

## **AIR QUALITY**

### **Master Response A-1 Cumulative Air Quality Impacts**

Cumulative air quality impacts – that is, potential impacts resulting from the proposed project emissions in conjunction with emissions from other past, present, and reasonably foreseeable future projects – are discussed on pages 16-108 and 16-109 of the DEIR. The cumulative air quality impact discussion addresses cumulative construction emissions, localized pollutant emissions (motor vehicle-generated carbon monoxide [CO]) and regional emissions.

With respect to cumulative construction emissions, the cumulative air quality impact discussion states that General Plan policies related to construction emission control are designed to reduce construction-related impacts. However, despite implementation of these policies, emissions generated by the proposed project would contribute to a significant cumulative air quality impact associated with development construction.

Cumulative impacts associated with motor vehicle-generated localized pollutant (CO) concentrations were evaluated quantitatively, based on cumulative traffic volume, speed, and vehicle distribution data. The results of this cumulative modeling effort are discussed on pages 16-108 and 16-109, and shown in Table 8-6 on page 8-12 of the DEIR. The analysis concluded that the proposed project, in conjunction with cumulative development in the study area, is not expected to generate CO concentrations in excess of state or federal CO standards. This was considered to be a less-than-significant cumulative impact.

Ozone precursors and particulate emissions from cumulative development in Placer County are also discussed on page 16-109 of the DEIR. This discussion addresses the current non-attainment status of Placer County with respect to state and federal standards, the inability of the County to foresee achieving these standards within designated timelines, and the fact that growth from the proposed project as well as from other recently developed projects have not been fully accounted for in the projections of future ozone precursor and particulate emissions. The DEIR, on page 16-109, concludes that “the effect of this is that cumulative development in Placer County will likely exacerbate existing air quality problems, and hinder the County’s ability to attain state and federal ozone and particulate standards. . . . The proposed project’s contribution to ozone precursor and particulate emissions associated with cumulative development would therefore represent a significant, unavoidable adverse impact.”

Proposed and recommended mitigation measures were selected from the Placer County Air Pollution Control District’s (PCAPCD) list of Best Available Mitigation Measures (1998). The ability of an air district to achieve mandated emission reductions depends, in part, on the effectiveness of existing control measures as well as expected growth in population, activity, and industrial development. Estimates of future emissions are calculated by applying a growth factor to existing emission inventories, and on data provided by Caltrans, SACOG, and the Department of Motor Vehicles. The growth factors used by CARB for stationary and mobile sources are based on various socioeconomic parameters such as population, housing, and manufacturing output. Proposed mitigation measures are insufficient to reduce the identified cumulative impact to a less-than-significant level. For this reason, cumulative air quality impacts were determined to be significant and unavoidable.

## Master Response A-2 Project-Generated Air Quality Impacts

Proposed project emissions of regional criteria pollutants would have a significant impact on air quality. This impact is discussed on pages 8-13 through 8-16 (Impact A-3) of the DEIR. Impact A-3 of the DEIR states that the Project Proponent's proposed mitigation (as of the date of the DEIR) is *insufficient* to reduce the air quality impact to a less-than-significant level. However, implementation of a mitigation program designed and/or approved by the PCAPCD (Mitigation Measure A-K), along with implementation of several other additional measures (Mitigation Measures A-L and T-O), would be sufficient to reduce the project impact to a less-than-significant level.

This impact statement applies to the *project-specific* regional air quality impact. Despite implementation of all identified mitigation measures, the project would still contribute to a significant, unavoidable, *cumulative* air quality impact. Cumulative air quality impacts are discussed in Master Response A-1. A discussion of project-specific regional air quality impacts follows.

**“Regional” versus “Local” Pollutant Emissions:** “Regional” pollutants are those pollutants generated by many sources in many locations, and that persist or chemically react in the atmosphere in sufficient quantities so as to create unacceptable pollutant concentrations in a large area, such as a county, a collection of counties, or an air basin. The regional pollutants of concern with respect to the proposed project are ozone precursors (reactive organic gases [ROG] and nitrogen oxides [NO<sub>x</sub>]) and particulates (PM and PM<sub>10</sub>). High concentrations of regional pollutants may be recorded in locations far from the actual pollution sources, and in general the concentrations depend on wind patterns, weather, and geographical features of the area. Regional pollutants differ from local pollutants in that local pollutants (such as CO) are of concern in the immediate area surrounding their source. Carbon monoxide concentrations, for instance, tend to be highest in the vicinity of heavily traveled roadways, and particularly near congested intersections. Emissions of localized pollutants (CO) are discussed on pages 8-11 through 8-13 of the DEIR.

**Proposed Mitigation Measures A-E through A-J:** To reduce the proposed project's significant impact on emissions of regional criteria pollutants, the DEIR identified a series of mitigation measures. These mitigation measures were compiled from the list of Best Available Mitigation Measures produced by the PCAPCD (1998), and addressed project design and construction, traffic flow improvements, and measures to lower vehicle miles traveled and increase average vehicle ridership. Mitigation Measures A-E through A-J, T-N, and T-P were incorporated into the proposed project. These measures included incorporating pedestrian-, bicycle-, and golf cart-oriented design, incorporating mixed land uses, and accommodating and encouraging low-emission energy use.

The Applicant now also proposes that only natural gas CNG fireplaces be installed within the project area. Mitigation Measure A-H is revised to read:

Text  
Revision

“Install only natural gas CNG fireplaces.”

After discussion with and input from Dave Vintze of the Placer County APCD, the Applicant now proposes to include additional elements in the proposed project's Air Quality (AQ) Plan. Mitigation Measure A-G on page 8-20 of the DEIR is therefore revised to include the following:

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Revision

“• Construction contracts shall stipulate that at least 20% of the heavy-duty off-road equipment included in the inventory be powered by CARB-certified off-road engines, as follows:

175 hp – 750 hp	1996 and newer engines
100 hp – 174 hp	1997 and newer engines
50 hp – 99 hp	1998 and newer engines

- The prime contractor shall submit to the APCD a comprehensive inventory (i.e., make, model, year, emission rating) of all the heavy-duty off-road equipment (50 horsepower or greater) that will be used an aggregate of 40 or more hours for the construction project. APCD personnel, with assistance from the California Air Resources Board (if available), will conduct initial Visible Emission Evaluations of all heavy-duty equipment on the inventory list.
- An enforcement plan shall be established to evaluate on a weekly basis project-related on- and off-road heavy-duty vehicle engine emission opacities, using standards as defined in California Code of Regulations, Title 13, Sections 2180-2194. An Environmental Coordinator, who is CARB-certified to perform Visible Emissions Evaluations, shall routinely evaluate project-related off-road and heavy-duty on-road equipment emissions for compliance with this requirement. Operators of vehicles and equipment found to exceed opacity limits will be notified, and the equipment must be repaired within 72 hours.
- Minimize idling time to 10 minutes.
- Schedule operations affecting traffic for off-peak hours whenever possible.
- Use air conditioning units with an Ozone Destruction Catalyst. Provide natural gas lines or electrical outlets to all backyards to encourage use of natural gas or electric barbecues, as well as electric lawn equipment.
- Prohibit (through CC&Rs) the use of gasoline-powered lawn mowers on homes with lot sizes under 0.5 acre.
- Prohibit (through CC&Rs) use of gas-powered golf carts.
- Install Class I bicycle lockers along with bike racks in commercial site.
- Build unmanned informational kiosk in central location in Village Center.”

The URBEMIS7G emission estimation program allows for a *limited* quantification of emission reductions realized through various project design elements, such as mixed land uses, pedestrian oriented design, and provision of park-and-ride lots (page 8-15 of the DEIR). The DEIR states on page 8-15 that some air pollution reducing elements of the project were not included in the emissions estimates, and also that other air pollution *generating* elements of the proposed project were not included in the URBEMIS7G estimates. Regardless of the inclusion or exclusion of various measures, the DEIR states on page 8-15, paragraph 5 that while “these proposed mitigation measures would accommodate non-vehicular travel patterns and help reduce pollutant emission associated with energy consumption, the air quality benefit associated with these measures is not quantifiable . . . [and] . . . *proposed project emissions would still exceed Placer County APCD significance criteria despite incorporation of the proposed mitigation measures*” [emphasis added]. The DEIR acknowledges that the emission reductions associated with bike lane provisions, etc. are not fully quantifiable, and “would not be likely to yield a large decrease in total project-generated emissions” (page 8-15). Moreover, the DEIR concludes that despite implementation of all *Applicant-proposed* measures, the project impact with respect to emissions of regional pollutant emissions would remain significant.

**Recommended Mitigation Measure A-K:** Because inclusion of the measures identified above would not change the significance of the regional air pollutant emission impact, the DEIR recommends three

additional mitigation measures. Of primary importance is Mitigation Measure A-K, which would require the Applicant to implement an off-site mitigation program. However, in lieu of implementing their own off-site program, the Applicant may choose to pay into the PCAPCD's Air Quality Mitigation Fee Program. The PCAPCD's list of Best Available Mitigation Measures identifies the off-site/fee mitigation program as a means of reducing an individual project's net air pollutant emissions.

The PCAPCD developed an off-site mitigation program due primarily to the inability of new projects within Placer County to provide adequate on-site mitigation of their long-term regional air quality impacts. Normally, substantive project-related on-site measures that can be implemented by a project to reduce overall long-term emissions significantly are not available (PCAPCD, 1999b).

The PCAPCD's off-site/fee mitigation program provides real and quantifiable emission reductions by providing funding for projects that reduce emissions from air pollutant sources that are not required by law to reduce their emissions. Some of these projects include the repower of off- and on-road vehicles and equipment with cleaner engines, new or expanded bus service, vanpools and shuttles, signal coordination, bicycle facilities, woodstove replacement, telecommuting programs, and ridesharing and pedestrian facilities. The PCAPCD follows procedures similar to those used to implement the California Motor Vehicle Registration Fee Program and the Congestion Management and Air Quality Improvement Program. Following the procedures, the Developer/PCAPCD prepares a project emission inventory to determine the target pollutant emission reduction. For residential development projects, this reduction target has been set at 40 percent. The 40 percent reduction rate was determined by the PCAPCD to be the project-specific reduction necessary to bring actual growth rates into correspondence with growth rates assumed under the most recent 1994 State Implementation Plan (the SIP is the federal ozone attainment plan for the Sacramento region).

Since the publication of the DEIR, the Applicant has voluntarily agreed to participate in Placer County's offsite mitigation program to reduce the project's long term NO<sub>x</sub> emissions by 105 percent. This is in addition to proposed on-site construction-related mitigation and other on-site air quality mitigation measures. The 105 percent reduction rate will offset the regional criteria air pollutant emissions generated by the project, plus an additional five percent. PCAPCD could, if they chose to, take the \$415,840 and apply for matching State funds for an additional \$415,840. This would equate to a potential 210 percent reduction in regional criteria air pollutant emissions in the area. Therefore, Impact A-3 on page 8-13 of the DEIR is changed to read:

<p style="text-align: center;"><i>Text Revision</i></p>	<p><b>“IMPACT A-3: SIGNIFICANCE: MITIGATION Proposed:</b></p>	<p>Increase in regional criteria air pollutant emissions Significant</p> <p>Mitigation Measures A-E (Incorporate pedestrian, bicycle, and golf-cart oriented design); T-O (Provide Class II bike lanes on Bickford Ranch Road and Lower Ranch Road); T-M (Provide park-and-ride lot and two bus stops); A-F (Incorporate mixed land uses into the project design to reduce external vehicle trips); A-G (Accommodate and encourage low-emission energy use); A-H (Install only natural gas CNG fireplaces); A-I (Provide public awareness materials); A-J (Incorporate into project CC&amp;Rs the prohibition of open burning of any kind); and A-K (Implement an off-site mitigation program to reduce 105 percent of long-term air pollutant emissions)</p>
	<p><b>Significance After Proposed Mitigation:</b></p>	<p>Less Than Significant</p>

**Recommended:** Mitigation Measures; A-L (Provide dedicated parking spaces at the park-and-ride lot with electrical outlets for electric vehicles); and T-N (Participate in fair share of the cost of limited transit services)

**RESIDUAL SIGNIFICANCE:** Less than Significant”

and, page 8-21, 15th paragraph, line 1, is changed to read:

**“Mitigation Measure A-K**

Text  
Revision

- Implement an off-site mitigation program to reduce 105 percent of long-term air pollutant emissions.”

The following additional procedures also apply:

- Mitigation fees are based on a cost effectiveness of \$10,000 per ton of summertime NO<sub>x</sub> emission reductions. The current calculated summertime project emissions would be 430 lb/day, or 0.226 tons of NO<sub>x</sub>. This would equate to a fee of \$860 per day for the duration of the summer ozone period, or \$158,240, at the PCAPCD 40 percent reduction requirement. The Applicant will exceed the emission reduction requirements, however, and therefore will pay an emission reduction fee of \$2,261 per day for the duration of the summer ozone period, of \$415,840. The emission reduction fee would be paid in equal installments based on the number of phases of the proposed project.
- The Applicant/PCAPCD prepares and issues a Request for Proposals to interested parties indicating the availability of funding for emission reduction programs. The Applicant/PCAPCD solicits proposals for projects and programs that will 1) result in real and quantifiable reductions in emissions of specified air pollutant emissions from on- and off-road motor vehicles, or 2) result in real and quantifiable reductions through implementation of transportation control measures and other mobile source-related measures of the District’s Air Quality Attainment Plan and the Sacramento Area Regional Ozone Attainment Plan.
- The PCAPCD receives and reviews all proposals. The PCAPCD ranks proposed projects and programs based on established evaluation criteria. To ensure that public health benefits are maximized, the projects funded are those deemed the most cost-effective at reducing emissions. The cost-effectiveness of an air quality project is based on the amount of pollution it eliminates for each dollar spent.
- The Applicant/PCAPCD provides funding for the most cost-effective projects.

The PCAPCD will not sign off on the Applicant’s Tentative Map until either the Applicant has implemented the off-site mitigation program, or fees have been paid into the PCAPCD’s Air Quality Mitigation Fund to provide for a PCAPCD-implemented mitigation program (PCAPCD, 1999a).

**“Off-Site” Mitigation of Regional Pollutants:** The emission reductions realized through PCAPCD’s mitigation program would occur at locations other than on the project site. This mitigation strategy is employed only for *regional* pollutant emission impacts. As stated above, high concentrations of regional pollutants may be recorded in locations far from the actual pollution sources, and generally depend on wind patterns, weather, and geographical features of the area. In addition, the bulk of the regional pollutant emissions associated with the proposed project would be generated by motor vehicle exhaust; this exhaust would be generated not on the project site but rather on the roadway network throughout Placer County and the Sacramento Valley Air Basin.

### **Master Response A-3 Air Quality Attainment Plan**

Placer County as a whole currently does not meet the State's air quality attainment goals. Therefore, any increase in emissions (above a *de minimis* level) is considered a cumulative impact. Because the project's projected emissions cannot be feasibly mitigated to a *de minimis* level, the project is inconsistent with the goals of the Placer County Air Quality Attainment Plan, as stated in Impact A-4 (page 8-16) of the DEIR. The DEIR concludes that this is a significant, adverse environmental impact despite implementation of feasible mitigation measures. Mitigation Measures A-E through A-J, T-O and T-P were proposed as part of the project, and would affect inclusion of applicable transportation control measures and project design elements specified in the County's air quality plan. Despite implementation of all applicable mitigation measures, however, the proposed project "would generate substantial emissions of ozone precursors, CO, and PM<sub>10</sub>." The DEIR on page 8-16 concludes that "emissions associated with the proposed project would therefore hinder Placer County's ability to achieve emission reductions mandated by the state Clean Air Act," and that the proposed project would thus be inconsistent with the goals of the Air Quality Attainment Plan. The conclusion that the residual impact is significant is stated on pages 2-19 and 8-16 of the DEIR.

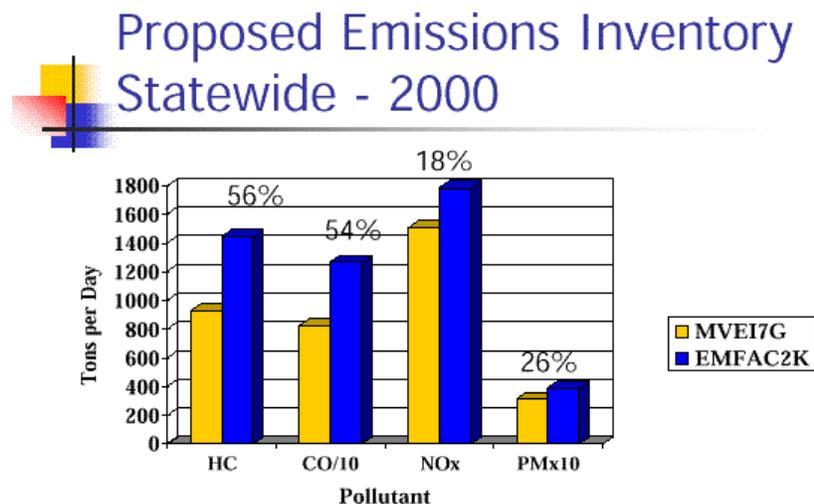
## Master Response A-4 Emission Factors

The air quality analysis for the proposed project was conducted using the most current approved emission factors available at the time of the publication of the DEIR. The current version of URBEMIS is based on EMFAC7G (MVEI7G). Vehicle fleet emission factors contained in the URBEMIS and the EMFAC programs are updated periodically by the California Air Resources Board (CARB). CARB held a public meeting to consider revisions to the state's on-road mobile source emissions inventory (EMFAC2000) on May 25, 2000. A summary of the presentation made at this meeting can be found at [http://www.arb.ca.gov/msei/docs/Emfac2k\\_Hearing\\_PDF.pdf](http://www.arb.ca.gov/msei/docs/Emfac2k_Hearing_PDF.pdf). CARB recommended approving the new emission inventory with staff's recommended changes; the staff report for the emissions model can be found at <http://www.arb.ca.gov/msei/msei.htm>.

Upon approval, the EMFAC2000-based emission inventory would contain the most up-to-date emission factors (in grams per vehicle mile traveled). The model used to estimate emissions from a mixed use development, URBEMIS7G, would also require updating before new analyses can be conducted to calculate emissions based on the updated inventory.

Although it is not possible to conduct either a new model run or a completed analysis comparing project emissions as calculated in the DEIR with project emissions calculated using the URBEMIS with the new EMFAC2000 emission factors, CARB has done a broad-scale sensitivity analysis comparing the statewide mobile source emission inventories generated by the two emissions models. Comparisons were made for analysis years 2000 and 2010. Results of this sensitivity analysis, excerpted from the presentation made at the May 25, 2000 public meeting, are presented below.

As shown, the revised emission factors currently yield a 18 to 24 percent increase in the mobile source emission inventory. For the 2010 analysis, the change in emissions inventory would range from an increase of 71 percent for PM<sub>10</sub> emissions to a decrease of 10 percent for NO<sub>x</sub> emissions.



Only after the emission factors have been finalized and approved will they be applied to environmental air quality analyses. However, it is likely that, if adopted, the emission factors would result in an increase in regional criteria air pollutant emission projections as a result of the proposed project. Mitigation Measure A-K, now proposed by the Applicant and increased to provide mitigation for 105% of long-term air pollutant emissions, would continue to successfully mitigate these impacts to a less than significant level.

## BIOLOGY

### Master Response B-1 Adequacy of Biological Surveys

The August 1993 and March, April, and May 1994 biological surveys were conducted during the appropriate identification period and in appropriate habitats for the special-status species identified as having potential to occur in the project area (see Tables 13-3 and 13-4), with the exception of *Balsamorhiza macrolepis* var. *macrolepis* (California balsamroot), raptors, and special-status bats. Elderberry shrubs that could support the federally listed valley elderberry longhorn beetle (VELB) were found on site. U.S. Fish and Wildlife Service–approved protocol VELB surveys were conducted in July 1999. Red-legged frog surveys were conducted in July 1999 and are included in Appendix A of this FEIR. No individuals of special-status species were found. The surveys provide the necessary information to analyze project impacts and identify mitigation measures for significant impacts. Substantial evidence exists, in the form of the 1993 and 1994 biological studies and the 1998 reconnaissance survey, to support the County’s conclusions regarding biological resources. However, please also see Master Response B-2 regarding updated surveys for federally listed species. Special-status species surveys were not conducted within the Placer County Water Agency (PCWA) pipeline route. However, the analysis in Impact B-5 on page 13-31 of the DEIR concludes that construction within the roadway would avoid direct impacts on any potential special-status species habitat. Marginal quality habitat for nesting raptors is the only special-status wildlife constraint identified for the PCWA route (see page 13-35 of the DEIR). Any nesting raptors near the roadway would be accustomed to noise and human disturbance that already exists due to the roadway. Special-status plants or nesting raptors near the PCWA pipeline route, therefore, would not experience direct impacts, loss of habitat, or significant indirect impacts. Surveys are, therefore, unnecessary in this area.

Results of the 1993 and 1994 biological surveys, including extensive species lists, are included in the DEIR Appendix H, Volume IV. These lists are based on species observed during field surveys and are not merely taken from regional lists. Because the species lists are fairly lengthy, the lists were not included in the Biological Resources chapter of the DEIR. Appendix F, included in Volume II, presents species lists (pages F1 through F8). Any site-specific information regarding special-status species was included in Tables 13-3 and 13-4 and in the text of the setting section that discusses special-status species (pages 13-8 through 13-21).

See also Master Responses B-2 and B-18.

## Master Response B-2 Additional Biological Surveys

Many of the specific biological surveys were conducted in 1993 and 1994, up to six years before preparation of the DEIR. Because the project area has not been substantially altered during that period of time, and a reconnaissance survey conducted in 1998 confirmed the project area habitat types remained intact, the results of the original biological surveys are still valid for common wildlife species. However, the USFWS generally requires that surveys for listed species be less than two or three years old. Therefore, additional habitat surveys for listed species were conducted to update the data, including valley elderberry longhorn beetle surveys conducted in August and December 1998, and red-legged frog surveys conducted in July 1999 (included as Appendix A of this FEIR). Mitigation Measures B-G, B-L, and B-M include measures to conduct pre-construction surveys for the California balsamroot and raptors within habitat areas to be disturbed, to consult with the California Department of Fish and Game (CDFG) if such species are present, and to mitigate for loss of populations. See Master Response B-18 regarding proposed bat mitigation. Requirements for updated early- and late-season surveys of vernal pools for special-status plants will be added as follows to Mitigation Measure B-G on page 13-52 of the DEIR:

“Before construction and/or approval of improvement plans, the Applicant will hire a County-approved botanist to survey oak woodlands within all proposed construction areas for big-scale balsamroot and vernal pools within all proposed construction areas for Bogg’s Lake hedge-hyssop, Hoover’s spurge, dwarf downingia, Ahart’s rush, Red Bluff dwarf rush, legenera, pincushion navaretia, slender orcutt grass, and Greene’s tuctoria. In all areas of oak woodland that will be graded, a survey should be conducted between March and May for big-scale balsamroot. All vernal pools that will be graded should be surveyed in late April/early May and July for the special-status vernal pool species listed above. If no special-status plants are identified within construction areas, no further mitigation is required. However, if any special-status plant populations are found within proposed construction areas, the project biological monitor will evaluate the significance of the population(s). If any special-status plant population is too small and isolated to be sustainable, the impact will be considered less than significant. If any special-status plant population is large enough to be potentially sustainable, the loss of the population will be considered significant and the Applicant will implement mitigation. Potential mitigation measures for the loss of a special-status plant population include complete avoidance of the population, if feasible; minimization of the impact, i.e., partial avoidance; purchase and preservation of another known population of the affected species; transplantation of the plants or collection and sowing of the seeds to another on-site location; collection and sowing of seeds to an off-site location.

