Home Innovation RESEARCH LABS

2012

ICC 700-2012 National Green Building Standard™

Developer Scoring Report - Land Development

Revised March 13, 2014

Community Name: Lilac Hills Ranch | **Project Status:** New Subdivision - planning complete - seeking Letter of Approval

Total Points: 291 | **Level Achieved:** 4 STARS

GREEN BUILDING PRACTICES	Points Available	Documentation Required	Points Claimed	Info Required	DEVELOPER NOTES/COMMENTS
400 SITE DESIGN AND DEVELOPMENT					
400.0 Intent. This section applies to land development for the eventual construction of buildings or additions thereto that contain dwelling units. The rating earned under Section 303 based on practices herein, applies only to the site as defined in Chapter 2. The buildings on the site earn their own performance level by complying with the provisions of Section 303, 304, 305 or 306, as applicable.					
401 LOT SELECTION					
401.0 Intent. The site is selected to minimize environmental impact by one or more of the following:					
401.1 Infill site. An infill site is selected.	**7**	None.		Explain Infill status:	N/A
401.2 Greyfield site. A greyfield site is selected.	**7**	Local gov't documentation that site is classified as greyfield.			N/A
401.3 Brownfield site. A brownfield site is selected.	**8**	EPA map or local gov't documentation that site is classified as brownfield.			N/A
401.4 Low-slope site. A site with an average slope calculation of less than 15% is selected.	**5**	Site plan with contor lines. If low slope is not obvious, engineer's calculation of average slope.			N/A
402 PROJECT TEAM, MISSION STATEMENT AND GOALS					
402.0 Intent. The site is designed and constructed by a team of qualified professionals trained in green development practices.					
402.1 Team. 1) A knowledgeable team is established. 2) Team member roles are identified with respect to green lot design, preparation, and development. 3) The project's green goals and objectives are written into a mission statement.	**4**	Mission statement, written team member roles, and specific green responsibility assignments.	**4**	List team members:	1.) & 2.) Specific Plan ("Preface - Page xv"); 3.) Specific Plan (Section II.A.5 and 6; and, Section II.G)
402.2 Training. Training is provided to on-site supervisors and team members regarding the green development practices to be used on the project.	**3**	Written description of training and training schedule for green development practices.		Describe training:	N/A
402.3 Project checklist. A checklist of green development practices to be used on the project is created, followed, and completed by the project team regarding the site.	**Mandatory 4**	Green development practice checklist and current status for review by verifier.	**4**		Specific Plan, Section III, N, "Green Building Performance Standards";
402.4 Development agreements. Through a developer agreement or equivalent, the developer requires purchasers of lots to construct the buildings in compliance with this Standard (or equivalent) certified to a minimum bronze rating.	**6**	Developer Agreement or Equivalent	**6**		See Specific Plan, Section II.A.2 & Section III.E.1.
403 SITE DESIGN					
403.0 Intent. The project is designed to avoid detrimental environmental impacts, minimize any unavoidable impacts, and mitigate for those impacts that do occur. The project is designed to minimize environmental impacts and to protect, restore, and enhance the natural features and environmental quality of the site. (Note: To acquire points for the design, the intent of the design must be implemented.)					
403.1 Natural resources. Natural resources are conserved by one or more of the following:					
(1) A natural resources inventory is used to create site plan.	**Mandatory 5**	Natural resources inventory for this site.	**5**	List top 3 priority resources to	1) Coast Live Oak Woodland; 2) Riparian Woodlands; and, 3) Riparian Scrubs. See Pages 24-28 of the EIR Biological Resources Report.
(2) A plan to protect and maintain priority natural resources/areas during construction is created. (Also see Section 404 for guidance in forming the plan.)	**Mandatory 5**	Natural resources protection and maintenance plan.	**5**		A Conceptual Resource Management Plan (CRMP) has been prepared. See Attachements 15 and 16 of the EIR Biological Resources Report.

Community Name:	Lilac Hills Ranch			Project Status:	New Subdivision - planning complete - seeking Letter of Approval
Total Points:	291			Level Achieved:	4 STARS

GREEN BUILDING PRACTICES	Points Available	Documentation Required	Points Claimed	Info Required	DEVELOPER NOTES/COMMENTS
(3) Member of builder's project team participates in a natural resources conservation program.	**4**	List of team members, program name, and their level of participation.		Describe participation:	N/A
(4) Streets, buildings, and other built features are located to conserve high priority vegetation.	**4**	Site plan showing location of high priority vegetation and locations of proposed improvements.	**4**		EIR Ch. 2.5 - Bio Resources, Figures 2.5-2a, 2b, 3a, 3b and 3c)
403.2 Building orientation. A minimum of 75 percent of the building sites are designed with the longer dimension of the structure to face within 20 degrees of south.	**6**	Identify on the site plan all building sites where the longer dimension of the structure will be within 20 degrees of south.			N/A
403.3 Slope disturbance. Slope disturbance is minimized by one or more of the following:					
(1) Hydrological/soil stability study is completed and used to guide the design of all buildings on the site.	**5**	Completed hydrological/soil stability study.	**5**	Steep slope / hydrological study done by:	Landmark Consulting (Hydromodification Management Plan)
(2) All or a percentage of roads are aligned with natural topography to reduce cut and fill.					
(a) 10 percent to 25 percent	**1**	Engineer's statement or report indicating the percent of roads aligned with natural topography that reduce cut and fill by at least 10% over other alternatives providing a similar number of lots.	**6**	Describe nature and extent of slope on total site and steps taken to minimize disturbance:	Civil engineers statement provided. "...Following the natural terrain was pursued to minimize cut and fill, overall distrubance, impacts to adjacent wetlands and to maximize existing view corridors…"
(b) 25 percent to 75 percent	**4**				
(c) greater than 75 percent	**6**				
(3) Long-term erosion effects are reduced by the use of clustering, terracing, retaining walls, landscaping, and restabilization techniques.	**6**	None.	**6**	Describe steps taken to reduce erosion:	See attached application
403.4 Soil disturbance and erosion. A site Stormwater Pollution Prevention Plan (SWPPP) is developed in accordance with applicable stormwater Construction General Permits. The plan includes one or more of the following:					
(1) Construction activities are scheduled to minimize length of time that soils are exposed.	**4**	Scheduling documentation showing steps taken to minimize soil exposure.	**4**	Describe steps taken to minimize exposure:	"Grading and clearing should be phased to reduce the amount and the duration of sediment exposure. If possible schedule grading during the dry season (Mid-April through October), particularly avoiding December through February." County of San Diego Stormwater Construction Requirements, Page 3.
(2) Utilities are installed by alternate means such as directional boring in lieu of open-cut trenching. Shared easements or common utility trenches are utilized to minimize earth disturbance. Low ground pressure equipment or temporary matting is used to minimize excessive soil consolidation.	**5**	Utility construction plans showing boring, common utility trenches, and/or shared easements needed to reduce soil disruption and erosion. Scope of work of utility contractors requiring measures to minimize excessive soil compaction.		Describe alternate utility approaches taken:	N/A
(3) Limits of clearing and grading are demarcated in the plan.	**4**	Site specific development plan showing limits of clearing and grading.	**4**		Specific Plan, Figure 65 (Conceptual Grading Plan). Master Preliminary Grading Plan
403.5 Stormwater management. Stormwater management design includes one or more of the following low-impact development techniques:					

Community Name:	Lilac Hills Ranch			Project Status:	New Subdivision - planning complete - seeking Letter of Approval
Total Points:	291			Level Achieved:	4 STARS

GREEN BUILDING PRACTICES	Points Available	Documentation Required	Points Claimed	Info Required	DEVELOPER NOTES/COMMENTS
(1) Natural water and drainage features are preserved and used.	**7**	Site specific development plan showing how natural water and drainage features are preserved and used.	**7**	Describe natural features used for storm water management:	See the Biological Resources Report *[Figures 11a,b,c]* :
(2) Vegetative swales, French drains, wetlands, drywells, rain gardens, and similar infiltration features are used.	**6**	Site specific storm water management plan that minimizes concentrated flows and uses vegetative swales, French drains, wetlands, drywells, rain gardens and/or other similar features.	**6**		See Stormwater Management plan for Implementing and Master Tentative Map
(3) Permeable materials are selected/specified for common area roads, driveways, parking areas, walkways, and patios.					
(a) 10 percent to 25 percent permeable	**2**	Site specific development plan delineating areas of roads, driveways, parking areas, walkways, and patios. Includes identification of all locations of permeable materials & type. Includes calculation showing percentage of permeable materials used.	**5**	Developer's calculated % of permeable materials used:	48%
(b) 25 percent to 75 percent permeable	**5**				
(c) greater than 75 percent permeable	**8**				
(4) Stormwater management practices are selected/specified that manage rainfall on-site and prevent the off-site discharge from all storms up to and including the volume of the 95th percentile storm event.	**7**	Stormwater Management Plan with engineer's calculation for 95th percentile storm.	**7**		Post-development run-off does not exceed pre-development run-off for 100-year storm event. The summary for this is shown "Preliminary Drainage Report – Implementing Tentative Map," Page 15
(5) A hydrologic analysis is conducted that results in the design of a stormwater management system that maintains the pre-development (stable, natural) runoff hydrology of the site throughout the development or redevelopment process. Post construction runoff rate, volume, and duration do not exceed predevelopment rates.	**7**	Hydrologic Study / Analysis	**7**		development runoff rates, volume, and time of concentration. The increase in volume and runoff rates and decrease in time of concentration are mitigated by the implementation of onsite detention basins which ensure the runoff leaving the site does not exceed the pre-developed condition. "Preliminary Drainage Report – Implementing Tentative Map," Page 15
(6) Stormwater management features/structures are designed for the reduction of nitrogen, phosphorus, and sediment.	**7**	Stormwater Management Plan and engineer's statement regarding nitrogen, phosphorous, and sediment.	**7**		Bio-retention, detention, and sediment traps are proposed to reduce sediment and nutrients (such as nitrogen and phosphorus). Please refer to "Storm Water Management Plan - Implementing Tentative Map," Pages 36-40 and 73-104
403.6 Landscape plan. A landscape plan is developed to limit water and energy use while preserving or enhancing the natural environment. Examples of techniques may include, but are not limited to, one or more of the following:					
(1) A plan is formulated to restore or enhance natural vegetation cleared during construction. Landscaping is phased to coincide with achievement of final grades to ensure denuded areas are quickly vegetated.	**6**	Site specific landscaping plan identifies areas to be restored/enhanced. Evidence that landscaping is scheduled to occur reasonably soon after achievement of final site grades.	**6**	Describe landscape plans including extent of areas to be landscaped:	A site specific landscaping plan that identifies areas to be restored/enhanced, can be found in the following sections of the Specific Plan: Section II.C (Openspace and Recreation Plan – 1. Biological Openspace – d.) Section III.D (Landscape Design Guidelines and Standards). Site specific landscaping plan will indicate which trees and/or
(2) On-site native or regionally appropriate trees and shrubs are conserved, maintained and reused for landscaping to the greatest extent possible.	**6**	Site specific landscaping plan that indicates which trees and/or vegetation are conserved or to be re-used.	**6**		

Community Name:	Lilac Hills Ranch			Project Status:	New Subdivision - planning complete - seeking Letter of Approval
Total Points:	291			Level Achieved:	4 STARS

GREEN BUILDING PRACTICES	Points Available	Documentation Required	Points Claimed	Info Required	DEVELOPER NOTES/COMMENTS
(3) Turf grass species, other vegetation, and trees that are native or regionally appropriate for local growing conditions are selected.	**5**	Site specific landscaping plan specifying native/regionally appropriate grass, trees, & other vegetation to be used.	**5**		vegetation are conserved or to be reused, can be found in Section II.C.2 (Manufactured Open Space)
(4) The percentage of all turf areas are limited as part of the landscaping.					
(a) 0 percent or EPA WaterSense Water Budget Tool is used to determine the maximum percentage of turf areas	**6**	Calculated total of turf areas as a percentage of the entire **landscaped area** of the site development or WaterSense Budget Tool		Developer's calculated % of turf area =	
(b) greater than 0 percent to less than 20 percent	**5**				
(c) 20 percent to less than 40 percent	**3**				
(d) 40 percent to 60 percent	**2**				
(5) Plants w/ similar watering needs are grouped (hydrozoning).	**4**	Plan with locations/types of plants grouped by similar watering needs.	**4**		See Attached
(6) Species/locations for tree planting identified/utilized to increase summer shading of streets, parking areas, and buildings and moderate temperatures.	**5**	Plan with locations and species of trees intended to provide summer shading of streets, parking areas and buildings.	**5**		See Attached
(7) Vegetative wind breaks or channels are designed as appropriate to local conditions.	**4**	Site specific landscaping plan showing the location of vegetative wind breaks.			N/A
(8) On-site tree trimmings or stump grinding of regionally appropriate trees are used to provide protective mulch during construction or as base for walking trails, and cleared trees are recycled as sawn lumber or pulp wood.	**4**	Construction and Demolition Plan for this development that indicates how and when tree trimmings and other clearing debris will be re-used.	**4**		See Attached
(9) An integrated common area pest management plan to minimize chemical use in pesticides and fertilizers is developed.	**4**	Documented pest management plan minimizing use of pesticides & fertilizers to control pests and unwanted vegetation.			N/A
(10) Plans for the common area landscape watering system include a weather-based or moisture-based controller. Required irrigation systems should be designed in accordance with the Irrigation Association's *Turf and Landscape Best Management Practices* .	**6**	Plans/documentation for watering system per the practice designed per the Irrigation Association's *Turf and Landscape Best Management Practices.*	**6**		See Attached
(11) Trees that might be lost due to site grading are preserved by the use of retaining walls or tree wells.	**4**	Site plan showing the trees requiring tree wells or retaining walls.			N/A
(12) Greywater irrigation systems are used to water common areas. Greywater used for irrigation conforms to all criteria of Section 802.1.	**7**	Irrigation Plan showing grey water distribution areas.	**7**		Specific Plan Section II.F.1.b.ii; and, Section II.F.9.f.
(13) Cisterns, rain barrels, and similar tanks are designed to intercept and store runoff. These systems may be above or below ground, and they may drain by gravity or be pumped. Stored water may be slowly released to a pervious area, and/or used for irrigation of lawn, trees, and gardens located in common areas.	**6**	Site plan showing the locations of the collection devices or sytems.	**6**		Specific Plan Section II.F.1.b.ii; and, Section II.F.9.f.
403.7 Wildlife habitat. Measures are planned that will support wildlife habitat.	**6**	Documentation in the site development plans for the location and type of wildlife habitat support measures.	**6**	Describe steps taken to support wildlife:	See Specific Plan Section V.B ("Sustainable Site Design")

Community Name:	Lilac Hills Ranch			Project Status:	New Subdivision - planning complete - seeking Letter of Approval
Total Points:	291			Level Achieved:	4 STARS

GREEN BUILDING PRACTICES	Points Available	Documentation Required	Points Claimed	Info Required	DEVELOPER NOTES/COMMENTS
403.8 Operation and maintenance plan. An operation and maintenance plan (manual) is prepared and outlines ongoing service of common open space, utilities (storm water, waste water), and environmental management activities.	**6**	Operation and maintenance manual.	**6**	Describe extent of plan and who has responsibility for the ongoing implementation:	See Specific Plan Section III.M.2f-h ("Community HOA")
403.9 Existing buildings. Existing building(s) and structure(s) is/are preserved, reused, modified, or disassembled for reuse or recycling of building materials.	**8**	Site development plan identifying all existing buildings and structures that are to be preserved, re-used, modified, or disassembled for re-use or recycling of bldg materials.		Describe existing structures that have been reused:	N/A
403.10 Existing and recycled materials. Existing or recycled materials are used as follows. **(Points awarded for every 10 percent of total building materials that are reused, deconstructed, and/or salvaged. The percentage is consistently calculated on a weight, volume, or cost basis.)**					
(1) Existing pavements, curbs, and aggregates are salvaged or reincorporated into the development.	**3**	Tabulation of all existing or recycled pavement, curbs, asphalt, concrete, and aggregates salvaged or reincorporated as a percentage of the project total for all pavements, curbs, and aggregates. The percentage of each type of materials can be combined; the percentage should be rounded down to the nearest 10% to determine the points.			N/A
(2) Recycled asphalt or concrete is utilized in the project.					N/A
403.11 Environmentally sensitive areas. Environmentally sensitive areas as follows:					
(1) Environmentally sensitive areas including steep slopes, prime farmland, critical habitats, and wetlands are avoided as follows:					
(a) < 25 percent of site undeveloped	**2**	Site plan showing locations/description of environmentally sensitive areas to be avoided.	**2**	Describe size/type of area avoided:	104.1 acres of Biological Openspace divided by 608 total acres = 17%
(b) 25 percent - 75 percent of site undeveloped	**4**				
(c) > 75 percent of site undeveloped	**7**				
(2) Compromised environmentally sensitive areas are mitigated or restored.	**4**	Plan showing locations of compromised environmentally sensitive areas that have been mitigated or restored. Before and after photos.	**4**	List total acres mitigated or restored, acres mandated & describe type/extent:	78 Acres mitigated as described in Table 8 of the Bio Resources Report, plus 6 acres of wetland creation and 12 acres of wetland enhancement.
404.0 Intent. Environmental impact during construction is avoided to the extent possible; impacts that do occur are minimized, and any significant impacts are mitigated.					

Community Name:	Lilac Hills Ranch			Project Status:	New Subdivision - planning complete - seeking Letter of Approval
Total Points:	291			Level Achieved:	4 STARS

GREEN BUILDING PRACTICES	Points Available	Documentation Required	Points Claimed	Info Required	DEVELOPER NOTES/COMMENTS
404.1 On-site supervision and coordination. On-site supervision and coordination is provided during clearing, grading, trenching, paving, and installation of utilities to ensure that specified green development practices are implemented. (also see Section 403.4)	**5**	Daily log showing consistency of on-site supervision.		Supervisor's name:	N/A
404.2 Trees and vegetation. Designated trees and vegetation are preserved by one or more of the following:					
(1) Fencing or equivalent is installed to protect trees and other vegetation.	**4**	None	**4**	Describe steps taken:	Specific Plan, Section III.D.7 "Fence Guidelines" states: "Biological Habitat Areas; All development which share property lines with the Biological Habitat Areas (Figure 18) are required to include fencing along the shared property line. At appropriate locations signs
(2) Trenching, significant changes in grade, compaction of soil, and other activities are avoided in critical root zones (canopy drip line) in "tree save" areas.	**5**	None		Describe steps taken:	N/A
(3) Damage to designated existing trees and vegetation is mitigated during construction through pruning, root pruning, fertilizing, and watering.	**4**	Pruning, root pruning, fertilizing, and watering invoices.		Describe steps taken:	N/A
404.3 Soil disturbance and erosion. On-site soil disturbance and erosion are minimized by one or more of the following:					
(1) Limits of clearing and grading are staked out prior to construction.	**5**	None	**5**		See Specific Plan Section III.K.2. "Biological Performance Standards" All Grading Plans shall require that a qualified biologist be present during grading operations in order to: i. Design and supervise the placement of orange construction fencing or equivalent along the boundary of the development area as shown on the approved grading and improvement plans. ii. Monitor vegetation clearing and earthwork to ensure construction activities remain within the project footprint. iii. Precisely identify and mark open space and other sensitive areas using geographic information system (GIS) coordinates with at least 6 inches of accuracy to assure that grading does not result in any un-permitted impacts beyond the designated buffer areas, nor result in any intrusion into any open space areas. [per EIR Section 2.5]
(2) "No disturbance" zones are created using fencing or flagging to protect vegetation and sensitive areas from construction vehicles, material storage, and washout.	**4**	None	**4**		See Response to Number 1
(3) Sediment and erosion controls are installed and maintained.	**5**	Approved sediment and erosion control plan.	**5**	Describe steps taken:	Per the County of San Diego's Stormwater Standards Manual, Section F.3, all ground disturbance associated with a grading permit must install and maintain sediment and erosion controls. http://www.sandiegocounty.gov/dpw/watersheds/watershedpdf/watershed-std-manual.pdf

Community Name:	Lilac Hills Ranch			Project Status:	New Subdivision - planning complete - seeking Letter of Approval
Total Points:	291			Level Achieved:	4 STARS
GREEN BUILDING PRACTICES	**Points Available**	**Documentation Required**	**Points Claimed**	**Info Required**	**DEVELOPER NOTES/COMMENTS**
(4) Topsoil is stockpiled and covered with tarps, straw, mulch, chipped wood, vegetative cover, or other means capable of protecting it from erosion for later use to establish landscape plantings.	**5**	None	**5**		F.3, all ground disturbance associated with a grading permit must install and maintain sediment and erosion controls. http://www.sandiegocounty.gov/dpw/watersheds/watershedpdf/watershed-std-manual.pdf
(5) Soil compaction from construction equipment is reduced by distributing the weight of the equipment over a larger area by laying lightweight geogrids, mulch, chipped wood, plywood, OSB (oriented strand board), metal plates, or other materials capable of weight distribution in the pathway of the equipment.	**4**	Scopes of work or contract documents that require soil compaction reducing measures on the site.	**4**	Describe steps taken to meet this practice:	Stabilization of vehicle traffic areas is a requirement of the County of San Diego's Stormwater Standards Manual, Section F.3 http://www.sandiegocounty.gov/dpw/watersheds/watershedpdf/watershed-std-manual.pdf
(6) Disturbed areas are stabilized within the EPA recommended 14-day period.	**4**	Development schedule showing stabilization of disturbed areas within 14 days.	**4**		Per the County of San Diego's Stormwater Standards Manual, Section F.3, all ground disturbance associated with a grading permit must
(7) Soil is improved with organic amendments and mulch.	**4**	Scopes of work or contract documents that requires improving soil with organic amendments and mulch.	**4**	Describe steps taken:	Soil improvement with organic amendments and mulch is one of the recommended BMP's in the County of San Diego's Stormwater Standards Manual (see Section F.3) and will be employed on this project. http://www.sandiegocounty.gov/dpw/watersheds/watershedpdf/watershed-std-manual.pdf
404.4 Wildlife habitat. Measures are implemented to support wildlife habitat.					
(1) Wildlife habitat is maintained.	**5**	Site development plan showing habitat areas to be maintained.	**5**	Describe steps taken:	The wildlife habitat to remain in biological open space on-site will be maintained according to the guidelines contained in the Conceptual Resource
(2) Measures are instituted to establish or promote wildlife habitat.	**5**	List of measures to be instituted to establish or promote wildlife habitat.	**5**	Describe steps taken:	Measures employed to establish and promote wildlife habitat include the preservation of 104.1 acres of biological open space for wildlife use, the on-site creation of 6.0 acres of wetland habitat for wildlife use, and the enhancement of 12 acres of existing disturbed riparian habitat to native riparian habitat for wildlife use.
(3) Open space is preserved as part of a wildlife corridor.	**6**	Site development plan showing open space corridors to be preserved.	**6**		See, attached, Bio Resources Report, Section 6.0 ("Wildlife Movement") & figures 14a and b
(4) Builder or member of builder's project team participates in a wildlife conservation program.	**5**	Documentation about team member's participation in wildlife conservation programs.		List Team member(s) participating & Name program:	
405 INNOVATIVE PRACTICES					
405.0 Intent. Innovative site design, preparation, and development practices are used to enhance environmental performance. Waivers or variances from local development regulations are obtained, and innovative zoning practices are used to implement such practices, as applicable.					
405.1 Driveways and parking areas. Driveways and parking areas are minimized by one or more of the following:					

Community Name:	Lilac Hills Ranch			Project Status:	New Subdivision - planning complete - seeking Letter of Approval
Total Points:	291			Level Achieved:	4 STARS

GREEN BUILDING PRACTICES	Points Available	Documentation Required	Points Claimed	Info Required	DEVELOPER NOTES/COMMENTS
(1) Off-street parking areas are shared or driveways are shared; on-street parking is utilized; and alleys (shared common area driveways) are used for rear-loaded garages.	**5**	Site development plans showing shared driveways in single family areas and/or calculation showing parking provided for multi-family does not exceed local requirements. Plan shows location of structured parking.			
(2) In multi-unit projects, parking capacity is not to exceed the local minimum requirements.	**5**				
(3) Structured parking is utilized to reduce the footprint of surface parking areas.					
(a) 25 percent to less than 50 percent reduction	**3**				
(b) 50 percent to 75 percent reduction	**5**				
(c) greater than 75 percent reduction	**8**				
405.2 Street widths.					
(1) Street pavement widths are the minimized per local code and are in accordance with the table below: Collector street with parking (one side only) - 31 ft Collector street without parking - 26 ft Local access with parking (one side only) - 27 ft Local access street without parking - 20 ft Queuing (one-lane) streets with parking - 24 ft Alleys & queuing (one-lane) streets without parking - 17 ft	**6**	Site development plan showing widths of collector streets, local access streets, & queuing streets with & without parking are consistent with maximum widths shown in table.			
(2) A waiver was secured by the developer from the local jurisdiction to allow for construction of streets below minimum width requirement.	**8**	Waiver from local jurisdiction.			
405.3 Cluster development. Cluster development enables and encourages flexibility of design and development of land in such a manner as to preserve the natural and scenic qualities of the site by utilizing an alternative method for the layout, configuration and design of lots, buildings and structures, roads, utility lines and other infrastructure, parks, and landscaping.	**10**	Site plan with explanation of how the natural & senic qualities were preserved.	**10**		See attached, Specific Plan, Section V.B. (Page V-9)
405.4 Zoning. Innovative zoning techniques are implemented in accordance with the following:					
(1) Innovative zoning ordinances or local laws are used or developed for permissible adjustments to population density, area, height, open space, mixed-use, or other provisions for the specific purpose of open space, natural resource preservation or protection and/or mass transit usage. Other innovative zoning techniques may be considered on a case-by-case basis.	**8**	Evidence of development ordinance, waivers, or variances approved by the local jurisdiction.	**8**	Describe steps taken to meet this practice:	Specific Plan, Section V.B. (Page V-9)
(2) An increase to the permissible density, area, height, use, or other provisions of a local zoning law for a defined green benefit.	**7**	Statement and site plan from qualified professional that environmental effects were minimized and infrastructure is available and adequate.	**7**	Describe steps taken to meet this practice:	See Specific Plan Section I.F. (1)-(6) and Figures 7-12.

