Appendix H: Biological Assessment

Staub Forestry & Environmental Consulting - Supplemental Forester's Report: January 5, 2006

Zander Associates - 2005 Plant Surveys, September Ranch: June 30, 2005

Zander Associates - Grasslands at September Ranch: June 30, 2005

Staub Forestry &
Environmental Consulting

SUPPLEMENTAL FORESTER'S REPORT - ESTIMATED TREE REMOVAL FOR SEPTEMBER RANCH ALTERNATIVE INCLUSIONARY SITE LOCATIONS

Introduction

Staub Forestry and Environmental Consulting has previously reviewed the forest resources of September Ranch and estimated tree removal for the project in a Supplemental Forestry Report dated August 15, 2002. A Supplemental Report in February 2003 estimated potential tree removal associated with four alternative project configurations, including the Reduced Density and Reduced Forest Impact with High Inclusionary Alternatives analyzed in the draft September Ranch EIR. The purpose of this Report is to estimate potential removals of native trees for three alternative inclusionary housing site locations. These alternatives place inclusionary housing further from neighboring residential parcels.

Description of Alternative Inclusionary Sites

In earlier analysis of the originally approved project and the alternatives considered in the draft EIR, inclusionary housing was sited in two potential locations in the southeast portion of the property where from 8 to 22 units could be accommodated.

In response to comments, three new configurations were developed to move inclusionary units away from neighboring parcels. The three new alternative inclusionary sites are shown on attached maps as Reconfigured 94/15 Alternative, 82/27 Alternative, and 73/22 Alternative.

Under the Reconfigured 94/15 Alternative, residential lot and inclusionary housing unit changes occur in three areas: 5 lots (#31-35) on a cul de sac are reduced to two lots (#31A and #35A) and the cul de sac removed; 3 residential lots replace inclusionary housing in the southeast corner of the property while 4 inclusionary units are added slightly to the west; in the second inclusionary housing area just west and upslope, 11 inclusionary units are located. Under this alternative, 3 market rate lots are removed from pine forest, 3 are added in non-forest where there are some planted pine trees, and 15 inclusionary units are provided.

The 82/27 Alternative maximizes inclusionary housing by making lot and unit changes in four areas: 3 residential lots replace inclusionary housing in the southeast corner of the property; 10 lots and associated roads are removed from the northeastern corner of the property; 5 lots (#59-63) are replaced by 16 inclusionary units in the south central portion of the property; and 11 inclusionary units are located in the second inclusionary housing area as in the above alternative. Under this alternative, 10 lots are removed from pine forest, 5 lots in a semi-open forest are

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replaced by 16 inclusionary units, 3 lots are added in non-forest where there are some planted pine trees, and a total of 27 inclusionary units are provided.

The 73/22 Alternative changes lot and unit configurations in 3 areas: three residential lots replace inclusionary housing in the southeast corner of the property while 4 inclusionary units are added slightly to the west (as in the Reconfigured 94/15 Alternative above); 12 inclusionary units are located in the second inclusionary housing area just west and upslope; and 2 lots near the bottom of the westernmost road are replaced by 6 inclusionary units. Under this alternative, 24 lots are removed from pine forest and a little scrub, 3 are added in non-forest where there are some planted pine trees, and a total of 22 inclusionary units are provided over three areas.

Methodology

The same methodology for estimating potential tree removals that has been used in our previous Forestry Reports for September Ranch was followed to estimate potential removals for these three new alternatives. Estimated tree loss for revised residential lots or inclusionary units was adjusted to reflect the new number and location of building envelopes. The estimated area of tree clearing (if any) for each new lot, inclusionary unit, or road segment was multiplied by the average number of trees per acre by species to derive estimates of the potential number of trees that might be removed. Similarly, tree removal estimates were reduced where previous project components were eliminated.

As noted in previous reports, this computational approach makes no allowance for reductions in tree loss achievable by consciously designing around trees. As a result, this methodology is likely to overestimate actual tree loss because the County Design Approval process requires site and building designs that minimize tree removal. Experience on recent projects where simple footprint and tree density estimates were compared with actual site designs and tree tallies suggests that residential lot tree loss may be significantly overestimated, perhaps by as much as 20%.

Comparison of Estimated Tree Removals for Alternative Inclusionary Sites

These new alternatives reduce tree removal associated with market rate lot development and increase tree removal to provide inclusionary housing when compared with earlier alternatives with similar numbers of units. Because market rate units and associated roads are reduced in pine dominated areas and inclusionary housing is increased in forest with a higher proportion of oaks, pine tree removals are reduced and oak tree removals increased somewhat. Overall tree removal impacts of these alternative inclusionary configurations are comparable to earlier alternatives with similar levels of development. Estimated effects on tree removal by number and species vary according to the precise location of market and inclusionary units in each alternative as shown in the tables below.