*Text  
Revision*

The most feasible of these potential mitigation measures for any California balsamroot population that could not be avoided would be to transplant or seed the population to an undisturbed area of open-canopied oak woodland or grassy slope on the site. A recommended location is within the natural open space area off the northwestern corner of the proposed driving range.

Avoidance or on-site transplantation is not feasible for the vernal pool plants, due to the proposed removal of all vernal pool habitat. The most feasible mitigation for special-status vernal pool species would be to scrape the topsoil (approximately two inches deep) from any vernal pool that supports a special-status plant population and place the soil within vernal pool habitat in a mitigation bank. The project site supports Mehrten formation vernal pools, which are not currently available at a mitigation bank. However, the special-status plants with potential to occur in the project area are not endemic to Mehrten pools and should survive in pools on other substrates. The Wildlands, Inc., is

willing to accept a seed bank from the project site to transplant within vernal pool habitat at one of their wetland mitigation banks in Placer County (Berry, 2000).

If a state or federal listed plant species population is identified within the proposed construction area, i.e., Bogg's Lake hedge-hyssop, Hoover's spurge, slender orcutt grass, or Greene's tuctoria, the Applicant will notify CDFG (for state-listed species) and/or the USFWS (for federally listed species). CDFG and/or the USFWS may impose alternative or additional mitigation requirements to the soil transplantation for impacts to listed species. If alternative mitigation requirements are imposed, the Applicant will implement the alternatives in lieu of the proposed soil transplantation. If additional mitigation requirements are imposed, the Applicant will implement both the soil transplantation mitigation and the agency mitigation.

### **Master Response B-3 Placer Legacy Alternative**

The DEIR analysis must focus on the proposed project, the no-project alternative, and feasible alternatives to meet the project objectives. Project objectives are listed on page 3-3 of the DEIR. §15126.6(a) of the State CEQA Guidelines provides that an EIR must examine a reasonable range of feasible alternatives to the project. Prospective alternatives must “feasibly obtain most of the basic objectives of the project” (among other things) in order to be considered within the range of alternative discussed in the EIR.

The Placer County Board of Supervisors has appointed a Citizen Advisory Committee to gather information and advise County staff on the Placer Legacy program. The County is also advised by a group of scientists and state and federal agencies. The primary goals of Placer Legacy are to identify and protect priority open space areas in the County. It is not a program to reverse Placer County General Plan land use designations.

The Bickford Ranch site was designated as a Specific Plan development site in the County’s General Plan, and the General Plan EIR includes analysis of the County-wide resources. One purpose of the General Plan is to serve as a “master plan” for the County, identifying where open space will be retained and where development will be allowed.

The preservation of the sides of the steep ridges, oak woodlands, and scenic vistas within the proposed project would be issues related to the open space elements of the General Plan, and only in this way would the project be related to the Placer Legacy project. While the proposed project has some of the same preservation goals as the Placer Legacy project and preserves 500 acres of natural open space and open space corridors, preservation of the site as a part of the Placer Legacy program, i.e., preserving it as open space, would not meet the objectives of the proposed project, which include establishment of a residential community in an area of the County identified for growth.

## Master Response B-4 Boulder Ridge Biological Resources

The loss of annual grassland is identified as a less-than-significant project impact in the DEIR. Annual grassland is generally considered a common habitat type due to the dominance of non-native grasses and common species of forbs. Although the annual grassland on Boulder Ridge supports many wildflower species, it does not support any special-status plants. Regardless of the geologic formation on which it occurs, the annual grassland, excluding the vernal pool habitat, is not recognized as a rare botanical community by the California Native Plant Society or CDFG (Burmester, 1999; Gause, 1999; Horenstein, 1999; Keeler-Wolf, 2000). Loss of the annual grassland, therefore, does not meet any of the criteria for significance under CEQA.

Vernal pools that have formed on the Mehrten formation tend to be shallow and have very little soil. These characteristics create a unique hydrology, and the pools contain water for a shorter period of time than most other vernal pools. The species composition of these pools is limited to the species that can survive under a short growing season, which generally results in a low diversity of species. Vernal pools on the Mehrten formation, therefore, may be unique in terms of their species composition. The uplands on Mehrten formation, including annual grasslands and oak woodlands, however, have no comparable hydrologic uniqueness that would lead to a unique assemblage of species.

Commentors have stated that the grasslands on Boulder Ridge support a substantial spring wildflower population. Although this increases the biodiversity of the ridgetop and the overall quality of the grassland habitat, the species present are generally common locally and regionally. Boulder Ridge is an isolated patch of Mehrten grassland habitat, and is surrounded by bands of oak woodland and by other development from other extensive grassland habitat on any substrate. In the project area, approximately 250 acres of annual grassland is located on the Mehrten formation on Boulder Ridge. For a regional perspective, the total extent of Mehrten formation in Placer County is over 24,000 acres, occurring in foothill areas with Exchequer-Inks soils (USDA, 1980). As a candidate for a preserve, it would be considered a relatively small area, with low potential for long-term sustainability because of the lack of a larger surrounding grassland ecosystem to support a large diversity of species. For a size comparison, a preserve of Mehrten formation habitats on Howard Ranch in Sacramento County includes between 7,000 and 8,000 acres of grassland/vernal pool complex, approximately 2,000 acres of blue oak woodland and savanna, and several thousand more acres of grassland and pasture.

Based on a commentor's suggestion, the following mitigation measure will be added to the EIR to revise the golf course design for preservation of annual grassland where feasible:

**“Mitigation Measure B-S:** Preserve and enhance annual grassland vegetation adjacent to golf course

Text  
Revision

Mitigation Measure B-S applies to Impact B-1.

The Applicant will incorporate into the golf course design the preservation of annual grassland vegetation within undeveloped areas adjacent to the fairways. Vegetation in these areas will be enhanced by seeding with a locally collected native annual wildflower seed mix that includes species already present on site.”

Commentors stating the cumulative loss of grassland in the region is a significant impact are in agreement with the DEIR analysis of cumulative impacts on biological resources. The cumulative impact on biological resources, including grassland, is identified as significant and unavoidable (page 16-111). Refer to Response I4-169.

### **Master Response B-5 Evaluation of Oak Tree Condition**

The arborist's evaluation of tree conditions in the oak woodland was based on standard arboricultural techniques. According to the arborist's report, all ratings are subject to the arborist's experience and knowledge of the individual species characteristics. This evaluation, however, is not necessarily compatible with the wildlife habitat function of the tree or woodland. For example, a tree classified as being in "poor" health due to the presence of decay or drought stress provides habitat required for species such as woodpeckers and cavity-nesting animals. The Placer County Tree Preservation Ordinance provides exemptions from the need for a tree permit and mitigation for trees classified as "dying" or "unhealthy," but the exemptions do not distinguish between other designations of tree. Removal of all oak trees, whether designated in the arborist's report as being in "good" or "poor" health, must be mitigated.

The Applicant's Registered Professional Forester, Ralph Osterling (RPF License #38), reviewed the arborist's report and also conducted his own field reconnaissance. The proposed Oak Woodland Conservation and Revegetation Plan was drafted by Mr. Osterling and its implementation will be under his direct supervision.

### **Master Response B-6 Loss of Oak Woodland**

The DEIR concludes that the loss of oak trees would remain significant and unavoidable even with the implementation of both proposed and recommended mitigation measures. The DEIR states that no mitigation for loss of mature trees is available in the short term (pages 13-27 and 13-38), which is also true of the temporal loss of oak woodland habitat. The DEIR also states that short-term impacts would remain significant and unavoidable (page 13-49), meaning that partial mitigation for the loss of trees and woodland may occur during the life of the project. The cumulative impact of the project on oak woodland is also identified as significant and unavoidable (page 16-111). The County Board of Supervisors will make the final determination of whether the potential public benefits of the project would outweigh the permanent loss of a significant number of oak trees in the project area and whether or not to approve the proposed project or another alternative such as Alternative 4, which would lessen the magnitude of the oak impact. See also Master Response DEIR-3 for further discussion of the decision-making process and Master Response B-7 regarding consistency of the project with the County Tree Preservation Ordinance.

**Master Response B-7 Alternatives to Reduce Oak Woodland Impacts/Consistency with County Tree Ordinance**

Commentors state that more acreage of blue oak woodland should be set aside than is currently proposed. Of the alternatives discussed in Chapter 16 of the DEIR, Alternative 4 would result in reduced impacts on oak woodland. Reduced-density alternatives that would presumably affect less acreage of oak woodland were considered economically infeasible, as discussed on page 16-2 of the DEIR under “Land Development Scenarios.”

The project is not in violation of the County Tree Preservation Ordinance because this ordinance does not place limitations on the number of trees that may be removed, allows for preparation of a revegetation program instead of requiring inch-for-inch replacement trees, and allows for payment into the Tree Preservation Fund if a project site is not capable of supporting all of the replacement trees. The County has reviewed the proposed revegetation plan (shown on Figure B7-1), prepared by Ralph Osterling, a Registered Professional Forester (RPF License 38), and has found the replacement ratio and survival rate adequate. However, the County has not agreed to the use of all seedlings for replacement mitigation, and instead supports a combination of seedlings and 5/15 gallon container plantings.

See Master Response B-17 for a discussion of how the project complies with the General Plan.

## **Master Response B-8 Deferred Mitigation**

CEQA requires that mitigation measures not defer mitigation to a future time, but allows for mitigation that specifies performance standards that can be accomplished in more than one way (CEQA Guidelines §15126.4(a)). Mitigation measures that identify project plans not completed or not yet developed include Mitigation Measure B-A on pages 13-48 of the DEIR, which summarized the Applicant's Oak Woodland Conservation and Revegetation Plan (see also Figure B7-1 in this document); Mitigation Measure B-Q on pages 13-56 and 13-57, which outlines components and standards for an adequate open space management plan; and Mitigation Measures H-A, H-F, H-G, and HW-F on pages 12-22, 12-25, and 11-12, which provide conceptual plans or standards for protecting water quality. These plans will be developed in coordination with each other as part of the Final Mitigation and Monitoring Plan. To ensure that these mitigations provide adequate performance standards and information to meet the CEQA guidelines, further clarification is provided below.

### **Mitigation Measure B-A**

The annual monitoring reports and annual meetings will be conducted between the Applicant and Placer County Planning Department staff. The fuel management program mentioned in this mitigation measure has been finalized subsequent to preparation of the DEIR and is included in Response C3-1 of this FEIR. See also Response I4-212.

### **Mitigation Measure B-Q**

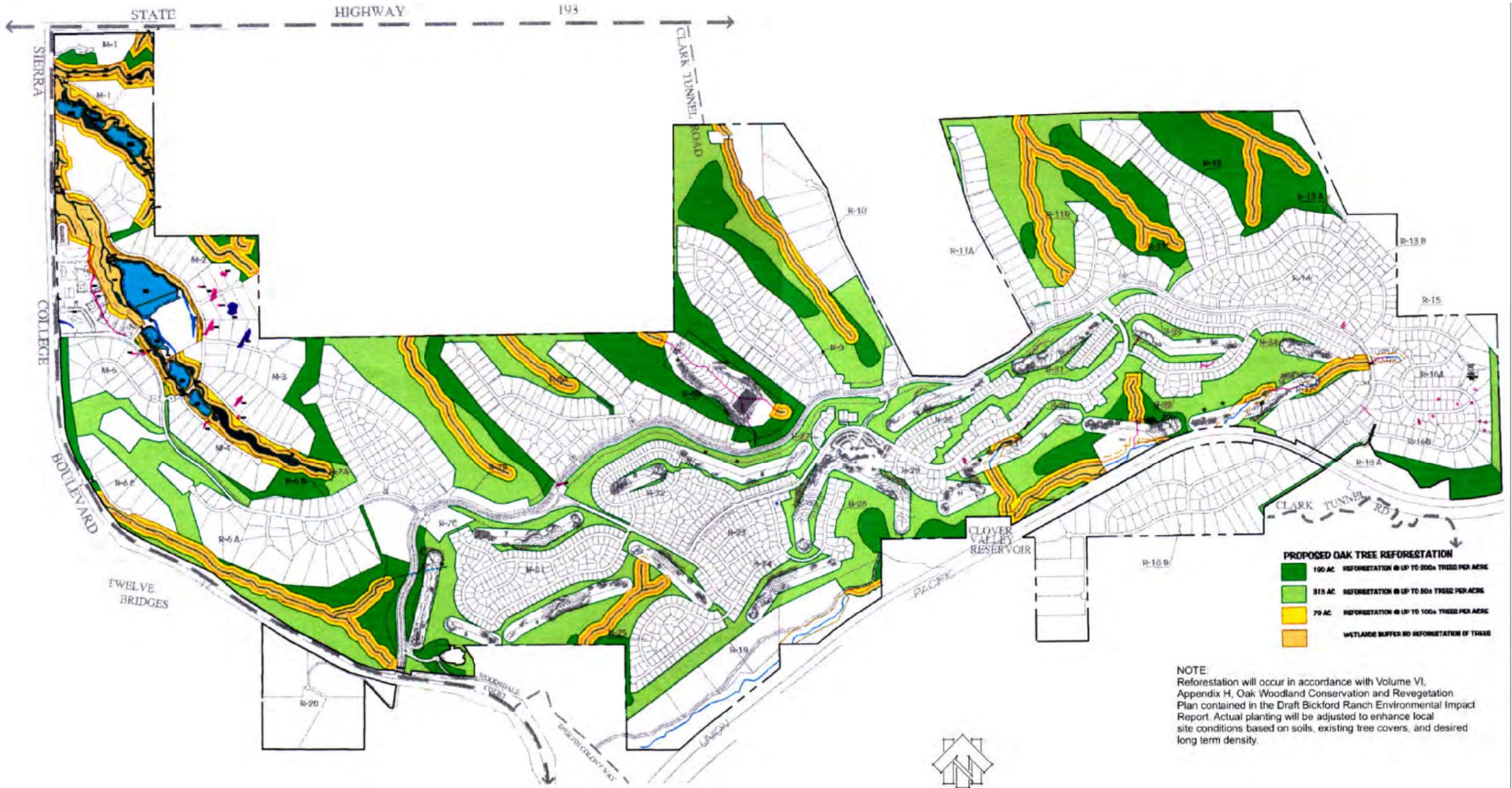
The fuel management plan mentioned in this mitigation measure is included in Response C3-1.

The open space management plan will incorporate the revised trail system map shown in the Revised Figure 3-7 of this FEIR. The allowed uses of these trails will be as described on Figure 3-7 or as determined by the County at the time of project approval, and will not include widening for use as picnic areas. The Placer County Parks Division will annually inspect trail conditions. If the trails become widened or eroded, repairs to maintain the original trail width and slope will be funded by a County Service Area. If wilderness trails become widened or eroded near stream crossings, these sensitive natural areas may require physical barriers to prevent human encroachment. Bollards and cable, barrier planting (wild rose or blackberry), or woven wire fencing can be installed adjacent to the bridges across streams in the NOS to discourage bicycle, horse, or pedestrian activity in the streams.

Wilderness trail interpretive areas will include signs that provide graphic and written information on important natural or cultural features, such as wildlife use of riparian and woodland habitats and historic use of the ranch site.

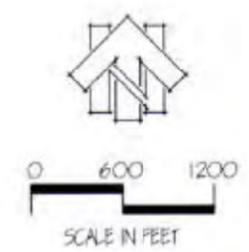
Open space within the wetlands and wetland preserve easement will be managed through the Lake Management Plan (see Appendix H of the DEIR). This plan provides performance standards and methods relating to the wetland open space on site. The Lake Management Plan includes the following requirements:

- Grazing, swimming, and gas-powered watercraft are prohibited for safety reasons and for water quality protection. The lakes may be used for fishing, rowing, and canoeing.
- The water quality monitoring program requires five years of sampling of the lakes monthly, or quarterly if water quality objectives are met. The water quality objectives are performance standards provided in the Lake Management Plan. Methods to correct potential problems are included for each water quality objective, as well as potential design changes to control over-abundant plant growth, stratification, and eutrophication.



- PROPOSED OAK TREE REFORESTATION**
- 100 AC REFORESTATION @ UP TO 200+ TREES PER ACRE
  - 815 AC REFORESTATION @ UP TO 50+ TREES PER ACRE
  - 79 AC REFORESTATION @ UP TO 100+ TREES PER ACRE
  - WETLANDS BUFFER NO REFORESTATION IF THESE

NOTE:  
 Reforestation will occur in accordance with Volume VI, Appendix H, Oak Woodland Conservation and Revegetation Plan contained in the Draft Bickford Ranch Environmental Impact Report. Actual planting will be adjusted to enhance local site conditions based on soils, existing tree covers, and desired long term density.



**BICKFORD RANCH**

**PROPOSED OAK WOODLAND CONSERVATION AND REVEGETATION PLAN**

2000 Bickford Ranch Specific Plan EIR  
 21305-002-043 Placer County, California



FIGURE B7-1

- Mosquito control will be achieved by stocking the lakes with mosquito fish and stabilizing lake levels with water from the Caperton Canal. Complete turnover of water may be used in the smaller lakes to eliminate breeding mosquitoes.

The project authorization from the Corps (Vinzant, 2000) also includes a number of project requirements related to management of the on-site wetland open space, including the following:

- The Applicant will develop a final comprehensive mitigation and monitoring plan that will be approved by the Corps, USFWS, and CDFG prior to construction.
- The Applicant will develop and submit a preserve management plan for on-site wetland mitigation, preservation, and avoidance areas. This management plan will be approved by the Corps, USFWS, CDFG, and U.S. Environmental Protection Agency prior to any fill activities in waters of the United States.
- The Applicant is required to monitor constructed wetlands for five years or until success criteria in the approved mitigation plan are met. The Applicant will submit annual monitoring reports to the Corps, in accordance with the Corps permit.
- The Applicant will establish a long-term funding mechanism to ensure long-term maintenance and monitoring. The Corps will approve the language establishing the endowment prior to any fill activity. Homeowner fees may be used for funding.
- The Applicant will maintain all wetland mitigation, preservation, and avoidance areas as easements with recorded deed restrictions. Copies of the proposed deed restriction language must be approved by the Corps.

The final wetland mitigation and monitoring plan will require monitoring of wetlands each spring. The Applicant's biological monitor will survey and record plant species composition data using an appropriate survey plot size such as 10 meter by 10 meter. Data will be recorded from a minimum of 10 sample locations, including estimates of absolute cover of species. Performance standards in the final wetland mitigation and monitoring plan will include the following:

- Wetlands will attain an absolute cover of 80 percent at the end of 5 years,
- Dominant wetland plant species will include facultative (FAC), facultative wetland (FACW), or obligate (OBL) as classified in Reed (1988),
- A maximum of 50 percent of the dominant wetland plant species may be classified as FAC (Reed 1988),
- Dominant plant species will be appropriate for the wetland community types, including seasonal emergent marsh and riparian communities, and
- Wetlands will remain inundated for at least two consecutive weeks during the growing season.

If wetlands do not meet the above performance standards after 5 years, they should be evaluated to determine whether the rate of plant growth has been slower than anticipated and whether they may soon reach the standard. The monitoring period may only need to be increased by a few years. However, if the wetlands are not functioning and require more aggressive remediation, the Applicant will meet with Corps regulatory staff to evaluate potential measures. Remediation measures could include regrading and replanting to achieve the appropriate hydrologic conditions; additional maintenance of existing plantings to remove invasive species and encourage growth of desired wetland species; or additional protection of the wetland easement from human or domestic animal impacts that may be limiting plant growth.

## **Master Response B-9 Joint Policy on Hardwoods**

The Joint Policy on Hardwoods will be addressed as part of the specific development of the Applicant's Oak Woodland Conservation and Revegetation Plan. The conceptual plan (Appendix H, Volume VI, of the DEIR) states that the final plan will be developed in cooperation with several agencies, including both CDFG and the California Department of Forestry and Fire Protection (CDF). Guidelines included in the Joint Hardwoods Policy will be included in development of the final plan. The joint policy established for CDFG and CDF states that hardwood resources should be managed for important biological values including regeneration, plant species composition, vegetation structure and age class distribution, water quality, and other benefits, including recreation. The joint policy also stipulates that land uses should promote regeneration of hardwoods, enhance biological habitats, and allow recruitment of native vegetation. A specific policy is also included that encourages CDF to minimize wildfire impact through a program of vegetation management and fire prevention, and to maximize beneficial fire effects where possible.

The conceptual Oak Woodland Conservation and Revegetation Plan addresses management policies contained in the Joint Policy on Hardwoods by requiring the following:

- Planting young, vigorous trees is expected to stimulate regeneration in the woodland;
- Plant species composition in the oak woodland will be augmented by planting native shrubs, as listed in the Species Recommendation List in Table 1 of the plan appendix;
- The oak woodland structure and age class distribution will be enhanced by planting young age classes of blue oaks that are currently lacking in the project area;
- Recreational benefits of project site woodlands will result from construction of the wilderness trails shown on Revised Figure 3-7 of the FEIR. These trails have been configured with consideration to preservation of open space resources, while providing equestrian and pedestrian recreational opportunities in the open space.
- The existing habitat will be enhanced where oak woodland mitigation plantings are placed. Recruitment of native vegetation will be allowed in all open space oak woodland and oak mitigation areas.

Protection of water quality in the woodland streams will be addressed in the Stormwater Management Program (see Mitigation Measure H-A on page 12-22 of the DEIR and Master Response SW-1 of the FEIR), which will require the use of Best Management Practices (BMPs) to protect the water quality of runoff.

The fuel management plan, as discussed in Response C3-1, addresses the specific policy by which the CDF will manage vegetation and prevent fire. The plan specifies removal of understory vegetation that is between 1 foot and 10 feet tall within a maximum of 100 feet from the edge of buildings. Since most wildfires in the project area would start in areas used by people, these measures will reduce the likelihood of wildfire within the oak woodlands in the natural open space.

