

(Excerpt: Section 7.0, Mitigation Measures)

BIOLOGICAL ASSESSMENT
FARIA RANCH PROJECT
SAN RAMON, CONTRA COSTA COUNTY, CALIFORNIA

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December 2005

ATTACHMENT 6. Biological Mitigation/Enhancement and Monitoring Plan for the Faria Ranch Project, prepared by The Huffman-Broadway Group, Inc. Revised December, 2005. San Ramon, Contra Costa County, California

This report should be cited as: The Huffman-Broadway Group, Inc. 2005. Biological Assessment Faria Ranch Project, Contra Costa County, CA December 2005. San Rafael, California. Prepared for Claremont Homes, Fremont, CA. 40 pp. plus attachments.

7.0 MITIGATION MEASURES

Impacts to special biological resources are usually mitigated by preserving, creating, restoring, or enhancing similar resources within the project area at specifications determined through negotiations with state and federal resource agencies having jurisdiction over those resources. The proposed project results in impacts to wetland resources and riparian and oak woodland habitat. Therefore a conceptual biological mitigation plan has been incorporated into the project description that reduces the severity of these impacts to levels of insignificance. The mitigation plan also ensures that impacts to the Alameda whipsnake do not occur. The mitigation plan is included as Attachment 6 and summarized below.

7.1 Proposed Conceptual Mitigation Program

A conceptual biological mitigation program for Faria Ranch is included in Attachment 6. The proposed mitigation site for wetland and riparian habitats occupies the western portion of the 291-acre Faria Ranch parcel, in an 8.9 acre area referred to as the Riparian and Wildlife Corridor (Figure 10). This open space area will allow the creation of wetland and riparian habitats necessary to compensate for habitat losses resulting from the project (see Figure 8), and provide a location for a portion of replacement trees. Proposals below include the incorporation of the 8.9 acre corridor within a conservation easement along with along with the 137 acres within the Faria Ranch remainder parcel. Mitigation sites proposed for compensation of impacts to 11.06 acres of oak woodland habitat and planting of replacement trees are within 45-acres of the undisturbed acreage within the development site area as shown in Figure 11. Specific measures to be implemented include the following:

- Set aside the 137 acres within the Faria Ranch remainder parcel into an open space preserve subject to conservation easement and managed by a third party.
- Set aside an 8.9 acre open space preserve (Riparian and Wildlife Corridor) subject to conservation easement and managed by a third party. Habitats within the open space corridor will include a created stream with several wetland pools within the stream, and a riparian canopy along the stream edge and along both sides of the corridor. The corridor will average 200 feet wide and will connect to open space lands to the north, and protected open space and parks to the south. At both the upper and lower roadway crossings at both the north and south ends of the corridor, arched (soft-bottomed) culverts with 6-foot minimum clearance will be installed to provide drainage and promote wildlife movement. A 30 foot mowed or disked firebreak will be included to the rear of homes at the perimeter of the corridor (firebreak to consist of 2.82 acres).
- Preserve 0.09 acres of wetlands and riverine intermittent streambed and 6.91 acres of valley foothill hardwood habitat not impacted by the proposed project.

- Create 1.15 acres of palustrine emergent and palustrine scrub-shrub wetland habitat along the Riparian and Wildlife Corridor, compensating for impacts to wetland jurisdictional areas at a ratio of nearly 3:1.
- Create 6.06 acres of valley foothill riparian habitat along the Riparian and Wildlife Corridor. This includes 4.91 acres of forested habitat beyond the 1.15 acres of jurisdictional wetlands, and compensates for impacts to riparian habitat at a ratio of 1.44:1.
- Develop a vegetated buffer within the 8.9 acre riparian corridor to maintain and enhance aquatic functions in the wetland mitigation/preservation area. The vegetated buffer will include a 4.91 acre planted riparian corridor adjacent to the stream and a 2.82 acre, 30 foot wide area around the perimeter of the riparian canopy and beyond the rear of homes that would not be planted with trees, and will remain as a mowed or disked grassland area that will serve as a firebreak.
- Create approximately 45 acres of valley foothill hardwood habitat within designated mitigation site at various undisturbed locations within the 291-acre development site through planting of coast live oak and valley oak trees. This provides for compensation of impacts to oak woodland habitats at a ratio of just over 4:1.
- Plant coast live oak and valley oak trees within 45 acres of tree replacement mitigation area to compensate for the 514 trees removed by construction of the project. Replacement trees will be primarily coast live oak and valley oak and will total 1,606 trees (container stock or acorns, as appropriate) to achieve a 2.5:1 tree replacement ratio (1,606 trees planted will result in 1,285 replacement trees assuming an 80% survival of the plantings).
- Provide construction worker training, pre-construction surveys, exclusionary fencing and biological monitors during construction to reduce use of the project area by the Alameda whipsnake.
- Provide for long-term “in perpetuity” habitat/species protection through a conservation easement and funding of a long term protection program over approximately 146 acres.
- Install permanent fencing along the outer edge of the Riparian and Wildlife Corridor to prohibit motor vehicle, bicycle, and pedestrian traffic in the wetland mitigation area.
- Develop and implement a 5-year monitoring and maintenance program.