The tables below summarize estimated removal of trees 6 inches diameter and larger for these three alternative inclusionary site locations. Estimates for each alternative are presented by project component and by species:

Reconfigured 94/15 Alternative

Tree Removal Estimates

Project Component	Pine	Oak	Total
Residential Units + Infrastructure	2523	857	3380
Inclusionary Units + Infrastructure	26	236	262
Total	2549	1093	3642

82/27 Alternative

Tree Removal Estimates

Project Component	Pine	Oak	Total
Residential Units + Infrastructure	1717	646	2363
Inclusionary Units + Infrastructure	162	273	435
Total	1879	919	2798

73/22 Alternative

Tree Removal Estimates

Project Component	Pine	Oak	Total
Residential Units + Infrastructure	1388	572	1960
Inclusionary Units + Infrastructure	76	247	349
Total	1464	819	2283

As noted above, these computational estimates make no allowance for reductions in tree loss achievable by consciously designing around trees. It appears likely that oak removals are overestimated under the three new inclusionary alternatives. Overall tree removal impacts of these alternative inclusionary configurations are comparable to other alternatives with similar levels of development. When considering potential tree removals from a property-wide perspective, it should be remembered that the entire property is estimated to have more than 81,000 trees on its more than 425 forested acres.

Submitted by:

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January 5, 2006

ZANDER ASSOCIATES

Environmental Consultants

Transmittal/Memorandum

To: Jim Morgens, Jacqui Zischke
From: Michael Zander
Subject: 2005 Plant Surveys, September Ranch
Date: June 30, 2005

At your request, Zander Associates conducted additional focused field surveys of the September Ranch site on April 5, 26, 27, 28 and May 31, 2005. Zander Associates biologists systematically traversed all habitat types on the property over the course of the spring blooming season to supplement focused surveys conducted in previous years.

Although most of the additional plants listed in the Draft EIR as potentially occurring on the site had been dismissed through the long history of previous survey work, the spring 2005 surveys further confirmed their absence. However, a small colony of an unidentifiable species of piperia was observed during the late April surveys that required a return visit in late May to definitely determine that it was Michael's piperia (*P. michaelii*) and not Yadon's piperia (*P. yadonii*). In addition, a relatively limited population of Pacific Grove clover (*Trifolium polyodon*) was also observed on the easterly side of the site, in the approximate location originally identified by Mori in 1995. The population was accurately mapped (using GPS) and evaluated in collaboration with you and Whitson Engineers who determined that they could avoid impacts through minor road realignment through the area (see attachment).

Following are Zander Associates species-specific comments on the plant species that required further evaluation according to the December 2004 DEIR:

- Monterey spineflower (*Chorizanthe pungens* var. *pungens*): This plant occurs primarily on sandy substrates associated with coastal dune scrub and maritime chaparral habitats in relatively close proximity to Monterey Bay (especially in dunes along the bay shoreline and on Former Fort Ord). Habitat characteristics (no chaparral or dune habitats), substrates (Monterey shales), known distribution and range substantially limit the potential for occurrence of this species on September Ranch. None was observed during any previous survey work and none was observed during directed searches conducted by Zander Associates during optimum blooming period in spring 2005.

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- Hooker's manzanita (*Arctostaphylos hookeri*): This distinctive perennial shrub species forms a relatively low growing mat associated primarily with chaparral and pine forest habitats in the Monterey Bay area. It can be identified throughout the year. While there is a moderate potential for its occurrence in the forested areas of September Ranch, the species was not observed during any previous survey work and none was observed during directed searches conducted by Zander Associates in spring 2005.

- Monterey manzanita (*Arctostaphylos montereyensis*): This perennial shrub ("Toro manzanita") is associated primarily with maritime chaparral on pre-Flandrian dunes with the largest populations centered at Fort Ord and Toro Park. It can be identified throughout the year. The potential for its occurrence in any of the habitat types at September Ranch is low and it has not been observed during any previous surveys of the site, including site surveys conducted by Zander Associates in 2005.

- Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*): Congdon's tarplant is a late-blooming herbaceous species typically associated with low areas, seasonal wetlands or otherwise moist and often alkaline or saline habitats. Directed searches for this and other late-blooming species were conducted in mid-August 2001 by Jeff Norman under contract to Zander Associates (2002). No Congdon's tarplant or habitat suitable to support the species were observed on the September Ranch site during those or more recent surveys conducted by Zander Associates in 2005.

