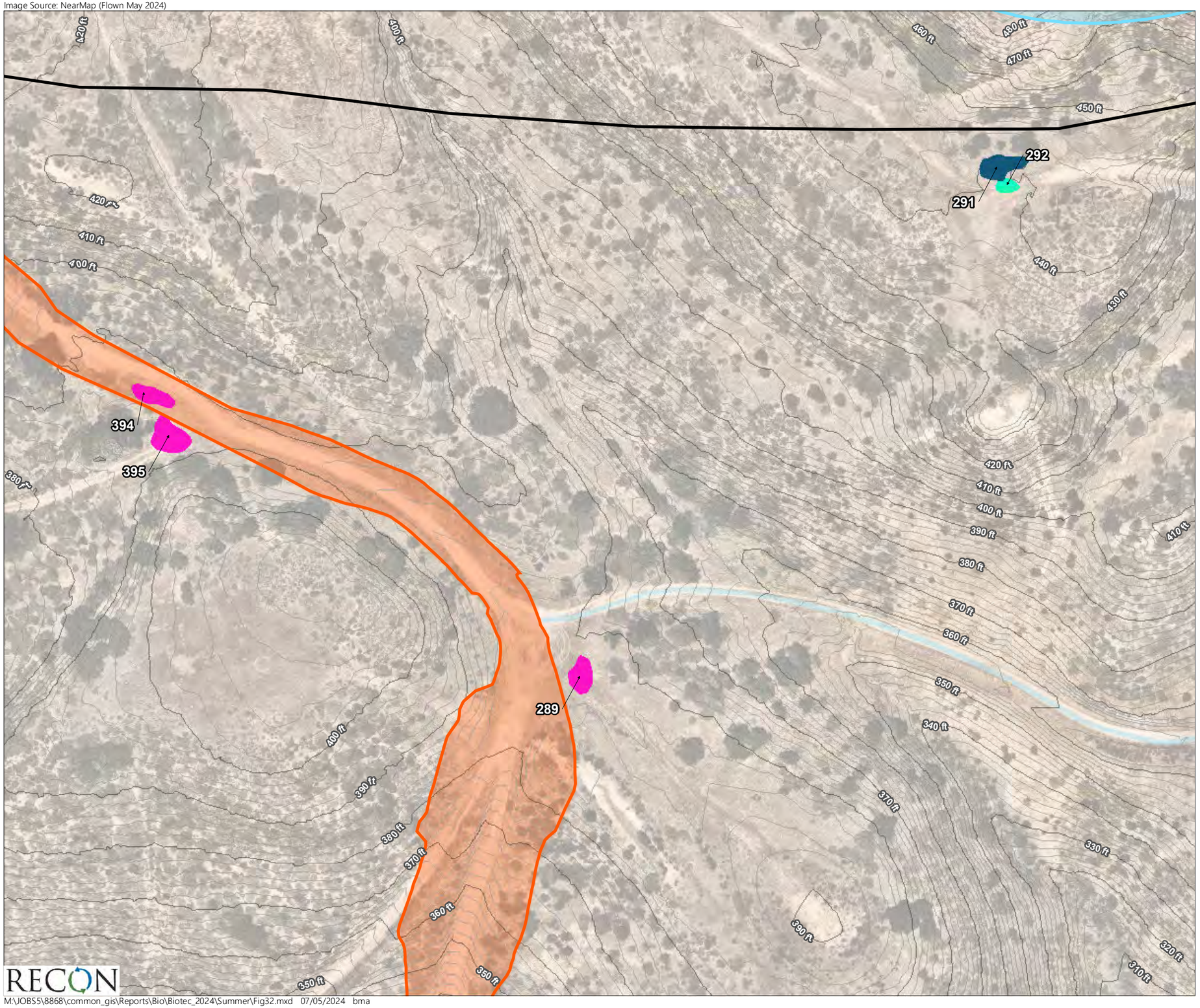
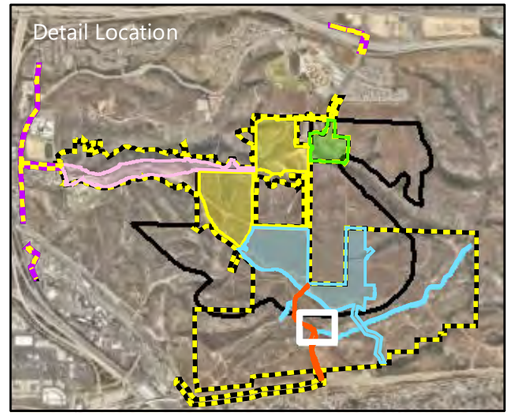
FIGURE 32.23
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

Waters of the State (RWQCB)

Vernal Pool (Waters ID)

Vernal Pool with Fairy Shrimp (Waters ID)

Wetland (Waters ID)

0 Feet 70

RECON

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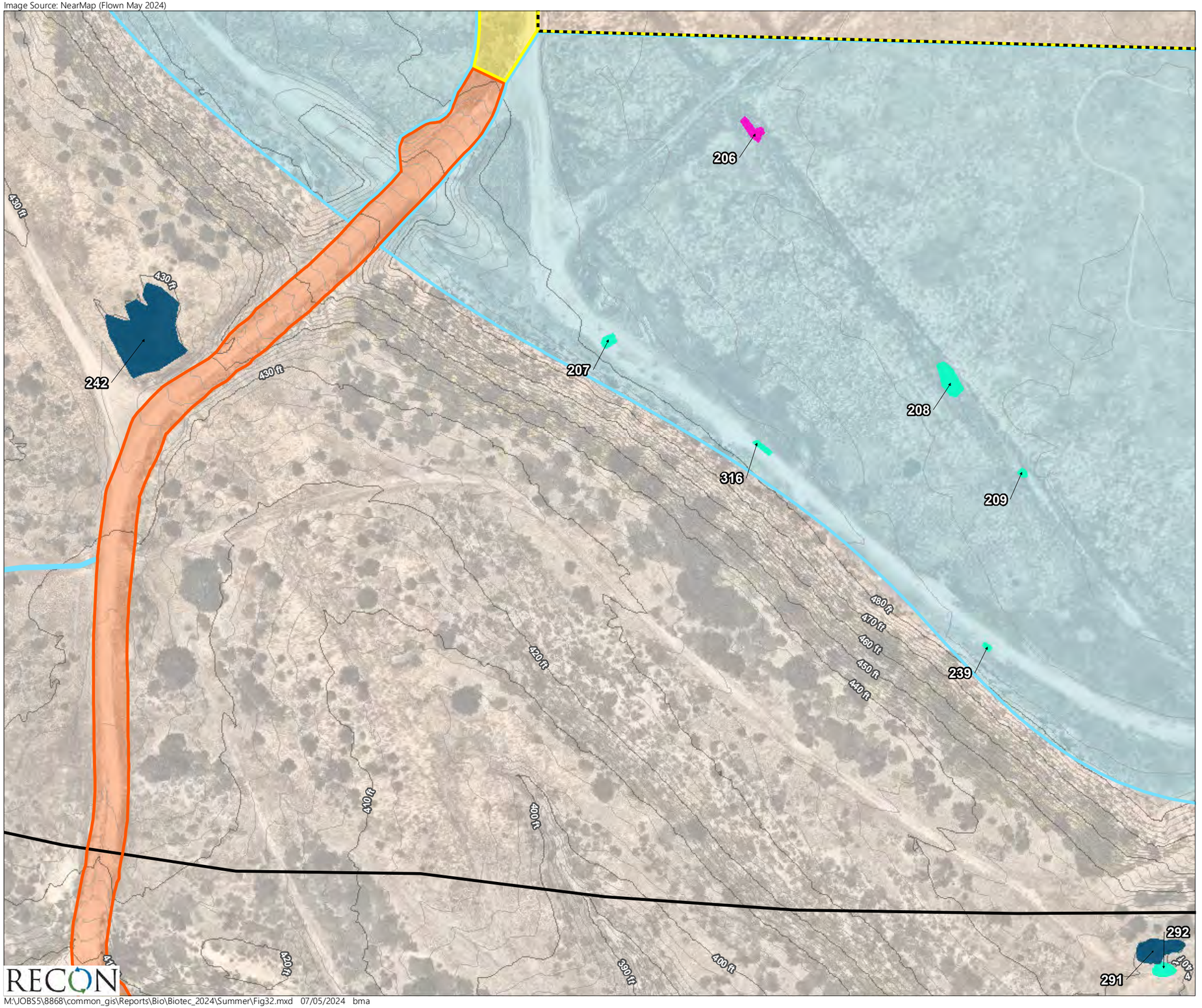
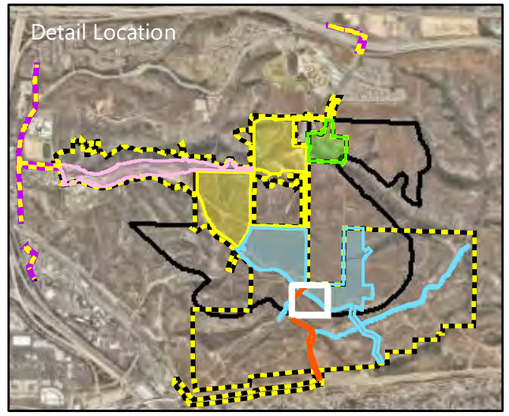
FIGURE 32.24
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary
Project-level Survey Area

Project-level Phasing

Phase 1
Phase 2
Phase 4
Beyer Boulevard
Emergency Vehicle Access
Off-site Improvements

Waters of the State (RWQCB)

Vernal Pool (Waters ID)
Vernal Pool with Fairy Shrimp (Waters ID)
Wetland (Waters ID)

0 Feet 70

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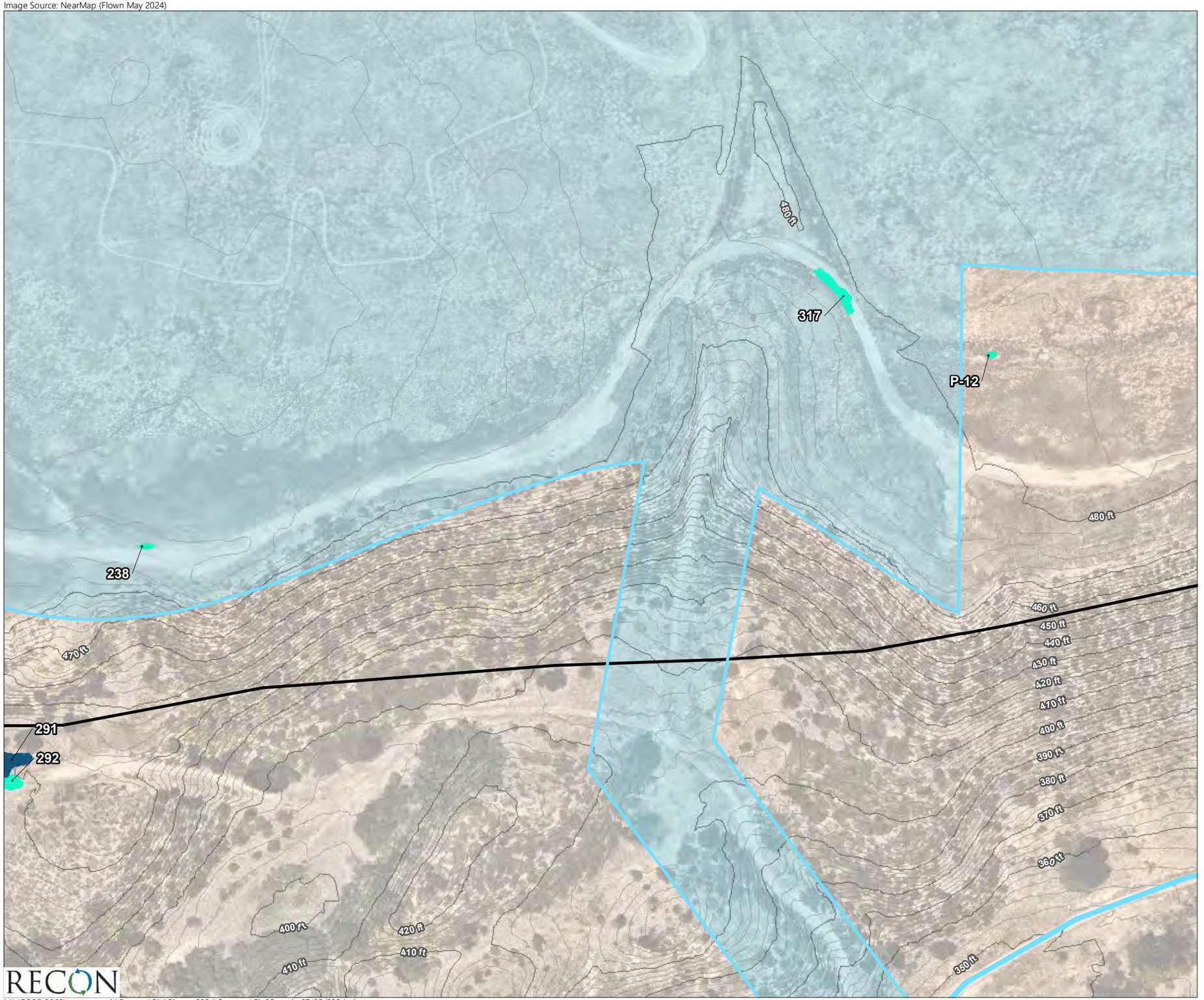
FIGURE 32.25
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)



RECON

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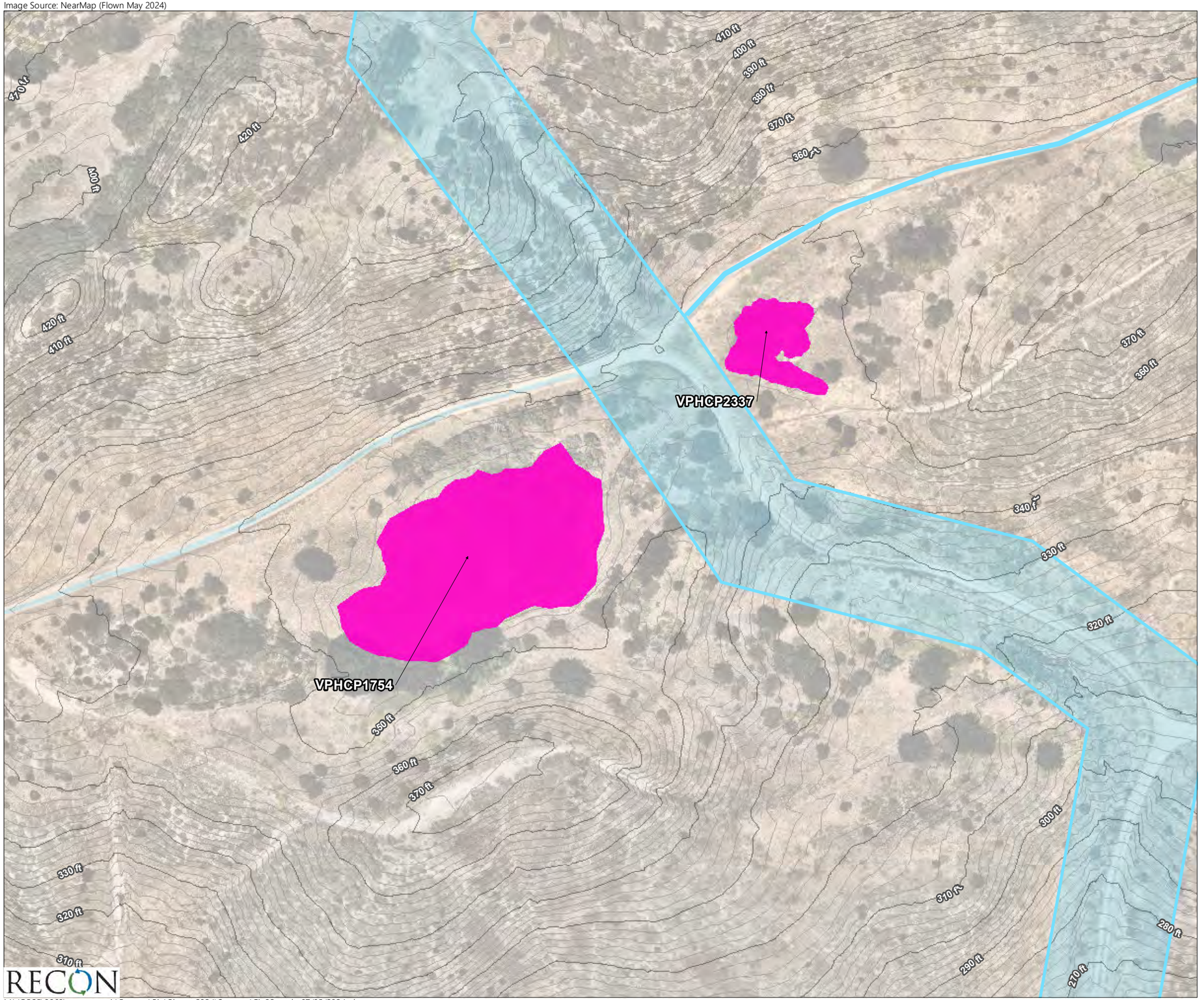
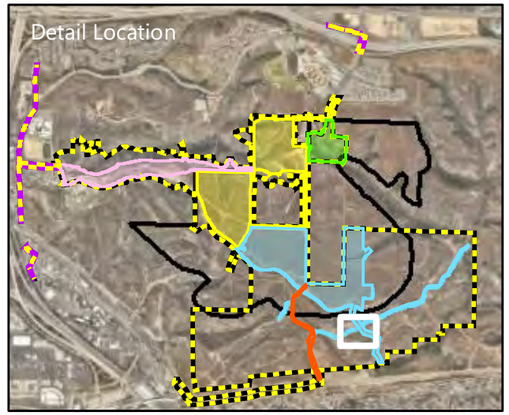
FIGURE 32.26
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

Waters of the State (RWQCB)

Vernal Pool with Fairy Shrimp (Waters ID)

0 Feet 70

RECON

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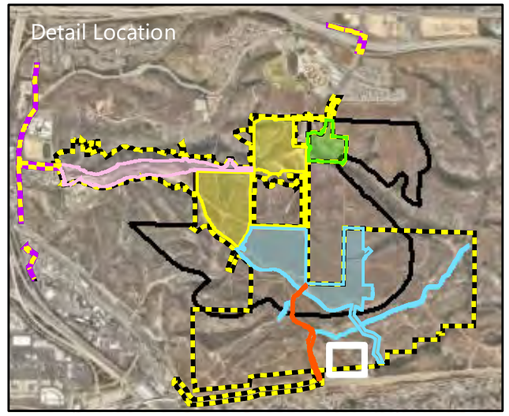
FIGURE 32.27
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)



Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

Waters of the State (CDFW & RWQCB)

Non-Wetland Waters (Waters ID)

0 Feet 70

RECON

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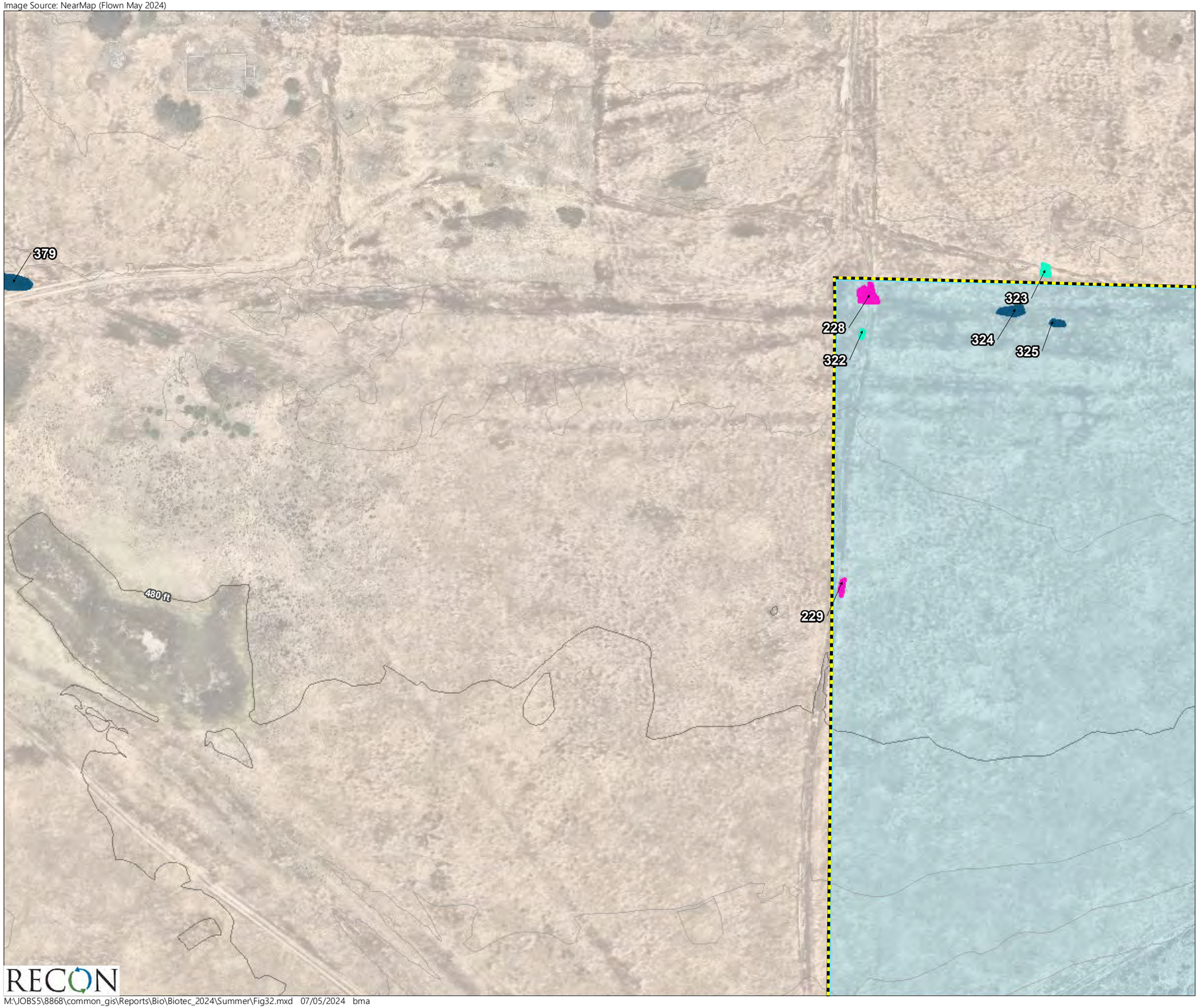
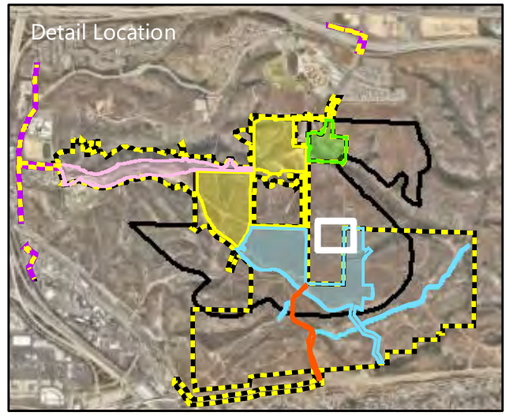
FIGURE 32.28
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary
Project-level Survey Area

Project-level Phasing

Phase 1
Phase 2
Phase 4
Beyer Boulevard
Emergency Vehicle Access
Off-site Improvements

Waters of the State (RWQCB)

Vernal Pool (Waters ID)
Vernal Pool with Fairy Shrimp (Waters ID)
Wetland (Waters ID)

0 Feet 70

RECON

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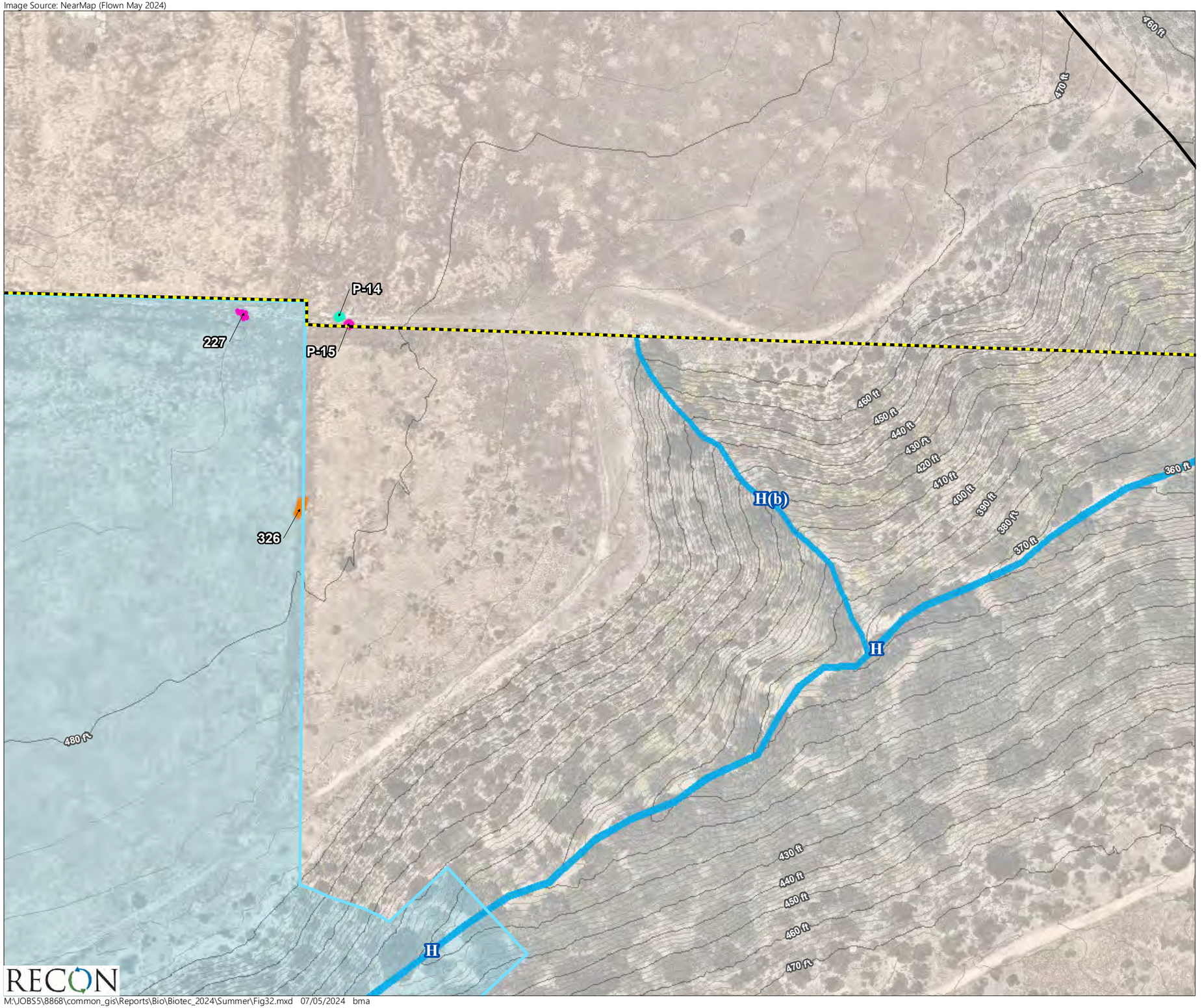
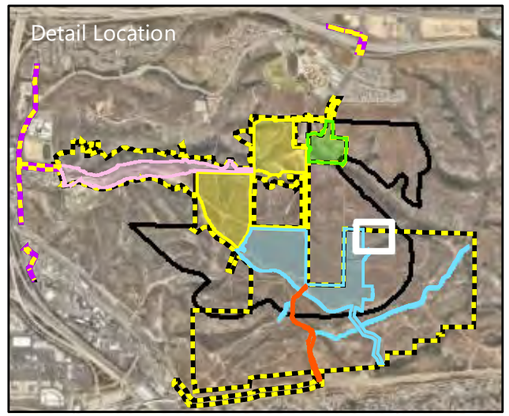
FIGURE 32.29
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary
Project-level Survey Area

Project-level Phasing

Phase 1
Phase 2
Phase 4
Beyer Boulevard
Emergency Vehicle Access
Off-site Improvements

Waters of the State (RWQCB)

Vernal Pool (Waters ID)
Vernal Pool with Fairy Shrimp (Waters ID)
Seasonal Basin (Waters ID)

Waters of the State (CDFW & RWQCB)

Non-Wetland Waters (Waters ID)

0 Feet 70

RECON

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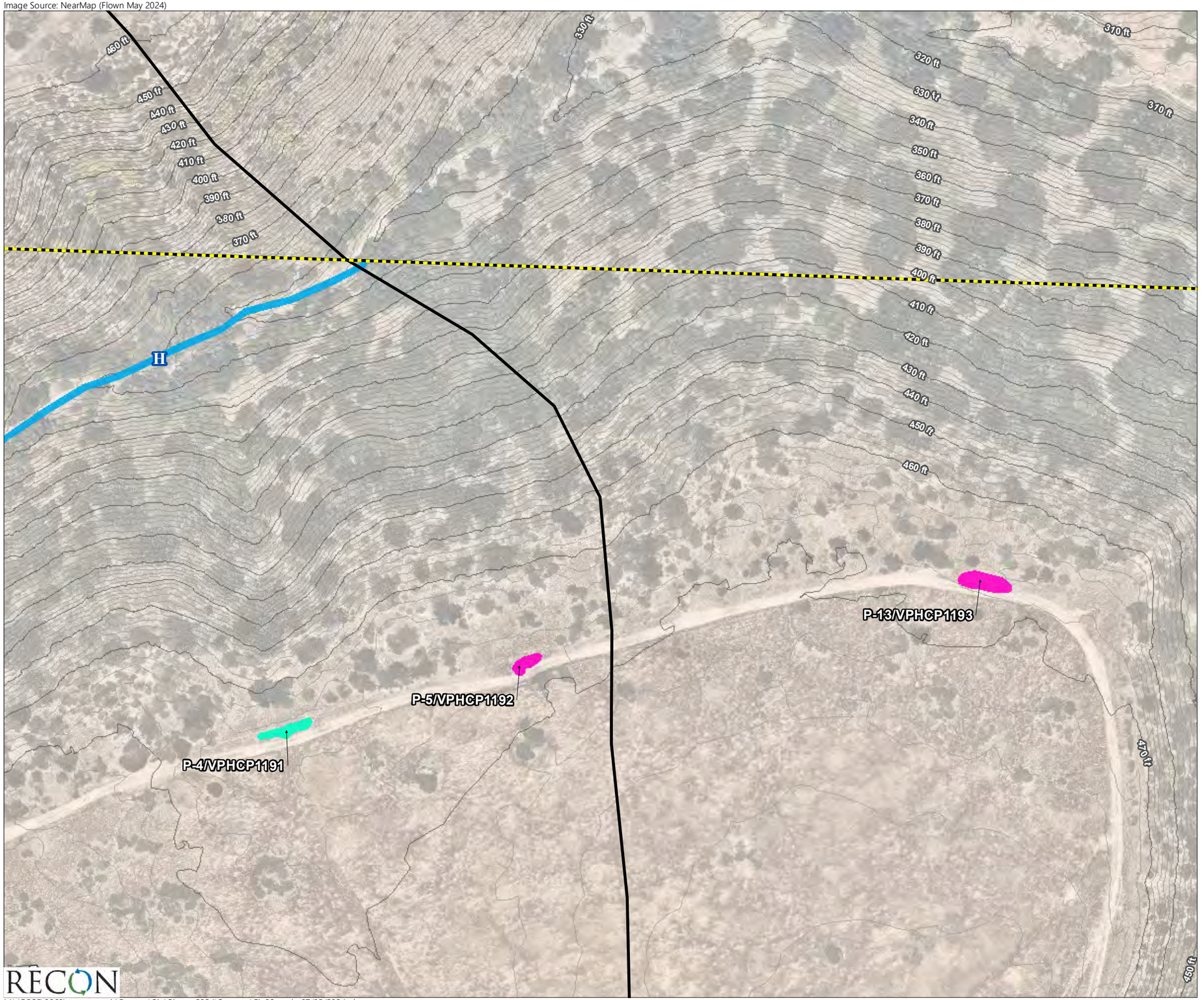
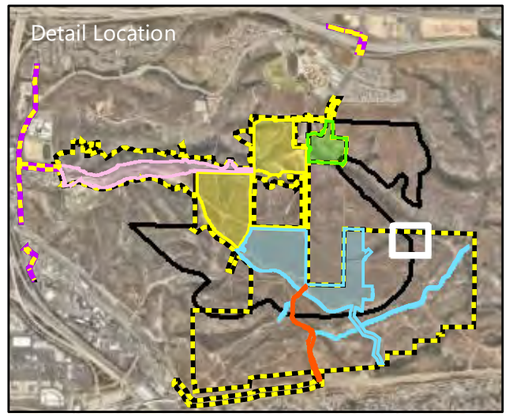
FIGURE 32.30
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

Waters of the State (RWQCB)

Vernal Pool (Waters ID)

Vernal Pool with Fairy Shrimp (Waters ID)

Waters of the State (CDFW & RWQCB)

Non-Wetland Waters (Waters ID)

0 Feet 70

RECON

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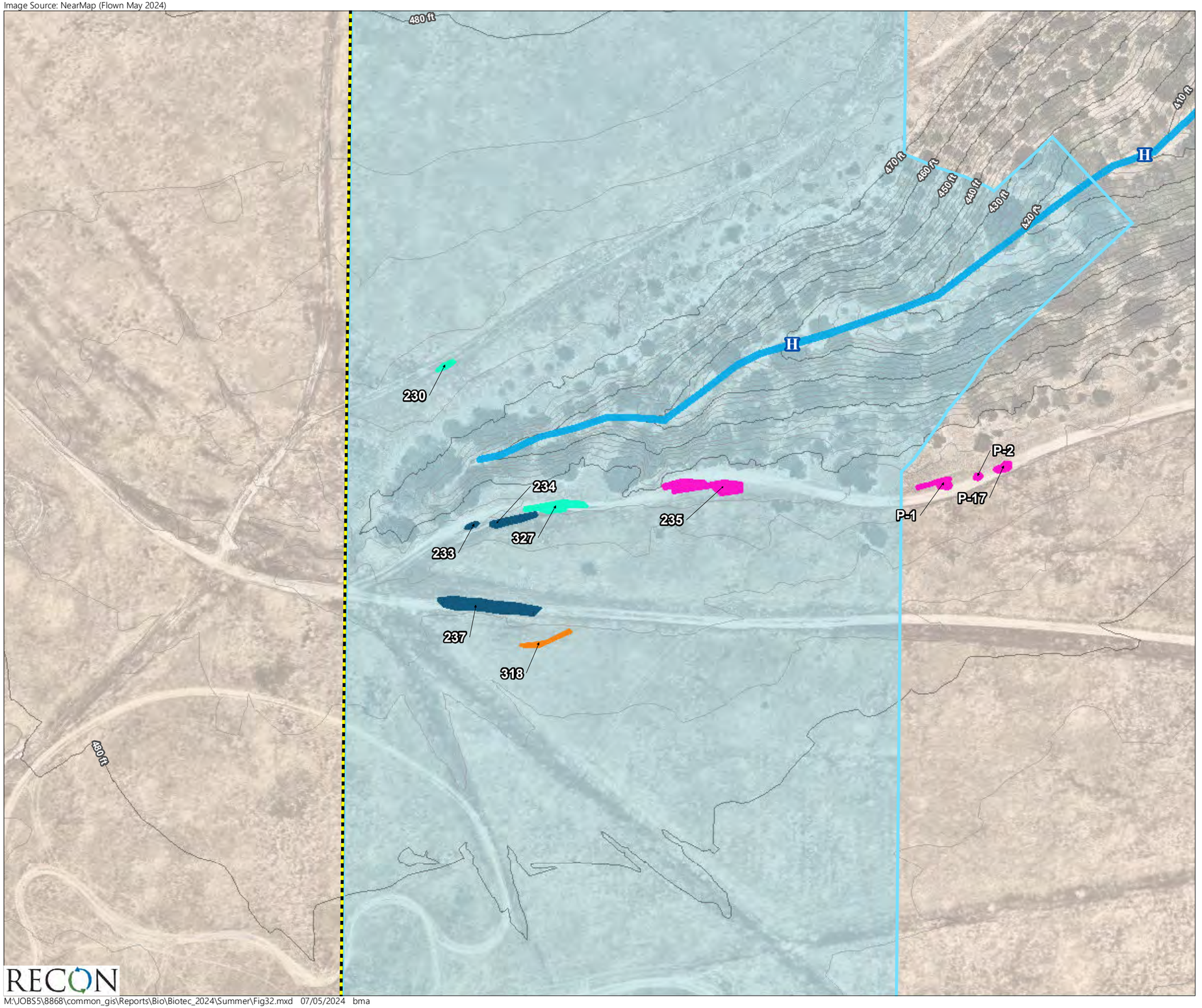
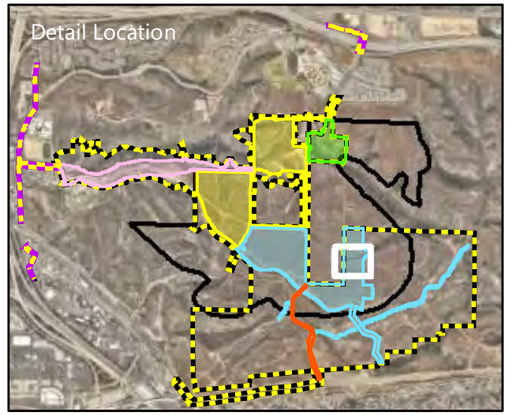
FIGURE 32.31
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

Waters of the State (RWQCB)

- Vernal Pool (Waters ID)
- Vernal Pool with Fairy Shrimp (Waters ID)
- Seasonal Basin (Waters ID)
- Wetland (Waters ID)

Waters of the State (CDFW & RWQCB)

- Non-Wetland Waters (Waters ID)

0 Feet 70

RECON

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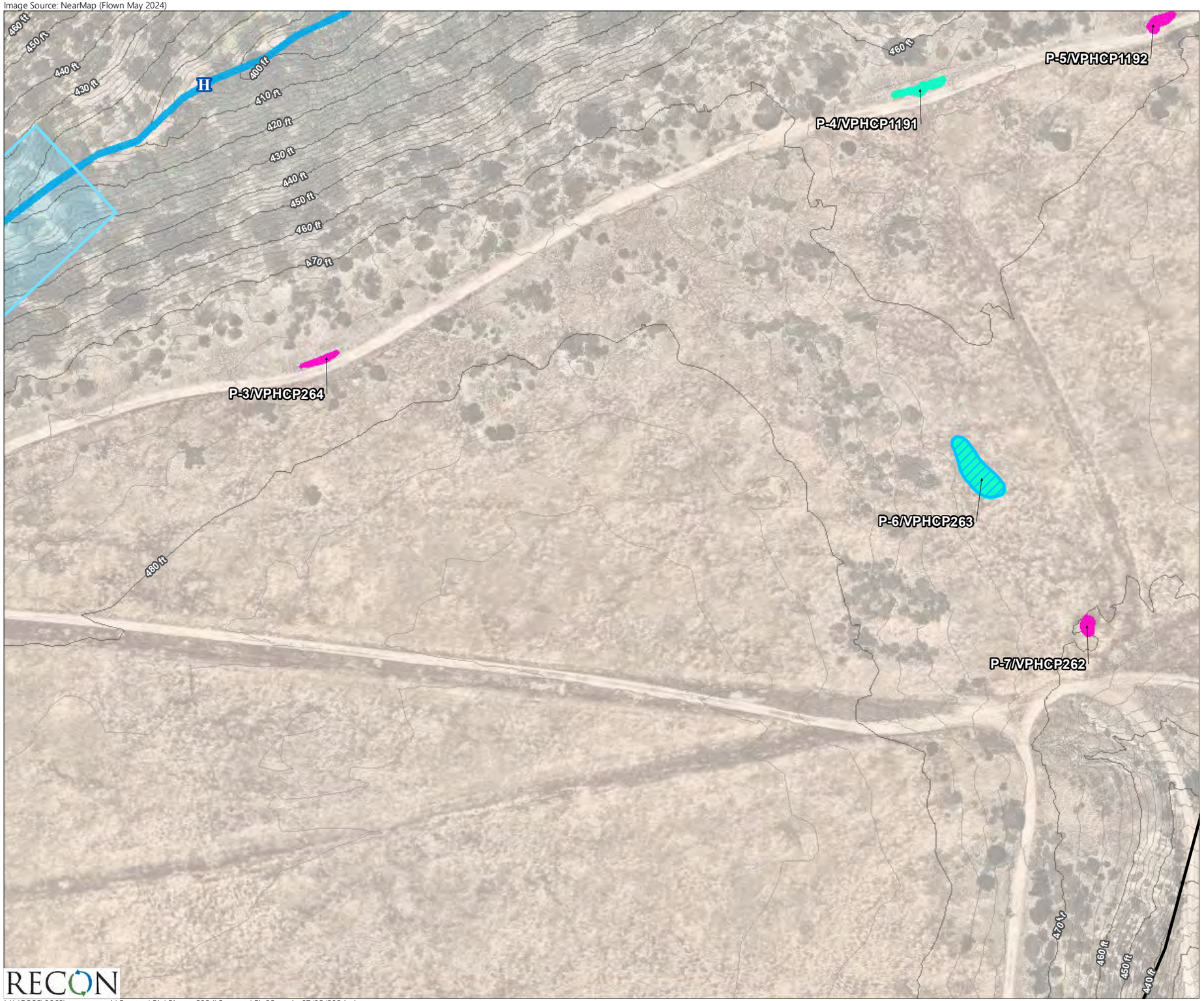
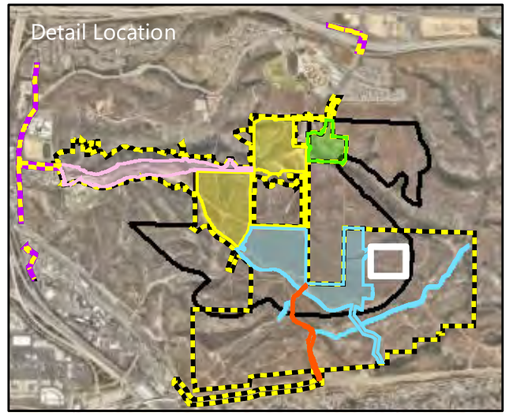
FIGURE 32.32
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary
Project-level Survey Area

Project-level Phasing

Phase 1
Phase 2
Phase 4
Beyer Boulevard
Emergency Vehicle Access
Off-site Improvements

Waters of the State (RWQCB)

Vernal Pool (Waters ID)
Vernal Pool with Fairy Shrimp (Waters ID)

Waters of the State (CDFW & RWQCB)

Non-Wetland Waters (Waters ID)
Vernal Pool (Waters ID)