Community Name:	Lilac Hills Ranch			Project Status:	New Subdivision - planning complete - seeking Letter of Approval
Total Points:	291			Level Achieved:	4 STARS

GREEN BUILDING PRACTICES	Points Available	Documentation Required	Points Claimed	Info Required	DEVELOPER NOTES/COMMENTS
(3) Place-based amenities such as plazas, squares, and attached greens located around civic, commercial, and mixed-use property are accessible by sidewalks, on-street parking, or provide for bike racks for the purpose of promoting higher density living.	**7**	List of community based amenities provided to promote higher density living.	**7**	Describe steps taken to meet this practice:	See Specific Plan Section I.B (Project Description) See Specific Plan (Table 1) – "Land Use Summary" See Specific Plan Section II – "Specific Plan Summary"
405.5 Wetlands. Constructed wetlands or other natural innovative wastewater treatment technologies are used.	**8**	Plans showing constructed wetlands or other innovative wastewater technologies and documentation that a qualified contractor completed an approved installation.	**8**	Describe steps taken to meet this practice:	See figures 5a and 5b of the Conceptual Resource Management Plan for Wetland Creation and Restoration: http://www.sandiegocounty.gov/content/dam/sdc/pds/regulatory/docs/LILAC_HILLS_RANCH/Recirculation/GPA12001-REIR-AppendixG-BiologyTechnicalReport_061214.pdf
405.6 Mass transit. Mass transit access is provided in accordance with one or more of the following:					
(1) A site is selected with a boundary within one-half mile (805 m) of pedestrian access to a mass transit system or within five miles of a mass transit station with available parking.	**5**	Map that defines distance to pedestrian access to mass transit system or distance to nearest mass transit station with available parking.	**5**	List distance to mass transit and Name/type of mass transit	3.5 Miles to Fallbrook – Lot 19, I-15 & Hwy 76 Park and Ride and Bus Service
(2) A site is selected where all lots within the site are located within one-half mile (805 m) of pedestrian access to a mass transit system.	**7**				
(3) Walkways, bikeways, street crossings, and entrances designed to promote pedestrian activity are provided. New buildings are connected to existing sidewalks and areas of development.	**5**	Walkway and bikeway plan on site development plan and show connections to local area network.	**5**		See attached, Specific Plan, Figures 13, 20-53, 72, 75-77, 79-129 See attached, Specific Plan, Section III.E.3.c, See attached, Specific Plan, Section V.A.2, See Specific Plan, Section V.B,
(4) Bicycle parking and racks are indicated on the site plan and constructed for mixed-use, multi-family buildings, and/or common areas.	**4**		**4**		See attached, Specific Plan, Section III.B.3 and 4; See attached, Specific Plan, Section III.M.3.c.
(5) Bike sharing programs participate with the developer and facilities for bike sharing are planned for and constructed.	**5**	Evidence of particpation in sharing programs.			
(6) Car sharing programs participate with the developer and facilities for bike sharing are planned for and constructed.	**5**		**5**		See attached, Specific Plan, Section III.B.5
405.7 Density. The average density on a net developable area basis is:					
(1) 7 to less than 14 dwelling units per acre (per 4,047 m2)	**5**	Planner's calculation of density.	**5**	Net Developable	262.56
(2) 14 to less than 21 dwelling units per acre (per 4,047 m2)	**7**			7	
(3) 21 or greater dwelling units per acre (per 4,047 m2)	**10**			Dwelling Units:	1946

Community Name:	Lilac Hills Ranch			Project Status:	New Subdivision - planning complete - seeking Letter of Approval
Total Points:	291			Level Achieved:	4 STARS

GREEN BUILDING PRACTICES	Points Available	Documentation Required	Points Claimed	Info Required	DEVELOPER NOTES/COMMENTS
405.8 Mixed-use development. (1) Mixed-use development is incorporated, or (2) for single-use sites 20 acres or less in size with boundaries adjacent to a site with a minimum of two uses containing retail, services, and employment where a pedestrian network of streets, sidewalks, pathways, or plazas exists that connects a majority of lots within the site with the adjacent non-residential multi-use site.	**9**	None.	**9**		Specific Plan Section I.I.B (Project Description)
405.9 Open space. A portion of the gross area of the community is set aside as open space. **(Points awarded for every 10 percent of the community set aside.**	**5**	Calculation showing percent of area set aside.	**5**		104.1 acres of Biological Openspace divided by 608 total acres = 17%
405.10 Community garden(s). A portion of the site is established as a community garden(s) for the residents of the site to provide local food production for residents or area consumers.	**3**	None.	**3**		Specific Plan Section III.N.1.c (Community Gardens)
		Total Points Claimed	**291**		
		Rating Level for Total Points Claimed	**4 STARS**		

NGBS Credit

402.1 Team

1) *A knowledgeable team is established.*
2) *Team member roles are identified with respect to green lot design, preparation, and development.*

APPLICANT RESPONSE

See attached Specific Plan ("Preface - Page xv")

3) The project's green goals and objectives are written into a mission statement.

APPLICANT RESPONSE

See attached Specific Plan (Section II.A.5 and 6) and (Section II.G)

CREDIT
402.1 (1) (2)

PREFACE

The Lilac Hills Ranch Specific Plan includes a proposal to amend the County of San Diego's General Plan. The amendments include; a change on the Regional Land Use map from the Semi-Rural to the Village Category and the amendment of the Valley Center and Bonsall Community Plan maps and texts. The General Plan Amendment Report (Appendix VI.C) attached to this report describes the proposed General Plan changes in detail, and provides a detailed analysis of how the project measures against the applicable goals and policies of the adopted planning documents. The Lilac Hills Ranch Specific Plan was prepared with input from the following qualified experts:

COMPANY:	PROJECT ROLE:
Advanced Geotechnical Solutions	Geotechnical Engineer
AEI Environmental	Environmental Hazards
Affinis	Archeology / Cultural
Architects BP Associates	Architect
Calthorpe Associates	Master Planner / Architecture
Carrier Johnson + CULTURE	Architecture and Planning
Chen Ryan	Traffic Engineer
Development Design Services & Graphic Access	Landscape Architect and Graphics
Dudek	Fire Protection
EEI	Environmental Hazards
Firewise 2000	Fire Protection / Evacuation
Landmark	Civil Engineer
Photogeodetic	Photogrametry/Topography
RECON Environmental	Environmental Impact Report
RMA Consulting	Environmental Coordination
Vance and Associates	Policy Planner
Wiedlin & Associates	Hydrogeological Engineer
Wilson Engineering	Water/Sewer Engineer

CREDIT 402.1 (3)

f) Provide life-cycle housing within the Community through the inclusion of a variety of housing types for all age groups.

g) Provide an expanded opportunity for home ownership by increasing the housing supply across a range of household budgets and incomes.

h) Incorporate and encourage low-impact development and sustainable practices throughout the entire Specific Plan area, including future commercial development, residential common areas, and individual homes.

i) Provide a location for recycling and green waste collection in order to facilitate and encourage recycling and the possible use of compost materials within common and agricultural areas.

j) Provide educational, recreational and neighborhood retail opportunities in close proximity to residential uses, accessible by roads, bike lanes, and trails.

k) Coordinate the provision of utilities, facilities, and infrastructure and ensure availability concurrent with need.

l) Create neighborhoods and a broad range of commercial and civic uses that are supported by a network of local roads, bicycle lanes or paths, and walkways linking these neighborhoods with parks, schools, and public areas.

m) All discretionary permits implementing this Specific Plan are required to comply the applicable sections of the Resource Protection Ordinance, including the standards relating to steep slopes.

n) During grading activities, Tier III, or higher, construction equipment will be used, with the exception of concrete/industrial saws, generator sets, welders, air compressors, or for construction equipment where Tier III, or higher, is not available.

5. Sustainable Community Goals

".. sustainability is a key theme of this General Plan and is inextricably related to a number of General Plan elements, as well as land use topics." Per County of San Diego Land Use Element page 3-24

Ensure the development of the Community based on sustainable development principles, including the sustainability Goals and Policies of the County General Plan resulting in a compact, vibrant, walkable, mixed-use community where residents are encouraged to walk to amenities and services. The sustainable building design concepts which are a featured component of this Specific Plan ensures less energy and imported water is consumed within the Community, further reduces impacts on the environment and provides better indoor air quality when compared to traditional development. When integrated, these objectives create a neighborhood with a high quality of life and healthy inhabitants.

6. Sustainable Community Policies

a) Promote the best management practices for water conservation as approved by the Valley Center Municipal Water District, to minimize the use of imported water. Low flow water fixtures, dual flush toilets, grey water systems and other efficient plumbing systems will be encouraged.

b) The best management practices for waste management strategies shall be applied. An on-site Recycling Facility (RF) site will be provided and implemented based upon the feasibility. The RF will allow the collection and recycling of trash with the potential of green waste to be reused throughout proposed common areas and by homeowners as well as the purchase of recyclables back from residents. This will reduce materials that would otherwise be deposited into area landfills. It will provide mulch for gardens and landscaping that will help conserve water and improve water quality by limiting the need for fertilizers.

c) Develop an extensive trail system available for use by the general public connecting all of the neighborhoods and ensuring a walkable Community to help minimize vehicular use and encourage interaction with the natural environment.

d) Compact development reduces the energy needed for transportation and building use. The project will implement the use of existing Green Building standards adopted by the County. Builders will be required to offer Homeowners the option to use energy efficiency lighting fixtures that consume fewer natural resources, and Energy Star and water efficient appliances.

e) Encourage the use of feasible best management practices to maintain the current level of water runoff (discharge) leaving the site close to pre-development levels. This may include the use of inlet filters, rain barrels for single family homes, and appropriately sized detention basins such that there is no effect on downstream drainage facilities, both natural and made, and green streets to include bio filtration and permeable pavers.

7. Open Space/Conservation Goal

Conserve significant biological, cultural, paleontological, flood plain, and visual resources as shown in this Specific Plan.

8. Open Space/Conservation Policies

a) Conserve environmentally sensitive areas within the Lilac Hills Ranch planning area requiring protection and/or management as shown in this Specific Plan. The Community Home Owners Association will be responsible for the necessary maintenance of open space areas.

   Conserve the identified environmentally sensitive areas in on-site open space lots and with easements to ensure their permanent conservation. Construction and grading shall not be allowed to occur in dedicated open space areas. Fuel

NGBS Credit

402.3 Project Checklist - *A checklist of green development practices to be used on the project is created, followed, and completed by the project team regarding the site.*

APPLICANT RESPONSE

See attached Specific Plan Section III. N "Green Building Performance Standards"

i. The HOA will be responsible for the maintenance of such properties including the required maintenance of all fuel management zones on HOA property.

j. All agricultural operations within the Community are limited to properties owned and maintained by the HOA. The HOA is responsible to ensure that all agricultural operations conform to applicable County regulations and ordinances to include limiting use of spray products on fruit trees to those approved for organic operations

k. Lilac Hills Ranch will use commercially acceptable farming practices for on-site agriculture that are consistent with surrounding uses and County Ordinances.

l. Manufactured slopes shall be planted for erosion control, fuel modification, Community identity, and aesthetics in conformance with the plant palettes and standards contained in this Specific Plan.

m. Native oaks shall be preserved or moved to open spaces to the maximum extent feasible.

n. Trails that are part of the County Regional Trail System (Regional Trails Linkages) shall be developed in accordance with the County's Trail Standards. The County Regional Trail System trails shall accommodate equestrians, bicyclists, and pedestrians and shall be dedicated to the County of San Diego..

o. The Lilac Hills Ranch Community trail system shall be designed to accommodate bicyclists and pedestrians on all trails. Equestrian use of this trail system will be limited to the trails on the County Master Trail System and the Ranch Multi-Use Trail that connects the two trails on the County Master Trail System.

p. The private trails shall be constructed per the trail standards described within this Specific Plan.

q. Trails shall avoid fragile root areas of trees and shrubs, where feasible. Regional trails crossing roads shall be within ten degrees of a right angle. Traffic signs denoting all trail crossings shall be located along roadways to promote safety. Buttons at equestrian crossings shall be installed at signalized intersections. Motorcycles and off-road vehicles shall be strictly prohibited on both the regional and Community/neighborhood trails.

N. Green Building Performance Standards

The following performance standards, combined with other standards contained within Section III of the Specific Plan are included to demonstrate how the Community is designed to meet the criterion in Land Use Policy LU-1.2.

1. Sustainable Site Design

a. Household and Green-waste Recycling

The Implementing Site Plan shown in Phase 2 shall include a site for a Recycling Facility for the recycling of containers and compost to conserve energy and raw materials.

b. Farmers Market

Prior to the recordation of the last Final Map within the Town Center, the HOA shall be required to obtain the appropriate County permit for a regularly scheduled Farmer's Market.

c. Community Gardens

Each Implementing Site Plan containing single-family attached or mixed use within the Town Center or Neighborhood Center(s), shall include a site for a community garden to be owned and maintained by an HOA.

d. Environmental Stewardship

The HOA shall have an ongoing obligation to coordinate with the third party owner/manager of the biological open space to ensure effective communication of issues of mutual importance and concern.

The HOA shall also have an ongoing obligation to manage and operate the agricultural uses allowed by the Specific Plan within the biological open space areas in coordination with the RMP manager.

e. Innovative Landscaping

The landscape plan for implementing Site Plans shall contain landscape buffers planted with orchard trees to simultaneously grow food for the community while beautifying the trail and open space network.

f. Erosion and Stormwater Management

Require each Implementing Map to be accompanied with Erosion Control, Stormwater and Drainage Best Management Practices, as incorporated within the Specific Plan, the accompanying Project plans such as the Stormwater Management Plan, the Water Conservation Plan and other appropriate County regulations.

2. Integrated Transportation Planning

a. Traffic Demand Management Plan

Performance Standards for Transportation Demand Management are found in Section III-B.4 of this Specific Plan. This plan fully implements requirements for the reduction of offsite trips and to reduce vehicle trips in favor of alternative modes of transportation.

b. Integrated Trail System

The Community integrated Trail System includes over 16-miles of public access multi-use trails including connections to two planned County regional trails. The Trail System provides complete access to all the neighborhoods within the Community and to the County Master Trail System.

c. Complete Streets

The Specific Plan includes a detailed section on street design (See Section III-B) which include a variety of widths and configurations all designed pursuant to the standards established for the Complete Streets approach to safe and accessible street design.

d. Transit

The Specific Plan includes a detailed section including the description of the integrated Transit system required by the Specific Plan (See Section III-B.4 & 5). This system provides for internal transit opportunities and a site for a private ride-share, shown on **Figure 130**. The Specific Plan also includes an interim private-sponsored transit program to connect the community with the existing public transit stop located at the intersection of I-15 and SR-76.

3. Sustainable Building

a. Dual wiring for solar and electric car charging:

Each implementing Site Plan shall be conditioned to require that buildings shown on the Site Plan will be designed to include dual wiring for solar electric, and electrical car charging.

b. Plumbing for Solar Water Heating:

Each implementing Site Plan shall be conditioned to require that buildings shown on the Site Plan will be designed to include plumbing for solar water heating.

c. Recycled Water Systems

Each implementing Site Plan shall be conditioned to require that common area landscaping shown on the Site Plan will be designed to allow plumbing for recycled water systems.

d. Rain-water Harvesting

Each implementing Site Plan shall be conditioned to require that buildings shown on the Site Plan will be designed to include plumbing for rainwater harvesting systems.

e. Heat Island Reduction

The Landscape Plan for each Park Site Plan, or Park Major Use Permit shall include on the Landscape Plan an average of 77 trees per acre from the specimen list shown in Section III-D.6 (Community Park Landscaping Standards) of this Specific Plan.

The Landscape Plan for the internal private road Improvement Plans associated with each Final Map shall include on the Landscape Plan an average of 30 trees (on center) along both sides of the road, (and in the median where a median is provided) from the specimen list shown in Section III-D.3 (Road Landscaping Standards) of this Specific Plan. Tree planting locations shall take into account public safety concerns in regards to sight distance.

The Landscape Plan for each development Site Plan shall include on the Landscape Plan an average of 298 trees per acre from the specimen list shown in Section III-D.4 (Neighborhood Landscaping Standards) of this Specific Plan from the specimen list shown in Section III-D.6 (Community Park Landscaping Standards) of this Specific Plan.

f. Energy Conservation

In order to meet State of California standards for energy efficiency and indoor air quality, all buildings shown on Implementing Site Plans shall be required to exceed 2008 Title 24 standards by 30%.

CREDIT 402.3 (end)

O. Wireless Facilities

Wireless facilities are allowed only in the three areas of the Community with the C34 Use Regulation. All proposed wireless facilities will be required to obtain the permits and go through the review process required in Section 6980 of the Zoning Ordinance.

P. General Plan Amendment

In order for the Lilac Hills Ranch Specific Plan to be implemented a General Plan Amendment must first be approved. The Lilac Hills Ranch General Plan Amendment includes a proposal to amend the County of San Diego's General Plan by: 1) Amending the Regional Land Use Map to change the Regional Category from Semi-Rural to Village Category; 2) Amending the Valley Center and Bonsall Community Plan maps to change the Land Use designations to VR 2.9 and Village Core and amending the texts to insert descriptions of the Specific Plan; and 3) Amending the Mobility Element road classification and Table M-4 for West Lilac Road to relocate the location where the classification of West Lilac Road transitions from 2.2C to 2.2F from east of the project to the west side of the Community.

NGBS Credit

402.4 Development agreements. *Through a developer agreement or equivalent, the developer requires purchasers of lots to construct the buildings in compliance with this Standard (or equivalent) certified to a minimum bronze rating.*

APPLICANT RESPONSE

The LHR Specific Plan, when approved, will be adopted by the County of San Diego by a resolution of the Board of Supervisors. The text of the Specific Plan includes detailed development standards for the entire property and regulates all future development on that property. Prior to construction all builders will be required to file and obtain approval from the County of a Site Plan (a discretionary application). This Site Plan is required per the Specific Plan text to demonstrate compliance with the Lilac Hills Ranch Green Building Standards contained in Section III of the Specific Plan.

See attached, Specific Plan, Section II.A.2

See attached, Specific Plan, Section III.E.1-5

Also planned within the Community are: a recycling facility, a Water Reclamation Facility, and other supporting infrastructure. There will be 104.1 acres of sensitive biological/wetland habitat preserved onsite. An additional amount of agriculture, outside of the biological open space, will also be conserved throughout the community. Additional off-site open space and agriculture will be required to mitigate impacts on site. There are 1,746 dwelling units authorized by the specific plan which averages to an overall gross density of 2.9 dwelling units per acre (du/ac) over the Community.

A. Specific Plan Goals and Policies

1. Community Design and Operation Goal

Ensure the orderly and sensitive development of land uses within Lilac Hills Ranch Specific Plan to safeguard and enhance the appearance, quality, and value of development in the Valley Center and Bonsall Community Planning Areas.

2. Community Design and Operation Policies

Limit development to those uses permitted by and in accordance with development standards contained in the County of San Diego Zoning Ordinance, the County General Plan, the Lilac Hills Ranch Specific Plan and future detailed approvals and permits for the property. The Lilac Hills Ranch Specific Plan is intended to further implement the policies and development standards set forth in the County General Plan, and the Valley Center and Bonsall Community Plans provided however, in cases where there are discrepancies or conflicts between the Lilac Hills Ranch Specific Plan and the County's development regulations or zoning standards, the provisions of the Lilac Hills Ranch Specific Plan shall prevail.

Require Site Plan approval for civic, mixed-use and commercial structures in the Town Center and Neighborhood Centers (pursuant to the "B" and "D" Special Area Designator) as required to ensure that development will conform to the appropriate design guidelines and standards for such development in accordance with Section III of this Specific Plan entitled "Development Standards and Regulations."