## Master Response B-10 Tree Planting Density

Several commentors raise the issue of whether the substrate and slope aspect of the proposed on-site planting area could support the proposed density of planted trees and meet the survival criterion of 80 percent at the end of the monitoring period. This concern was considered in the DEIR analysis as discussed in Mitigation Measure B-C (page 13-49), and, therefore, a lower density of trees was allowed, using off-site compensation to accommodate the remaining trees. The proposed average density of 100 trees per acre is considerably higher than the existing densities of mature trees within proposed replanting areas on the ridge, where the Mehrten substrate provides shallow soils and existing tree density ranges from approximately 10 to 40 trees per acre. This area supports an oak savanna rather than a more densely vegetated woodland. These areas may be able to support up to 50 trees per acre including existing trees. Some of the proposed replanting areas within more densely wooded areas on the slopes below the ridges currently support from 30 to 60 trees per acre. These areas may be able to support 100 trees or more per acre; however, this density would include the existing trees. The most densely forested parts of the site, in the ravines and along Clover Valley Creek, were not completely surveyed for trees, but are likely to be able to support the proposed 200 trees per acre. The specific site selection criteria in the Applicant's revegetation plan will include consideration of slope and soil conditions. Planting densities will be based on what the specific site can support. See Figure B7-1 for a schematic of the proposed Oak Woodland Conservation and Revegetation Plan.

Additional comments addressed the concern that the lower on-site density of tree plantings would not provide enough surviving trees over the long-term. A lower density of trees would result in an oak savanna habitat rather than an oak woodland. As discussed above, an oak savanna habitat is more appropriate for the ridge areas where the substrate is less conducive to supporting a dense grove of trees. In the final revegetation plan, planting densities in different planting areas may vary, depending on the local conditions. The Applicant may ultimately consider planting a greater number of trees at higher densities. This approach would allow for a higher initial mortality, but would still meet the net goal of 80 percent survival at the end of the monitoring period. Specific input on the revegetation plan will be provided by Placer County, CDFG, USDA Natural Resources Conservation Service, California Department of Forestry and Fire Protection, and University of California Cooperative Extension research programs.

The final location or locations for the off-site mitigation, if necessary, will be selected by the Applicant subject to approval by Placer County Planning Department staff. The off-site mitigation areas will be protected in perpetuity following completion of the monitoring period and achievement of the 80 percent survival rate.

Comments also express the concern that off-site mitigation is not intended by CEQA and does not mitigate the local impact. Off-site mitigation is not prohibited by CEQA. State CEQA Guidelines §15370 describe mitigation as including “[r]ectifying the impact by repairing, rehabilitating, or restoring the impacted environment” (subsection (c)) and “[c]ompensating for the impact by replacing or providing substitute resources or environments.” The term “environment” is not limited to the project site, but may include “the area in which significant effects would occur either directly or indirectly as a result of the project” (Guidelines §15360). This said, the use of off-site mitigation is limited only by the requirement of the State CEQA Guidelines that mitigation measures must be feasible (Guidelines §15126.4).

See also Master Response B-7, which discusses the project alternatives considered to reduce the magnitude of the oak impact and clarifies how the project mitigation meets the requirements of the tree ordinance.

**Master Response B-11 Use of In-Lieu Fees as Tree Mitigation**

§36.600 C. of the County Tree Preservation Ordinance allows the County Board of Supervisors (or other approving body for the tree permit) to have the Applicant pay a fee to the Placer County Tree Preservation Fund. The fee will include the current market value of the trees and the cost of installation. Mitigation Measure B-C on page 13-49 of the DEIR does not state that payment into the fund would be the sole mechanism for compensation of tree loss, but that it would function as partial mitigation, along with off-site plantings, in the event that on-site mitigation to compensate for the entire impact is infeasible.

## **Master Response B-12 Wetland and Riparian Impact Evaluation and Mitigation**

The County has reviewed and approved the wetland impacts analysis and recommended wetland mitigation in the DEIR. The preliminary wetland delineation shown in Figure 13-2 in the DEIR has been verified by Tom Cavanaugh of the U.S. Army Corps of Engineers (Cavanaugh, 1999) as a correct representation of the extent of jurisdictional features in the project area. Jurisdictional riparian wetlands are mapped on Figure 13-2, and additional identification of riparian vegetation is provided on Figure 13-1 in the DEIR. On March 21, 2000, the U.S. Army Corps of Engineers approved the use of Nationwide Permits (NWP) for Bickford Ranch. At the end of this response, text changes to the DEIR are included that reflect revised subtotal acreage impacts, as well as a Revised Figure 3-8, Modified Wetland Preservation Plan, showing minor changes to individual wetland areas, primarily in the area in Bickford Ranch Park.

### **Fire Prevention Impacts on Non-Jurisdictional Riparian Habitat**

Please note that although acreages of non-jurisdictional wetland riparian impact are not explicitly quantified in the DEIR, avoidance mitigation is provided in Mitigation Measure B-F on pages 13-51 and 13-52 of the DEIR for potential impacts due to project construction, trail construction, pipeline installation, and construction of residences near the valley-foothill riparian vegetation along Clover Valley Creek. This mitigation measure allows for minimal impacts on riparian vegetation for the purpose of fire prevention activities, which will total much less than the 71 acres of riparian impact identified by commentors. These impacts will be regulated by CDFG by means of a Section 1603 Streambed Alteration Agreement. The 71 to 81 acres referred to by commentors includes all of the area of blackberry vegetation associated with drainages on the project site, regardless of whether they are impacted. This acreage does not include upland blackberry vegetation that occurs throughout the site. Upland blackberry vegetation is not associated with a sensitive plant community and is not subject to CDFG jurisdiction. The Streambed Alteration Agreement will include any conditions and mitigation required by CDFG to protect and compensate for impacts on the riparian vegetation that is outside of the Section 404 jurisdictional areas. See Master Response B-13 for clarification of the DEIR mitigation regarding the Streambed Alteration Agreement. If an alteration within riparian habitat not identified in this EIR is required at a later date by CDF and agreed to by CDFG, then the Applicant will be required to contact National Marine Fisheries Service regarding potential effects on Central Valley steelhead habitat. See Response I4-146 regarding protection of steelhead habitat through water quality mitigation measures. The U.S. Fish and Wildlife Service (USFWS) only regulates wetlands that are occupied by listed species, which in the project area would include the vernal pools. No other project-area wetland habitats have been determined to support listed species. Also see Master Response B-19 regarding the results of red-legged frog surveys in the project area.

Mitigation Measure B-R on page 13-57 of the DEIR also protects non-jurisdictional wetlands in the Blackberry Eradication Zones by requiring the Applicant to avoid removal of blackberry riparian vegetation. See also Master Response B-14 for clarification of the requirements surrounding removal of vegetation for fire prevention activities, which is incorrectly perceived to conflict with Mitigation Measure B-R.

### **Golf Course Driving Range Impacts on Non-Jurisdictional Riparian Habitat**

Impact B-13 includes golf-course construction impacts on intermittent drainage ID-10 and riparian wetland RW-3 as a result of the driving range. The individual total acreage for this project component is 21.0 acres. Of this, approximately 0.3 acre is identified as jurisdictional wetland or other waters of the United States (an intermittent drainage). Additional acreage is likely to be within the jurisdiction of CDFG as riparian; however, the vegetation type in this area is mixed interior live oak-blue oak woodland and does not support an extensive valley-foothill riparian community. The width of riparian vegetation,

which consists primarily of blackberry, in this area averages 15 to 30 feet. Based on an overall maximum width of 30 feet along all drainages, the total riparian area would be approximately 9.5 acres. Commentors identify approximately 10 acres of impact due to the driving range. The actual acreage of riparian area regulated by CDFG will be determined when the 1603 Streambed Alteration Agreement is prepared. As discussed above for the fire prevention activities, mitigation for the loss of riparian habitat as a result of the driving range will be based on conditions and mitigation required by CDFG under the 1603 agreement. Until the 1603 agreement can be prepared, it is premature to determine an exact acreage or what will be required. Mitigation will likely include creation of additional riparian habitat at a ratio of at least one acre created for every one acre affected. The project will include creation of riparian habitat as part of the wetland mitigation plan. Should this acreage ultimately be determined by CDFG to be inadequate, additional mitigation will be required.

Based on the above discussion, the following changes are made in the DEIR:

Page 13-36, paragraph 2, second sentence and first indented line in the discussion of Impact B-13 are changed to read:

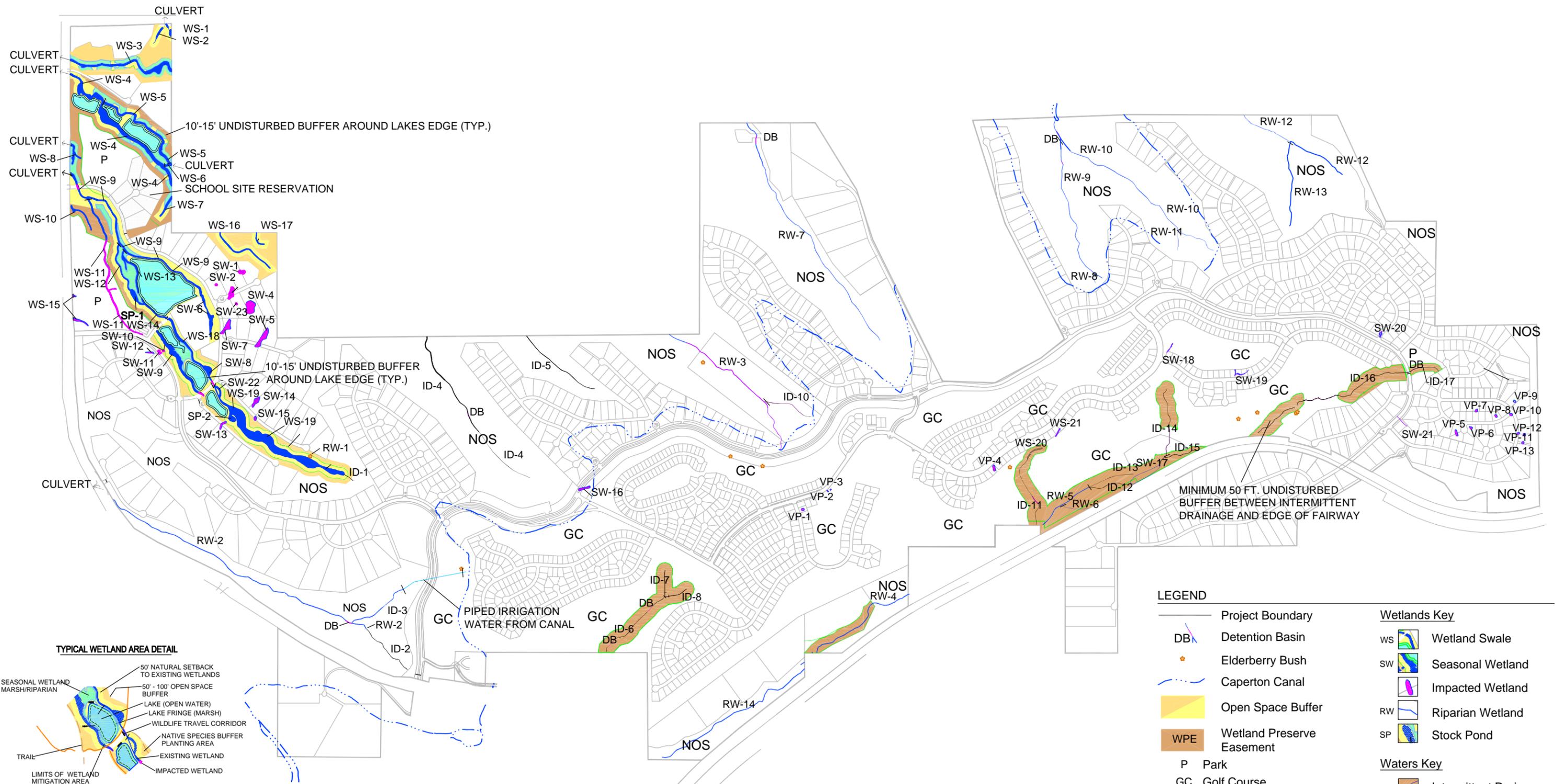
<i>Text Revision</i>	“This acreage includes 0.21 acre of intermittent drainage (a water of the United States) and 2.62 acres of wetlands as listed below:”
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<i>Text Revision</i>	Wetlands Swale                      0.49 acre
--------------------------	---

<i>Text Revision</i>	Page 13-36, paragraph 5, lines 4 and 8, are changed to read: “According...2.62 acres of wetlands and 0.21 acre...”
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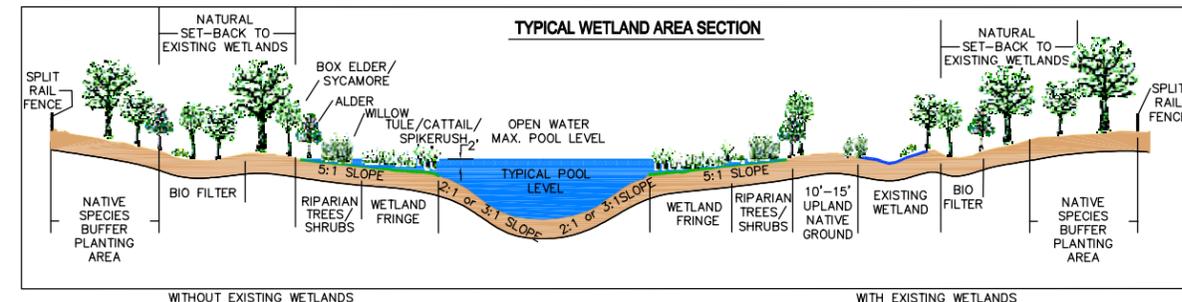
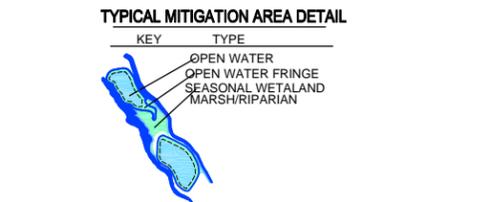
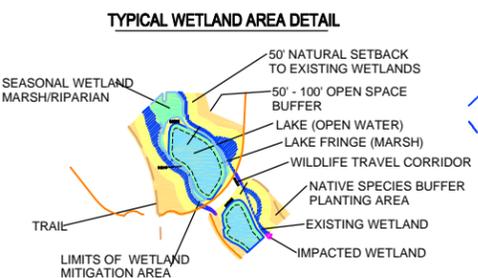
<i>Text Revision</i>	Page 13-44, paragraph 2, line 2, in the discussion of Impact B-19 is changed to read: “Mitigation for most of the 2.62 acres of wetland...”
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<i>Text Revision</i>	Page 13-51, paragraph 1, line 4, in the discussion of Mitigation Measure B-F is changed to read: “Creation of...2.62 acres of wetlands and 0.21 acre of intermittent...”
--------------------------	---



**LEGEND**

	Project Boundary	<b>Wetlands Key</b>	
	Detention Basin	ws	Wetland Swale
	Elderberry Bush	sw	Seasonal Wetland
	Caperton Canal		Impacted Wetland
	Open Space Buffer		Riparian Wetland
	Wetland Preserve Easement		Stock Pond
<b>WPE</b>		<b>Waters Key</b>	
P	Park		Intermittent Drainage
GC	Golf Course		
R	Residential		
NOS	Natural Open Space		
VP	Vernal Pool		
	Wildlife Travel Corridor (UNDERGROUND CROSSING OF ROADWAY SEPARATE FROM DRAINAGE CULVERT.)		



**BICKFORD RANCH**

SCALE IN FEET: 0, 400, 800, 1200

**MODIFIED WETLAND PRESERVATION PLAN**

2000 Bickford Ranch Specific Plan EIR  
21305-002-043 Placer County, California

**DAMES & MOORE**

REVISED FIGURE 3-8

SOURCES: Hayes Land Planning, Inc. 4/23/99  
wetlands.dwg 08/31/00

### Master Response B-13 Streambed Alteration Agreement

The appropriate Streambed Alteration Agreement with CDFG will be under Section 1603 for private entities, not 1601, which is for public agencies. The same notification form and information is required for both Sections 1601 and 1603. Mitigation Measure B-O on page 13-56 of the DEIR is changed as follows to correct the change from 1601 to 1603:

“Section 1603 Streambed Alteration Agreement from CDFG. This agreement will be required for any impacts within the normal high water mark of drainages within the project area or within riparian habitat, potentially also including crossings of culverted drainages within the PCWA water supply pipeline alignment. The Streambed Alteration Agreement will include any CDFG-required conditions and mitigation for work within drainages and associated riparian areas. This agreement will include conditions that CDFG chooses to impose on the project, which may include revegetation of the affected area with appropriate species and timing vegetation removal to avoid impacts on water quality and disturbance of breeding wildlife. Specific conditions and mitigation for the project are developed by the local CDFG game warden on a case-by-case basis. However, the area cannot be left bare, and revegetation with appropriate native species will be required (Watkins, 1999; Hobgood, 2000). The species used for revegetation will depend on the site and will include riparian species in riparian areas.”

*Text  
Revision*

See also Master Responses B-12 and B-14.

### Master Response B-14 Blackberry Eradication

The project area supports Himalayan blackberry, a non-native species, in riparian habitat as well as upland habitats not associated with streams or wetlands. While Himalayan blackberry is not exclusively associated with riparian vegetation, it commonly occurs in riparian areas. Where Himalayan blackberry occurs within riparian vegetation, its removal must be conducted in coordination with CDFG due to the sensitive nature of the riparian habitat for wildlife, the potential for occurrence of special-status species in riparian areas, and the potential for adverse effects on water quality in the associated stream.

To further clarify the level of protection for riparian areas during both construction and fire prevention activities, the last bullet of Mitigation Measure B-F on page 13-52 of the DEIR is augmented as follows:

*Text  
Revision*

“No removal of vegetation may occur within the riparian buffer zone, except for essential maintenance (e.g., fire prevention activities). Prior to removal of blackberry or other riparian vegetation for proposed fire prevention or other maintenance activities within the riparian buffer zone, the Applicant must notify CDFG of the activity. If CDFG determines that the activity ‘may substantially adversely affect existing fish or wildlife resources,’ the Applicant will be required to obtain a 1603 Streambed Alteration Agreement. CDFG has jurisdiction within the entire riparian corridor and regulates removal of riparian vegetation, even if the streambed is not directly affected (Hobgood, 2000). Removal of any riparian vegetation, whether or not the streambed or bank is altered, must be coordinated with CDFG through a Section 1603 Streambed Alteration Agreement.”

See also Master Responses B-12 and B-13.

### **Master Response B-15 Off-Site Mitigation**

Purchase of mitigation bank credits as off-site mitigation for loss of vernal pools and federally listed vernal pool fairy shrimp habitat is approved by the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, and other resource agencies. These agencies acknowledge that preservation of isolated habitat fragments does not provide sustainable ecosystems. Mitigation banks provide large areas for preserves and are required to maintain the habitats in perpetuity, whereas isolated vernal pools around which development has been constructed would likely degrade, potentially within a few years.

Off-site mitigation is proposed only for vernal pool wetlands due to the specific ecological requirements to create vernal pool habitat, which can only persist in areas with appropriate soil substrates and hydrologic patterns. Mitigation for all other wetland types and open water will be accomplished on site at a ratio slightly greater than 3:1.

### **Master Response B-16 Special Status Vernal Pool Species Surveys**

The 1994 project biological surveys included four days of springs surveys between late March and early May to identify any special-status vernal pool plant species, and none were observed. Surveys of the pools for the presence of federally listed fairy shrimp were not conducted due to the lengthy surveys required under the U.S. Fish and Wildlife Service protocol to determine their presence or absence. These protocol surveys include soil sampling of the pools during the dry season and sampling for adult fairy shrimp every two weeks throughout the wet season. Because these surveys were not performed, the Applicant assumes that the listed fairy shrimp are present, and has proposed mitigation for the loss of vernal pool fairy shrimp habitat, as described in Mitigation Measure B-H on pages 13-52 and 13-53 of the DEIR. Also see Master Response B-1.

The additional vernal pools on Boulder Ridge between Clark Tunnel Road and Clover Valley Reservoir that are mentioned by several commentors were mapped in the wetland delineation as seasonal wetlands (see Figures 3-8 and 13-2 in the DEIR). One vernal pool was mapped west of the reservoir.

### **Master Response B-17 General Plan Policies Related to Protection of Natural Resources**

Numerous discussions on County General Plan policies and their application to the proposed project occurred with the Applicant, consultants, and County planners. Several General Plan policies (e.g., 1.I.2, 6.A.1, 6.A.3, 6.B.2, 6.B.5, 6.C.6, 6.D.1, 6.D.3, and 6.E.2) use phrases such as “to the maximum extent feasible,” “shall support preservation of [resources],” “shall encourage [preservation],” or “the County may allow exceptions” or policies provide for more than one method of compensation. These policies are intended to provide decision-makers with flexibility for evaluating the project in the context of a particular site. Where the proposed project diverges from particular policies, the County has used the flexibility designed into the policies to focus on elements of the development design at the Bickford Ranch site.

Other General Plan policies (e.g., 6.C.1, 6.C.5, 6.C.9, 6.D.4, and 6.E.1) were written without explicit flexibility, and several commentors have interpreted the project as being inconsistent with these policies. General Plan Policy 1.C.1, however, identifies the Boulder Ridge area as the Bickford Ranch Specific Plan Area and directs that development of the area be guided by the General Plan Appendix C Development Standards. County interpretation of the General Plan policies, therefore, is within the more specific context of the Appendix C Development Standards. Also see Master Response GP-1 for information on the General Plan approval process that included consideration of the Bickford Ranch Specific Plan area and GP-4 for further discussion of the relationship between General Plan policies and General Plan Appendix C.

## **Master Response B-18 Bats**

None of the bat species identified in the DEIR are listed as threatened or endangered under the Federal Endangered Species Act or the California Endangered Species Act. The species are identified as state species of special concern and federal species of concern. Also, the habitats that these species use, including oak woodlands, are widespread in the foothill belt of the Central Valley of California. Bats can use oak woodland habitat for roosting and as maternity sites.

Although the project would affect potential bat habitat by removing approximately 10,653 oak trees over 6 inches diameter at breast height, the project would also retain an estimated 68,100 trees in approximately 340 acres of woodland habitat on the project site that could be used by bats. Mitigation Measure B-A on pages 13-48 and 13-49 of the DEIR, the Applicant's oak woodland conservation and revegetation program, will replace woodland habitat for bats. The conceptual revegetation plan (Appendix H in Volume VI of the DEIR) will be developed in cooperation with several natural resource agencies that are interested in the protection of special-status bats, including CDFG. Other bat habitat on site within abandoned mine tunnels and shafts will be retained through Mitigation Measure B-N as described on page 13-55 of the DEIR. The mine shafts are not planned to be demolished.

The following will be added as a modification of Mitigation Measure B-N on page 13-55 of the DEIR:

“To avoid or minimize impacts on special-status bats, the Applicant will retain a qualified bat specialist to conduct surveys in the oak woodlands and human-made structures to determine if special-status bats are present within areas of the project site proposed for development. If no special-status bats are present, no additional mitigation is required. If special-status bats are present within development areas, the Applicant will incorporate into Mitigation Measure B-A a bat management and habitat improvement program. This program may include the installation of bat roost boxes in the open space areas or vegetation management in the open spaces areas to enhance and manage bat habitat. The Applicant will consult with CDFG regarding appropriate bat management.”