0 Feet 70

RECON

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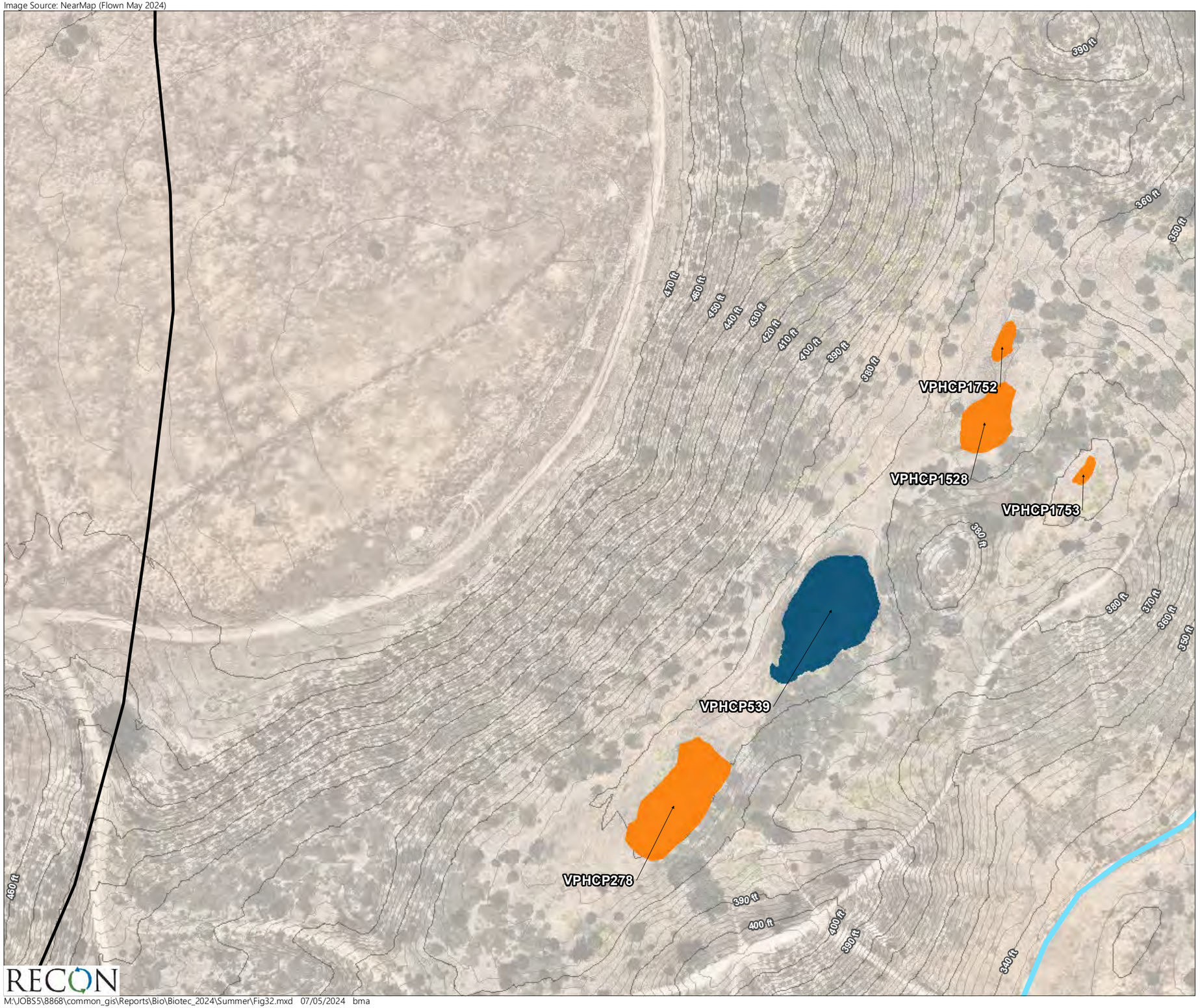
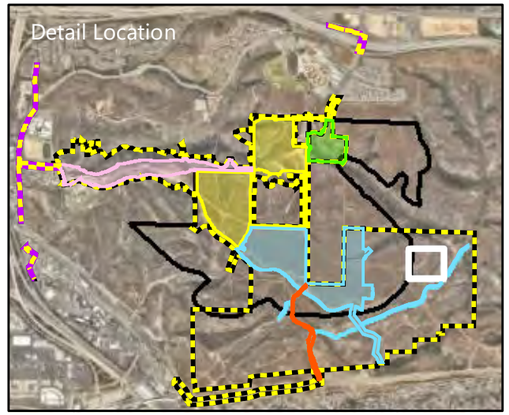
FIGURE 32.33
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary
Project-level Survey Area

Project-level Phasing

Phase 1
Phase 2
Phase 4
Beyer Boulevard
Emergency Vehicle Access
Off-site Improvements

Waters of the State (RWQCB)

Seasonal Basin (Waters ID)
Wetland (Waters ID)

0 Feet 70

RECON

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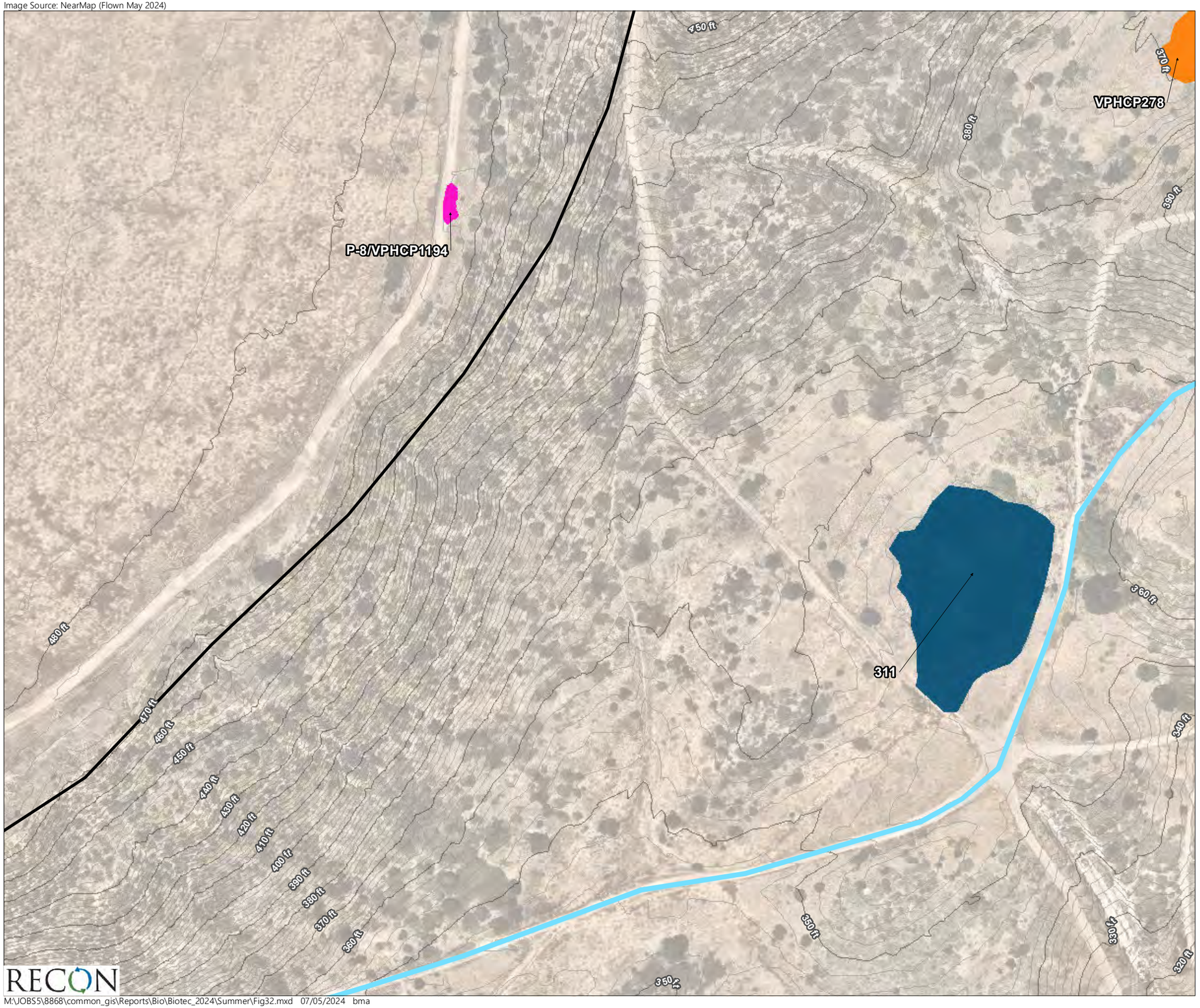
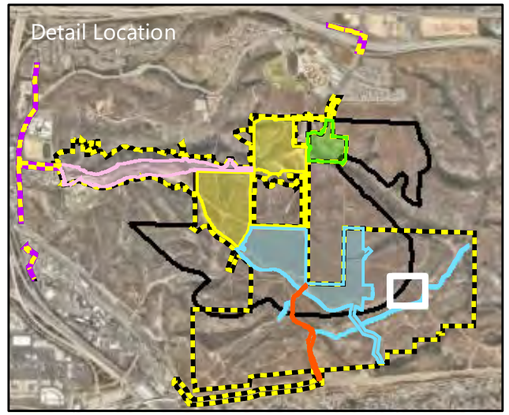
FIGURE 32.34
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

Waters of the State (RWQCB)

- Vernal Pool with Fairy Shrimp (Waters ID)
- Seasonal Basin (Waters ID)
- Wetland (Waters ID)

0 Feet 70

RECON

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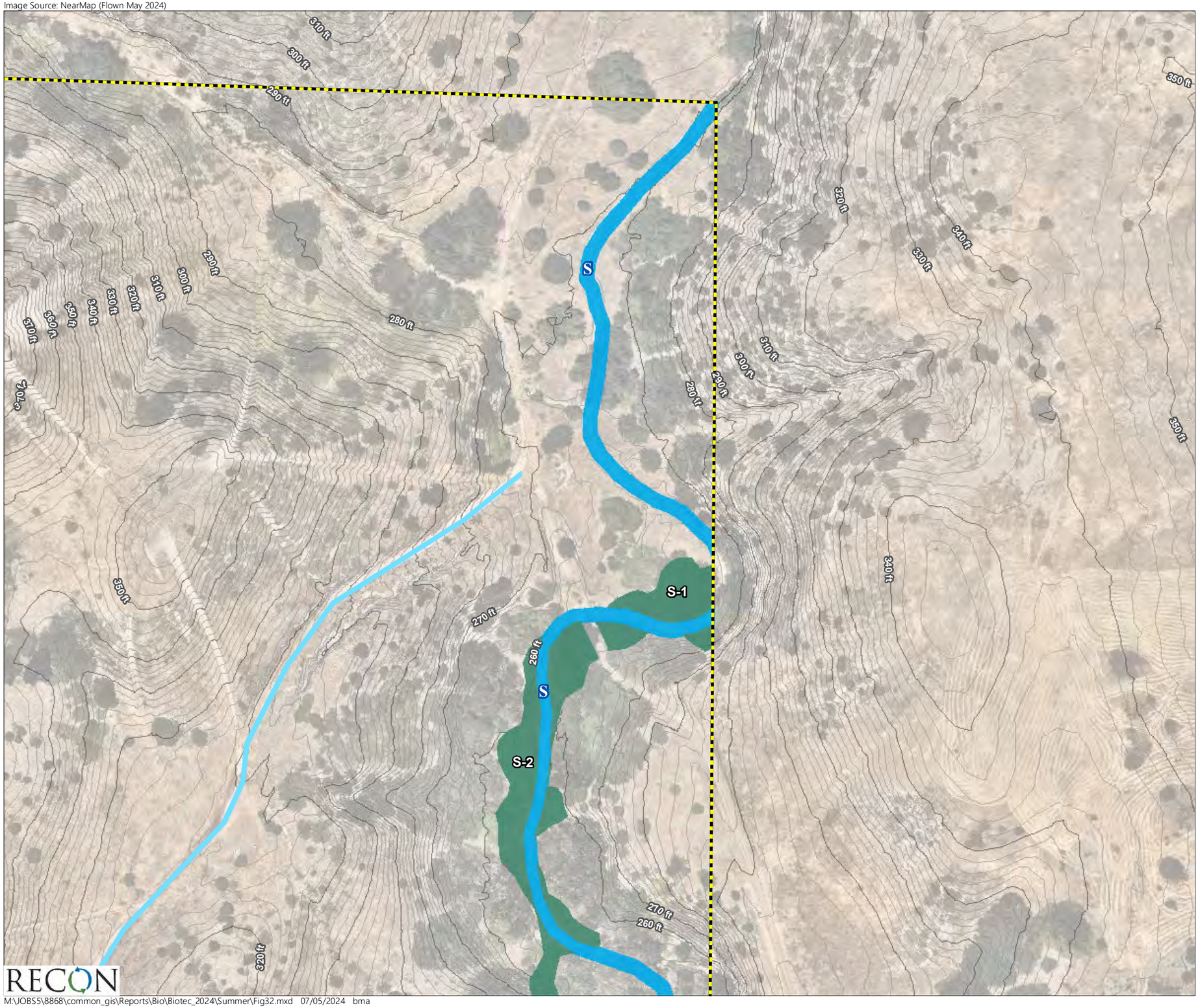
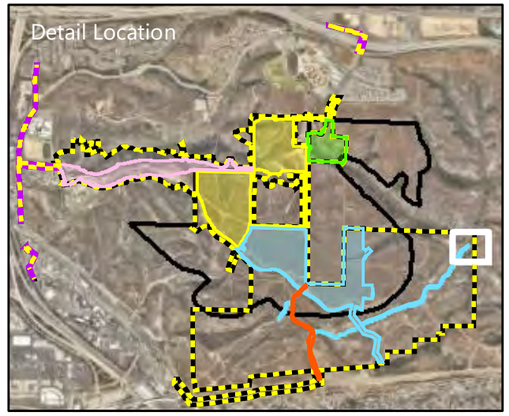
FIGURE 32.35
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

Waters of the State (CDFW)

- Wetland (Waters ID)

Waters of the State (CDFW & RWQCB)

- Non-Wetland Waters (Waters ID)

0 Feet 70

RECON

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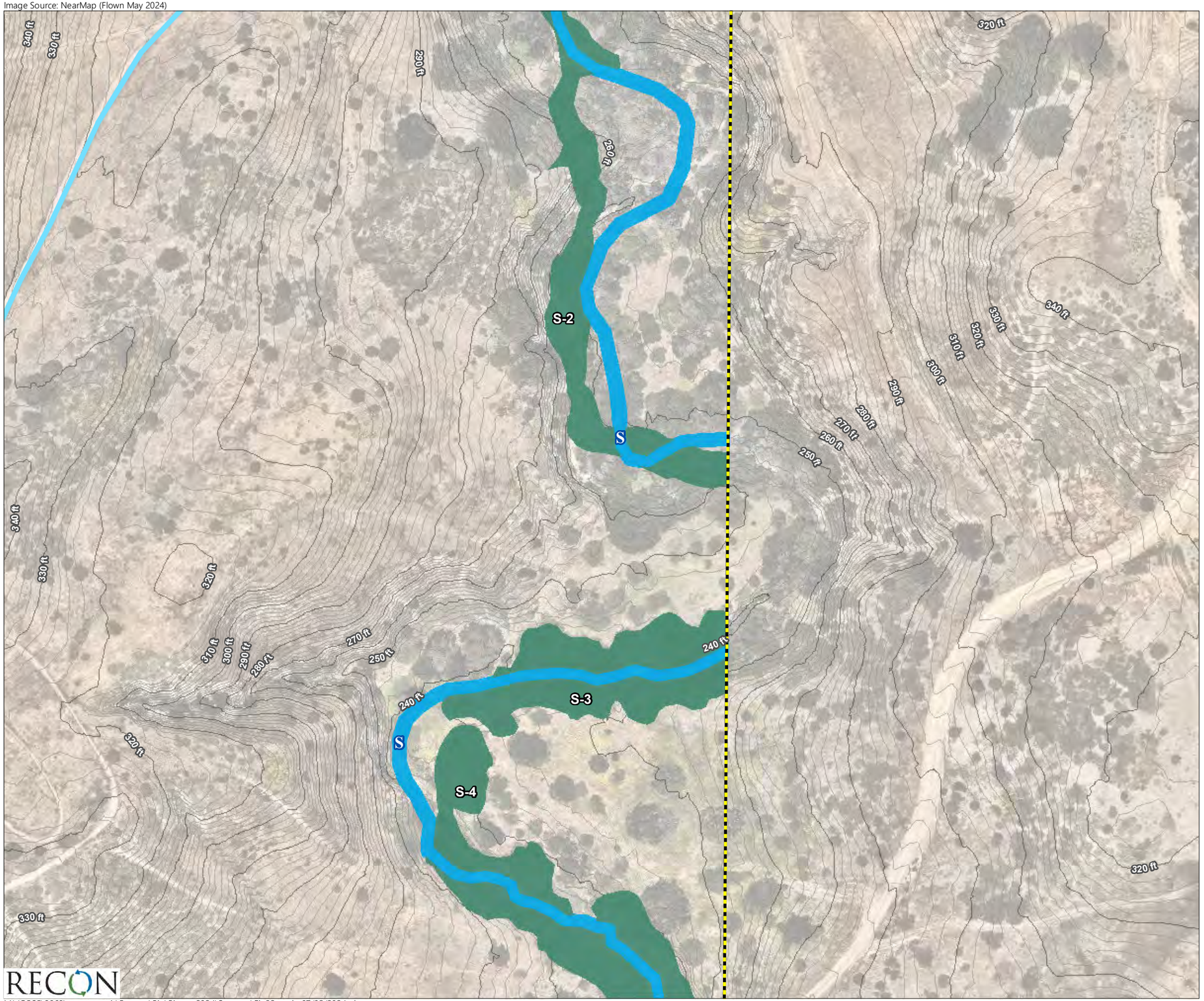
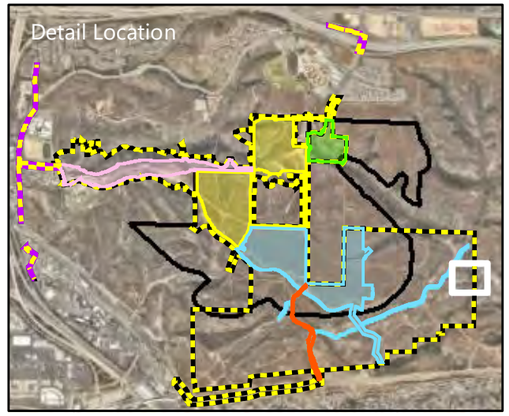
FIGURE 32.36
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

Waters of the State (CDFW)

Wetland (Waters ID)

Waters of the State (CDFW & RWQCB)

Non-Wetland Waters (Waters ID)

0 Feet 70

RECON

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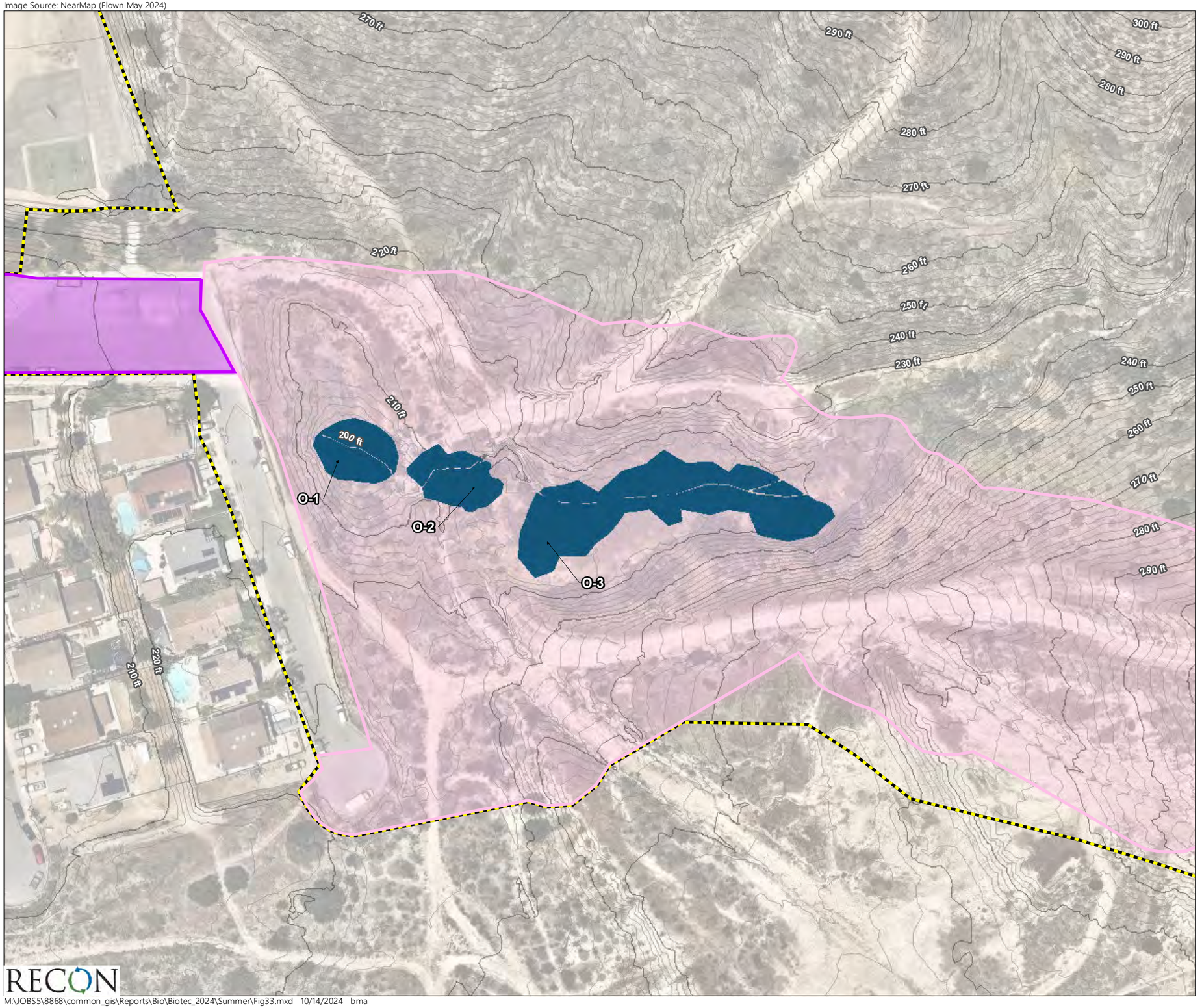
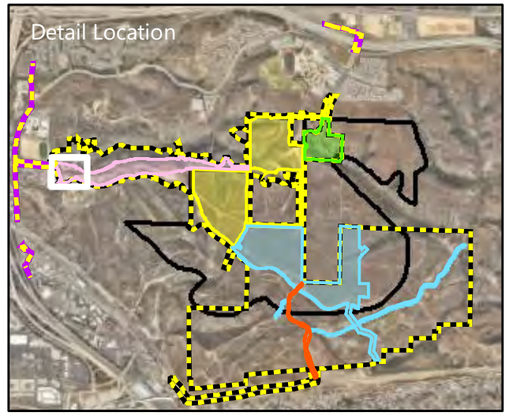
FIGURE 32.37
Potential CDFW and RWQCB
Waters of the State

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

City of San Diego Wetlands

Wetland (Waters ID)

0 Feet 70

RECON

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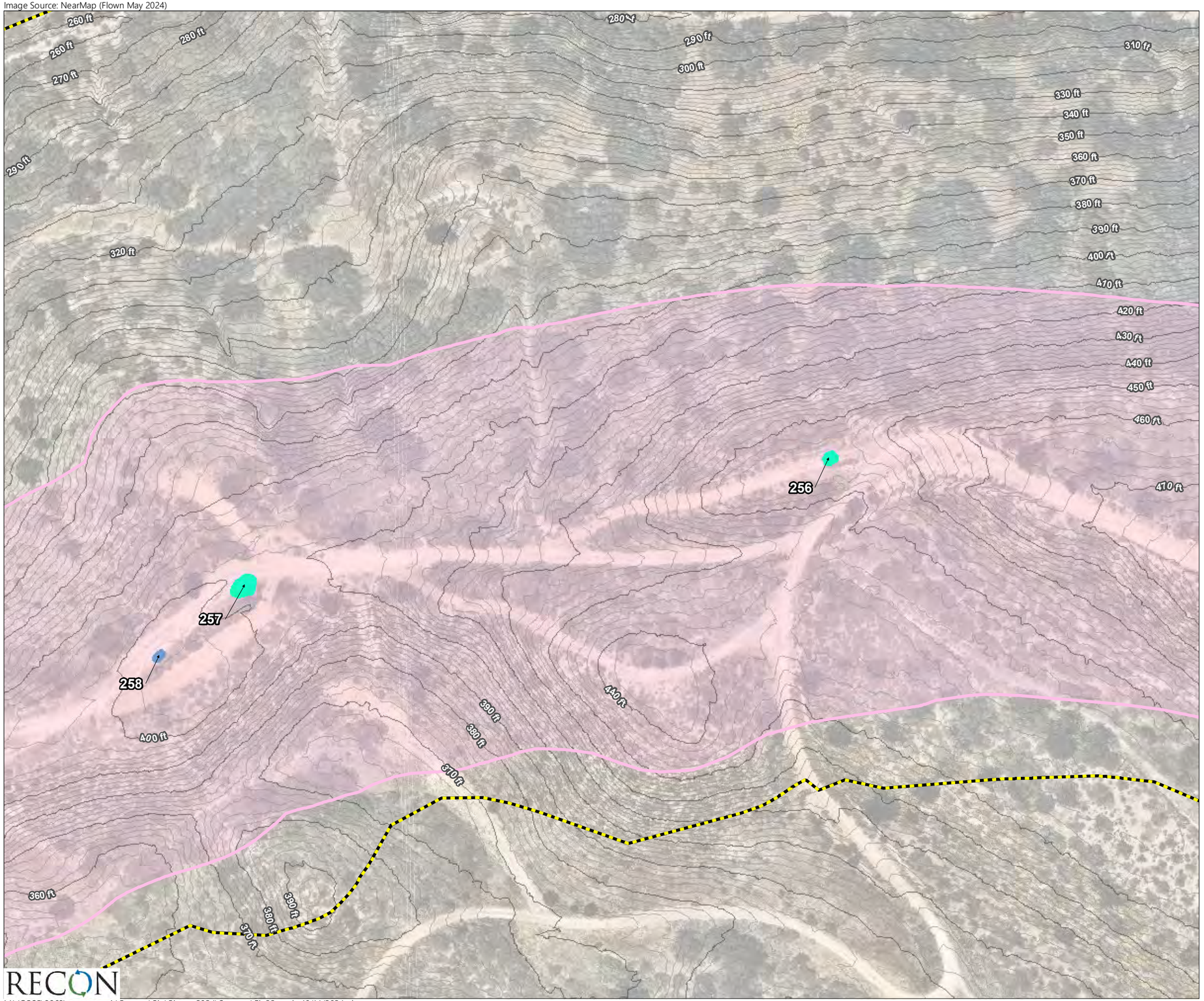
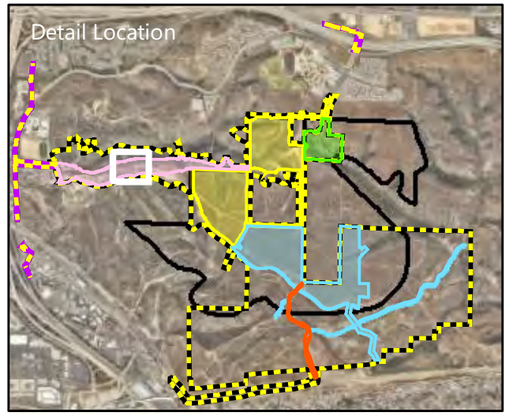
FIGURE 33.1
City of San Diego Wetlands

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

City of San Diego Wetlands

Vernal Pool (Waters ID)

Disturbed Wetland (Waters ID)

0 Feet 70

RECON

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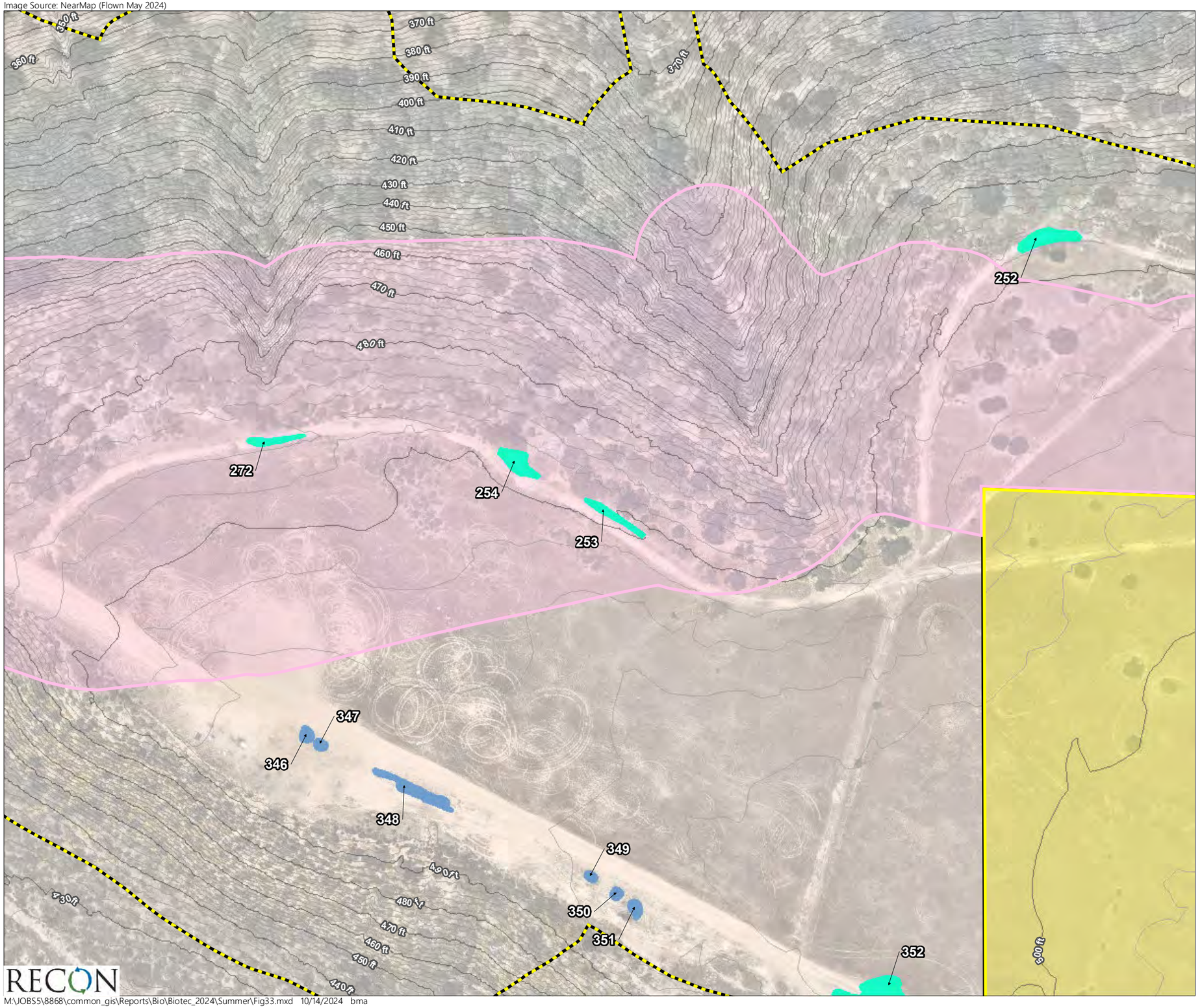
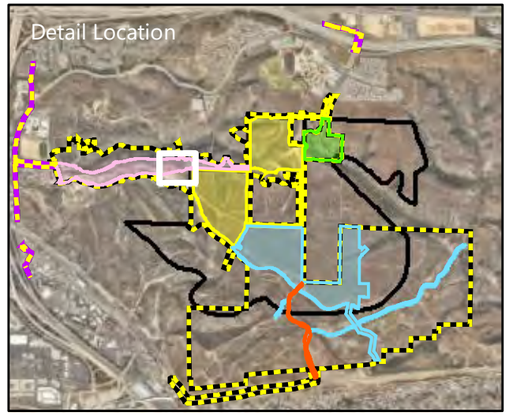
FIGURE 33.2
City of San Diego Wetlands

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

City of San Diego Wetlands

Vernal Pool (Waters ID)

Disturbed Wetland (Waters ID)

0 Feet 70

RECON

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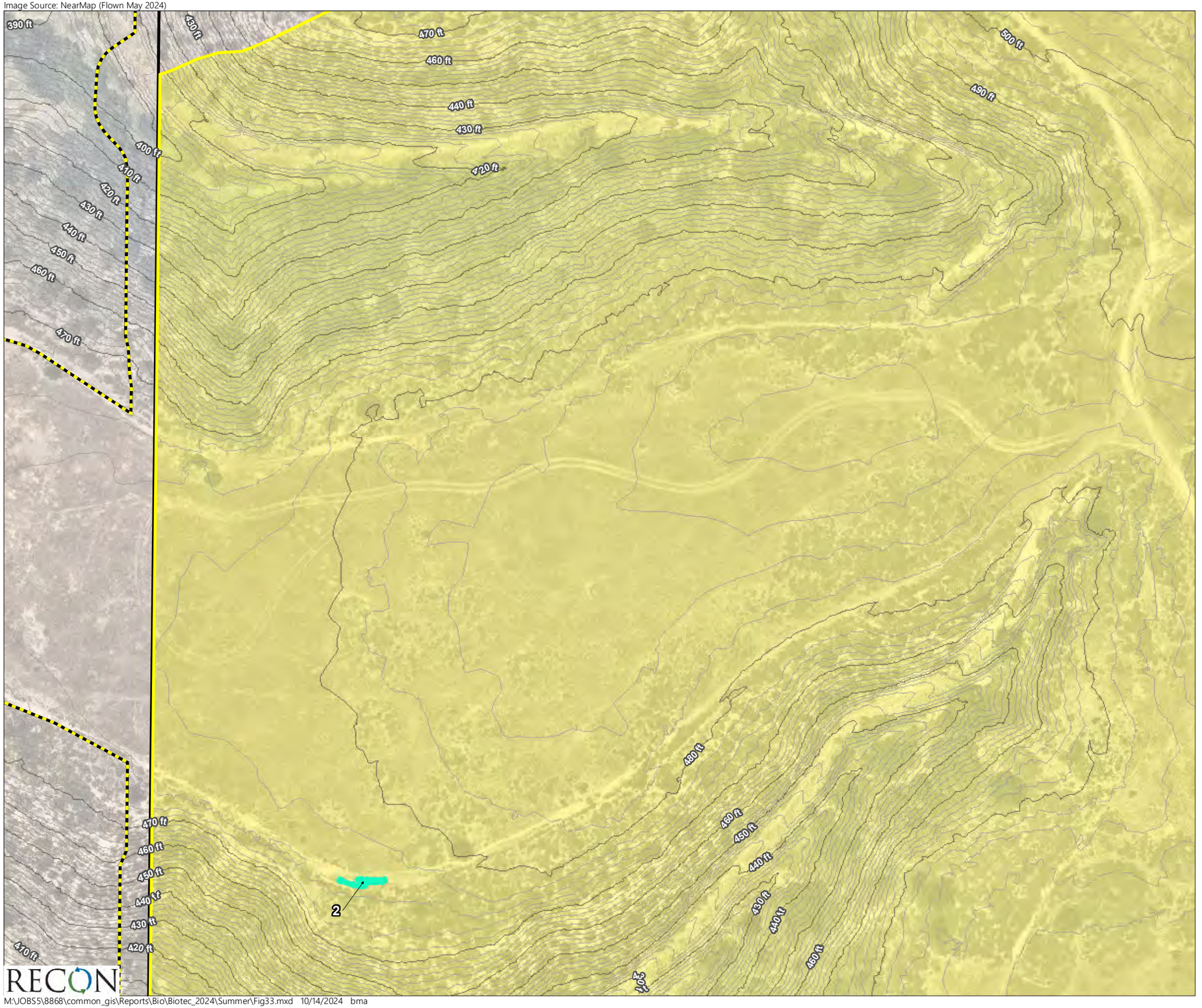
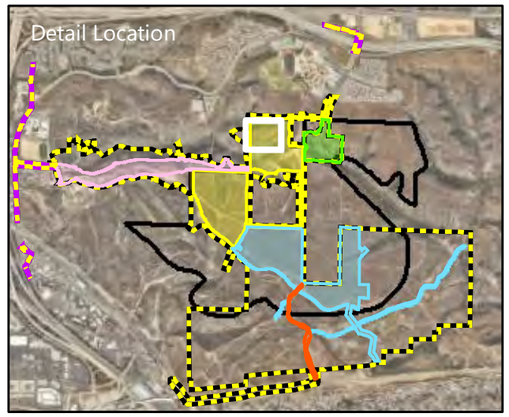
FIGURE 33.3
City of San Diego Wetlands

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

City of San Diego Wetlands

Vernal Pool (Waters ID)

0 Feet 70

RECON

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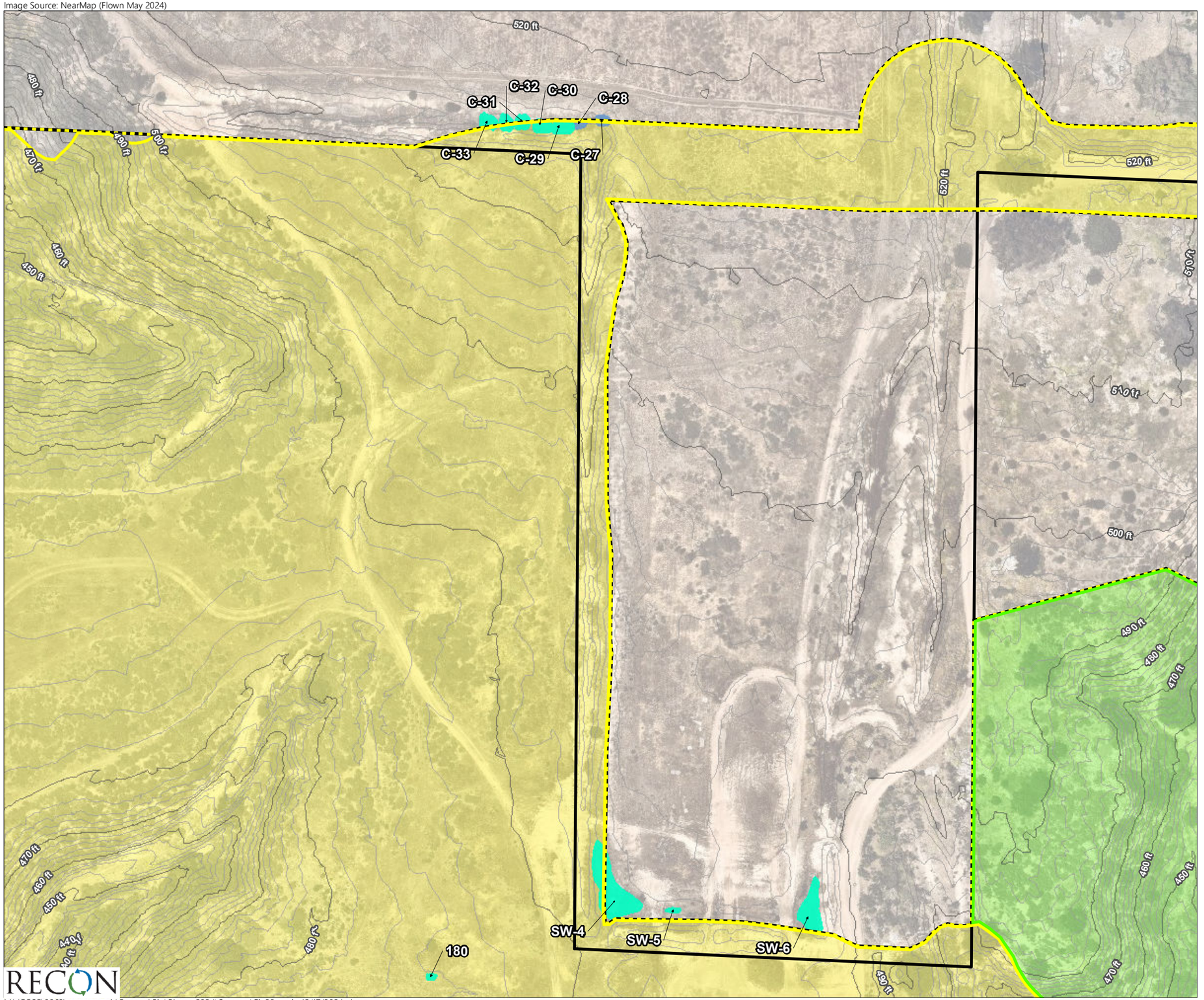
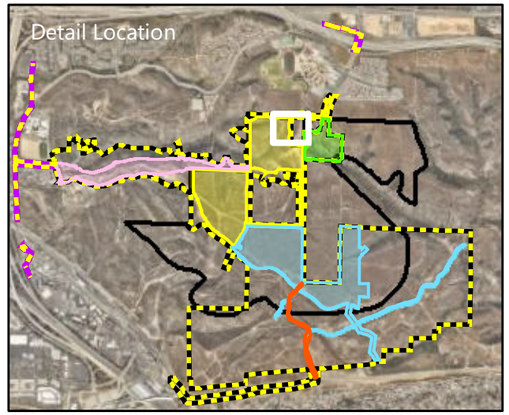
FIGURE 33.4
City of San Diego Wetlands

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

City of San Diego Wetlands

- Vernal Pool (Waters ID)
- Disturbed Wetland (Waters ID)

0 Feet 70

RECON

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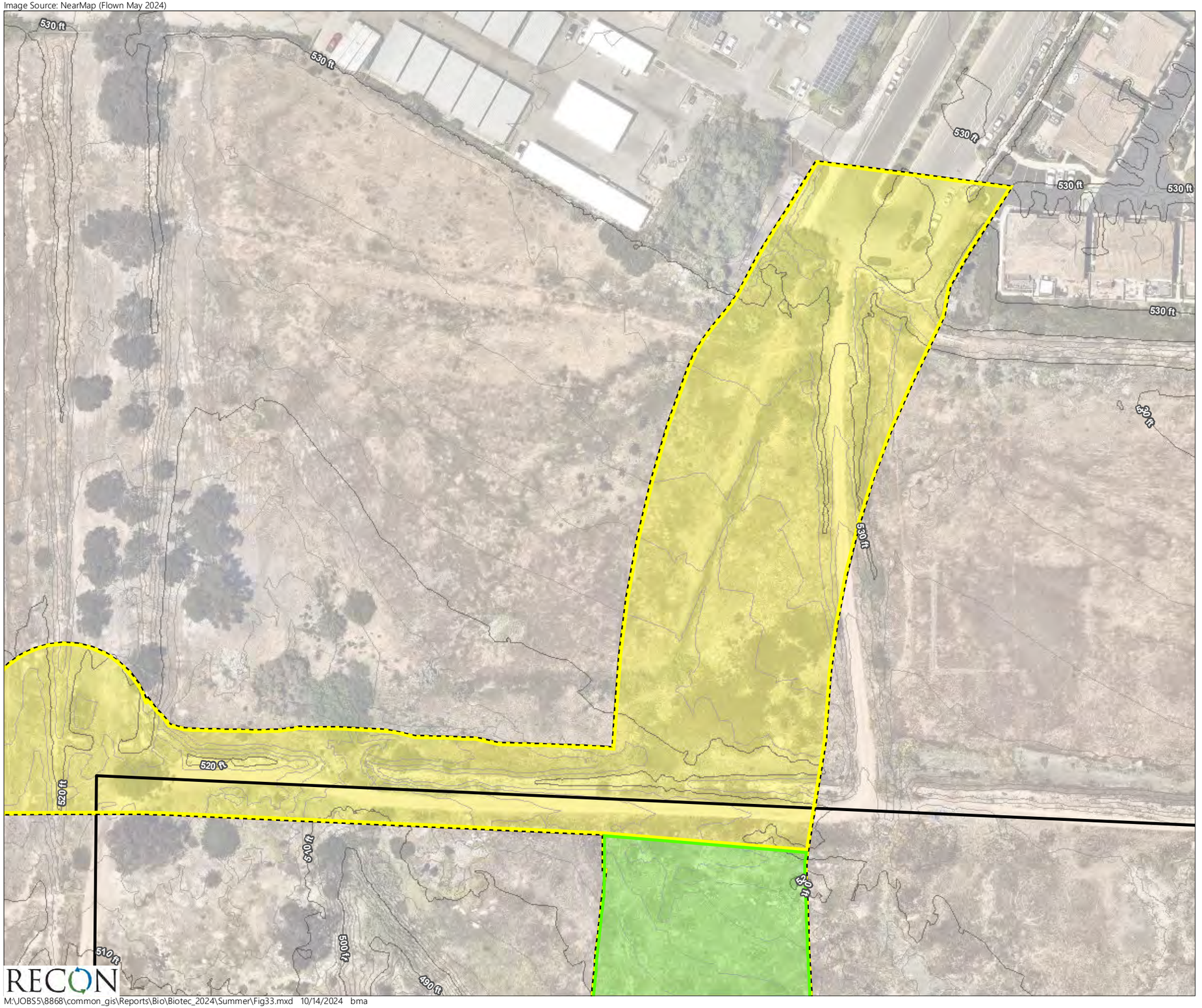
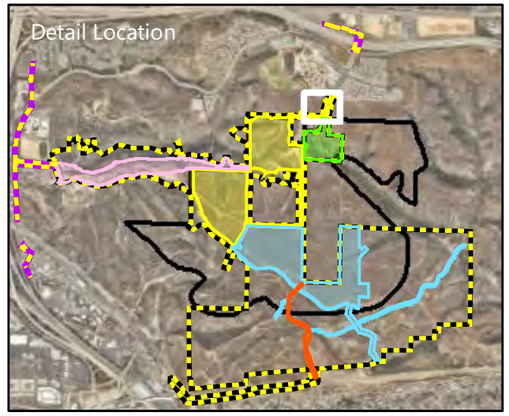
FIGURE 33.5
City of San Diego Wetlands