Require Site Plan approval for single family attached residential structures in the Town Center and Neighborhood Centers (pursuant to the "V" setback regulator and the "D" Special Area Designator) as required to ensure that development will conform to the appropriate design guidelines and standards for such development in accordance with Section III of this Specific Plan entitled "Development Standards and Regulations."

Require Site Plan approval for single family detached development within the Specific Plan (pursuant to the "D", Special Area Designator) to ensure that development will conform to the appropriate design guidelines and standards for such development in accordance with Section III of this Specific Plan entitled "Development Standards and Regulations."

used where necessary to avoid nuisance lighting, particularly in residential neighborhoods and adjacent to preserved natural open space. Lighting, including all landscape low voltage decorative lighting, shall comply with the County's light pollution code.

The lighting and illumination standards for Lilac Hills Ranch will be complementary to the architecture and land uses throughout the project area. The Project Site is approximately 3,700 feet beyond the Zone A boundary of the Palomar Observatory.

PDSA Photometric Study has been prepared for phase one and establishes three goals for all future photometric studies:

a) Public safety will be the chief consideration in lighting system design.

b) Lighting will be directed downward, shielded, and otherwise designed to reduce glare and spillover to adjacent properties while still achieving the level necessary for public safety.

c) The type and design of fixtures will be compatible with the design theme and architecture embodied in the Lilac Hills Ranch Specific Plan.

The study concluded that for the street lighting single pole arm mounted fixtures are recommended with a type III distribution which, in general, throws light ahead and in front of the fixture head and to each side, with minimal back lighting. This is the recommended distribution for general street lighting. House-side shields are also available. Using 15'-0" mounting height allows fire trucks to safely pass beneath the fixtures in areas where they may encroach past the curb line.

Along the man entry road where a center median occurs, match double armed pole mounted fixtures are suggested, with a pole-to-pole spacing of 120'-0". With a single head pole-to-pole spacing of 80'-0" we achieve the following light level criteria:

a) Average illumination 0.68 fc

b) Maximum illumination 108 fc

c) Minimum illumination 0.1 fc

d) Average to minimum illumination 6.80 fc

e) Maximum to minimum illumination 18.00 fc

f) Lighting concepts are provided as **Figure 141**

E. Architectural Design Standards and Guidelines

1. Town Center Commercial and Mixed-Use Design Guidelines

a. General

The Town Center may include housing types from medium density mixed-use dwelling units above retail and office space, single family-attached and live/work unit row homes. The Town Center will be pedestrian prioritized with private walkways and linkages to the trail system connecting the residential villages to the Town Center and other Community amenities such as public and private parks, an enhanced pedestrian zone with special street setbacks, and a clock tower.

The development within the Town Center which is wholly within the Valley Center Community Planning area will include single family attached, commercial development; mixed-use development; and civic uses. All of these uses will be regulated by the C34 Use Regulations, and development guidelines in Chapter III of the Specific Plan.

Development applications for the mixed-use commercial uses will also be subject to the application of the "B" and "D" Special Area Development Regulators which requires that commercial developments obtain an approved Site Plan from PDS prior to the approval of Building Permits in accordance with the process described in Section IV of this Specific Plan. Development projects which are subject to the Valley Center Community Design Guidelines will require an approval of a Site Plan which conforms to the building design and landscape design guidelines.

Development applications including the single family attached use will only be subject to the application of the "D" Special Area Development Regulator which requires that residential developments obtain an approved Site Plan from PDS prior to the approval of Building Permits in accordance with the process described in Section IV of this Specific Plan.

The expressed purpose of the "B" Special Area Development Regulator is to indicate that Site Plan review will occur so that the development proposal conforms to the applicable design standards in the Valley Center Design Guidelines.

b. Town Center Design Concept

The Town Center is composed of a variety of land uses that form the social, civic, and commercial focus for the Community. The land uses that form the Town Center core are residential, mixed-use, commercial, retail, and institutional.

The design objectives for creating the Town Center are:

i. Create a sense of place with a highly identifiable character.

ii. Encourage vertical and horizontal mixed-use.

iii. Create a pedestrian friendly environment with activity, enclosure, and comfort in specific areas.

iv. Maximize connections to the Town Center from secondary area residential development with pedestrian and bicycle routes.

v. Balance parking and vehicle access needs of commercial uses with the pedestrian focus within the village.

vi. Encourage an eclectic architectural style reminiscent of historically based California Town Centers.

vii. Accommodate pedestrian oriented design concepts within the commercial core that are consistent with the Town Center character.

In order to achieve these objectives, a conceptual Town Center Plan (**Figure 72**), elevations (**Figure 88)**, and architectural guidelines have been developed. The illustrations address the anticipated arrangement and connection of uses in the Town Center and conceptually depict an architectural proposal for the area. The unique character intended within the Town Center should follow the aesthetics, organizational techniques and pedestrian friendly typology found in historical California mixed-use villages built in the 1920's and 1930's. Materials that are consistent with the architecture are required. Materials that are indigenous to the area and those that simulate indigenous materials are encouraged. These indigenous materials will be widely used in Town Center entries and other features of Lilac Hills Ranch as one of its unique, identifying design theme elements.

Other critical elements of the Town Center, such as general character statements and identification of important design and site planning features, are detailed in the following qualitative descriptions to further guide Community design and development.

c. Architecture

i. Building forms and facades should be broken up into short vertical sections that are representative of the historic nature of Southern California villages of the 1920's and 1930's. The design of the buildings' facades should reflect the nature and use of their original intended design from when they were originally constructed. A variation of building heights, parapets, flat and pitched roofs, and building materials will provide greater visual diversity and authenticity to this Town Center.

ii. Unique storefront design, signage, entry motifs, expansive sidewalks, and varied colors between the individual buildings are required. Components of a typical storefront should include: the entry door; display windows; transom

windows; storefront columns; awnings; vertical support walls; decorative lintels; second and third floor windows that are spaced and proportioned to the facade with decorative trim, sills, and hoodmolds, and finally a decorative cornice on a parapet or a pitched roof.

iii. East bound Main Street as it enters the Town Center is planned for two and three story Commercial/Mixed-Use buildings (limited to 35 feet in height) on both sides of the street up to the point where Main Street intersects with Lilac Hills Ranch Road. In order to establish a small town feel and reinforce the pedestrian dominance of the Town Center and identity of the Town Center as a pedestrian place, commercial/mixed-use buildings in Planning Areas C1, C2 and C3 are allowed to front directly behind the curb on Main Street so that the second story can extend over the sidewalk (see **Figures 75** to **77**). The second story can extend to the street for not more than half of the street length in total and not more than 100 feet per building with the sidewalk integrated into the first floor design and layout. The effect is to create a pedestrian arcade, directly at the curb. These planning features integrate the building and streets to establish a small town feel provide traffic calming reinforce the pedestrian dominance of the town center and identity of the Town Center as a pedestrian place.

iv. The principle of hierarchy is to be employed wherever possible. The character of buildings within the Town Center is to be consistent with that of traditional villages and village planning. For the most part, the majority of the buildings are to read as background buildings with consistency of form, use of materials, and appropriate treatment of ornamental detailing. Community parks and developed open space (P8 and P9, expansive sidewalk areas and the Community Park) will be used to augment any Group open space requirements for the Mixed-use residential component within the Town Center area.

d. Site Planning and Building Orientation

i. Wherever possible, parking should be of secondary priority within the Town Center. The paramount goal is the coherence of the Town Center as the heart and soul of the Community serving both commercial and cultural needs. Buildings aid in the reading and understanding of the Town Center as a viable urban village form.

ii. Parking (except for on street parking), service, and utilitarian uses should be located internally to the sites or where they can be screened from public view.

iii. Building entrances should be closely spaced to increase articulation and interest along the pedestrian edges as depicted in **Figures 79** through **81**. Design emphasis on the entries improves the street scene and helps distinguish individual shops in multi-tenant buildings.

iv. Shaded areas and a sense of enclosure will encourage visitors to linger and enjoy the defined areas within the Town Center. Features such as canopies, arcades, and roof overhangs can achieve these objectives and also provide weather protection when necessary.

e. Pedestrian and Vehicular Access

i. Vehicular access shall be secondary to pedestrian access.

ii. Frequent opportunities to sit, relax, and observe should be provided with the inclusion of benches, steps, planters, and low walls within and adjacent to the pedestrian walk.

iii. Pedestrian, bicycle and cart access routes should be maximized and identified with appropriate signage.

iv. Vehicle access should be clearly subordinated to pedestrian access through street design that promotes traffic calming such as narrow travel lanes and parallel parking.

v. Parking lots should be located behind buildings or building facades which front onto pedestrian-oriented streets.

f. Village Character (Landscape and/or Hardscape)

i. The pedestrian areas should be well defined with a hard surface that is textured or accented to identify focal areas.

ii. Grade separations should use structures rather than landscape banks to emphasize the character of the Town Center and to serve as seating areas.

iii. Landscaping shall reinforce the character of the area.

iv. Trees shall be incorporated into the pedestrian path, planted flush to ground level with overhead branches to create overhead canopies.

v. Parking lots shall include interior tree planting for screening and heat relief per the requirements of the County Off-Street Parking Design Manual.

vi. Large expanses of asphalt paving shall be avoided and their appearance softened by creating breaks in these areas and includes sections of permeable paving to intercept urban runoff and create visual relief. Landscaping shall be incorporated within these areas as well to provide visual relief and screening, where possible.

vii. Parking bays should be oriented perpendicular to destination areas and parking areas, where feasible, should be broken up into smaller pieces to avoid

massive parking lots except as required to meet the parking requirements for the for the larger commercial uses allowed in the Town Center.

g. Lighting, Signing and Street Furnishings

i. Streets adjacent to the retail and mixed-use areas should be well lit to encourage evening use. Street lighting fixtures should relate to the pedestrian scale and architectural accent lighting is encouraged.

ii. Illumination of walkway/trail connections should be provided through the use of low intensity fixtures for safety and comfort. The lighting pattern and intensity should become more intense at path intersections and vehicular crossings.

iii. Within building groups, architectural and accent lighting should be indirect and subtle. Increased lighting levels should highlight pedestrian areas to clearly define the pedestrian path. Service area lighting should be contained within the service area boundary and enclosures. Lighting should be designed to minimize glare and intrusion into neighboring land uses.

iv. A Comprehensive Sign Program shall be developed emulating historical California mixed-use villages and consistent with County guidelines, to ensure a unified design integrated with the Community architecture.

v. Street furnishings shall be consistently designed and made of materials appropriate for public use. The design of street furnishings shall be consistent with the design character of the architecture and landscape.

2. Neighborhood Centers Commercial and Mixed-Use Design Guidelines

a. General:

The development within the Neighborhood Centers allows for single family attached; commercial development; mixed-use development; and civic uses. All of these uses will be regulated by the C34 Use Regulations including the requirements for Site Plans to establish setbacks per the "V" Setback Regulator and per the "B" and "D" Special Area Regulators, and development guidelines in Chapter III of the Specific Plan.

The purpose of the "V" Setback Regulator is to require a Site Plan so that specific setbacks can be established for a given development proposal pursuant to the setback standards included in this specific plan. The purpose of the "D" Special Area Development Regulator is to indicate that Site Plan review will occur so that mixed use/commercial development proposal conforms to the applicable design standards and Guidelines of this Specific Plan. The purpose of the "B" Special Area Development Regulator is to indicate that Site Plan review will occur so that mixed-use/commercial development proposal conforms to the applicable design standards of the Valley Center Design Guidelines.

b. Neighborhood Center Design Concept

The primary feature of the Neighborhood Centers is to provide neighborhood commercial, retail and office uses within walking distance for residents in the adjacent residential communities. The site planning for the Neighborhood Centers is consistent and is compatible with the site planning established for the Town Center.

c. Site Planning

The Site Planning for the Neighborhood Centers will follow the same Architecture and Site Plan Guidelines included in the Town Center section above.

3. Single Family Attached Development Guidelines

Single family attached development in Lilac Hills Ranch is only allowed within the Town Center and the two Neighborhood Centers. This residential use includes structures that contain 3 to 8 attached residential dwelling units, each one located on an individual fee lot.

a. General

These guidelines address the design elements that contribute to the Lilac Hills Ranch planning concepts for pedestrian-oriented residential design. Guidelines are provided for architectural styles, facade elements, garage location and design, and landscape themes. Conceptual site plans and architecture for the Single Family attached residential areas of Lilac Hills Ranch are illustrated at the end of this Section.

As above the application of the "V" Setback Regulator requires a Site Plan so that specific setbacks can be established for a given development proposal pursuant to the setback standards included in this specific plan. The single family attached development will require Site Plan approval (pursuant to the "D" Special Area Designator) as required to ensure compliance with the Design Guidelines and developments standards included respectively in Section III of the Design Guidelines and the **Figure 82 – Town Center & Neighborhood Center Development Standards Table** (in Section III Development Standards and Regulations).

The guidelines below address the design elements that contribute to the Single Family Attached planning concepts: pedestrian-oriented design, facade elements, parking and garage location, and design and landscape themes. Building architectural styles are not mandated but should be complementary to the Lilac Hills Ranch design theme as depicted in the residential design guidelines. The pedestrian-oriented design concept is enhanced by locating the attached

development in the Town Center within walking distance of the commercial and other Community facilities such as parks.

The single family attached development in the Phase 3 Neighborhood Center is located on the north side of North Main Street and includes the northern "half" of the Town Center. Having higher residential densities in the Town Center and in the Phase 3 Neighborhood Center promotes a safer environment by activating public spaces and providing eyes on the streets and public spaces. It is anticipated that residents of single family attached and mixed-use developments will take advantage of the available opportunities to walk to school, parks, and shopping areas. Pedestrian access and amenities are fundamental components of the Community. The siting, access, entries, and architecture of the attached and mixed-use development should complement the pedestrian orientation of the Community.

Multi-story attached developments are the primary focus of the guidelines in this section. Concept site plans and architecture for the single family attached neighborhoods of Lilac Hills Ranch are illustrated in **Figures 83** through **87**.

b. Site Planning

The site planning and plotting of single family attached, mixed-use buildings will contribute to the pedestrian-oriented concept of Lilac Hills Ranch. Site planning which focuses on the pedestrian includes design that orients entries towards a court or green space and minimizes views to garages and parking areas. The guidelines stated below are provided for siting and building plotting of single family attached and mixed-use developments.

i. Buildings should be oriented to create outdoor rooms, such as courtyards, connected by landscaped walkways.

ii. Building orientation should consider indoor and outdoor privacy, noise, solar access, and overall aesthetic appearance.

iii. Where grade differentials occur between the street and a development, the differential may be used to create separation between the public or private streets and private living space.

iv. Interesting entries incorporating steps, porches, or landings may be integrated into the design.

c. Architecture

Single family attached and mixed-use development should be designed to promote variety and enhance the human-scaled pedestrian activity of the Community. The following guidelines suggest methods for creating vital, interesting architecture:

i. Developments should be unique, but share fundamental architectural characteristics consistent with the Lilac Hills design theme. Building elevations that are visible from public view areas (surrounding streets and public open spaces) shall be articulated with elements such as wall offsets, balconies, and windows, appropriate to the architectural style.

ii. Varied building elements, roof pitches, and setbacks should be employed to avoid monotony, including some three-story elements.

iii. Distinctive building elements shall be oriented towards the corners of prominent street intersections.

iv. Street facing facades shall incorporate a range of scale-defining elements that relate larger building masses to the scale of the pedestrian. Elements may include trellises, columns, archways, doorways, porches or patios, and upper floor balconies and windows.

v. Individual residential unit entries shall be oriented toward the streets or courtyards wherever possible.

vi. Internal residential units shall be connected by courtyards or landscaped walkways wherever possible.

vii. Utilitarian areas -- include parking, loading, mechanical equipment and trash enclosures -- shall be screened from public views to the best extent possible.

viii. The color palate should reflect the context of the architectural style of the building theme.

d. Parking, Carport and Garage Design

Views of parking areas, carports, and garages should be minimized to create the pedestrian-oriented Villages. The following guidelines provide direction for location and design of single family attached and mixed-use parking facilities:

i. Parking and vehicular access shall be located within or adjacent to each development and be visually separated from the pedestrian-oriented street frontage.

ii. Site planning and architectural treatments, such as offsets, should be used to minimize the appearance of garage corridors.

iii. Tandem garages shall be allowed.

iv. Carports and freestanding garages shall be architecturally treated and designed to match the architectural style of residential buildings.

v. Six-foot wide parallel and diagonal parking spaces are permitted in the single family attached and mixed-use planning areas.

vi. Up to 100 percent of the total required Guest Parking Spaces are allowed on the street adjacent to the residential property.

e. Landscape

Landscape in single family attached and mixed-use developments shall adhere to Guidelines and Standards set forth herein. The front and side yard landscaping shall be complementary to the streetscape and California Foothills design themed landscape. The interiors of single family attached and mixed-use communities shall provide for common and private outdoor spaces that are functional and aesthetically pleasing. Interior landscapes are encouraged to maintain the tranquil, courtyard style landscapes established by the Lilac Hills Ranch design theme. The following guidelines are for single family attached and mixed-use landscapes:

i. The landscape is to be comprised of trees, shrubs, vines, and ground covers that are consistent with the overall Lilac Hills Ranch theme.

ii. Tree plantings in the front yard areas shall be varied to provide interest in the landscape.

iii. Side and rear yard areas shall be landscaped to soften the architecture and provide privacy for residential units.

iv. Transformer and cable box locations are to be carefully planned and coordinated with the both the utility company and the landscape architect.

v. Transformers and cable boxes should be located to be unobtrusive and screened from view with plantings where feasible.

vi. Grouped mailboxes and mailbox structures are to be designed to complement the architectural style of the development for which they are intended. Only Postmaster approved boxes will be allowed.

vii. Trash enclosures shall be designed to complement the architectural style of the development for which they are intended. Provision for trash and recycling shall be in conformance with the County Requirements.

viii. HVAC equipment shall be screened from view from common use areas, where feasible, and shall comply with County noise standards.

ix. Large expanses of asphalt paving shall be avoided and the appearance softened by creating breaks in these areas with sections of permeable paving to intercept urban runoff and create visual relief.

f. Lighting and Signing

i. Architectural accent lighting is encouraged.

ii. Illumination of walkway and trail connections should be provided through the use of low intensity fixtures for safety and comfort.

iii. The lighting pattern and intensity should become more intense at path intersections and vehicular crossings.

iv. Within building groups, architectural and accent lighting should be indirect and subtle. Increased lighting levels should highlight pedestrian areas to clearly define the pedestrian path.

v. Service area lighting should be contained within the service area boundary and enclosures.

vi. Lighting should be designed to minimize glare and intrusion into neighboring land uses.

vii. Community entry monuments should inform and direct but not dominate the visual character of the area.

viii. Signs shall be consistent with the architectural style of the building and comply with applicable County Standards.

4. Single Family Detached Residential Design Guidelines

a. General

These guidelines address the design elements that contribute to the Lilac Hills Ranch planning concepts for pedestrian-oriented design. Guidelines are provided for architectural styles, facade elements, garage location and design, and landscape themes. Conceptual site plans and architecture for the single family residential areas of Lilac Hills Ranch are illustrated at the end of this Section.

The single family detached residential development will be regulated by the application of the RU Use Regulation which includes the "V" Setback Regulator and the "D" Special Area Development Regulator. These zoning regulations require that a Site Plan application shall be submitted and approved prior to the issuance of building permits for detached single family lots. The purpose of the Site Plan will be to (a) assure that the lot design, setbacks and architecture conform to the **Single Family Residential Development Standards** (**Figures 98** and **99**) included in this Specific Plan and (b) establish the specific architecture for the individual lots from the architectural models included in **Figures 100** through **119**.

b. Site Planning

Appropriate site planning and building plotting are fundamental to creating a pedestrian-oriented neighborhood. Variety is the key to creating a vibrant neighborhood and promoting individual residential identity. Site planning and building plotting in single-family residential neighborhoods should be based upon the following criteria:

i. Single-family detached and single family attached residential lots and setbacks shall encourage variety in the design, orientation, and placement of homes, wherever practical.

ii. Front yard building setbacks shall be varied, where possible, to avoid a monotonous pattern of houses.

iii. Where slopes in side yards allow for varied side yard setbacks, provide more useful private open space in side yards, and avoid a monotonous pattern of houses.

iv. Multiple housing plans shall be provided for compatibility with different lot configurations (interior and corner lots) and a variety of designs for entry and garage designs locations.

v. The following permitted lot and footprint layouts may include but are not limited to:

    a) Homes may be clustered around a paseo and park;

    b) All lot configurations may be alley loaded;

    a) Garages within the lots may be tandem garages;

    b) Private drives for access to multiple lots;

    c) Ancillary residential units attached or detached.

vi. Side entry floor plans may be used on both interior and corner lots, provided that the entry is clearly defined and the front elevation includes front-facing windows, porches, or other pedestrian-oriented design features.

vii. Housing plans used on corner lots shall provide for distinguishing architectural features of that style that wrap around the street- facing corner.

viii. Production wall fencing shall be integrated into the design of corner lots to provide for reduced wall length and other enhancements to side yards.

ix. Where the rear of a lot abuts a street, the design shall provide for a privacy wall and landscaping consistent with the Lilac Hills Ranch streetscape theme.

x. Grade differentials within neighborhoods shall be used to add variety and enhance the availability of open space between residences.

xi. Certain Final Maps will be required to plot the largest of the lots proposed on each such map along the Community boundary in situations where project single family development will be at the same grade as the adjacent existing homes that will remain in the Semi-Rural Regional Category. Consideration will be given to additional opportunities to reduce conflicts including providing a grade separation and planting buffers to allow vegetation to mature and screen the adjoining properties. For the areas shown on **Figure 137** a 50 foot wide agricultural buffer will be planted with two rows of an appropriate tree crop (e.g. citrus, or avocado). These agricultural buffer strips will be located on parcels owned and maintained by the Community HOA as part of the common open space. Should the adjacent agricultural uses be discontinued in the future and new residential uses located adjacent to Lilac Hills Ranch, the HOA would have the option of re-landscaping the 50-foot open space buffer area consistent with the design guidelines of the Specific Plan. In addition, these larger lots proposed by such tentative map will be oriented so that the widest lot boundary is facing the Community boundary and/or adjoining homes.

c. Architecture

The residential architectural styles include, but are not limited to: Spanish Colonial, Craftsman, French Country, California Bungalow, California Ranch, and California Monterey (see **Figures 100** to **119**). These styles are attractive, compatible with one another, and they can be easily integrated into the individual style and scale of each neighborhood. It is important to note that these styles are intended for modern adaptation, not recreation of historic homes. The architecture is expected to be somewhat simplified, yet still maintain the unique characteristics that exemplify the style.

Facade Elements

Residential building facades should be attractively designed with varied features for individual identity and neighborhood interest. Facade features should be pedestrian- oriented in that they provide a connection between the public street and sidewalk and the private residence. Facade treatments may include:

i. Undulating building mass and roof planes.

ii. Vertical and horizontal stepped massing.

iii. Visually minimized garages.

iv. Entry features such as doors, windows, porches, patios, courtyards and trellises oriented towards the street and appropriate to the architectural style.

v. Facades that are visible from public view areas (open spaces, streets, parks, etc.) shall be articulated to avoid monotony.