*Text  
Revision*

### **Master Response B-19 California Red-Legged Frog Surveys**

California red-legged frog surveys were completed by qualified biologists in July 1999 using U.S. Fish and Wildlife Service–approved survey methods (see Appendix B of this FEIS). All suitable streams and ponds at the project site were surveyed. No red-legged frogs were observed at the project site during the field surveys; therefore, this species would not be directly or indirectly impacted by the project and no additional California red-legged frog mitigation would be required. During these surveys, no foothill yellow-legged frogs were observed in the project streams; therefore, it is unlikely that this species would be affected by the project.

## **Master Response B-20 Recovery Plans**

Three commentors asked if U.S. Fish and Wildlife Service recovery plans had been consulted to determine whether the project area could play a role in the recovery of the California red-legged frog, foothill yellow-legged frog, and northwestern pond turtle. No final recovery plan has yet been developed for the California red-legged frog, a federally threatened species. The recovery plan for red-legged frog is currently in draft form, with an unspecified date for public circulation (USFWS, 2000). The foothill yellow-legged frog and northwestern pond turtle are not listed as threatened or endangered; therefore, recovery plans have not been developed for these species. The valley elderberry longhorn beetle (VELB), federally listed as threatened, has a recovery plan, but the plan does not have any specific recommendations for the Bickford Ranch project area. Although the project has significant impacts on VELB habitat, implementation of the U.S. Fish and Wildlife Service VELB mitigation guidelines and off-site habitat compensation would reduce these impacts to a less-than-significant level.

## DEIR

### Master Response DEIR-1 DEIR Clarity, Availability, and Comment Period

This response addresses comments on the DEIR that were received regarding the size and clarity of the environmental document, the lack of individual copies of the environmental document, and the lack of enough time to adequately review the environmental document.

The DEIR addresses a wide variety of environmental issues associated with the proposed project, and provides information of sometimes complex technical issues in laypersons terms. A detailed table of contents was provided to assist readers in finding topic areas of interest. The environmental resources chapters (Chapters 4 through 15) were organized in a similar fashion to promote ease of reading. A total of 69 figures were included to aid in understanding, and 121 tables provided summary information, not counting those in appendices. Lists of mitigation measures and identification of acronyms were also provided to increase readability and understanding. The summary table of environmental impacts and mitigation measures provided as Table 2-2 briefly identified each potential impact, identified mitigation measures, and summarized conclusions regarding significance of the impact after mitigation. This table followed the chapter outline for ease in readability and understanding.

CEQA requires that a DEIR circulated for public review contain the information required by §§15122 through 15131 of the CEQA Guidelines. All required information was contained in Volumes I and II of the DEIR. The County took an aggressive public disclosure position by providing general access to documents incorporated into the DEIR by reference, specifically the Applicant's Specific Plan, Development Standards and Design Guidelines, in all publicly circulated copies of the DEIR. They are contained in and make up the majority of Volume II of the DEIR. In addition, supporting technical documentation normally only available for review at the Planning Department was made available in Volumes III through VIII at four locations in Auburn, Penryn, Lincoln and Loomis, as well as at the County Planning Department. The County's purpose was to enhance access to information normally referenced as background studies, not to increase the size of the standard DEIR information document.

Copies of all eight volumes of the DEIR were provided to the Placer County Planning Department, the Penryn Branch Library, the Lincoln City Library, the Loomis Branch Library, the Town of Loomis, and all State agencies receiving copies through the State Clearinghouse. Ten additional copies of Volumes I and II were made available at the Penryn library, on a one-week checkout basis. According to the Branch Manager of the Penryn Library, Kathy Padilla, during the public review period, copies were available at all times for check-out (Padilla, 2000). Copies of Volumes I and II of the environmental document were provided to other public entities, and interested individuals and interest groups, as identified on the Distribution List (Appendix C), and additional volumes were distributed by the County in response to requests from individuals who were not on the original distribution list. Volumes I and II of the DEIR were put on the Bickford Ranch web site ([www.bickfordranch.com](http://www.bickfordranch.com)) and CDs of this information were made available at the County Planning Department.

All required notices and notifications as to the completion of and availability of the DEIR were fulfilled in accordance with CEQA requirements. In addition, the comment period was extended for two weeks, until November 15, 1999, allowing a total comment period of 60 days.

## **Master Response DEIR-2 Range of Alternatives Considered**

CEQA requires that an environmental impact report identify the significant effects of a project on the environment, identify alternatives to the project, and indicate the manner in which those significant effects can be mitigation or avoided. Evaluation of a reasonable range of alternatives is required. CEQA states that the rule of reason should govern the nature or scope of alternatives, considering a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation. The range of potential alternatives shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects. All responses regarding alternatives are made in this context.

The DEIR considered land development alternatives, commercial center alternatives, golf course alternatives, and access alternatives, as described on pages 16-2 and 16-3 of the DEIR. Alternatives carried forward for analysis in the DEIR included three land development alternatives which considered a range of reduced density and larger lot sizes (a 1,425 unit scenario and a 182 unit scenario) as well as elimination of the age-restricted component of the proposed project, three access alternatives that focus on the configuration of Clark Tunnel Road, an alternative to include affordable housing, and an alternative to improve Sierra College Boulevard along the project's boundaries. Alternatives analyzed in the DEIR are described below.

The DEIR sets forth seven alternatives to the proposed project, including the No Project Alternative (Alternative 1). Three of the alternatives consider different mixes of land uses. In the Reduced Density Alternative (Alternative 2), the total number of units would be reduced by 525 units and the majority of the amenities would be retained; in this alternative the higher density land uses would be retained on the ridge top where slopes do not exceed 10 percent, with the remainder of the site being developed as larger residential lots at approximately one-half the density of the proposed project. In the Conventional Housing Alternative (Alternative 3), the total number of lots is also reduced (to the same number as in Alternative 2), the age-restricted component would be eliminated, and there would be fewer large Rural Residential parcels and more Country Residential and Low Density Residential parcels in the Ridges and Meadows areas. Alternative 4 is the Rural Residential Alternative. In this alternative the entire site would be developed at the Farm 10-acre minimum zoning level (182 10-acre lots). Alternative 5 considers various options for Clark Tunnel Road. In Sub-Alternative 5-1, Clark Tunnel Road would remain open at both the northern and southern edges of the proposed project (retaining access to both SR 193 and Penryn). In Sub-Alternative 5-2, Clark Tunnel Road would be closed at the proposed project's northern edge (affording no access to SR 193) and would remain open at the southern end (retaining access to Penryn). In Sub-Alternative 5-3, Clark Tunnel Road would remain open at the proposed project's northern edge (retaining access to SR 193) and would be closed at the southern end (affording no access to Penryn). In all alternatives, access for emergency vehicles would be provided by means of locked gates. Alternative 6 (Affordable Housing) analyzes the impacts of adding 195 affordable housing units to the proposed project. Alternative 7 analyzes the effects of road improvements to widen Sierra College Boulevard by an additional lane. Most alternatives suggested by commentors (lower density, higher density in the Meadows, development of 10-acre lots, elimination of the golf course, various configurations for Clark Tunnel Road, etc.) are described above and evaluated in the DEIR. Other suggestions are discussed in various individual responses in this FEIR.

Information regarding other alternatives considered for analysis, and the alternatives chosen for analysis, as well as the information presented to allow meaningful evaluation, analysis, and comparison with the proposed project, are contained in pages 16-1 through 16-98. CEQA requirements for alternatives development and analysis are fully met in Section 16.1 of the DEIR.

### **Master Response DEIR-3 Project Approval Process**

Many comments were received that identified a preference for one or more alternatives and urged rejection or modification of the proposed project. Some commentors asked how it is that significant and unavoidable impacts of the proposed project are acceptable. The DEIR process does not result in approval of a project, or select an alternative to a project. It is an informational document that decision-makers use as one factor in considering approval actions on a project.

The County is responsible for the EIR process. It develops a list of qualified consultants through a public process and County review of Statements of Qualifications. For each required CEQA document, it determines whether to prepare the document in-house or contract it out to a qualified consultant on the current list. If the document is contracted to a consultant, the County retains oversight authority and works with the consultant to produce an accurate and legally adequate document. Since a major function of an EIR is to identify and disclose impacts of a proposed action, the impacts and mitigation measures identified in the EIR are reviewed by the County, which must concur with the conclusions in its capacity as Lead Agency under CEQA.

The Placer County Board of Supervisors will consider the recommendations of the Placer County Planning Commission regarding whether the recommended mitigation measures would be imposed. The determination of what mitigation measures are “feasible” and what recommended mitigation measures are rejected as “infeasible” is made by the Board of Supervisors. The Board is required to balance, as applicable, the economic, legal, social, technological or other benefits of the proposed project against its unavoidable environmental risks when determining whether to approve the project. The Board of Supervisors will decide if these benefits outweigh the unavoidable adverse environmental effects. CEQA specifically addresses the possibility of lead agency approval of a project that may result in significant and unavoidable impacts. In such cases the lead agency must adopt a Statement of Overriding Considerations that shall state the specific reasons to support its action based on the final EIR and/or other information in the record (CEQA Guidelines §15093).

Approval or denial of the Bickford Ranch Specific Plan will be determined by the Board of Supervisors at the conclusion of public hearing(s).

## **GENERAL PLAN POLICIES**

### **Master Response GP-1 General Plan Process**

In November 1990, Placer County began a comprehensive update of the Countywide General Plan. The update program was structured into phases, including the plan startup and framework, background report, issues and options report, draft policy document, draft EIR, public review of the draft Plan and EIR, final Plan and EIR and the final documents. The Issues and Options phase of the General Plan update process dealt with specific growth and environmental issues, as well as land use alternatives. The purpose of the Issues and Options Report was to solicit policy direction from the Board of Supervisors on key issues to be addressed in the Plan update. The Bickford Ranch project was one of five land use proposals within the unincorporated area considered during this process. Each of the proposals was described and evaluated based upon site selection criteria; the results are included in the Issues and Options Report. As a result of this process, Bickford Ranch and Placer Vineyards were identified as projects that satisfied more of the criteria for new communities than any of the other development proposals. The Issues and Options Report was presented to the public in a series of six townhall meetings in January and February 1993 and was the subject of seven public meetings of the Board of Supervisors between February and July 1993.

Starting with the first joint workshop between the Board of Supervisors and the Planning Commission on January 28, 1991, the public participation process for the 1994 General Plan update included 6 workshops, 14 townhall meetings, 21 public hearings/meetings and six newsletters sent to between 600 and 900 persons on each occasion. In addition, the County's information officer issued numerous press releases. Individual direct notices were sent to those individuals who were on the mailing list and/or were on other mailing lists for the receipt of specific documents (e.g., the DEIR). Legal notice advertisement was provided consistent with Government Code Section 65353.

**Master Response GP-2 General Plan 5-Year Review**

The review and update of the 1994 Placer County General Plan has been approved by the Board of Supervisors as part of the long-range planning program for the Planning Department. It is scheduled for review during the 2000/2001 fiscal year. As part of this review, public hearings will be scheduled and Planning Department staff will report its findings to the Planning Commission and Board of Supervisors.

### **Master Response GP-3 General Plan Policies Balance Between Growth and Preservation**

The purpose and nature of a general plan, as outlined in the Introduction chapter of the Placer County General Plan, is to serve as the “community’s constitution” for land use and development. The plan must be a comprehensive, long-term document, detailing proposals for the “physical development of the county.” Furthermore, “the plan must analyze issues of importance to the community, set forth policies in text and diagrams for conservation and development, and outline specific programs for implementing these policies.” The Structure and Organization section of the Placer County General Plan states that, “the Countywide General Plan provides an overall framework for development of the county and protection of its natural and cultural resources.”

A general plan must balance the competing interests of preservation and protection of the natural/human environment with the accommodation of growth within its boundaries. This is accomplished, in part, by adopting policies that are sufficiently broad to guide preservation efforts through the full range of development intensities. Phrases such as “to the maximum extent feasible,” or “shall support preservation of [resources],” or “shall encourage [preservation],” etc., are used to provide decision-makers with flexibility for evaluating a project’s design in the context of a particular site.

Several public comments on the Bickford Ranch Specific Plan DEIR were directed at land use and preservation policies which contain such flexibility. These comments challenge the project’s consistency with policies such as “protect[ing] agriculturally-designated areas from conversion to non-agricultural uses” and “preserv[ing] . . . areas and features . . . to the maximum extent feasible.” As stated earlier, the Board of Supervisors must balance competing interests in its interpretation and application of its own General Plan policies. Policies are intended to guide a project’s development and preservation efforts within the Plan’s framework, as defined by the goals, objectives and land use designations for the project area.

#### **Master Response GP-4 Appendix C and General Plan Policies**

During the 1994 General Plan update process, the Board of Supervisors considered various alternatives for land use patterns and development. Ultimately, the Board of Supervisors (discussed in the Placer County General Plan FEIR, Appendix A, pages A-21 to A-24) identified Bickford Ranch as a “new population center” which could potentially be developed at urban or suburban densities, subject to preparation of a specific plan.

The General Plan designates the Bickford Ranch property as Rural Residential, which permits 10- and 20-acre minimum parcel sizes, with a Development Reserve (-DR). This -DR zoning designation permits the preparation and adoption of a specific plan for up to 1,950 units without a change in zoning. General Plan Policy 1.C.1, specifically written for the Boulder Ridge area, anticipates development of the project site at the higher density and directs that such development be carried out within the framework of a specific plan. Policy 1.C.1 also directs that projects be guided by the development standards set forth in Appendix C. Without the preparation of a specific plan, the zoning on the project site permits 10- and 20-acre minimum parcel sizes.

The proposed project contemplates development at the overall higher density of 1 dwelling unit per acre. Consequently, the General Plan policies must be examined within the context of an urban/suburban setting. The development standards contained within Appendix C are intended to provide direction and further refine General Plan policies related to the Bickford Ranch Specific Plan.

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## HAZARDOUS WASTE/MATERIALS

### Master Response HZ-1 Potential for Toxic Materials in Mine Tailings

As part of the DEIR, Dames & Moore performed an assessment of the mines and prospects located at Bickford Ranch. This assessment included reviewing existing reports, including the Phase II Evaluation of Cultural Resources (Windmiller, et al., 1998a) and the Preliminary Geotechnical Report (Anderson Geotechnical Consultants, 1996). These reports provided detailed descriptions of each of the seven potential mining locations, of which three were described as being only prospects and the remaining four as possibly being small mine sites. Dames & Moore's evaluation also included a site visit to the most extensive of the mine sites, and an interview with Mr. Jerry Anders, who relayed historic information regarding mining activities provided by the previous property owner.

On the basis of this assessment it was concluded that the mine tunnels presented a physical hazard (Impact HW-5) since entry is unrestricted. It was further concluded that chemical hazards were unlikely either in the river channel placer deposits themselves, or in the tailings piles, due to the alluvial nature of the deposit and the typical manner of mechanical separation of gold from the ore. With the exception of restricting access to the mine openings (Mitigation Measure B-N – Install bat gates at tunnel entrances) due to the physical hazard, no further mitigation was recommended.

Several commentors expressed concern regarding the completeness of the assessment and scientific evidence (i.e., sampling data) to support the conclusions. The concern was also expressed that state agencies were not contacted with respect to requirements for closure of abandoned mines, and that the potential for acid mine drainage had not been adequately investigated.

Therefore, an additional assessment has been conducted to address these concerns. The scope of the additional assessment was based on recommendations provided by the California Department of Toxic Substances Control in their *Abandoned Mine Lands Preliminary Assessment Handbook* (DTSC, 1998). This assessment included soil and water sampling and analysis and mapping of features of five of the potential mine sites identified by Windmiller, et al. The objective of sample analysis was to identify potential existence of toxic metals and evaluate the acid-generating potential of mine wastes and background soils. A total of 40 soil samples were analyzed and the results are included in the assessment report. In addition, human health and ecological risk assessments were completed and included in the assessment report.

Based on the results of the mine assessment, no potential for the generation of acid drainage exists at any of the sites, and no significant human health or ecological risk exists other than the physical hazard presented by the open mine tunnels. The mine assessment concluded that the resulting mine waste or tailings have no potential to produce acid mine drainage. Arsenic was found in samples collected at one location. It appears to be a naturally-occurring component of the auriferous placer gravels which are derived from the Sierra Nevada foothill mineralized zones. A Conceptual Site Model prepared to evaluate the potential human health risks from exposure to the arsenic indicates that there are no potential human health impacts associated with arsenic in the subsurface soil. A Tier I and Tier II ecological risk assessment for the site indicates that there is no risk to plants, soil invertebrates, mammals or birds at the site. The assessment report is included as Appendix C of this FEIR.

## HOMEOWNERS ASSOCIATION

### Master Response HOA-1 Long-Term Viability of the Homeowners Association

A Master Homeowners Association (HOA) would be formed to cover the entire project area. Like all HOAs, it would have a corporate existence. Articles of Incorporation would be prepared which, when filed with the California Secretary of State, would establish the association as a nonprofit corporation. Bylaws would set forth all the procedural rules for operation as a corporation including annual meetings of the members, voting rights, election of directors, officers, books, records, reports etc. Finally, a Declaration of Covenants, Conditions and Restrictions (CC&Rs) would set forth the particulars of architectural and other restrictions, easements, maintenance and other obligations, plus the assessment scheme to pay the HOA's expenses in meeting its maintenance obligations for the Bickford Ranch project. The CC&Rs would be recorded concurrently with the final map. Every buyer would receive a copy along with warnings about the binding and long-lasting nature of the CC&Rs and the entire HOA structure.

The fact that Bickford Ranch would have an association with members and assessments means that it is a "common interest" subdivision. For such subdivisions, all three of the governing documents (Articles, Bylaws and CC&Rs) must be reviewed and approved by the California Department of Real Estate (DRE) in connection with the issuance of a public report for the project which the developer must have, by law, before it can make any lot or home sales to individual buyers. DRE has extensive, detailed regulations about provisions that must be included in those governing documents.

DRE also requires the developer to prepare a budget projecting the cost of the HOA operation and maintenance obligations. The DRE has guidelines regarding the annual costs of, for example, maintaining swimming pools, performing roof repair and replacement, resurfacing a roadway, carrying property insurance on a clubhouse facility, etc. The County will require that certain mitigation measures and conditions be included in the CC&Rs, which document will also be subject to the approval of the County Counsel. Provisions and restrictions, maintenance and enforcement obligations (for example, avoided wetlands) will be included in the master CC&Rs. Design standards or restrictions will also be included in the CC&Rs. Where necessary or appropriate, covenants can be included that prohibit an amendment to the CC&Rs without the consent of the Planning Department or some other applicable County agency. Any maintenance obligations related to the mitigation measures will be factored into the budget that is ultimately approved by the DRE.

At Bickford Ranch there would also be a second tier or "sub-association" for each neighborhood, which includes facilities, services or restrictions peculiar to that neighborhood. The age-restricted portion of the community, for instance, must have a separate HOA with separate governing documents including CC&Rs which would apply to that area of Bickford Ranch in addition to the master HOA documents. The California State Civil Code provisions regarding senior housing projects must be observed, as well as DRE regulations.

With respect to enforcement of the CC&Rs, restrictions that are imposed upon all the lots in a subdivision are binding upon and enforceable by each lot owner as against all other lot owners. A violation of such restrictions can be enforced through a court action to require the property owner to refrain from such a violation or compel the property owner to act in compliance with the CC&Rs. Furthermore, once the CC&Rs are recorded, the restrictions become "property" for purposes of article I, section 14 of the California Constitution and damages are compensable in a court of law.

## LAND USE

### Master Response LU-1 Surrounding Land Uses

An area a minimum of 1,500 feet beyond the project perimeter, including all the area south and southwest of State Route (SR) 193, is shown on the Surrounding Land Uses map, Figure LU1-1. Land uses for the properties were taken from the current assessor's land use records and verified by the California Department of Water Resources land use mapping system and aerial photography. The area contains 382 properties, totaling approximately 4,368.4 acres. The land uses within the area have been grouped into the four basic land use categories shown in Table LU1-1, below. The subcategories contained within those categories are described in the footnotes.

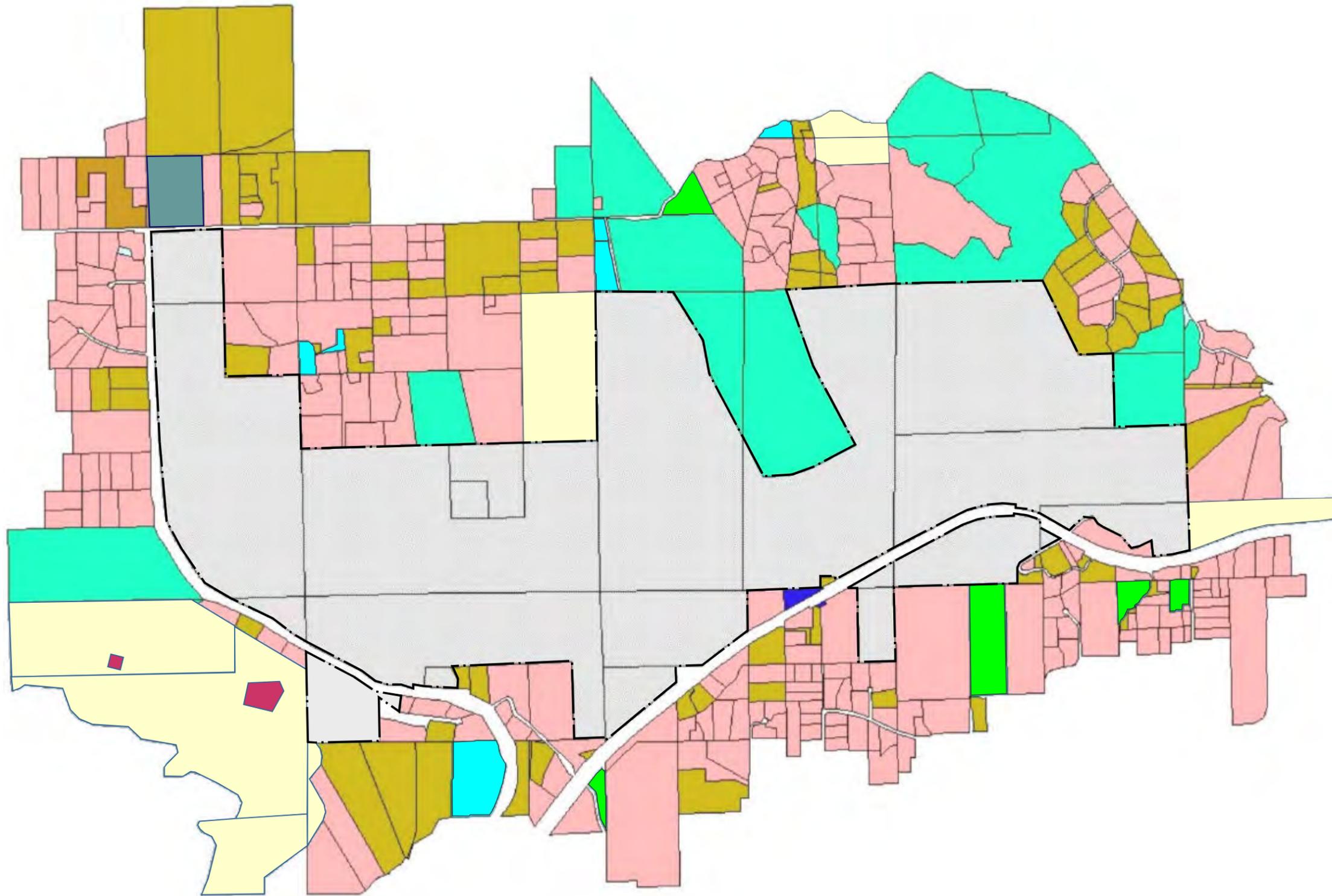
**Table LU1-1  
Surrounding Land Uses**

Residential <sup>1</sup>	1,592.5 acres	245 properties
Public/Utilities <sup>2</sup>	31.5 acres	5 properties
Agricultural <sup>3</sup>	2,052.8 acres	44 properties
Vacant/unimproved	691.6 acres	88 properties

Notes:

- 1) Residential properties include single-family sites, mobile homes and acreage auxiliary to residential uses.
- 2) The public designation includes schools, utilities and associated uses.
- 3) Agricultural land uses are described as orchards/vineyards, irrigated farms, Williamson Act properties and lands designated Vacant, Dry Farm. It could not be verified by aerial photography that all Vacant, Dry Farm properties were engaged in agricultural activities but these lands were included in the agricultural designation due to their classification by the Placer County Assessor's Office.