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

0 Feet 70

RECON

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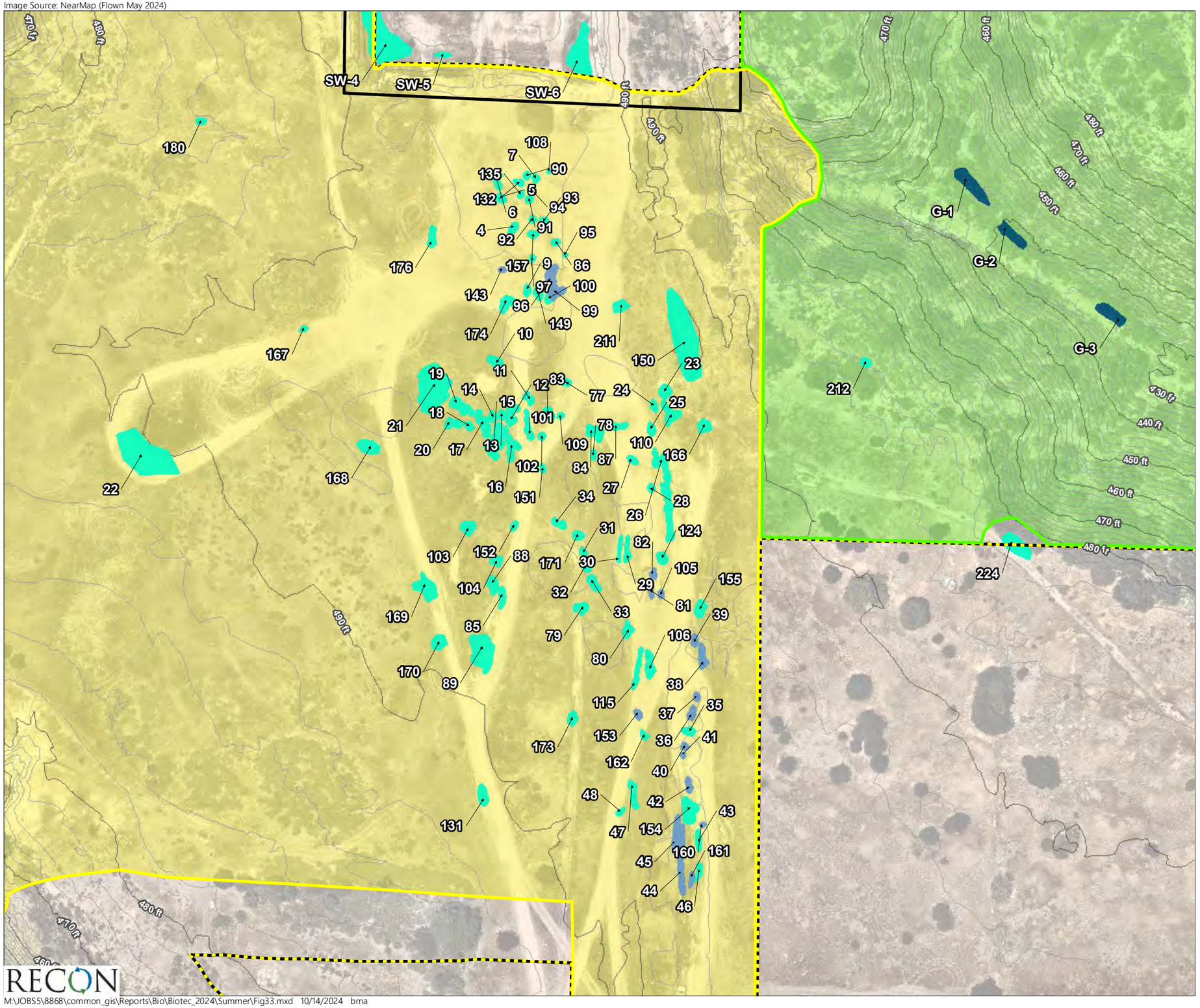
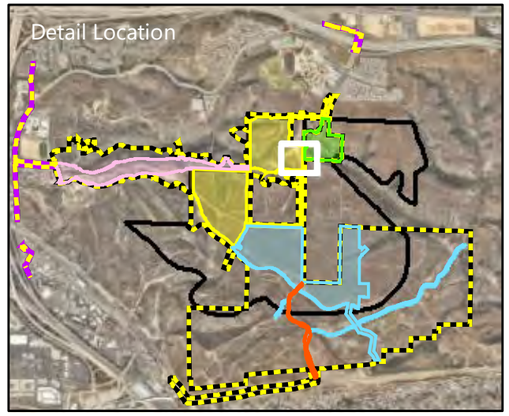
FIGURE 33.6
City of San Diego Wetlands

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

City of San Diego Wetlands

- Vernal Pool (Waters ID)
- Wetland (Waters ID)
- Disturbed Wetland (Waters ID)

0 Feet 70

RECON

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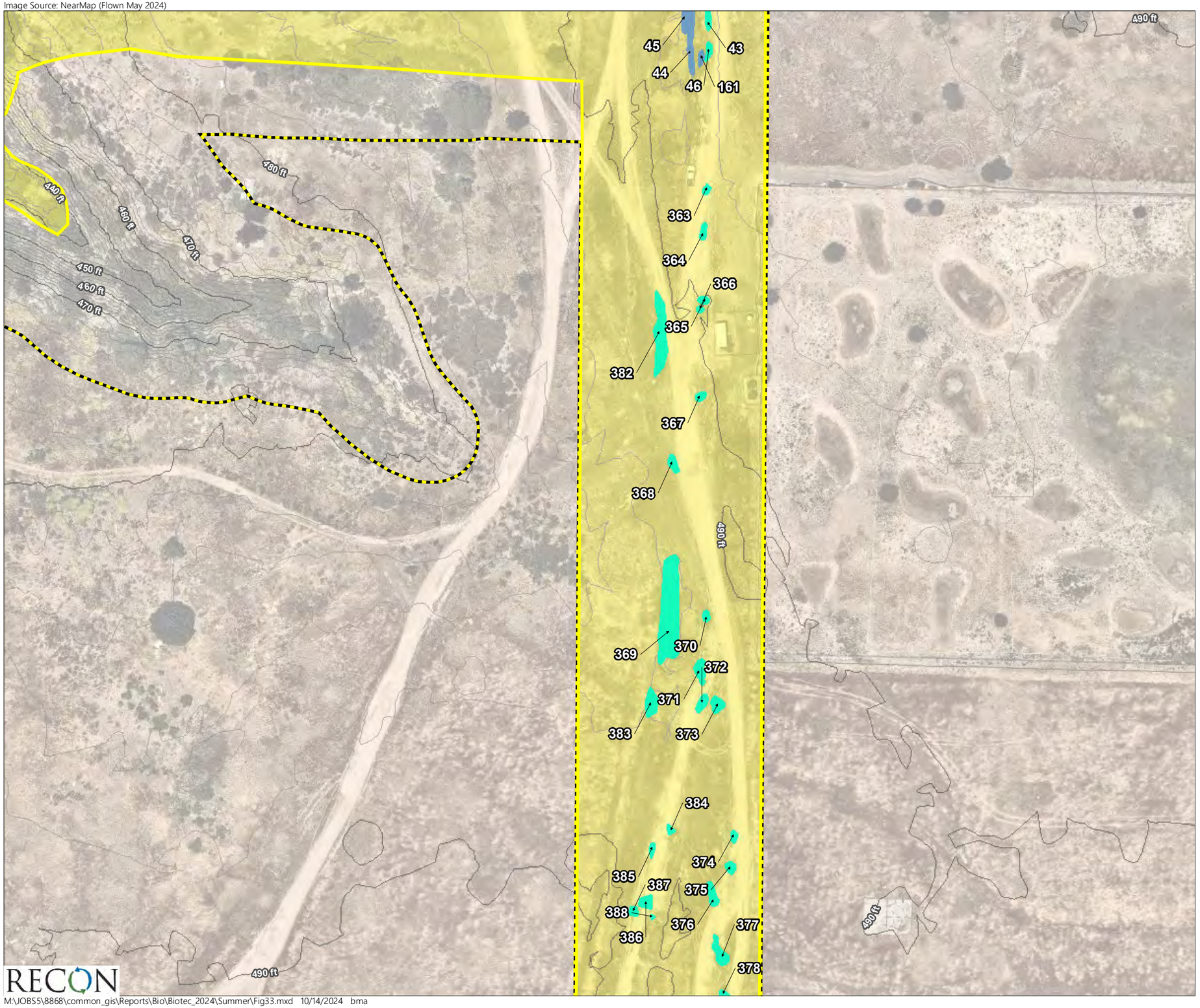
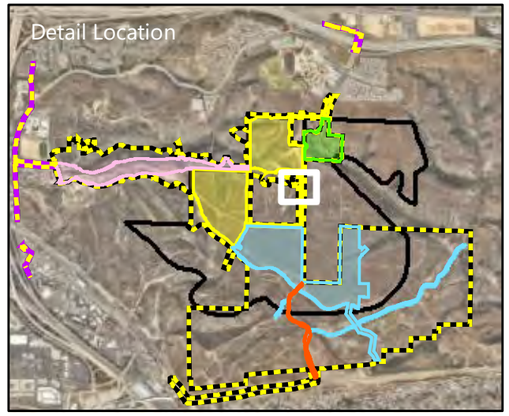
FIGURE 33.7
City of San Diego Wetlands

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

City of San Diego Wetlands

Vernal Pool (Waters ID)

Disturbed Wetland (Waters ID)

0 Feet 70

RECON

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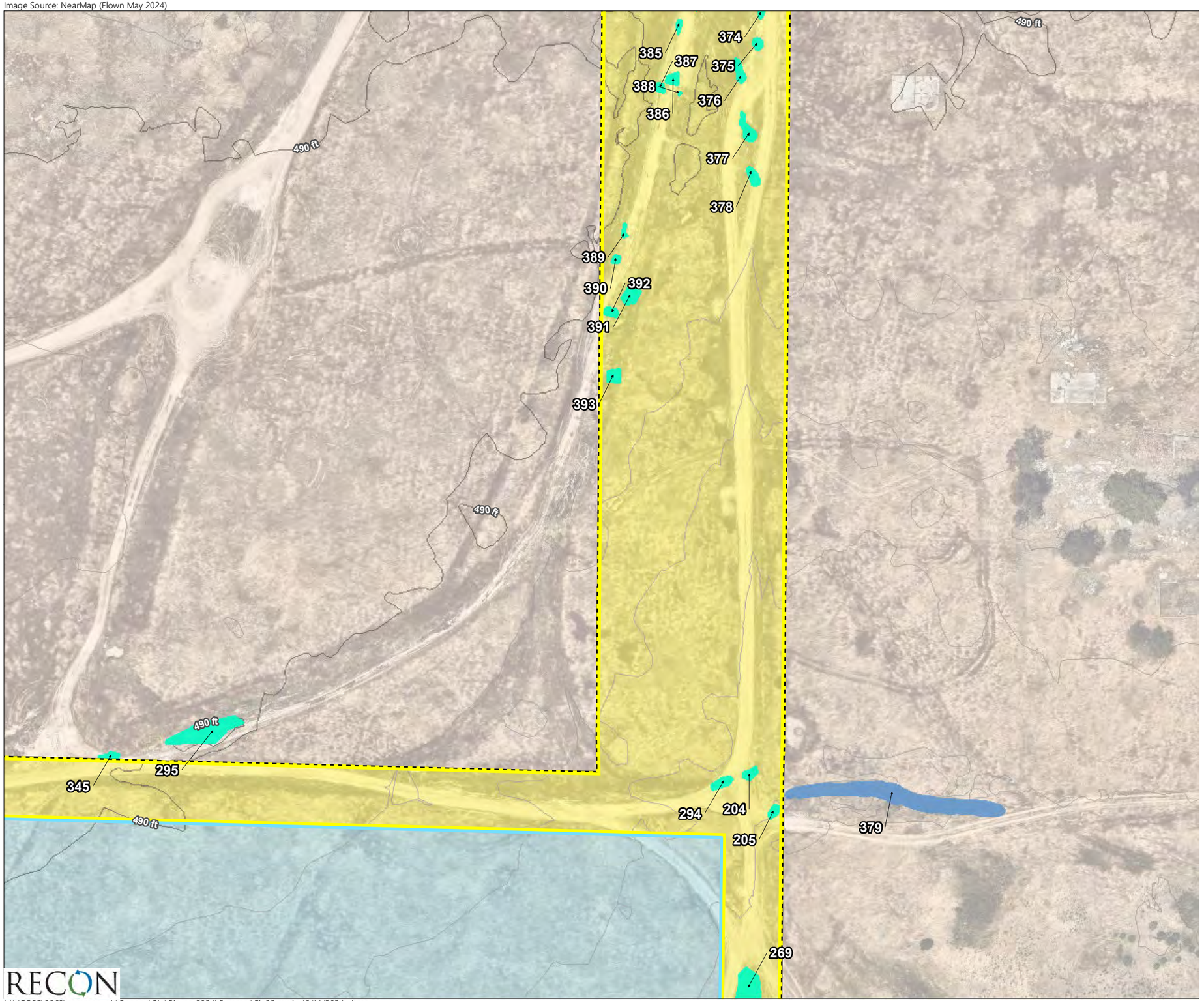
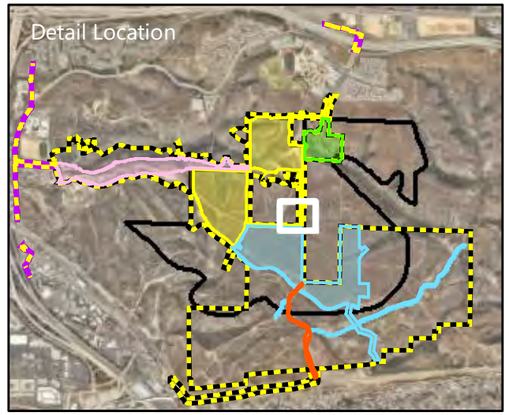
FIGURE 33.8
City of San Diego Wetlands

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

City of San Diego Wetlands

Vernal Pool (Waters ID)

Disturbed Wetland (Waters ID)

0 Feet 70

RECON

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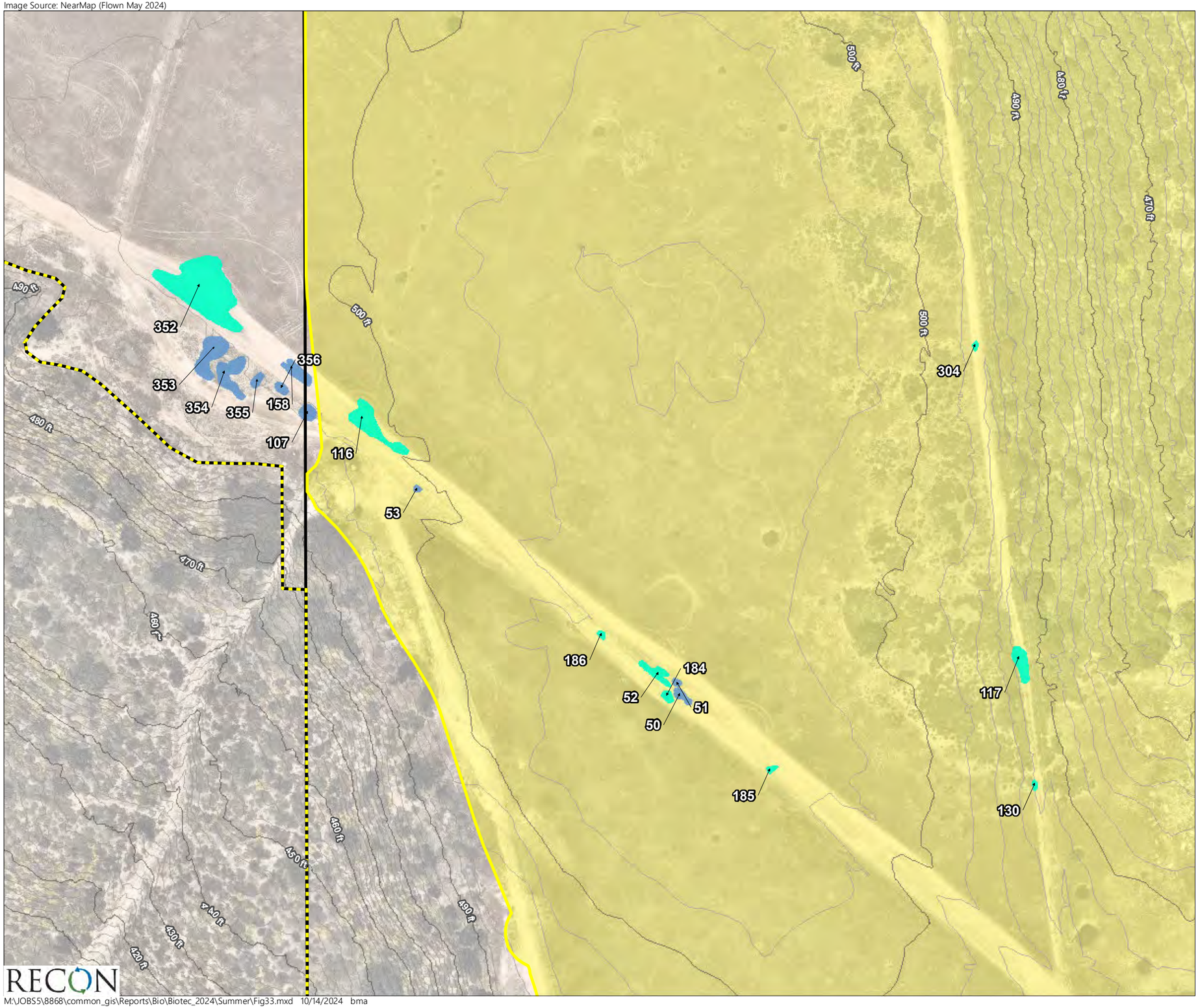
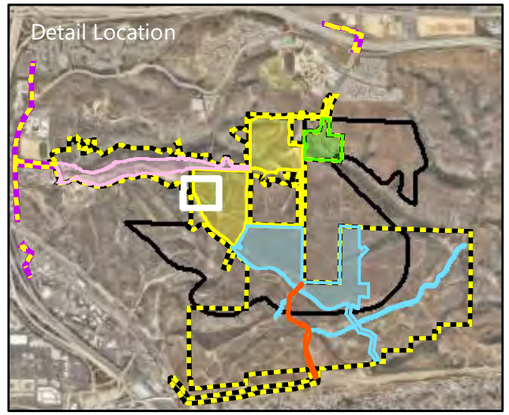
FIGURE 33.9

City of San Diego Wetlands

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

City of San Diego Wetlands

Vernal Pool (Waters ID)

Disturbed Wetland (Waters ID)

0 Feet 70

RECON

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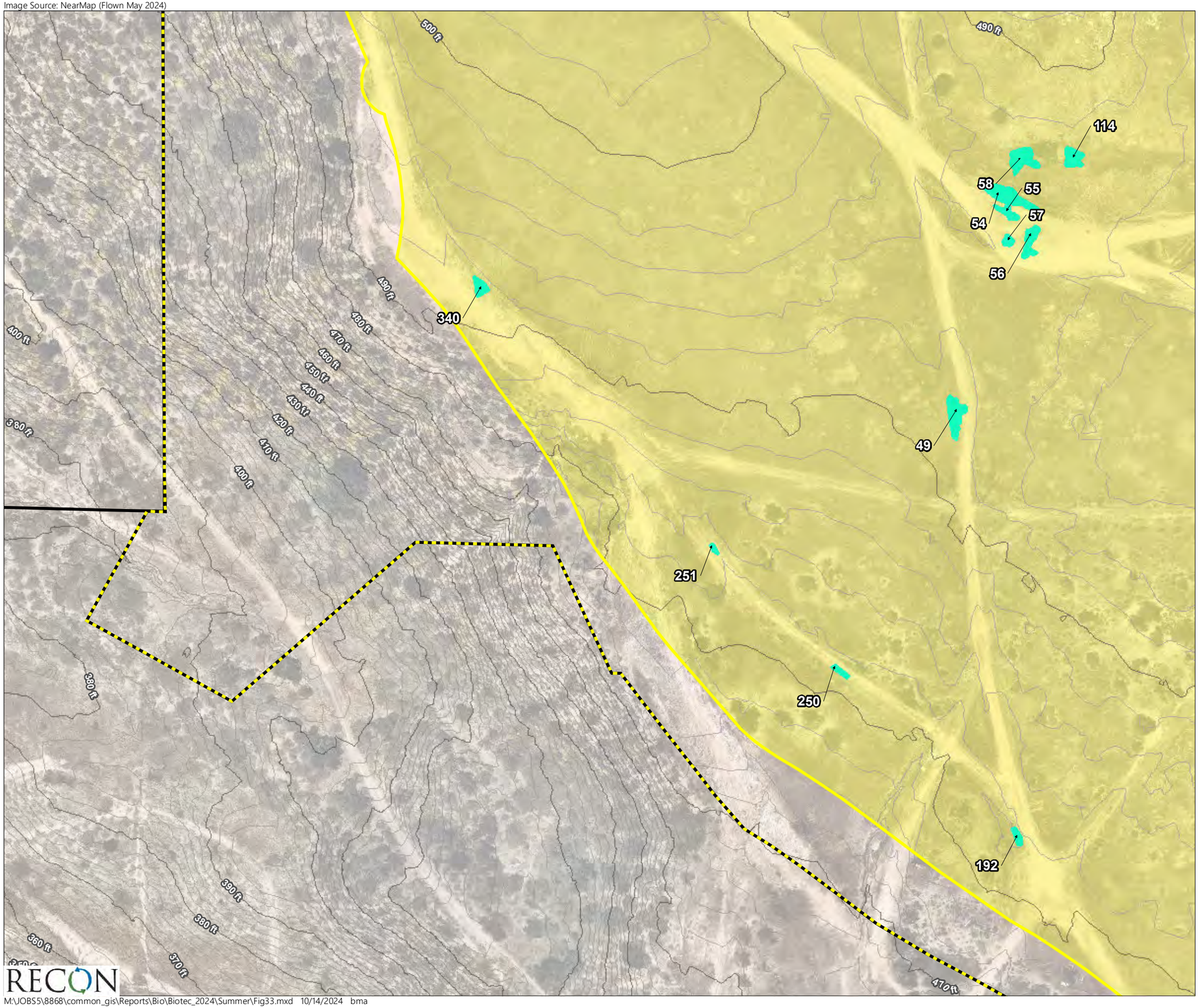
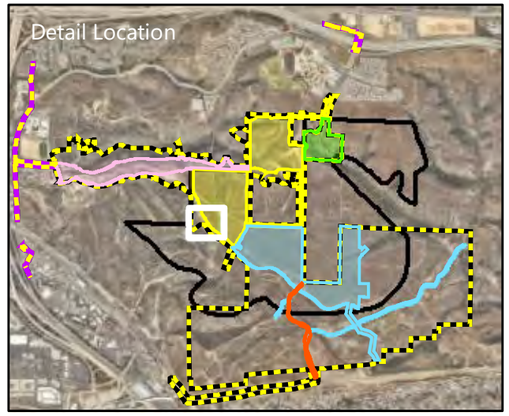
FIGURE 33.10
City of San Diego Wetlands

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

City of San Diego Wetlands

- Vernal Pool (Waters ID)

0 Feet 70

RECON

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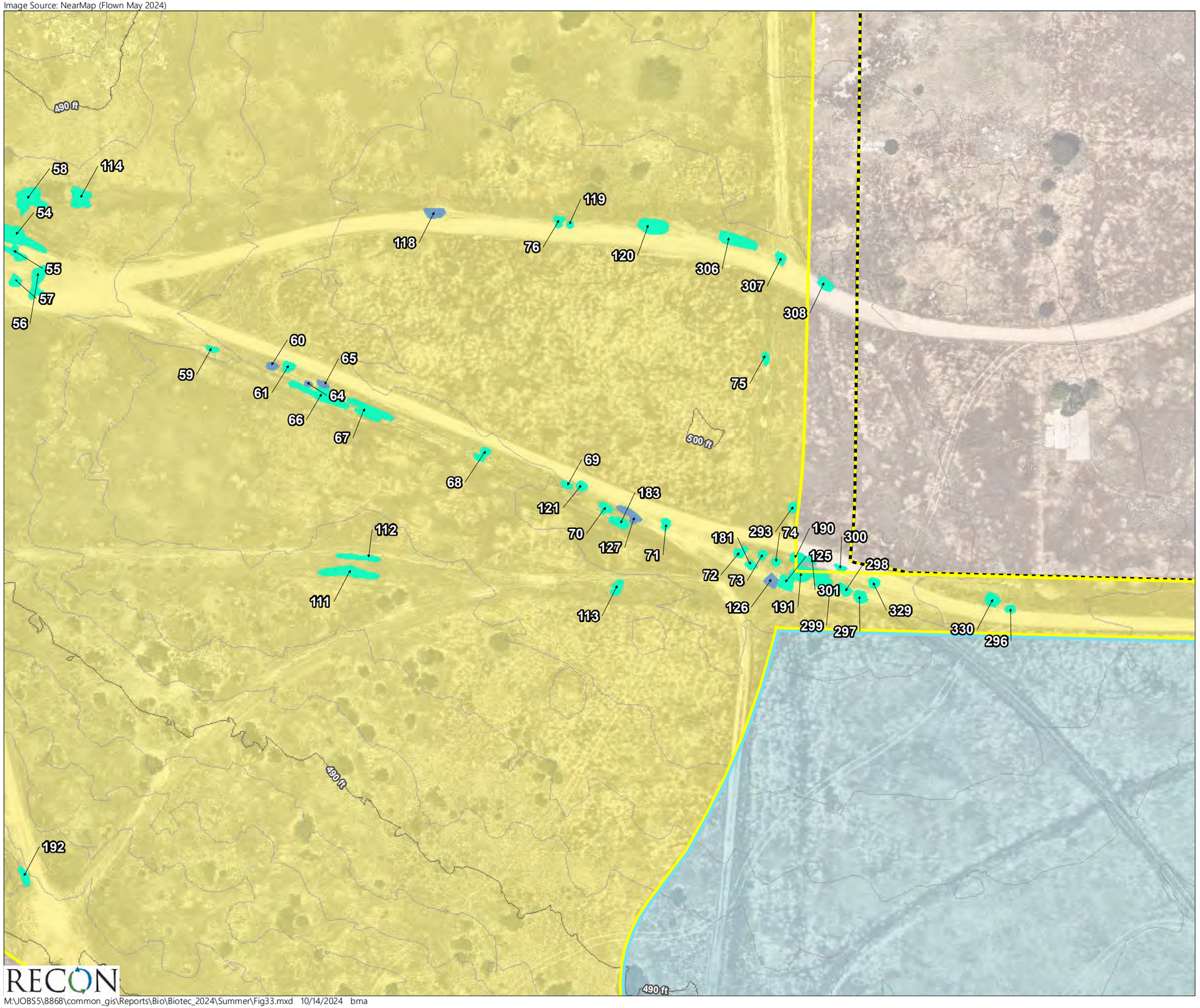
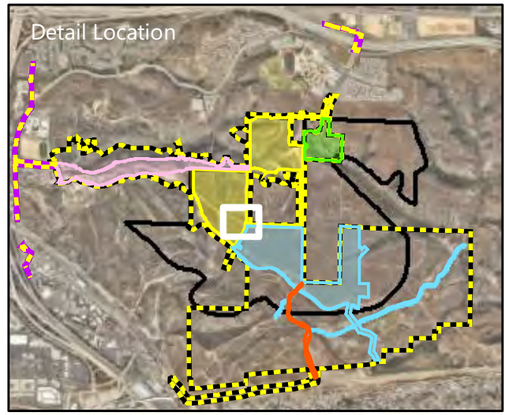
FIGURE 33.11
City of San Diego Wetlands

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

City of San Diego Wetlands

- Vernal Pool (Waters ID)
- Disturbed Wetland (Waters ID)

0 Feet 70

RECON

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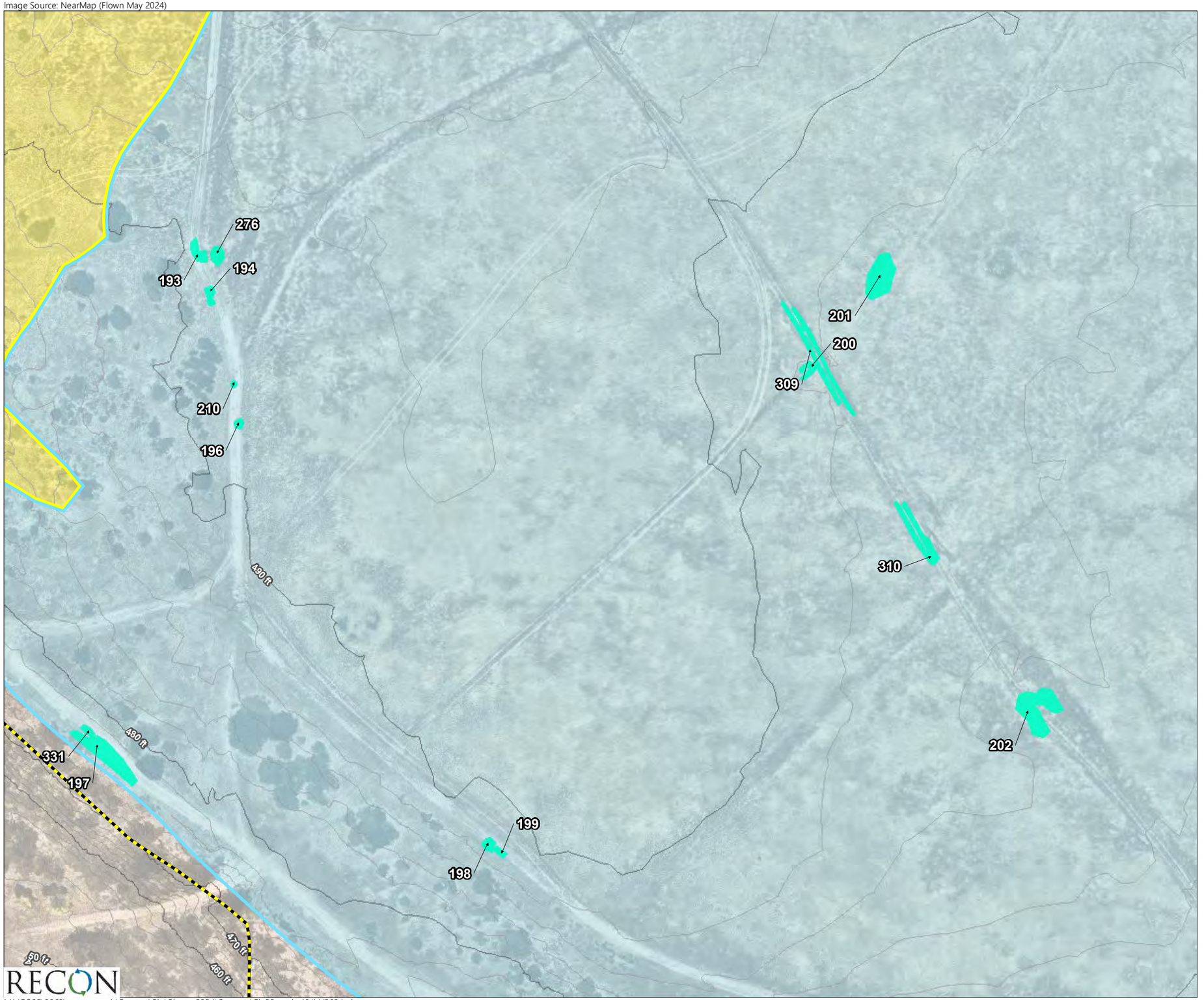
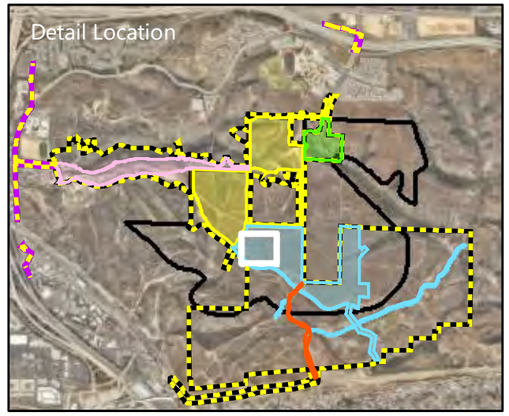
FIGURE 33.12
City of San Diego Wetlands

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

City of San Diego Wetlands

Vernal Pool (Waters ID)

0 Feet 70

RECON

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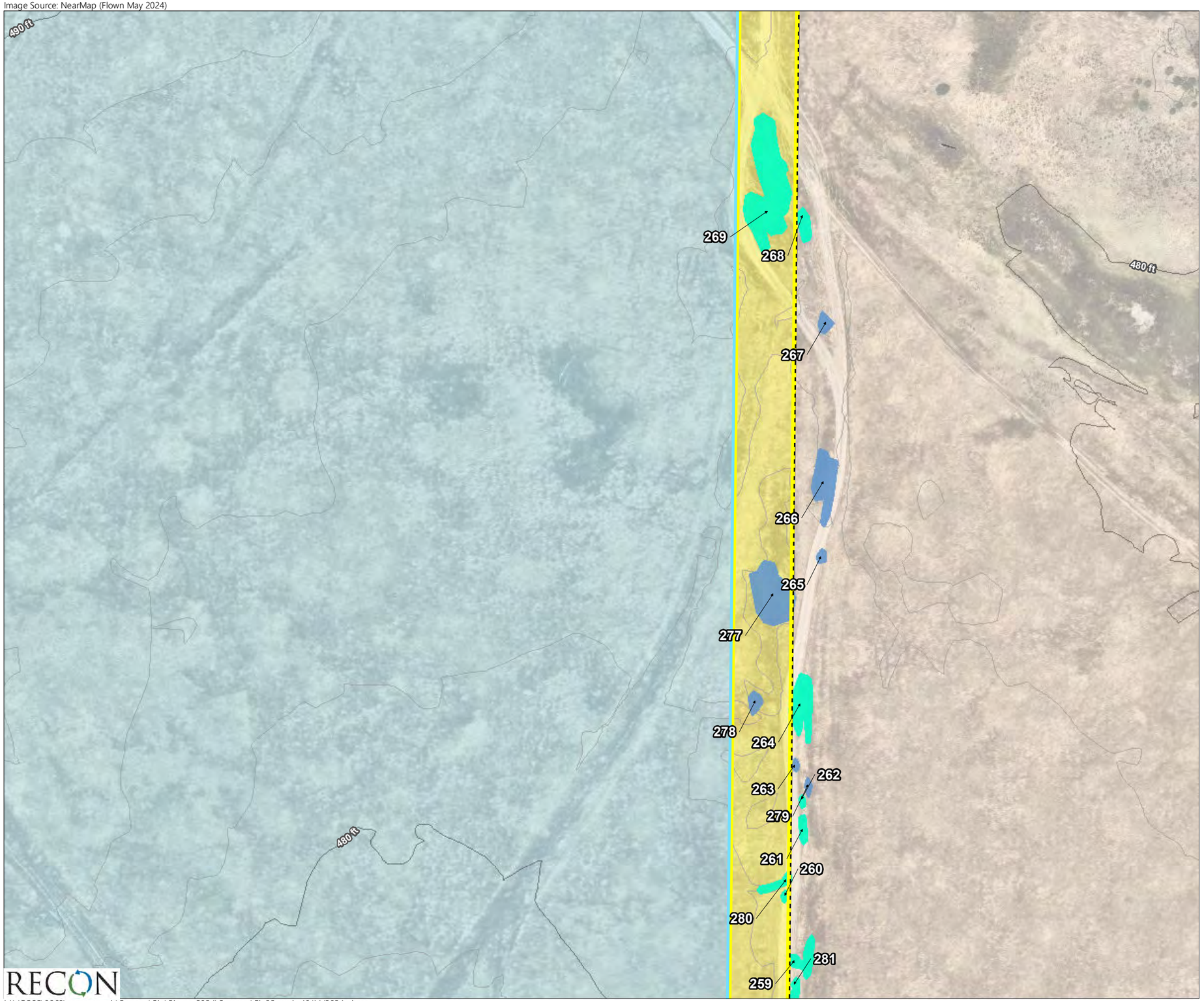
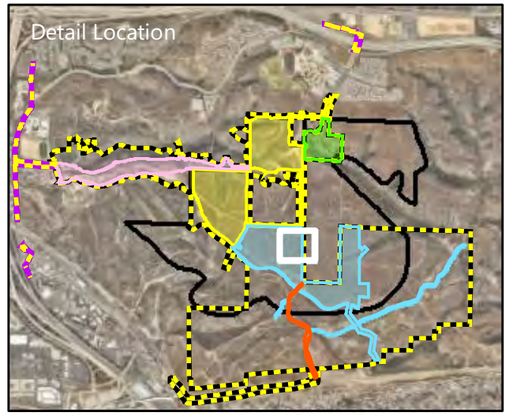
FIGURE 33.13
City of San Diego Wetlands

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

City of San Diego Wetlands

Vernal Pool (Waters ID)

Disturbed Wetland (Waters ID)

0 Feet 70

RECON

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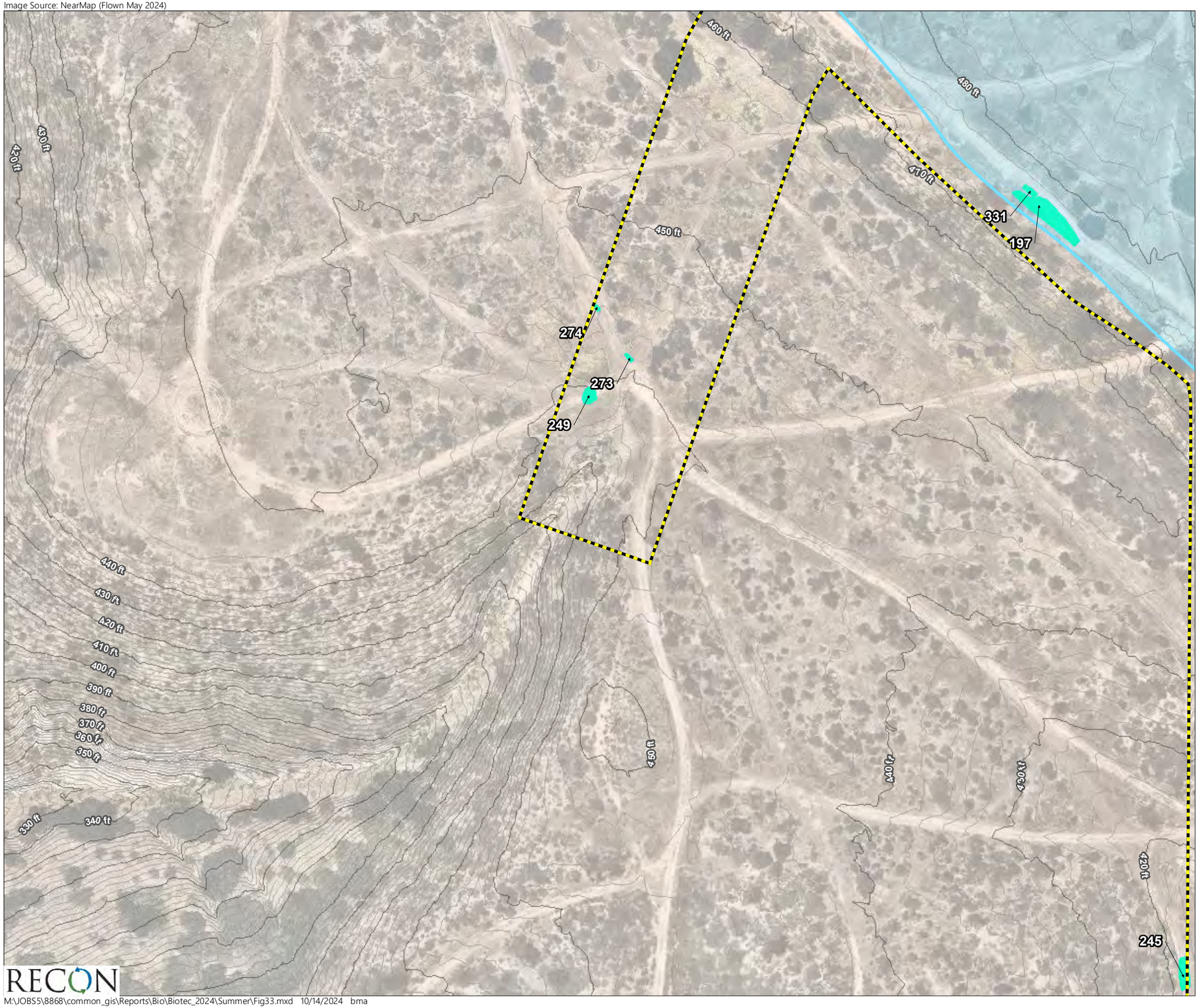
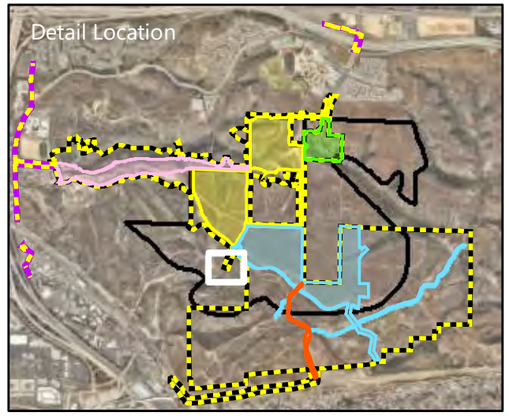
FIGURE 33.14
City of San Diego Wetlands

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

City of San Diego Wetlands

Vernal Pool (Waters ID)

0 Feet 70

RECON

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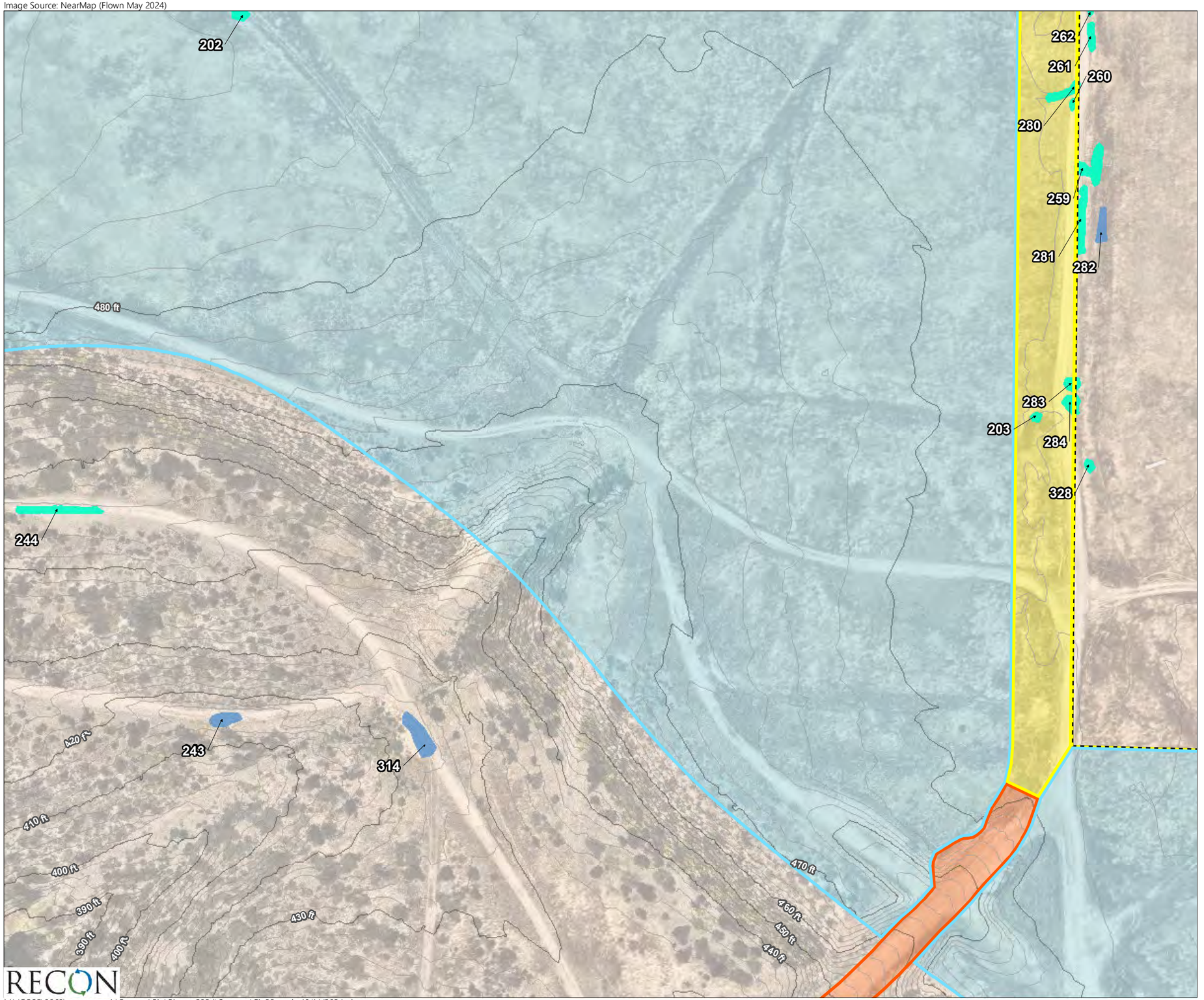
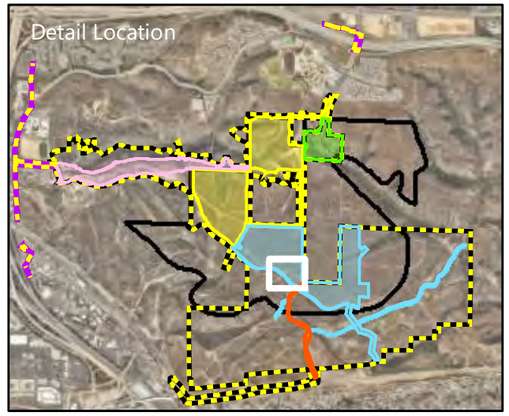
FIGURE 33.15
City of San Diego Wetlands