Garage/Driveway Design

The pedestrian-orientation of a neighborhood places emphasis on the home and front yard rather than the garage. However, lot configurations in the Lilac Hills Ranch single- family residential areas will necessitate most garages facing the streets. This section describes building massing and plotting techniques, as well as specific solutions for garage placement and facade design. Designers are encouraged to explore additional methods to meet the objective of minimizing the visual dominance of garages in neighborhoods. Basic guidelines for garage design are:

i. Minimize the impact of garages facing the street by techniques such as varying garage door patterns and utilizing deep recessed doors, varying colors, splitting one large door into two single doors, and integrating door window and coach lights.

ii. Vary the garage setbacks; the preferred design is for the garage wall to be set back further than the front wall of the home.

iii. Provide variety through the use of alternative garage configurations such as split, swing-in/side loaded, and mid to deep recess garage, tandem garages, detached garages, detached garages in clusters.

iv. Provide for a variety of driveway designs such as colored concrete, pavers, edge banding, and/or other surface enhancements to break up large expanses of concrete. All driveway surfaces shall be required to meet the County Consolidated Fire Code requirements for use by emergency vehicles.

v. Concept site plans and architecture for the single-family neighborhoods of Lilac Hills Ranch are illustrated in Section III.

d. Pedestrian-Oriented Design

Pedestrian-oriented neighborhood design emphasizes a cohesiveness of the Community through aesthetically pleasing site planning and architecture. Essential elements include attractive architecture, inviting entries, and a minimization of utilitarian areas facing the street. The structure of a neighborhood must be understood to better promote its pedestrian-orientation.

The area between the street and residence contains a hierarchy of public to private spaces. The street, sidewalk, and parkway are perceived as public, common neighborhood use areas. Residential front yards provide a transition space between the public spaces of the sidewalk and street, and the private

spaces of the home. The residential entry is the final demarcation area between public and private spaces.

The design of residential neighborhoods can complement that orientation by borrowing elements from traditional neighborhoods, such as porches, and minimizing the influence of the automobile. The following sections describe three primary areas of design that will facilitate the creation of pedestrian-oriented neighborhoods: site planning and garage/driveway design.

5. Senior Citizen Neighborhood Design Guidelines

The Senior Citizen Neighborhood includes single family residential development, Neighborhood Center South and a Senior Center and Group Residential/Group Care Facility. Residents of this portion of the Community are required to be 55 years of age or older. All residential and commercial development in the Senior Citizen Neighborhood will use the same architectural styles, facade elements, garage location and design, landscape themes and guidelines used elsewhere in the Specific Plan. Hardscape and landscaping shall be designed in anticipation that the majority of the population will be seniors. Site plans should, where appropriate, minimize physical barriers and provide ramps, seating, hand rails and other amenities directed at ensuring a safe and walkable community.

a. Single Family Residential

As elsewhere in the Community any single family residential development with the RU Use Regulations within the Senior Citizen Neighborhood will require that a Site Plan be submitted for all single family development prior to the issuance of building permits. The purpose of the Site Plan will be to (a) assure that the proposed lots meet the, configuration and setbacks standards detailed in the **Single Family Residential Development Standards** tables (**Figures 98** and **99)** and (b) establish the specific architecture for the individual lots from the architectural models included in **Figures 120** through **124** included later in this section of the Specific Plan text.

b. Group Residential/Group Care (Assisted Living) and Senior Center Design Concept

The Group Residential Use type is a permitted use in the RU Use Regulation per Section 2142 of the Zoning Ordinance. The Group Care Use type and Senior Center are also permitted uses per Section 2145 (a) with the approval of a Major Use Permit. The individual living units in both the Group Care and Group Residential facilities will be allowed to include an individual kitchen. (Per the Zoning Ordinance at the time of construction these units may or may not be defined as dwelling units. Regardless, under either circumstance, these units will

not cause a reduction or otherwise impact the approvals for the other 1,746 dwelling units approved by this Specific Plan.)

A proposal for a combined Group Residential and Group Care facility use will require the submittal and approval of a Major Use Permit. Applications for a Group Residential/Group Care (Assisted Living Facility) Use Permit will be reviewed to assure that the development proposal conforms to the applicable design standards of this Specific Plan (See **Figures 95** to **97**).

The development of any of these types of uses within the Senior Citizen Neighborhood is allowed, and any applications for the appropriate County permits should be in conformance with the following guidelines.

c. Site Planning

The site planning and plotting of the group residential/group care buildings will contribute to the pedestrian-oriented concept of Lilac Hills Ranch. Site planning which focuses on the pedestrian includes design that orients entries towards a court or green space and minimizes views to garages and parking areas.

d. Architecture

Building forms and facades should be broken up into short vertical sections that are representative of the historic nature of Southern California villages of the 1920's and 1930's. A variation of building heights, parapets, flat and pitched roofs, and building material is desired.

e. Site Planning and Building Orientation

Building entrances will be closely spaced to increase articulation and interest along the pedestrian edges. Design emphasis on the entries improves the street scene. Setbacks, building height, building design, and exterior treatments will be established per the approved Major Use Permit.

f. Gated Access

i. The Senior Citizen Neighborhood (Phases 4 and 5) can be accessed from off-site at three points: Covey Lane on the north, the access easement to Rodriguez Road on the east, and Mountain Ridge road on the south. Each of these access points will be controlled with automated gates which will limit public access (see **Figure 125)**.

ii. The gates and their controlling mechanisms will be state of the art, and must be approved for conformance with the existing standards and policies by the County prior to the recordation of the first Final Map in either Phase 4 or 5.

iii. Some of the proposed gates cross roads classified as Fire Apparatus Access Roads (i.e. Covey Lane at Lilac Hills Ranch Road and the access road to

Rodriguez Road). The gate proposed to cross these roads must be approved by the Fire Authority Having Jurisdiction prior to construction.

iv. Access to the control mechanisms will be limited to the developers, appropriate emergency services agencies and ultimately the residents of Phases 4 and 5.

g. Pedestrian and Vehicular Access

i. Frequent opportunities to sit, relax, and observe should be provided with the inclusion of benches, steps, planters, and low walls within and adjacent to the pedestrian walk.

ii. Pedestrian, bicycle and golf cart access routes should be maximized and identified with appropriate signage.

iii. Vehicle access should be clearly subordinated to pedestrian access through street design that promotes traffic calming such as narrow travel lanes.

iv. Parking lots should be located behind buildings or building facades which front onto pedestrian-oriented streets.

h. Landscape and/or Hardscape

i. The pedestrian ground plane should be well defined with a hard surface that is comfortable for accessible path of travel

ii. Landscaping shall provide the opportunity to enjoy the color, smell, and texture of the plant material.

iii. Deciduous and evergreen trees shall be incorporated into the pedestrian path, planted flush to ground level with overhead branches to create overhead canopies for shade in the summer and sunlight in the winter.

iv. Large expanses of asphalt paving shall be avoided and their appearance softened by creating breaks in these areas and includes sections of permeable paving to intercept urban runoff and create visual relief. Landscaping shall be used where reasonable incorporated within these areas as well to provide visual along with color, smell and texture relief and screening, where possible.

v. Accessible parking and handicap parking will be designed appropriately. Parking bays should be oriented perpendicular to destination areas and parking areas, where feasible, should be broken up into smaller pieces to avoid massive parking lots.

i. Parking, Loading, Outdoor Storage Areas

The requirements for onsite parking, loading and outdoor storage areas throughout Lilac Hills Ranch shall be in conformance with the following requirements.

All development within the commercially designated areas shall provide areas for trash storage. The following criteria apply:

i. The number of containers shall be as required by the sanitary service operator for all uses on the site.

ii. Trash areas shall be kept neat and clean.

iii. The precise location of any trash area shall be approved as part of the site plan.

6. Institutional Guidelines

These guidelines address the design elements that contribute to the Lilac Hills Ranch planning concepts for pedestrian-prioritized design. Guidelines are provided for architectural styles, facade elements, and design, and landscape themes. Conceptual site plans and architecture for the potential institutional uses are illustrated at the end of this Section. Building architectural styles are not mandated but should be complementary to the Lilac Hills Ranch design theme as depicted in the design guidelines. The civic uses anticipated for this site per Section 2145(a) of the Zoning Ordinance will require approval of a Major Use Permit.

a. Site Planning

The guidelines stated below are provided for siting and building plotting of the land uses authorized by Section II B (7) of this Specific Plan.

i. Buildings will be oriented to create outdoor spaces, such as courtyards, or patios.

ii. Building orientation should consider indoor and outdoor privacy, noise, solar access, and overall aesthetic appearance.

iii. Grade differentials between the street and a development will be used to create separation between the streets and private living space.

b. Site Planning and Building Orientation

Building entrances should be closely spaced to increase articulation and interest along the pedestrian edges as depicted in the adjacent illustration. Design emphasis on the entries improves the street scene. Setbacks, building height, building design, and exterior treatments will be established per the approved Major Use Permit.

c. Architecture

Development should be designed to promote variety and enhance the human-scaled pedestrian activity of the Community. The following guidelines suggest methods for creating vital, interesting architecture:

i. Developments should be unique, but share fundamental architectural characteristics consistent with the Lilac Hills Ranch design theme.

ii. Building elevations that are visible from public view areas (surrounding streets and public open spaces) shall be articulated with elements such as wall offsets, balconies, and windows, appropriate to the architectural style.

iii. Varied building elements, roof pitches, and setbacks should be employed to avoid monotony, including some three-story elements.

iv. Distinctive building elements shall be oriented towards the corners of prominent street intersections.

v. Street facing facades shall incorporate a range of scale-defining elements that relate larger building masses to the scale of the pedestrian. Elements may include trellises, columns, archways, doorways, porches or patios, and upper floor balconies and windows.

vi. Utilitarian areas -- include parking, loading, mechanical equipment and trash enclosures -- shall be screened so that they do not impact views from public roads to the maximum extent possible.

vii. The color palate should reflect the context of the architectural style of the building theme.

d. Parking Design

Views of parking areas should be minimized to create the pedestrian Villages. The following guidelines provide direction for location and design of parking facilities:

i. Parking and vehicular access shall be located to be visually separated from the pedestrian-oriented street frontage.

ii. Site planning and architectural treatments, such as offsets, should be used to minimize the appearance of garage corridors.

e. Landscape

Landscape in the Institutional planning area shall adhere to Design Guidelines set forth below. The front and side yard landscaping shall be complementary to

the streetscape and California Foothills design themed landscape. Interior landscapes are encouraged to maintain the tranquil, courtyard style landscapes established by the Lilac Hills Ranch design theme. The following guidelines are for the Institutional landscapes:

i. The landscape is to be comprised of trees, shrubs, vines, and ground covers that are consistent with the overall Lilac Hills Ranch theme.

ii. Tree plantings in the front yard areas shall be varied to provide interest in the landscape.

iii. Side yard areas shall be landscaped to soften the architecture and provide privacy for residential units.

iv. Transformer and cable box locations are to be carefully planned and coordinated with the both the utility company and the landscape architect.

v. Transformers and cable boxes should be located to be unobtrusive and screened from view with plantings where feasible.

vi. Trash enclosures shall be designed to complement the architectural style of the development for which they are intended. Provision for trash and recycling shall be in conformance with the County Requirements.

vii. HVAC equipment shall be screened from view from common use areas, where feasible, and shall comply with County noise standards.

viii. Large expanses of asphalt paving shall be avoided and the appearance softened by creating breaks in these with areas with sections of permeable paving to intercept urban runoff and create visual relief.

f. Lighting and Signing

i. Architectural accent lighting is encouraged.

ii. The lighting pattern and intensity should become more intense at path intersections and vehicular crossings.

iii. Within building groups, architectural and accent lighting should be indirect and subtle.

iv. Service area lighting should be contained within the service area boundary and enclosures.

v. Lighting should be designed to minimize glare and intrusion into neighboring land uses.

vi. Community entry monuments should inform and direct but not dominate the visual character of the area.

NGBS Credit

403.1 Natural resources. *Natural resources are conserved by one or more of the following:*

(1) *A natural resources inventory is used to create site plan. List top 3 priority resources to preserve:*

APPLICANT RESPONSE

1. Coast Live Oak Woodland,
2. Riparian Woodlands (southern coast live oak riparian woodland, southern willow riparian woodland); and,
3. Riparian Scrubs (southern willow scrub, mule fat scrub).
   [See attached Biological Resources Report, Table 2, Pages 23-28]

(2) *A plan to protect and maintain priority natural resources/areas during construction is created. (Also see Section 404 for guidance in forming the plan.)*

APPLICANT RESPONSE

Attached, a Conceptual Resource Management Plan (CRMP) has been prepare that provides the guidelines for the protection and maintenance of natural resources/areas being preserved on the site.

(4) *Streets, buildings, and other built features are located to conserve high priority vegetation.*

APPLICANT RESPONSE

See EIR Ch. 2.5 - Bio Resources, (Figures 2.5-2a, 2b, 3a, 3b and 3c)

CREDIT 403.1 (1)

TABLE 2
EXISTING ON-SITE HABITAT/VEGETATION COMMUNITIES

Habitat/Vegetation Communities	Acres
Coast live oak woodland (71160)	3.6
Coastal sage scrub (32520)	19.6
Disturbed coastal sage scrub (32520)	2.9
Disturbed coastal/Valley freshwater marsh (52410)	0.6
Eucalyptus woodland (79100)	1.7
Southern coast live oak riparian woodland (61310)	22.5
Disturbed southern coast live oak riparian woodland (61310)	1.9
Southern mixed chaparral (37120)	75.4
Disturbed southern mixed chaparral (37120)	6.0
Southern willow riparian woodland (62500)	4.7
Southern willow scrub (63320)	6.1
Disturbed southern willow scrub (63320)	0.3
Mule fat scrub (63310)	0.1
Open water – fresh water (64140)	0.5
Disturbed wetland (11200)	0.4
Extensive agriculture – row crops (18320)	90.5
Intensive agriculture – nursery (18200)	9.2
Vineyard (18100)	0.7
Orchard (18100)	291.9
Disturbed habitat (11300)	44.0
Developed (12000)	25.7
TOTAL	608.3

1.4.2.1 Coastal Sage Scrub and Disturbed Coastal Sage Scrub (32520)

Coastal sage scrub vegetation occurs in various sized patches in the on-site project area. The largest patches of relatively undisturbed coastal sage scrub occur in the north and central part of the project area. More disturbed patches of coastal sage scrub vegetation are located in the west-central portion of the project area. Coastal sage scrub vegetation also occurs within the survey area for the proposed off-site improvement areas. It is present adjacent to West Lilac Road to the east and west of I-15, at the intersection of West Lilac Road and Old Highway 395, adjacent to western portion of Circle R Drive, and at the intersection of Gopher Canyon Road and Old Highway 395. Dominant plant species in all coastal sage scrub patches are California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), California buckwheat, and laurel sumac (*Malosma laurina*).

Habitat quality is moderate for the relatively undisturbed patches of coastal sage scrub on-site because of relatively small acreage, edge effects, and the isolation of these areas from contiguous undisturbed native vegetation. Habitat quality for disturbed

patches of coastal sage scrub on-site is considered low due to the continued maintenance of the vegetation by the property owners (i.e., fuel management). The habitat quality of the coastal sage scrub habitat adjacent to West Lilac Road, Circle R Drive, and at Gopher Canyon Road/Old Highway 395 is generally high further away from the road; however, the vegetation closest to these roads is more disturbed due to edge effects.

1.4.2.2 Southern Mixed Chaparral and Disturbed Southern Mixed Chaparral (37120)

Southern mixed chaparral vegetation occurs as a large, relatively undisturbed patch in the project area. This vegetation community occurs in the central and southern portions of the project area on the western-facing slopes. Disturbed areas of southern mixed chaparral are mapped along the edges of the larger patches. Vegetation in these disturbed areas is maintained as part of fuel breaks, access roads, and areas being maintained as agriculture. Dominant plant species include chamise (*Adenostoma fasciculatum*), mission manzanita (*Xylococcus bicolor*), hoary-leafed ceanothus (*Ceanothus crassifolius*), black sage, California buckwheat, and laurel sumac.

The habitat quality of the undisturbed southern mixed chaparral on-site is moderate to high, as the vegetation remaining is in a large contiguous patch of chaparral that connects to native chaparral areas off-site to the southwest. The dense cover of native shrubs contains a diverse assemblage of chaparral species. Disturbed areas of southern mixed chaparral have low to moderate habitat values. Areas that are being maintained as agriculture have fewer native plant species and thus low habitat values. Southern mixed chaparral maintained as part of fuel breaks have more species recovering between disturbances, but the diversity of shrub species is less in these areas.

Southern mixed chaparral is not considered a RPO sensitive habitat unless is supports a sensitive species.

1.4.2.3 Coast Live Oak Woodland (71160)

Coast live oak woodland occurs in relatively small patches in the on-site project area. The largest area of coast live oak woodland occurs in the southwestern portion of the project site on a north-facing slope above a small, narrow canyon. Smaller patches of coast live oak woodland occur within orchards and agricultural areas. A disturbed area of this habitat type was mapped in the southwestern part of the site, where the oak woodland is recovering from past agricultural practices that have been abandoned. The coast live oak woodland present within the off-site improvement survey areas is located to the south of West Lilac Road and east of I-15, in small patches to the east and west of the southern part of Mountain Ridge Road, along the south side of the eastern half of Circle R Drive, and east and west of Old Highway 395 north of Gopher Canyon Road.

The dominant plant species is the coast live oak tree (*Quercus agrifolia*). Vegetation growing beneath the oak tree canopy varies from non-native grasses in the disturbed patches to dense to open areas of native shrubs such as poison oak (*Toxicodendron diversilobum*) and mule fat (*Baccharis salicifolia*) in the undisturbed patches.

The habitat quality of the coast live oak woodland that occurs in the disturbed patches and orchards or adjacent to agricultural areas is low to moderate as the small groupings of oak trees provide some habitat, but these areas lack a native understory. The coast live oak woodland on the north-facing slope in the southwestern part of the site has relatively high habitat values due to the location of the habitat adjacent to native riparian areas in the canyon below and an understory composed of native plant species. The coast live oak woodland to the south of West Lilac Road and adjacent to Old Highway 395 north of Gopher Canyon Road is of moderate quality due to its proximity to development and existing roads. Oak woodland habitat adjacent to Circle R Drive and Mountain Ridge Road has relatively low habitat values due to their proximity to agriculture (i.e., orchards).

Coast live oak woodland is not considered a RPO sensitive habitat type.

1.4.2.4 Eucalyptus Woodland (79100)

A small, narrow stand of eucalyptus trees (*Eucalyptus* spp.) occurs in the extreme northeast portion of the on-site project area. The trees were planted adjacent to West Lilac Road and an access road along a property boundary. Small stands of eucalyptus trees also occur within the off-site improvement survey area to the south of West Lilac Road east of I-15 and at the intersection of Circle R Drive and Old Highway 395. The eucalyptus trees form relatively small woodlands that have low to moderate habitat values due to its proximity to roads and the potential to be used by raptor and other bird species for roosting and nesting. Eucalyptus woodland is not considered a RPO sensitive habitat.

1.4.2.5 Disturbed Coastal/Valley Freshwater Marsh (52410)

A relatively small area of coastal/valley freshwater marsh occurs upstream of a dirt road crossing of a drainage that supports mainly oak riparian woodland in the northeast portion of the site. The area is described as disturbed due to the heavy infestation of pampas grass (*Cortedaria* sp.). Cattail (*Typha latifolia*) and umbrella sedge (*Cyperus esculentus*) persist among the pampas grass. A second area of coastal/valley freshwater marsh occurs upstream of an impoundment created by a road crossing in the northwestern portion of the site. This pond supports a few scattered patches of cattail.

The habitat value for the freshwater marsh area associated with the oak woodland is low due to the predominance of pampas grass, but could be improved with eradication of the

non-native plant species. When the freshwater marsh area is considered in conjunction with the oak riparian woodland of the drainage course, the overall habitat value would be moderate, as the marsh adds diversity to the adjacent woodland areas.

Habitat values for the impoundment pond are moderate due to the sparse native vegetation, small acreage, and water levels that fluctuate. Wildlife species likely use this pond as a supplemental water source. This pond is part of a natural drainage course and is considered a jurisdictional wetland. The pond is also considered a RPO wetland with moderate biological function or value as a wetland.

Coastal/valley freshwater marshes are wetlands and are also considered a category of RPO wetland. Wetlands, in general, are also considered sensitive resources under the jurisdiction of federal (U.S. Army Corps of Engineers [USACE]) and state (CDFG, Regional Water Quality Control Board [RWQCB]) agencies.

1.4.2.6 Southern Coast Live Oak Riparian Woodland and Disturbed Southern Coast Live Oak Riparian Woodland (61310)

Southern coast live oak riparian woodland on-site is the predominant vegetation community supported by the larger intermittent drainages and the main tributaries to these larger drainages in the project area. This riparian woodland vegetation community occurs along most of the western border of the main project area and along tributary east-west drainages in the central portions of the site. One area of southern coast live oak riparian woodland was characterized as disturbed due to the predominance of pampas grass in the understory along a tributary drainage in the northern portion of the site. This riparian woodland habitat occurs within the off-site improvement survey area to the north of Circle R Drive near its intersection with Mountain Ridge Road and at the hairpin turn near the central portion of Circle R Drive. The dominant plant species in this riparian woodland include coast live oak, red willow (*Salix laevigata*), black willow (*Salix gooddingii*), poison oak, and wild grape (*Vitis girdiana*).

Overall habitat values for the southern coast live oak riparian woodlands areas on and off the site are high. The mature coast live oak and willow trees form tree layer with an understory of native shrubs and herbaceous species. Wild grape forms a dense covering of the riparian vegetation during the spring and summer months. This riparian woodland habitat supports a diverse bird population, including different raptor species, as well as, a variety of insects, reptiles, and mammals.

Southern coast live oak riparian woodlands are wetlands and are considered a category of RPO wetlands that also fall under the jurisdiction of federal (USACE) and state (CDFG, RWQCB) resource agencies.

1.4.2.7 Southern Willow Scrub and Disturbed Southern Willow Scrub (63320)

Southern willow scrub vegetation occurs in the extreme southern portion of the site and as part of the smaller out-lying project area to the west. It is associated with portions of the larger, intermittent drainage courses in these areas. A narrow strip of disturbed southern willow scrub occurs along a drainage course in the east-central part of the site where the drainage course is affected by agricultural activities that have cleared the understory and reduced the density of willow cover. Dominant plant species in this vegetation community include red willow, black willow, arroyo willow (*Salix lasiolepis*), narrow-leaved willow (*Salix exigua*), and mule fat.

Overall habitat values for the southern willow scrub in the extreme southern part of the site are moderate due to edge effects associated with the agricultural activities adjacent to the drainage course and the relatively narrow width of the willow scrub habitat. The smaller patch of willow scrub habitat on the outlying project area to the west has moderate habitat values due to edge effects from adjacent homes. Both of these areas support a diverse assemblage of bird species. Insects, reptiles, and mammals also use these riparian areas.