Based upon this data approximately 36 percent of the acreage surrounding the site is residential with an average property size of 6.5 acres. Public lands and those owned by utilities represent less than 1 percent of the land within the study area. Agricultural properties have an average size of 47 acres and represent 47 percent of the area within 1,500 feet of the project site perimeter. Sixteen percent of the surrounding lands are classified as vacant or unimproved.



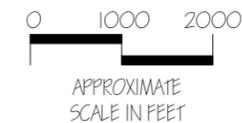
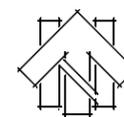
**LEGEND**

- Bickford Ranch Property
- LAND USE DESCRIPTIONS**
- Vacant - Unclassified
- Vacant Residential
- Utilities / Industrial
- Public Facilities
- Residential
- Irrigated Farm
- Orchards, Vineyards
- Vacant, Dry Farm
- Williamson Act
- Rivers / Lakes / Reservoirs / Canals

SOURCE: Placer County, 2000

Bickford/21305-002/090100 090100landuse.cdr 083000 jdg

**BICKFORD**  
RANCH



**SURROUNDING LAND USES**

2000 Bickford Ranch Specific Plan EIR  
21305-002-043 Placer County, California



FIGURE LU1-1

## **PUBLIC SERVICES**

### **Water Supply**

#### **Master Response WS-1 Water Supply**

Some comments on the DEIR regarding water service (irrigation and potable) concern the availability of an adequate supply and delivery system. The following information was obtained from PCWA and is presented to address this issue.

1. As noted by Comments A7-3 and -5 prepared by the PCWA, sufficient water supplies currently exist to serve the project (located in PCWA Zone 1). The available capacity is sufficient to address area buildout projections within PCWA Zones 1 and 5, utilizing the Sacramento Area Council of Governments (SACOG) criteria until the year 2008-2010 timeframe. This capacity includes the Agency's proposed American River Pump Station (ARPS) that is being sized to annually divert up to 35,500 acre-feet of the Agency's Middle Fork Project water rights from the north fork of the American River near Auburn. This volume is in addition to the Agency's PG&E contract annual entitlement of 100,400 acre-feet. The ARPS is scheduled to be completed and fully operational during the summer of 2004. The PCWA is increasing its conservation efforts to increase the time frame to reach capacity from the ARPS and is pursuing a 35,000-acre-foot annual diversion project at the Sacramento River to meet projected growth demands beyond the capacity of the proposed ARPS. In the interim, the U.S. Bureau of Reclamation installs a temporary pumping station in the American River to address demand through the spring and summer months on an annual basis. In May of 1998, under Resolution 98-23, the PCWA Board of Directors reserved 6,000 acre-feet of water supply to serve new demand; currently, approximately 4,200 acre-feet of that reserved water supply remain unrequested.

As standard practice, the County will not approve a Final Subdivision Map until adequate utility service (including water) is ascertained. This is done through a standard Condition of Approval on the related Tentative Map. PCWA will not satisfy this requirement until the applicant for water service has completed service/Pipeline Extension Agreements and paid the appropriate fees. As a result, projects, or portions of any project, that have not secured adequate water service cannot acquire building permits and cannot be constructed.

2. Although sufficient water supplies currently exist, PCWA does not reserve capacity for prospective customers. In order to obtain service, the customer (Applicant) will need to enter into a pipeline extension or service order agreement with the Agency and pay all fees and charges required by the Agency, including the Plant Extension and Replacement Charges (PERC). This service is provided on a "first come/first served" basis upon payment of fees.

The fees for service are determined by conducting a financial analysis on a zone-wide basis, and prorating those costs among the users. Any costs (pumping, etc.) that are specific to Bickford Ranch will be borne solely by Bickford Ranch, and the costs for water for the existing and future users will be unchanged by the development. The Agency would not approve any agreement for service that would impact the status of existing agreements.

3. It is noted that all new requests for *raw water* are conditional upon the completion of the ARPS for continual service. However, Bickford's agreements for 221 miners inches from the Caperton and Antelope canals were completed prior to this requirement and are not conditional. Bickford Ranch secured its rights to this canal water by Wickland Oil having completed improvements to the canal to increase its capacity to supply this amount, as well as the amount necessary to meet the demands of the downstream users, to the point of Bickford's diversion for use.

These canals have been and will be maintained by the Agency, regardless of Bickford Ranch. Access to these facilities on Bickford's property for maintenance, as well as service to other users, exists through easements that will be maintained.

At this time, there is no PCWA requirement to encase the canals across the site. However, the Agency may require encasement in the future if it feels that it is necessary to protect water quality.

4. The Agency handles drought conditions in accordance with the measures presented in the 1997 Urban Water Management Plan. Advance warnings of any potential drought event will be given by water suppliers (i.e., PG&E), and a review of available data (precipitation, snow pack measurements, etc.). In the event of a potential drought condition, PCWA will first reduce service to users of surplus water. If shortages are then forecasted, the Agency will request voluntary reductions from all users. If shortages are still forecasted, a public hearing will be held to present the issue and to obtain input prior to enacting any reductions. Water service to customers in Zones 1 and 5 were not impacted during the most recent five-year drought period due to the productive nature of the watershed. Service reductions may be required during a severe drought similar to the one experienced during 1977, but any impact will be reduced by the supply from the ARPS, which is not expected to be subject to reduction during a drought event.
5. The Penryn/Lincoln pipeline, in conjunction with other system distribution lines, is sized to be able to convey the ultimate treatment capacity at the Foothill Treatment Plant. The Foothill pipeline will increase the fire support in the area and will make treated water available.
6. The project would be supplied treated water from the Foothill-Sunset treatment plant system. The current capacity of that system is 32 mgd and the peak daily demand that was experienced during 1999 was approximately 30 mgd. A contract for the expansion of the Foothill Treatment Plant by 28 mg was approved in December 1999, and construction is scheduled to be completed by 2002. This additional treatment capacity plus current available capacity is estimated to be sufficient to service area buildout through 2010.
7. Currently, 12 domestic water wells are proposed, as shown on Revised Figure 3-17. Page 3-17, lines 2 and 3 of the first full paragraph are revised to read:

<p>Text Revision</p>
--------------------------

“...approximately 12 individual domestic water wells, on lots located in R-10, R-19, R-20, and the Bitterroot parcel at the corners of SR 193 and Sierra College Boulevard.”

# CITY OF LINCOLN



Administration City Hall - (916) 645-3314  
Community Development - (916) 645-3320  
Fax - (916) 645-9502  
Public Works - (916) 645-8576  
Fax - (916) 645-6152

May 19, 1999

1390 FIRST STREET - LINCOLN, CALIFORNIA 95648

Mr. Steve Ainsworth  
Southwest Bickford Holdings, LLC  
263 Nevada Street  
Auburn, CA 95603

Dear Steve:

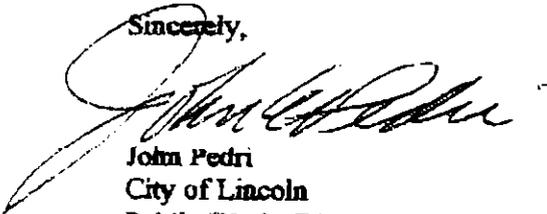
We are in receipt of your letter dated February 12, 1999 requesting the City of Lincoln to consider additional capacity in its Retention Facility for the Bickford Ranch project. Per our conversation, I have noted the total volume requested for the Bickford Ranch development is 108 acre-feet rather than the 50 acre-feet in your February 12<sup>th</sup> letter.

As we discussed, the City is currently conducting feasibility and site studies for the location of its Retention Facility. Consequently, the City has not completed technical studies or an environmental review at this time. However, the City of Lincoln will take the additional 108 acre-feet of storage under consideration as it begins the planning and design of its Retention Facility.

The City of Lincoln anticipates that it can accommodate these flows and we will look toward reaching an agreement with Placer County that would address the funding, operation and maintenance of its Retention Facility. The City further anticipates that the Bickford Ranch development would participate on a pro-rata basis in the City's existing fee program for the construction of its Retention Facility.

Please feel free to call me if you have any questions or wish to discuss this matter further.

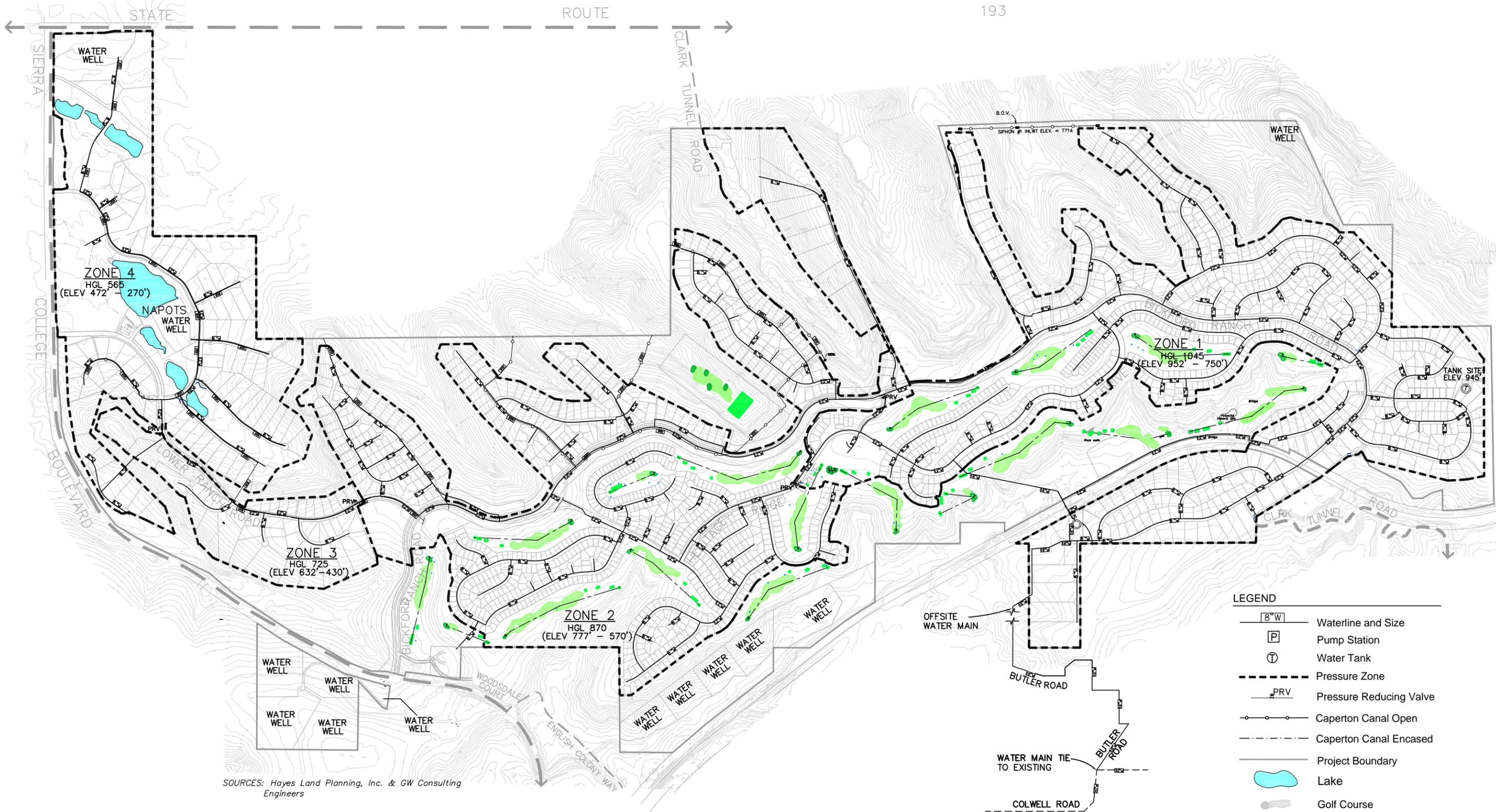
Sincerely,



John Pedri  
City of Lincoln  
Public Works Director

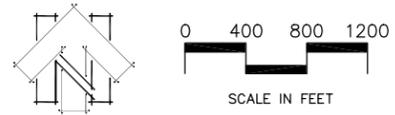
cc: Rod [unclear]  
Lee [unclear]

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SOURCES: Hayes Land Planning, Inc. & GW Consulting Engineers

NOTE: 1 THIS LAYOUT IS APPROXIMATE FOR WATER DISTRIBUTION SYSTEM. FINAL ALIGNMENT AND DESIGN WILL BE SUBJECT TO PCWA APPROVAL.  
 2 PRESSURE ZONES ARE BASED ON EXISTING TOPOGRAPHY.



**BICKFORD RANCH**

**MODIFIED PRELIMINARY ON-SITE WATER PLAN**

2000 Bickford Ranch Specific Plan EIR  
 21305-002-043 Placer County, California  
 DAMES & MOORE  
 REVISED FIGURE 3-17

## Sanitary Sewer

### Master Response SS-1 Sewer Capacity

Some commentors are concerned about the availability of adequate sewage treatment capacity for the proposed project, and possible conflicts with existing agreements for sanitary sewer service that have been previously obtained by area developers for future construction.

In order to address this issue, the City of Lincoln City Council directed its staff to prepare a "Response to Bickford Ranch EIR Comments Regarding the City's Wastewater Treatment Plant and Current Development Agreements." The response was approved by the City Council on December 14, 1999, and staff were directed to incorporate this response into a letter to the respective comment author (Stowell, Zeilenga & Ruth, LLP on behalf of Del Webb Corporation). The memorandum to the City Council is attached following this response. Its contents are summarized as follows:

1. It is acknowledged that Bickford Ranch does not yet have an agreement with the City of Lincoln permitting it to draw upon capacity at the City's wastewater treatment plant; however, the City has held discussions with Bickford Ranch representatives to do so. The City recently (December 1998) amended its Public Facilities Element to allow it to provide City sewer service to applicants outside the corporate City limits to fill more of a regional role for wastewater service, and believes that these discussions are in keeping with this concept.
2. The City indicates that adequate wastewater capacity is available to the City under the terms and conditions of the existing development agreements that would present the City flexibility to be responsive to requests for service, both within and outside its corporate boundaries. This position is based on the following information:
  - A current balance of 150,000 gpd/595 equivalent dwelling units (edu's) within the current wastewater treatment plant expansion that is unallocated.
  - Agreement with Placer Holdings to allow the City to temporarily utilize an additional 289,000 gpd/1,150 edu's at the expanded existing plant. This capacity effectively represents approximately 10 years of historic normal development.
  - The City has the ability to oversize the proposed treatment plant to accommodate additional users without being in conflict with existing development agreements.
  - The City currently has agreements in place that allow it to utilize capacity at the new treatment plant, similarly to the utilization method described in item (b) for the existing plant.
  - Once the new treatment plant is constructed, a capacity of approximately 710,000 gpd will be available for allocation from the existing wastewater treatment plant for a period of time.

Subsequently, a meeting was held with the City of Lincoln Department of Public Works to address other comments related to sewer service and to identify actions that would be necessary for Bickford Ranch to obtain service. The following information primarily resulted from that meeting.

3. The approval status of the Bickford Project would not affect the City's plans for expansion of existing treatment facilities or the construction of new facilities.

4. In order for Bickford Ranch to obtain sewer service from the City of Lincoln, a Memorandum of Understanding (MOU) between the City and Bickford Ranch would need to be approved by the City Council. On August 8, 2000, the City Council did approve an MOU. This MOU defines generally the following issues: Bickford's level of participation in the City's sewer treatment facilities relative to treatment capacity reserved by other parties; timing for all actions necessary to implement sewer treatment capacity for Bickford; general agreement on Bickford's level of participation in the funding of treatment facilities; and operational issues relevant or applicable to Bickford.

This document lays the groundwork for subsequent operational agreements and/or the Development Agreement that must also be in place to secure service. One such operational agreement would be between Lincoln and the County, which sets forth the ownership, maintenance and metering of facilities and wastewater flows to be conveyed from Bickford to the City's treatment facilities.

Sewage capacity must be available and secured before any building permits are issued (availability of services must also be obtained before the Final Subdivision Map is approved and recorded).

In order to define and participate in the financial impacts of expansion, Bickford Ranch has agreed to fund their share of the 10% Design Report for Treatment Plant Expansion, as indicated on the attached agreement.

5. The City gives first priority to land disposal for treated effluent from the treatment plant and is continually seeking land that can accept reclaimed water. However, the City realizes that sufficient quantities of affordable land will not be available to handle all planned discharges.
6. A Draft EIR on the proposed treatment and recycling facility was circulated for comment in September 1999, and a Final EIR was completed and certified on January 25, 2000. This facility is currently planned to be operated by the City. However, the Joint Powers Authority (JPA) is currently investigating the feasibility of a regional facility and this treatment plant could be a component of this facility. The operation of a regional facility could occur through the formation of a new JPA for that purpose. A regional facility would provide additional future capacity for wastewater treatment throughout the region. If so, it would be the result of the investigation that the current JPA is performing and the JPA would consider revising its charter to address this facility at the appropriate time.

# CITY OF LINCOLN

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Public Works - (916) 645-8576  
Fax - (916) 645-6152

---

1390 FIRST STREET - LINCOLN, CALIFORNIA 95648

December 29, 1999

Fred Yeager, Director  
Placer County Planning  
11414 B Avenue  
Auburn, CA 95603

Re: Bickford Ranch EIR Comments

Dear Fred:

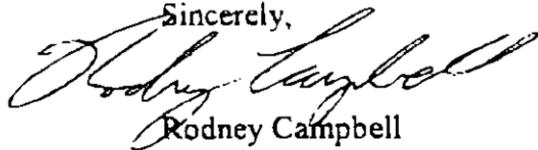
During the circulation period for the Bickford Ranch EIR certain questions were raised regarding the City of Lincoln's ability to offer wastewater capacity to that project, in light of the City's commitment under the Del Webb and Placer Holdings Development Agreements. Given these questions the City felt it appropriate to respond to these comments so that Placer County had a complete understanding of the City's position. This matter was reviewed by the City Council at its meeting of December 14, 1999 and the following comments summarize the City's position.

As you know the City recently amended its *Public Facility Element* to remove the policy which prevented the City from offering wastewater service outside its corporate boundaries. This was done to provide the City with greater flexibility in terms of being open to the concept of playing more of a regional role for wastewater service. To that end, the City has been having discussions with the representatives of Bickford Ranch concerning the availability of capacity at the City's existing wastewater treatment plant. There is no language in any of the City's Development Agreements that would prevent the City from taking on a more regional role.

In terms of the availability of wastewater capacity, there is currently underway a series of expansions to both the City's existing wastewater treatment plant and the construction of a new plant. It is the case that under the City's Development Agreements, developers have a reservation of wastewater capacity at each of these facilities. However, those reservations are not the total amount of capacity available. In both the existing wastewater treatment plant and the new plant, the City has the ability to manage the available wastewater capacity to be responsive to requests for service both within and outside its corporate city limits. This can be done in full accordance with the terms and conditions of the City's current Development Agreements.

For your review I have attached a copy of the staff report which was discussed at the City Council meeting of December 14, 1999. It will provide you with more of the details regarding the availability of capacity at both the existing wastewater treatment plant and the new facility. I hope this information will address any concerns or questions that might have arisen during the comment period on the Bickford Ranch EIR. The City of Lincoln will continue to meet with the representatives of Bickford Ranch to determine the terms and conditions under which the City will offer sewer service. If I may be of further assistance or answer additional questions, please feel free to contact me at your convenience.

Sincerely,

A handwritten signature in cursive script, appearing to read "Rodney Campbell".

Rodney Campbell  
Director Community  
Development

cc: Bill Malinen, City Manager  
George Phillips, Attorney  
Steve Ainsworth, Bickford Ranch Holdings

## MEMORANDUM

**To:** City Council

**From:** Rodney Campbell, Community Development

**Subject:** Response To Bickford Ranch EIR Comments Regarding The City's Wastewater Treatment Plant And Current Development Agreements.

**Date:** December 14, 1999

**Needs:** To Have The City Council Review The Response And Provide Staff With Any Additional Direction.

**Facts:**

1. As the City Council is aware, during the circulation period on an Environmental Impact Report on a project located within Placer County's jurisdiction, (Bickford Ranch) comments were received from the Del Webb Corporation raising concerns about the discussion in the EIR that the City of Lincoln may provide sewer service to that development. At the last City Council meeting staff was directed to prepare a written response to the concerns raised in the Webb comment letter of October 29, 1999 that were of interest to the City regarding the capacity of the wastewater treatment plant and the Development Agreement with Del Webb. To that end staff has prepared the following information, which sets forth the details of the City's Development Agreement with Del Webb as they relate to the issue of City sewer service. The discussion will follow along the lines of the Del Webb comment letter to address the comments of interest to the City.
2. The first comment is that Bickford Ranch has no agreement with the City of Lincoln permitting it to draw upon capacity at the City's existing wastewater treatment plant. That statement is correct. It is also the case that City staff has held discussions with the representative of Bickford Ranch concerning the opportunity to access the City's wastewater treatment plant. As the City Council will recall, the City recently amended it's Public Facilities Element to remove the policy restriction that did not allow city sewer service outside the corporate city limits. This was undertaken to provide the City with greater flexibility in terms of being open to the concept of filling more of a regional role for wastewater service. The discussions with Bickford Ranch are in keeping with this openness to more of a regional role for the City's wastewater treatment plant and are not precluded by any language in the Del Webb Development Agreement.