- Hutchinson's larkspur (Delphinium hutchinsoniae): This distinctive herbaceous plant with relatively showy blue flowers on a central floral spike typically grows in openings in broad-leaved upland forests, chaparral, coastal prairie or scrub habitat on shaded, slightly moist, usually west-facing slopes.. This species was not observed during directed surveys on September Ranch conducted at the appropriate time of year for blooming in 2005 nor was it observed during any other floristic work on the site, including spring surveys by Jeff Norman in 2001. It is not expected to occur on September Ranch.

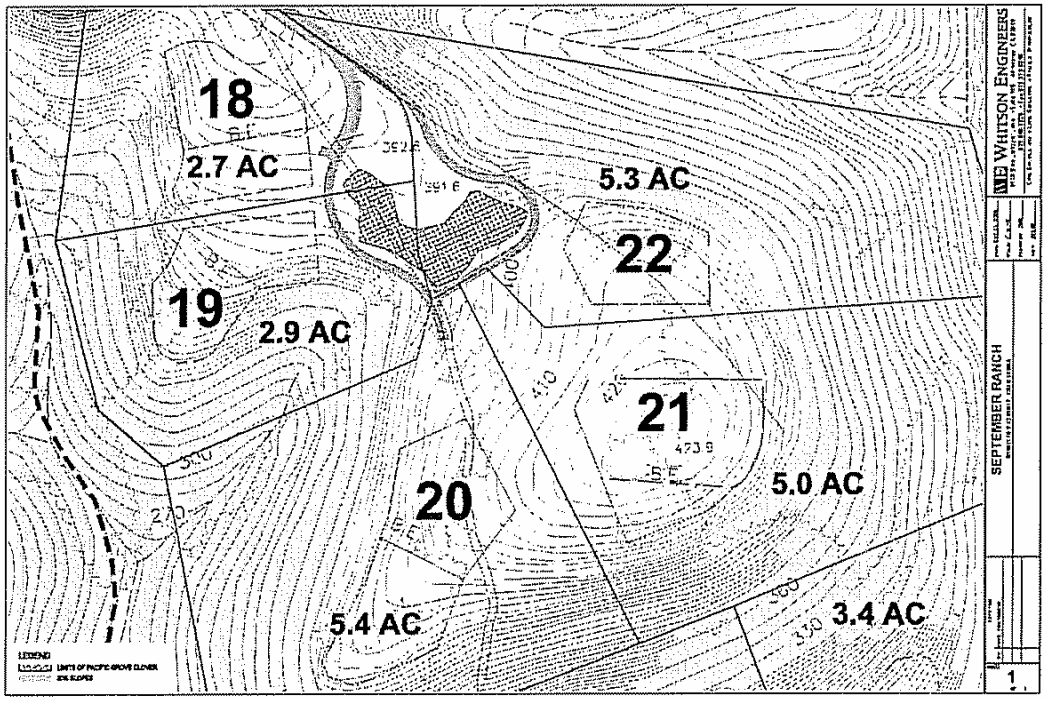
- Eastwood's goldenbush (*Ericameria fasciculata*): This is another perennial shrub component of maritime chaparral and coastal dune scrub on sandy substates with a large population centered at Fort Ord. It can be identified throughout the year. Neither this species nor its more common relative, mock heather (E. ericoides) were observed during any previous surveys of the site, including site surveys conducted by Zander Associates in 2005.

- Kellogg's horkelia (*Horkelia cuneata* ssp. *sericea*): This perennial herbaceous species and its more common relative, wedge-leaved horkelia (*H. cuneata*) typically grow in open sandy and gravelly fields and woods along the coast of Monterey. The Monterey shale substrates and other habitat characteristics associated with September Ranch do

not provide suitable habitat; no species of horkelia was observed on the site during any of the previous survey work, including Zander Associates surveys in 2005.

- Pacific Grove clover (*Trifolium polyodon*): As noted above, a relatively limited population of Pacific Grove clover was observed on the easterly side of the September Ranch site during focused surveys conducted by Zander Associates in April 2005. The plants were found in the approximate location originally identified by Mori in 1995. The population was accurately mapped (using GPS) and evaluated in collaboration with you and Whitson Engineers who determined that they could avoid impacts through minor road realignment through the area (see attachment).