Southern willow scrub areas are wetlands are also considered a category of RPO wetland. Wetlands, in general, are also considered sensitive resources under the jurisdiction of federal (USACE) and state (CDFG, RWQCB) agencies.

1.4.2.8 Mule Fat Scrub (63310)

Mule fat scrub vegetation onsite occurs as a small patch in an intermittent drainage course near the eastern part of the project. A narrow strip of mule fat scrub occurs along a drainage course that is affected by adjacent agricultural activities. The strip of vegetation is made up of a pure stand of mule fat shrubs.

Overall, the habitat value for the mule fat scrub is low due to edge effects associated with the agricultural activities adjacent to the drainage course and the relatively narrow width of the mule fat scrub habitat. It is anticipated that the mule fat scrub supports a limited assemblage of bird species, insects, reptiles, and perhaps small mammals.

Mule fat scrub areas are wetlands that can be considered a category of RPO wetland. Wetlands, in general, are also considered sensitive resources under the jurisdiction of federal (USACE) and state (CDFG, RWQCB) agencies.

1.4.2.9 Southern Willow Riparian Woodland (62500)

Southern willow riparian woodland vegetation occurs in the extreme northwestern portion of the site. It is associated with portions of the larger, intermittent drainage

course in this area. The southern willow riparian woodland occurs adjacent to orchards. Dominant plant species in this vegetation community include red willow, black willow, arroyo willow (*Salix lasiolepis*), narrow-leaved willow (*Salix exigua*), and mule fat.

Overall habitat values of for the southern willow riparian woodland are moderate due to edge effects associated with the agricultural activities adjacent to the drainage course and the narrow width of the willow woodland habitat. This area supports a diverse assemblage of bird species. Insects, reptiles, and mammals likely also use these riparian areas.

Southern willow riparian woodland areas are wetlands and are also considered a category of RPO wetland. Wetlands, in general, are also considered sensitive resources under the jurisdiction of federal (USACE) and state (CDFG, RWQCB) agencies.

1.4.2.10 Disturbed Wetland (11200)

A relatively small area of disturbed wetland occurs along a drainage course within an orchard in the south-central part of the project area. The disturbed wetland is located upstream of an existing wall that functions to temporarily detain water at this location. The herbaceous wetland vegetation that grows in the area of detention is characterized as disturbed due to it being periodically mowed as part of the vegetation maintenance activities associated with the orchard. Dominant plant species at this location include curly dock (*Rumex crispus*), bristly ox tongue (*Picris echioides*), and water cress (*Nasturtium officinale*).

The habitat value of this wetland area is low due to the regular vegetation disturbance that occurs. Non-native species have invaded the area and further degrade the habitat vales. Disturbed wetlands would be considered RPO wetlands in some circumstances.

1.4.2.11 Open Water – Freshwater (64140)

Two man-made agricultural ponds occur within the project boundary and are characterized as open water habitat. These ponds were created to store water for agricultural purposes. One man-made pond is located in the southern portion of the site within active agricultural fields used for row crops. This pond supports a narrow band of salt cedar (*Tamarix ramossissima*) on its relatively steep banks. The other agricultural pond is located in the northern portion of the site within orchards. Little vegetation grows around this pond. One man-made agricultural pond occurs within the off-site survey area to the east of Mountain Ridge Road. This pond has no vegetation associated with it.

Habitat values for the two on-site and one off-site agricultural ponds are low due to the lack of native vegetation, small acreage, and water levels that fluctuate. Wildlife species likely use these ponds as a supplemental water source. These three ponds are man-made and were not considered jurisdictional wetlands. The ponds were not considered

CREDIT
403.1 (2)

ATTACHMENT 15

RPO Wetland Crossing Findings Analysis

ATTACHMENT 15
RPO WETLAND CROSSING FINDINGS ANALYSIS
(See Attached Figure A for Locations of RPO Wetland Crossings)

RPO Finding	Crossing 1	Crossing 2	Crossing 3	Crossing 4	Crossing 5	Crossing 6	Crossing 7
There is no feasible alternative that avoids the wetland	West Lilac Road must cross at this location to meet engineering road standards and minimize additional crossing of RPO wetlands.	This crossing is required to provide secondary access to the development area to meet safety standards.	This crossing is required to provide access within the development and to eliminate the need for additional crossings of RPO wetlands.	West Lilac Road must cross at this location to meet engineering road standards and minimize additional crossing of RPO wetlands.	This crossing is required to provide secondary access to the development area to meet safety standards.	This crossing is required to provide secondary access to the development area to meet safety standards.	This crossing is required to provide secondary access to the development area to meet safety standards.
The crossing(s) are located and designed in such a way as to cause the least impact to environmental resources, minimize impacts to sensitive species, and prevent barriers to wildlife movement (e.g., crossing widths shall be the minimum feasible and wetlands shall be bridged where feasible.)	Impacts for this proposed crossing are through willow riparian woodland habitat; the proposed crossing is designed to the narrowest feasible width for the type of road; a 30-inch culvert is proposed at this crossing.	Impacts at this proposed crossing are through freshwater marsh and willow riparian woodland habitat; the proposed crossing is designed to the narrowest feasible width for the type of road; the crossing is located at an existing road crossing which helps to minimize impacts to RPO wetlands; a 20-inch culvert is proposed at this crossing.	Impacts at this proposed crossing are through oak riparian woodland habitat; the proposed crossing is designed to the narrowest feasible width for the type of road; a 20-inch culvert is proposed at this crossing.	Impacts at this proposed crossing are through coast live oak riparian woodland habitat; the proposed crossing is designed to the narrowest feasible width for the type of road; the proposed crossing is located at an existing road crossing which helps to minimize impacts to RPO wetlands; a 18-inch culvert is proposed at this crossing.	Impacts at this proposed crossing are through coast live oak riparian woodland habitat; the proposed crossing is designed to the narrowest feasible width for the type of road; the proposed crossing is located at an existing road crossing which helps to minimize impacts to RPO wetlands; a 30-inch culvert is proposed at this crossing.	Impacts at this proposed crossing are through a narrow band of coast live oak riparian woodland habitat; the proposed crossing is designed to the narrowest feasible width for the type of road; the proposed crossing is located at an existing road crossing where the existing habitat is narrow which helps to minimize impacts to RPO wetlands; a 30-inch culvert is proposed at this crossing.	Impacts at this proposed crossing are through a narrow band of disturbed southern willow scrub habitat; the proposed crossing is designed to the narrowest feasible width for the type of road; the proposed crossing is located at an existing road crossing where the existing wetland habitat is narrow and disturbed from the adjacent agricultural operation, which helps to minimize impacts to RPO wetlands; a 54-inch culvert is proposed at this crossing.
The least-damaging construction methods are utilized (e.g., staging areas shall be located outside of sensitive areas, work shall not be performed during the sensitive avian breeding season, noise attenuation measures shall be included and hours of operation shall be limited so as to comply with all applicable ordinances and to avoid impacts to sensitive resources.	All construction staging areas will be located outside of any sensitive biological resource areas. To the extent feasible work will be conducted outside of the sensitive avian breeding season. If work must be conducted during the sensitive avian breeding season then appropriate noise attenuation measures shall be used to avoid and minimize indirect impacts, including potential restrictions on the hours of operation of construction activities.	All construction staging areas will be located outside of any sensitive biological resource areas. To the extent feasible work will be conducted outside of the sensitive avian breeding season. If work must be conducted during the sensitive avian breeding season then appropriate noise attenuation measures shall be used to avoid and minimize indirect impacts, including potential restrictions on the hours of operation of construction activities.	All construction staging areas will be located outside of any sensitive biological resource areas. To the extent, feasible work will be conducted outside of the sensitive avian breeding season. If work must be conducted during the sensitive avian breeding season then appropriate noise attenuation measures shall be used to avoid and minimize indirect impacts, including potential restrictions on the hours of operation of construction activities.	All construction staging areas will be located outside of any sensitive biological resource areas. To the extent feasible work will be conducted outside of the sensitive avian breeding season. If work must be conducted during the sensitive avian breeding season then appropriate noise attenuation measures shall be used to avoid and minimize indirect impacts, including potential restrictions on the hours of operation of construction activities.	All construction staging areas will be located outside of any sensitive biological resource areas. To the extent feasible work will be conducted outside of the sensitive avian breeding season. If work must be conducted during the sensitive avian breeding season then appropriate noise attenuation measures shall be used to avoid and minimize indirect impacts, including potential restrictions on the hours of operation of construction activities.	All construction staging areas will be located outside of any sensitive biological resource areas. To the extent feasible work will be conducted outside of the sensitive avian breeding season. If work must be conducted during the sensitive avian breeding season then appropriate noise attenuation measures shall be used to avoid and minimize indirect impacts, including potential restrictions on the hours of operation of construction activities.	All construction staging areas will be located outside of any sensitive biological resource areas. To the extent feasible work will be conducted outside of the sensitive avian breeding season. If work must be conducted during the sensitive avian breeding season then appropriate noise attenuation measures shall be used to avoid and minimize indirect impacts, including potential restrictions on the hours of operation of construction activities.
The applicant shall prepare an analysis of whether the crossing could feasibly serve adjoining properties and thereby result in minimizing the number of additional crossing required by adjacent development.	The proposed crossing could eliminate or minimize the number of additional crossings required by adjacent development.	The proposed crossing could eliminate or minimize the number of additional crossings required by adjacent development.	The proposed crossing could eliminate or minimize the number of additional crossings required by adjacent development.	The proposed crossing could eliminate or minimize the number of additional crossings required by adjacent development.	The proposed crossing could eliminate or minimize the number of additional crossings required by adjacent development.	The proposed crossing could eliminate or minimize the number of additional crossings required by adjacent development.	The proposed crossing could eliminate or minimize the number of additional crossings required by adjacent development.
There must be no net loss of wetlands and any impacts to wetlands shall be mitigated at a minimum ratio of 3:1 (this shall include 1:1 creation component, while the restoration/enhancement of existing wetlands may be used to make up the remaining requirements for a total of 3:1 ratio).	The project will provide mitigation for impacts to RPO wetlands at a 3:1 ratio such that there would be a no net loss of wetlands. A minimum 1:1 ratio of the mitiga-tion will be the creation of wetland habitat, while the remaining 2:1 ratio of the mitigation will be achieved through the enhancement of disturbed wetlands that will remain in on-site biological open space.	The project will provide mitigation for impacts to RPO wetlands at a 3:1 ratio such that there would be a no net loss of wetlands. A minimum 1:1 ratio of the mitiga-tion will be the creation of wetland habitat, while the remaining 2:1 ratio of the mitigation will be achieved through the enhancement of disturbed wetlands that will remain in on-site biological open space.	The project will provide mitigation for impacts to RPO wetlands at a 3:1 ratio such that there would be a no net loss of wetlands. A minimum 1:1 ratio of the mitiga-tion will be the creation of wetland habitat, while the remaining 2:1 ratio of the mitigation will be achieved through the enhancement of disturbed wetlands that will remain in on-site biological open space.	The project will provide mitigation for impacts to RPO wetlands at a 3:1 ratio such that there would be a no net loss of wetlands. A minimum 1:1 ratio of the mitiga-tion will be the creation of wetland habitat, while the remaining 2:1 ratio of the mitigation will be achieved through the enhancement of disturbed wetlands that will remain in on-site biological open space.	The project will provide mitigation for impacts to RPO wetlands at a 3:1 ratio such that there would be a no net loss of wetlands. A minimum 1:1 ratio of the mitiga-tion will be the creation of wetland habitat, while the remaining 2:1 ratio of the mitigation will be achieved through the enhancement of disturbed wetlands that will remain in on-site biological open space.	The project will provide mitigation for impacts to RPO wetlands at a 3:1 ratio such that there would be a no net loss of wetlands. A minimum 1:1 ratio of the mitiga-tion will be the creation of wetland habitat, while the remaining 2:1 ratio of the mitigation will be achieved through the enhancement of disturbed wetlands that will remain in on-site biological open space.	The project will provide mitigation for impacts to RPO wetlands at a 3:1 ratio such that there would be a no net loss of wetlands. A minimum 1:1 ratio of the mitiga-tion will be the creation of wetland habitat, while the remaining 2:1 ratio of the mitigation will be achieved through the enhancement of disturbed wetlands that will remain in on-site biological open space.

ATTACHMENT 15
RPO WETLAND CROSSING FINDINGS EXEMPTION ANALYSIS FOR WEST LILAC ROAD (Crossings 1 and 3)
ESSENTIAL PUBLIC FACILITY
(See Attached Figure A for Locations of RPO Wetland Crossings)

RPO Finding	Crossing 1	Crossing 3
The facility or project is consistent with adopted community or subregional plan	West Lilac Road is classified as a "Mobility Element" road by the County of San Diego's General Plan Circulation Element. The proposed alignment is consistent with what is depicted in the County's General Plan and the Valley Center Community Plan.	West Lilac Road is classified as a "Mobility Element" road by the County of San Diego's General Plan Circulation Element. The proposed alignment is consistent with what is depicted in the County's General Plan and the Valley Center Community Plan.
All possible mitigation measures have been incorporated into the facility or project and there are no feasible less environmentally damaging location, alignment, or non-structural alternatives that would meet project objectives	Impacts for this proposed crossing are designed to the narrowest feasible width for the type of road. The RPO wetland buffers along this segment of the road are reduced, in order to meet the County's Public Road Standards. There are no feasible less environmentally damaging locations of alignments that would meet the objectives of constructing a Mobility Element road as any of these alternatives would have to cross the same RPO wetland. State law requires the development of the County's Mobility Element Network, in order to accommodate the land uses proposed in the General Plan. The General Plan anticipated that even though only a portion of the Mobility Network was currently in place, the remainder would be constructed as development proceeded. Therefore, the construction of West Lilac Road in connection with this project is important in ensuring that the Network is developed in order to adequately support the uses designed in the Land Use Map at build-out.	Impacts at this proposed crossing are designed to the narrowest feasible width for the type of road; the crossing is located at an existing road crossing which helps to minimize impacts to RPO wetlands. The RPO wetland buffers along this segment of the road are reduced, in order to meet the County's Public Road Standards. There are no feasible less environmentally damaging locations of alignments that would meet the objectives of constructing a Mobility Element road as any of these alternatives would have to cross the same RPO wetland. State law requires the development of the County's Mobility Element Network, in order to accommodate the land uses proposed in the General Plan. The General Plan anticipated that even though only a portion of the Mobility Network was currently in place, the remainder would be constructed as development proceeded. Therefore, the construction of West Lilac Road in connection with this project is important in ensuring that the Network is developed in order to adequately support the uses designed in the Land Use Map at build-out.
Where the facility or project encroaches into wetland or floodplain, mitigation measures are required that result in any net gain in the wetland and/or riparian habitat.	Mitigation is proposed for the impacts to RPO wetlands from this crossing at a 3:1 ratio. This mitigation ratio will ensure that there is a net gain in wetland habitat. The wetland mitigation is proposed to be achieved on-site through the establishment new wetland habitat in the southern portion of the project near existing wetlands, and through the enhancement of disturbed wetland areas within the project's Biological Open Space.	Mitigation is proposed for the impacts to RPO wetlands from this crossing at a 3:1 ratio. This mitigation ratio will ensure that there is a net gain in wetland habitat. The wetland mitigation is proposed to be achieved on-site through the establishment of new wetland habitat in the southern portion of the project near existing wetlands, and through the enhancement of disturbed wetland areas within the project's Biological Open Space.
Where the facility or project encroaches into steep slopes, native vegetation will be used to re-vegetate and landscape cut and fill areas	The proposed crossing would not encroach into steep slopes.	The proposed crossing would not encroach into steep slopes.
No mature riparian woodland is destroyed or reduced in size due to otherwise allowed encroachments	The riparian woodland at the proposed crossing is not considered "mature" woodland. The willow habitat at this location has been affected by the adjacent ongoing agricultural activities which has prevented the habitat from forming a mature riparian community.	The riparian woodland at the proposed crossing is not considered "mature" woodland. The willow habitat at this location has been affected by the adjacent ongoing agricultural activities which has prevented the habitat from forming a mature riparian community.

Image source: Custom image provided by client (flown March 2012), and Microsoft, All Rights Reserved (flown May 2010)

CREDIT
403.1 (2)

STANDEL LN
ROCKING HORSE RD
SHIREY RD
RITSON RD
LILAC WK
LILAC PL
NUTBY LN
W LILAC RD
COVEY LN
VICTORIA WY
RODRIGUEZ RD
NELSON WY
SHADOW LAKE
ELMOND DR
MOUNTAIN RIDGE RD
ADAM CT
MEGAN TR

1 2 3 4 5 6 7

0 Feet 800

Project Boundary
Project Impacts
Off-site Improvement Areas
RPO Wetland Crossing
RPO Wetland

ATTACHMENT 15

FIGURE A

Locations of RPO Wetland Crossings

RECON

M:\JOBS4\6153\common_gis\Attch15_A_bio.mxd 6/5/2013 sab

CREDIT
403.1 (2)

ATTACHMENT 16

Conceptual Wetland Revegetation Plan

THIS PAGE IS INTENTIONALLY BLANK.

CONCEPTUAL WETLAND REVEGETATION PLAN
LILAC HILLS RANCH
SAN DIEGO COUNTY, CALIFORNIA

SPECIFIC PLAN
GENERAL PLAN AMENDMENT
REZONE
EIR
TENTATIVE MAP (MASTER)
TENTATIVE MAP (PHASE 1 IMPLEMENTING TM)
MAJOR USE PERMIT

PROJECT APPLICANT:
ACCRETIVE INVESTMENTS, INC.
12275 EL CAMINO REAL, SUITE 110
SAN DIEGO, CA 92130
ATTN: JON RILLING
PH: 858-546-0700

PREPARED FOR:
COUNTY OF SAN DIEGO
5510 OVERLAND AVENUE, THIRD FLOOR
SAN DIEGO, CA 92123
KIVA PROJECT: 09-0112513
SP 3810-12-001
GPA 3800-12-001
REZ 3600-12-003
TM 5571 RPL3 and 5572 RPL3
MUP 3300-12-005

PREPARER:

GERRY SCHEID
COUNTY-APPROVED BIOLOGIST

RECON ENVIRONMENTAL, INC.
1927 FIFTH AVENUE
SAN DIEGO, CA 92101
619-308-9333

MAY 23, 2013

THIS PAGE IS INTENTIONALLY BLANK.

TABLE OF CONTENTS

FIGURES

TABLES

THIS PAGE IS INTENTIONALLY BLANK.

CHAPTER 1.0 DESCRIPTION OF THE DEVELOPMENT PROJECT/IMPACT SITE FOR WHICH COMPENSATORY MITIGATION IS REQUIRED

The Lilac Hills Ranch project proposes the development of a new mixed-use master planned community. The proposed Specific Plan includes a maximum of 1,746 dwelling units with varying lot sizes, a neighborhood-serving commercial village center, public parks, retail uses, and a school site. Also, proposed on-site are a recycling collection facility, a wastewater reclamation facility, active orchards, and other supporting infrastructure. A Rezone is proposed to implement the Specific Plan by changing the existing Use and Development Regulations from A70 (Limited Agricultural) Zoning and RR (Rural Residential) to commercial and residential zones. The project would also include the submittal of a Master Tentative Map, Implementing Tentative Map, and a Major Use Permit.

The proposed project will permanently impact a total of 2.2 acres of Resource Protection Ordinance (RPO) wetland on-site. A 3:1 mitigation ratio is required for impacts to County RPO wetlands. Of this mitigation ratio, a minimum of 1:1 creation must be achieved while the remaining 2:1 of the ratio may be satisfied through restoration/enhancement of existing disturbed wetlands. The proposed on-site mitigation will involve the creation of a minimum of 6.0 acres of wetland and the restoration/enhancement of approximately 12 acres of disturbed wetland habitat. Southern willow riparian habitat is the target vegetation for the wetland creation and the restoration/enhancement of existing disturbed wetlands will involve the removal and control of non-native plant species and the reintroduction of native wetland plant species.

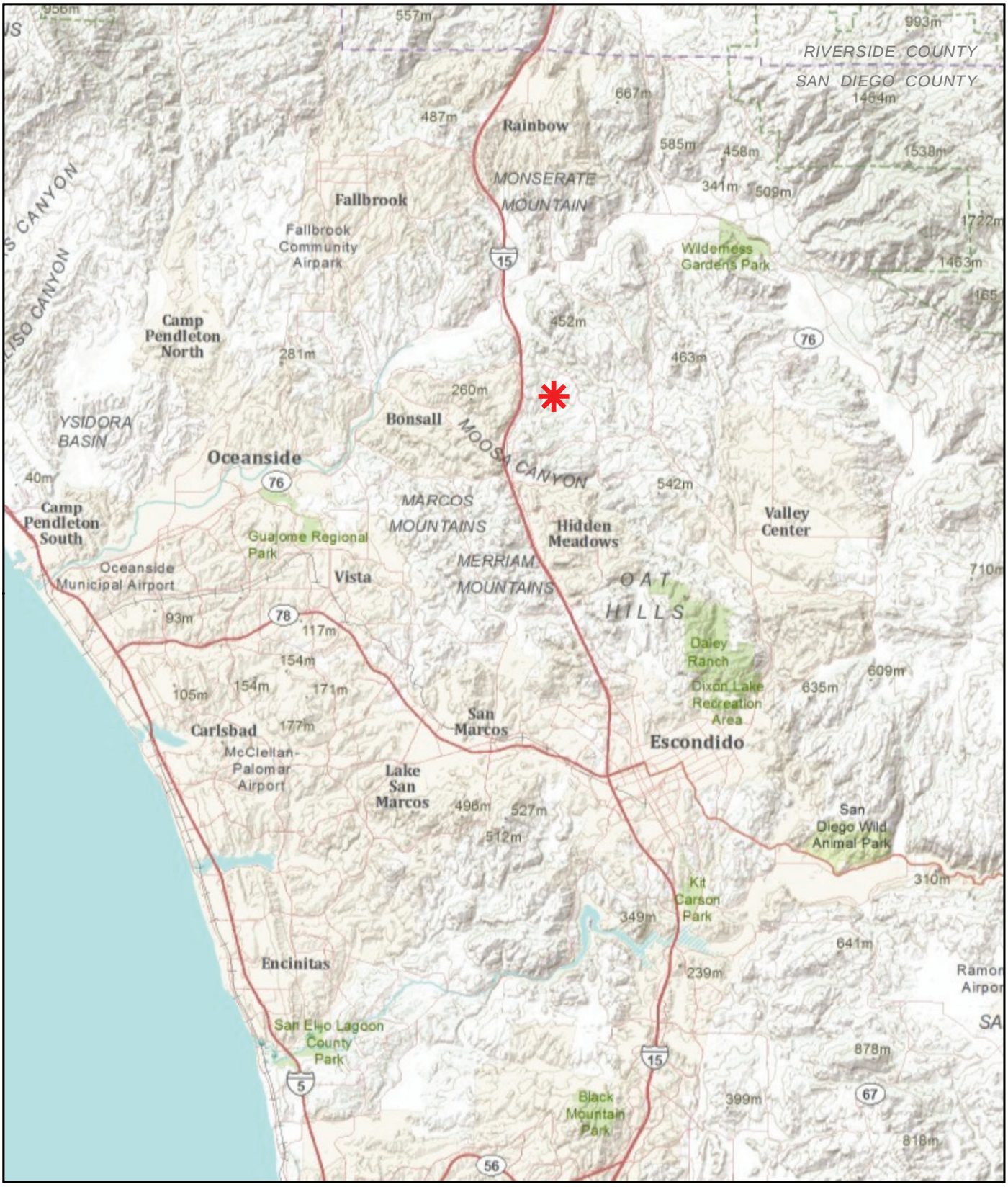
1.1 Responsible Parties

The owner/project proponent will be responsible for the development of the Lilac Hills Ranch project and the funding of the long-term maintenance, monitoring, and remedial actions in relation to the implementation of this revegetation plan. The owner/project proponent shall provide detailed construction drawings, accurate timelines, and written project specifications in conformance with the approved final revegetation plan. The owner/project proponent shall be responsible for coordination between the grading contractor and project biologist to ensure the implementation of the final revegetation plan will occur on the proper schedule.