3. The subsequent concern raised in the Del Webb letter is that the current expansion of the City's wastewater treatment plant will be consumed entirely by Del Webb and other projects within the City. The current expansion of the WWTP is under the terms of the City's agreement with Webb intended to add 1 million gallons of capacity to the existing treatment plant, Section 3.2.2.A.6. That capacity is allocated in the following manner, Del Webb and Placer Holdings reserve 710,000 gallons which they share between themselves 59.2% to Webb (420,320 gallons/2,322 edus) and 40.8% to PHI (289,000gallons/1,150 edus). Participating Third Parties under this section receive a reservation of 140,000 gallons/555 edus. The City has received third party participation notice from Lincoln Crossings. This leaves a balance of 150,000/595 edu's, reserved to the City to utilize as it determines appropriate. Thus there is capacity beyond that reserved by Del Webb that the City can allocate to development.
4. In addition to the 150,000 gallons that the City has available, the recently amended Development Agreement with Placer Holdings, Section 3.2.2.G allows the City to temporarily utilize wastewater treatment capacity reserved for Placer Holdings in both the expanded existing wastewater treatment plant and in the new treatment plant. This means that the City may (at its election) access another 289,000-gallons/1,150 edu's at the expanded existing plant. It is clearly understood that such use by the City is temporary and that ultimately PHI will be able to access all of the capacity reserved to their project. However this provision allows the City a significant degree of latitude in how it elects to manage wastewater capacity for development. Aside from the Webb project, single-family development in the City has averaged 85 dwelling units per year over the last ten years and approximately 163 single-family units per year over the last two years. While it is likely that the City's housing market is more likely shifting towards the trend of the last two years, at that pace the available capacity to the City at the expanded existing wastewater treatment plant represents over ten years of development. Assuming that there are even greater rates of development in the City the calculation demonstrates that there is a significant amount of capacity that the City can prudently manage under the terms of its development agreements.
5. The next issue raised by the Webb letter expressed a concern that Bickford Ranch would not be able to participate as "Third Party" user in the new treatment plant (intended to be operational by 2002) because there had not been notice of participation filed by the date established in Section 3.2.2.C.3, (August 31, 1998). Webb's letter correctly states the terms of the agreement, however that approach is not the only basis upon which the new wastewater treatment plant can be expanded. Section 3.2.2.B.3 of the amended Development Agreement allows the City to oversize the new

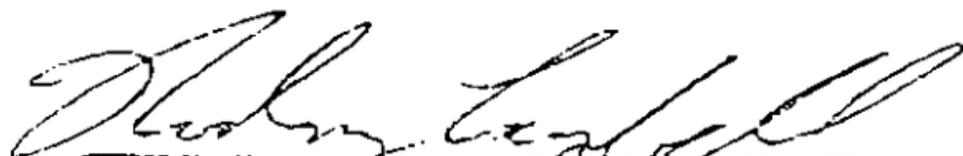
treatment plant as long as it can be reasonably demonstrated to Webb and PHI that no delays in the schedule will result. In that sense the City does have the potential to add capacity to the initial stages of the newly built treatment plant without being in conflict with the Webb/PHI Development Agreements regarding "third party" users.

6. In addition, as noted above Section 3.2.2.G of the amended Placer Holdings Development Agreement allows the City to utilize capacity at the new treatment plant, which in the Initial Stage of construction (1.8 mgd) would provide PHI with 848,000 gallons/3,365 edu's. It should also be noted that the recently approved Lincoln Crossing's Development Agreement Section 3.2.2.H allows the City to borrow capacity from Lincoln Crossings in the new treatment plant under the same terms and conditions as PIII. As a Third Party participant in the new treatment plant Lincoln Crossings has 450,000 gallons/1,785 edu's which the City may use. Again this is a tool available to the City in terms of managing it's wastewater capacity and meeting the perceived needs for service as defined by the City Council.
7. The other component regarding wastewater capacity is that once the new wastewater treatment plant is constructed, and the Del Webb flows are moved there, those project capacities of 710,000 gpd at the existing wastewater plant will be available for a period of time before the City determines to close that facility. That will leave the potential for available capacity at this facility once flows from the south Lincoln development areas are shifted to the new plant. While there are several aspects (SWRCB requirements, improvements, and timing) that need to be evaluated regarding the potential for capacity at this facility, it is certainly a tool available to the City in addressing wastewater service requirements and one that provides the City with flexibility in managing its utility.
8. Based upon the above review, there is in staff's view adequate wastewater capacity available to the City under the terms and conditions of the existing development agreements that would present the City with the flexibility to be responsive to requests for service both within and outside its corporate boundaries. Such service outside the city limits would require a review by the City Council to determine if such opportunities would be beneficial to both the City and those areas seeking service. Staff believes that this information addresses those critical issues raised in the Del Webb comment letter that revolve around wastewater capacity. Following its review of this information the City Council may wish to provide staff with additional direction regarding the need for more information, areas that the Council wishes to expand upon or areas which staff has not yet addressed that are of interest.

**Options:** The City Council may take the following action.

1. Allow for a brief staff presentation.
2. Provide for a period of discussion.
3. Provide staff with direction.

**Submitted by:**

  
\_\_\_\_\_  
Rodney Campbell, Director

**Approved by:**

\_\_\_\_\_  
William J. Malinen, City Manager

October 19, 1999

# BICKFORD RANCH

Mr. John Pedri, Director of Public Works  
City of Lincoln  
1390 First Street  
Lincoln, CA 95648

Dear Mr. Pedri:

In response to your October 5, 1999 request for funding to amend the Pre-Design Report for the City of Lincoln's Wastewater Treatment and Reclamation Facility (WWTRF), this letter is to confirm Bickford Ranch's participation for an amount not to exceed \$60,000.00. It is our understanding that these funds will be applied to future Bickford Ranch fee's for sewer service.

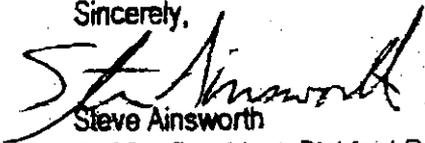
I also request a meeting with City staff as soon as possible to discuss the draft Memorandum of Understanding (M.O.U.) between the City of Lincoln and Bickford Ranch for sewer treatment services. I would appreciate your commitment to meet with us within one week and to finalize the M.O.U. by December 1, 1999 as a part of accepting the Bickford Ranch funding participation. Subsequent funding for costs following the amended Pre-Design Report will be contingent upon the City of Lincoln and Bickford Ranch executing a Memorandum of Understanding which addresses items such as funding obligations, availability of service, fees, and operation and maintenance.

Please note that future correspondence and invoices regarding this issue should be addressed to my attention at:

Southwest Diversified  
c/o Bickford Ranch  
263 Nevada Street  
Auburn, CA 95603

Please contact me at (916) 803-5658 as soon as possible to discuss this matter further.

Sincerely,



Steve Ainsworth  
Sr. Vice President, Bickford Ranch

Cc:

✓ George Phillips  
✓ Brian Bombeck  
✓ Rick Jordan  
✓ Duanne Cobb

Orin Bennett  
Bill Malinen  
Ray Sprague  
Don Noyes

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## Parks and Recreation

### Master Response PR-1 Revised Park Facilities

In response to comments received on the DEIR, the Applicant has revised the park plans for Bickford Ranch Park and Tower Park. Current plans for these two parks are shown on Revised Figures 3-9 and 3-10. Tables 6-6 and 6-7 of the DEIR are revised as follows.

Revised Table 6-6 below identifies the Applicant's modified parks and open space areas.

Text  
Revision

**Revised Table 6-6  
Proposed Parks and Open Space Areas**

Facility	Acreage	Ownership	Public Access	Major Activities
<b>Open Space (including easements)</b>				
Natural Open Space	476.8	County	Y	Open space Passive recreation
Open Space Corridors	52.1	County	Y	Trail system Passive recreation
<b>Passive Recreation Subtotal</b>	<b>528.9 acres</b>			
<b>Parks</b>				
Bickford Ranch Park Active Passive	26.34 30.46	County	Y	Equestrian staging, baseball and soccer turf fields, basketball, tennis, tot lot, picnic area
Tower Park Active Passive	0.5 3.2	County	Y	Sport court, tot lot, picnic area, turf area
Golf Course, Driving Range, and Maintenance Facility	332.5	Homeowners Association	Y <sup>1</sup>	Golf (park)
Clubhouse/Recreation Center	6.0	Homeowners Association	N	Clubhouse, fitness center, swimming pool, tennis courts
<b>Improved Parkland Parks Subtotal</b>	<b>27.06 acres (excluding private and potentially private facilities) 399.0 (total)</b>			
<b>Totals</b>	<b>589.4 acres (excluding private and potentially private facilities) 927.9 acres (total)</b>			

Note:

<sup>1</sup> May revert to a private facility

Revised Table 6-7 below identifies how the modified park plans fulfill the Placer County park facility goals.

Text  
Revision

**Revised Table 6-7  
Placer County Park Facility Goals and Proposed Park Facilities**

Facilities	Goal	Facilities Identified in Proposed Project	
Tot lots	4.2	2	Public
Playgrounds	1.4	2	Public
Tennis Courts	0.7	1	Public
Basketball	0.7	1	Public
Hardball Diamond	1.4	1	Public
Softball Diamond	1.4	1	Public
Recreational Trail	4.2	17.5 <sup>1</sup>	Public
Youth Soccer Field	2.1	4	Public
Adult Field	2.1	2	Public
Sports Court	na	1	Public
Ball Field	na	1	Public
Golf Course	0.8	18 holes	Public (potentially private in future)
Equestrian Staging Area	na	1	Public
Picnic Areas	na	2	Public
Water Pond	na	4	Public
Heritage Recreation	na	na	Private
Clubhouse	na	1	
Fitness Equipment	na	1	
Meeting Rooms	na	1	
Swimming Pool	na	1	

Notes:

<sup>1</sup> The Applicant has proposed an additional 1 mile of “minor” trail as shown on Revised Figure 3.7. This trail consists of 2 feet of additional paved sidewalk through residential communities R-13 and R-14. This may not be included in meeting the Applicant’s requirement for provision of recreational trails per the General Plan.  
na = not applicable

The proposed modifications to Bickford Ranch Park would result in the elimination of noise sources associated with the equestrian arena, and the potential introduction of additional community noise sources. Two residential lots (lots 4 and 5 in M-1) would border Bickford Ranch Park in the vicinity of outdoor activity areas at the park, should the school site not be developed as a school (see Master Response S-3). Given minimum residential setbacks and proposed locations of activity areas, these residences would likely be a minimum of 75 feet from the nearest park activity. It is recommended that the first bullet of Mitigation Measure N-G on page 9-19 of the DEIR be revised to include this area in the notice requirements, as follows:

Text  
Revision

- “• Prospective buyers of lots adjacent to the northeastern park boundary and south of the park will be informed regarding the approximate frequency and content of noise-generating community events at the park including athletic events and any events which would include the use of a public address system.”

The requirement to notify prospective buyers of lots to the north is recommended to be eliminated since the modified plan now includes wetland buffers separating the northern lots from activity areas within the park. With the recommended mitigation measures, this impact would continue to be less than significant.

## Master Response PR-2 Revised Trails

The updated trail system for the proposed project is shown on Revised Figure 3-7 in Chapter 2 of this FEIR. The revised off road trail system includes 18.5 miles of public trails and 4.1 miles of private trails. These are classified as follows: 1 mile of primary trail for pedestrians, joggers and cyclists; 4.5 miles of secondary trails for hiking and jogging; 1 mile of minor trail for pedestrians and joggers; 3.8 miles of public equestrian trails, 1.2 miles of multi-purpose trails for pedestrians, bicyclists, and equestrians; and 7 miles of wilderness trails for hikers, joggers and equestrians. Private trails include 2.1 miles of equestrian and 2 miles of pedestrian trails. Bickford Ranch Road would also include of 8.6 miles of class II bike lanes.

It should be noted that the trail designated as minor trail consists of 2 feet of additional paved sidewalk width. As such, it may not be included toward meeting the Applicant's requirement for provision of recreational trails per the General Plan.

Trails shown on Revised Figure 3-7 as public are planned by the Applicant to be dedicated to the County. General Plan policies (specifically, 5.C.1a and 5.C.1d) support the development of a trail system within the County that is multiple use (i.e., pedestrian, equestrian, bicycle). Implementation program 5.3 within the General Plan further emphasizes the need for trail plans to include all users. The County staff has indicated that they will recommend that all trails be multiple use or that adjacent trails for pedestrians, equestrians and bicyclists should be provided (Ramirez, 2000). In addition, County staff will recommend that the Applicant provide a continuous, connected, developed, multiple use trail network around the entire perimeter within the project boundaries, unless otherwise approved by County Parks. It is recognized that portions of this perimeter trail would be more directly provided by connection through other ownerships (Union Pacific Railroad). Therefore, County Parks staff will consider recommending abandonment of specific sections in localized areas of Bickford Ranch if better alignments are provided by adjacent property owners. The proposed Specific Plan will be considered by the Planning Commission and Board of Supervisors during the public hearings on this project. Specific approvals or conditions related to trails and the phasing of improvement construction, including trails, will be determined at this time. Decisions regarding future usage of the trails would be the responsibility of the trail owners, in this case either the Homeowner's Association (for private trails) or the County (for public trails).

Wilderness trails planned for the north side of Boulder Ridge would be located on soils identified by the USDA as having a high erosion hazard. Construction and use of these trails would contribute to Impact G-5 (Potential for increased erosion during and after construction) and would require an additional mitigation. The last sentence of the second paragraph under Impact G-5 (page 10-14 of the DEIR) is revised to read:

“Once the construction project is complete, increased potential for erosion would exist in all areas which have not been properly revegetated, or on and in the vicinity of wilderness trails not properly constructed or maintained.”

Text  
Revision

The wilderness trails should be included in the first sentence of the fourth paragraph of the discussion of Impact G-5, also on page 10-14 of the DEIR:

“...communities: the Meadows, the Ridges, and Heritage Ridge, *wilderness trails*, and off-site facilities...”

Text  
Revision

and the following text on page 10-15 of the DEIR before the sub-heading **Off-Site Facilities**:

Text  
Revision

“Wilderness trails planned for the north side of Boulder Ridge would be located on soils identified by the USDA as having a high erosion hazard. Trail construction activities in these soils have the potential to cause increased erosion, as would improper trail design and inadequate maintenance. The potential for additional soil erosion during and following trail construction would be reduced to less than significant through implementation of Mitigation Measure G-D.”

Mitigation Measure G-D is added to the recommended mitigation for Impact G-5:

**“Mitigation Measure G-D:** Implement appropriate trail design, construction and maintenance standards to minimize erosion

Mitigation Measure G-D applies to Impact G-5.

Text  
Revision

Wilderness trails will be constructed and maintained based on appropriate and standard trail construction guidelines, such as U.S. Forest Service Trail Handbook 2309.18 (USFS, 1991). Soil type and trail grade should be considered with reference to cross drain frequency, and grades should be minimized on highly erosive soil types. Since cross drains are maintenance intensive, particularly under equestrian use, trails should be designed to eliminate them where possible by rolling the grades, i.e., providing dips on graded sections to eliminate long sloped trail sections. Design, construction and maintenance of wilderness trails based on standardized trail construction guidelines would reduce the potential impact of erosion to less than significant.”

Addition of seven miles of wilderness trails proposed by the Applicant (see Figure 3-7 in this FEIR) would create new, but less-than-significant impacts on wildlife habitat. If multiple use trails or adjacent trails for bicyclists are required by the County, these impacts would be greater than the plan proposed by the Applicant but would still be less than significant. The wilderness trails would be constructed a maximum of 350 feet into the open space from proposed or existing development, with most trails being 200 feet or less from proposed development. The trail alignments have been placed to preserve wildlife habitat value and wildlife movement within the project site Natural Open Space (NOS). Crossing of streams has been minimized, and all crossings will be bridges that do not encroach on streams or associated wetlands.

## SCHOOLS

### Master Response S-1 Mitigation for School Impacts

Section 6.3.5 and Section 6.4.3 of the Draft EIR address the impact of the proposed project on the school districts and mitigation of said impacts, respectively. Section 6.3.6 addresses the proposed project's consistency with the Placer County General Plan. The Draft EIR acknowledges in Section 6.3.5 that the increased demand for public schools resulting from the proposed project would be potentially significant in the short term and less than significant in the long term. The Draft EIR also acknowledges that all schools are currently over capacity (Section 6.1.5).

The Draft EIR identifies that the new H. Clarke Powers School would likely serve the first elementary school students from the proposed project. The H. Clarke Powers School would help alleviate the potentially significant short-term impacts of additional K-8 students associated with the first phase of the proposed project. Boundary adjustments among school districts could also help alleviate short-term impacts, as discussed in Master Response S-2.

Proposed mitigation related to schools includes payment by the Applicant of statutory fees to existing school districts to the extent required by law, discussed in Section 6.3.5 of the Draft EIR. The statutory fees could help support upgrade of existing facilities or new facilities to serve the proposed project, and would help alleviate the capacity overage in the long term.

The passage of Senate Bill 50 (SB50) in 1998 resulted in the amendment of Government Code §65995 et seq. to strictly limit the authority of school districts and/or local jurisdictions to require mitigation for school impacts in excess of those fees, charges or dedications identified in Government Code §65995(a). A district can impose fees in excess of the statutory fees only if the district meets the requirements under SB50 to implement either the 50 Percent Fee or the 100 Percent Fee. The requirements include participating in the State Financing Program, undertaking local efforts to provide capacity, and preparing a school facilities needs analysis.

In fall 1999, Placer County passed Measure W. As a result, Placer Union High School District expects to receive a total of \$60.5 million in Measure W and state matching funds for construction projects over the next few years. It is expected that part of these funds will be used to renovate Placer Union High School, which would serve the proposed project.

## **Master Response S-2 School District Boundary Adjustments and Interdistrict Transfers**

Neither the County nor the Applicant has the authority to require or approve boundary adjustments. Boundary adjustments are at the discretion of the school districts. Ideally, the districts themselves will agree upon a boundary adjustment, as this is the most efficient way of approving an adjustment. The districts are responsible for 1) ensuring that a district would be capable of serving the additional students who would be part of the district under a boundary adjustment, and 2) related facilities funding issues under a boundary adjustment. Ongoing discussions among districts with regard to boundary adjustments had not resulted in an agreement as of March 2000.

The Applicant also has the option to apply to the State Board of Education requesting a boundary adjustment. The Applicant had not begun the process of applying to the State for a boundary adjustment as of February 1, 2000.

The districts and the State have the option to consolidate the units in the proposed development into one elementary school district (a new district, or as an addition to an existing district). This action could be implemented through boundary adjustments and the designation of a sole provider of educational services for the new district. Loomis Union School District (H. Clarke Powers Elementary) would serve students associated with the first phase of the proposed project as long as district boundaries stay the same.

A second method of moving students among districts (in addition to boundary adjustments) is interdistrict transfers, which are less permanent than a boundary adjustment and are on a by-student basis. Interdistrict transfers affect capacity and attendance at schools and in districts near the project site. Similar to boundary adjustments, interdistrict transfers are at the discretion of the individual districts. No district can or should guarantee interdistrict transfers, nor do they have an obligation to serve students outside of their own district. If problems with funding exist in a district, the district does not have to accept additional students.

The possibility that interdistrict transfers would not be feasible due to increased capacity in the schools could be due to not only the proposed project, but also other development in the area. Interdistrict transfers could still occur in full schools, as long as the number of students who are transferred into any given school is the same as the number of students who are transferred out of that school.

### Master Response S-3 New On-Site School and Overlay

In a previous land plan for Bickford (Submitted by Wickland Properties during the 1993/1994 Placer County General Plan Update), an on-site elementary school site was included. However, the original project consisted of non-age-restricted units only, and the number of students expected to be associated with that proposal was sufficient for an on-site elementary school to be supported. The current plan includes 947 age-qualified units, and the number of students generated would be less than under the previous plan. Under the current plan, an on-site school was not included because the project does not generate a sufficient number of students in a given district to support a new school for that district. This situation is related to the number of districts that would service the site without a boundary adjustment (see also Master Response S-2).

In response to comments received on the DEIR, however, the Applicant has reserved a potential location for an on-site school that would be utilized in the event that a boundary adjustment is reached. See Chapter 2 of this FEIR for information concerning this change. The potential location of the school is a 15-acre site in the Meadows area, and is shown on Revised Figure 3-4 in Chapter 2 of this FEIR overlaying proposed lots. The Applicant would follow provisions of Government Code §66480 for the reservation period. The Code states, “The public agency for whose benefit an area has been reserved shall at the time of approval of the final map enter into a binding agreement to acquire such reserved area within two years after the completion and acceptance of all improvements, unless such period of time is extended by mutual agreement.”

If an agreement is reached regarding the school site under §66480, joint use agreements would be pursued by the districts or boundary adjustments would have to occur. The potential location of the on-site school is adjacent to a public park. In the event the site is used for a school, the public park would provide a joint use. This would be subject to a joint-use agreement with the County. The on-site school would have to be acceptable to and comply with the district that would serve the site, and would comply with the State Board of Education requirements. It is possible that joint use agreements could provide for cost sharing arrangements.

It must be noted that the Applicant is not required to, and does not propose to, build a school on site. California law does not provide authority to require the Applicant to construct a school on site either prior to occupancy of residents or thereafter.

Currently, it is not feasible to analyze the origin of students who would attend the on-site school. However, since the elementary school students generated by the proposed project would travel shorter distances to school if one was located on site, fewer buses would likely be needed to transport students if a new on-site school were constructed (also see Response A2-9).

A new school would result in the introduction of a new community noise source. No residential lots would border the school site. However, three residential lots (lots 1, 2 and 3 in M-2) would be within 150 feet of the school site boundary. Activities or events at the school would result in occasional short-term noise level increases at these residential lots. Introduction of the school site to the proposed project area would result in higher traffic volumes and associated noise levels along the road(s) providing access to the school site during weekday periods before and after school. It is recommended that a new bullet be added to Mitigation Measure N-G on page 9-19 of the DEIR, to include the potential for a school site in the notice requirements, as follows:

- “• Prospective buyers of lots adjacent to the proposed school site reservation and along school access roadways will be informed regarding the potential presence of the school site, and the likely frequency and content of noise-generating

<i>Text Revision</i>
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activities at the site. The Applicant will work with the applicable school district to prepare this information.”

This addition to Mitigation Measure N-G would reduce potential new noise impacts to a less-than-significant level.

A new school would also change the project street circulation system. This is addressed in Master Response T-3. The analysis assumed a stop sign–controlled intersection at Sierra College Boulevard and the new unnamed road off Sierra College between SR193 and Lower Ranch Road. The analysis concluded that a traffic signal is warranted, and with the traffic signal, no new significant traffic impacts would result from the school.