7.2 Recommended Mitigation Measures

A summary of key impacts follows with recommended mitigation measures, including implementation of the mitigation program the applicant has committed to.

Wetlands

Impact: Approximately 0.39 acre of wetlands and waters of the U.S. under Corps jurisdiction will be filled to accommodate the proposed development with consequent loss of the function provided by these areas unless mitigated. The linear length of drainages filled by the project would total 5,055 feet, with the longest one measuring 3,021 feet in length.

Mitigation Measures:

- (1) For impacts to wetlands or other waters of the United States, or waters of the state, authorization from the Corps and RWQCB will be required. Appropriate wetland mitigation will be required by the Corps and RWQCB to compensate for on-site wetland impacts to wetlands under federal or state jurisdiction. The developer will need to apply for a permit from the Corps, and the 401 water quality certification from the SFBRWQCB.
- (2) The wetland mitigation plan proposed as part of the project description should be reviewed as part of the Corps and RWQCB permit process and should be implemented to mitigate impacts to jurisdictional wetlands. The mitigation plan included in Attachment 6 includes wetland creation, monitoring and reporting requirements, responsibilities, performance success criteria, reporting procedures and contingency requirements.
- (3) During construction and prior to any clearing, grading, or construction activities, temporary barriers should be placed around all wetlands and riverine intermittent drainages that are to be avoided by the development plan. These barricades should create at least a 20-foot buffer area around these areas. No clearing, operation of heavy equipment, or storage of construction materials should be permitted within this area.

Valley Foothill Riparian Habitat

Impact: The grading for the project would impact approximately 4.20 acres of riparian habitat. The 4.20 acres of impacted riparian habitat includes 0.23 acre of impacted jurisdictional areas which are located within drainage corridors.

Mitigation Measure: Impacts to riparian habitat should be mitigated by implementing the proposed plan (see Attachment 6) to create a new riparian corridor within Riparian and Wildlife Corridor. The developer will need to apply for a Streambed Alteration Agreement from CDFG.

Valley Foothill Hardwood Habitat

Impact: The project would require construction within 11.06 acres of valley foothill hardwood (oak woodland) habitat, the direct removal of 514 mature trees, and could result in indirect project impacts on trees not directly affected, unless appropriate precautions are taken.

Mitigation Measures:

(1) The applicant should implement the Oak Woodland Mitigation Plan and Tree Replacement Plan described in the conceptual mitigation plan of Attachment 6. The plan identifies:

(1) replacement of trees at a prescribed ratio of 2.5:1; (2) the specific location of the tree planting, (including a map and planting plan); (3) schedules and methodologies for maintaining and monitoring the success of the Plan; and (4) performance standards.

(2) A Tree Protection Plan shall be prepared prior to approval and implemented to minimize damage to native trees during construction. Design recommendations included in the tree survey (HortScience 2003) should be followed (see Table 2). In addition, all landscape plans should be reviewed by the project arborist.

(3) The City of San Ramon should review final project grading and construction plans to minimize encroachment within the drip line of any trees not eliminated as part of site grading. This review should include assurances that the design of roads, utilities, slope stabilization work, subdrains, and other types of infrastructure avoid the area within the dripline of native trees where possible; and that all grading is designed to drain water away from the base of trees so as not to create areas of ponding within the dripline.

Sensitive Species

Impact: Although the Alameda whipsnake has not been documented at Faria Ranch, chaparral providing potential core habitat for Alameda whipsnake occurs on the adjacent property to the north. If such areas are occupied by the snake, impacts to foraging individuals within grasslands of the Faria Ranch development site are possible.