The owner/project proponent shall manage project activities in the best interest of the project goals. The owner/project proponent will be solely responsible for administration of project contracts. Decisions to stop work are the responsibility of the owner/project proponent and the designated project manager. The owner/project proponent shall have sole authority in decisions to suspend payment or terminate such contracts. This includes all phases of project installation, long-term maintenance, and biological monitoring. The owner/project proponent may, with sole discretion at any time, replace any of these parties if necessary.

1.2 Location of the Development Project

The proposed Lilac Hills Ranch project area is approximately 608 acres composed of 59 contiguous properties and is located in northern unincorporated San Diego County (Location: Thomas Guide 1049 A7, B7; 1069 B1, B2, C1, C2; Figures 1 and 2). The



Project Location

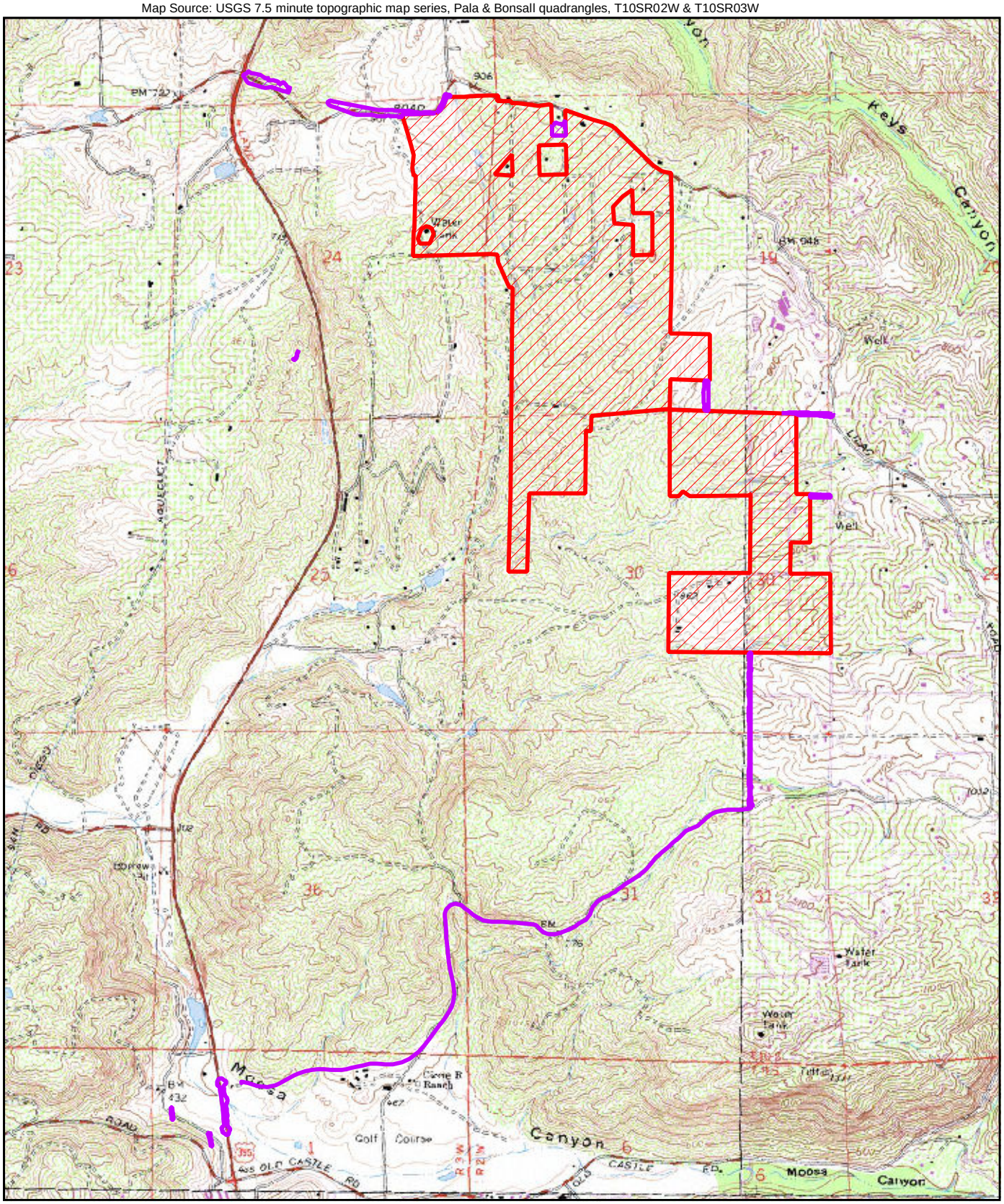
FIGURE 1

Regional Location

RECON

M:\JOBS4\6153\common_gis\fig1.mxd 9/12/2011

Map Source: USGS 7.5 minute topographic map series, Pala & Bonsall quadrangles, T10SR02W & T10SR03W



Project Boundary

Off-site Improvement Areas

RECON

M:\JOBS4\6153\common_gis\fig2.mxd 8/23/2012 fmm

FIGURE 2

Project Location on USGS Map

project occurs within the Bonsall and Valley Center community planning areas. West Lilac Road serves as the northern and eastern boundary of the project site (Figure 3). The western boundary of the project runs along Standel Lane, and Circle R Drive is less than a half-mile south of the project boundary.

The locations of the proposed on-site revegetation work occur along and adjacent to the drainage courses being preserved within biological open space (Figure 4a and 4b). Wetland habitat creation is proposed at a location in the southern portion of the project. Wetland habitat restoration and enhancement areas occur along portions of drainage courses throughout the site.

1.3 Summary of Overall Development Project with Proposed Mitigation

1.3.1 Environmental Setting and Site Conditions

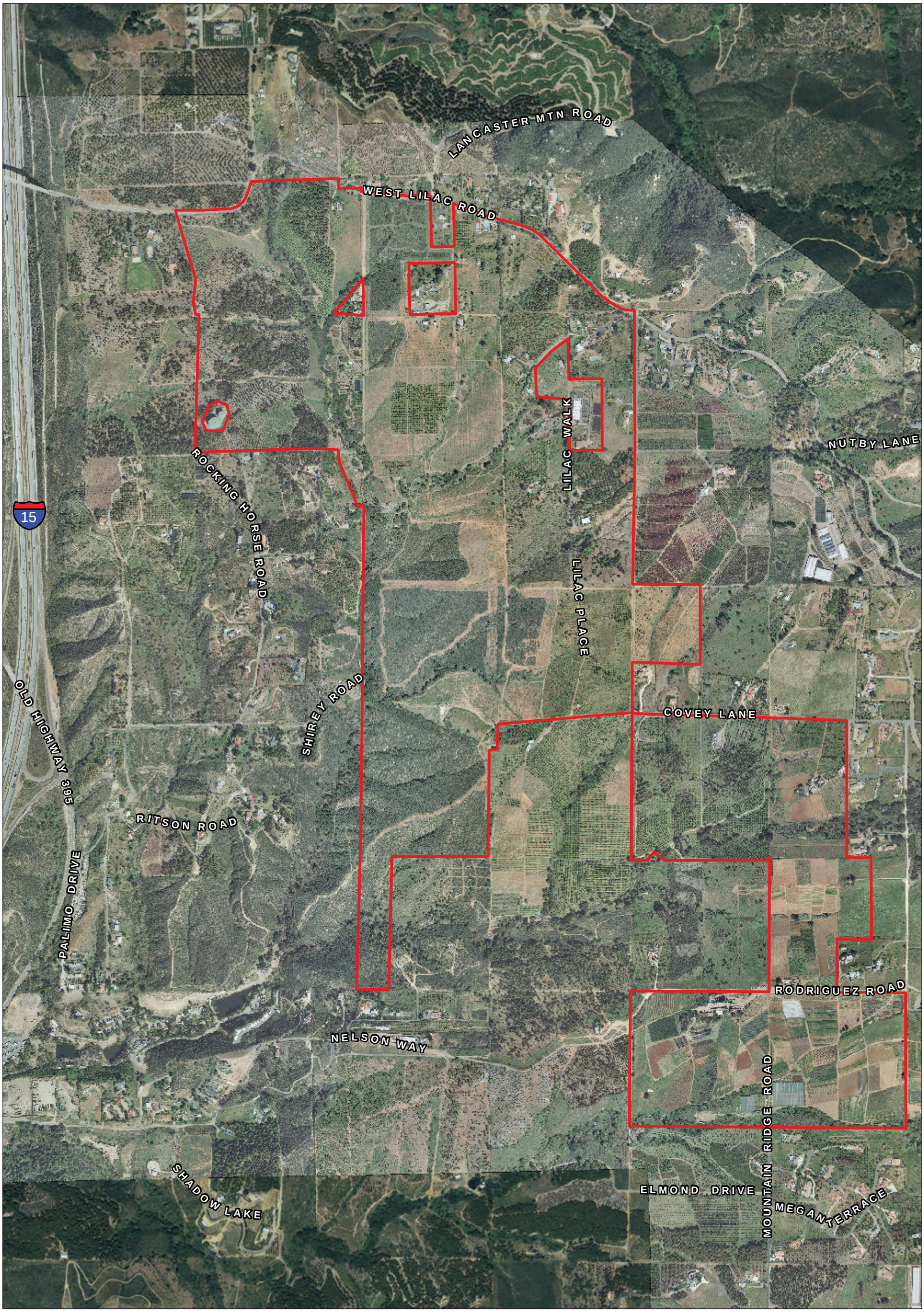
The Lilac Hills Ranch project site consists of approximately 608 acres of inland foothills and valleys. The project site includes topography consisting of a series of rolling hills dissected by drainage courses and a valley bottom that drain primarily to the south and southwest. Two agricultural ponds occur in the project area that store water for irrigation purposes.

A total of 17 primary habitat types and vegetation communities were identified in the project survey area and 100-foot buffer survey area (Table 1). Some areas of these habitat types have portions that were characterized as disturbed.

TABLE 1
EXISTING ON-SITE HABITAT/VEGETATION COMMUNITIES

Habitat/Vegetation Communities	Acres
Coast live oak woodland (71160)	3.6
Coastal sage scrub (32520)	19.6
Disturbed coastal sage scrub (32520)	2.9
Disturbed coastal/Valley freshwater marsh (52410)	0.6
Eucalyptus woodland (79100)	1.7
Southern coast live oak riparian woodland (61310)	22.5
Disturbed southern coast live oak riparian woodland (61310)	1.9
Southern mixed chaparral (37120)	75.4
Disturbed southern mixed chaparral (37120)	6.0
Southern willow riparian woodland (62500)	4.7
Southern willow scrub (63320)	6.1
Disturbed southern willow scrub (63320)	0.3
Mule fat scrub (63310)	0.1
Open water – fresh water (64140)	0.5
Disturbed wetland (11200)	0.4
Extensive agriculture – row crops (18320)	90.5
Intensive agriculture – nursery (18200)	9.2
Vineyard (18100)	0.7
Orchard (18100)	291.9
Disturbed habitat (11300)	44.0
Developed (12000)	25.7
TOTAL	608.3

Image source: Custom image provided by client (flown March 2012), and Aerials Express, All Rights Reserved (flown March 2010)



0 Feet 900

Project Boundary

FIGURE 3

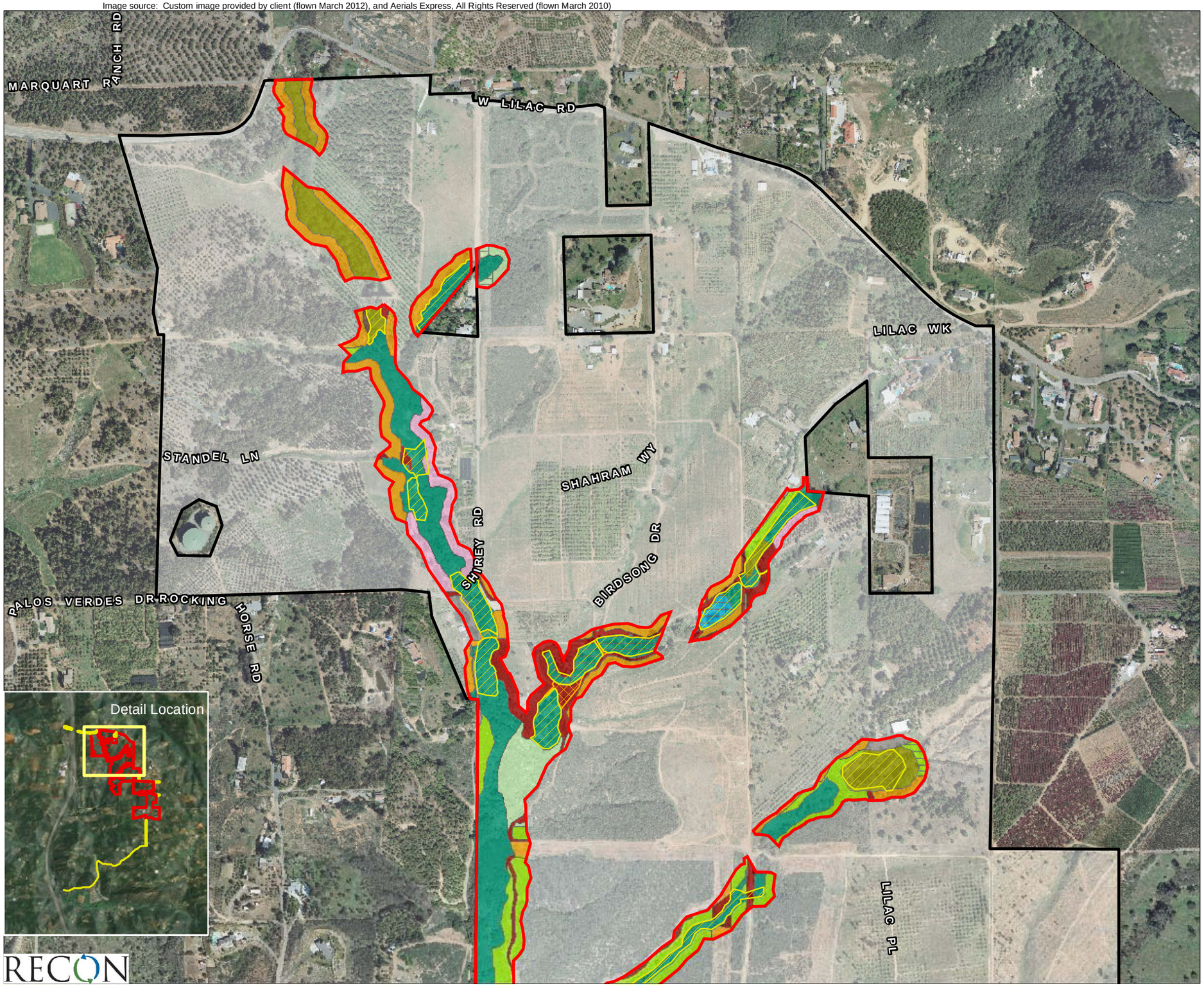
RECON

Project Location on Aerial Photograph

\\server04\gis\JOBS4\6153\common_gis\fig3_mitplan.mxd 8/15/2012 ccn

THIS PAGE IS INTENTIONALLY BLANK.

Image source: Custom image provided by client (flown March 2012), and Aerials Express, All Rights Reserved (flown March 2010)



- Project Boundary
- Biological Open Space Boundary
- Wetland Creation
- Wetland Enhancement

Vegetation Communities and Landcover Type

- Coastal Sage Scrub (32520)
- Disturbed Coastal Sage Scrub (32520)
- Disturbed Coastal/Valley Freshwater Marsh (52410)
- Eucalyptus Woodland (79100)
- Southern Coast Live Oak Riparian Woodland (61310)
- Disturbed Southern Coast Live Oak Riparian Woodland (61310)
- Southern Mixed Chaparral (37120)
- Disturbed Southern Mixed Chaparral (37120)
- Southern Willow Riparian Woodland (62500)
- Intensive Agriculture - Nursery
- Orchard (18100)
- Vinyard (18100)
- Disturbed Habitat (11300)
- Developed (12000)

0 Feet 500

RECON

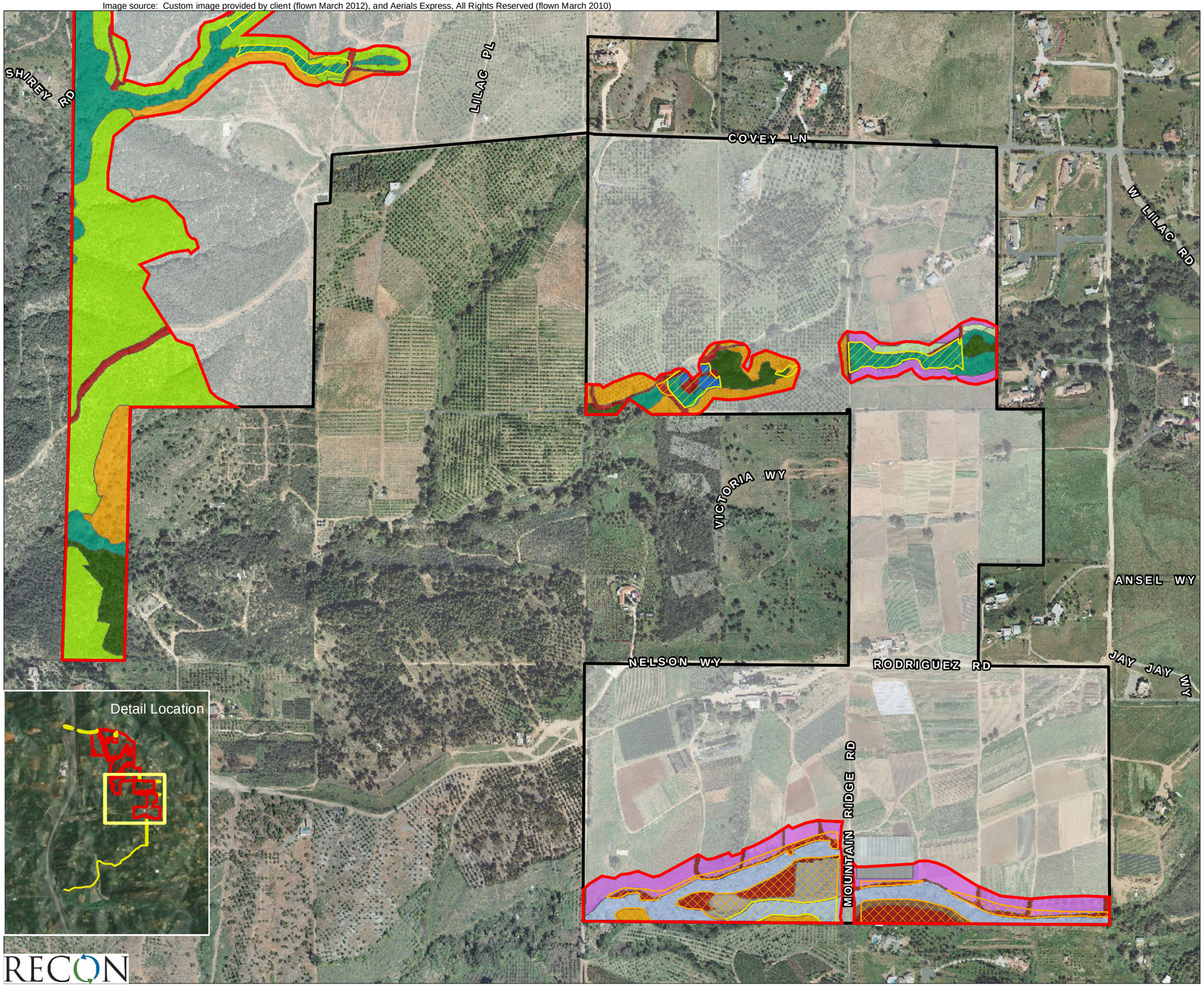
M:\JOBS4\6153\common_gis\fig4a_wetmit.mxd 3/8/2013 fmm

FIGURE 4a

Vegetation Communities/Land Cover Types within Biological Open Space and Location of Potential Wetland Mitigation

THIS PAGE IS INTENTIONALLY BLANK.

Image source: Custom image provided by client (flown March 2012), and Aerials Express, All Rights Reserved (flown March 2010)



- Project Boundary
- Biological Open Space Boundary
- Wetland Creation
- Wetland Enhancement

Vegetation Communities and Landcover Type

- Coastal Sage Scrub (32520)
- Disturbed Coastal Sage Scrub (32520)
- Coast Live Oak Woodland (71160)
- Coastal/Valley Freshwater Marsh (52410)
- Disturbed Wetland (11200)
- Eucalyptus Woodland (79100)
- Southern Coast Live Oak Riparian Woodland (61310)
- Disturbed Southern Coast Live Oak Riparian Woodland (61310)
- Southern Mixed Chaparral (37120)
- Disturbed Southern Mixed Chaparral (37120)
- Southern Willow Scrub (63320)
- Extensive Agriculture - Row Crops (18320)
- Orchard (18100)
- Disturbed Habitat (11300)
- Developed (12000)

0 Feet 500

RECON

M:\JOBS4\6153\common_gis\fig4b_wetmit.mxd 3/8/2013 fmm

FIGURE 4b

Vegetation Communities/Land Cover Types within Biological Open Space and Location of Potential Wetland Mitigation

THIS PAGE IS INTENTIONALLY BLANK.