## STORM WATER

### Master Response SW-1 Storm Water

Master Response SW-1 responds to comments regarding the effect of the proposed project on the rate and volume of runoff, and potential downstream flooding. Approximately 70 percent of the site currently drains to Auburn Ravine and would continue to drain to Auburn Ravine with the proposed project. The balance, about 30 percent of the site, drains to Dry Creek. The Applicant has designed the project to preserve, to the maximum extent practicable, the watershed divide between the Auburn Ravine and Dry Creek watersheds. However, the proposed project would increase the amount of impervious surface at the site, which would in turn increase the rate and volume of runoff generated at the site. These impacts (H-1 and H-2) are identified and discussed in Section 12.3.1, Surface Water Hydrology.

CEQA requires that mitigation measures not defer mitigation to a future time, but allows for mitigation that specifies performance standards that can be accomplished in more than one way (CEQA Guidelines §15126,4(a)). Three mitigation measures (H-A, H-B and H-C) are identified in Section 12.3.1 and discussed in more detail in Section 12.4. These mitigation measures meet the CEQA guidelines by including standards and specifications to achieve the mitigation goals, as described in detail below. The mitigation measures, when implemented, will reduce the impact of the project on run-off rate and volume to a level that is less than significant, both from a project-specific perspective and cumulatively (as discussed in pages 16-110 and 16-111).

Mitigation Measure H-A requires that a Storm Water Management Program (SWMP) be developed under the guidelines presented in the Placer County Stormwater Management Manual (SWMM). The SWMM has established goals: protection from periodic inundation which could result in loss of life and property; protection and enhancement of natural resources belonging to the stream environment; prevention of erosion and adverse effects on water quality; addressing storm water management from a regional perspective that is consistent with Placer County and other community goals and plans; maximizing the use of resources by planning and implementing multiple compatible uses; assuring orderly growth and development and minimizing adverse effects of growth and development.

The SWMP will be prepared during the development of the project design and will be subjected to County Staff review and approval. This approval will occur prior to Improvement Plan approval as a condition of project approval. Compliance with the SWMM will assure its adequacy. There is no formal public review process for the SWMP, although the documents are not confidential. Comments on the SWMP should be directed to Placer County Public Works Department.

As a condition of project approval, the proposed project will include runoff rate controls (Mitigation Measure H-B) such that the runoff rate in the post-project condition will be less than that which occurs in the pre-project condition. In addition, the Applicant proposes to provide retention storage which will capture and retain the increased runoff volume that would result from the project due to the construction of impervious surfaces such as roads, roofs, parking areas, driveways, etc. This mitigation, Mitigation Measure H-C, requires the Applicant to construct, or cause to be constructed, 108 acre-feet of retention storage within the Auburn Ravine watershed or a lesser amount of acre-feet based on the final approved project and as determined by methods acceptable to Placer County and Sutter County.

The DEIR presents performance-based standards for mitigation of runoff volume and runoff rate. The mitigation measures are based on detailed technical analysis of detention and retention storage requirements for the proposed project as presented in the Preliminary Hydrology Report dated July 15, 1999 by Civil Solutions (Civil Solutions, 1999). The report is included in Appendix H, Volume IV, of the DEIR.

**Runoff Volume**

Section 12.3.2 of the DEIR identifies that the project would generate an additional 108 acre-feet of runoff volume tributary to Auburn Ravine during an 8-day, 100-year storm, and for the same frequency and duration storm, the proposed project would generate 26 acre-feet of additional runoff volume tributary to the Dry Creek Watershed. To mitigate for an increase in the volume of runoff leaving the site, the Preliminary Hydrology Report (and the DEIR) identify specific off-site and/or on-site retention volumes that would need to be provided for each phase of the project. The preferred approach is to provide the retention storage volume at the City of Lincoln’s regional retention basin, which is currently in the preliminary engineering phase, according to the City’s Community Development Director (Campbell, 2000). The City of Lincoln has indicated its conditional agreement to accommodate additional storage within their regional retention basin, when built. See the letter from the City of Lincoln dated May 19, 1999 attached to this response. Note that the agreement with Placer County identified in the last paragraph of this letter would actually be with the Applicant, according to County staff. If for some reason the preferred approach does not happen or is delayed, a second method of mitigation for runoff volume is identified. The second approach would be to provide retention storage on site either on an interim basis until the regional facility is on line or on a permanent basis. The second approach has the flexibility to provide on site either a portion (Phase 1) or all of the retention storage (see Civil Solutions, 1999, page 9). See Mitigation Measure H-C on page 12-23 of the DEIR. If all retention storage is provided on site, this could require a change in the lotting plan, which would undergo environmental evaluation prior to approvals.

The Preliminary Hydrology Report identifies the volume of retention storage required for each phase of the proposed project, as shown in Table SW1-1.

**Table SW1-1  
Estimated Retention Volume By Proposed Project Phase**

<b>Watershed Basin</b>	<b>Phase I</b>	<b>Phase II</b>	<b>Phase III</b>	<b>Total</b>
Ingram Slough	16	4	0	20
AR1	0	0	0	0
AR2	0	0	13	13
AR3	0	0	12	12
AR4	5	3	1	9
AR5	8	2	0	10
AR6	9	5	0	14
AR7	30	0	0	30
<b>Total by Phase</b>	<b>68</b>	<b>14</b>	<b>26</b>	<b>108</b>

**Runoff Rate**

The proposed project plans include detention storage at various locations throughout the project site. These storage systems act to reduce the runoff rate leaving the project site to less than the pre-development runoff rate. This means that the 100-year flow rate leaving the site will be *less* than the 100-year flow that would leave the site if the project were not constructed. Flood elevations increase as the flow rate increases and conversely, flood elevations decrease as the flow rate decreases. Because the project would decrease the flow rate during the 100-year flood, flood elevations would decrease and flood levels would not reach as high an elevation. Similarly, the velocity of water in a natural channel would decrease as the flow rate decreases; this effect is much less pronounced than the change in water elevation.

To mitigate for an increase in the rate of runoff, the Preliminary Hydrology Report identifies specific detention basin locations, the size of the required detention basins, how each detention basins fits within its respective topographic setting and the outlet control for each basin. Proposed lakes and detention basins are shown on Sheet 1 of 1 in the Preliminary Hydrology Report, and the elevation of inundation is shown on pages 7 through 10 in the Preliminary Hydrology Report and restated in this response. The report also presents estimates of the size and performance characteristic of on-site detention basins, as shown in Tables SW1-2 and SW1-3.

The following text revisions are made to the DEIR:

Page 12-6, first bulleted item, is changed to read:

- “Use of detention basins to maintain downstream flow rates at less than the pre-development rate of flow;”

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Page 12-8, first paragraph after the 6 numbered items (last full paragraph on the page), line 4, is changed to read:

“...less than the pre-development runoff rate. The proposed facilities....”

*Text  
Revision*

Page 12-9, last paragraph on the page, line 3, is changed to read:

“flow to less than the existing flow rate, the impact of the proposed project on runoff rate would be...”

*Text  
Revision*

Page 12-22, last paragraph on the page, line 3, is changed to read:

“...flow rate during peak storm events to less than the existing flow. This is based on...”

*Text  
Revision*

These revisions are in conformance with the Placer County Stormwater Management Manual as are the calculations presented in the DEIR and the preliminary Hydrology Report, and do not change any DEIR conclusions regarding significance.

**Table SW1-2  
Estimated Size and Performance Characteristics of On-Site Detention Basins and Lakes Proposed  
for the Clover Valley/Antelope/Dry Creek Watershed**

<b>Detention Basin or Lake Location</b>	<b>Peak Stage Elevation (feet)</b>	<b>Peak Outflow Rate (cfs)</b>	<b>Required Storage for 100-year Flood (acre-feet)</b>	<b>Maximum Available Capacity (acre-feet)</b>	<b>Reserve Capacity (acre-feet)</b>
CV1-2B Detention	856.4	38	1.4	1.5	0.1
CV1-6D Detention	778.3	44	0.6	0.7	0.1
CV1-7 Detention	697.1	21	1.2	1.5	0.3
CV1-7 Lake	672.2	527	1.0	2.2	1.2
CV1-12B Detention	856.4	38	1.4	3.0	1.6
CV2-3C Detention	610.9	48	0.6	0.8	0.2
CV2-9B Detention	558.6	105	5.0	5.8	0.8

**Table SW1-3**  
**Estimated Size and Performance Characteristics of On-Site Detention Basins and Lakes Proposed**  
**for the Auburn Ravine/Dutch Ravine/Ingram Slough Watershed**

<b>Detention Basin or Lake Location</b>	<b>Peak Stage Elevation (feet)</b>	<b>Peak Outflow Rate (cfs)</b>	<b>Required Storage for 100-Year Flood</b>	<b>Maximum Available Capacity (acre-feet)</b>	<b>Reserve Capacity (acre-feet)</b>
14BDET Detention	473.7	145	3.5	6.2	2.7
SC-4 Culvert at 14B-3	351.2	231	3.2	ND	ND
AR2-3B Detention	605.25	123	1.4	2.6	1.2
AR3-3 Detention	571.3	232	3.5	4.0	0.5
AR4-4 Lake	501.3	228	12.0	ND	ND
AR4-8 Detention	409.0	280	1.8	2.3	0.5
AR6-5D Detention	463.2	259	1.0	1.7	0.7
AR6-10 Lake C	274.0	620	7.0	10.9	3.9
AR6-10 Lake B	270.1	618	1.2	2.4	1.2
AR6-10 Lake A	266.1	630	4.6	7.6	3.0
AR7-2 Lake C	346.3	196	2.0	3.9	1.9
AR7-2 Lake B	333.3	206	1.2	2.8	1.6
AR7-2 Lake A	322.3	218	1.2	2.5	1.3
AR7-5 Lake	302.3	113	10.0	28	18
AR7-7 Lake	293.4	120	5.0	13.8	8.8
SC-2 Culvert at AR7-8	279.3	123	ND	ND	ND
SC-3 Culvert at AR7A-1	306.8	33	ND	ND	ND

ND = Not Determined

### Computer Modeling

Detailed topographic maps are presented in the Preliminary Hydrology Report. These maps delineate subwatershed areas and drainage patterns for the project. The maps include subwatershed basin labels that can be correlated to schematic diagrams which detail how runoff from each basin combines with adjacent basins and is routed through the project site. The schematic diagrams are included in the computer model output, which is available on a CDROM, a copy of which is in the Planning Department files. A printed copy of the output is attached to this FEIR as Appendix E.

By using the mapping and computer output, the locations of the combination node locations can be determined. The output also details the subwatershed area runoff characteristics, such as percent impervious and initial and uniform loss rates and routing characteristics including reach length, roughness, shape, etc. For more information on node locations, see Response I33-8.

Summary tables are also provided in the Preliminary Hydrology Report. The tables detail the estimated peak flow rates for the 2-year, 5-year, 10-year, 25-year, 50-year, 100-year, 200-year and 500-year storm runoff events. These flow rate data are presented for the pre-project (existing) condition, the post-project unmitigated condition and the post-project mitigated condition.

Areas of inundation are depicted on Sheet 1 of 1 of the Preliminary Hydrology Report. Although not specifically prepared for the EIR, Placer County, as a condition of project approval, requires project

applicants to submit graphics showing the extent of the 100-year floodplain for the pre-project, post-project unmitigated condition and post-project mitigated conditions.

### **County Plans and Policies**

The analysis presented in the Preliminary Hydrology Report is based upon the procedures and requirements for hydrologic analysis and design of storm water facilities as outlined in the Placer County Stormwater Management Manual. The project is also designed in accordance with Placer County General Plan Policies, which include but are not limited to:

Policy 4.F.4 The County shall require evaluation of potential flood hazards prior to approval of development projects. The County shall require proponents of new development to submit accurate topographic and flow characteristics information and depiction of the 100-year floodplain boundaries under fully developed, unmitigated runoff conditions.

Policy 8.B.5 The County shall coordinate with neighboring jurisdictions to mitigate the impacts of new development in Placer County that could increase or potentially affect runoff onto parcels downstream in a neighboring jurisdiction.

See Section 12.3.3 for a discussion of General Plan Policies related to stormwater drainage, flood protection and flood hazards.

The mitigation measures described above, when implemented in accordance with the Placer County Stormwater Management Manual and the Placer County General Plan Policies, would reduce the impact of the project on runoff rate and runoff volume to a level that is less than significant.

Also see Master Response SWQ-1.

## **TRANSPORTATION AND CIRCULATION**

### **Master Response T-1 Traffic Mitigation Fees and Improvements to Sierra College Boulevard and Other Roadways**

Some commentors requested additional information regarding the implementation of improvements along Sierra College Boulevard, and additional analyses to investigate traffic operations in the event that such improvements are not provided in a timely manner. The following response addresses funding, timing and priority issues as they relate to improvements along Sierra College Boulevard.

#### **Existing Traffic Mitigation Fee Program**

The County currently collects traffic impact fees from all development within the unincorporated area of the County to fund roadway improvements that have been identified to support the level of traffic expected through the year 2010. The fees collected from individual development projects are consistent with the development's expected impacts to the County roadway system. In other words, each County development project pays its fair share of the cost of roadway improvements. The current County fee program does not collect traffic impact fees from neighboring jurisdictions such as Rocklin, Loomis, Lincoln and Roseville. These jurisdictions collect development fees for roadway improvements within their boundaries. County development does not contribute to improvements in neighboring jurisdictions.

#### **Proposed Sierra College Boulevard Fee Program**

Placer County, in conjunction with the City of Rocklin, the City of Lincoln and the Town of Loomis, has been working on a regional approach to funding roadway improvements along Sierra College Boulevard. This coordinated effort is referred to as the Sierra College Boulevard Fee Program. The proposed structure of the fee program requires that each jurisdiction collect fees from development projects to be used specifically for improvements to Sierra College Boulevard. The fees collected from a specific development project (within any jurisdiction) would represent that project's "fair share" contribution to the cost of all the identified improvements. It should be noted that funding for the interchange at Sierra College Boulevard and I-80 will likely include a substantial portion of funding to come from the State.

The timing of the adoption of the Sierra College Boulevard Fee Program by each jurisdiction is uncertain at this point. Due to this uncertainty, the payment of traffic fees by Bickford Ranch will occur in one of the following ways depending on the status of the Sierra College Boulevard Fee Program. Fees will be assessed at the time building permits are issued:

(1) **Sierra College Boulevard Fee Program Is Adopted**

Bickford Ranch will pay both the Countywide Traffic Mitigation Fee and the adopted Sierra College Boulevard Fee. The Countywide Traffic Mitigation Fee will be revised (reduced) to reflect the elimination of the Sierra College Boulevard improvements that are contained within the Sierra College Boulevard Fee Program.

The proposed mitigation for impacts along Sierra College Boulevard under this scenario is for the project to pay the adopted fee for the Sierra College Boulevard Fee Program.

(2) **Sierra College Boulevard Fee Program Is Not Adopted**

Bickford Ranch will pay the current Countywide Traffic Mitigation Fee that the County will collect and use to fund improvements within the County's jurisdiction. An additional fee will be collected. This additional fee will be equivalent to the project's share of improvements on Sierra

College Boulevard. This specific amount of the fee will be determined by Placer County, based upon the project's share of future traffic volumes and the expected fee program associated with the regional funding approach. The County will collect and hold this additional fee to be used to help fund future improvements along Sierra College Boulevard, once a regional approach to these improvements has been formalized.

Under this scenario, the proposed project mitigation for impacts to Sierra College Boulevard is the payment of the two fees described above. The impacts to the portions of Sierra College Boulevard within the County's jurisdiction will be mitigated through payment of the Countywide Traffic Mitigation fee, while the payment of the additional fee will be used to mitigate for impacts to the portions of Sierra College Boulevard not within the County's jurisdiction.

Under either of the above scenarios, a mechanism will exist to fund the improvements identified along Sierra College Boulevard. These improvements are identified in Section 7.3 of the DEIR, and include improvements to the I-80/Sierra College Boulevard interchange; widening of Sierra College Boulevard from two to four lanes from Taylor Road to I-80, and from four to six lanes from Taylor Road to Granite Drive; adding a second west-bound left-turn lane on Taylor Road at the Sierra College Boulevard intersection; adding a second northbound left-turn lane on Sierra College Boulevard at the Twelve Bridges Drive intersection; adding a westbound right-turn lane on King Road at the Sierra College Boulevard intersection; and recommended construction of a third lane on Sierra College Boulevard opposite the project boundaries. Implementation of these improvements would reduce the impacts of the proposed project on traffic in the study area to a less-than-significant impact.

### **Timing and Priority of Improvements**

Even with a mechanism in place to collect funds to construct the identified roadway improvements, the ability to collect sufficient funds to make improvements prior to their actual need is not guaranteed. In the long term, the fee programs, in addition to other funding sources, will provide sufficient funding for the improvements. However, there may be instances where roadway facilities are not able to meet the desired levels of services in the short term. Traffic impacts will remain significant until the Sierra College Boulevard improvements are implemented. Upon completion of the improvements, the impacts will be less than significant, as described in Section 7.3 of the DEIR.

### **Specific Projects on Sierra College Boulevard**

At this time, there is no adopted priority for improving specific segments of Sierra College Boulevard. The situation is dynamic, as traffic patterns will change over time as specific development occurs at various locations in the cities and in the County. The Fee Program, if adopted as presently proposed, will contain a priority list of projects that will be confirmed by the parties to the MOU as funding becomes available. Factors that will be considered include safety, congestion, delay, efficiency and cost effectiveness. Each member jurisdiction will make the final decision of the expenditure of funds at the time a project is ready to move forward. If the proposed Sierra College Fee Program is adopted, the decisions will rest with each member jurisdiction in cooperation with the other members. If the Sierra College Boulevard Fee Program is not adopted, the Board of Supervisors will make the decisions.

## **Master Response T-2 Traffic Impacts Associated with No Sierra College Boulevard Improvements**

Some commentors requested that the environmental documentation include an analysis of traffic impacts that would result if no improvements were made to Sierra College Boulevard. The analysis of traffic conditions associated with 2010 General Plan and Buildout of Project Vicinity scenarios includes improvements to Sierra College Boulevard. These improvements (described in Section 7.3 of the DEIR and summarized in Master Response T-1) are included in the scenarios for the following reasons:

- There is a demonstrated need for the improvements, with or without the Bickford Ranch project.
- The need for the improvements has been recognized in various EIRs, including the Placer County General Plan EIR, City of Lincoln Twelve Bridges EIR, and City of Rocklin North Rocklin Circulation Element EIR.
- As discussed in Master Response T-1, Placer County, the City of Lincoln, the City of Rocklin, and the Town of Loomis are participating in an effort to establish a regional mechanism for funding the improvements, and are working internally on a draft memorandum of understanding (MOU).
- The improvements are included in the circulation elements and capital improvement programs of the affected jurisdictions.
- The improvements are included in the Placer County Transportation Planning Agency Regional Transportation Plan and Sacramento Area Council of Governments Metropolitan Transportation Plan.

Additional analyses were not conducted to quantify future transportation conditions without the Sierra College Boulevard improvements. Considering the evidence that affected jurisdictions have recognized the need for improvements and are working to facilitate their implementation, it is speculative to assume that no improvements will be implemented. However, without quantitative analysis, it can be concluded that severe congestion would occur along Sierra College Boulevard with or without the Bickford Ranch project in the absence of any improvements. In addition, a by-product of this congestion would be a diversion of traffic to other facilities. The magnitude of such diversion cannot be readily quantified under this speculative scenario.

The Bickford Ranch project represents an additional contribution to traffic volume levels on Sierra College Boulevard. This contribution is identified in the DEIR. As noted in the DEIR and in Master Response T-1, the project will be responsible for funding its fair share contribution to Sierra College Boulevard improvements.

### **Master Response T-3 Impact of School-Related Traffic from Bickford Ranch**

Several comments on the DEIR pertain to the impact of school-related traffic from the proposed project. Specific comments refer to impacts near the Penryn Elementary School, Del Oro High School and the proposed new H. Clark Powers School on Humphrey Road.

It was estimated that the proposed project would result in about 699 students in grades K-12 (see page 6-27 of the DEIR). About 462 would be in grades K-8; about 237 would be in high school. Trip generation information from the Institute of Transportation Engineers (ITE) indicates that a K-8 student generates about 1.0 daily vehicle trip (0.5 trip inbound and 0.5 trip outbound) per student. High school students generate about 1.8 daily vehicle trips (0.9 trip inbound and 0.9 trip outbound) per student. Thus, the proposed project would generate about 890 school-related vehicle trips per day. The home end of these trips is included in the trip generation rate of the residential units within the proposed project shown in Table 7-6 of the DEIR.

Most of these trips would occur immediately before and after school hours. While the morning peak hour for school-related traffic overlaps the morning commute period, school traffic has a relatively small impact on the afternoon commute period.

Portions of the proposed project are currently located in three school districts: Western Placer Unified School District covers 14 percent of the site; Penryn School District and Placer Union High School District (together) cover about 32 percent; and Loomis Union School District and Placer Union High School District (together) cover approximately 54 percent. If the school district boundaries are not adjusted, it was estimated that the largest impact on any one school district would be 212 new K-8 students in the Loomis Union School District.

The DEIR recommends that the Applicant and the County enter into discussions with the Loomis Union School District and the Penryn School District to adjust existing school district boundaries so that the proposed project would be covered by only one district (see page 6-28 of the DEIR). That decision would be made by the school districts, not by the County or the Applicant. Currently, a new Loomis Union School District site, H. Clark Powers School, would be the closest school at approximately three miles from the proposed project. This new school would be located on Humphrey Road adjacent to No Name Lane. Geographically, Penryn Elementary School is closer to the proposed project at approximately two miles, but due to the proposed closure of Clark Tunnel Road as part of the project, travel distances to that school would exceed those required to travel to H. Clark Powers School.

The traffic analysis in the DEIR assumed that the students would not be concentrated into one school district but would go to schools in all three districts that currently serve the Bickford Ranch site. However, as noted in the DEIR, all school districts covering the project site are over capacity at this time. Depending upon the locations where additional capacity is added in the future, current enrollment boundaries could be modified. Therefore, it is not possible to determine specifically where future students will be enrolled.

If all of the elementary students were to attend a single off-site elementary school, this would result in an increase of about 462 daily vehicle trips in the immediate vicinity of the elementary school. While the specific location of such an elementary school is unknown, it is unlikely that this additional traffic would result in a violation of the County's level of service policy. Unlike major roadways such as Sierra College Boulevard, local roadways near the project typically operate at very good levels of service. The addition of 462 daily vehicle trips is unlikely to result in conditions worse than the level of service C goal. A similar conclusion can be made if all of the high school students were to attend a single high school, resulting in an additional 427 daily vehicle trips in the immediate vicinity of the high school.

It should be noted that the addition of these school trips could add to localized congestion in the immediate vicinity of the schools in the morning prior to the start of the school day, and in the afternoon following the session. However, this localized congestion is of limited duration (typically less than 30 minutes), and is not considered to constitute a significant impact based upon the standards of significance.