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

City of San Diego Wetlands

Vernal Pool (Waters ID)

Disturbed Wetland (Waters ID)

0 Feet 70

RECON

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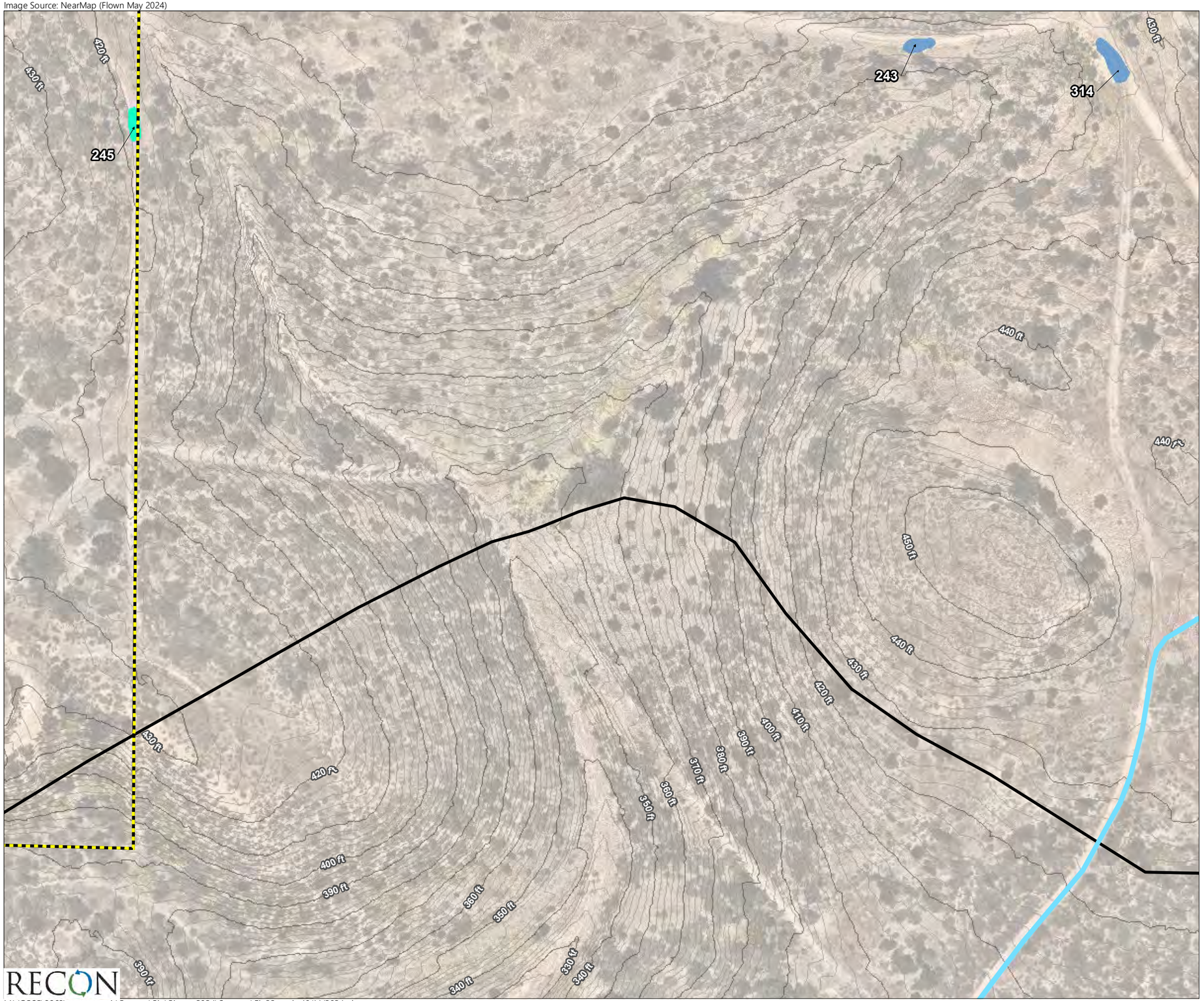
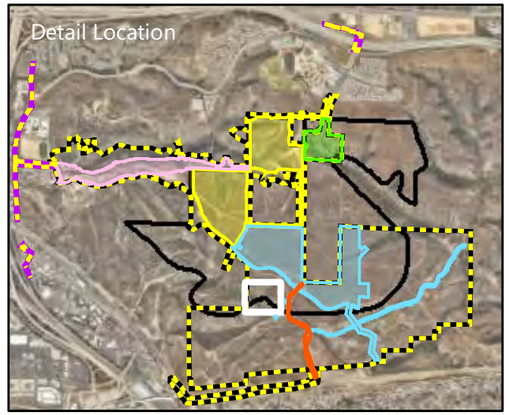
FIGURE 33.16
City of San Diego Wetlands

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

City of San Diego Wetlands

- Vernal Pool (Waters ID)
- Disturbed Wetland (Waters ID)

0 Feet 70

RECON

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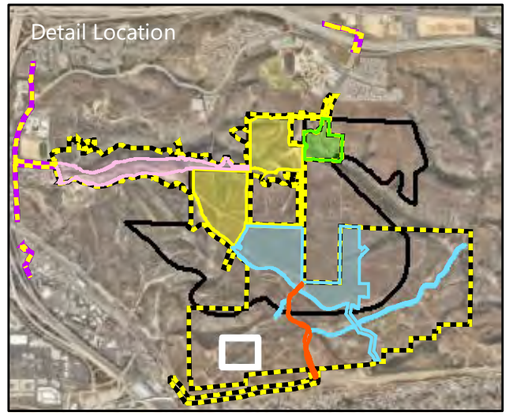
FIGURE 33.17
City of San Diego Wetlands

Image Source: NearMap (Flown May 2024)



Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

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Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

City of San Diego Wetlands

Wetland (Waters ID)

0 Feet 70

RECON

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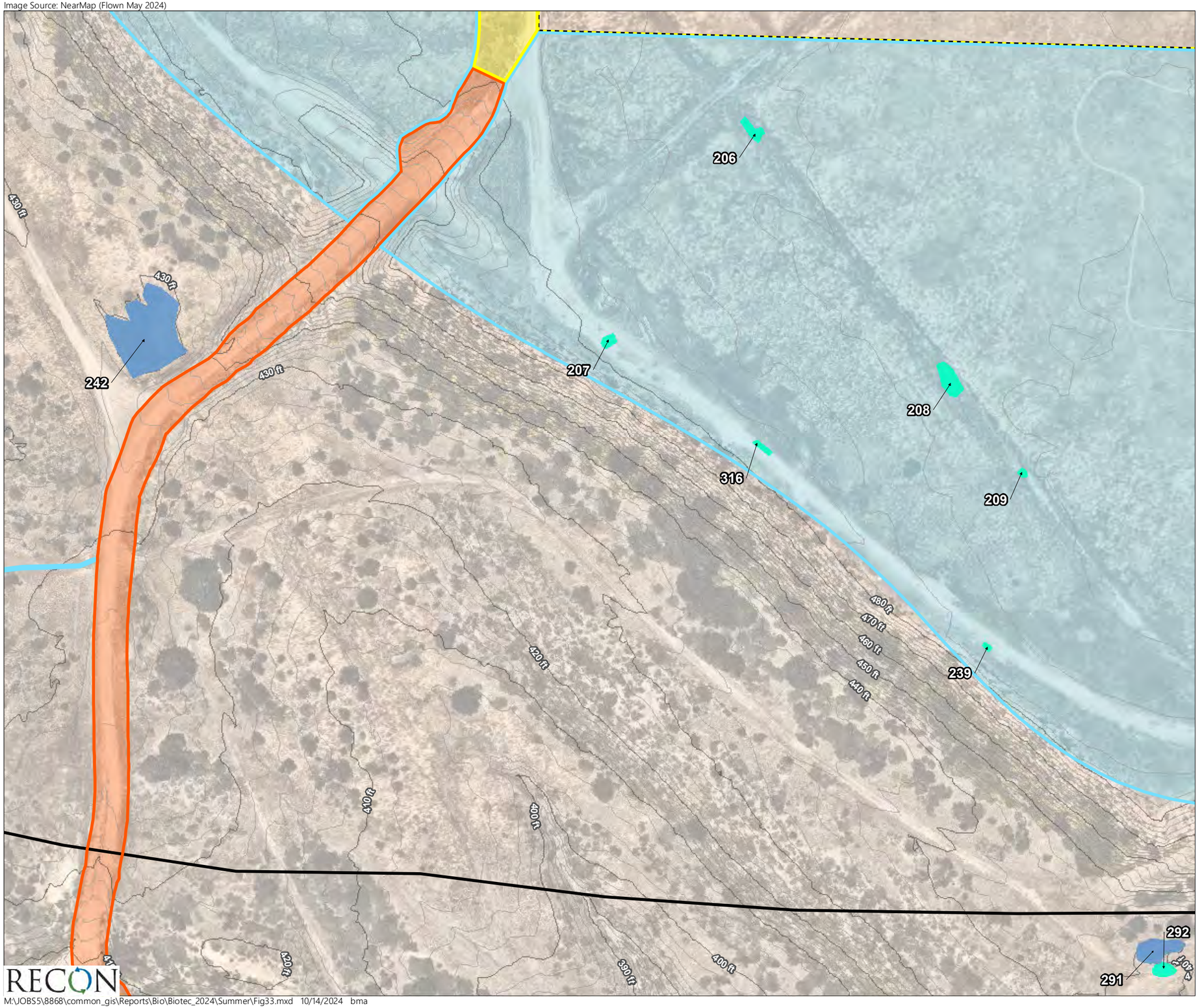
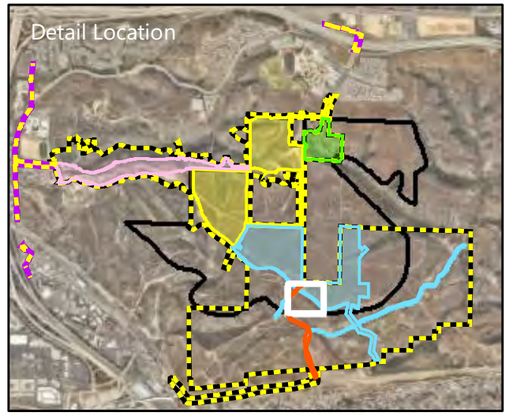
FIGURE 33.18
City of San Diego Wetlands

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

City of San Diego Wetlands

- Vernal Pool (Waters ID)
- Disturbed Wetland (Waters ID)

0 Feet 70

RECON

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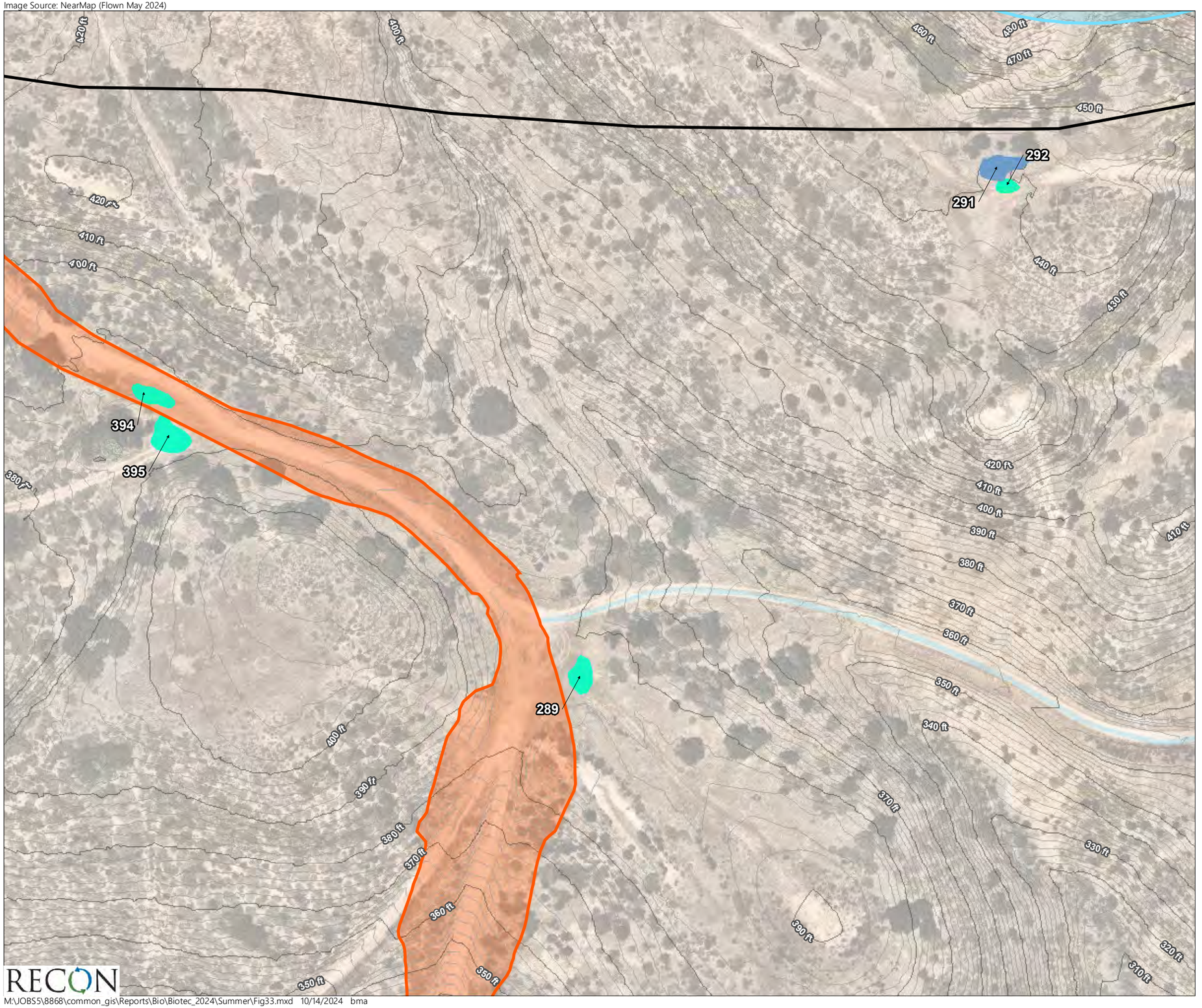
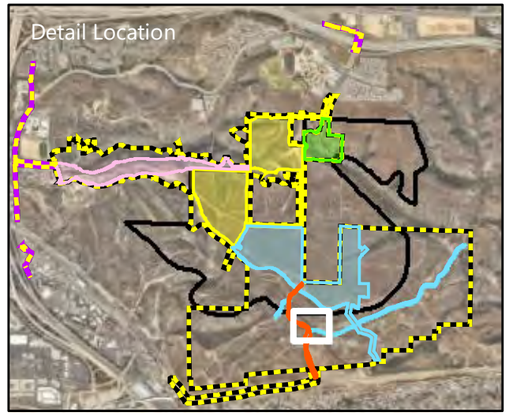
FIGURE 33.19
City of San Diego Wetlands

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

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Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

City of San Diego Wetlands

Vernal Pool (Waters ID)

Disturbed Wetland (Waters ID)

0 Feet 70

RECON

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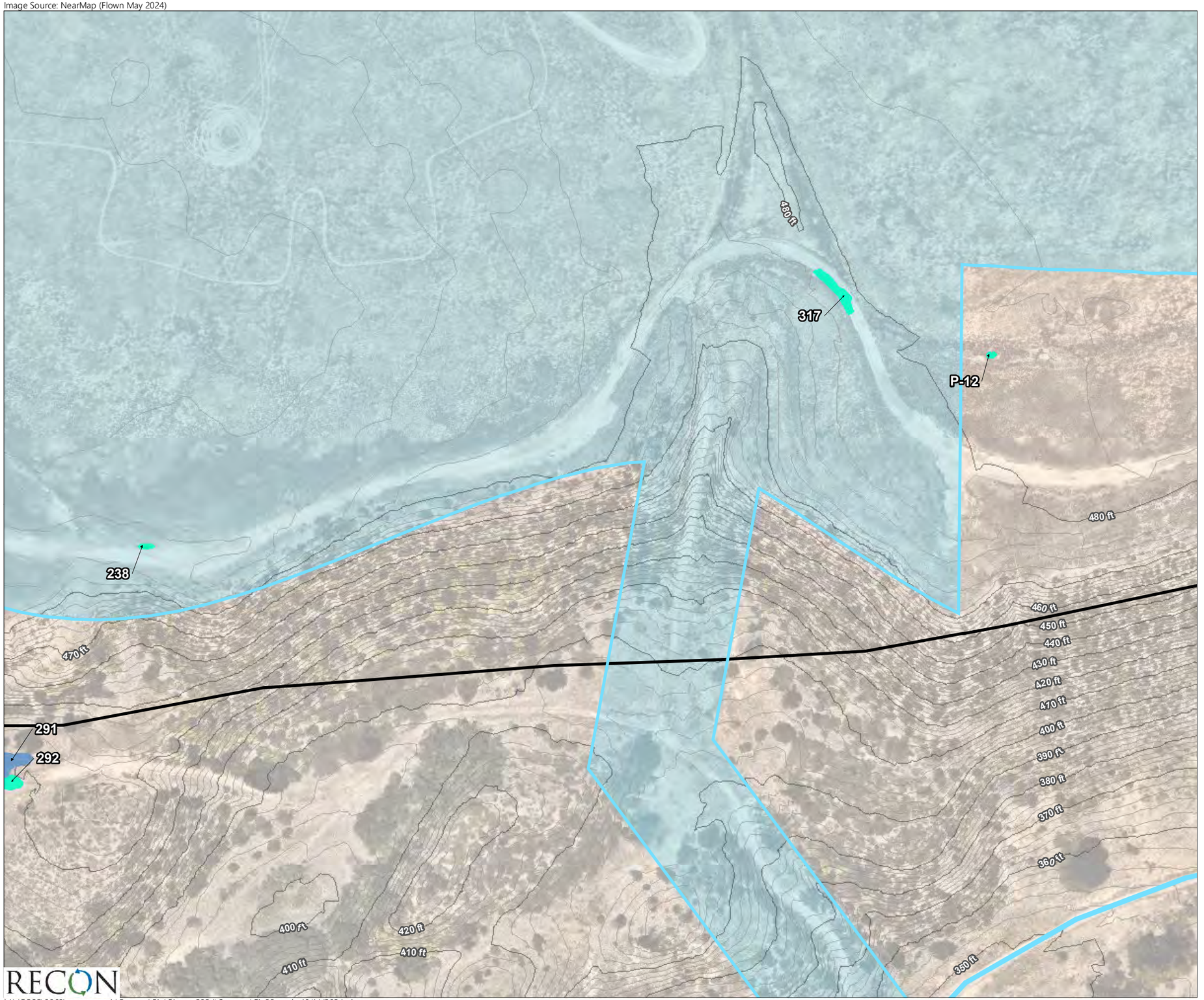
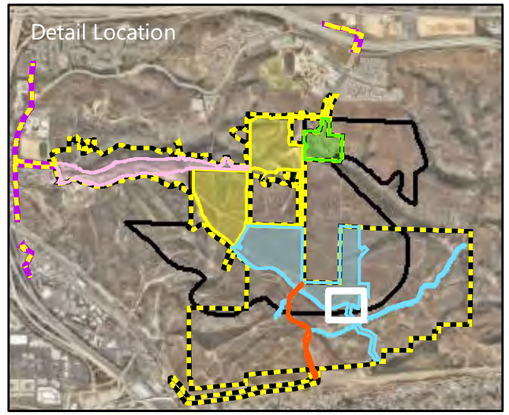
FIGURE 33.20
City of San Diego Wetlands

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary
Project-level Survey Area

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Phase 4
Beyer Boulevard
Emergency Vehicle Access
Off-site Improvements

City of San Diego Wetlands

Vernal Pool (Waters ID)
Disturbed Wetland (Waters ID)

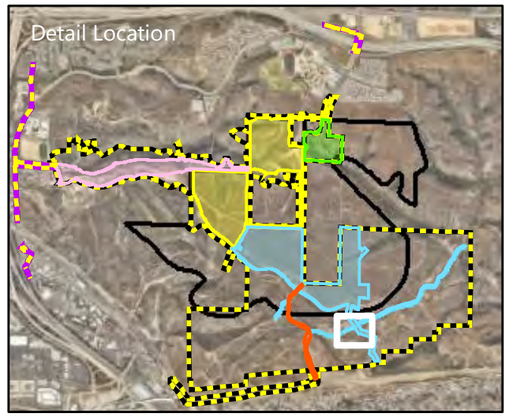
0 Feet 70

RECON

M:\JOBS5\8868\common_gis\Reports\Bio\Biotec_2024\Summer\Fig33.mxd 10/14/2024 bma

FIGURE 33.21
City of San Diego Wetlands

Image Source: NearMap (Flown May 2024)



Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

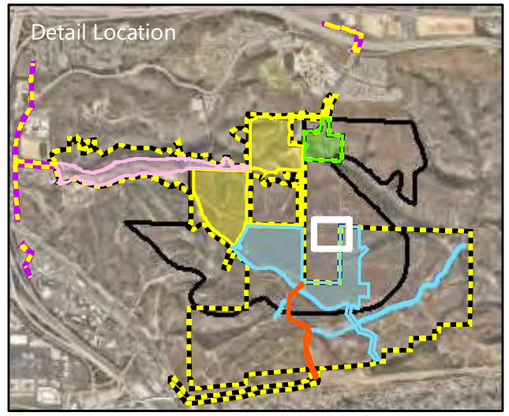
0 Feet 70

RECON

M:\JOBS5\8868\common_gis\Reports\Bio\Biotec_2024\Summer\Fig33.mxd 10/14/2024 bma

FIGURE 33.22
City of San Diego Wetlands

Image Source: NearMap (Flown May 2024)



Specific Plan Boundary
Project-level Survey Area

Project-level Phasing

Phase 1
Phase 2
Phase 4
Beyer Boulevard
Emergency Vehicle Access
Off-site Improvements

City of San Diego Wetlands

Vernal Pool (Waters ID)
Disturbed Wetland (Waters ID)

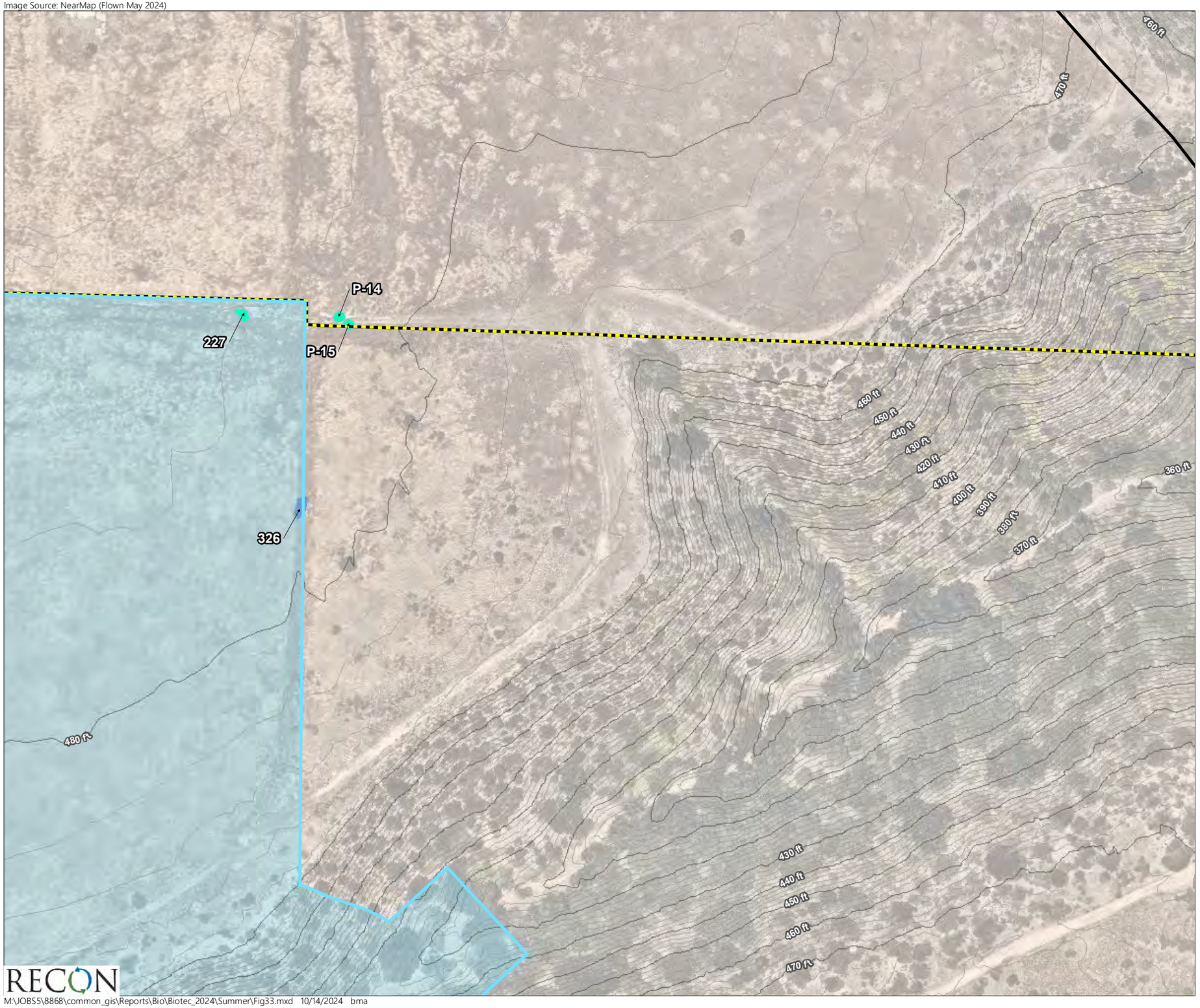
0 Feet 70

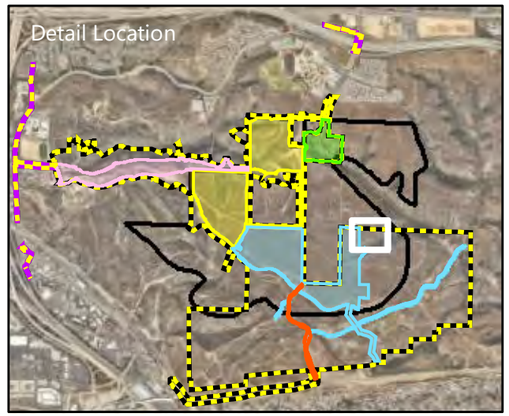
RECON

M:\JOBS5\8868\common_gis\Reports\Bio\Biotec_2024\Summer\Fig33.mxd 10/14/2024 bma

FIGURE 33.23
City of San Diego Wetlands

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

City of San Diego Wetlands

Vernal Pool (Waters ID)

Disturbed Wetland (Waters ID)

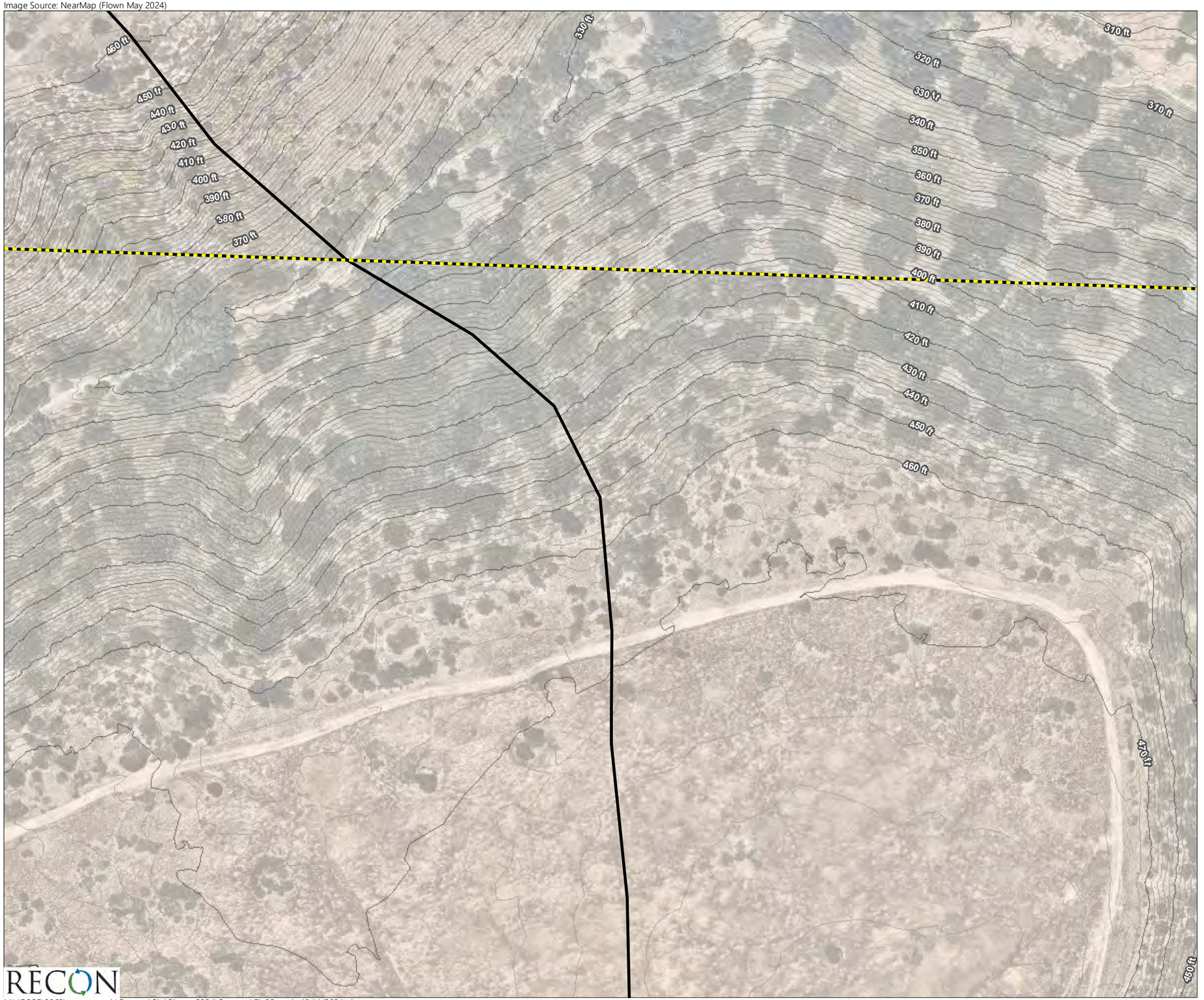
0 Feet 70

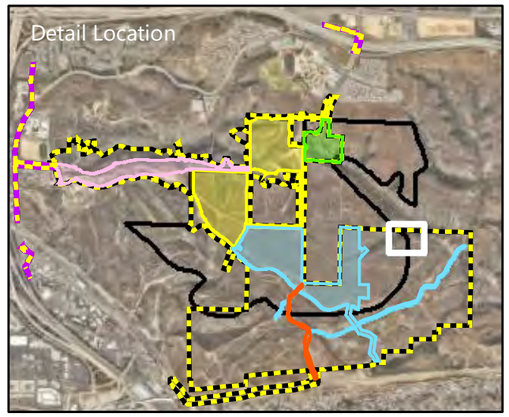
RECON

M:\JOBS5\8868\common_gis\Reports\Bio\Biotec_2024\Summer\Fig33.mxd 10/14/2024 bma

FIGURE 33.24
City of San Diego Wetlands

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

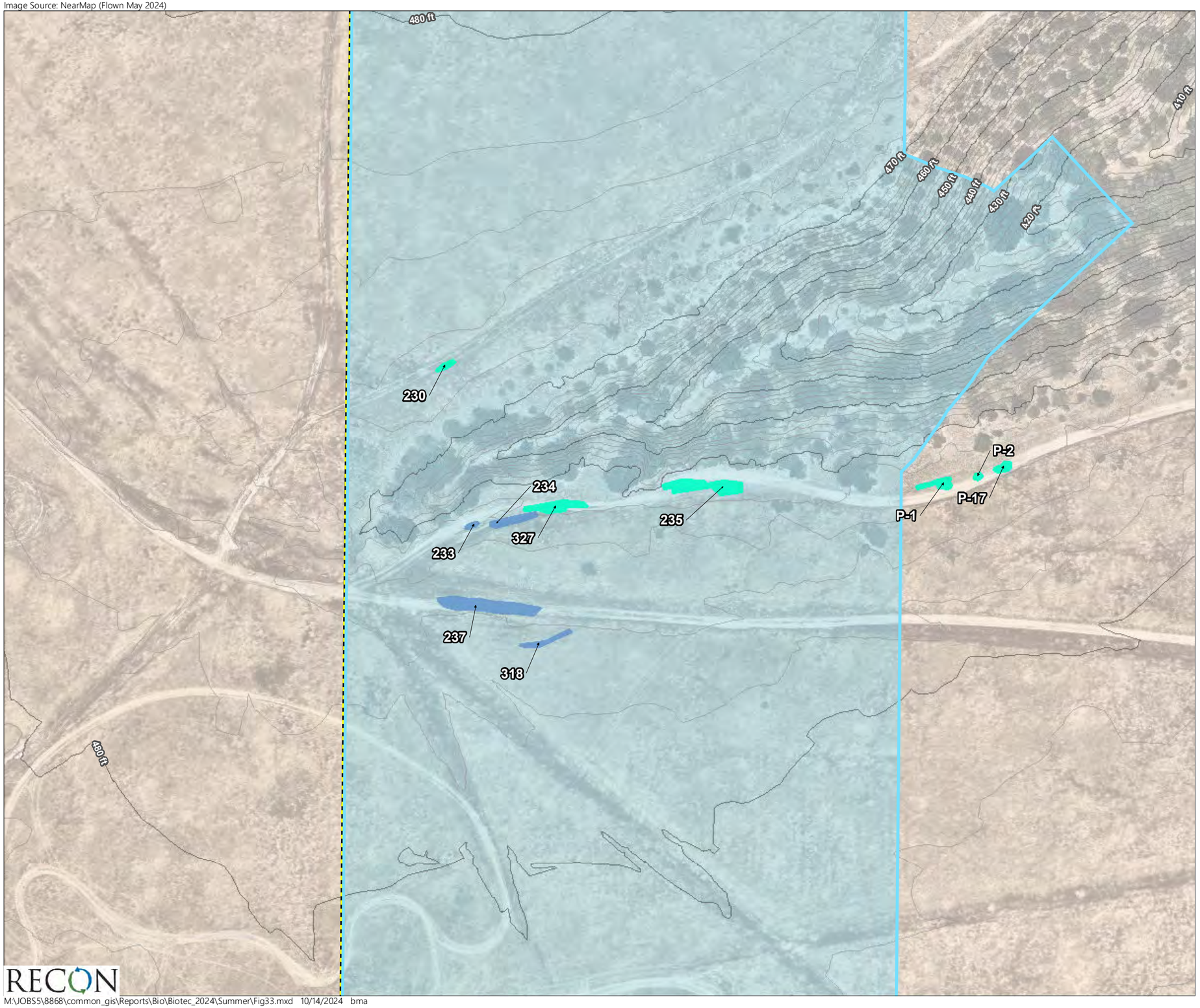
0 Feet 70

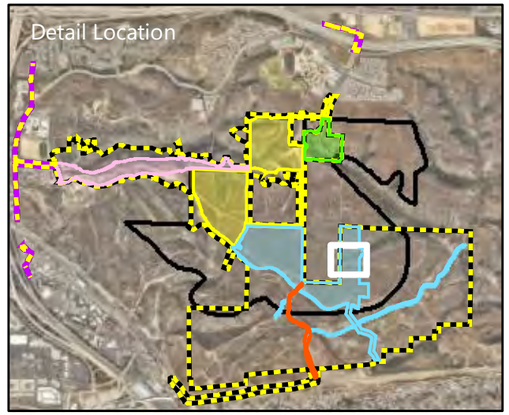
RECON

M:\JOBS5\8868\common_gis\Reports\Bio\Biotec_2024\Summer\Fig33.mxd 10/14/2024 bma

FIGURE 33.25
City of San Diego Wetlands

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

City of San Diego Wetlands

Vernal Pool (Waters ID)

Disturbed Wetland (Waters ID)

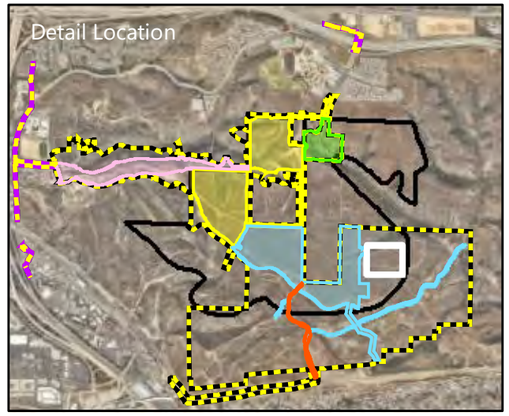
0 Feet 70

RECON

M:\JOBS5\8868\common_gis\Reports\Bio\Biotec_2024\Summer\Fig33.mxd 10/14/2024 bma

FIGURE 33.26
City of San Diego Wetlands

Image Source: NearMap (Flown May 2024)



Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

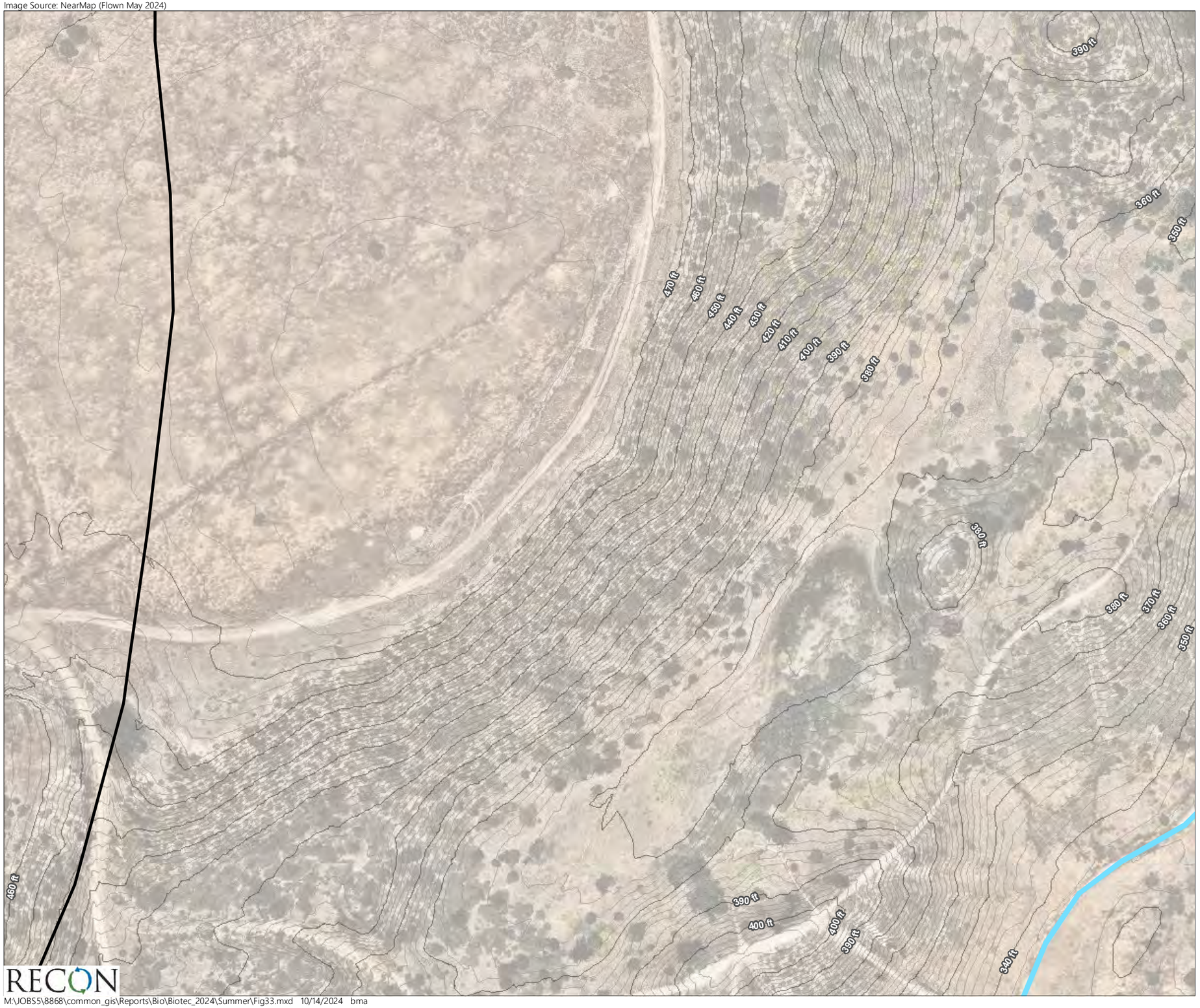
0 Feet 70

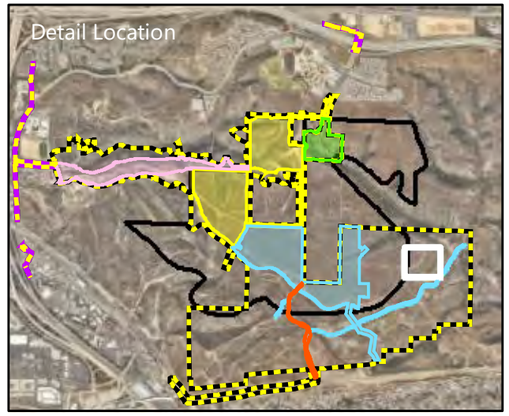
RECON

M:\JOBS5\8868\common_gis\Reports\Bio\Biotec_2024\Summer\Fig33.mxd 10/14/2024 bma

FIGURE 33.27
City of San Diego Wetlands

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

0 Feet 70

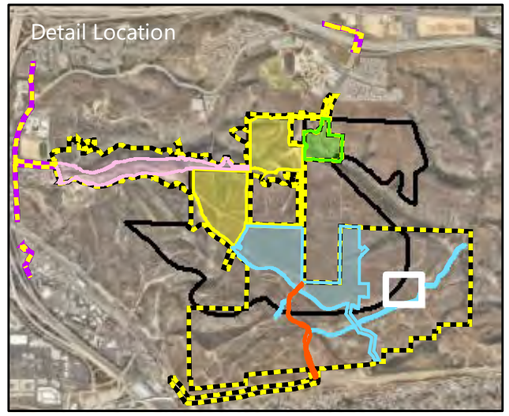
RECON

M:\JOBS5\8868\common_gis\Reports\Bio\Biotec_2024\Summer\Fig33.mxd 10/14/2024 bma

FIGURE 33.28

City of San Diego Wetlands

Image Source: NearMap (Flown May 2024)



Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

City of San Diego Wetlands

Disturbed Wetland (Waters ID)