The habitats in the project area support a diverse assemblage of wildlife species, with 59 bird, 18 invertebrate, 3 amphibian, 10 reptile, and 7 mammal species identified in the project area. A total of 13 sensitive species were observed in the project area—red diamond rattlesnake (*Crotalus ruber*), Belding's orange-throated whiptail (*Aspidoscelis hyperythra beldingi*), coastal western whiptail (*Cnemidophorus multiscultatus tigris*), Cooper's hawk (*Accipiter cooperii),* white-tailed kite (*Elanus leucurus*), turkey vulture (*Cathartes aura*), loggerhead shrike (*Lanius ludovicianus*), yellow warbler (*Dendroica petechia*), yellow-breasted chat (*Icteria virens auricollis*), western bluebird (*Sialia mexicana occidentalis*), southern mule deer (*Odocoileus hemionus fuliginata*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), and San Diego desert woodrat (*Neotoma lepida intermedia*).

A total of three sensitive plant species were observed in the project area—prostrate spineflower (*Chorizanthe procumbens*), southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*), and Engelmann oak (*Quercus engelmannii*). All three species occur on List D of the County sensitive species list. Additionally, Engelmann oak has a California Native Plant Society (CNPS) rare plant ranking of 4.2.

For a complete discussion of the existing biological resources and project impacts, see the Biological Resources Report for Lilac Hills Ranch (RECON 2013).

1.3.2 Project Impacts Resulting in Revegetation Requirement

The proposed project would impact jurisdictional waters, including wetlands, across the site. These impacts to jurisdictional waters and wetlands require revegetation to meet the mitigation requirements to compensate for the impacts. Jurisdictional waters and wetlands covered under the authority of the U.S. Army Corps of Engineers (USACE; waters of the U.S.), California Department of Fish and Game (CDFG; waters of the state), Regional Water Quality Control Board (RWQCB; waters of the state), and County of San Diego (RPO wetlands) would be impacted. Acreages for direct impacts to jurisdictional waters, including wetlands, are summarized by jurisdiction in Table 2.

TABLE 2
SUMMARY OF DIRECT IMPACTS TO
JURISDICTIONAL WATERS WITHIN THE PROJECT AREA
(acres)

Jurisdictional Waters	Existing (acres)	Impacts (acres)	Offsite Impacts (acres)
USACE Jurisdiction			
Non-wetland waters of the U.S.	4.69	2.92	
Wetlands	13.44	1.30	0
USACE Total Jurisdiction	**18.13**	**4.22**	**0**
CDFG/RWQCB Jurisdiction			
Streambed	4.18	3.1	
State Wetlands (Riparian habitat)	39.35	3.45	0
CDFG Total Jurisdiction[1]	**43.52**	**6.55**	**0**
County of San Diego RPO Wetlands	**37.64**	**2.23**	**0**

Functions and values of habitat to be impacted vary with the particular location of impact. The majority of impacts to wetlands would be due to road crossings needed for transportation circulation within the project. Impacts to other non-wetland jurisdictional

waters would result from general project grading. In general, the habitats supported by these jurisdictional waters and wetlands function to provide wildlife habitat for local animal species, erosion control, and provide water quality benefits (i.e., uptake of pollutants). Habitat value for the jurisdictional waters and wetlands are overall moderate, but range from low values for areas affected by adjacent agricultural activities to high values for the larger, mature riparian woodlands.

CHAPTER 2.0 GOALS OF THE COMPENSATORY MITIGATION PROJECT

2.1 Responsibilities

The owner/project proponent will be responsible for funding long-term maintenance, monitoring, and remedial actions as determined by the County. The owner/project proponent shall provide detailed construction drawings, accurate timelines, and written project specifications in conformance with the approved final revegetation plan. The owner/project proponent shall be responsible for coordination between the grading contractor and project biologist to ensure the implementation of the final revegetation plan will occur on the proper schedule.

The owner/project proponent shall manage project activities in the best interest of the project goals. The owner/project proponent will be solely responsible for administration of project contracts. Decisions to stop work are the responsibility of the owner/project proponent and the designated project manager. The owner/project proponent shall have sole authority in decisions to suspend payment or terminate such contracts. This includes all phases of project installation, long-term maintenance, and biological monitoring. The owner/project proponent may, with sole discretion at any time, replace any of these parties if necessary.

The County of San Diego (County) will be responsible to ensure that the revegetation plan is implemented according to the agreed requirements and schedule. The County, in coordination with other resource agencies, will have final approval authority in determining the success of the revegetation effort in relation to meeting the success criteria for the compensatory mitigation.

2.1.1 Project Designer

The preparation of the construction drawings and landscape plans used to implement the wetland revegetation plan shall be the responsibility of a qualified engineer and landscape architect. The project engineer and landscape architect shall consult with the project biologist during the preparation of the construction/landscape plans to ensure that the site preparation grading, plant palettes, plant installation instructions, and maintenance/monitoring requirements outlined in the final wetland revegetation plan are incorporated into the plans.

2.1.2 Installation Contractor

The installation contractor shall be responsible for the implementation of the project construction (e.g., site preparation) and landscape plans (e.g., plant installation). The installation contractor shall have a minimum of five years of experience in the revegetation, restoration, and enhancement of native wetland plant species and habitat.

2.1.3 Revegetation Monitor

The revegetation monitor will be responsible for monitoring and consulting on the implementation of the revegetation plan. The revegetation monitor shall be a biologist with a minimum of five years of experience in the revegetation, restoration, and enhancement of wetland plants and habitats. The revegetation monitor responsibilities shall include:

- Coordinate with the project engineer and landscape architect during the preparation of the construction plans to be used to implement the final wetland revegetation plan.

- Attend pre-grading and pre-construction meetings to consult with the owner/project proponent and grading contractor, and to educate the contractors on project goals and habitat sensitivity.

- Monitor the site preparation, installation of native plant materials, and monitoring of qualified subcontractors in execution of aspects of this plan.

- Consult with the contractor on any activities that may be disruptive to the mitigation.

- Overseeing and performing the required biological monitoring and reporting in accordance with the procedures established in this plan.

2.1.4 Revegetation Maintenance Contractor

The revegetation maintenance contractor shall have a minimum of five years' experience in upland and stream/wetland habitat restoration. The maintenance contractor will be responsible for implementing the tasks outlined in this plan under the supervision of the project biologist.

- Maintain site as outlined in this plan in coordination with the project biologist.

- Perform remedial measures as prescribed by the project biologist and approved by the owner/project proponent (e.g., control non-native plants, plant supplemental native plants, repair irrigation system, remove trash, etc.).

2.2 Type(s) and Area(s) of Habitat to be Established, Revegetated, Restored, Enhanced, and/or Preserved

2.2.1 Revegetation Design Concept

One element of the revegetation design concept for this wetland revegetation plan is the creation of wetlands on-site in an area that will add to existing wetlands. The purpose of this wetland creation is to replace functions and habitat values lost by impacts to jurisdictional wetlands. The term creation implies a newly constructed wetland area that aims to replace habitat functions and values of the impacted wetland. The quality of the created habitat will exceed that of the existing impacted wetland habitat. A total of 6.0 acres of wetland/riparian habitat will be created on-site in the southern portion of the project area. A breakdown of habitat types and mitigation required is given in Table 3.

TABLE 3
SUMMARY OF WETLAND IMPACTS AND MITIGATION

Vegetation Community	Agency Jurisdiction	Impact (acres)	Mitigation Ratio	Total Mitigation Requirement (acres)
Southern Coast Live Oak Riparian Woodland (61310)	ACOE, CDFG, County of San Diego[1]	1.9	3:1	5.7
Coastal/Valley Freshwater Marsh (52410)	ACOE, CDFG, County of San Diego[1]	0.2	3:1	0.6
Southern Willow Riparian Woodland (62500)	ACOE, CDFG, County of San Diego[1]	0.5	3:1	1.5
Mule Fat Scrub (63310)	ACOE, CDFG, County of San Diego[1]	0.1	3:1	0.3
Southern Willow Scrub (63320)	ACOE, CDFG, County of San Diego[1]	0.6	3:1	1.8
Disturbed Wetland (11200)	ACOE, CDFG, County of San Diego[1]	0.1	3:1	0.3
Non-wetland Waters/Streambed	ACOE, CDFG	3.1	1:1	3.1
TOTAL		**6.5**		**13.3**

[1]Where RPO wetlands occur.

The second element of the revegetation design concept for this wetland revegetation plan is the restoration/enhancement of existing disturbed wetlands being preserved in biological open space in the project area. The purpose of the restoration/enhancement is to increase the functions and values of the existing disturbed riparian habitat on-site. Enhancement activities will include the removal of non-native species, planting of native species, restoration of hydrological connections, and removal of trash. This mitigation would provide an increase in habitat values beyond extant conditions. A total of 12 acres of preserved wetland/riparian habitat will be restored/enhanced within the biological open space.

2.2.2 Agency Coordination

Agency coordination (i.e., USACE, CDFG, RWQCB) will occur as project design is completed and the final impacts are approved by the County of San Diego. Permit conditions and requirements of other resource agencies will be provided once consultation with these agencies has occurred. An environmental impact report is being prepared for this project, which will include a copy of this conceptual wetland revegetation plan, when approved.

2.3 Functions and Values

The establishment of wetland habitat in the southern portion of the project site will increase the habitat functions and values of the adjacent riparian habitat that is being preserved at the location. The added acreage of wetland habitat will increase the value of the riparian corridor for wildlife species by providing additional habitat structure for nesting, feeding, and shelter. Increased erosion protection, decreased sedimentation, better nutrient and pollutant uptake, and a more stable hydrologic regime are habitat functions that will benefit from the additional established wetlands.

The restoration and enhancement of the wetlands and riparian habitat along the drainage courses being preserved as part of the project will also benefit the existing functions and values of these habitat areas. Removal of invasive plant species such as

pampas grass and giant cane, in conjunction with the removal of trash and the restoration of hydrologic connections through the elimination of existing road crossings no longer needed will increase the value of the habitat for wildlife. Restoring the disturbed areas with native riparian plant species will improve erosion control, decrease sedimentation, improve nutrient cycling and pollutant absorption, and improve the hydrologic functions of the drainage systems.

2.4 Time Lapse

Implementation of compensatory mitigation for impacts to wetlands will occur in the same calendar year as the impacts occur. It is expected to take five years after implementation of the revegetation effort to achieve compensatory mitigation success.

2.5 Cost

The cost estimate for wetland revegetation program will be determined once project approvals have been received from the County of San Diego.

CHAPTER 3.0 DESCRIPTION OF THE PROPOSED COMPENSATORY MITIGATION SITE

3.1 Site Selection

Suitability of the proposed revegetation areas for wetland creation and restoration/enhancement was based on factors including physical factors (i.e., soils, landscape position, hydrology, topography), biological factors (i.e., existing vegetation, adjacent wetland habitat), logistical factors (i.e., accessibility, site protection), and historical factors (i.e., suitability of the site for restoration). All creation and restoration/enhancement areas will be conserved in biological open space as part of the proposed Lilac Hills Ranch project.

3.1.1 Physical Factors

The soils in the wetland creation areas are likely suitable for the establishment of riparian vegetation as they are adjacent to areas of existing riparian vegetation on the same soil type. It is important that in areas where the ground elevations will be lowered that the upper 12 inches of topsoil be removed, stockpiled separately, and then spread over the graded creation site to ensure good topsoil for establishment of the native vegetation to be installed. However, should it be determined during site preparation that suitable topsoil is not present on-site, the project biologist will determine the soil amendments and/or additives (i.e., fertilizer, mycorrhiza, organic matter) to be added prior to installation of the native plant materials.

It is assumed that soils in the wetland restoration/enhancement areas are suitable for the establishment of riparian vegetation as these areas already support native riparian plants. The use of soil amendments or additives, such as fertilizer or mycorrhiza, is not anticipated for these areas.

The wetland creation areas will be located adjacent to existing southern willow riparian habitat in the southern portion of the Lilac Hills Ranch project area (see Figures 4a and 4b). Creation of wetland will occur in areas adjacent to the existing riparian habitat in

areas that are currently characterized as disturbed, developed, or under extensive agriculture. Contouring during site preparation will lower the topography of the creation areas to spread out existing surface flows and to bring the elevation of the site closer to the groundwater table to ensure adequate surface and subsurface hydrologic connections to support the new wetland vegetation after supplemental irrigation is removed. The elimination of adjacent agricultural activities and the maintenance of natural freshwater inputs will reduce/eliminate any salinity issues.

The location of the wetland restoration/enhancement areas will occur in existing drainages that contain disturbed southern coast live oak riparian woodland dominated by pampas grass and other invasive plant species. It is assumed that the existing drainages contain suitable hydrology to support the restored/enhanced southern coast live oak riparian woodland vegetation due to the existing natural surface and subsurface hydrology.

3.1.2 Biological Factors

The wetland creation areas are proposed to be constructed adjacent to an existing drainage course that supports similar riparian habitat. After the initial installation of the native plant materials, the site will be maintained for a period of five years to control invasion of the site by non-native plant species and to increase the resiliency of the riparian habitat to resist future invasions by these non-native species. Use of the existing riparian habitat by wildlife will benefit from the addition of more riparian habitat. Restoration and enhancement of preserved riparian habitat in the biological open space areas of the project contain suitable native riparian habitat.

3.1.3 Logistical Factors

The wetland creation areas are located in an area in the southern portion of the project site where accessibility will not be an issue during the implementation, maintenance, and monitoring period. Restoration and enhancement areas that occur throughout the site will have easy access for the removal of non-native plants species, reintroduction of native plant species, and maintenance and monitoring. Site protection during the establishment, restoration, and enhancement of the riparian habitats will be achieved through the use of signage and fencing that will restrict access to the mitigation areas. Long term site protection will be enforced by the entity approved to manage the biological open space areas within the project.

3.1.4 Historical Factors

The proposed wetland creation areas will be located in areas adjacent to existing riparian habitat where past and current agricultural activities have removed native habitat over time. A low elevation landscape position with minor topographic modifications will create a local environment that has the hydrology and soils characteristics conducive to the establishment of wetland/riparian habitat.

3.2 Location and Size of Compensatory Mitigation Site

The proposed on-site compensatory mitigation will involve the creation of a minimum of 6.0 acres of wetland and the restoration/enhancement of approximately 12 acres of disturbed wetland habitat. Southern willow riparian habitat is the target vegetation for the

wetland creation revegetation sites that will be located in the southern portion of the project site (see Figure 4b). The sites where restoration/enhancement of existing disturbed wetlands will occur are located along drainage courses throughout the project site that are being preserved (see Figures 4a and 4b) and will involve the removal and control of non-native plant species and the reintroduction of native wetland plant species.

3.3 Functions and Values

The baseline condition of the proposed wetland creation areas is land that has been disturbed by agricultural activities. Current habitat functions and values of the areas where wetland will be established are low due to the lack of native plant species. Non-native plant species, primarily row crops, and a lesser amount of weed species (less than 10 percent cover) dominate the area. Native plant and animal species diversity is relatively low in the agricultural fields.

Restoration and enhancement areas occur on existing drainages that support riparian habitats such as southern coast live oak riparian woodland. Habitat functions and values are those described above in Section 2.3. Native plant cover is generally high, except in portions of the drainages where invasive species have colonized localized areas.

3.4 Jurisdictional Delineation

A jurisdictional delineation was conducted within the Lilac Hills Ranch project site (RECON 2012). The area where wetland creation will occur is an upland area. Drainages and riparian habitat being preserved in open space are either wetland, riparian, or consist of upland vegetated non-wetland waters.

3.5 Present and Proposed Uses

Presently, the proposed revegetation creation site and adjacent land is zoned for agricultural use and is actively being planted with a rotation of row crops. The drainages containing the proposed restoration/enhancement areas are also in an area zoned for agricultural use; however, the drainages are adjacent to active agricultural operations (i.e., orchards, nursery crops, etc.) and are only indirectly affected by this land use (e.g., trash, irrigation runoff, invasive species, road crossings).

All wetland revegetation creation, restoration, and enhancement areas that are part of this revegetation plan will be within the biological open space dedicated as part of the project approval. The biological open space containing the revegetation areas and other habitat types being preserved will be protected under a covenant of easement. Signage will be used to delineate the preserved biological open space areas to limit damage from human encroachment on the preserved habitats (Figure 5).

3.6 References Site(s)

A nearby reference site for the southern willow riparian wetland creation area will be selected by the project biologist prior to the start of construction. The reference community will be chosen based on proximity to the project site and similarity, based on slope, aspect, and soils. Characteristics of the reference site will be used to track the

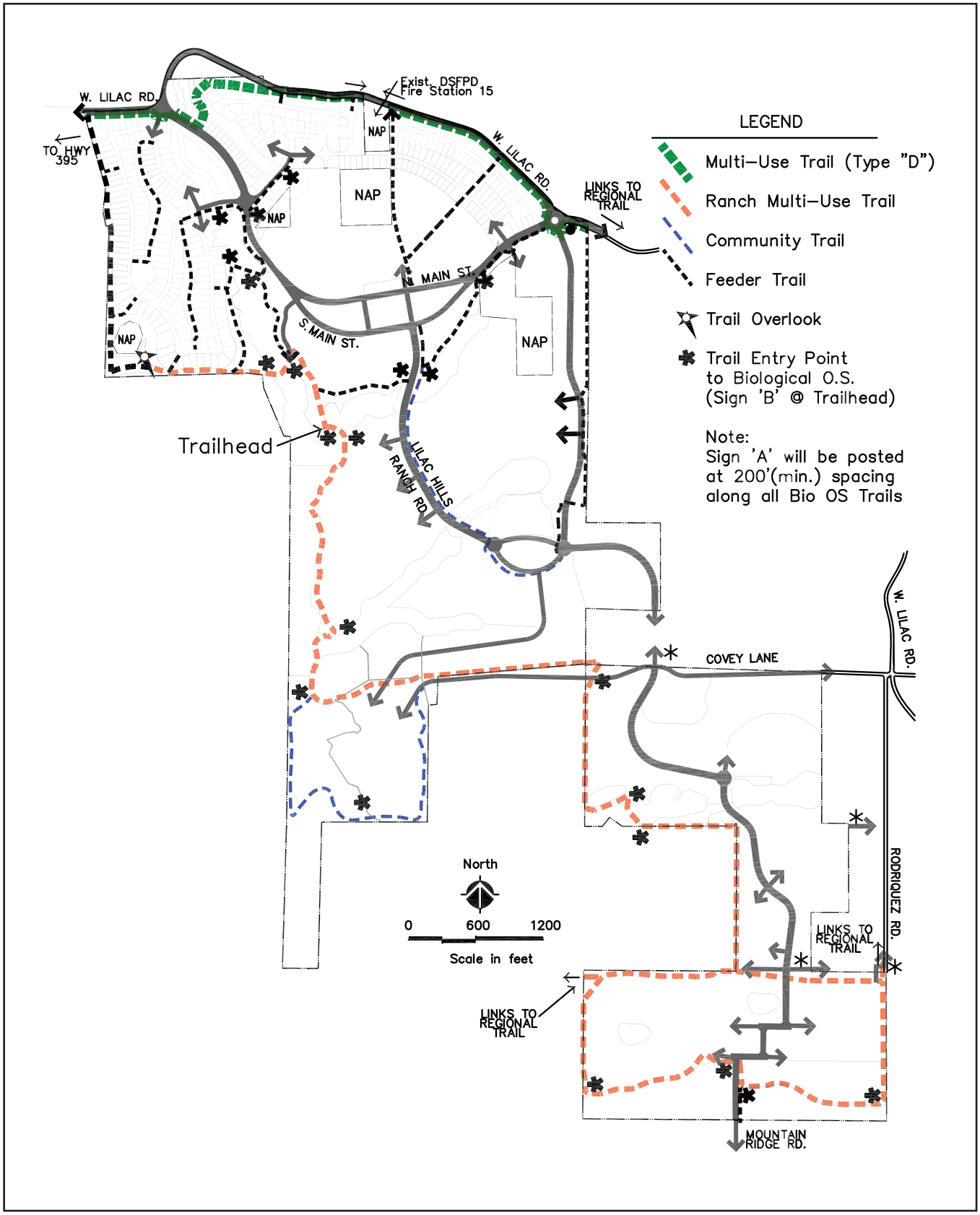


FIGURE 5
Biological Open Space Plan

RECON

M:\JOBS4\6153\bio\graphics\attach15-fig5.ai 05/23/13

progress of the habitat development of the mitigation areas during the five-year maintenance and monitoring period.

The southern portion of the project area currently supports southern willow riparian habitat that will be adjacent to the wetland creation areas. This willow riparian habitat is appropriate to serve as the reference area for the wetland creation (see Figure 4b). Native species cover is relatively high, invasive species cover relatively low, and species diversity of native plants and animals is moderate under current conditions.

A site visit with staff from the County of San Diego will be required for final approval of the reference site. Once the reference site is approved, it will be sampled once using the same qualitative and quantitative methods to be used on the wetland creation sites with enough sample replication to adequately capture the desired habitat characteristics. Baseline data for the percent native plant cover, percent non-native plant cover, and native plant density/diversity will be collected on the reference site. This baseline information will be used for comparison to the similar data collected for the vegetation at the wetland creation site.

CHAPTER 4.0 IMPLEMENTATION PLAN FOR THE COMPENSATORY MITIGATION SITE

4.1 Rationale for Expecting Implementation Success

The rationale for expecting implementation success for the proposed revegetation project to meet compensatory mitigation requirements is based on the location and characteristics of the revegetation sites. The establishment of wetland/riparian vegetation will occur adjacent to an existing drainage course that supports similar riparian habitat. The active floodplain of the drainage course will be widened to provide the needed surface flows and these flows in conjunction with the relatively high groundwater levels at this location will provide the hydrology to support wetland/riparian vegetation growth. Soils at this location are similar to those currently supporting wetland/riparian habitat. Revegetation areas where restoration and enhancement will occur are located on existing drainage courses that support wetland/riparian vegetation. These areas contain the necessary soils and hydrology to support wetland/riparian vegetation.

4.2 Financial Assurances

The project proponent/owner at the time of implementation of this revegetation plan will be responsible for providing all necessary funds to cover costs associated with the requirements of the revegetation plan. Sufficient funds will be provided to cover the implementation of the plan (e.g., site preparation, control of non-native plants, native plant installation, etc.), the five-year maintenance and monitoring program, any remedial measures required, and report preparation. A revegetation agreement shall be signed and notarized by the property owner following approval of this revegetation plan and accompanied by the required security as agreed upon by the County of San Diego.

4.3 Schedule

The schedule for the implementation of the required mitigation outlined in this plan has yet to be determined.

4.4 Site Preparation

The planting of native riparian plants should occur in the winter or spring months to take advantage of natural rainfall and optimal native plant growing conditions. Work in each of the wetland revegetation areas will be commenced prior to or concurrent with the development phase that requires mitigation for impacts to wetlands. The final wetland revegetation plan will provide more specific start and completion dates by phase for the implementation of the wetland revegetation program.

The wetland creation areas will require minor grading to lower the existing topography to expand the active floodplain of the existing drainage course. Site preparation will require the use of standard grading equipment (i.e., bulldozer, backhoe, excavator, etc.) to recontour the revegetation areas to the desired elevations and grade. Some restoration/enhancement areas may require the use of a small bulldozer or excavator to help remove heavy infestations of non-native plants. The addition of seed to the revegetation sites will be either hand broadcast or sprayed from a hydroseed truck. Access to the wetland creation and restoration/enhancement areas will be provided by way of existing roads and/or overland travel through adjacent areas during mass grading for the project. Access will not require additional impacts to wetland vegetation.