Mitigation Measure: The applicant should implement the guidelines recommended in the conceptual mitigation plan in Attachment 6 to ensure that potential indirect impacts to Alameda whipsnake that may occur on adjacent property do not occur during construction activity related to the proposed project.

Impact: Direct impacts to nesting populations of species of concern (i.e., California horned lark and loggerhead shrike) could occur through removal of habitat.

Mitigation Measure: A preconstruction survey for California horned lark and loggerhead shrike should be conducted to ensure impacts to either species do not occur during the nesting season. The presence of nests of either species could require delay of construction until young have fledged.

Red-tailed Hawk Nests

Impact: Both direct and indirect impacts to nesting red-tailed hawk could occur if construction occurs in the nesting season.

Mitigation Measure: If construction is scheduled to occur during the nesting season, pre-construction nesting surveys for red-tailed hawk should be conducted. If nesting red-tailed hawks are present, construction activity in the vicinity of the nest should be delayed until after young have fledged (usually by August), or buffer zones around nest sites of at least 200 feet should be established when construction equipment is present.

Construction

Impact: Placement of fill and other ground disturbing activities could prompt erosion and allow elevated levels of sediment to wash into riparian areas.

Mitigation Measure: During construction, vegetation should only be cleared from the permitted construction footprint. Areas cleared of vegetation, pavement, or other substrates should be stabilized as quickly as possible to prevent erosion and runoff.

Landscaping

Impact: Project landscaping is expected to introduce exotic, non-native vegetation, some of which may not exist in the area.

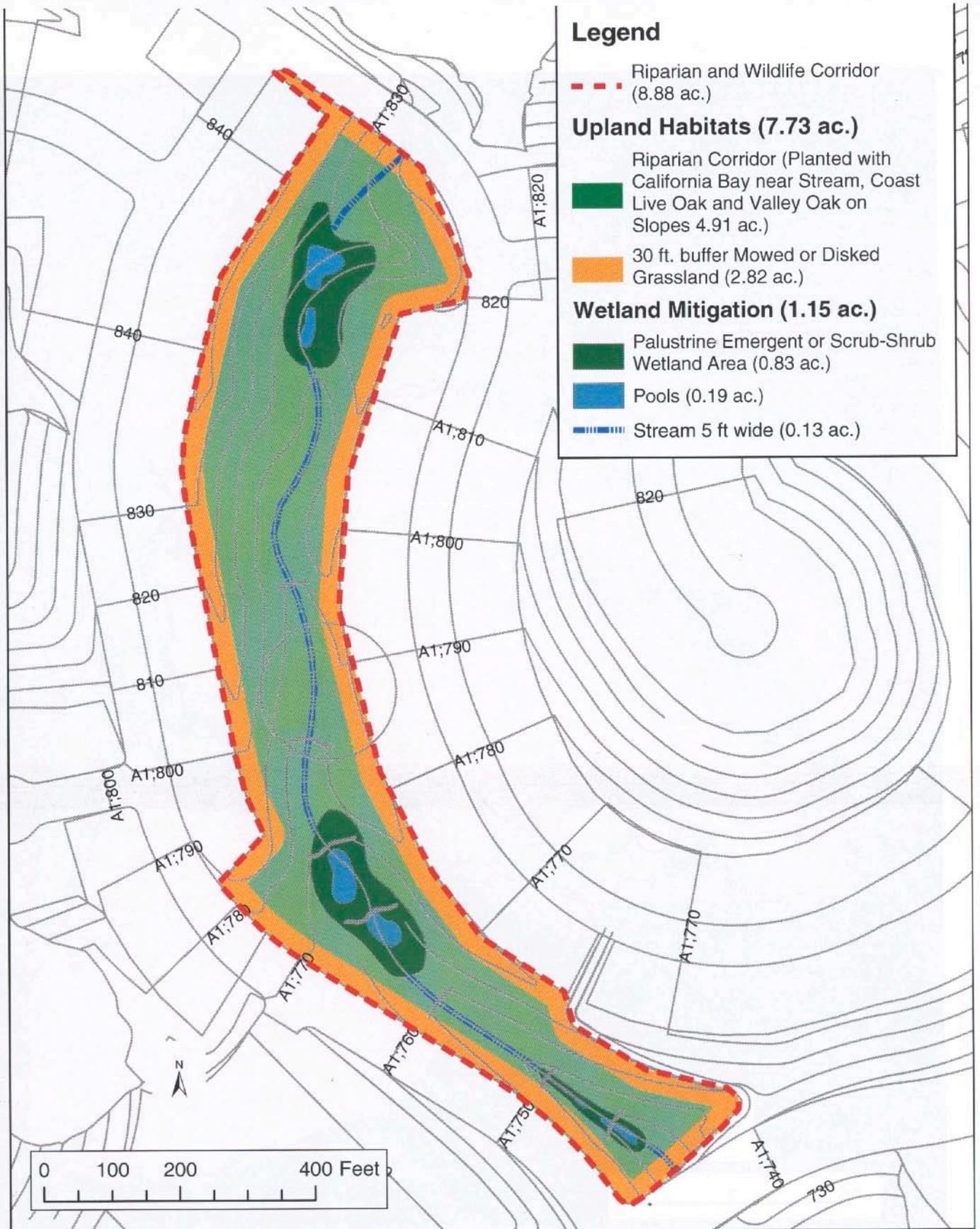
Mitigation Measure: Where appropriate, vegetation removed as a result of project activities should be replaced with native species which are of value to local wildlife. Native plants generally are more valuable as wildlife food sources and require less irrigation, fertilizers, and pesticides than exotic species.