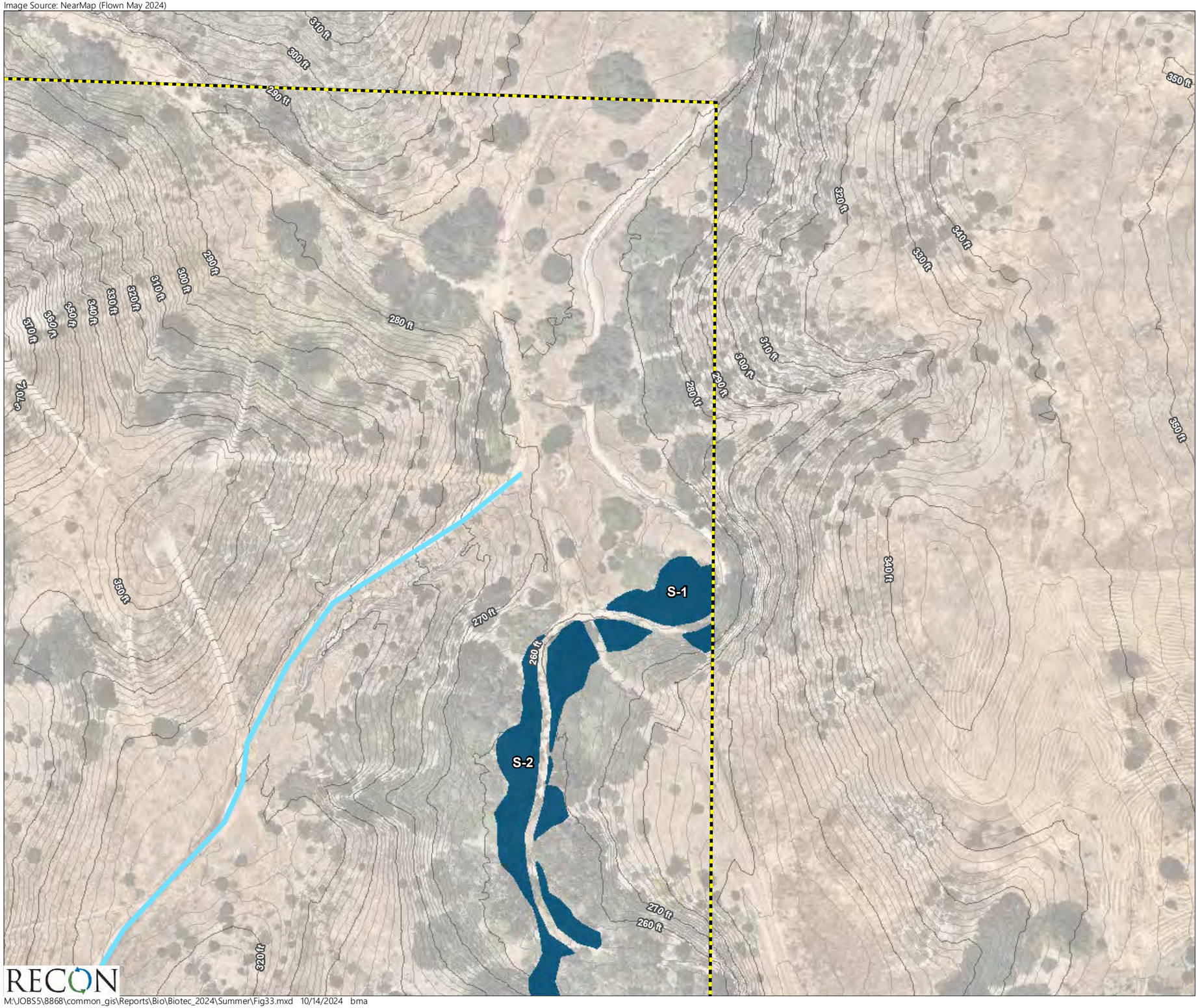
0 Feet 70

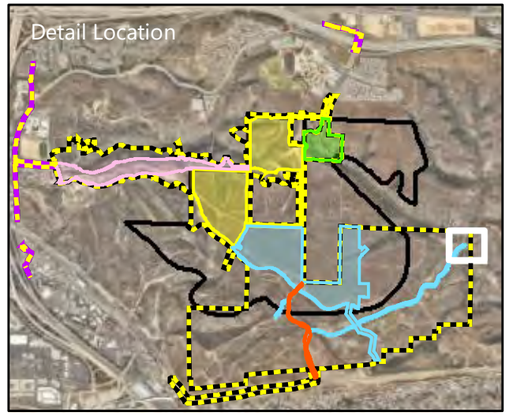
RECON

M:\JOBS5\8868\common_gis\Reports\Bio\Biotec_2024\Summer\Fig33.mxd 10/14/2024 bma

FIGURE 33.29
City of San Diego Wetlands

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

City of San Diego Wetlands

- Wetland (Waters ID)

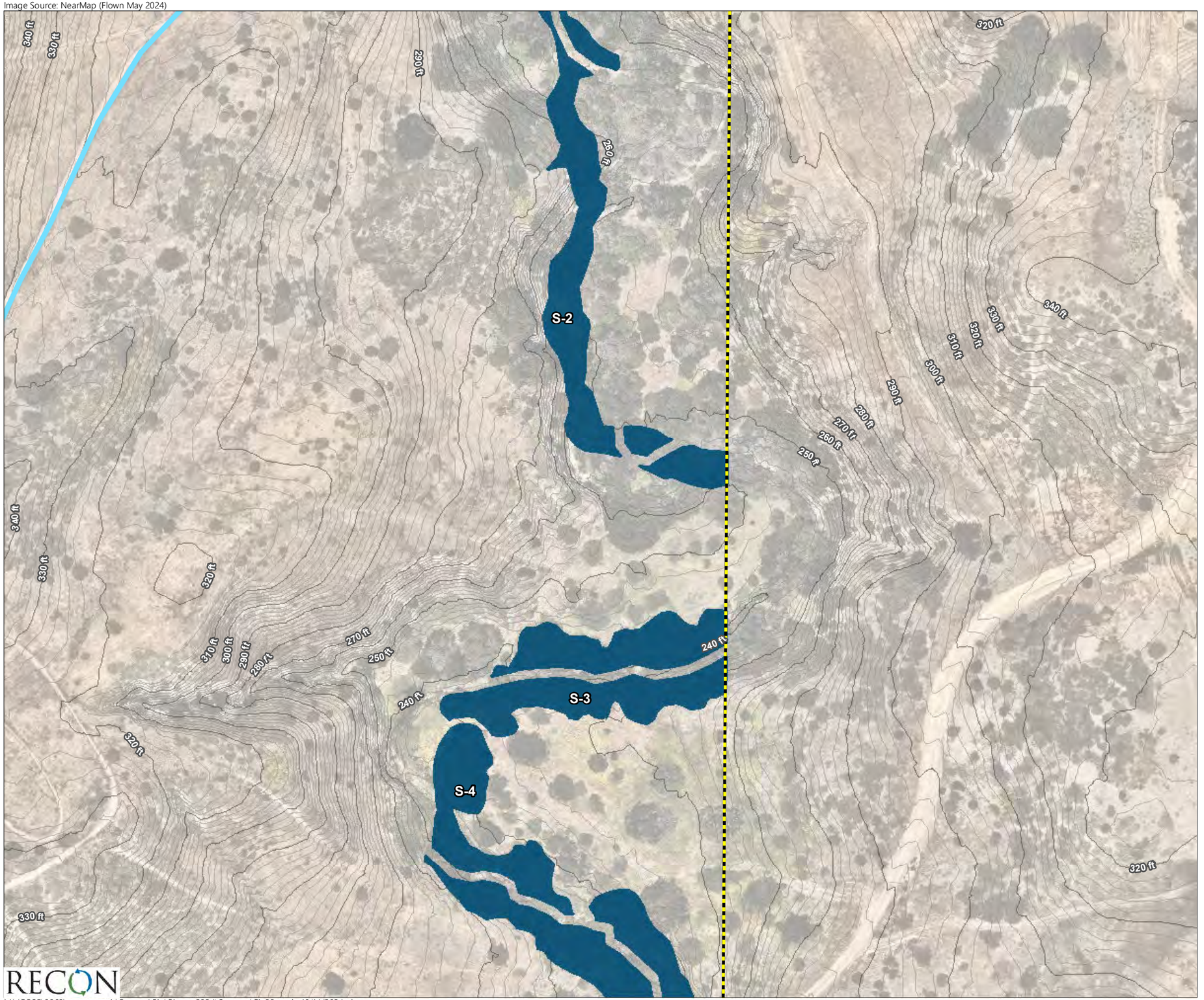
0 Feet 70

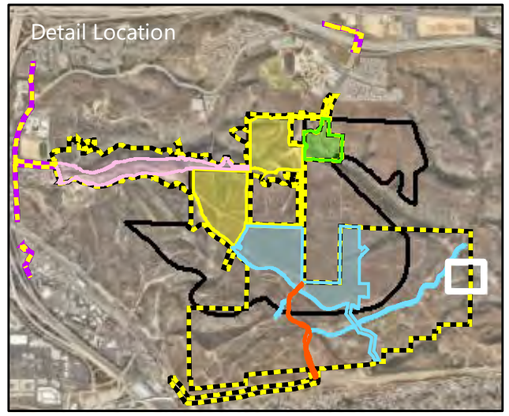
RECON

M:\JOBS5\8868\common_gis\Reports\Bio\Biotec_2024\Summer\Fig33.mxd 10/14/2024 bma

FIGURE 33.30
City of San Diego Wetlands

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

Phase 1

Phase 2

Phase 4

Beyer Boulevard

Emergency Vehicle Access

Off-site Improvements

City of San Diego Wetlands

Wetland (Waters ID)

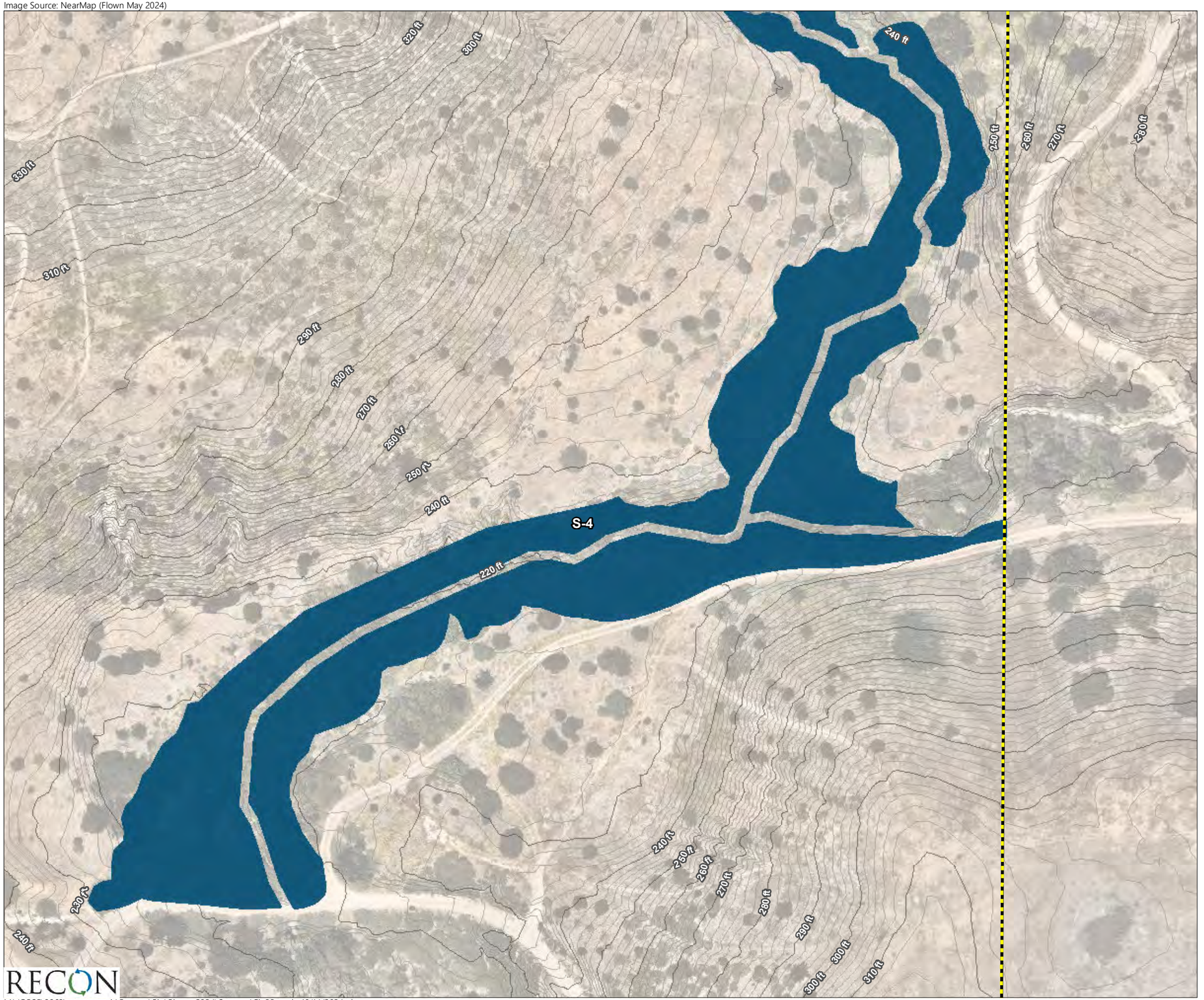
0 Feet 70

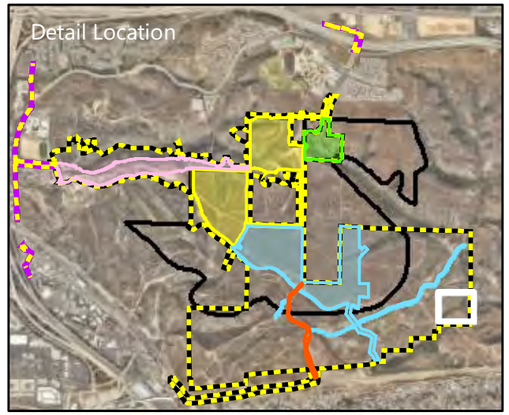
RECON

M:\JOBS5\8868\common_gis\Reports\Bio\Biotec_2024\Summer\Fig33.mxd 10/14/2024 bma

FIGURE 33.31
City of San Diego Wetlands

Image Source: NearMap (Flown May 2024)





Specific Plan Boundary

Project-level Survey Area

Project-level Phasing

- Phase 1
- Phase 2
- Phase 4
- Beyer Boulevard
- Emergency Vehicle Access
- Off-site Improvements

City of San Diego Wetlands

- Wetland (Waters ID)

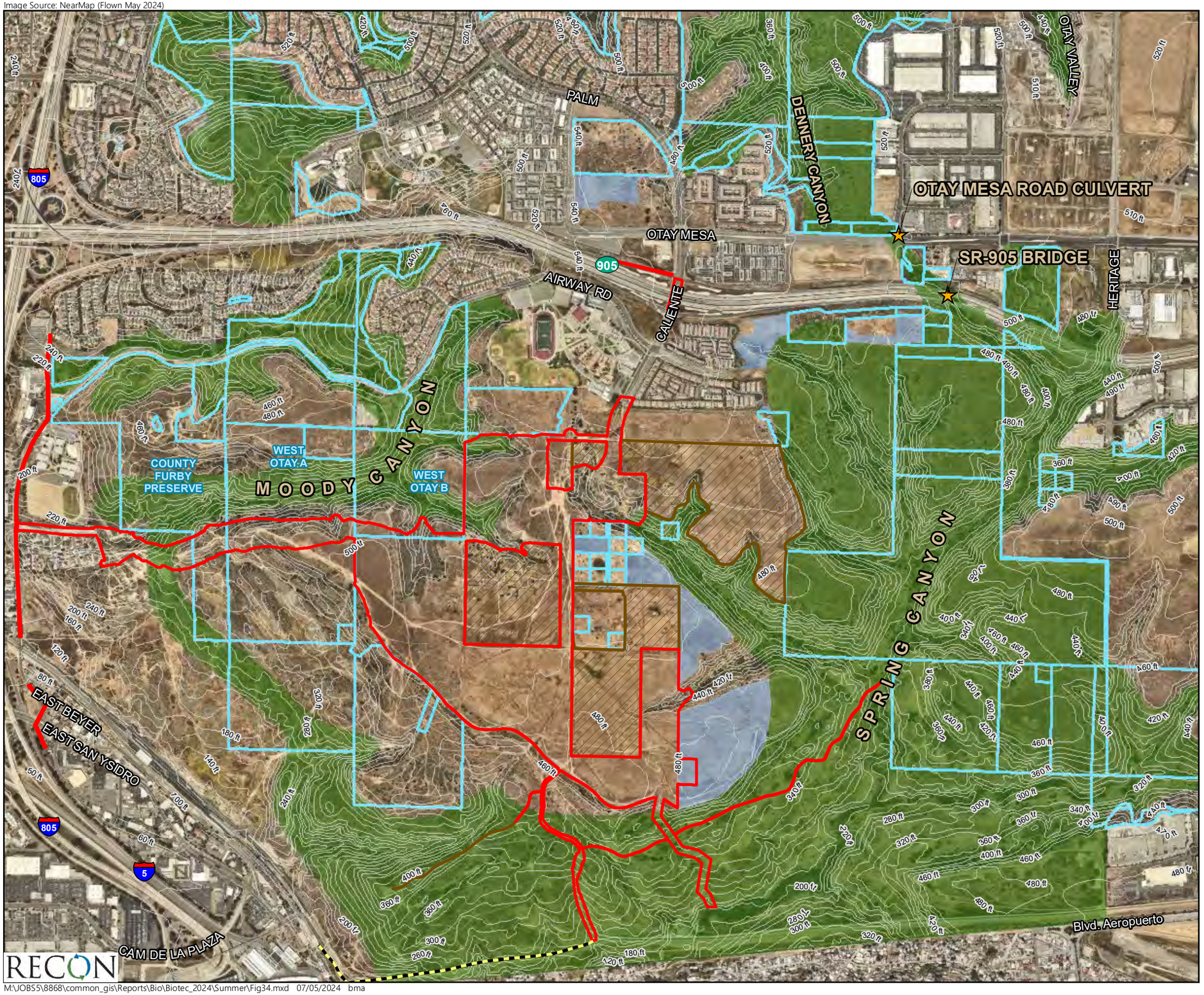
0 Feet 70

RECON

M:\JOBS5\8868\common_gis\Reports\Bio\Biotec_2024\Summer\Fig33.mxd 10/14/2024 bma

FIGURE 33.32
City of San Diego Wetlands

Image Source: NearMap (Flown May 2024)



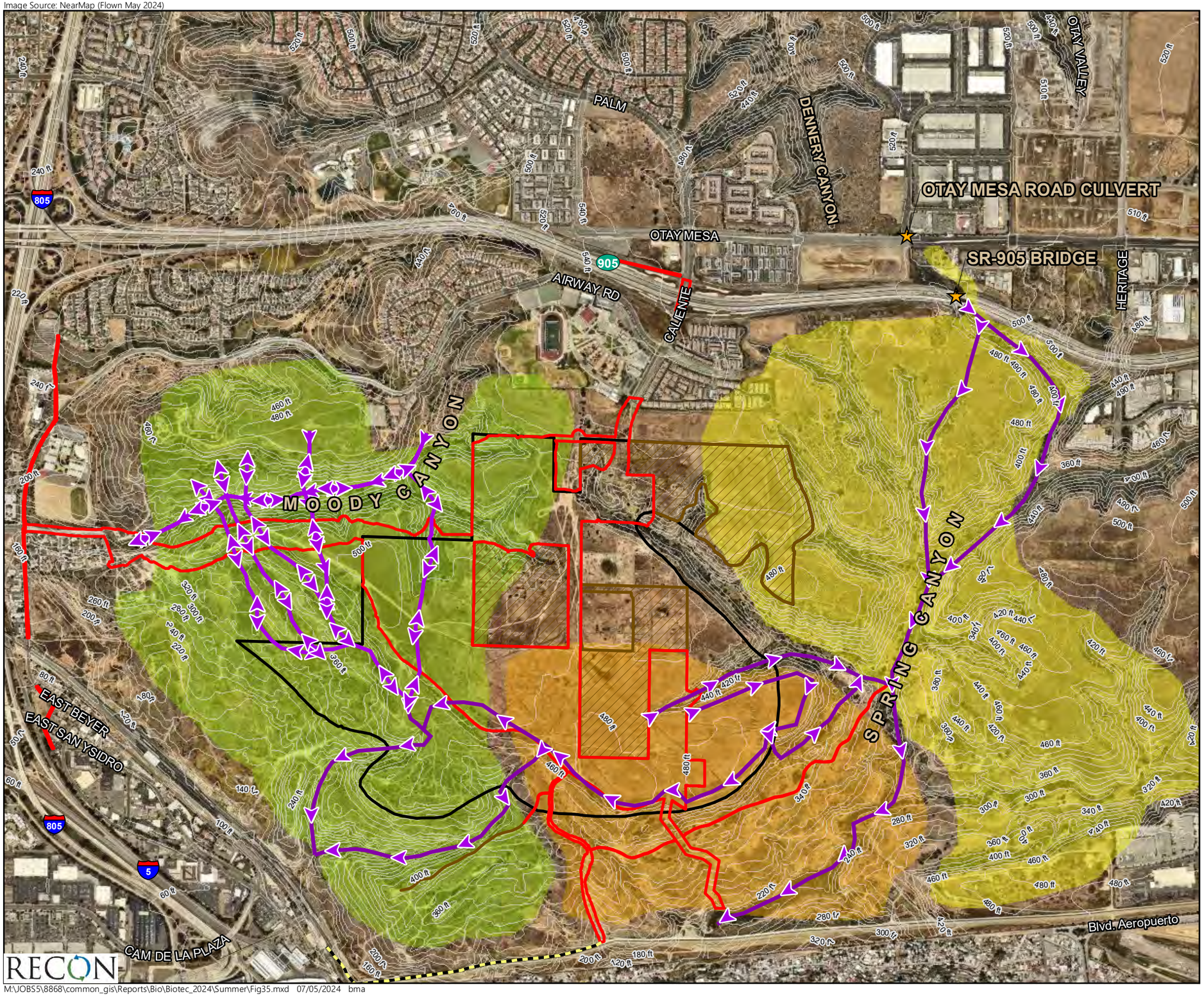
RECON

M:\JOBS5\8868\common_gis\Reports\Bio\Biotec_2024\Summer\Fig34.mxd 07/05/2024 bma

FIGURE 34

Local Canyons and Culverts that Currently Support Wildlife Movement

Image Source: NearMap (Flown May 2024)



- Direction of Wildlife Movement*
- Project-level Analysis Area
- Project-level Analysis Trails
- Program-level Analysis Area
- Program-level Analysis Trails
- Emergency Vehicle Access Road - No Improvements Required (Existing Road)
- Specific Plan Boundary
- Survey Area A
- Survey Area B
- Survey Area C
- 20-foot Contours

*This information is estimated and includes, but is not limited to, these paths (Wildlife Tracking Institute 2020)

0 Feet 1,200

RECON

M:\JOBS5\8868\common_gis\Reports\Bio\Biotec_2024\Summer\Fig35.mxd 07/05/2024 bma

FIGURE 35
Direction of Wildlife Movement

6.0 Compliance with the MSCP and VPHCP

One of the primary objectives of the MSCP was to identify and maintain a preserve system, which allows for animals and plants to exist at both the local and regional levels. The MSCP has identified large blocks of native habitat having the ability to support a diversity of plant and animal life known as "core biological resource areas." "Linkages" between these core areas provide for wildlife movement. These lands have been determined to provide the necessary habitat quality, quantity, and connectivity to sustain the unique biodiversity of the San Diego region. The City adopted an MSCP Subarea Plan which implements the MSCP program and established the MHPA preserve system. Adoption of the VPHCP provides regional conservation planning for vernal pools and seven threatened and endangered species that do not have federal coverage under the City's MSCP Subarea Plan. The VPHCP hardline preserve (e.g., VPHCP/MHPA) expands the City's existing MHPA established in the MSCP Subarea Plan to conserve additional land for conservation of vernal pools and sensitive species associated with vernal pools. Input from responsible agencies and other interested participants resulted in creation of the City's MHPA and VPHCP. The MHPA and VPHCP/MHPA lands are collectively the area within which the permanent MSCP and VPHCP preserve would be assembled and managed for its biological resources. The MHPA and VPHCP/MHPA lands are considered by the City to be sensitive biological resources. Note that 100 percent conserved lands existed at the time of the VPHCP and are considered baseline conservation for that plan. Both the MSCP Subarea Plan and the VPHCP anticipated development of the Southwest Village Specific Plan and defined conservation areas. This future development area was taken into consideration for the overall configuration of the open space in this part of the Otay Mesa Community Planning area.

6.1 Program-level Consistency

Future development within the program-level analysis areas would require future analysis to verify consistency with the City's MSCP and VPHCP. While specific development plans are not known at this time for the program-level analysis areas, the following discussion provides a high-level consistency analysis based on anticipated development areas in relation to known MHPA and VPHCP resources.

6.1.1 Multiple Species Conservation Plan

Program-level development areas would be located adjacent to the MHPA. The Specific Plan development concept (see Figure 8) has been planned to develop outside of MHPA lands. However, due to the adjacency of the program-level areas to MHPA, the project would have the potential to result in indirect impacts to surrounding MHPA lands. Future development proposed consistent with the Specific Plan would require a subsequent environmental review due to the presence of ESL. During subsequent site-specific environmental reviews, individual projects would be required to comply with applicable adjacency requirements of the MHPA, specifically the MHPA Land Use Adjacency Guidelines which is designed to protect MHPA lands from adjacent development. Additionally, future projects would be required to demonstrate consistency with Area Specific

Management Directives, General Management Directives, and Specific Management Directives for the Southern Otay Mesa Area.

All subsequent development projects adjacent to MHPA lands would be required to comply with the MSCP Land Use Adjacency Guidelines in terms of land use, drainage, access, toxic substances in runoff, lighting, noise, invasive plant species, grading, and brush management requirements. Measures include, but are not limited to the following: sufficient buffers and design features, barriers (rocks, boulders, signage, fencing, and appropriate vegetation) where necessary, lighting directed away from the MHPA, and berms or walls adjacent to commercial or industrial areas and any other use that may introduce construction noise or noise from future development that could impact or interfere with wildlife utilization of the MHPA.

Subsequent environmental review would be required to determine project features required for compliance with the MSCP Land Use Adjacency Guidelines. Prior to approval of any subsequent development project in an area adjacent to a designated MHPA, the City shall identify specific conditions of approval in order to avoid or to reduce potential impacts to adjacent the MHPA.

6.1.2 Vernal Pool Habitat Conservation Plan

The VPHCP has played a critical role in the development Specific Plan, as the VPHCP has defined lands within the Specific Plan that are to be set aside for vernal pool conservation. Accordingly, the Specific Plan development concept (see Figure 8) identifies land that is constrained due to conservation for vernal pool resources as Conserved Open Space. As part of the VPHCP planning process, and in anticipation of the Southwest Village project, approximately 24.4 acres of Tri Pointe Homes-owned lands within the southeast portion of the Specific Plan area was incorporated into the VPHCP/MHPA lands for vernal pool conservation.

The VPHCP/MHPA lands within the Specific Plan area in addition to those parcels owned by the City for vernal pool conservation are depicted on Figure 7. The project requires a Major Amendment (MA) to the VPHCP to address impacts to 100 percent conserved lands. The Specific Plan proposes to designate Planning Area 23 as conserved open space to offset the loss of the 100 percent conserved lands (see Figure 8). Designation of Planning Area 23 as open space is part of the conservation strategy to address impacts associated with the MA and would extend the conservation of vernal pool resources beyond what was envisioned in the VPHCP. Specifically, Planning Area 23 supports the J13N and J13S South Otay 1 acre (Private) vernal pools which includes a total of 7 pools as reported in Table 2-6 of the City's VPHCP (see Area B inset on Figure 36.4). The project includes adding the land into the MHPA. The addition of this land to the MHPA is proposed to support the conservation strategy for the VPHCP MA by adding land that was not previously included as conserved land, thereby increasing the total number of conserved vernal pool complexes identified in the City's VPHCP in addition to adding additional land with potential to support conservation of vernal pool habitat that supports sensitive species. The MHPA addition of this area is considered in the VPHCP conservation analysis at the project-level discussed below in Section 6.2.2.1. Additionally, as a result, the Specific Plan expands on the total available vernal pool preserve areas within the Specific Plan area compared to what was originally envisioned with the VPHCP. Thus, the Specific Plan is consistent with the VPHCP.

As future projects are proposed within the program-level areas, each individual development would be reviewed for consistency with the VPHCP and development would be required to demonstrate consistency with surrounding vernal pool resources including avoidance of indirect impacts through implementation of avoidance and minimization measures described in VPHCP Section 5.2.1. Through required compliance with the VPHCP for development within program-level areas and required consistency with the Specific Plan development concept, future development within the program-level areas would be consistent with the VPHCP.

6.2 Project-level Consistency

6.2.1 Multiple Species Conservation Plan

6.2.1.1 Multi-Habitat Planning Area Boundary Line Adjustment Analysis

The existing MHPA boundary is shown on Figure 36.1. Encroachments into the MHPA boundary would occur with implementation of the project-level areas specifically associated with the Phase 1, and Phase 4 residential development areas (see Areas A and D shown on Figure 36.2), the Spring Canyon drainage outfall associated with Phase 2 (see Area C shown on Figure 36.2), and an EVA road connecting to the southern boundary (see Area E on Figure 36.2). Area A deletions are needed to allow for Phase 1 residential development areas. Area D deletion is to allow for development of either a school or medium-density residential to occur within the adjacent Planning Area 7. Due to the location of the finger canyon in relation to Planning Area 7, some slope stabilization is required to support the adjacent development area. The MHPA deletion would be for slope grading that would ultimately be revegetated to native habitats after installation. The MHPA deletion for the Spring Canyon drainage outfall is required to support installation of a drainage pipe that would support overall Specific Plan drainage infrastructure. The MHPA deletion for the EVA road is proposed for fire access/emergency response.

Trails within the MHPA are not counted as MHPA deletion as they are proposed as primitive trails that are designed to be consistent with the MSCP guidelines and are a compatible use within the MHPA. Additionally, MHPA deletions would be required where the proposed Beyer Boulevard West extension crosses the MHPA (see Area B in Figure 36.2); however, the MHPA deletion would be limited to the manufactured slopes surrounding the surface of roadway as City linear utility projects are an allowed use in the MHPA pursuant to the City's LDC Section 143.0111. The City's Biology Guidelines and ESL regulations are the implementing ordinances for the MSCP and VPHCP. As detailed in the City's ESL regulations, Section 143.0111(d), "outside the Coastal Overlay Zone, City linear utility projects are exempt from the development area regulations of the OR-1-2 zone in Section 131.0250(b) and the development area regulations for steep hillsides in Section 143.0142(a) and for sensitive biological resources in Section 143.0141(a)(5)". The developed portion of the roadway would contain public water, sewer and stormwater infrastructure to support the Specific Plan area and therefore would be classified as City linear utilities, exempt from the ESL regulations. The linear utility portion of the roadway that is exempt from ESL regulations and considered an MHPA compatible use supports 0.24 acre of disturbed habitat and 0.13 acre of disturbed maritime succulent scrub.

MHPA encroachments total 14.88 acres (Table 7a) and are associated with MHPA deletions within the proposed residential development areas, the Spring Canyon drainage outfall, the EVA road, and MHPA deletion associated with Beyer Boulevard West slopes. Of this total, 12.82 acres are sensitive vegetation communities.

Table 7a
Summary of Proposed MHPA BLA within the Project-level Areas
(acres)

Vegetation Communities/ Land Cover Types	Habitat Tier	MHPA Allowed Use	Proposed Encroachment (MHPA Deletion – see Figure 36.2)	Proposed MHPA Addition (Area A - see Figure 36.3)	Net Change of Proposed MHPA with BLA
Upland Vegetation Communities					
Maritime Succulent Scrub	I	-	-7.19	+7.59	+0.40[1]
Disturbed Maritime Succulent Scrub	I	0.13	-0.44	+0.11	-0.33
Diegan Coastal Sage Scrub	II	-	-3.76	+7.34	+3.58
Disturbed Coastal Sage Scrub	II	-	-0.83	+0.34	-0.49
Non-native Grassland	IIIB	-	-0.50	+1.35	+0.85
Subtotal Sensitive Upland Vegetation		0.13	-12.73	+16.73	+4.01[1]
Wetland Vegetation Communities					
Natural Flood Channel	-	-	-0.08	+0.07	-0.01
Tamarisk Scrub		-	-0.01	-	-0.01
Disturbed Wetland	-	-	-	+0.08[2]	+0.08[2]
Vernal Pool	-	-	-0.01	-	-0.01
Vernal Pool with fairy shrimp	-	-	-	-	-
Subtotal Wetland Vegetation		-	-0.09	+0.15	+0.05
Total Sensitive Vegetation Communities		**0.13**	**-12.82**	**+16.88**	**+4.06**[2,3]
Disturbed Land[3]	IV	0.24	-2.02	+1.20	-0.82
Developed[3]	IV	-	-0.05	-	-0.05
Total with Disturbed and Developed Land		0.37	-14.88	+18.08	**+3.19**

NOTE: Totals may not add due to rounding.

[1]0.30 acre of disturbed lands within Area A (Figure 36.3) would be restored to maritime succulent scrub as part of the trails restoration (see Attachment 1) providing an additional 0.3 increase of Tier I vegetation communities after restoration.

[2]0.08 acre of disturbed wetland (0.07 acre of 0.08 acre contain fairy shrimp) being added to the MHPA would be enhanced to be vernal pools through weed removal and addition of common vernal pool plant species as part of the proposed trail restoration effort. This will ultimately result in the addition of a 0.08 acre vernal pool as part of the MHPA addition area.

[3]The deletions and additions of disturbed and developed lands is not counted toward the MHPA BLA equivalency analysis but the addition of 1.20 acres of disturbed lands (0.30 acre of which would be restored) would ultimately be part of the MHPA addition area.

Land proposed to be added into the MHPA following a BLA would include 16.88 acres of sensitive habitats comprising maritime succulent scrub, disturbed maritime succulent scrub, Diegan coastal sage scrub, disturbed coastal sage scrub, non-native grassland, natural flood channel, disturbed wetland, and vernal pool (see Table 7a and Figure 36.3). This represents a net gain of 4.06 acres of sensitive vegetation communities into the MHPA. Although not counted toward the total required

MHPA addition area for the BLA analysis, 1.20 acres of disturbed lands would be also included within the MHPA addition acreage. A 0.30-acre portion of these disturbed lands would be restored to maritime succulent scrub as part of the trails restoration effort (see Attachment 1).

Impacts to 100 percent conserved lands shown on Figure 36.4 are reported separately in Section 6.2.2.

a. MHPA BLA Criteria

The overall MSCP policy for BLAs require that they must transfer equal or higher biological values of impacted species and habitats into the preserve. A comparison of the biological values of the impacted areas and land to be transferred into the preserve is presented below. This comparison is based on the six biological factors required by the MSCP for an MHPA BLA.

1. Effects on Significantly and Sufficiently Conserved Habitats

The amount and distribution of habitats that are significantly and sufficiently conserved within the MHPA would be functionally equivalent in value compared to the impacted areas. As detailed in Figure 36.2, the areas proposed for MHPA deletion include two areas within Phase 1 that are the ends of two narrow finger canyons at the east end of Moody Canyon. Within Phase 2, MHPA deletion includes the location of a drainage outfall. Within Phase 4, a small area at the head of an adjacent canyon is proposed for deletion to accommodate adjacent residential development. In addition, there are deletions along the west end of the proposed Beyer Boulevard West extension and within the footprint of the EVA road.

The BLA would result in a net gain of 4.06 acres of sensitive vegetation communities into the MHPA. Lands being added include 7.59 acres of maritime succulent scrub, 0.11 acre of disturbed maritime succulent scrub, 7.34 acres of Diegan coastal sage scrub, 0.34 acre of disturbed coastal sage scrub, 1.35 acres of non-native grassland, 0.07 acre of natural flood channel, and 0.08 acre of disturbed wetland. The 0.33-acre net reduction in disturbed maritime succulent scrub would be offset by the 0.40-acre excess of maritime succulent scrub being added to the MHPA, which would result in a 0.07-acre net increase of Tier I habitats (see Table 7a). There would also be a net increase of Diegan coastal sage scrub (3.58 acres) and non-native grassland (0.85 acre) (see Table 7a). The excess net increase in Tier II habitat will offset the 0.49-acre net decrease in disturbed coastal sage scrub. There is a net decrease in natural flood channel (0.01 acre), tamarisk scrub (0.01 acre), and vernal pool (0.01 acre); however, this would be offset by the net increase in disturbed wetland (0.08 acre), for a net increase of wetland communities of 0.05 acre. The disturbed wetlands (0.07 acre of 0.08 acre contain fairy shrimp) added to the MHPA would be enhanced to become vernal pool habitat through weed removal and addition of common vernal pool plant species as part of the proposed trail restoration effort. This will ultimately result in the addition of 0.08 acre of vernal pool as part of the MHPA addition area. In addition, the project includes the proposed restoration of 0.30 acre of disturbed lands to maritime succulent scrub within Area A (see Figure 36.3) as part of the trail restoration (see Attachment 1).

The location of MHPA BLA additions are depicted in Figure 36.3 as Area A. This additional area is adjacent to existing MHPA closing a gap in open space coverage between the southern boundary of the project development and existing MHPA lands.

2. Effects to Covered Species

The proposed MHPA addition consists of 16.88 acres of sensitive habitat, which a majority is large patches of maritime succulent scrub and Diegan coastal sage scrub. The land exchange is expected to maintain or increase the overall conservation of covered species, based on the configuration, location, composition, and size of the lands proposed to be added into the MHPA preserve. In addition, the project includes the proposed restoration of 0.30 acre of disturbed lands to maritime succulent scrub within Area A (see Figure 36.3) as part of the trail restoration (see Attachment 1). The addition of the sensitive vegetation communities within the lands to be added to the MHPA are expected to increase habitat for covered species that may occur in the vicinity of the project.

MSCP covered plant species observed within the deletion areas include Otay tarplant (Delete Area A), San Diego barrel cactus (Delete Areas A and C), and snake cholla (Delete Area A). Approximately 800 Otay tarplants are located in the deletion areas and none are present within the addition area. A total of 39 San Diego carrel cactus are present in the deletion areas and 4 were identified in the addition area. Eleven snake cholla were mapped in the deletion areas and none were found in the addition area. While this represents a deficit for each of these species in the BLA exchange; habitat restoration within the MHPA and salvage of individuals would offset these losses through project mitigation. Impacts to 1,900 Otay tarplant across the project impact areas would be mitigated through implementation of proposed restoration within an approximately 0.21-acre area Otay tarplant restoration area (see Attachment 15) located within MHPA lands contiguous to the MHPA addition areas. Impacts to both San Diego barrel cactus and snake cholla would be mitigated through salvage of individuals that would be impacted and translocating them into the Vernal Pool and Quino Checkerspot Butterfly and Coastal Cactus Wren restoration plans (see Attachments 13 and 14).

Covered wildlife species that occupy the MHPA deletion areas include coastal California gnatcatcher, southern California rufous-crowned sparrow, and northern harrier. Four coastal California gnatcatcher use areas consisting of one pair each were documented in the deletion areas labeled Area A in Figure 36.2 (RECON 2018e). In the lands being added to the MHPA two use areas were recorded. In addition, a number of coastal California gnatcatchers have been mapped adjacent to the EVA road footprint (see Figure 27). The net gain of 3.09 acres of Diegan coastal sage scrub habitat and 0.37 acre of maritime succulent scrub/disturbed maritime succulent scrub (including the proposed disturbed lands/trail restoration) would ensure suitable habitat for the species would continue to be supported within the MHPA. As discussed further below in Section 6.2.2, an additional four pairs of coastal California gnatcatchers were documented during the 2018 protocol surveys within MHPA addition lands that would be added as part of the VPCHP conservation strategy for deletion of 100 percent conserved lands from the VPHCP (RECON 2018f). In addition, the lands immediately adjacent to the EVA road support a large contiguous area of occupied gnatcatcher habitat which would remain unimpacted. Overall, through the BLA process, the addition of large blocks of habitat to the MHPA preserve would provide additional protection of habitat for this species.

Southern California rufous-crowned sparrow was also observed within the deletion areas within maritime succulent scrub mapped located within Area C as shown on Figure 36.2. The 7.70 acres of maritime succulent scrub/disturbed maritime succulent scrub habitats (plus the proposed 0.30 acre

disturbed lands/trail restoration) and the 7.68 acres of Diegan coastal sage habitats being added to the MHPA would offset the loss of habitat for this species. Additionally, the MHPA deletion area associated with the Spring Canyon drainage outfall would be revegetated after installation of the pipeline, returning the deletion area to functional habitat for the species. The maritime succulent scrub and Diegan coastal sage within the canyon between the existing VPHCP/MHPA areas, as well as the western addition lands, provide rocky slopes which are ideal for this species and this species was observed in these two addition areas (see Figures 27.4 and 27.8).

Northern harrier was detected in deletion Area A which is offset by the species being detected during surveys within the addition area. In addition, the net increase of 4.06 acres of sensitive vegetation communities would offset any loss of habitat for this species within the deletion areas.

The EVA road would impact a 0.02-acre vernal pool containing fairy shrimp and western spadefoot toad (refer to Figures 33.20 and 40.3). While this pool would be impacted, there are several disturbed wetland basins (0.08 acre) present in the lands being added as part of this BLA and there are a number of other occupied basins being added in lands proposed for VPHCP 100 percent conserved lands exchange (see Section 6.2.2). One burrowing owl was incidentally observed during a Quino checkerspot butterfly survey within maritime succulent scrub, which does not typically represent suitable burrowing owl habitat. The observation of this species within the maritime succulent scrub is considered an incidental sighting as no burrowing owls were detected during any of the burrowing owl protocol surveys conducted for this project. While the deletion areas would not affect suitable habitat for burrowing owls, it would affect potential burrowing owl foraging habitat. The addition areas more than offset the MHPA deletions, ensuring burrowing owl foraging opportunities are replaced within the addition lands. While not required, the project includes a design feature to install a berm that would include artificial burrows in proposed vernal pool preserve area. As the project would offset the MHPA foraging habitat loss, adverse effects to burrowing owls are not anticipated as a result of the MHPA deletions.

3. Effects on Habitat Linkages and the Function of Preserve Areas

The MHPA deletion areas are part of an MSCP designated core biological resource area for vernal pools, sensitive habitat, and the sensitive species these habitats may support, but is not located within a designated habitat linkage. However, while the impacts to MHPA along the western end of Beyer Boulevard West are not considered an MHPA deletion, the roadway would obstruct habitat connectivity between conserved lands to the north and open space lands south of Beyer Boulevard West which provides a connection to Spring Canyon to the east.

To offset potential impacts to habitat linkages, the design for Beyer Boulevard West has incorporated a wildlife overcrossing for large animals in addition to three small animal culvert/undercrossings. Wildlife fencing would be installed to direct usage toward crossing locations. Small and large mammals, and reptiles would be able to use the crossing and culverts to cross Beyer Boulevard West. The placements of the wildlife crossings were purposefully selected based on results from wildlife tracking studies and are intended to mimic the existing movement patterns. With the implementation of these crossings along Beyer Boulevard West, wildlife would have continued opportunities to move north or south.

Additionally, lands proposed to be added to the MHPA would increase the area of conserved lands available for use by sensitive species. Proposed MHPA addition areas located on the east side of the Specific Plan (see Section 6.2.2) as part of the VPHCP conservation strategy would improve the function of the MHPA by providing a preserved habitat linkage between two existing VPHCP/MHPA areas, which would facilitate wildlife movement between these two areas.

The project would include improvements to an existing dirt roadway located south of the Specific Plan area so that it can be used as an EVA road by fire engines (refer to Section 1.3.2.3.e for details). This is an existing road within the MHPA and repurposing it as emergency access is not expected to affect the existing function of the adjacent preserve areas. The improvements are not anticipated to result in increased average daily use beyond existing conditions, as the typical use would be for ongoing border patrol use and ongoing land management similar to the existing conditions. The surfacing is not expected to affect border patrol usage considering they already use the existing dirt roadway with heavy-duty trucks and All-Terrain Vehicles. Similarly, this roadway is already used for surveys and land access by the owner, which would be replaced with use by land managers for access to the open space to conduct restoration and habitat management and maintenance activities with project implementation. In addition, all slope disturbance in areas that require grading would be restored to native habitats consistent with the surrounding area.

While the EVA road may be used in emergency situations for access, it is not expected that it would be used frequently. The area surrounding the EVA road would have signage installed to notify the public of the conservation status of the land and deter unauthorized entry and the northern boundary of the road will be gated to further prevent unauthorized and public use. Some pedestrian and bicycle access along the northern portion of the EVA road is anticipated to provide access to the primitive trail network (see Figure 12.3 for the existing utility road in relation to proposed primitive trails). The improvements to the EVA road would not affect habitat linkages or function of the MHPA since the level of vehicular usage is not anticipated to change. Public vehicular access to the road would be blocked by a gate accessible only by fire and emergency personnel. Pedestrian and bicycle access would be limited to users of the primitive trail network. Furthermore, the City as the anticipated long-term manager for the surrounding open space would monitor trespass and address any issues should they arise in accordance with standard MHPA monitoring and maintenance activities.

4. Effects on Preserve Configuration and Management

The proposed modifications to the MHPA boundary would increase the biological value of the MHPA by extending existing conserved lands in Area A depicted on Figure 36.3, which would close a gap between the southern boundary of project development and the adjacent MHPA. Although the proposed Beyer Boulevard West extension would impact a portion of the MHPA, Circulation Element roadways are considered a conditionally compatible use within the MHPA. The area needed within the roadway to accommodate linear utilities would remain in the MHPA and the manufactured slopes would be deleted from the MHPA. The manufactured slopes would be revegetated with native habitat compatible with the surrounding MHPA (see Section 1.3.2.2.a). Beyer Boulevard West has been designed to accommodate wildlife movement by incorporating a wildlife overcrossing and three culvert crossings for small animal movement. The inclusion of wildlife features into the Beyer Boulevard West extension would offset potential impacts to the preserve

configuration by ensuring wildlife movement can continue to use the open space lands north of the proposed Beyer Boulevard West extension. Changes to the MHPA boundary would not conflict with conservation or management needs for the subarea or cause the need for additional management measures.

