

5.0 Comparative Impact Analysis

Table 5.3.-2: Required Oak and Walnut Woodland Habitat Restoration

Vegetation Type a	Existing On-site (Acres)	Total Impact (Acres)b	Min. Restoration Ratio c	Restoration Required (Acres)	On-site Preservation (Acres)d	Total Preservation and Restoration (Acres)	Ratio of Preservation/Restoration to Impact
Woodland	23.25	17.54	2:1	35.08	5.71	40.79	2.3:1
Woodland Ecotone	59.07	30.43	0.5:1	15.21	29.18	44.40	1.5:1
Total	82.32	47.97		50.29	34.89	85.19	

Deleted: c

a "Woodland" includes coast live oak woodland, California walnut woodland, and mixed woodland vegetation types. "Woodland Ecotone" includes associations of oak and/or walnut woodland with coastal sage scrub and chaparral scrub.
 b "Total Impact" includes both on-site and off-site impacts.
 c A reduced mitigation ratio is proposed for replacement of woodland ecotones, because the density of trees is lower than in "pure" woodland.
 d "On-site Preservation" equals the on-site areas not affected by the Proposed Project.

Source: *Bonterra Consulting, August 2012*

Mitigation sites will be located in suitable natural open spaces, on and/or off site, that are outside of the Proposed Project's grading and fuel modification footprint. Such "viable" woodlands shall include subdominant trees and understory species typically associated with natural oak and walnut woodlands. This measure may include enhancement of existing woodlands, creation of new woodlands, and/or participation in conservation of similar woodlands elsewhere in the Puente/Chino Hills area. First consideration shall be given to on-site tree receiver sites in suitable areas mapped as annual grassland or ruderal. Suitability of the woodland restoration and conservation sites, sufficiency of the woodlands landscaping/irrigation plan, and specifications for five-year maintenance and monitoring efforts shall be determined by the City's Consulting Biologist. Mitigation areas shall not be located in areas that are interior to project streets nor between two or more development areas that would reduce these areas as potential habitat value. Mitigation areas shall not be located within fuel modification zones. In addition, it should be noted that type conversion of existing native communities shall not occur (e.g., areas of chaparral, a native vegetation type, will not be used as a mitigation site for woodland restoration).

The mitigation plan shall be prepared by, or in consultation with, a qualified native plant revegetation specialist. Elements of the plans shall include, but shall not be limited to, the following:

- Responsibilities of key parties to the restoration effort: (i.e., Landowner/Applicant, Biological Monitor, Landscape Contractor, and Consulting Arborist);
- Consideration of specific plant ecological requirements;
- Site preparation, including consideration of soil requirements (e.g., soil type, compaction, etc.) for the various plants;
- Plant materials (e.g., origin, container size, etc.);
- Mycorrhizal inoculum specified for all container plants that depend on this symbiotic association;
- Planting arrangements and species density;
- Irrigation requirements;
- Maintenance and monitoring;
- Performance standards; and
- Performance documentation.

The Landowner/Applicant shall be responsible for the implementation of the TMP. The planting of replacement trees shall be initiated no later than one (1) year after initial site vegetation removal. The woodland revegetation sites shall be maintained and monitored for no less than five years to facilitate the successful establishment of quality oak and walnut woodland habitat. Compliance with the performance standards listed in the mitigation plan will be used when evaluating overall mitigation success. If, at the end of one, two, three, four, and five years, there is little or no indication that performance goals are being achieved at the mitigation site, the Biological Monitor shall analyze noncompliance and poor performance and recommend appropriate remedial measures. The Biological Monitor and the Landowner/Applicant shall meet with the City regarding site performance and to discuss remedial measures necessary to facilitate the establishment of oak-walnut woodland habitat and compliance with performance goals.

Onsite preservation and/or restoration shall be the preferred and the dominant form of mitigation; however, if the Project site does not provide sufficient biologically appropriate mitigation areas to achieve the entire amount of required mitigation, the Landowner/Applicant may mitigate for a portion of the woodland areas offsite. This may include restoration and/or enhancement of area containing invasive/non-native species elsewhere in the Puente/Chino Hills area. In-lieu fee and direct implementation mitigation opportunities

[may also be utilized within a resource agency approved mitigation site \(e.g. land managed by the Puente Hills Habitat Preservation Authority\).](#)

New Measure for Madrona Plan (BTR Avoidance/Minimization/Mitigation Measure 5)

MM 5.3-3 - Biological Monitor

The Project Applicant shall be required to have Biological Monitors on site during vegetation clearing of the Project within areas found to contain sensitive biological resources. The Monitors shall be responsible for ensuring that impacts on special status species, native vegetation, wildlife habitat, and unique resources are avoided to the fullest extent possible. Where appropriate, monitors shall flag the boundaries of areas where activities need to be restricted to protect native plants and wildlife or special-status species. These restricted areas shall be monitored to ensure their protection during construction. If non-listed sensitive resources are found within the Project impact area, the Monitor shall relocate the individual out of the Project impact area.

5.3.3 Regulated Wetlands and Other Water Resources

As noted in Section 3.1.1 earlier in this document, jurisdictional delineations of surface water resources regulated under federal and state statutes were conducted as part of the 2011 biological surveys on site. These occur along natural drainage courses on site, as shown in Figures 5.3.2. and 5.3.3. Based on the updated delineations, it has been determined that there are 2.16 acres of “Waters of the U.S.” on site and that the proposed Madrona Plan would impact 0.42 acre, while the Canyon Crest Plan would impact 0.79 acre. There are 7.19 acres of “Waters of the State,” of which the Madrona Plan would impact 2.35 acres and the Canyon Crest Plan would impact 3.16 acres. A comparison of these impacts is provided in Table 5.3.-3: Impacts to Jurisdictional Resources, below. The impact for both plans would occur as a result of grading that would alter the bed, bank, flow and/or vegetation associated with a natural drainage. Impacts to such regulated resources are considered to be significant, but would be reduced to less than significant for either plan through compliance with existing state and federal permitting requirements that will require mitigation to restore/replace the loss of surface water resources and any associated loss of important biological values. These existing regulations include obtaining permits from the U.S. Army Corps of Engineers and the State Regional Water Quality Control Board, for compliance with the U.S. Clean Water Act, and also obtaining a Streambed Alteration Permit from the California Department of Fish and Game, for compliance with Sections 1600-1616 of the California Fish and Game Code. Mitigation Measure 5.3-4 has