Attachment 1: Location of Pacific Grove Clover at September Ranch



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Transmittal/Memorandum

To: Jim Morgens, Jacqui Zischke
From: Michael Zander
Subject: Grasslands at September Ranch
Date: June 30, 2005

Grassland habitat occurs over about 62 acres or approximately 7% of the September Ranch property. Mori (1995) characterized this habitat on the project site as annual grasslands that support a mixture of native and introduced species. Ripgut brome (*Bromus diandrus*), red brome (*B. rubens*), soft chess (*B. hordeaceus*), and Mediterranean barley (*Hordeum hystrix*) are representative of the species found in the areas dominated by non-native grasses. Areas having a higher percentage of native grasses contained purple needlegrass (*Nasella pulchra*), small-flowered needlegrass (*N. lepida*), Pine bluegrass (*Poa secudna*), and California oatgrass (*Danthonia californica*). As a result of the March, 1995 surveys conducted by Mori and Morgan, some of the grassland areas on the sites were identified as having a higher diversity of native grasses and flowering herbs.

The native flowering herbs identified in some of the grassland areas by Mori include: Johnny jump-up (*Viola pedunculata*), suncups (*Camissonia ovata*), shooting star (*Dodecatheon clevelandii*), checkerbloom (*Sidalcea malvaeflora*), blue-eyed grass (*Sisyrinchium bellum*), buttercup (*Ranunculus californicus*), owl's clover (*Castilleja* spp.), clover (*Trifolium* spp.), California poppy (*Eschscholzia californica*), Mariposa lily (*Calochortus luteus*), sky lupine (*Lupinus nanus*), and blue dicks (*Dichelostemma capitatum*).

The December 2004 Draft REIR for September Ranch included references to both native grasslands and coastal terrace prairie habitat. Native grasslands typically support a high percent cover (+50%) of native grasses and herbaceous species with mixed grasslands falling into the 10-50% range and non-native grasslands supporting less than 10% native species. As the Draft REIR states, coastal terrace prairie typically occurs "on sandy loam soils of marine terraces near the coast and is restricted to cooler, more mesic sites within the zone of fog incursion....It is distributed from Santa Cruz County to Oregon (Holland 1986)...."

September Ranch supports a mosaic of native and non-native grassland species very unevenly distributed over the site; patches of native-dominated grasslands blend into patches of non-native-dominated without any distinctive pattern or association with slope, aspect, exposure or

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other microhabitat factors. The soil substrates on the ranch are primarily derived from shales and not the sands or sandy loams typical of marine terraces that support classic coastal terrace prairie. While elements of both native grasslands and coastal terrace prairie habitats are found on the ranch, these elements do not characterize the overall grassland habitat type and cannot be readily mapped. Thus, of the approximately 18 acres of grassland contained within the project's building envelopes or roads, much of this 18 acres does not constitute native grassland or coastal terrace prairie. Moreover, because of the uneven distribution of native and non-native grassland species over this area, it was not feasible to identify building envelopes that fall completely outside of native grassland areas.

Consequently, the Draft REIR's recommended mitigation measure (4.9-9) that "houses on each lot shall be placed outside the natural (coastal terrace prairie) community" cannot not be effectively implemented. The appropriate mitigation measure would be to tie final location of a building pad to a pre-construction survey that identifies areas with high concentrations of native species. Those areas could then be avoided as feasible to reduce impacts and/or a native grassland restoration program could be required for the remainder of the grasslands on the site (including performance standards tied to unavoidable direct impacts to areas with (over 50% native grassland species). A 1:1 replacement of lost acreage comprising over 50% native grassland species would mitigate the loss of onsite native grasslands. Of the remaining 44 acres of grassland, 21 acres are existing pasture. The remaining 23 acres would provide sufficient and suitable habitat for restoration of the native grasses.

Restoration of grassland habitats should follow the guidelines presented in the Draft REIR mitigation measure 4.9-8 and the precedents established by other local projects where successful native grassland restoration and management has been documented over a period of several years (Kephart 2000). A native grassland restoration and management plan should be prepared by a qualified biologist and approved by the County of Monterey, that includes the following components:

- Clear statement of restoration program goals to restore and reestablish native grasses
- Detail on implementation and specifications
  - Restoration areas, plant salvage, seeding and planting specifications
  - Responsible parties
  - Schedule
  - Earthwork, recontouring, drainage
  - Protection of existing habitat
  - Soils, substrates and growth media
  - Plant materials
- Maintenance and schedule
- Performance standards
- Monitoring

Monitoring methods
Analysis methods
Reporting requirements

- Adaptive management/remedial measures
- Funding

A grassland management plan should be finalized and approved prior to issuance of any building or grading permits for the individual homes sites located within the identified 18 acres of grassland or issuance of any grading permit for roads located within the identified 18 acres of grassland.