While the approximately 3.56-acre area shown as Area C on Figure 36.2 would be deleted from the MHPA, this area would be temporarily impacted for installation of a drainage pipe. After installation, this area would be restored to native habitats consistent with the surrounding area, ensuring both continuity of habitat and preserve function and retention of the biological values within the MHPA.

The proposed 2.59-acre portion of EVA road within the existing MHPA, shown as Area E on Figure 36.2, would also be deleted from the MHPA. The location of the EVA road is sited to follow an existing dirt road that is needed for border patrol and land management access. Of the total 2.59-acre deletion, 0.85 acre are existing disturbed land and 0.05 acre are urban/developed lands. While the MHPA deletion would remove approximately 1.69 acres of sensitive vegetation communities including 0.73 acre of maritime succulent scrub and 0.83 acre of disturbed coastal sage scrub, the impacted habitats would be associated with required slope grading and would be restored to native habitats after disturbance is complete. The deletion would not substantially change the existing preserve configuration. Additionally, the road improvements would allow for ongoing access for management of the surrounding open space and improve the effectiveness of fire response and ability to control wildfires.

5. Effects on Ecotones or Other Conditions Affecting Species Diversity

The proposed changes to the MHPA boundary would improve the extent of open space and local habitat linkages to the surrounding MHPA preserve lands by extending MHPA lands. Modifications to the MHPA would maintain the local topographic and structural diversity of the preserve while improving the connectivity of preserved habitat from the current preserve design in the portion of the MHPA south of Phase 2. Additionally, the edge effects on the MHPA lands would be reduced by adding in large blocks of habitat and deleting areas that are isolated at ends of narrow finger canyons.

6. Effects to Species of Concern Not Covered under the MSCP

The following non-MSCP covered species were either identified or had a moderate to high potential to occur within the project survey area: western spadefoot, yellow-breasted chat, yellow warbler, coastal whiptail, red diamond rattlesnake, two-striped garter snake, Coronado skink, San Diego woodrat, merlin, California horned lark, Bell's sage sparrow, loggerhead shrike, and grasshopper sparrow. Of these, only five of these are present within any of the MHPA lands proposed for deletion: western spadefoot (Deletion Area E), coastal whiptail and orange-throated whiptail (one each in Deletion Area A), California horned lark (one within Deletion Area C), and grasshopper sparrow (one within Deletion Area A). None of these non-covered species, with the exception of western spadefoot (discussed below), are present within any of the land proposed for MHPA addition (Addition Area A); however, none of these species were observed in more than a few locations across the entire project survey area. The proposed MHPA BLA would not significantly increase the likelihood that any species not covered under the MSCP would be listed under either the federal or state Endangered Species Act based on the fact that the lands proposed to be

removed are small and scattered, whereas the lands proposed to be added would result in a net gain of 4.01 acres of sensitive upland vegetation, primarily Tiers I and II habitats that is configured in large patches and expands on existing MHPA. With the addition of these sensitive native habitats, including an additional 0.30-acre conversion of disturbed trails to Tier I habitat within Addition Area A, an increase in the biological value of the MHPA preserve would occur.

The EVA road (Deletion Area E) would include removal of several basins that support western spadefoot for a total of 0.02 acre. There are four disturbed wetland basins (0.08 acre) present in the lands being added as part of this BLA that are also occupied by western spadefoot which would preserve the biological value with respect to this species (see Area A in Figure 36.3). Additionally, these 0.08-acre disturbed wetlands within the Addition Area A would be enhanced through invasive removal and adding common vernal pool plants, improving the quality of habitat for western spadefoot. Addition Area D (see Figure 36.4) includes two vernal pools that also support western spadefoot. This addition is proposed to help offset impacts to VPHCP 100 percent conserved lands.

No Quino checkerspot butterflies were detected in any of the deletion or addition areas; however, host and nectar plants were mapped in both Deletion Area A and Deletion Area C during several years of focused surveys conducted for the species (see Figure 29.1). The removal of host and nectar plants within the deletion areas are off-set by host and nectar resources to be added to the MHPA that are located within Addition Area A. Additionally, as detailed in the Vernal Pool and Quino Checkerspot Butterfly Plan (see Attachment 14), this restoration effort would provide replacement Quino Checkerspot Butterfly habitat within the MHPA as mitigation for impacts to this species.

None of the five Crotch's bumble bees that were detected were mapped in any of the deletion or addition areas; however, one observation was made just west of Addition Area A, within lands proposed to be added to the MHPA as part of the VPHCP consistency analysis. Suitable nectar resources are present in all deletion and addition areas with wide variability in cover of resources (see Figure 29.2). Deletion Area A supports nectar resources with low, moderate, and high cover; Deletion Area B and D supports low and high cover of nectar resources; Deletion Area C supports low, low-to-moderate, and moderate cover; and Deletion Area E supports low and moderate cover. Addition Area A supports low, low-to-moderate, and moderate cover. Overall, the Addition areas provide equivalent replacement habitat suitable to support Crotch's bumble bee. Additionally, various restoration efforts within the MHPA would enhance suitable habitat for Crotch's bumble bee including the proposed trail restoration (see Attachment 1), cactus wren restoration (see Attachment 13), vernal pool and Quino checkerspot butterfly restoration (see Attachment 14), Otay tarplant and native grassland restoration (see Attachment 15), and wetland restoration (see Attachment 18).

b. MHPA BLA Summary

The proposed MHPA BLA would be beneficial to the overall MHPA preserve in this area due to an increase in Tiers I and II and wetlands habitats, including ephemeral drainages (natural flood channels) (see Table 7a). The project proposes MHPA additions above and beyond the required 1:1 replacement standard. The net gain of 4.06 acres of sensitive vegetation communities would more than offset MHPA deletion areas. The proposed MHPA addition, along with the additions proposed with the VPHCP conservation analysis (see Section 6.2.2) would expand the MHPA and provide

equal or higher biological values of impacted species and habitats into the preserve. This conclusion is based on the comparison of biological value provided by the evaluation of the six biological factors required by the MSCP for a MHPA BLA as discussed above. The proposed MHPA BLA received written concurrence by the USFWS and CDFW on January 31, 2025 (Attachment 10a).

6.2.1.2 MSCP Compliance

The MSCP contains general guidelines for the MHPA within the Otay Mesa and Otay River valley areas of the City. These guidelines include features that have been incorporated into the MHPA, and thus, were considered in the evaluation for species coverage and are required to be implemented for take of sensitive species. Compliance with Sections 1.2.1 (Southern Area), 1.4.1 (Compatible Land Uses), 1.4.2 (General Planning Policies and Design Guidelines), 1.4.3 (Land Use Adjacency Guidelines), 1.5.2 (General Management Directives), and 1.5.3 (Directives for the Southern Otay Mesa area) of the MSCP are further discussed below.

a. Southern Area

Section 1.2.1 of the MSCP provides specific guidelines for Otay Mesa and the Otay River valley as they relate to the MHPA. The relevant guideline is summarized and addressed as follows.

A7. Prior to any development impacts in this area, mitigation must include collecting and reseeding vernal pool species into other preserved Otay Mesa pools.

Discussion: Seed collection of vernal pool indicator species, including listed species, such as San Diego button-celery, would begin during the fall months before grading and all seed would be distributed to the proposed vernal pool restoration areas after the USFWS and City approve the grading of the vernal pool restoration areas and prior to the first rainy season.

b. Compatible Land Uses

The following land uses are considered conditionally compatible with the biological objectives of the MSCP; and thus, would be allowed within the City's MHPA:

1. Passive recreation:

   Discussion: Public trails would be incorporated in the MHPA, south of Phase 2, as part of the buildout of the Specific Plan. Trails would be designed as primitive (maximum 4 feet wide), with natural dirt surfacing and would be for passive recreational use to ensure consistency with the surrounding habitat. Passive recreation would allow hiking, walking, and non-motorized bicycle only. Equestrian use and motorized bicycles (i.e. e-bikes) would be prohibited; however, where accessible, motorized wheelchairs would be permitted. Trails are sited to follow existing disturbed alignments and implementation of the mitigation measures detailed in Section 8.2 and identified within each restoration plan would ensure avoidance of jurisdictional resources and sensitive plant species during restoration implementation. As detailed in Section 1.3.2.6, the proposed trail establishment would include restoration of disturbed habitats surrounding the proposed trail corridor. This

restoration would serve to close unauthorized trail routes to limit trail users to the formal network. Refer to Attachment 1 for the proposed Trails Restoration Plan.

The project additionally includes an amendment to the OMCP, including removal of the conceptual trails that have not been analyzed for compatibility with MSCP conservation goals.

2. Utility lines and roads in compliance with policies in 1.4.2 below:

   Discussion: A discussion of compliance with MSCP Section 1.4.2 policies and design guidelines is provided under c. below.

3. Limited water facilities and other essential public facilities:

   Discussion: The area needed within Beyer Boulevard West to accommodate utilities is considered a conditionally compatible use and would remain within the MHPA. The remainder of the alignment has been adjusted out and the encroachment into the MHPA offset at a 1:1 ratio. Additionally, a sewer pump station would be constructed within the vernal pool preserve within the southeastern corner of the project, which is a compatible activity with the VPHCP.

4. Limited low density residential uses:

   Discussion: The development areas within the MHPA would be adjusted out and no residential development would occur within the MHPA.

5. Brush Management (Zone 2):

   Discussion: Brush management zones are depicted on Figure 13.2. Where BMZ 2 is proposed outside of any graded slopes, it is considered impact neutral. BMZ 2 areas are not counted towards mitigation and are not proposed as part of the BLA additions. Conceptual BMZ 2 areas have been identified on Figure 13.3, adjacent to future development areas to ensure that all required brush management would not conflict with proposed mitigation lands. No mitigation is proposed within these conceptual BMZ 2 areas.

6. Limited agriculture:

   Discussion: This land use type does not apply to the proposed project.

c. General Planning Policies and Design Guidelines

Section 1.4.2 of the MSCP provides general planning and design guidelines for road and utility projects, as they relate to the MHPA and provides recommendations for fencing, lighting, and signage within the MHPA. The relevant guidelines are summarized and addressed as follows.

Roads and Utilities

5. All proposed utility lines should be designed to avoid or minimize intrusion into the MHPA.

   Discussion: The project has been designed to minimize intrusion into the MHPA. This has been achieved by locating utilities (stormwater, water, and sewer lines) within the footprint of the Beyer Boulevard West roadway. The portion of the developed portion of the roadway would contain public water, sewer and stormwater infrastructure to support the Specific Plan area and therefore would be classified as City linear utilities, exempt from the ESL regulations. The linear utility portion of the roadway that is exempt from ESL regulations totals 0.37 acre and includes 0.24 acre of disturbed habitat and 0.13 acre of disturbed maritime succulent scrub. The remainder of the roadway footprint was adjusted out of the MHPA (see Section 6.2.1.2 (b)(3) above).

   Regarding electrical utilities, based on initial coordination with SDG&E, electric utility service would follow existing utility alignments and would be undergrounded within the project's development footprint.

6. All new development for utilities and facilities within or crossing the MHPA shall be planned, designed, located and constructed to minimize environmental impacts.

   Discussion: The proposed Beyer Boulevard West extension would cross both MHPA and 100 percent conserved lands. Due to this roadway crossing sensitive resource areas including conserved lands, considerable planning went into designing the proposed Beyer Boulevard West extension to ensure impacts would be reduced to the extent feasible. Refer to Attachment 11 for a detailed discussion of the Beyer Boulevard West alternatives that were considered and a focused discussion of Beyer Boulevard West compliance with MSCP and VPHCP policies. To minimize impacts, the road is proposed to narrow to 2 lanes from the originally planned 4-lane classification and retaining walls would be incorporated.

   A major drainage outfall would extend southeast of the Specific Plan area, requiring an adjustment out of the MHPA, as detailed in Section 6.2.1.1. The drainage outfall is required to safely convey drainage away from the landslide formation located around the Specific Plan area as geotechnical investigations revealed that excessive stormwater infiltration into the landslide formation after development could undermine the stability of the landslide formation resulting in a safety risk. While the drainage outfall impacts would require a MHPA BLA, all impacts associated with installation of the drainage would be temporary and impacted areas would be restored with native vegetation after installation of the pipe, in accordance with the City's Landscape and Land Development Manual. The City requires a 25-month management and monitoring period of restored native habitat following successful completion of a 120-day plant establishment period to ensure success criteria are met.

   An EVA road is also proposed to increase fire safety and response options in the event of an emergency. While this road crosses the MHPA, it has been designed to follow an existing disturbed alignment that is needed for ongoing border patrol access. Impacts to sensitive vegetation communities associated with the road improvements would be ultimately revegetated and mitigated, resulting in minimal environmental impacts.

7. Temporary construction areas and roads, staging areas, or permanent access roads must not disturb existing habitat unless determined to be unavoidable.

   Discussion: All project construction areas and staging would occur within the project-level impact boundaries analyzed in this report. Access roads to the proposed restoration areas within the mitigation lands would follow existing disturbed roadways and would not disturb existing habitat. The project does not include any roads or staging areas outside the assessed permanent impact footprints.

8. Construction and maintenance activities in wildlife corridors must avoid significant disruption of corridor usage.

   Discussion: Local wildlife movement is anticipated to occur within and surrounding construction areas. However, construction would occur in phases, allowing wildlife to move around active construction areas. Additionally, since Beyer Boulevard West would be implemented in phases, the proposed wildlife overcrossing and culverts would be installed at the time that portion of the roadway is installed, creating opportunities for wildlife movement as the road is constructed. Roads in the MHPA would be limited to those identified in Community Plan Circulation Elements, collector streets essential for area circulation, and necessary maintenance/emergency access roads.

9. Development of roads in canyon bottoms should be avoided whenever feasible.

   Discussion: As detailed in Attachment 11, the proposed alignment for Beyer Boulevard West was shifted south to avoid the canyon bottom of Moody Canyon. The proposed Beyer Boulevard West is planned as a 2-lane constrained roadway where it crosses conserved lands, which has allowed the impact footprint of the roadway to be minimized to the maximum extent feasible. Compared to the original Beyer Boulevard West design through conserved lands, the proposed road avoids the canyon bottom and reduces associated ephemeral drainage impacts by 36 percent compared to the original alignment. The width of the roadway has also been reduced by 48 feet.

10. Where possible, roads within the MHPA should be narrowed from existing design standards to minimize habitat fragmentation and disruption of wildlife movement and breeding areas.

    Discussion: The proposed Beyer Boulevard West connection west of the Specific Plan area would cross MHPA and conserved lands. The Beyer Boulevard West alignment was the subject of extensive coordination to reduce the roadway classification to the maximum extent to minimize impacts to conserved land along its alignment. Refer to Attachment 11 for a detailed discussion of the various alignments and cross-section designs that were considered for the segment of Beyer Boulevard West that crosses MHPA and other conserved lands west of the Specific Plan area. As detailed on Figure 14.1, Beyer Boulevard West is planned as a 4-lane Modified Urban Collector from Enright Drive to West Avenue; however, where the roadway traverses environmentally sensitive and conserved lands it would narrow to a two-lane road and retaining walls would be installed (see Figure 14.2). In order to further minimize habitat fragmentation and allow for ongoing wildlife usage of the area north and south of the roadway, three small animal under-crossings and a wildlife

overcrossing have been incorporated into the roadway design (see Figure 14.2). Refer to Section 1.3.2.2.b for a discussion of the wildlife crossings and roadway features incorporated to ensure compatibility with wildlife. See also Section 7.3 for a discussion of how the Beyer Boulevard West connection is designed to support wildlife movement. Impacts associated with the portion of Beyer Boulevard West that crosses 100 percent conserved lands are addressed in the VPHCP MA analysis below. Refer to Section 6.2.2.1 for analysis of impacts to 100 percent conserved lands and the conservation strategy to address those impacts.

The EVA road is not required to meet the City public road standards, as it would not be a public roadway. Considering the landslide complex conditions, constructing the EVA road to meet public road standards would require massive excavation to substantial depths that would be infeasible to implement. To minimize impacts to biological resources while providing improvements to support fire safety and emergency response, the roadway is designed narrower than City standards to avoid substantial disturbance to the surrounding MHPA open space.

11. For the most part, existing roads and utility lines are considered a compatible use within the MHPA and therefore will be maintained.

    Discussion: While the existing utility road located south of the Specific Plan development area is currently a compatible use within the MHPA, improvements to the road for emergency access (EVA road) are proposed, the roadway and its slopes would be adjusted out of the MHPA as a deletion area (see Figure 16.3 and Figure 36.2, Area E). Additionally, SDG&E maintains existing utility lines within the open space within and surrounding the Specific Plan area that would remain. Some existing roads in the area are anticipated to continue to be used for USBP access. However, as detailed in the Trails Restoration Plan (see Attachment 1), some roads would be narrowed to a primitive trail as part of the proposed trail restoration effort.

Fencing, Lighting, and Signage

1. Fencing or other barriers will be used where it is determined to be the best method to achieve conservation goals and adjacent to land uses incompatible with the MHPA.

   Discussion: During construction, temporary orange fencing and silt fencing would be installed to prevent unauthorized encroachment into the adjacent MHPA. Following construction, temporary fencing would be removed. Wildlife fencing is also proposed surrounding the proposed Beyer Boulevard West extension. The fencing will funnel animals away from the road and toward crossing locations so that they are able to cross safely. As detailed in Section 1.3.2.5, where jurisdictional resources or sensitive plant species are located adjacent to proposed primitive trail alignments in the MHPA, peeler pole fencing is proposed to ensure trail users do not disturb these features. Fencing is also proposed at the edge of the vernal pool restoration area to protect the vernal pool preserve from adjacent development. Sensitive species and jurisdictional resources mitigation measures associated with trail establishment are detailed in Attachment 1 and provided in Section 8.2. Signage would be installed around the boundary of the development area in selected locations based on accessibility, and along the EVA road and primitive trail network to inform

residents of the sensitivity of surrounding resources and to identify prohibition on access into the surrounding open space.

2. Lighting shall be designed to avoid intrusion into the MHPA and effects on wildlife. Lighting in areas of wildlife crossings should be of low-sodium or similar lighting. Signage would be limited to access and litter control and educational purposes.

   Discussion: All construction would occur during the day and would not require nighttime lighting. The project would include signage at the trail heads and where the project is adjacent to the MHPA for access control and/or educational purposes. Lighting associated with Beyer Boulevard West where wildlife crossing is anticipated to occur would be shielded and directed downward away from open space areas.

d. Land Use Adjacency Guidelines

As stated in the MSCP Section 1.4.3 (City of San Diego 1997), land uses adjacent to the MHPA are to be managed to ensure minimal impacts to the MHPA. The MSCP establishes adjacency guidelines to be addressed on a project-by-project basis to minimize direct and indirect impacts and maintain the function of the MHPA. The Land Use Adjacency Guidelines would be incorporated as project conditions of approval, which would preclude indirect impacts to the MHPA. Note that MHPA adjacency guidelines would apply to both land within the MHPA and uplands of the VPHCP/MHPA; however, a separate discussion of the application of the land use adjacency guidelines as related to the VPHCP is provided in Section 6.2.2.2.d. MHPA Land Use Adjacency Guidelines are cited below, followed by a consistency discussion.

Drainage. All new and proposed parking lots and developed areas in and adjacent to the preserve must not drain directly into the MHPA. All developed and paved areas must prevent the release of toxins, chemicals, petroleum products, exotic plant materials and other elements that might degrade or harm the natural environment or ecosystem processes within the MHPA. This can be accomplished using a variety of methods including natural detention basins, grass swales, or mechanical trapping devices. These systems should be maintained approximately once a year, or as often as needed, to ensure proper functioning. Maintenance should include dredging out sediments if needed, removing exotic plant materials, and adding chemical-neutralizing compounds (e.g., clay compounds) when necessary and appropriate.

Discussion: As detailed in Section 1.3.2.4.b, the project drainage design involves on-site detention of stormwater in underground vaults to capture, treat and control stormwater flow volumes. A number of large underground storm water vaults have been accommodated within the development area to retain water onsite during large rain events and allow for controlled release of water through drainage facilities. The stormwater vaults have been sized to ensure that flows do not cause an increase in velocity or significantly change drainage patterns in the surrounding area. All runoff created by the development would be collected in a storm drain system on-site, treated, and stored for water quality treatment and then ultimately discharged. All of these design features and measures are intended to minimize the indirect impacts to the MHPA.

The on-site treatment and detention of stormwater would avoid release of pollutants into the MHPA. Drainage discharge points into surrounding open space are limited to three key areas. Drainage from the northern portion of the residential development area within Phase 1a would be treated on-site to remove any toxins and pollutants and would then flow to the west via two drainage discharge points that would discharge drainage at the bottom of a slope into rip rap to avoid erosion (see Figure 10.1). Drainage in these locations would ensure flows toward Moody Canyon and its drainages are maintained.

Two other drainage discharge points are planned. Drainage outfall 1 (as shown on Figure 10.1), is a long drainage conveyance pipe that would carry the project's drainage down to the bottom of Spring Canyon, avoiding the landslide complex which cannot support extensive water infiltration. Before discharge, water would be treated, and release volume and velocity would be controlled to avoid downstream erosive effects. Water from drainage outfall 1 would ultimately flow into Mexico via an existing drainage structure just downstream of the outfall daylight location. Drainage 2 (as shown on Figure 10.1) would pipe and release treated water and stormwater toward the bottom of the canyon. The discharge point is sited lower in the canyon to avoid erosion. All stormwater detention facilities would have maintenance requirements to ensure long-term functioning for the protection of downstream water quality.

Toxins. Land uses, such as recreation and agriculture, that use chemicals or generate by-products such as manure that are potentially toxic or impactive to wildlife, sensitive species, habitat, or water quality need to incorporate measures to reduce impacts caused by the application and/or drainage of such materials into the MHPA. Such measures should include drainage/detention basins, swales, or holding areas with non-invasive grasses or wetland-type native vegetation to filter out the toxic materials. Regular maintenance should be provided. Where applicable, this requirement should be incorporated into leases on publicly owned property as leases come up for renewal.

Discussion: The project is a residential development with a mixed-use component toward the center of the development area. Significant use of toxic chemicals is not anticipated; however, maintenance of yards and parks could be associated with chemical application to control pests. Additionally, runoff from roads could carry contaminated runoff. Portions of the project would drain into the MHPA; however, stormwater would be detained in underground drainage vaults and treated by modular wetlands, a form of biofiltration, to treat runoff and reduce the potential for toxins to enter the MHPA.

Maintenance of drainage facilities would occur to ensure the BMPs continue to function and treat runoff. Maintenance of drainage facilities would be the responsibility of a maintenance assessment district, except facilities in the public right-of-way which would be the responsibility of the City, as outlined in Section 7.14 of the Southwest Village Specific Plan.

Lighting. Lighting of all developed areas adjacent to the MHPA should be directed away from the MHPA. Where necessary, development should provide adequate shielding with non-invasive plant materials (preferably native), berming, and/or other methods to protect the MHPA and sensitive species from night lighting.

Discussion: Lighting for the project would be responsive to the species in the area as well as the overall rural surroundings. The development design naturally provides some protection to surrounding open space due to the proposed manufactured slopes and primitive trails that are proposed to surround development areas. Similarly, any lighting associated with the proposed Beyer Boulevard West extension would be buffered from the surrounding open space by manufactured slopes and lighting would be shielded downward. Lighting near the location of the proposed wildlife overcrossing would be coordinated with the City to ensure compatibility of the crossing with wildlife usage. Understanding that some species rely on darkness for shelter, feeding patterns, migrating, etc., the areas adjacent to MHPA would be especially sensitive to light exposure in order to retain native characteristics. Additionally, no nighttime lighting is proposed during construction, and nighttime lighting for the pump station adjacent to the existing VPHCP/MHPA would be shielded and/or directed to avoid or minimize spillage into adjacent habitat areas.

Therefore, all lighting adjacent to the MHPA would be shielded and directed away from the MHPA to reduce the potential for light pollution of the adjacent conserved lands.

Noise. Uses in or adjacent to the MHPA should be designed to minimize noise impacts. Berms or walls should be constructed adjacent to commercial areas, recreational areas, and any other use that may introduce noises that could impact or interfere with wildlife utilization of the MHPA. Excessively noisy uses or activities adjacent to breeding areas must incorporate noise reduction measures and be curtailed during the breeding season of sensitive species. Adequate noise reduction measures should also be incorporated for the remainder of the year.

Discussion: Due to the site's location within MHPA, construction noise will need to be avoided, if possible, during the breeding season of the coastal California gnatcatcher (March 1–August 15). Focused surveys were conducted and verified the presence of coastal California gnatcatcher in suitable Diegan coastal sage scrub and maritime succulent scrub habitats within the project-level area that are within and adjacent to the MHPA. As the habitat is occupied by coastal California gnatcatcher, noise reduction measures, such as noise barriers and noise monitoring may be required to attenuate the construction noise, if construction occurs during the breeding season. The requirement for noise monitoring and noise reduction measures are implemented through the City's Land Use Adjacency Guidelines and include the following City standard measures:

I. Between March 1 and August 15, no clearing, grubbing, or grading of occupied gnatcatcher habitat shall be permitted. Areas restricted from such activities shall be staked or fenced under the supervision of a qualified biologist; and

II. Between March 1 and August 15, no construction activities shall occur within any portion of the site where construction activities would result in noise levels exceeding 60 dB(a) hourly average at the edge of occupied gnatcatcher habitat. An analysis showing that noise generated by construction activities would not exceed 60 dB (a) hourly average at the edge of occupied habitat must be completed by a qualified acoustician (possessing current noise engineer license or registration with monitoring noise level experience with listed animal species) and approved by the city manager at least two weeks prior to the commencement of construction activities. Prior to the commencement of

construction activities during the breeding season, areas restricted from such activities shall be staked or fenced under the supervision of a qualified biologist; or

III. At least two weeks prior to the commencement of construction activities, under the direction of a qualified acoustician, noise attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from construction activities will not exceed 60 dB(a) hourly average at the edge of habitat occupied by the coastal California gnatcatcher. Concurrent with the commencement of construction activities and the construction of necessary noise attenuation facilities, noise monitoring* shall be conducted at the edge of the occupied habitat area to ensure that noise levels do not exceed 60 dB (a) hourly average. If the noise attenuation techniques implemented are determined to be inadequate by the qualified acoustician or biologist, then the associated construction activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season (August 16).

* construction noise monitoring shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dB (a) hourly average or to the ambient noise level if it already exceeds 60 dB (a) hourly average. If not, other measures shall be implemented in consultation with the biologist and the city manager, as necessary, to reduce noise levels to below 60 dB(a) hourly average or to the ambient noise level if it already exceeds 60 dB(a) hourly average. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment.

Barriers/Access. New development adjacent to the MHPA may be required to provide barriers (e.g., non-invasive vegetation, rocks/boulders, fences, walls, and/or signage) along the MHPA boundaries to direct public access to appropriate locations and reduce domestic animal predation.

Discussion: Along the proposed Beyer Boulevard West extension, fencing is proposed to keep wildlife off of the roadway and direct them to crossing locations (see Section 1.3.2.3.b). This fencing would additionally help to keep people out of the surrounding open space. Pedestrian access along Beyer Boulevard West is limited to the sidewalks along the roadway and no primitive trails are proposed that would provide human access to surrounding open space lands around Beyer Boulevard West.

The residential development areas associated with Phase 1 would have rear yard fencing, and additionally, vegetated 2:1 slopes would be located between homes and the adjacent to the MHPA boundary. These design features would function as deterrents to pedestrian access into the MHPA.

The proposed trail network is located along an existing disturbed alignment. A number of unauthorized trail alignments cross the proposed primitive trail network. In order to close unauthorized trails that cross the proposed formal primitive trail network, all disturbed land within a 50-foot buffer (100 feet total) would be revegetated to deter entry and use of unauthorized trails. Similarly, signage would be installed around the boundary of the development area in selected locations based on accessibility, and along the EVA road and

primitive trail network to inform residents of the sensitivity of surrounding resources and to identify prohibition on access into the surrounding open space.

Invasives. No invasive non-native plant species shall be introduced into areas adjacent to the MHPA.

Discussion: The plant palette for the project would not include any invasive or non-native plant species adjacent to the MHPA area. Refer to Figure 13.1 for the location of exterior slope areas that would be planted with a native landscape plant palette, as detailed in the project description Section 1.3.2.2.a. The Specific Plan Appendix A defines allowable plant species adjacent to the MHPA and within BMZ 2. Additionally, according to City's standards for brush management, BMZ 2 only includes native plants.

Brush Management. New residential development located adjacent to and topographically above the MHPA (e.g., along canyon edges) must be set back from slope edges to incorporate BMZ 1 areas on the development pad and outside of the MHPA. BMZ 2 may be located in the MHPA upon granting of an easement to the City (or other acceptable agency) except where narrow wildlife corridors require it to be located outside of the MHPA. BMZ 2 would be increased by 30 feet, except in areas with a low fire hazard severity rating where no BMZ 2 would be required. BMZs would not be greater in size than is currently required by the City's regulations. The amount of woody vegetation clearing shall not exceed 50 percent of the vegetation existing when the initial clearing is done. Vegetation clearing shall be done consistent with City standards and shall avoid/minimize impacts to covered species to the maximum extent possible. For all new development, regardless of the ownership, brush management in the BMZ 2 area would be the responsibility of a homeowners' association or other private party.

Discussion: Brush management is proposed along the southwestern portions of Phases 1a and 1b. Brush management consists of BMZ 1 and BMZ 2, which are shown on the Landscape Plans and Figure 13.2. With the proposed MHPA BLA, all BMZ 1 and 2 areas would be outside of the MHPA and not part of any MHPA additions. Vegetation clearing would be done consistent with City standards and would avoid/minimize impacts to covered species to the maximum extent possible. Brush management is required on all premises that are within 100 feet of a structure and contain native or naturalized land. Per the City's Brush Management Regulations, the BMZs have been tailored to be consistent with the proposed site design, and the allowance to increase BMZ 1 and reduce BMZ 2 has been employed. Where the 100-foot brush management cannot be achieved, due to constraints related to adjacency to open space preserves, alternative compliance measures would be implemented to avoid any disturbance to the MHPA (see Figure 13.2 for alternative compliance areas).

Interim brush management may be required where undeveloped land within the Specific Plan is located adjacent to development areas. As sensitive biological resources may be present within these adjacent parcels (e.g., vernal pools, federally listed plant species, etc.), timing for brush management within these areas shall be limited to late summer and fall months, once native plant species have set and dropped seed, to ensure that impacts are avoided to sensitive biological resources. In addition, brush management will avoid impacts to nesting birds in conformance with MBTA and California Fish and Game Code either through timing restrictions or pre-activity nest avoidance surveys.

Conceptual locations of impact neutral BMZ 2 areas are shown on Figure 13.3. These areas provide a buffer between proposed MHPA addition areas and the grading footprint in anticipation of future brush management areas.

Grading/Land Development. Manufactured slopes associated with site development shall be included within the development footprint for projects within or adjacent to the MHPA.

Discussion: The proposed manufactured slopes are considered part of the project impact areas. Additionally, all manufactured slopes adjacent to MHPA would be revegetated with native species consistent with a City-approved revegetation plan. Native plants installed adjacent to MHPA or in BMZ 2 areas within the grading limits would be irrigated using a temporary aboveground irrigation system. The plants would be installed in late winter to early spring, as this is the optimal time for native plant growth and seed germination. A 120-day plant establishment period and a 24-month maintenance and monitoring period are necessary to ensure that the native plants establish successfully. Maintenance activities would involve control of non-native plant species, maintenance and ultimate removal of the temporary irrigation system, and replacement planting (if necessary). The site would be monitored by a biologist quarterly to evaluate site conditions and to recommend remedial actions, if needed.

e. General Management Directives

General Management Directives outlined in Section 1.5.2 of the MSCP are outlined below, including a discussion of project compliance.

Mitigation

Mitigation, when required as part of project approvals, shall be performed in accordance with the City of San Diego Environmentally Sensitive Lands Ordinance and Biology Guidelines.

Discussion: This biological resources report is prepared in accordance with the City's ESL and Biology Guidelines. Mitigation for the project-level components is identified in Section 8.2.

Restoration

Restoration or revegetation undertaken in the MHPA shall be performed in a manner acceptable to the City. Where covered species status identifies the need for reintroduction and/or increasing the population, the covered species will be included in restoration/revegetation plans, as appropriate. Restoration or revegetation proposals will be required to prepare a plan that includes elements addressing financial responsibility, site preparation, planting specifications, maintenance, monitoring and success criteria, and remediation and contingency measures. Wetland restoration/revegetation proposals are subject to permit authorization by federal and state agencies.

Discussion: The project proposes restoration and revegetation of habitats within the MHPA. While not proposed as mitigation, the project proposes to restore and enhance disturbed lands within the MHPA around proposed primitive trail alignments. A Trails Restoration Plan

is included as Attachment 1. Direct impacts to San Diego barrel cactus and snake cholla would require salvage and translocation. The salvage and translocation requirements for these species are incorporated into the Coastal Cactus Wren Mitigation Plan (see Attachment 13) and the Vernal Pool and Quino Checkerspot Butterfly Mitigation Plan (see Attachment 14). Restoration is also proposed within Spring Canyon to restore and enhance wetland habitats). Revegetation plans relating to wetland habitats would be subject to permit authorization by federal and state agencies.

Species-specific mitigation for impacts to cactus wren habitat would occur through the habitat restoration within the disturbed maritime succulent scrub through salvage and translocation of other non MSCP-covered species such as coast cholla (*Cylindropuntia prolifera*) from the impact site, liveforevers (*Dudleya* spp.), fish-hook cactus (*Mammillaria dioica*), coastal prickly pear (*Opuntia littoralis*), chaparral prickly pear (*Opuntia oricola*), our Lord's candle (*Yucca whipplei*), and Mojave yucca (*Yucca schidigera*) as detailed in the Coastal Cactus Wren Mitigation Plan (see Attachment 13; RECON 2024b).

An Otay Tarplant/Native Grassland Mitigation Plan is included as Attachment 15 which describes the proposed Otay tarplant mitigation within the MHPA. This will also provide a native grassland component to mitigate for the impacts to native grassland proposed as part of Phase 4 grading.

All restoration and revegetation plans include required elements including financial responsibility, site preparation, planting specifications, maintenance, monitoring, success criteria, and remediation and contingency measures. Additionally, each restoration plan identifies mitigation measures that would be implemented during restoration implementation to ensure avoidance of impacts to jurisdictional resources and sensitive species. These measures would be implemented during restoration implementation.

Public Access, Trails, and Recreation

Policies are summarized below followed by a consistency discussion.

1. Provide sufficient signage to clearly identify public access to the MHPA. Barriers, such as vegetation, rocks/boulders for fencing may be necessary to protect highly sensitive areas.

   Discussion: Signage would be posted at appropriate locations such as trail heads and as trails enter the MHPA to identify limitations on public access and inform users of the sensitivity of the area. Appropriate barriers such as rocks/boulders, vegetation, or fencing (e.g., peeler pole or split rail) would be installed where necessary to prevent unauthorized access into sensitive resource areas.

2. Locate trails, view overlooks, and staging areas in the least sensitive areas of the MHPA. Locate trails along the edges of urban land uses adjacent to the MHPA, following existing dirt roads as much as possible rather than entering habitat or wildlife movement areas. Avoid locating trails between two different habitat types.

   Discussion: These criteria have been taken into consideration with trail location and view overlooks/staging areas. Perimeter trails are proposed around the edges of the urban land

uses adjacent to the MHPA. Primitive trails within the MHPA have been sited to follow existing disturbed alignments (see Figures 12.3 and 18).

3. In general, avoid paving trails unless management and monitoring evidence shows otherwise. Clearly demarcate and monitor trails for degradation and off-trail access and use. Provide trail repair/maintenance as needed. Undertake measures to counter the effects of trail erosion including the use of stone or wood cross-joints, edge plantings of native grasses, and mulching of the trail.

   Discussion: All primitive trails within the MHPA would remain dirt and not be paved. Project-level trails proposed for implementation would incorporate measures to avoid trail erosion where necessary. Long-term management of the project-level trail network within the MHPA would be conducted as part of the long-term open space/mitigation lands management to be undertaken by the City.

4. Minimize trail widths to reduce impacts to critical resources. For the most part, do not locate trails wider than 4 feet in core areas or wildlife corridors. Provide trail fences or other barriers at strategic locations when protection of sensitive resources is required.

   Discussion: Perimeter trail width would be 4 feet wide or less within the MHPA. Implementation of revegetation within a 50-foot buffer (100-foot-wide corridor) along the edges of proposed trail alignment would eliminate areas of extensive disturbance and remove opportunities for trail users to use unauthorized trails that cross the proposed trail network. As detailed in Section 1.3.2.5, fencing is proposed in strategic locations to provide protection of sensitive resources such as vernal pools or sensitive plant species. Additionally, mitigation measures associated with trail establishment are detailed in Section 8.2 and within Attachment 1.

5. Limit the extent and location of equestrian trails to the less sensitive areas of the MHPA.

   Discussion: Equestrian trails are not proposed as part of the Specific Plan or OMCP trail network. Signage would be installed in appropriate locations to inform trail users that trails are for passive recreational use only. This would avoid impacts to sensitive habitat communities such as riparian areas, maritime succulent scrub, and coastal sage scrub associated with equestrian use. Passive recreation would allow hiking, walking, and non-motorized bicycle only. Equestrian use and motorized bicycles (i.e., e-bikes) would be prohibited; however, where accessible, motorized wheelchairs would be permitted.

6. Off-road or cross-country vehicle activity is an incompatible use in the MHPA, except for law enforcement, preserve management or emergency purposes. Restore disturbed areas to native habitat where possible or critical, or allow to regenerate.

   Discussion: Off-road activity has been an historic use within the open space surrounding the Specific Plan area. Development of the Specific Plan would help to stop unauthorized off-road activity with the open space by removing access. Signage would be posted at appropriate locations such as trail heads and as trails enter the MHPA informing the public that no off-road or cross-county vehicular activity is allowed within the MHPA. An existing utility road would be improved as an EVA road. The roadway and its slopes would be adjusted out of the MHPA as a deletion area (see Figure 16.3 and Figure 36.2, Area E). This road is currently used by the USBP, SDG&E, or other utility/service providers and would also

allow fire engine access in the event of emergency after improvements are installed. As part of project planning, coordination has been conducted with the Border Control to inform them of the conservation goals for the area and to identify the roads that they would continue to access. As detailed in Section 1.3.2.5.a and 1.3.2.6.a, a main east-west roadway through the mitigation lands would be used to implement restoration activities, but after completion, the roadway is planned to be narrowed to a primitive trail alignment through restoration of disturbed land to native habitats. Attachment 1 includes the Trails Restoration Plan which would implement restoration within areas that have been subject to historic off-road use in the vicinity of trail alignments.

7. Limit recreational uses to passive uses such as birdwatching, photography and trail use. Locate developed picnic areas near MHPA edges or specific areas within the MHPA, in order to minimize littering, feeding of wildlife, and attracting or increasing populations of exotic or nuisance wildlife (opossums, raccoons, skunks). Where permitted, restrain pets on leashes.

   Discussion: Signage identifying allowed pedestrian uses such as walking, jogging, and hiking would be installed at appropriate locations such as trail heads and at the entrances of the MHPA. No picnic areas are proposed to be developed. Passive recreation would allow hiking, walking, and non-motorized bicycle only. Equestrian use and motorized bicycles (i.e., e-bikes) would be prohibited; however, where accessible, motorized wheelchairs would be permitted.

8. Remove homeless and itinerant worker camps in habitat areas as soon as found pursuant to existing enforcement procedures.

   Discussion: Removal of any homeless encampments discovered would be coordinated with and conducted by the local police department.

9. Maintain equestrian trails on a regular basis to remove manure (and other pet feces) from the trails and preserve system in order to control cowbird invasion and predation. Design and maintain trails where possible to drain into a gravel bottom or vegetated (e.g., grass-lined) swale or basin to detain runoff and remove pollutants.

   Discussion: Equestrian trails are not proposed as an allowed use within the Specific Plan or OMCP trail network. The proposed perimeter trail is designed on a topographic bench within the slope surrounding the development area and is designed to capture trail runoff within a swale to control runoff and pollutants into the MHPA.

Litter/Trash and Materials Storage

1. Remove litter and trash on a regular basis. Post signage to prevent and report littering in trail and road access areas. Provide and maintain trash cans and bins at trail access points.

   Discussion: As detailed in Section 1.3.2.5.a, trash cans would be maintained at trail access points into the MHPA. The HOA would be responsible for all trash removal within HOA lots including the manufactured slopes and perimeter trail areas. The long term manager of the open space would be responsible for litter and trash removal associated with primitive trails.

2. Impose penalties for littering and dumping. Fines should be sufficient to prevent recurrence and also cover reimbursement of costs to remove and dispose of debris, restore the area if needed, and to pay for enforcement staff time.

   Discussion: The long-term manager of the open space where primitive trails are proposed would be responsible for enforcing penalties, in the form of fines, for littering and dumping.

3. Prohibit permanent storage of materials (e.g., hazardous and toxic chemicals, equipment, etc.) within the MHPA and ensure appropriate storage per applicable regulations in any areas that may impact the MHPA, due to potential leakage.

   Discussion: No permanent storage of materials (e.g., hazardous and toxic chemicals, equipment) is proposed within the MHPA.

4. Keep wildlife corridor undercrossings free of debris, trash, homeless encampments, and all other obstructions to wildlife movement

   Discussion: Wildlife crossings would be kept free of debris, trash, homeless encampments, and all other obstructions to wildlife. If dumping reoccurs in the same place, barriers would be installed. The City is anticipated to take ownership and management of the slopes around Beyer Boulevard West where proposed wildlife crossings are proposed. A long-term management plan for the Beyer Boulevard West wildlife features has been prepared which details the long-term management obligations for these features (Attachment 16). Management of the wildlife crossings would be the responsibility of the City.

Adjacency Management Issues

1. Enforce, prevent and remove illegal intrusions into the MHPA (e.g., orchards, decks, etc.) on an annual basis, in addition to complaint basis.

   Discussion: It is not anticipated that any illegal intrusions would occur within the adjacent MHPA as a manufactured slope and perimeter trail would be installed between the backside of the residential lots and the MHPA, preventing encroachment of accessory structures into the MHPA. The HOA would be responsible for maintenance of the perimeter trail and BMZ 1 areas located adjacent to the MHPA. As part of their maintenance, potential intrusions would be monitored and corrected if encountered. Additionally, the HOA would be responsible for educating homeowners about the conservation values and protections associated with the surrounding MHPA lands.

2. Disseminate educational information to residents adjacent to and inside the MHPA to heighten environmental awareness, and inform residents of access, appropriate plantings, construction or disturbance within MHPA boundaries, pet intrusion, fire management, and other adjacency issues.

   Discussion: Educational information would be made available to residents adjacent to the MHPA to heighten environmental awareness, and inform residents of access, appropriate plantings, construction or disturbance within the MHPA boundaries, pet intrusion, fire management, and other adjacency issues. Education would include materials about the conservation goals of the MSCP that would be provided to residents through homeowners association disclosures and education.

3. Install barriers (fencing, rocks/boulders, vegetation) and/or signage where necessary to direct public access to appropriate locations.

   Discussion: Signage and barriers would be installed at trail heads, along the EVA road, as necessary, to ensure that public access is limited to primitive trail alignments. Additionally, the trail restoration effort would serve to close public access to unauthorized trail alignments through revegetation and placement of other barriers where necessary.

Invasive Exotics Control and Removal

1. Do not introduce invasive non-native species into the MHPA. Provide information on invasive plants and animals harmful to the MHPA, and prevention methods, to visitors and adjacent residents. Encourage residents to voluntarily remove invasive exotics from their landscaping.

   Discussion: All landscaping adjacent to the MHPA and open space areas will not include invasive, non-native species, or species that easily hybridize with native species in the adjacent MHPA. The Specific Plan landscape palette includes allowable plant species adjacent to the MHPA and within BMZ 2 areas. Refer to Section 1.3.2.2 for details of the proposed native landscape palette for areas adjacent to open space. Education about appropriate landscaping and avoiding exotic species would be provided to residents through homeowners association disclosures and education. Additionally, certain species are identified on the landscape plans as prohibited within 100 feet of open space.

2. Remove giant reed, tamarisk, pampas grass, castor bean, artichoke thistle, and other exotic invasive species from creek and river systems, canyons and slopes, and elsewhere within the MHPA as funding or other assistance becomes available.