TABLE 2. RECOMMENDATIONS FOR TREE PROTECTION PLAN

<i>Design Recommendations</i>	
1.	A Tree Protection Zone (TPZ) shall be established around each tree. For design purposes the TPZ shall be defined at the edge of the dripline. No grading, excavation, construction or storage of materials shall occur within that zone. When trunks are accurately located and development plans refined, the Consulting Arborist will identify specific Tree Protection Zones for each tree.
2.	No underground services including utilities, sub-drains, water or sewer shall be placed in the Tree Protection Zone.
3.	Tree Preservation Notes, prepared by the Consulting Arborist, should be included on all plans.
4.	Any herbicides placed under paving materials must be safe for use around trees and labeled for that use.
5.	Irrigation systems must be designed so that no trenching will occur within the Tree Protection Zone.
<i>Pre-construction treatments and recommendations</i>	
1.	The construction superintendent shall meet with the Consulting Arborist before beginning work to discuss work procedures and tree protection.
2.	Fence all trees to be retained to completely enclose the Tree Protection Zone prior to demolition, grubbing or grading. Fences shall be 6 ft. chain link or equivalent as approved by consulting arborist. Fences are to remain until all grading and construction is completed.
3.	Pruning trees along the driveway to provide clearance to construction vehicles and equipment may be required. All pruning shall be completed by a Certified Arborist or Tree Worker and adhere to the <i>Tree Pruning Guidelines</i> of the International Society of Arboriculture. Brush shall be chipped and spread beneath the trees within the Tree Protection Zone.
<i>Recommendations for tree protection during construction</i>	
1.	No grading, construction, demolition or other work shall occur within the Tree Protection Zone. Any modifications must be approved and monitored by the Consulting Arborist.
2.	Any root pruning required for construction purposes shall receive the prior approval of, and be supervised by, the Consulting Arborist.
3.	Supplemental irrigation shall be applied as determined by the Consulting Arborist.
4.	If injury should occur to any tree during construction, it should be evaluated as soon as possible by the Consulting Arborist so that appropriate treatments can be applied.
5.	No excess soil, chemicals, debris, equipment or other materials shall be dumped or stored within the Tree Protection Zone.
6.	Any additional tree pruning needed for clearance during construction must be performed by a Certified Arborist and not by construction personnel.
7.	As trees withdraw water from the soil, expansive soils may shrink within the root area. Therefore, foundations, footings and pavements on expansive soils near trees should be designed to withstand differential displacement.
(HortScience, Inc. 2003)	

ATTACHMENT 6.

**Conceptual Biological Mitigation/Enhancement and Monitoring Plan
For the Faria Ranch Project, San Ramon, Contra Costa, California,
Prepared by The Huffman-Broadway Group, Inc., Revised December 2005**



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Figure 7. Conceptual Plan for Riparian and Wildlife Corridor, Faria Ranch Project, San Ramon, CA.