Prior to grading for the wetland creation site and for restoration/enhancement activities in existing disturbed riparian areas, any existing sensitive biological resources not authorized for impacts will be flagged and monitored for avoidance during construction. A limit fence delineating the grading limits or limits of restoration/enhancement activities will be installed to demarcate and further protect the adjacent sensitive habitat.

CREDIT 403.1 (2)

Once the revegetation project is complete, the wetland revegetation sites will be part of the biological open space conserved as part of the Lilac Hills Ranch project. This open space will have an easement restricting land use within the open space areas. Perimeter barriers associated with the proposed development are expected to limit access to the habitat creation areas. Protective fencing, gates, and signage will be used to identify sensitive biological resource areas and encourage pedestrians to stay on identified trails.

During and after site preparation, appropriate best management practices (BMPs) will be used as needed to prevent sediment from moving off-site. These BMPs will be included in the revegetation site grading plans and Storm Water Pollution Prevention Plan (SWPPP) for the project. If fiber rolls or straw bales are used, rice straw is recommended over wheat straw because it is less likely to carry imported seed, which can grow and reproduce in the mitigation sites.

Control of invasive exotic weeds will be important, during both establishment and the long-term maintenance period, to achieving the final performance standards. During the revegetation site preparation stage, weeds may be removed by hand, mechanical means, or sprayed with herbicide prior to planting to eradicate and prevent the establishment of weed species prior to the installation of the native plant species. A pre-emergent herbicide will be used in the revegetation areas in order to prevent the germination of weed species contained in the topsoil. For both the site preparation stage and the plant establishment and long-term maintenance stages, the project biologist will be responsible for directing the appropriate timing and application of any herbicides. An herbicide approved for use in aquatic sites will be used when appropriate for weed

control and applied by a licensed applicator. When herbicide is used, there must be little to no wind present, as overspray may potentially harm native plants.

The wetland creation and restoration/enhancement program will make use of rooted cuttings and plant materials collected from the local vicinity, as well as nursery-grown container plants grown from locally collected seed and/or cuttings. The native plants recommended for the container stock in this plan were selected based on their presence in the reference site and their value for developing an appropriate vegetation community structure to support wildlife species.

Cuttings and seed used to produce plants for the project will be collected from existing riparian areas on the project site or within two miles of the project site when feasible. All cuttings will be rooted in one-gallon containers and inoculated with mycorrhiza prior to planting. Cuttings and container plant densities for the wetland/riparian vegetation types are presented in Tables 4 and 5. Plants shall be spaced on a 3-foot radius across the revegetation areas.

TABLE 4
WETLAND CREATION AREA CONTAINER STOCK
SOUTHERN WILLOW RIPARIAN HABITAT SPECIES AND
DENSITIES PER ACRE

Species	Size	Number/Acre
Artemisia douglasii Mugwort	1-gallon	25
Baccharis salicifolia Mule fat	1-gallon	100
Iva hayesiana San Diego marsh elder	1-gallon	50
Oenothera elata ssp. *hookeri* Hooker's evening primrose	1-gallon	25
Rosa californica Wild rose	1-gallon	25
Rubus ursinus Wild blackberry	1-gallon	25
Salix gooddingii Black willow	1-gallon	100
Salix exigua Narrow-leaved willow	1-gallon	50
Salix laevigata Red willow	1-gallon	75
Salix lasiolepis Arroyo willow	1-gallon	150
TOTAL		625

TABLE 5
RESTORATION/ENHANCEMENT AREA CONTAINER STOCK
SOUTHERN COAST LIVE OAK RIPARIAN WOODLAND SPECIES
AND DENSITIES PER ACRE

Species	Size	Number/Acre
Artemisia douglasii Mugwort	1-gallon	25
Baccharis salicifolia Mule fat	1-gallon	100
Iva hayesiana San Diego marsh elder	1-gallon	50
Oenothera elata ssp. *hookeri* Hooker's evening primrose	1-gallon	25
Rosa californica Wild rose	1-gallon	25
Rubus ursinus Wild blackberry	1-gallon	25
Salix gooddingii Black willow	1-gallon	100
Salix exigua Narrow-leaved willow	1-gallon	50
Salix laevigata Red willow	1-gallon	75
Salix lasiolepis Arroyo willow	1-gallon	150
Quercus agrifolia Coast live oak	1-gallon	150
TOTAL		775

4.5 Planting Plan

Installation of native plants will begin upon completion of site preparation (i.e., grading, initial weed control) for both creation and restoration/enhancement sites. Individual container plants will be distributed on approximately three-foot centers within a particular revegetation site under the direction of the project biologist and in a manner that approximates the natural distribution of the target vegetation community.

Installation of native plant container stock will be in holes dug to be twice the area of the container and twice as deep. The holes will be partially backfilled and then will receive approximately one gallon of water prior to planting to wet and settle the soil. Plants will then be placed in the holes, backfilled with topsoil, and watered. No fertilizers will be used.

4.6 Irrigation Plan

A temporary surface-mounted overhead spray irrigation system will be installed at each wetland creation area to improve the survival of plantings during the first two to three years of establishment. Supplemental water will be added to the revegetation sites under the direction of the revegetation monitor. The temporary irrigation system will be removed as directed by the revegetation monitor once the plants have become firmly established.

CHAPTER 5.0 MAINTENANCE DURING MONITORING

5.1 Maintenance Activities

The objective of the maintenance program is to ensure that the irrigation system functions properly, weeds are controlled in a timely and thorough manner, and repairs/remedial measures are implemented per the direction of the revegetation monitor. The long-term maintenance for all habitat creation and restoration/enhancement areas will begin when the installation of the native plants is complete and will last for a period of five years as presented. The maintenance program will ensure that debris removal, weed control, replanting and reseeding, site protection, and other tasks are adequately performed. The revegetation monitor will supervise maintenance activities for all mitigation areas.

5.1.1 Supplemental Irrigation

A temporary irrigation system will be installed to ensure survival of plantings as a supplement to natural rainfall inputs. In general, the site will be watered on an as-needed basis, but typically two to three times a week during the warmer spring and summer months. The revegetation monitor will provide recommendations for timing and duration of the application of supplemental water. It is expected that the irrigation system will be used for a period of two to three years depending on seasonal rainfall patterns and how well the target vegetation becomes established. During this time, the maintenance crews should keep the irrigation system in operating condition. Upon completion of the project, the maintenance crews shall remove all above-ground irrigation equipment. Below ground mainlines may be left in place so the soil is not disturbed.

5.1.2 Weed Control

Weed control will continue throughout the five-year monitoring period. Hand weeding or other weed control methods will be performed by maintenance workers familiar with and trained to distinguish weeds from native species. During the first three years after plant installation, weeding will be performed at each revegetation site a minimum of four times a year to keep weeds from producing seeds and to control weed competition during the establishment period of native plants. Weed control will continue up to three times a year for the last two years of the maintenance period.

Weeds will be killed or removed before they set seeds. Appropriate weed control measures will be implemented under the direction of the project biologist. Plant species also present on the Cal-IPC California Invasive Plant Inventory (Cal-IPC 2012) will be targeted for removal. In the event that additional invasive species are encountered, the revegetation monitor shall refine control measures to address the particular infestation.

5.1.3 Native Plant Replacement

The wetland creation and restoration/enhancement revegetation areas will be monitored regularly during the establishment period to identify any areas that have poor plant survival rates. These areas will have the native plants replanted with the appropriate species once or twice a year throughout the maintenance period to “fill in” these areas. Alternate native plant species may be used if it is determined by the revegetation

monitor that the site may not support the plant species originally installed in that particular location. Replanting shall occur within the growing season.

5.1.4 Vegetation Clearing and Trash Removal

Pruning of any native vegetation or removal of dead wood and leaf litter shall generally not be allowed in the revegetation areas. Trash will be removed from the revegetation sites on an as-needed basis. Trash consists of all man-made materials, equipment, or debris left within the revegetation area that is not serving a function related to revegetation.

5.1.5 Pest Control

If during the five-year monitoring period it is determined by the revegetation monitor that herbivory is resulting in significant damage to target species, an active pest control program will be implemented. The pest control program may include any of the following measures: caging seedlings, fence installation, or trapping of pest species.

5.2 Schedule

The proposed maintenance schedule for the revegetation areas is provided in Table 6.

TABLE 6
FIVE-YEAR MAINTENANCE SCHEDULE

Tasks	Year 1	Year 2	Year 3	Year 4	Year 5
Weed control	4 times per year	4 times per year	4 times per year	3 times per year	3 times per year
Irrigation*	Two to three times per week based on season	Two to three times per week based on season	Two times per week based on season	--	--
Trash removal	4 times per year	4 times per year	4 times per year	3 times per year	3 times per year
Replanting	Twice per year	Once per year	Once per year	Once per year	--

*Temporary irrigation system is anticipated to be removed at the end of Year 3.

CHAPTER 6.0 MONITORING PLAN FOR THE COMPENSATORY MITIGATION SITE

6.1 Performance Standards for Target Dates and Success Criteria

The wetland creation and restoration/enhancement sites will be considered successful when the success criteria/performance standards have been met. If the minimum levels of native plant development shown in Table 7 are not achieved in any year, the project biologist will recommend remedial actions, such as replanting container stock, to reach the following year's expected levels. Other adaptive management actions (e.g., adjustments to site conditions, adjustment of supplemental irrigation, modifications to invasive species control) may be necessary to bring the revegetation areas into compliance with the success criteria/performance standards.

TABLE 7
FIVE-YEAR SUCCES CRITERIA/PERFORMANCE STANDARDS FOR WETLAND CREATION AND RESTORATION/ENHANCEMENT AREAS

Year	Container Plant Survival	Total Native Plant Cover[1]	Diversity[1]	Density[1]
1	80%	–	–	–
2	100%	50%	50%	50%
3	100%	60%	60%	60%
4	100%	75%	70%	70%
5	100%	80%	70%	70%

[1]Measured relative to an appropriate reference site in the project vicinity.

In order to meet the success criteria/performance standards, the wetland revegetation areas must sustain themselves for a minimum of one year (meeting the fifth-year performance standards) in the absence of significant maintenance measures during the final year of monitoring. Significant maintenance includes replanting and eradication of substantial weed infestations. Other maintenance measures, such as minor weed control, may continue until the end of the monitoring period.

The cover of non-native annuals and herbs, as identified by the project biologist, will be no more than 10 percent by the end of the five-year monitoring period. No invasive exotic perennials on the Cal-IPC lists A and B will be permitted on the revegetation sites by the end of the five-year monitoring period.

6.2 Target Functions and Values

The wetland/riparian revegetation mitigation sites will provide habitat functions and values that are equal to or greater than those affected by the project. The wetland/riparian habitat creation areas will increase habitat values (e.g., available habitat for wildlife use, plant community structure) and functions (e.g., erosion control, decrease in downstream sedimentation, increase in nutrient/pollutant uptake) by providing additional acreage of wetland/riparian habitat adjacent to existing wetland/riparian resources. These same habitat functions and values will be increased along portions of other existing wetland/riparian habitats on drainage courses preserved in biological open space through the restoration/enhancement activities that will replace non-native plant infestations and disturbances with native plant cover and restored hydrologic connections.

6.3 Target Hydrologic Regime

The target hydrologic regime for the proposed wetland/riparian revegetation creation areas is comprised of the establishment of connections to existing surface flows and site modifications to allow access to sub-surface groundwater. Minor contour elevation modifications made during site preparation will lower the ground surface in the creation areas to be closer to the existing groundwater table and will expand the active floodplain of the existing drainage course to connect surface flows to the areas.

6.4 Target Acreages

A total of 6 acres of wetland/riparian habitat will be restored on-site in the biological open space located at the southern portion of the project site. A total of 12 acres of

wetland/riparian restoration/enhancement will occur at scattered locations within the biological open space on-site.

6.5 Monitoring Methods

The revegetation areas will be monitored to assess the progress of the mitigation effort and to determine if success criteria/performance standards are being achieved. Qualitative and quantitative monitoring methods will be used.

6.5.1 Qualitative Monitoring

Evaluation of plant health and identifying and correcting any problems are necessary to ensure successful native vegetation establishment. Qualitative monitoring methods will include review of the mitigation areas by the revegetation monitor to examine plant vigor and exotic plant encroachment. Qualitative monitoring will also include observations of erosion, sedimentation, and areas at risk of being eroded. The revegetation monitor will document the findings and make recommendations to the maintenance contractor for remedial actions, if necessary.

Qualitative monitoring will also include the preparation of a list of wildlife species observed on the mitigation sites and a description of wildlife use will be included with each annual report.

6.5.2 Quantitative Monitoring

Quantitative monitoring will be used to sample variables that measure wetland habitat values (including percent native plant cover, diversity, density, survivorship) as well as wetland habitat functions (seedling recruitment and wildlife activity). Quantitative monitoring will measure the development of vegetation in the project area and document achievement of success criteria as defined by the performance standards. Different monitoring techniques (using transects or quadrats) may be employed for each revegetation type as needed to best assess the progress of each vegetation type within the project.

For the wetland revegetation areas, permanent vegetation sampling stations will be established to measure year-to-year changes in native plant cover, non-native plant cover, recruitment of native plant species, and native plant survivorship, density and diversity. Each sampling station will be used as a photo documentation point to record the progress of mitigation over the monitoring period. Results will objectively determine if the project meets the success criteria/performance standards in relation to the same data collected at the reference site.

6.6 Monitoring Schedule

The revegetation sites will be monitored according to the schedule presented in Table 8. Qualitative site assessments will be conducted at a greater frequency the first two years after native plant installation as any site modifications or adjustments to native plants and supplemental irrigation made early will increase the probability of meeting the five year success criteria/performance standards. Qualitative monitoring will be begin starting in Year 2, allowing the native plants to become established and time for sufficient growth to meet the early success criteria/performance standards.

TABLE 8
FIVE-YEAR MONITORING SCHEDULE

Task	Year 1	Year 2	Year 3	Year 4	Year 5
Qualitative monitoring	Minimum One Visit Every Month	Minimum One Visit Every Month	Minimum One Visit Every Three Months	Minimum One Visit Every Three Months	Minimum One Visit Every Three Months
Quantitative monitoring	None	Spring	Spring	Spring	Spring

6.7 Monitoring Reports

Monitoring reports will be prepared and submitted to the County of San Diego on an annual basis with the Year 1 report being a Year-End Report. The annual reports will include the results of the qualitative data (wildlife observations, qualitative evaluation of invasive species, maintenance activities, interim remedial measures) and quantitative data (sampling methods, data summary analysis, success criteria/performance standards comparison and discussion, remedial action discussion, recommendations, and photo documentation) collected during the year for the revegetation sites. Monitoring and maintenance field data shall be included in an appendix to the report. The annual monitoring reports for Years 3–5 will compare findings of the current year with those in previous years. Annual monitoring reports shall be completed at the end of the monitoring year and submitted to the County of San Diego no later than the first week of January.

Any significant issue or contingency that arises on the job site (e.g., plant survival issues, fire, or flooding) shall be reported in writing to the County of San Diego within two weeks from the date of the incident. Accompanying the report shall be a plan for remediation, with an implementation schedule and a monitoring schedule.

CHAPTER 7.0 COMPLETION OF COMPENSATORY MITIGATION

A written notification of completion will be provided to the County of San Diego once the mitigation areas have achieved the five-year success criteria/performance standards and resource agency confirmation of completion of project compensatory mitigation requirements has been issued.

CHAPTER 8.0 CONTINGENCY MEASURES

8.1 Initiating Contingency Procedures

If the success criteria/performance standards are not achieved at the end of each year or by the end of the fifth year of the monitoring program, the owner/project proponent and revegetation monitor will consult with the County of San Diego and pertinent resource agencies to develop appropriate contingency procedures. Contingency procedures may involve remedial measures such as replanting areas, continued weed control, or finding alternative revegetation sites. The project proponent understands that failure of any significant portion of the wetland revegetation areas may result in a requirement to replace or revegetate that portion of the site.

8.2 Alternative Locations for Contingency Compensatory Mitigation

If it is decided that an alternative location is required to complete compensatory mitigation requirements, then the project proponent/owner shall coordinate with the County of San Diego and pertinent resource agencies to locate an approved site. Alternative locations for mitigation sites may be found on-site in other portions of the biological open space preserve, off-site at a suitable location, or as credits purchased from an approved off-site wetland mitigation bank.

8.3 Funding

The project proponent/owner will be responsible for providing all necessary funds to cover costs associated with any required contingency compensatory mitigation. Sufficient funds will be provided to cover the implementation of the contingency mitigation plan, associated maintenance and monitoring program, and report preparation. A contingency revegetation agreement shall be signed and notarized by the property owner following approval of remedial measures and accompanied by the required security as agreed upon by the County of San Diego.

CHAPTER 9.0 REFERENCES CITED

California Invasive Plant Council (Cal-IPC)

2012 California Invasive Plant Inventory Database. 2012. Accessed July 19, 2012 at http://www.cal-ipc.org/ip/inventory/weedlist.php.

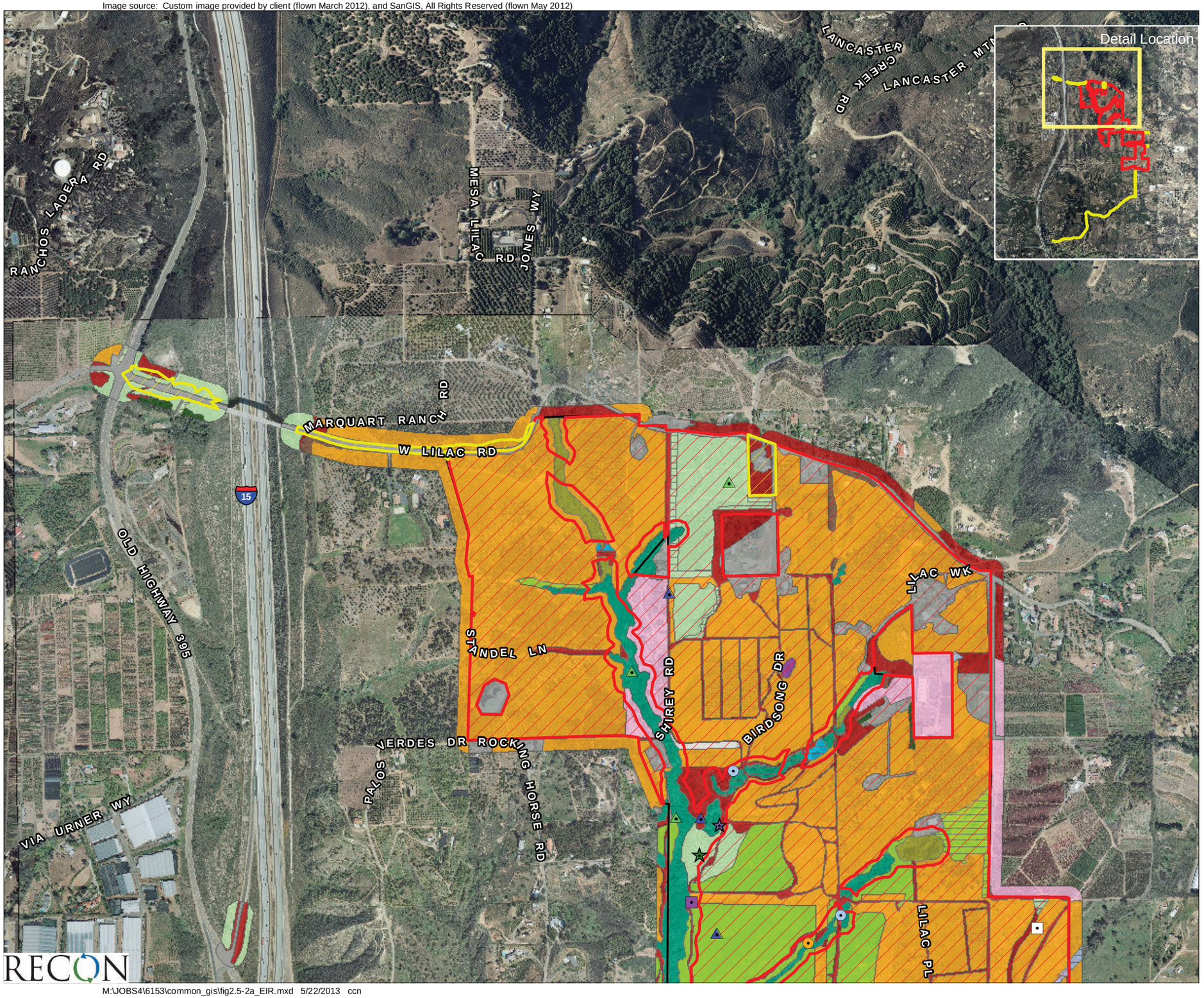
RECON

2012 Jurisdictional/Wetland Delineation Report Lilac Hills Ranch, San Diego County, California. Specific Plan, General Plan Amendment, Rezone, EIR, Tentative Map (Master), Tentative Map (Phase 1 Implementing TM), Major Use Permit. Prepared for the County of San Diego.

2013 Biological Resource Report for Lilac Hills Ranch Specific Plan, General Plan Amendment, Rezone, EIR, Tentative Map (Master), Tentative Map (Phase 1 Implementing TM), Major Use Permit. Prepared for the County of San Diego.

CREDIT
403.1 (4)

Image source: Custom image provided by client (flown March 2012), and SanGIS, All Rights Reserved (flown May 2012)



Project Boundary
Project Impacts
Off-site Improvement Areas

Vegetation Communities and Landcover Type

- Coastal Sage Scrub (32520)
- Disturbed Coastal Sage Scrub (32520)
- Coast Live Oak Woodland (71160)
- Disturbed Coastal/Valley Freshwater Marsh (52410)
- Eucalyptus Woodland (79100)
- Mule Fat Scrub (63310)
- Southern Coast Live Oak Riparian Woodland (61310)
- Disturbed Southern Coast Live Oak Riparian Woodland (61310)
- Southern Mixed Chaparral (37120)
- Disturbed Southern Mixed Chaparral (37120)
- Southern Willow Riparian Woodland (62500)
- Southern Willow Scrub (63320)
- Disturbed Southern Willow Scrub (63320)
- Open Water - Fresh water Agricultue pond (64140)
- Intensive Agriculture - Nursery
- Orchard (18100)
- Vinyard (18100)
- Disturbed Habitat (11300)
- Developed (12000)

Sensitive Species Observations

Birds
- Cooper's Hawk
- Turkey Vulture

Reptiles
- Orange-throated Whiptail
- Red Diamond Rattlesnake

Mammals
- Southern Mule Deer
- San Diego Blacktailed Jackrabbit

Plants
- Spiny Rush
- Engelmann Oak

0 Feet 800

RECON

M:\JOBS4\6153\common_gis\fig2.5-2a_EIR.mxd 5/22/2013 ccn

FIGURE 2.5-2a
Vegetation Communities/Land Cover Types and Sensitive Species Locations (Northern Project Area)