   Discussion: Prior to turnover of mitigation lands for long-term management by the City, highly invasive plant species, as referenced in the City's Landscape Standards Manual would be removed (City of San Diego 2016). These species include tree of heaven (*Ailanthus altissima*), giant reed (*Arundo donax*), paper mulberry (*Broussonetia papyrifera*), pampas grass (*Cortaderia selloana*), tree tobacco (*Nicotiana glauca*), fountain grass (*Pennisetum setaceum*), Spanish broom (*Spartium junceum*). tamarisk (*Tamarix* sp.), and castor bean (Ricinus communis). Additionally, as part of the proposed trails restoration for the project specific analysis areas, invasive and non-native species within a 50-foot buffer of primitive trails (100 feet total) would be removed and revegetated with native species. The wetland restoration effort detailed in Attachment 18 would also include removal of invasive and non-native species in Spring Canyon and upstream portions of the drainage. Any vegetation removal would occur outside of the least Bell's vireo breeding season where their habitat is present, or presence/absence surveys would be conducted and avoidance measures implemented if within the breeding season.

3. If funding permits, initiate a baseline survey with regular follow-up monitoring to assess invasion or re-invasion by exotics, and to schedule removal.

   Discussion: Baseline surveys of the MHPA areas within the mitigation lands have been conducted as part of the project analysis. Long term management of the MHPA would be the responsibility of the City.

4. Conduct an assessment of the need for brown-headed cowbird trapping in each area of the MHPA where cattle, horse, and other animals are kept.

   Discussion: No cattle, horse or similar animals would be present in the MHPA surrounding the Specific Plan area.

5. If eucalyptus trees die or are removed from the MHPA area, replace with appropriate native species. Ensure that eucalyptus trees do not spread into new areas, nor increase substantially in numbers over the years. Eventual replacement by native species is preferred.

   Discussion: Long-term management of the MHPA would be the responsibility of the City.

6. On a case-by-case basis some limited trapping of non-native predators may be necessary.

   Discussion: Long-term management of the MHPA would be the responsibility of the City.

Flood Control

1. Perform standard maintenance, such as clearing and dredging of existing flood channels, during the non-breeding or nesting season of sensitive bird or wildlife species utilizing the riparian habitat. For the least Bell's vireo, the non-breeding season generally includes mid-September through mid-March.

   Discussion: With appropriate wetland permits in hand and consultation with the resource agencies, standard maintenance would be performed, such as clearing and dredging of existing channels, during the non-breeding season of sensitive avian species, such as the least Bell's vireo (September 16-March 14). Long-term management of the MHPA and flood control channels (if present) would be the responsibility of the City.

2. Review existing flood control channels within the MHPA periodically (every five to ten years) to determine the need for their retention and maintenance, and to assess alternatives, such as restoration of natural rivers and floodplains.

   Discussion: Long-term management of the MHPA and flood control channels (if present) would be the responsibility of the City.

f. Specific Management Directives for the Southern Otay Mesa area

As detailed in Section 1.5.3 of the City's MSCP plan, the City envisions the Otay Mesa area to consist of open areas and undisturbed canyons which provide habitat and movement capability for wildlife. Integrated into the canyon network would be recreational trails and USBP access roads.

The specific management directives for the southern Otay Mesa area are detailed below followed by a discussion of project compliance:

1. Continuous coordination with the border patrol will be necessary to ensure continued awareness of the MHPA and cooperation in maintenance. The presence of the border patrol in this area should help to make the MHPA safer for visitors. If possible, improve coordination with the border patrol to aid in the identification and prevention of vandalism, off-road-vehicle use, dumping, and other disturbances to habitat.

Discussion: The applicant team has coordinated with USBP staff to identify access routes they would need to maintain open for vehicular use into the future. Additionally, USBP is informed of development plans in the area and planned conservation of habitats and restoration activities. Ongoing coordination would be required through project implementation.

2. Install barriers and signage along Spring Canyon where agriculture or development abuts the MHPA.

   Discussion: The residential development areas associated with Phases 1a and 1b would not be located adjacent to Spring Canyon; however, where development abuts the MHPA, vegetated 2:1 slopes are proposed between homes and the adjacent to the MHPA boundary which would deter access. Additional signage along trailheads is proposed. These design features would function as deterrents to pedestrian access into the MHPA outside of developed trails.

3. Provide educational materials and training on the MSCP and on native wildlife to border patrol agents and other public agency personnel working in the Otay Mesa border area to encourage sensitive behavior towards wildlife and its habitat, and to discourage unnecessary off-road vehicle use in sensitive areas.

   Discussion: Long-term management of the project's mitigation lands would be the responsibility of the City including coordination and education of USBP agents and public agency personnel working in the area.

4. Ensure that the night lighting along the border intrudes as little as possible on lands in the interior of the MHPA.

   Discussion: All project lighting adjacent to the MHPA would be shielded and directed away from the MHPA to reduce the potential for light pollution of the adjacent conserved lands.

5. Assess and prioritize the Spring Canyon area for restoration of disturbed areas. Include existing roads and those determined not to be needed for border patrol activities in the restoration assessment. Burned areas should not need restoration, but off-road use and other disturbed areas should either be restored or other steps taken to encourage regeneration. This could offer potential research opportunities

   Discussion: The project proposes restoration and revegetation of disturbed habitats within the MHPA. While not proposed as mitigation, the project proposes to restore and enhance disturbed lands within the MHPA around proposed primitive trail alignments. A Trails Restoration Plan is included as Attachment 1. Coordination with USBP was conducted to identify access roads required for their continued use

g. Area Specific Management Directives

Measures to protect the MHPA lands and sensitive species within the MHPA, called area specific management directives (ASMDs), include guidelines for managing and monitoring covered species and their habitats, including following BMPs. Implementation of ASMDs would also be included as conditions of project approval (e.g., Site Development Permit conditions).

Edge effects may include (but are not limited to) trampling, dumping, vehicular traffic, competition with invasive species, parasitism by brown-headed cowbirds, predation by domestic animals, noise, collecting, recreational activities, and other human intrusion (City of San Diego 1997).

MSCP-covered species observed or that have a high-to-moderate potential to occur within the limits of disturbance include coast horned lizard, least Bell's vireo, orange-throated whiptail, Cooper's hawk, southern California rufous-crowned sparrow, northern harrier, coastal California gnatcatcher, burrowing owl, coastal cactus wren, and southern mule deer (*Odocoileus hemionus fuliginata*). All of these species were observed in project-level analysis areas and all but southern mule deer have designated ASMDs and are discussed in detail below.

The conditions of coverage for coast horned lizard require ASMDs to maintain native ant species, discourage the invasive Argentine ant, and protect against detrimental edge effects to this species.

> *Discussion:* To protect against detrimental edge effects related to the Argentine ant (*Linepithema humile*), an inspection of native container stock scheduled to be placed on or adjacent to MHPA slopes would be made by the project biologist (preferably off-site prior to shipment to the site). The biologist shall inspect all specimens and reject any that show presence or evidence of non-native ants. Additionally, all restoration/revegetation areas within BMZs abutting the MHPA and ESL shall avoid the use of chemicals which would impact or kill native ant species (i.e., herbicides/pesticides).

The conditions of coverage for least Bell's vireo require ASMDs to provide appropriate successional habitat, upland buffers for all known populations, cowbird control, and protection against detrimental edge effects to this species. Any clearing of occupied habitat must occur between September 15 and March 15 (i.e., outside of the breeding period) (City of San Diego 1997).

> *Discussion:* Through the implementation of proper BMPs during construction, the project would not cause any detrimental edge effects to the adjacent transitional habitats that may support least Bell's vireo within Moody Canyon, adjacent to the project or the upland buffers around this habitat. Specifically, disturbances to habitat that supports least Bell's vireo such as construction-related runoff, ground disturbance, and the introduction of invasive non-native species in adjacent off-site habitat would be minimized through the implementation of erosion control devices, silt fencing, and the containment and proper disposal of invasive non-natives, respectively. In addition, the project is not expected to affect the condition of any habitat adjacent to the project area that would make it more favorable for cowbirds. Restrictions on clearing of occupied habitat between September 15 and March 15 are included as project mitigation discussed further in Section 8.2.4.4.

The conditions of coverage for orange-throated whiptail require ASMDs to address edge effects.

> *Discussion:* To address edge effects all of the project-level analysis area shall be located outside of the MHPA (after the BLA) and fencing and signage shall be installed along the project boundary limits to discourage entry into the MHPA. Acceptable fencing or barriers to direct public access, per the MSCP, include natural rocks/boulders or peeler pole or split rail fencing. In addition, disturbed areas adjacent to primitive trails would be restored to native habitat, further improving the habitat and reducing edge effects.

The conditions of coverage for Cooper's hawk require ASMD to include a 300-foot impact avoidance area around active nests, and minimization of disturbance in oak woodlands and oak riparian forests.

> *Discussion:* Should an active Cooper's hawk, or raptor nest be detected within the MHPA during the pre-grading survey, an appropriate construction setback of 300 feet would be implemented until the fledglings are independent of the nest.

The conditions of coverage for southern California rufous-crowned sparrow require ASMDs that maintains open phases of coastal sage scrub with herbaceous plant components, through maintenance of dynamic processes, such as fire.

> *Discussion:* While all brush management is designed to be outside of the MHPA (after adjustment), the project would not preclude the City's maintenance of adjacent MHPA for fire management that may benefit the southern California rufous-crowned sparrow.

The conditions of coverage for northern harrier require ASMD to include management of disturbed lands (which become part of the preserve) within four miles of nesting habitat to provide foraging habitat and include an impact avoidance area (900 feet or maximum possible within the MHPA) around active nests. The preserve management coordination group shall coordinate efforts to manage for wintering northern harriers' foraging habitat within the MSCP preserves.

> *Discussion:* MHPA areas south of the development area includes a network of disturbance from past off-road activity and other unauthorized uses. As part of the project-level implementation, habitat restoration within disturbed lands in a 100-foot corridor around proposed trail networks would be implemented. This standard for restoration around the Specific Plan trail network will additionally be implemented as a requirement of the Specific Plan. Restoration of native habitat as described will support expansion of foraging habitat. Additionally, should a northern harrier nest be known to occur or detected during construction, a 900-foot construction avoidance buffer would be placed around the nest and will remain in place until the fledglings have left the nest.

The conditions of coverage for coastal California gnatcatchers require ASMDs to include measures to reduce edge effects and minimize disturbance during the nesting period, fire protection measures to reduce the potential for habitat degradation due to unplanned fire, and management measures to maintain or improve habitat quality including vegetation structure. No clearing of occupied habitat within the City's MHPAs may occur during this species' breeding season between March 1 and August 15.

> *Discussion:* If construction activities are to be conducted during the gnatcatcher breeding season, then noise attenuation and monitoring would be required within the off-site MHPA that is immediately adjacent to the project as coastal California gnatcatchers are present. No edge effects due to invasive plant species are anticipated as the project landscaping would not contain invasive species. No clearing of occupied habitat within the MHPA will occur during the breeding season.

The conditions of coverage for burrowing owl require ASMD to include the enhancement of known, historical and potential burrowing owl habitat; and management for ground squirrel, the primary

excavator of burrowing owl burrows. Enhancement measures may include creation of artificial burrows and vegetation management to enhance foraging habitat. Management plans must also include monitoring of burrowing owl nest sites to determine use and nesting success; predator control; and establishing a 300-foot-wide impact avoidance area around occupied burrows within the preserve.

Discussion: One burrowing owl was detected incidentally during a Quino checkerspot butterfly protocol survey, but no active burrows were observed. Pre-construction burrowing owl surveys would be required to identify if burrowing owls are nesting within the construction area and if present, translocation and the creation of artificial burrows would be required within the MHPA, with approval of the Wildlife Agencies, MSCP, and EAS. Although the project would not directly impact any active or occupied burrows, based on several focused surveys with negative results, a project design feature has been incorporated to install an earthen berm that could provide burrowing owl nesting opportunities within the project's mitigation lands within the MHPA at a location agreed upon with the City as detailed in Section 1.3.2.6.b. The earthen berm would be installed in the proposed vernal pool preserve to provide consistency with the ASMDs and OMCP policies related to burrowing owl (see Section 3.3.5). Pilot holes would be installed within the berm to encourage burrowing owl nesting. Additionally, the area surrounding the berm would be restored with species that would encourage burrowing owls. Refer to Attachment 14 for details of the burrowing owl design features. Restoration of disturbed habitat associated with trail alignments and mitigation for burrowing owl foraging lands through in-kind habitat-based preservation would support preservation of BUOW foraging habitat.

The conditions of coverage for coastal cactus wren require ASMDs to restore maritime succulent scrub habitat, including propagation of cactus patches, active/adaptive management of cactus wren habitat, monitoring of populations within preserves, and reduction or elimination of detrimental edge effects. No clearing of occupied habitat may occur during the species' breeding season of February 15 through August 15.

Discussion: As coastal cactus wrens are presumed to be present within the project-level analysis area, north of the western segment of the Beyer Boulevard West alignment both within the City's Beyer Park parcel and within the Furby North Preserve, no clearing of occupied habitat would occur within their breeding season of February 15 to August 15 unless avoidance measures are implemented. A Coastal Cactus Wren Mitigation Plan was prepared (see Attachment 13; RECON 2024b) which includes the restoration of cholla-dominated maritime succulent scrub within existing disturbed maritime succulent scrub habitat. The establishment effort would involve salvage and translocation of cholla, removal of non-native species, and thinning overgrown species to increase suitability of the site for cactus wren. No existing native species would be removed, avoiding any impacts to existing maritime succulent scrub habitats. The mitigation would occur within a highly disturbed portion of maritime succulent scrub within the Furby North Preserve that largely does not support cholla. Portions of the mitigation site that currently support cholla would be enhanced through thinning as the existing maritime succulent scrub habitat is not suitable for cactus wren due to it being overgrown. The restoration of cholla-dominated maritime

succulent scrub suitable for cactus wren combined with enhancement of existing overgrown maritime succulent scrub would both replace impacted habitat and enhance the existing habitat to better support the species. Additionally, the mitigation effort in the Furby North Preserve would provide funding for long-term management of the mitigation site, which would support ongoing management and implementation of species-specific measures to increase suitability of the habitat for coastal cactus wren.

The MSCP does not list any specific conditions of coverage for southern mule deer as this species is not considered sensitive, although it is still an MSCP-covered species.

6.2.2 Vernal Pool Habitat Conservation Plan

6.2.2.1 VPHCP Conservation Analysis

~~The project complies with the VPHCP with the exception of Phase 1C and the Beyer Road extension. With the inclusion of Beyer Road, the project would comply with the VPHCP only with the processing of a MA and implementation of the Conservation Strategy provided by USFWS (see Attachment 10b).~~

As detailed in Section 4.1.4 of the VPHCP, development of new roads needed to accommodate existing and planned land use consistent with the circulation/mobility element of the City's General Plan and the corresponding Community Plans were identified as covered projects because they are considered conditionally compatible with the MHPA. As detailed in VPHCP Table 4-1:

> New roads may not impact vernal pools within the MHPA unless no other feasible alternative exists. If avoidance is not feasible, the project must demonstrate that impacts have been minimized to the maximum extent practicable. The project must evaluate the need for the road expansion pursuant to the Community Plan and evaluate alternate development proposals (e.g., reduced medians, reduction in road width/classification). The City would document all of these steps as part of its determination of consistency with the VPHCP. Mitigation consistent with the VPHCP and project approval through the City's discretionary process would be required for all unavoidable impacts.

As detailed in Section 4.2.1 of the VPHCP, covered activities include land use and public infrastructure activities, as well as conservation activities, which are subject to the City's jurisdiction that may result in incidental take of covered species by impacting potential vernal pool species and/or occupied habitat. The VPHCP will extend necessary incidental take coverage for these species in accordance with and subject to the requirements of the plan and Incidental Take Permit (ITP). The potential impacts to vernal pool species and habitat from the covered activities must either be avoided or minimized and mitigated as required under the VPHCP.

The proposed Beyer Boulevard <u>West</u> extension would require impacts to 100 percent conserved lands, specifically associated with impacts to West Otay Mesa A, West Otay Mesa B, and the Furby North Preserve (see Figure 36.1). Implementation of the VPHCP was developed assuming existing 100 percent conserved areas would remain in conservation to support the overall goals of the plan. A MA to the VPHCP is proposed to address impacts to 100 percent conserved lands and the

assumption that no development would be permitted within 100 percent conserved lands. The need for an MA is discussed further below. Upon completion of the Major Amendment, impacts to 100 percent conservation land would be offset through the 1:1 replacement of impacted habitat acreage, and other project design features to preserve and restore additional lands. Construction of Beyer Boulevard West will encroach upon 17.54 acres of sensitive vegetation communities which will be off-site through the addition of 27.37 acres of sensitive vegetation communities into the MHPA. In addition, 95.29 acres of additional lands will be preserved within the MHPA south of the project-level area, 7.98 acres of lands will be preserved as Furby North replacement lands, and 2.13 acres of land within Otay Mesa B will be restored. This Conservation Strategy was developed in coordination with the Wildlife Agencies and would be included in the Major Amendment required prior to impacts to 100% conserved lands in the VPHCP. ~~The analysis provided herein demonstrates that impacts to 100 percent conservation land would be offset through mitigation for impacts associated with the road (with an additional 1:1 ratio added to address the mitigation status of the land consistent with the OMCP FEIR) in addition to providing replacement land with equivalent biological value consistent with the VPHCP.~~

Two of the 100 percent conservation parcels (West Otay Mesa A and West Otay Mesa B) that would be impacted by Beyer Boulevard West are subject to CDFW conservation easements. CDFW acquired the West Otay Mesa A and West Otay Mesa B conservation easements from TET in 2009. Attached as Exhibit C to the recorded CDFW conservation easement is a joint letter on behalf of both CDFW and USFWS to the City of San Diego confirming that all of the TET conservation properties are to be managed by the City consistent with the MSCP (see Attachment 19 for a copy of the recorded easement). The Furby North Preserve is not protected by a conservation easement but is considered 100 percent conserved under the VPHCP.

Impacts through these 100 percent conserved lands have been known for some time both through early correspondence between the applicant and USFWS (USFWS 2007c) and its disclosure in the OMCP FEIR (Figure 5.4-5 of the OMCP FEIR; SCH No. 2004051076). The Wildlife Agencies have requested a MA to the VPHCP to specifically address the removal of 100 percent conserved lands associated with the Beyer Boulevard West alignment (e.g., West Otay Mesa A, West Otay Mesa B, and the Furby North Preserve). The conservation strategy proposed to offset the impacts from the proposed Beyer Boulevard West extension includes the conservation proposed in the VPHCP consistency analysis that follows as well as additional conservation outlined in Attachment 10b which is anticipated to include conservation of approximately 95.29 acres owned by Tri Pointe Homes south of the Specific Plan area that goes beyond City mitigation requirements, in addition to restoration and long-term management of a 2.13-acre mesa top area that would be restored to create high-quality vernal pool habitat on an existing degraded mesa top on the City's West Otay Mesa B property (see Figure 19).

Implementation of the proposed Beyer Boulevard West extension, a planned circulation element roadway, would require impacts to 19.36 acres of 100 percent conserved lands as detailed in Table 7b, including 17.48 acres of sensitive upland vegetation communities and 0.06 acre of wetland vegetation communities, totaling 17.54 acres. Impacts to land identified as 100 percent conserved lands in the VPHCP require both mitigation consistent with the Biology Guidelines and replacement MHPA lands (e.g., non-MHPA lands to be added to the MHPA) of greater or equivalent value to be provided consistent with the VPHCP. As detailed in the excerpted text above, new roads through

Table 7b Summary of Proposed VPHCP Conservation Analysis within the Project-level Areas (acres)								
Vegetation Communities/ Land Cover Types	Habitat Tier	Total Proposed Encroachment[1] (100 Percent Conservation)	MHPA Addition Areas					**Net Change Proposed MHPA Addition**
			Area B[2]	Area C	Area D	Area E	*Subtotal MHCP Additions*	
Upland Vegetation Communities								
Maritime Succulent Scrub	I	-11.15	-	+1.32	+6.68	+1.06	*+9.06*	**-2.09[3]**
Disturbed Maritime Succulent Scrub	I	-0.64	-	-	+0.12	+0.14	*+0.26*	**-0.38**
Diegan Coastal Sage Scrub	II	-3.09	-	+8.58	+0.20	-	*+8.78*	**+5.69**
Disturbed Diegan Coastal Sage Scrub	II	-0.12	-	-	-	-	-	**-0.12**
Non-native Grassland	IIIB	-2.48	+8.73	+0.20	+0.17	-	*+9.09*	**+6.61[3]**
Subtotal Sensitive Upland Vegetation		*-17.48*	*+8.73*	*+10.10*	*+7.17*	*+1.20*	*+27.20*	*+9.72*
Wetland Vegetation Communities								
Natural Flood Channel	-	-0.03	**-**	+0.09	-	-	*+0.09*	**+0.06**
Disturbed Wetland[4]	-	-0.01	+0.03	-	-	-	*+0.03*	**+0.02**
Vernal pool[4]	-	-0.03	+0.04		-	-	*+0.04*	**+0.01**
Vernal pool with fairy shrimp[4]	-	-0.01	-	+<0.01	+0.01	-	*+0.01*	-
Subtotal Wetland Vegetation		*-0.06*	*+0.07*	*+0.09*	*+0.01*	-	*+0.17*	*+0.09*
Total Sensitive Vegetation Communities		**-17.54**	**+8.80**	**+10.19**	**+7.18**	**+1.20**	***+27.37***	**+9.83**
Disturbed Land	IV	-1.82	-	+0.08	+0.49	+0.10	*+0.66*	-1.16[3]
Total with Disturbed Lands		*-19.36*	*+8.80*	*+10.27*	*+7.67*	*+1.30*	*+28.03*	*+8.67*[3]

NOTE: Totals may not add due to rounding.

[1]1.66 acres of non-native grassland would be impacted for installation of a pump station within the VPHCP/MHPA in the southeastern portion of the Specific Plan area; however, the pump station is an allowed use within the VPHCP and is not required to be included as a deletion from the VPHCP.

[2]The 8.73 acres of MHPA addition shown as the Area B inset in Figure 36.4 is mapped as non-native grassland; 0.07 acre of aquatic resources are reported based on City VPHCP data. Reported vernal pools and disturbed wetlands may contain fairy shrimp and sensitive species but data was not available to confirm presence. This addition area would provide replacement function and values for impacted mesa top areas due to its potential for vernal pool restoration.

[3] 7.83 acres of disturbed and non-native grassland would be restored to maritime succulent scrub within the MHPA as part of the trail restoration effort, resulting in a net increase in Tier 1 habitats within the MHPA.

[4]Impacts to aquatic resources within the 100 percent conservation lands include a total of five vernal pools and two disturbed wetlands totaling 0.03 acre based on the aquatic resource delineations. Of the vernal pool resources, one 0.006-acre pool within the Furby North Preserve contains fairy shrimp. Refer to Figure 33.2 and 33.3 for details of the aquatic resources within the 100 percent conservation deletion area.

the MHPA require an alternatives analysis and impact minimization to the extent feasible. In addition to these requirements, impacts to lands protected by conservation easements (i.e., West Otay Mesa A and West Otay Mesa B) require additional conservation offsets. Refer to Section 1.3.2.5.b for the details of the various CDFW requirements associated with Beyer Boulevard West impacts to conservation easements.

The proposed Beyer Boulevard West extension has been the subject of extensive review including evaluation of both alternative project locations and design changes to minimize road width and associated impacts. The current roadway design reflects a two-lane constrained roadway where the roadway would cross 100 percent conserved lands. Documentation of the need for the roadway, the various alternatives considered, and the design reductions that have been provided are detailed in Attachment 11.

As shown in Figure 36.4 (see Area A) and detailed in Table 7b, the deletion of 100 percent conserved lands associated with Beyer Boulevard West would include 11.79 acres of maritime succulent scrub and disturbed maritime succulent scrub, 3.21 acres of Diegan coastal sage scrub and disturbed coastal sage scrub, 2.48 acres of non-native grassland, 0.03 acre of natural flood channel (ephemeral drainage), 0.01 acre of disturbed wetland, 0.03 acre of vernal pool and 0.01 acre of vernal pool with fairy shrimp. As required by the VPHCP, replacement land is proposed to be added to the MHPA to account for the removal of 19.36 acres of 100 percent conserved lands. Land proposed to be added into the MHPA in exchange for impacts to VPHCP conserved lands would include 27.37 acres of sensitive vegetation communities comprising 9.32 acres of maritime succulent scrub and disturbed maritime succulent scrub, 8.78 acres of Diegan coastal sage scrub, 9.09 acre of non-native grassland, 0.09 acre of natural flood channel (ephemeral drainage), 0.03 acre of disturbed wetlands, 0.04 acre of vernal pool, and 0.01 acre of vernal pools with fairy shrimp (see Table 7b; see Figure 36.4, Areas B through E). Non-native grassland addition areas include 8.80 acres of mesa top land within Planning Area 23 (Area B on Figure 36.4) that would provide replacement function and values for the approximate 3.8-acre area of impacted mesa top land within West Otay Mesa A and West Otay Mesa B. The addition of mesa top land within Planning Area 23 is significant due to this area expanding the City's hardline VPHCP preserve within an area previously contemplated for development. This area supports part of the J13 north and J13 south vernal pool complexes that were previously considered as part of the unadopted Expanded Conservation Alternative in the VPHCP EIR/EIS. This MHPA addition would result in additional conservation of portions of the Otay Mesa J13 north and J13 south vernal pool complexes where currently the level of conservation is zero. In addition, 7.83 acres of disturbed and non-native grassland in the addition areas would be restored to maritime succulent scrub within the MHPA as part of the trails restoration effort, resulting in a net increase in Tier 1 habitats within the MHPA.

Impacts to 100 percent conserved lands require non-MHPA replacement lands to be conserved that provide functional equivalency. The VPHCP equivalency analysis and conservation strategy are provided below.

Impacts associated with construction of a two-acre sewer pump station within the existing VPHCP/MHPA area within the southeast portion of the Specific Plan area is an allowed use within the VPHCP and is not included as a deletion from the VPHCP for purposes of the analysis.

a. VPHCP Conservation Analysis Criteria

As detailed in Section 4.1.4 of the VPHCP, certain types of projects are permitted under the VPHCP subject to consistency with the ESL regulations and the VPHCP, including development of new roads. Table 4-1 of the VPHCP specifically identifies development of new Community Plan roads as covered road projects. Further, as specified in the VPHCP Section 4.1.3, current and future development projects not included on the covered projects list provided in VPHCP Section 4.1.2 would be required to analyze their impacts and conservation compared to the requirements and conditions of the VPHCP (see VPHCP Chapter 5). The conservation analysis evaluating the proposed impacts and conservation is provided below. The conservation analysis is based on an evaluation of the VPHCP conservation strategy in VPHCP Chapter 5 in addition to the criteria for determining the biological value of a proposed boundary line adjustment in accordance with the MSCP Plan Section 5.4.2.

VPHCP Chapter 5 Conservation Strategy

As detailed in VPHCP Chapter 5, the VPHCP's overall conservation strategy for the covered species is to allow impacts to degraded vernal pools with low long-term conservation value in exchange for restoration, enhancement, preservation, and long-term management and monitoring of vernal pools with long-term conservation value in the MHPA. The conservation strategy builds on the existing conservation (i.e., baseline conservation) of the seven vernal pool species and habitat that has occurred under the City's MSCP Subarea Plan that includes most (84 percent) of the extant vernal pools in the City.

The biological goal of the VPHCP is to contribute to the recovery of the VPHCP covered species and ensure continued persistence of the covered vernal pool species populations identified in the VPHCP and the City's existing Natural Community Conservation Plan. This goal would be achieved by implementing the VPHCP conservation strategy, which includes both habitat-based (vernal pool) and species-specific objectives (VPHCP Table 5-1) and has been designed to meet or exceed existing MSCP requirements. The habitat-based objectives identify the number of specific vernal pools and complexes that will be conserved, managed, and/or restored through implementation of the VPHCP. The species-specific objectives include conservation, management, and/or restoration and enhancement actions for covered species.

VPHCP Table 5-1 identifies more detailed objectives of the VPHCP. It includes specific objectives for vernal pools, specifically vernal pool complexes identified for conservation in the plan and species-specific objectives addressing the seven covered species in the VPHCP. Impacts along Beyer Boulevard West would not impact any of the vernal pool complexes assumed for conservation under the VPHCP. More specifically, Table 5-2 of the VPHCP identifies the VPHCP increase in conservation from baseline conditions. Due to West Otay Mesa A and West Otay Mesa B having been under conservation easements prior to adoption of the VPHCP, as well as establishment of the Furby North preserve prior to adoption of the VPHCP, these areas were considered 100 percent conserved lands. While these parcels are identified as 100 percent conserved in the VPHCP, the conservation analysis does not identify any resources within the proposed Beyer Boulevard West impact area that would require conservation in order to achieve the conservation goals of the VPHCP. Specifically, the VPHCP Vernal Pool Management and Monitoring Program Table C-1

identifies the J32 pools located in West Otay Mesa A and West Otay Mesa B as the complexes assumed for conservation under the VPHCP. These pools are located north of Moody Canyon, physically separated from the impact area for Beyer Boulevard West.

Similarly, Section 5.2.3 of the VPHCP addresses species protection. The conservation analysis identified in this section addresses VPHCP covered species that would be protected by conservation of vernal pool complexes specified in the plan. The project includes an evaluation of each of the seven VPHCP covered species in Section 7.1.2.2 and 7.1.2.3, demonstrating that the project would be consistent with the requirements of the VPHCP regarding implementation of avoidance and minimization measures. Impacts to vernal pools and vernal pool covered species in the conservation area includes a total of five vernal pools and two disturbed wetlands totaling 0.03 acre. Of the vernal pool resources, one 0.006-acre pool within the Furby North Preserve contains fairy shrimp. These are isolated resources within previously disturbed areas and not associated with any vernal pool complex in the VPHCP conservation analysis. Further, these impacts are proposed to be mitigated as part of the project's overall vernal pool restoration effort which would occur within a 33.71-acre vernal pool restoration area. This restoration effort is proposed within an area that historically supported vernal pools and is located in the VPHCP preserve. In addition to mitigation for impacts to resources consistent with the VPHCP, the project would provide replacement conservation land that contains equivalent or greater resources including 0.03 acre of disturbed wetlands and 0.04 acre of vernal pool resources.

The addition of Area B (Planning Area 23) to the MHPA includes an 8.80-acre area of mesa top land that would expand the VPHCP preserve and would conserve the J13 north South Otay 1 acre (Private) complex that was evaluated in the VPHCP but not conserved. The conservation of this area would increase conservation potential for VPHCP covered species in an area that was not conserved under the VPHCP.

MSCP Section 5.4.2 Criteria

1. Effects on Significantly and Sufficiently Conserved Habitats

The amount and distribution of habitats considered significantly and sufficiently conserved within the VPHCP will be functionally equivalent and expand in total area after MHPA addition lands are provided due to a net increase in acreage of Diegan coastal sage scrub, non-native grassland, and jurisdictional resources including vernal pools, as detailed in Table 7b. While the exchange lands have a deficit of 2.47 acres of Tier I vegetation communities, the project includes restoration within the MHPA as part of the trails restoration effort that would convert 7.1 acres of disturbed and non-native grassland to maritime succulent scrub (see Attachment 1). Approximately 0.5 acre of this restoration total is located within the MHPA Area A Tier I habitat within the MHPA. Additionally, considering the overall proposed MHPA additions, as part of the MHPA BLA and the VPHCP replacement conservation, there would be a net increase of 14.19 acres of sensitive vegetation communities provided (Table 7c). Additional jurisdictional resources would also be included within the addition areas including natural drainages (natural flood channel), a disturbed wetland and vernal pool resources.

Table 7c
Summary of Proposed MHPA and VPHCP BLA within the Project-level Areas
(acres)

Vegetation Communities/ Land Cover Types	Habitat Tier	Deletions			Additions			**NET CHANGE**
		Proposed Encroachment (MHPA Deletion)	Total Proposed Encroachment (100 Percent Conservation)[1]	Total Deletions	Proposed MHPA Addition to offset MHPA Deletion	Proposed MHPA addition to offset VPHCP 100% Conservation Deletion[2]	Total Proposed MHPA with MHPA BLA and VPHCP Replacement Additions	
Upland Vegetation Communities								
Maritime Succulent Scrub	I	-7.19	-11.15	-18.33	+7.59[3]	+9.06	+16.65[3]	**-1.68[3]**
Disturbed Maritime Succulent Scrub	I	-0.44	-0.64	-1.08	+0.11	+0.26	+0.38	**-0.70**
Diegan Coastal Sage Scrub	II	-3.76	-3.09	-6.85	+7.34	+8.78	+16.12	**+9.27**
Disturbed Diegan Coastal Sage Scrub	II	-0.83	-0.12	-0.96	+0.34	-	+0.34	**-0.62**
Non-native Grassland	IIIB	-0.50	-2.48	-2.98	+1.35	+9.09[4,5]	+10.44[4,5]	**+7.46[4,5]**
Subtotal Sensitive Upland Vegetation		*-12.73*	*-17.48*	*-30.21*	*+16.73[3]*	*+27.20[4,5]*	*+43.93[3,4,5]*	***+13.72[3,4,5]***
Wetland Vegetation Communities								
Natural Flood Channel	-	-0.08	-0.03	-0.10	+0.07	+0.09	+0.16	**+0.06**
Tamarisk Scrub		-0.01		-0.01	-	-	-	**-0.01**
Disturbed Wetland[6]	-	-	-<0.01	-<0.01	+0.08	+0.03	+0.11	**+0.11**
Vernal Pool[6]	-	-0.01	-0.03	-0.03	-	+0.04	+0.04	**+0.01**
Vernal Pool with Fairy Shrimp[6]	-	-	-0.01	-0.01		+0.01	+0.01	-
Subtotal Wetland Vegetation		*-0.09*	*-0.06*	*-0.16*	*+0.15*	*+0.17*	*+0.32*	***+0.16***
Total Sensitive Vegetation Communities		**-12.82**	**-17.54**	**-30.36**	**+16.88[3]**	**+27.37[4,5]**	**+44.25[3,4,5]**	**+13.89**[3,4,5]
Total Encroachments / Additions		**- 30.36**			**+44.25[3,4,5]**			**+13.89[3,4,5]**
Disturbed Land[7]	IV	-2.02	-1.82	-3.84	+1.20[3]	+0.66[5]	+1.86[3,5]	**-1.98[3,5,7]**
Developed	-	-0.05	-	-0.05	-	-	-	**-0.05**

NOTE: Totals may not add due to rounding.

[1]1.66 acres of non-native grassland and 0.02 acre of disturbed land would be impacted for installation of a pump station within the western portion of the vernal pool restoration area; however, this was identified as an allowed use within the VPHCP and is not included as a deletion from the VPHCP for purposes of the BLA.

[2]Impacts to 100% conservation parcels require non-MHPA replacement lands to serve vernal pool resources for functional equivalency.

[3]0.30 acre of disturbed lands within Area A (Figure 36.3) would be restored to maritime succulent scrub as part of the trail restoration (Attachment 1); not included in the totals for the MHPA BLA.

[4]Non-native grassland addition areas include 8.80 acres of mesa top land within Planning Area 23 that would provide replacement function and values due to the potential for vernal pool restoration on these lands. These additional areas off-set the approximate 3.8-acre area of impacted mesa top land within West Otay Mesa A and B in excess of City requirements.

[5]7.83 acres of disturbed and non-native grassland within the VPHCP Addition Areas would be restored to maritime succulent scrub within the MHPA as part of the trail restoration effort; not included in the totals.

[6]Impacts to aquatic resources within the 100 percent conservation lands include a total of five vernal pools and two disturbed wetlands totaling 0.03 acre based on the aquatic resource delineations. Of the vernal pool resources, one 0.006-acre pool within the Furby North Preserve contains fairy shrimp. Refer to Figure 33.2 and 33.3 for details of the aquatic resources within the 100 percent conservation deletion area. Aquatic resources deletions would be offset by the addition of an 0.08 acre disturbed wetland (0.07 acre of 0.08 acre contains fairy shrimp) which would be enhanced to be vernal pools through weed removal and addition of common vernal pool plant species as part of the proposed trail restoration effort (see Attachment 1 for the trail restoration plan) This will result in the addition of a 0.08-acre vernal pool as part of the VPHCP addition area which would offset the removal of 0.03 acre of vernal pool resources and vernal pool with fairy shrimp.

[7]Disturbed lands are not counted in the addition equivalency analysis. Note that some disturbed trails are proposed for restoration to maritime succulent scrub (see footnotes 3 and 5).

Although five vernal pools and two disturbed wetlands totaling 0.03 acre located within a dirt roadway would be included in the deletion areas, the addition areas would more than replace these resources.

The areas proposed for MHPA addition (Areas B through E on Figure 36.4) would be adjacent to other blocks of MHPA after the MHPA BLA and would add 27.37 acres of native habitat and non-native grasslands in excess of the amount of native habitat deleted. Additionally, restoration of 8.73 acres of disturbed and non-native grassland to maritime succulent scrub within the MHPA as part of the trails restoration effort would result in increases in the area of significantly conserved Tier I and II habitats within the MSCP subarea (see Table 7b). The lands proposed as VPHCP additions total 28.03 acres and would be functionally similar to the proposed deletion areas in that the lands are largely comprised of native uplands and mesa top land that would be suitable for vernal pool restoration. Thus, the proposed habitat exchange would maintain and slightly improve the conservation of significantly or sufficiently conserved habitats within this portion of the MHPA due to the increase of native habitats and non-native grassland area on the mesa top, functionally expanding the vernal pool preserve. The proposed habitat exchange is consistent with long anticipated expectations that Beyer Boulevard West would require mitigation consistent with the MSCP including providing replacement mitigation with a site containing the same biological functions (USFWS 2007c).

2. Effects to Covered Species

Covered species under the VPHCP include San Diego fairy shrimp, Riverside fairy shrimp, San Diego button-celery, spreading navarretia, San Diego Mesa mint, California Orcutt grass, and Otay Mesa mint. These are all species associated with vernal pools; therefore, equivalent conservation of vernal pools and surrounding pool watersheds supporting these species would ensure no adverse effects to covered species.

As part of the proposed land exchange, the addition areas would increase total acreage of vernal pools by 0.01 acre. Therefore, the proposed exchange would have no adverse effect to covered species.

The addition of maritime succulent scrub and coastal sage scrub within the lands to be added to the MHPA may also increase potential habitat for additional covered species that may occur in the vicinity of the project (e.g., coastal California gnatcatcher). Through the VPHCP land exchange process, large blocks of maritime succulent scrub and Diegan coastal sage scrub habitat totaling 18.10 acres within the mitigation lands would be added to the MHPA preserve to provide additional suitable habitat for this species. The BLA is also anticipated to increase the amount of occupied habitat based on use areas identified during focused surveys. During the 2020 protocol surveys, one gnatcatcher use area was documented within the Furby North Preserve, which would be removed from the VPHCP/MHPA (RECON 2020a). This would be offset by the addition of occupied habitat to the MHPA containing four gnatcatcher use areas (pairs) based on protocol surveys conducted in 2018 and 2020 (RECON 2018f, 2020b).

The 8.80-acre addition areas in Area B (see Figure 36.4), supporting non-native grassland and disturbed wetlands and vernal pools, would offset the loss of approximately 3.8 acres of mesa top land within West Otay Mesa A and West Otay Mesa B. While 0.01 acre of vernal pool with fairy

shrimp was identified within the deletion areas, the 8.80-acre area of mesa top addition within Planning Area 23 (Area B) would provide replacement habitat that contains vernal pools and isolated disturbed wetlands in addition to other land with capacity to be restored to support vernal pools, expanding habitat for VPCHP covered species.

3. Effects on Habitat Linkages and the Function of Preserve Areas

As part of the project-level implementation, the proposed Beyer Boulevard West extension would run parallel and south of Moody Canyon, crossing 100 percent conserved lands. Although the Beyer Boulevard West extension would bisect open space, it is not anticipated to have an effect on vernal pool preserve areas. Although no vernal pool complexes identified within the VPHCP exist within the deletion areas, there are approximately 4.33 acres of flat mesa top land within West Otay Mesa A and West Otay Mesa B proposed for removal from the preserve that would be suitable for vernal pool restoration. To offset impacts to these mesa top areas, an 8.80-acre area is proposed to be added to the MHPA which would extend the vernal pool preserve acreage within the Specific Plan area. This addition includes non-native grassland mesa top land in Area B (see Figure 36.4). This expansion of the vernal pool preserve would have a benefit on habitat linkages and function of the vernal pool preserve as the Area B addition areas would expand areas already planned for preserve, to the north. The mesa top area to be removed are isolated areas, not adjacent to any planned vernal pool preserve or restoration area.

The Area B addition area corresponds to Planning Area 23. In order to provide necessary fire access and utilities, an emergency only fire access road would be identified as an allowed use in the MHPA between Planning Areas 23 and the area to the north (see Figure 8 for the location of the road). By gating this road and limiting its width and accessibility, the function of the preserve can be maintained.

Vernal pool preserve areas located north of the proposed Beyer Boulevard West and south of Old Otay Mesa Road (J32 vernal pool complex) would not be affected by the deletion as no watersheds of vernal pools identified for conservation in the VPHCP would be affected. Impacts to habitat linkages and the function of preserve areas for wildlife to the proposed Beyer Boulevard West extension is addressed under 6.2.1.1.

4. Effects on Preserve Configuration and Management

The proposed modifications do not decrease the total area of the MHPA. The proposed changes would expand on the existing MHPA and would not conflict with any of the previously identified conservation or management needs for the subarea or cause the need for additional measures. In addition, the trails restoration program will convert 7.83 acres of disturbed and non-native grassland to maritime succulent scrub (see Attachment 1). Approximately 0.5 acre of this total is located within the non-MHPA Area A proposed as an exchange in the MHPA BLA. This effort would support preserve configuration and management by closing unauthorized trails through restoration, supporting trail closures and habitat recovery in areas not intended for trail use.

Areas D and E shown on Figure 36.4 provide additions of maritime succulent scrub habitats, expanding on existing MHPA lands. The proposed habitat addition to the MHPA along the central east edge of the Specific Plan area, in between the existing VPHCP/MHPA areas (shown as Area C

on Figure 36.4), would fill in a gap between the baseline MHPA and VPHCP conserved lands; therefore, increasing the size and connectivity of the preserve and the resources they were set aside to protect, and reduce edge effects in these areas. Thus, the proposed habitat exchange would improve the conservation, configuration, and area of significantly or sufficiently conserved habitats within this portion of the MHPA.

5. Effects on Ecotones or Other Conditions Affecting Species Diversity

The proposed modifications to the MHPA will maintain the structural diversity of the preserve while maintaining wildlife movement across Beyer Boulevard West through incorporation of several wildlife movement crossings. The impacts to the vernal pools are compensated with similar features being preserved within the MHPA; and therefore, do not reduce the benefits made to the open space and local habitat linkages. Habitats and changes in topography are similar in the deletion and addition areas.

6. Effects to Species of Concern Not Covered under the VPHCP

The following non-MSCP/VPHCP covered species were either identified or had a moderate to high potential to occur within the project survey area: western spadefoot, yellow-breasted chat, yellow warbler, coastal whiptail, red diamond rattlesnake, two-striped garter snake, Coronado skink, San Diego woodrat, merlin, California horned lark, Bell's sage sparrow, loggerhead shrike, and grasshopper sparrow. Of these, only one of these are present within any of the VPHCP or 100 percent conserved lands proposed for deletion: western spadefoot (eggs within a vernal pool and disturbed wetland within Deletion Area A, Figure 36.4). Impacts to one basin supporting western spadefoot would be replaced by two additional basins within Addition Area B that support western spadefoot which would replace the biological value with respect to this species.

The proposed modifications to 100 percent conserved lands would not significantly increase the likelihood of the other non-covered species listed in Attachments 7 and 8 to be listed under either the federal or state endangered species acts based on the equivalency of the replacement lands provided.

b. VPHCP Conservation Summary

As stated in Section 8.4.2 of the VPHCP, exchange of conserved lands within the VPHCP Plan Area may be made without the need for a Major Amendment to the VPHCP in cases where the new boundary results in an area of equivalent or higher biological value in the MHPA. An equivalency analysis will be required to evaluate the change in conservation levels and the change in impacts to vernal pools and covered species that would occur with the adjustment.

In addition to lands mapped as MHPA, the VPHCP includes 100 percent conserved lands (Furby North Preserve and the West Otay Mesa A and West Otay Mesa B parcels; see Figure 7) that are in addition to the MHPA hardline preserve. As described in Section 1.2.3, the proposed alignment for Beyer Boulevard West crosses these 100 percent conserved lands. The proposed VPHCP exchange of conserved lands includes the deletion of 100 percent conserved lands including 0.03 acre of vernal pools and 0.006 acre of vernal pools with fairy shrimp (see Table 7b). The total areas of sensitive habitat proposed for addition would include 18.57 acres of sensitive vegetation

communities within Areas C through E, and 8.80 acres of mesa top land suitable for vernal pool restoration within Area B (see Figure 36.4). The total addition would provide 9.83 acres of sensitive vegetation communities in excess of the amount of land deleted, resulting in increases in the area of significantly conserved Tier II and IIIb habitats (Table 7b). In addition, 7.83 acres of disturbed and non-native grassland in the addition areas would be restored to maritime succulent scrub within the MHPA as part of the trails restoration effort, resulting in a net increase in Tier 1 habitats within the MHPA. The VPHCP conservation strategy identified herein is the result of extensive City and Wildlife Agency coordination and exceeds the City's requirements under the MSCP Subarea Plan, VPHCP, and Biology Guidelines.

Lands to be added to the MHPA with potential to support vernal pools (e.g., 8.80 acres of mesa top land) would exceed the requirement to compensate for the loss of 0.04 acre of vernal pools and also offer opportunities for future vernal pool restoration. In addition to proposed replacement lands and proposed disturbed wetland enhancements, the project would additionally mitigate all impact to vernal pool resources consistent with the VPHCP by restoring 33.71 acres with vernal pools within the MHPA, providing higher quality vernal pools (all inoculated with San Diego fairy shrimp) than those being impacted by the project.

Several project design features to preserve additional lands are proposed in coordination with USFWS and CDFW as part of the VPHCP Conservation Strategy (see Attachment 10b) to offset the impacts to 100 percent conserved lands. A total of 95.29 of lands will be preserved within the MHPA south of the project level and 7.98 acres of land will serve as replacement lands for the impacts to the CDFW conservation easement area within Furby North. An additional 2.13 acre area within the CDFW conserved Otay Mesa B parcel would be restored as a component of the VPHCP Conservation Strategy.

6.2.2.2 VPHCP Compliance

The VPHCP provides coverage for threatened and endangered vernal pool species that do not have federal coverage under the City's MSCP Subarea Plan. Implementation of the project-level areas would result in take of VPHCP-covered species (San Diego button-celery, San Diego fairy shrimp, and Riverside fairy shrimp). While the authorized take of species would be allowed, enhancement and restoration efforts that would add to and improve the quality of preserved vernal pool habitat and promote recovery of covered species populations would be required. Therefore, the short-term adverse result of the take would be offset by the long-term benefit of increased preservation and recovery of these species and natural resources. Due to the presence of ESL, compliance with the VPHCP Section 5.2.1, 5.3.2, and Chapter 7, as well as the Land Use Adjacency Guidelines in MSCP Subarea Plan Section 1.4.3 would be required, as detailed below.

a. Avoidance and Minimization Measures

To remain in compliance with Section 5.2.1 of the VPHCP, the general avoidance and minimization measures required include:

1. Any development adjacent to the MHPA shall be constructed to slope away from the extant pools to be avoided, to ensure that runoff from the project does not flow into the pools.

Discussion: Development adjacent to 100 percent conserved lands would drain away from the MHPA and conserved lands, ensuring development runoff into any pools is avoided. Temporary fencing (with silt barriers) at the limits of project impacts (including construction staging areas and access routes) are required to prevent additional vernal pool impacts and prevent the spread of silt from the construction zone into adjacent vernal pools. Fencing shall be installed in a manner that does not impact habitats to be avoided. Final construction plans shall include illustrations that show the fenced limits of impact and all areas of vernal pools to be impacted and avoided. If work inadvertently occurs beyond the fenced or demarcated limits of impact, all work shall cease until the problem has been remedied to the satisfaction of the City. Temporary construction fencing shall be removed upon project completion.

2. Covered projects shall require temporary fencing (with silt barriers) of the limits of project impacts (including construction staging areas and access routes) to prevent additional vernal pool impacts and prevent the spread of silt from the construction zone into adjacent vernal pools. Fencing shall be installed in a manner that does not impact habitats to be avoided. Final construction plans shall include photographs that show the fenced limits of impact and all areas of vernal pools to be impacted or avoided. If work inadvertently occurs beyond the fenced or demarcated limits of impact, all work shall cease until the problem has been remedied to the satisfaction of the City. Temporary construction fencing shall be removed upon project completion.

   Discussion: Construction plans shall provide the locations of silt fencing to ensure areas outside of the impact footprint are protected. All locations of vernal pools to be impacted or avoided shall be shown. The required biological monitor will provide photographs of the fenced limits and resource areas as required.

3. Impacts from fugitive dust that may occur during construction grading shall be avoided and minimized through watering and other appropriate measures.

   Discussion: Standard construction measures including watering would be employed to avoid/minimize fugitive dust consistent with San Diego Air Pollution Control District Rule 55.

4. A qualified monitoring biologist that has been approved by the City shall be present during project construction activities to ensure compliance with all mitigation measures identified in the CEQA environmental document. The biologist shall be knowledgeable of vernal pool species biology and ecology. The biologist shall perform the following duties:

   a. Oversee installation of and inspect the fencing and erosion control measures within or upslope of vernal pool restoration and/or preservation areas a minimum of once per week and daily during all rain events to ensure that any breaks in the fence or erosion control measures are repaired immediately.

   b. Periodically monitor the work area to ensure that work activities do not generate excessive amounts of dust.

c. Train all contractors and construction personnel on the biological resources associated with this project and ensure that training is implemented by construction personnel. At a minimum, training shall include (1) the purpose for resource protection; (2) a description of the vernal pool species and their habitat(s); (3) the conservation measures that must be implemented during project construction to conserve the vernal pool species, including strictly limiting activities, vehicles, equipment, and construction materials to the fenced project footprint to avoid sensitive resource areas in the field (i.e., avoided areas delineated on maps or on the project-level analysis area by fencing); (4) environmentally responsible construction practices as outlined in Measures 5, 6, and 7 below; (5) the protocol to resolve conflicts that may arise at any time during the construction process; and (6) the general provisions of the project's mitigation monitoring and reporting program, the need to adhere to the provisions of federal Endangered Species Act (FESA), and the penalties associated with violating FESA.

d. Halt work, if necessary, and confer with the City to ensure the proper implementation of species and habitat protection measures. The biologist shall report any violation to the City within 24 hours of its occurrence.

e. Submit regular (e.g., weekly) letter reports to the City during project construction and a final report following completion of construction. The final report shall include as-built construction drawings with an overlay of habitat that was impacted and avoided, photographs of habitat areas that were avoided, and other relevant summary information documenting that authorized impacts were not exceeded and that general compliance with all conservation measures was achieved.

Discussion: The City requires a biological monitor to carry out these measures as standard conditions of approval.

5. The following conditions shall be implemented during project construction:

   a. Employees shall strictly limit their activities, vehicles, equipment, and construction materials to the fenced project footprint.

   b. The project site shall be kept as clean of debris as possible. All food-related trash items shall be enclosed in sealed containers and regularly removed from the site.

   c. Disposal or temporary placement of excess fill, brush, or other debris shall be limited to areas within the fenced project footprint.

   Discussion: —These conditions would be documented on construction plans and implemented during project construction.

6. All equipment maintenance, staging, parking, and dispensing of fuel, oil, coolant, or any other such activities shall occur in designated areas within the fenced project impact limits. These designated areas shall be located in previously compacted and disturbed areas to the maximum extent practicable in such a manner as to prevent any runoff from entering the vernal pools or their watersheds and shall be shown on the construction plans. Fueling of

equipment shall take place within existing paved areas greater than 100 feet from the vernal pools or their watersheds. Contractor equipment shall be checked for leaks prior to operation and repaired as necessary. A spill kit for each piece of construction equipment shall be available and must be used in the event of a spill. "No fueling zones" shall be designated on construction plans.

Discussion: These conditions would be documented on construction plans and implemented during project construction.

7. Grading activities immediately adjacent to vernal pools shall be timed to avoid wet weather to minimize potential impacts (e.g., siltation) to the vernal pools unless the area to be graded is at an elevation below the pools. To achieve this goal, grading adjacent to avoided pools shall comply with the following:

   a. Grading shall occur only when the soil is dry to the touch both at the surface and 1 inch below. A visual check for color differences (i.e., darker soil indicating moisture) in the soil between the surface and 1 inch below indicates the soil is dry.

   b. After a rain of greater than 0.2-inch, grading shall occur only after the soil surface has dried sufficiently as described above, and no sooner than 2 days (48 hours) after the rain event ends.

   c. To prevent erosion and siltation from storm water runoff due to unexpected rains, BMPs (e.g., silt fences) shall be implemented as needed during grading.

   d. If rain occurs during grading, work shall stop and resume only after soils are dry, as described above.

   e. Grading shall be done in a manner to prevent runoff from entering preserved vernal pools.

   f. If necessary, water spraying will be conducted at a level sufficient to control fugitive dust but not to cause runoff into vernal pools.

   g. If mechanized grading is necessary, grading will be performed in a manner to minimize soil compaction (i.e., use the smallest type of equipment needed to feasibly accomplish the work).

   Discussion: These measures would be documented on construction plans and implemented during construction.

8. Prior to project construction, topsoil shall be salvaged from the impacted vernal pools or road ruts with fairy shrimp consistent with the requirements of the approved mitigation plan (e.g., free of versatile fairy shrimp). Vernal pool soil (inoculum) shall be collected when dry to avoid damaging or destroying fairy shrimp cysts and plant seeds. Hand tools (e.g., shovels and trowels) shall be used to remove the first 2 inches of soil from the pools. Whenever possible, the trowel shall be used to pry up intact chunks of soil, rather than loosening the

soil by raking and shoveling, which can damage the cysts. The soil from each pool shall be stored individually in labeled boxes that are adequately ventilated and kept out of direct sunlight in order to prevent the occurrence of fungus or excessive heating of the soil, and stored off-site at an appropriate facility for vernal pool inoculum. Inoculum from different source pools shall not be mixed for seeding any restored pools, unless otherwise approved by the City and Wildlife Agencies. The collected soils shall be spread out and raked into the bottoms of the restored pools. Topsoil and plant materials salvaged from the upland habitat areas to be impacted shall be transplanted to, and/or used as a seed/cutting source for, the upland habitat restoration/creation areas to the maximum extent practicable as approved by the City.

Discussion: Refer to the Vernal Pool and Quino Checkerspot Butterfly Mitigation Plan (see Attachment 14) for details on proposed restoration methods.

9. Permanent protective fencing shall be used along any interface with developed areas and/or other measures approved by the City to deter human and pet entrance into on- or off-site habitat shall be installed. Fencing shall be shown on the development plans and should have no gates (accept to allow access for maintenance and monitoring of the biological conservation easement areas) and be designed to prevent intrusion by pets. Signage for the biological conservation easement area shall be posted and maintained at conspicuous locations. The requirement for fencing and/or other preventative measures shall be included in the project's mitigation program.

   Discussion: Refer to the Vernal Pool and Quino Checkerspot Butterfly Mitigation Plan (see Attachment 14) for details on proposed fencing and signage around the vernal pool preserve.

b. General Conditions for Compensatory Mitigation

Section 5.3.2 of the VPHCP addresses general conditions for compensatory mitigation and requires project specific vernal pool restoration, enhancement, and preservation plans consistent with these guidelines. The three general conditions and how the project is consistent with the VPHCP are listed below.

1. The project proponent shall submit a vernal pool restoration/enhancement/preservation plan to the City (Development Services Environmental Analysis Section and Planning Department MSCP Staff) and Wildlife Agencies for approval as part of the development review process and the plan shall be included as an attachment to the project's CEQA document. The restoration plan shall be consistent (as applicable) with the restoration plan outline included in Attachment B of the City's Land Development Manual Biology Guidelines. The plan must be approved and implemented prior to or concurrent with project impacts.

   Discussion: A Vernal Pool and Quino Checkerspot Butterfly Mitigation Plan has been prepared for this project, which is consistent with both the VPHCP and the City's Biology Guidelines (Attachment 17; RECON 2024c). Additional detailed information about VPHCP consistency is provided in this mitigation plan.

2. The project proponent shall ensure the long-term management of the on-site areas shall occur in perpetuity (see Section 7). Each project proponent shall implement a perpetual management, maintenance, and monitoring plan (e.g., Habitat Management Plan) for their respective biological conservation easement areas. The plan, which shall be approved by the City and Wildlife Agencies and funding source must be established prior to, or concurrent with, impacts. The plan should include, but not be limited to, the following: method of protecting the resources in perpetuity (i.e., covenant of easement dedication to the City, or a deed restriction or other conservation mechanism consistent with California Civil Code Section 815, et seq. and/or Government Code Section 65870 and acceptable to the Wildlife Agencies; monitoring schedule; measures to prevent human and exotic species encroachment; funding mechanism; and contingency measures should problems occur. In addition, the plan shall include the proposed land manager's name, qualifications, business address, and contact information. The project proponent shall also establish a nonwasting endowment or similar secure funding method in an amount approved by the City and the Wildlife Agencies based on a Property Analysis Record (PAR; Center for Natural Lands Management ©1998), or similar cost estimation method, to secure the ongoing funding for the perpetual long-term management, maintenance, and monitoring of the biological conservation easement area by an agency, nonprofit organization, or other entity approved by the City and the Wildlife Agencies.

   Discussion: A Vernal Pool Habitat Management Plan has been prepared for this project (see Attachment ~~16~~17). A non-wasting endowment would be provided for the long-term management of the 33.71-acre vernal pool restoration areas and long-term management would begin after the 5 years of maintenance and monitoring have been signed off by the City and Wildlife Agencies. The non-wasting endowment would be provided prior to initiation of long-term management. Long-term management of the vernal pool restoration areas would be the responsibility of the City's Park and Recreation Open Space Division.

3. In the event that a new occurrence of a covered species is identified (i.e., previously undocumented) within an area to be impacted by a covered project or covered activity, mitigation shall be required in the form of salvage and restoration for the impact to the new occurrence. Mitigation shall occur consistent with Conditions 1 and 2 above, as well as the City's Land Development Manual Biology Guidelines.

   Discussion: Although it is unlikely that new, undocumented sensitive species would be discovered within the project-level analysis areas due to the extensive level of surveys for the project, if a new species is found, all efforts would be made to salvage this species and proper mitigation would take place, consistent with Conditions 1 and 2 listed above.

c. Vernal Pool Management and Monitoring Plan

Chapter 7 of the VPHCP addresses the management and monitoring strategy including site specific management and monitoring actions for vernal pool complexes to be managed to achieve VPHCP objectives. Consistent with the requirements of the VPHCP, the project has prepared a site-specific Vernal Pool and Quino Checkerspot Butterfly Mitigation Plan (see Attachment 14; RECON 2023).

Refer to Attachment 17 for details on the long-term management approach consistent with Chapter 7 of the VPHCP.

d. Land Use Adjacency Guidelines

Section 5.2 of the VPHCP requires indirect impacts to conserved vernal pools to be minimized by requiring development projects adjacent to the hard line preserve to comply with Section 1.4.3 of the MSCP, Land Use Adjacency Guidelines. Development adjacent to VPHCP preserve areas would occur in the southeast portion of the project-level areas where future residential development and the proposed sewer pump station would interface with vernal pool preserve areas. The approximately 2-acre pump station is an allowed use within the VPCHP preserve, but would be subject to MSCP land use adjacency requirements. The Land Use Adjacency Guidelines are cited below, followed by a consistency discussion, specific to land use adjacent to VPHCP conserved lands.

Drainage. All new and proposed parking lots and developed areas in and adjacent to the preserve must not drain directly into the MHPA. All developed and paved areas must prevent the release of toxins, chemicals, petroleum products, exotic plant materials and other elements that might degrade or harm the natural environment or ecosystem processes within the MHPA. This can be accomplished using a variety of methods including natural detention basins, grass swales, or mechanical trapping devices. These systems should be maintained approximately once a year, or as often as needed, to ensure proper functioning. Maintenance should include dredging out sediments if needed, removing exotic plant materials, and adding chemical-neutralizing compounds (e.g., clay compounds) when necessary and appropriate.

> *Discussion:* Drainage from the residential areas and planned pump station located adjacent to the vernal pool preserve would be designed to drain away from the vernal pool preserve. Drainage would be detained on-site within underground vaults and treated to remove pollutants prior to release as detailed in Section 1.3.2.3.c. Drainage would flow toward the drainage outfall to the south, avoiding the vernal pool preserve. Site-specific drainage details for this area would be provided at the time a future site-specific development plan is proposed in this area.

Toxins. Land uses, such as recreation and agriculture, that use chemicals or generate by-products such as manure that are potentially toxic or impactive to wildlife, sensitive species, habitat, or water quality need to incorporate measures to reduce impacts caused by the application and/or drainage of such materials into the MHPA. Such measures should include drainage/detention basins, swales, or holding areas with non-invasive grasses or wetland-type native vegetation to filter out the toxic materials. Regular maintenance should be provided. Where applicable, this requirement should be incorporated into leases on publicly owned property as leases come up for renewal.

> *Discussion:* Construction BMPs, such as monitoring, flagging, staking or silt/bio fencing around sensitive areas would be used to ensure toxins from construction and project implementation would not impact the VPHCP preserve.

Lighting. Lighting of all developed areas adjacent to the MHPA should be directed away from the MHPA. Where necessary, development should provide adequate shielding with non-invasive plant

materials (preferably native), berming, and/or other methods to protect the MHPA and sensitive species from night lighting.

Discussion: The project has been designed in conformance with this guideline. No night-time lighting is proposed during construction, and night-time lighting adjacent to the vernal pool preserve would be shielded and/or directed to avoid or minimize spillage into adjacent habitat areas.

Noise. Uses in or adjacent to the MHPA should be designed to minimize noise impacts. Berms or walls should be constructed adjacent to commercial areas, recreational areas, and any other use that may introduce noises that could impact or interfere with wildlife utilization of the MHPA. Excessively noisy uses or activities adjacent to breeding areas must incorporate noise reduction measures and be curtailed during the breeding season of sensitive species. Adequate noise reduction measures should also be incorporated for the remainder of the year.

Discussion: While direct impacts associated with construction of the pump station are addressed as part of the project-level analysis, the pump station would be constructed as part of Phase 2 and detailed site planning for the pump station is not available at this time. Therefore, future implementation of the pump station would require subsequent environmental review related to indirect impacts to ensure that noise producing equipment does not adversely impact surrounding habitat. Most of the pump station equipment is anticipated to be enclosed within a building, with only an emergency generator located outside. When the details of the pump station layout are proposed as part of a future phase of the Specific Plan and separate entitlement, a site-specific noise evaluation would be completed to identify required attenuation needed to avoid or mitigate for noise impacts.

Barriers/Access. New development adjacent to the MHPA may be required to provide barriers (e.g., non-invasive vegetation, rocks/boulders, fences, walls, and/or signage) along the MHPA boundaries to direct public access to appropriate locations and reduce domestic animal predation.

Discussion: The pump station area would be fenced to preclude access to the adjacent existing VPHCP/MHPA areas. Additionally, a fire-rated wall would be installed to prohibit entry into this area and protect adjacent resources from fire management impacts.

Invasives. No invasive non-native plant species shall be introduced into areas adjacent to the MHPA.

Discussion: The plant palette for the project would not include any invasive or non-native plant species adjacent to the vernal pool preserve area. The Specific Plan Appendix A defines allowable plant species adjacent to the MHPA and within BMZ 2. Additionally, according to City's standards for brush management, BMZ 2 only includes native plants.

Brush Management. New residential development located adjacent to and topographically above the MHPA (e.g., along canyon edges) must be set back from slope edges to incorporate BMZ 1 areas on the development pad and outside of the MHPA. BMZ 2 may be located in the MHPA upon granting of an easement to the City (or other acceptable agency) except where narrow wildlife corridors require it to be located outside of the MHPA. BMZ 2 would be increased by 30 feet, except in areas with a low fire hazard severity rating where no BMZ 2 would be required. BMZs would not

be greater in size that is currently required by the City's regulations. The amount of woody vegetation clearing shall not exceed 50 percent of the vegetation existing when the initial clearing is done. Vegetation clearing shall be done consistent with City standards and shall avoid/minimize impacts to covered species to the maximum extent possible. For all new development, regardless of the ownership, the brush management in the BMZ 2 area would be the responsibility of a homeowners' association or other private party.

> *Discussion*: A fire-rated wall and brush management would occur within the project-level impact boundary adjacent to the 100 percent conserved lands. At the time development is proposed adjacent to the vernal pool preserve, brush management zones would need to be identified and/or an evaluation of alternative compliance if reduced brush management zones are proposed. It should be noted that the Vernal Pool and Quino Checkerspot Butterfly Mitigation Plan (see Attachment 14) identify fire safe native plantings compatible with the mitigation effort along the western edge of the preserve in order to increase fire safety. While fire safe features are incorporated into the mitigation plan, it is understood that brush management zones cannot overlap with mitigation lands.

Grading/Land Development. Manufactured slopes associated with site development shall be included within the development footprint for projects within or adjacent to the MHPA.

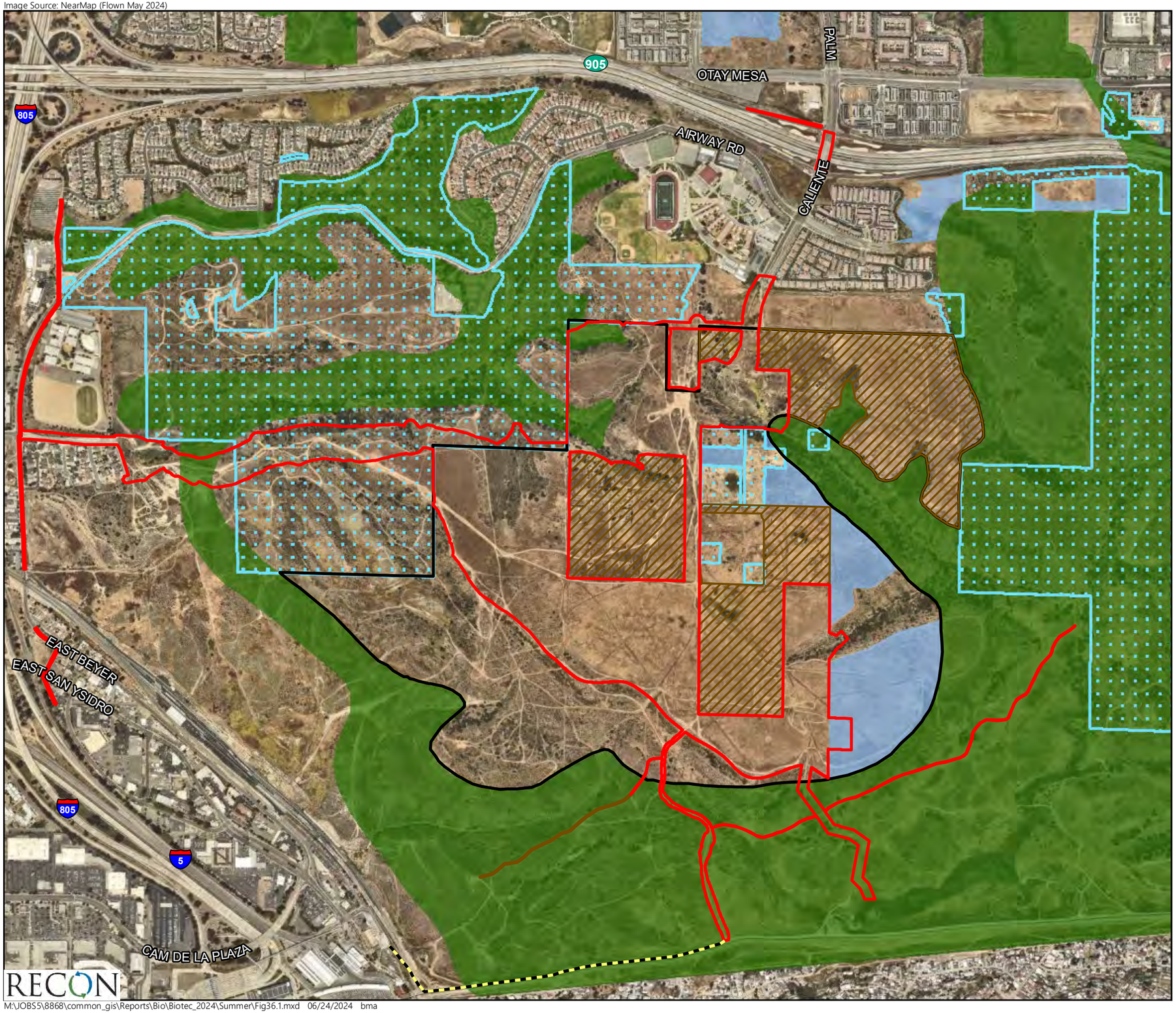
> *Discussion:* The project has been designed in conformance with this guideline. All grading and manufactured slopes are included in the project impact area and addressed as impacts in this report.

6.2.3 MSCP and VPHCP Consistency Summary

Table 7c provides a summary of the deletions from the MHPA and VPHCP 100 percent conserved lands and MHPA additions for both the MHPA BLA analysis and VPCHP conservation analysis, and strategy with an overall accounting of the net MHPA additions. As detailed in Table 7c, MHPA and VPHCP 100 percent conserved land deletions of sensitive vegetation communities would total 30.36 acres, while overall MHPA additions of sensitive vegetation communities would total 44.~~3~~25 acres, based on the MHPA BLA and BSO concurrence and pending adoption of the VPHCP MA. This would result in a net increase of 14.19 acres of sensitive vegetation communities. There is a slight decrease in Tier I vegetation from the exchange of lands; however, in total, the MHPA would increase by 14.19 acres of sensitive vegetation communities. In addition, the trails restoration program would convert 7.83 acres of disturbed and non-native grassland to maritime succulent scrub (see Attachment 1), resulting in an overall increase in Tier I communities in the MHPA. Approximately 0.5 acre of the restoration would be located within the MHPA Area A addition proposed as an exchange in the MHPA BLA (see Figure 36.3). The addition areas combined with restoration of maritime succulent scrub would serve to ensure there is an excess of Tier I habitat provided as a result of project activities. Overall, the MHPA additions combined would result in a net increase of 8.65 acres of Diegan coastal sage scrub, and a net increase of 7.46 acres of non-native grassland areas suitable for vernal pool restoration. The conservation strategy identified herein is proposed as a result of Wildlife Agency coordination and exceeds the City's requirements under the MSCP Subarea Plan, VPHCP, and Biology Guidelines. Overall, wetland vegetation community acreages would increase after the additions, including enhancement of disturbed wetlands to create vernal pools and increase the quality of wetland resources within the addition areas. Figure 36.5 depicts the post-project MHPA and VPHCP/MHPA boundary after BLA and

VPHCP land replacement. As shown, the configuration of the MHPA would result in expansion of existing blocks of MHPA and VPHCP preserve areas, ensuring functional equivalency of the exchange lands.

Image Source: NearMap (Flown May 2024)



Project-level Analysis Area
Program-level Analysis Area
Specific Plan Boundary
Baseline MHPA
Existing VPHCP/MHPA
100% Conservation
Emergency Vehicle Access Road -
No Improvements Required (Existing Road)

0 Feet 1,000

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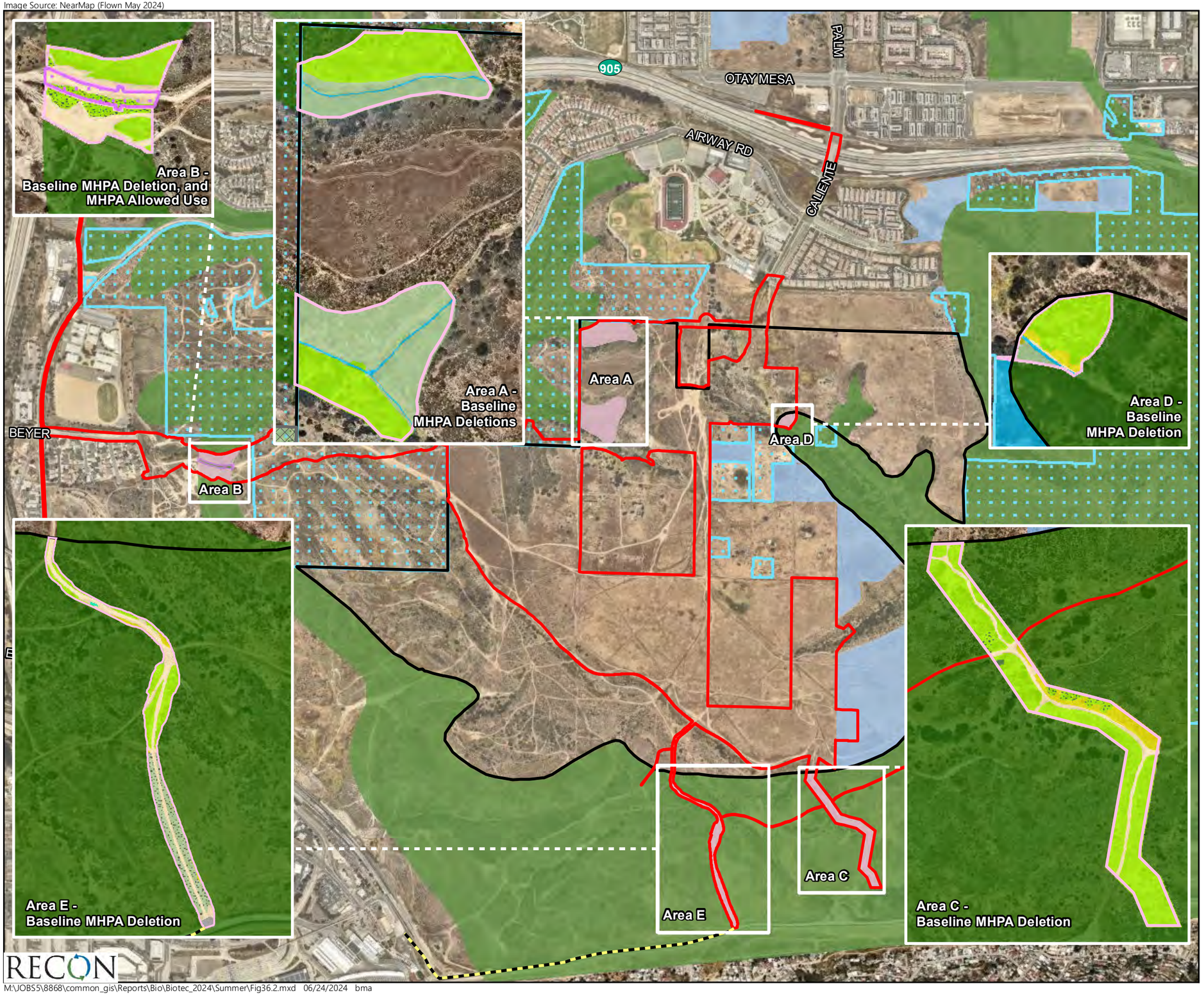
FIGURE 36.1
Pre-Project MHPA and VPHCP/MHPA Boundary

Image Source: NearMap (Flown May 2024)



- Project-level Analysis Area
- Baseline MHPA Deletion
- MHPA Allowed Use*
- Specific Plan Boundary
- Baseline MHPA
- Existing VPHCP/MHPA
- 100% Conservtion
- Emergency Vehicle Access Road - No Improvements Required (Existing Road)

Vegetation Communities

- Diegan Coastal Sage Scrub
- Disturbed Diegan Coastal Sage Scrub
- Maritime Succulent Scrub
- Disturbed Maritime Succulent Scrub
- Tamarisk Scrub
- Native Grassland
- Non-native Grassland
- Vernal Pool
- Natural Flood Channel
- Disturbed Land
- Developed Land

*Linear utilities are exempt from the requirement for MHPA deletions pursuant to Land Development Code Section 143.0111(d); therefore, the areas within Beyer Boulevard supporting water, sewer, and stormwater linear utilities are not subject to a Boundary Line Adjustment

0 Feet 1,000

RECON

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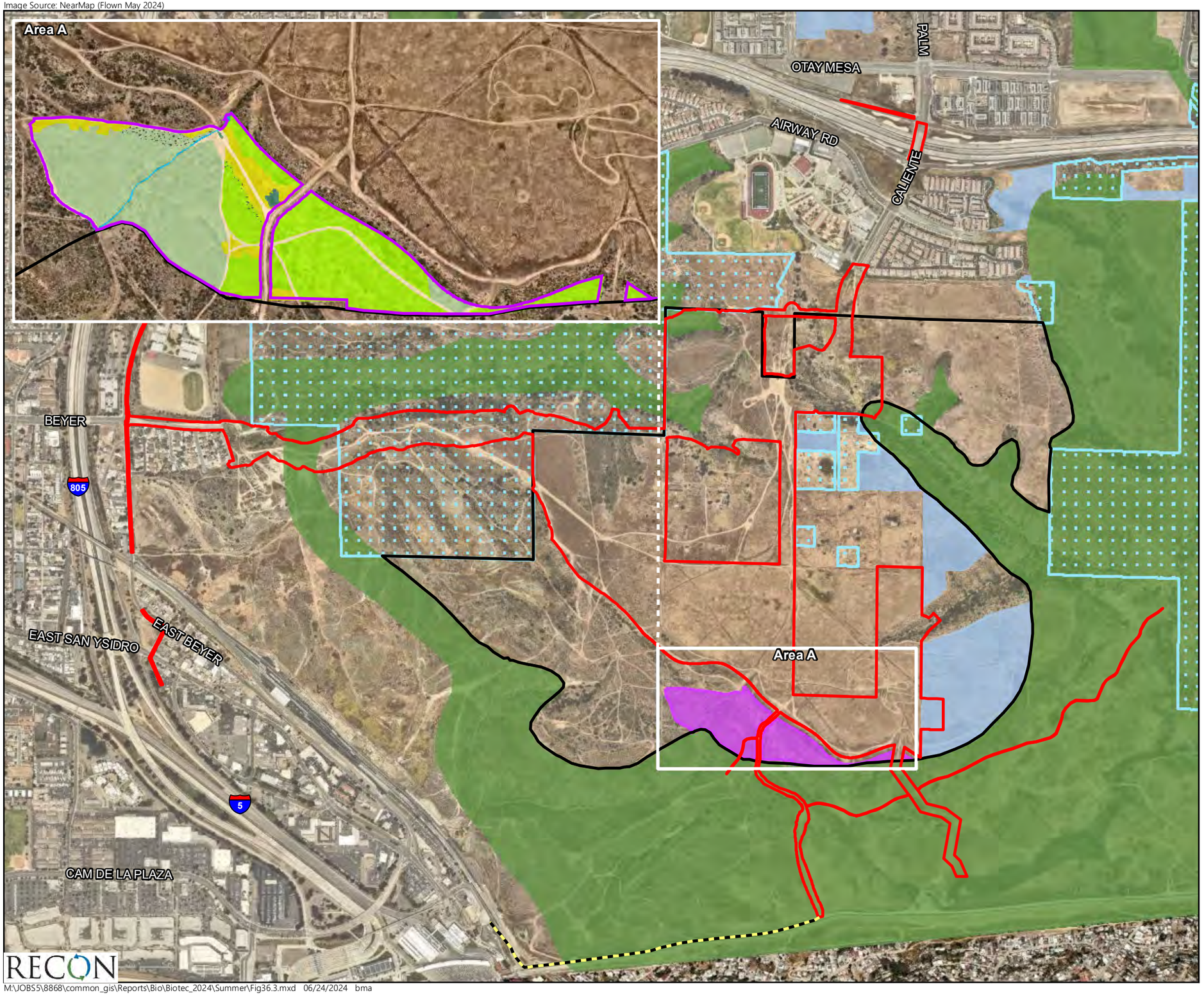
FIGURE 36.2
Project-Level Baseline MHPA Deletions

Image Source: NearMap (Flown May 2024)



Project-level Analysis Area
MHPA Addition
Specific Plan Boundary
Baseline MHPA
Existing VPHCP/MHPA
100% Conservation
Emergency Vehicle Access Road - No Improvements Required (Existing Road)

Vegetation Communities

Diegan Coastal Sage Scrub
Disturbed Diegan Coastal Sage Scrub
Maritime Succulent Scrub
Disturbed Maritime Succulent Scrub
Non-native Grassland
Disturbed Wetland
Natural Flood Channel
Disturbed Land

0 Feet 1,000

FIGURE 36.3
Project-level Baseline MHPA
Boundary Line Additions

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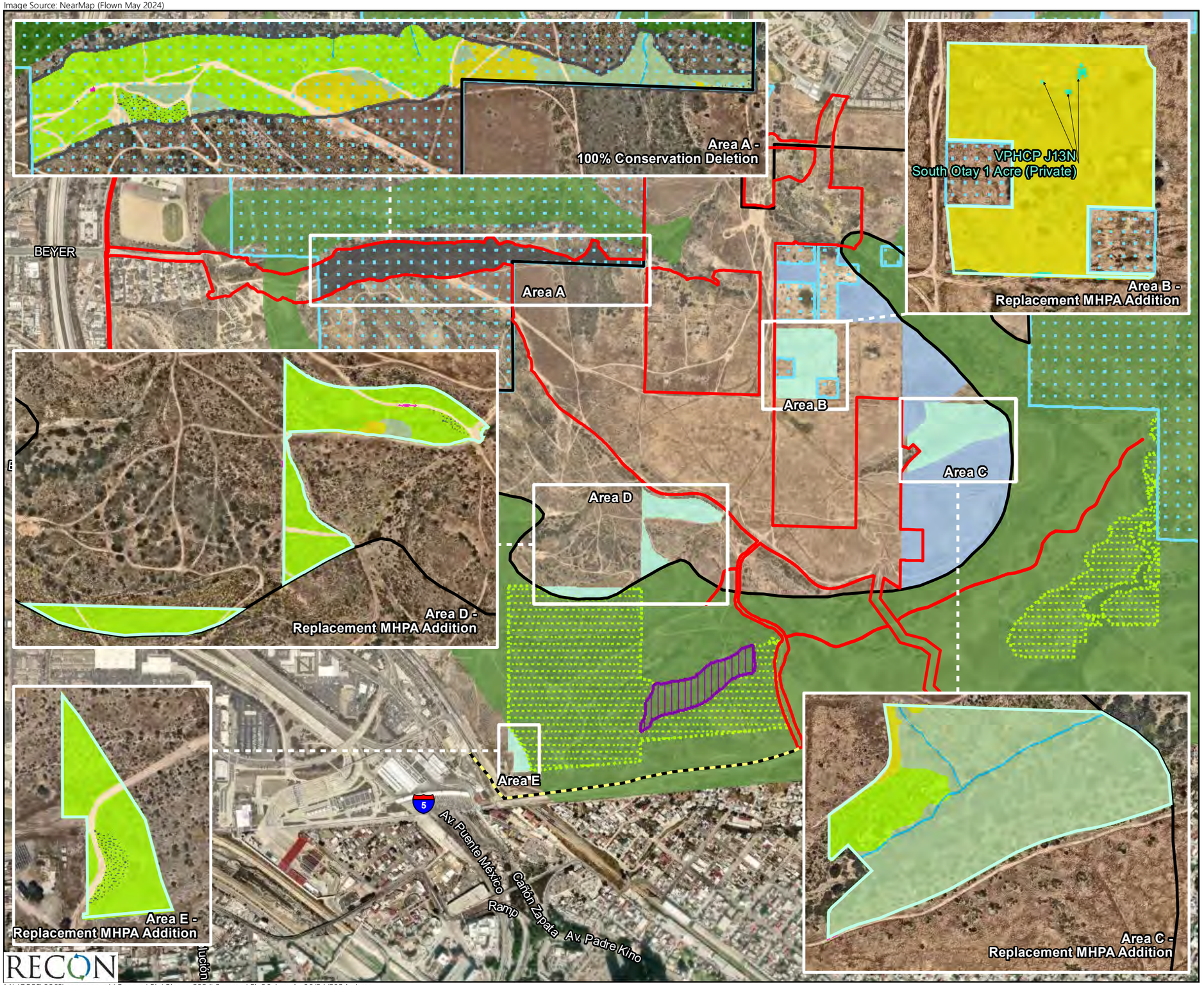
Image Source: NearMap (Flown May 2024)



- Project-level Analysis Area
- 100 Percent Conservation Deletion
- MHPA Addition - Replacement for VPHCP Conservation Land
- Specific Plan Boundary
- Baseline MHPA
- Existing VPHCP/MHPA
- 100% Conservtion
- County of San Diego Furby North Exchange Lands
- Additional Potential Habitat Preservation in Exchange for Impacts to VPHCP Conservation Land
- Emergency Vehicle Access Road - No Improvements Required (Existing Road)

Vegetation Communities

- Diegan Coastal Sage Scrub
- Disturbed Diegan Coastal Sage Scrub
- Maritime Succulent Scrub
- Disturbed Maritime Succulent Scrub
- Non-native Grassland
- Vernal Pool
- Vernal Pool with Fairy Shrimp
- Disturbed Wetland
- Natural Flood Channel
- Disturbed Land

0 Feet 1,000

RECON

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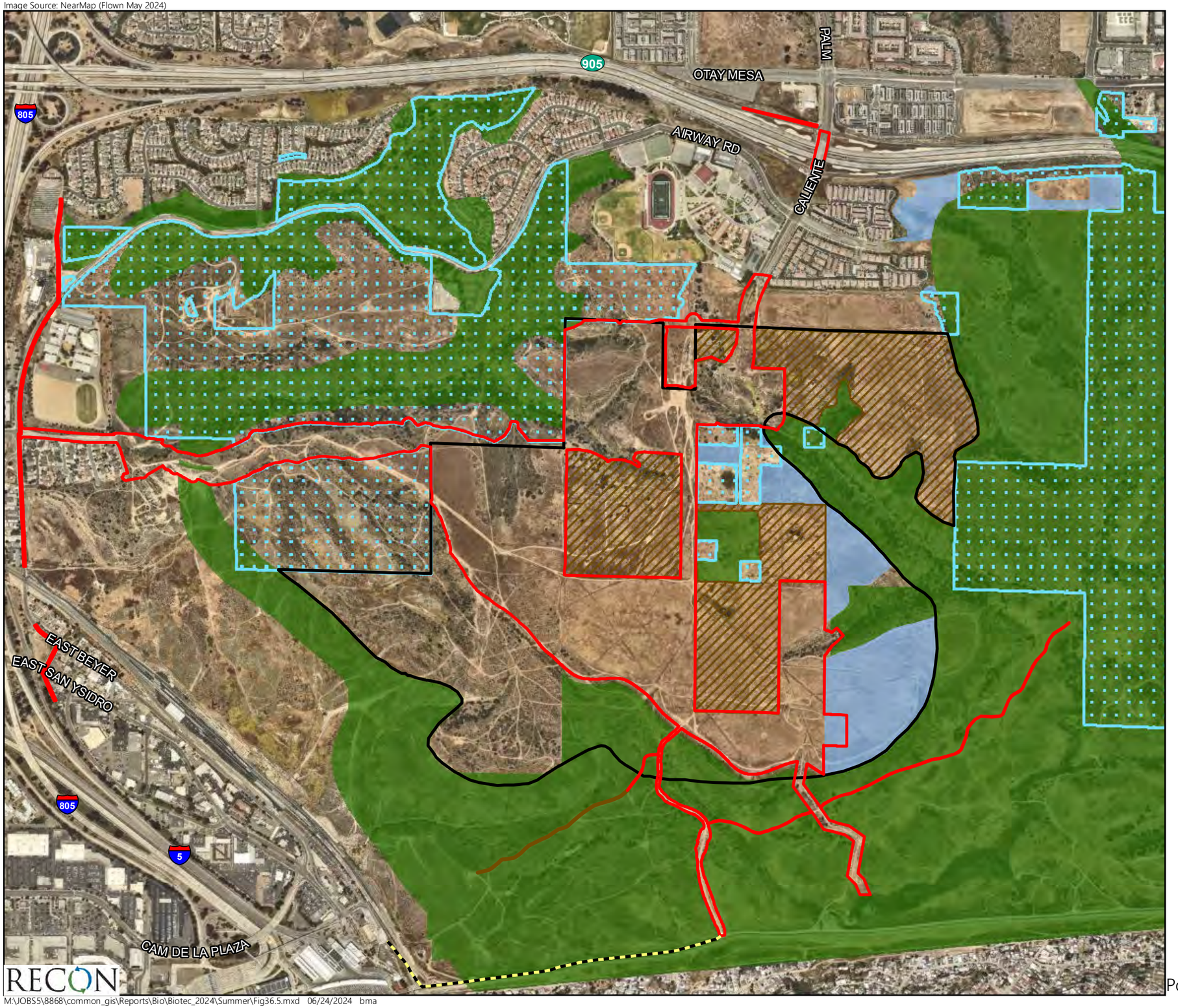
FIGURE 36.4

Project-Level VPHCP
100 Percent Conservation Deletions
and Replacement MHPA Additions

Image Source: NearMap (Flown May 2024)



Project-level Analysis Area
Program-level Analysis Area
Specific Plan Boundary
Baseline MHPA
VPHCP/MHPA
100% Conservation
Emergency Vehicle Access Road -
No Improvements Required (Existing Road)

0 Feet 1,000

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FIGURE 36.5
Post-Project MHPA and VPHCP/MHPA Boundary