### **Analysis of Revised Site Plan Including School Site Reservation**

The revised project site plan includes a school site reservation and a change to the project street circulation system. Based upon available information, analyses were conducted to ascertain the traffic effects of these changes.

The school site reservation is located in the northern portion of the site, and would eliminate seven residential lots. While the exact size of the school has not been established, even a very small school would generate more traffic than seven residential lots on a daily basis, as well as during the a.m. peak commuter period.

Associated with the school site reservation is a new public road extending from Sierra College Boulevard (between SR 193 and Lower Ranch Road) to Lower Ranch Road. This roadway adds an additional major project access point on Sierra College Boulevard. Based upon the site design characteristics, this access point would accommodate most off-site trips to the school site. This new public road is ungated. Based upon the project site circulation design, almost all of the trips between the school site and the remainder of the Bickford Ranch project site would not travel on Sierra College Boulevard.

Analyses were undertaken to evaluate the new intersection of Sierra College Boulevard and the new unnamed road. The critical period for analysis is the a.m. peak commuter hour, when school traffic is combined with commuter traffic. During the p.m. peak commuter hour, school traffic would be minimal, and therefore traffic operations at the new intersection would not be as critical as during the a.m. peak commuter hour.

This analysis is based upon the following assumptions:

- School size and grades. The size of the school is unknown, as are the grades that would be accommodated. Based upon experience with other nearby major developments, it was assumed that the site would accommodate a K-8 school with 600 students.
- School district. As documented in the DEIR, the project site is currently served by three school districts. It is unknown whether or not the school district boundaries would change to serve the entire site with one school district, and which district that would be. For analysis purposes, it was assumed that the new school would serve the entire project site. As the school district is unknown, as well as attendance boundaries for the new school, the approach and departure distributions for off-site traffic oriented to the new school are also unknown. For conservatism, it was assumed that 80 percent of the off-site traffic approaching the school would be southbound on Sierra College Boulevard, and that 80 percent of the off-site traffic departing the school would continue southbound on Sierra College Boulevard. In this manner, the off-site traffic would predominantly be associated with left turns in the new intersection, which are more critical than right turns in the intersection analysis.
- As noted in the DEIR, the project site is estimated to generate 462 K-8 students. For analysis purposes, it was assumed that 80 percent of these students would attend the on-site school. The remaining 20 percent were assumed to attend off-site schools, such as

other public schools and private schools. Thus, of the 600 students at the school, 370 would be from the project and 230 would be from off-site locations.

- Vehicular trip generation for the school is based upon the Institute of Transportation Engineers' *Trip Generation, Sixth Edition*, 1997. The school is estimated to generate 600 daily trips and 180 a.m. peak commuter hour trips (104 entering and 76 exiting).
- Since K-8 students do not drive automobiles, the vehicle trips to the school site during the a.m. peak commuter hour are primarily associated with employees arriving at the school and parents dropping off students. Many of the trips by parents are linked trips, in which parents drop off students on the way to another destination, such as their place of employment. However, some of the drop-off trips do involve a home-to-school-to-home orientation. For Bickford Ranch students, it was estimated that 20 percent of the trips would return home after the drop-off. These vehicle trips (about 9 during the a.m. peak commuter hour) would not leave the Bickford Ranch site.

Based upon these assumptions, a.m. peak commuter hour level of service analyses of the intersection of Sierra College Boulevard and the unnamed road were conducted. The level of service analysis methodology is consistent with the procedures outlined in the DEIR. The analyses assumed that the intersection would be stop sign-controlled on the approach to the unnamed road. The following summarize the results:

- Existing Plus Project  
Intersection Average – LOS "A", 1.1 seconds average delay  
Westbound Approach – LOS "B", 9.7 seconds average delay
- 2010 General Plan Plus Project  
Intersection Average – LOS "A", 1.9 seconds average delay  
Westbound Approach – LOS "E", 32.7 seconds average delay
- Buildout of Project Vicinity Plus Project  
Intersection Average – LOS "A", 2.1 seconds average delay  
Westbound Approach – LOS "E", 38.6 seconds average delay

Based on the above analysis, a new impact is added to Chapter 7 of the DEIR:

**“IMPACT T-23:** Based on the standards of significance for traffic impacts, a significant impact occurs in the 2010 General Plan Plus Project and Buildout of Project Vicinity Plus Project scenarios, due to LOS "E" conditions on the westbound minor street approach to the intersection of Sierra College Boulevard and the unnamed road north of Lower Ranch Road, south of SR 193.

<b>SIGNIFICANCE:</b>	Significant
<b>MITIGATION:</b>	
<b>Proposed:</b>	None
<b>Recommended:</b>	Mitigation Measure T-S (Install traffic signal at the intersection of Sierra College Boulevard and the unnamed road north of Lower Ranch Road, south of SR 193)
<b>RESIDUAL SIGNIFICANCE:</b>	Less Than Significant

To mitigate these impacts, traffic signal warrants were investigated for these two scenarios. Based upon a peak hour warrant, a traffic signal is warranted in both scenarios. With a traffic signal installed at this location, the intersection would operate as follows:

- 2010 General Plan Plus Project  
LOS "A," 0.58 volume-to-capacity ratio
- Buildout of Project Vicinity Plus Project  
LOS "B," 0.64 volume-to-capacity ratio

The need for installing the traffic signal at this location would result from the cumulative impact of development in the study area, including the proposed project. The installation of this traffic signal by the Applicant would reduce this impact to a less than significant level."

**Master Response T-4 Additional Traffic Information on Roadways in Loomis, Penryn, Rocklin and Lincoln**

Several commentors requested traffic volume and level of service information on additional roadways not identified in the DEIR. The roadways included in the study area were chosen for the transportation analysis based upon the following factors:

- Major roadways in the vicinity of the site; and
- Roadways expected to accommodate a substantial percentage of project traffic, particularly roadways with known operational difficulties.

Roadways distant from the project site and roadways not expected to accommodate a substantial percentage of project traffic were not included in the analysis since it is unlikely that significant impacts would be identified at these locations.

In response to the request of the commentors, additional traffic projections and level of service calculations have been developed for the following roadways:

- Twelve Bridges Road – East of SR 65
- Ferrari Ranch Road – South of SR 193
- King Road – East of Sierra College Boulevard
- Horseshoe Bar Road – East of Taylor Road
- Taylor Road – West of Sierra College Boulevard to east of English Colony Way

Table T4-1 includes the daily traffic volume forecasts and level of service analysis results for these facilities. As expected by the original definition of the study area, the analysis of these additional roadways does not identify any additional significant impacts.

**Table T4-1**  
**Daily Traffic Volumes and Operating Conditions for Selected Additional Roadways**

Roadway	Segment	Daily Traffic Volume		Level of Service	
		Without Project	With Project	Without Project	With Project
<b>Existing Scenarios</b>					
King Road	East of Sierra College Boulevard	800	1,430	A	A
Horseshoe Bar Road	East of Taylor Road	12,800	12,930	C	C
Taylor Road	West of Sierra College Boulevard	9,500	10,500	A	A
	East of Sierra College Boulevard	10,000	10,500	A	A
	King Road to Penryn Road	6,600	6,800	A	A
	East of English Colony Way	5,000	5,750	A	A
<b>2010 General Plan Scenarios</b>					
Twelve Bridges Road	East of SR 65	1,530	2,320	A	A
Ferrari Ranch Road	South of SR 193	5,400	6,060	A	A
King Road	East of Sierra College Boulevard	2,680	3,180	A	A
Horseshoe Bar Road	East of Taylor Road	17,010	17,140	E	E
Taylor Road	West of Sierra College Boulevard	18,500	19,000	A	A
	East of Sierra College Boulevard	21,100	21,480	A	A
	King Road to Penryn Road	13,600	13,700	C	C
	East of English Colony Way	8,000	8,500	A	A
<b>Buildout of Project Vicinity Scenarios</b>					
Twelve Bridges Road	East of SR 65	36,500	37,160	B	B
Ferrari Ranch Road	South of SR 193	15,500	16,290	A	A
King Road	East of Sierra College Boulevard	3,760	4,260	A	A
Horseshoe Bar Road	East of Taylor Road	17,010	17,140	E	E
Taylor Road	West of Sierra College Boulevard	18,710	19,090	A	A
	East of Sierra College Boulevard	21,180	21,550	A	A
	King Road to Penryn Road	13,600	13,700	C	C
	East of English Colony Way	9,120	9,500	A	A

### Master Response T-5 Subway Operations on English Colony Way

Several commentors requested additional information concerning traffic operations on English Colony Way at the Union Pacific Railroad tracks. English Colony Way passes under the railroad tracks through an area known as the “subway.”

The subway structure is 100 feet in length and 20 feet in width. The actual pavement width through the subway is approximately 15 feet. Because of the narrow width of the roadway through the subway, this segment of English Colony Way operates with vehicles traveling in only one direction at a time, with any opposing vehicles waiting for a gap in the opposing flow of traffic.

Based upon the requests of the commentors, additional analyses were undertaken to further investigate traffic operations through the subway. Technical queuing and delay analyses were conducted to ascertain the extent of delay that would be expected for the various analysis scenarios. The subway area was modeled in its existing configuration, in which vehicles can only pass through the subway in one direction at a time. Table T5-1 summarizes the results of the analyses.

**Table T5-1  
English Colony Subway Peak Hour Volumes, Average Delay, and Level of Service**

Scenario	Two-Way Volume		Average Delay Per Vehicle (seconds)		Level of Service	
	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour
Existing No Project	36	33	5.3	5.2	A	A
Existing Plus Project	103	106	5.8	5.9	A	A
2010 General Plan Without Project	314	310	8.9	8.8	A	A
2010 General Plan With Project	362	362	10.1	10.1	B	B
Buildout of Project Vicinity Without Project	496	492	16.1	15.8	C	C
Buildout of Project Vicinity With Project	534	533	19.4	19.3	C	C

Average delay under existing conditions is about 5 seconds per vehicle during the a.m. and p.m. peak hours. The addition of project traffic increases average delay by less than 1 second. Under the Year 2010 General Plan scenario, average delay without the project is about 9 seconds per vehicle. The addition of project traffic increases average delay to about 10 seconds. Under the Buildout of Project Vicinity scenario, average delay without the project is about 16 seconds per vehicle. The addition of project traffic increases average delay to about 19 seconds.

Placer County does not have specific level of service criteria that apply to special situations such as the subway. For threshold purposes, the subway was compared to unsignalized intersection relationships between delay and level of service. Using these criteria, the amount of delay expected at the subway indicates operation within the County level of service policy (level of service “C” or better) for all three analysis scenarios, with or without the project. Therefore, the impact of project traffic at this location is less than significant.

**Master Response T-6 English Colony Way Capacity**

As identified in Tables 7-11 and 7-13 in the DEIR, the projected level of service along English Colony Way from Sierra College Boulevard to Taylor Road would remain at level of service A (the most free-flowing traffic condition), with or without the proposed project in all future scenarios analyzed. Additional traffic lanes are therefore not warranted and are not proposed by the Applicant or recommended by the County.

With or without the proposed project, however, traffic is expected to increase substantially along this roadway segment, as identified in Table T6-1 below:

**Table T6-1  
Average Daily Traffic Volumes (ADT)  
Along English Colony Way**

Scenario	Sierra College Boulevard to Clark Tunnel Road (ADT)	Clark Tunnel Road to Taylor Road (ADT)
Existing Conditions	870	2,530
2010 General Plan Conditions		
Without the Proposed Project	3,200	4,770
With the Proposed Project	3,830	5,400
Buildout of the Project Vicinity		
Without the Proposed Project	5,430	6,480
With the Proposed Project	5,930	6,980

As discussed on page 7-23 of the DEIR, the County’s Capital Improvement Program recommends considering safety improvements along these roadway segments when a threshold of 2,000 average daily trips is reached. These improvements will consist of minor pavement widening to increase lane and shoulder width, where feasible. These improvements are consistent with the level of traffic projected on English Colony Way, with or without the proposed project. The safety improvements will be constructed as a County project, as identified in the County’s Capital Improvement Program and as included in the County’s Traffic Mitigation Fee program. The Applicant has agreed to *advance* a portion of the proposed project’s fair share of the construction cost, in order to contribute to expediting some of these improvements, as described in the discussion of Impact T-10 in the DEIR. Avoidance of environmental impacts (e.g., tree loss, wetland disturbance, etc.) will be considered by the County in identifying the specific areas of improvement, and all applicable provisions of the California Environmental Quality Act will be complied with by the County. The rows of palm trees lining the roadway will not be affected by the County’s safety improvements.

### **Master Response T-7 Level of Service Policy at Unsignalized Intersections**

Several commentors have questioned the application of the County level of service policy at unsignalized intersections. In the DEIR, level of service for unsignalized intersections is reported as both an intersection average and as the worst movement at the intersection. It is common for certain intersection movements to operate at a worse level of service than the intersection average. For example, left-turn lanes at signalized intersections and minor approaches at unsignalized intersections often exhibit more delay (and worse level of service) than the intersection average.

As noted on page 7-8 of the DEIR, it is County practice to consider individual turning movements that exceed the level of service standard to be insignificant at an unsignalized intersection if:

- The intersection average level of service (based upon the weighted average of all approaches) meets the level of service standard; and
- The volume level on the minor approach does not meet traffic signal warrants.

Traffic signal warrants are a set of minimum criteria that should be met before a traffic signal is installed. Traffic signal warrants consider various factors affecting intersection performance, including traffic volumes, the number of lanes on each roadway at an intersection, prevailing travel speeds, surrounding land use characteristics (community size, rural vs. urban), pedestrian volumes, nearby traffic signals and systems of coordinated traffic signals, nearby parking, gaps in the traffic stream, the presence of school crossings, accident experience, and vehicular delay.

## **VISUAL RESOURCES**

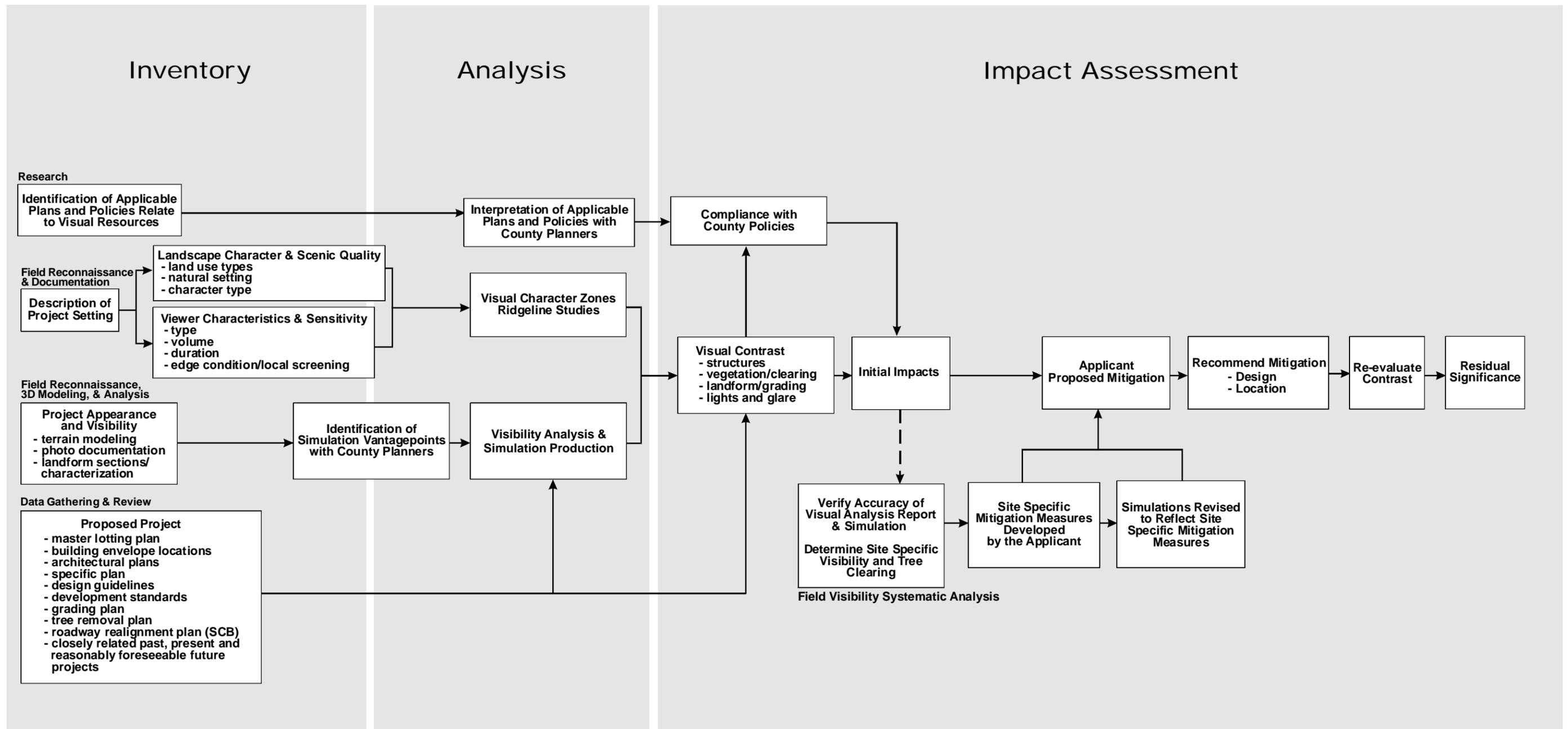
### **Master Response V-1 Visual Resource Analysis and Simulation Production Methodologies**

Standard techniques and processes were employed in the visual analysis of the proposed project. The visual resource analysis identified potential visual impacts and appropriate mitigation measures. The visual resource analysis process is outlined in Figure V1-1. Through visual resource inventory, analysis, and impact assessment, including photo visualization production, viewshed analysis and field visibility analysis, it has been determined that the Applicant's proposed mitigation measures are effective in addressing the intent of applicable County policies in maintaining scenic quality. This is graphically depicted on the photo visualizations. However, these mitigation measures were not proposed to be comprehensively applied to the proposed project by the Applicant, and further mitigation was recommended in the DEIR. The application of recommended mitigation will bring the project into compliance (i.e. avoiding silhouette on the skyline) and maintain sufficient vegetation screening to ensure that any remaining visibility of structures would not violate General Plan policies. However, significant impacts to scenic quality could occur because of the introduction of new development in a currently undeveloped setting, as identified in Impacts V-1 and V-2 on pages 15-7 through 15-10 of the DEIR.

The techniques used in producing the photo visualizations are correctly scaled 3D models registered precisely to a 2D image, as described in Appendix G of the DEIR. This technique is a proven, accurate method for representing future conditions, subject to the available data. The types of available data are documented in Figure V1-1. See also Responses I1-143 and I4-280.

The photo visualizations did not attempt to provide details of housing architecture because this information is not available and is not relevant for the purpose of the analysis. They were prepared and evaluated by experienced landscape architects and planners with over 20 years of experience in this field.

This process indicates the successful application of environmental review to reduce impacts of the proposed project.



**VISUAL RESOURCE  
ASSESSMENT PROCESS**

2000 Bickford Ranch Specific Plan EIR  
21305-002-043 Placer County, California

## **Master Response V-2 Field Analysis Visibility Report's Relationship to the Visual Resource Analysis (Chapter 15)**

The Field Analysis Visibility Report was conducted after the preparation of draft photo simulations in early 1999, which reflected the Applicant's original Development Standards. The simulations referred to in the comment, mentioned in the Field Analysis Visibility Report, were these early simulations. After the field work was completed (April 1999), the draft photo simulations were revised to more correctly depict building heights. Based on this revised information, it was (still) clear that in certain locations two-story buildings with no color restrictions would result in skylining and could be clearly visible from surrounding locations. Based on this information, the Applicant developed the selected lot restrictions referred to in Mitigation Measure V-D and described on pages 1-5 through 1-10 of the Applicant's Development Standards (included in Volume II of the DEIR). Once again, the photo simulations were revised to apply these lot restrictions. The results of this second revision is presented in the photo visualizations provided in the DEIR. This process is graphically depicted on Figure V1-1.

Statements made in the Field Analysis Visibility Report were relevant to the proposed project before development of the Applicant's proposed lot restriction. The information derived from the Field Analysis Visibility Report was used by the Applicant in developing site-specific mitigation measures relating to structure height and tree removal restrictions. The Field Analysis Visibility Report was completed before the DEIR was finalized, and does not reflect the final proposed structure heights. The next step, after the field analysis was complete, was to incorporate the Applicant's proposed mitigation measures relating to structure height and tree removal restrictions to revise the photo visualizations. In order to revise these photo visualizations accurately and account for vegetation that would remain as screening, 3D trees representing what would remain were included in the model in addition to the structures. A model was constructed which illustrated trees that would not be cleared in the vicinity of each structure illustrated in that photo visualization. For each tree, a 3-D globe the same diameter as the tree's crown was introduced into the topographic model. These diameters of each tree crown were derived from the preliminary arborist report (August 27, 1998), which was reviewed by Ralph Osterling, a Registered Professional Forester (RPF #38). The x, y, and z coordinates and top-of-tree elevations for each tree to remain in the vicinity of the structures illustrated in the photo visualizations were provided by GW Consulting Engineers on April 28, 1999. The model was viewed from each of the photo visualization viewpoints. The density of tree screening indicated by the groupings of globes was used in determining tree clearing beyond those trees that would remain. The 3D model was registered to the 2D photographic image of the project site, so that the orientation to the project site is the same in the model and the photo. Any existing trees in the 2D photo that extended above those added into the 3D model were removed from the final photo visualization. Other site-specific mitigation developed for Ridge 16 in Zone 4 includes planting of native trees to provide screening and backdrop of proposed structures.

### Master Response V-3 Night Lighting and Glare

Several comments were raised regarding light and glare, and Comment Letter I9 had several specific recommendations regarding mitigation. The Illuminating Engineering Society of North America (IESNA) Recommended Practices, as well as related IESNA documents, discuss mitigation of direct glare in general terms. They do not provide explicit criteria or performance standards, but recommend approaches for minimizing glare. The commentor asserts that glare can be eliminated. In a general sense this would seem very difficult to substantiate, since it is impossible to eliminate *all* direct views of light sources.

Direct glare is discussed by IESNA in its Recommended Practices RP-33-99, Lighting for Exterior Environment (IESNA, 1999) and RP-8- 83, Roadway Lighting (IESNA, 1982) in two general categories: disability glare or glare that actually impairs the observer's ability to perform visual tasks; and discomfort glare, or glare that does not reduce the ability to see an object, but produces a sensation of discomfort.

Both disability glare and discomfort glare are caused by discontinuity of brightnesses within the observer's field of view as caused, typically, by direct visibility of the light-emitting portions of a light source within the field of view (RP-33, pp. 1-2, No. 6 ). For example, bright direct light from a light bulb, shining into the observer's eye, is superimposed on the retinal image of a scene, impairing the ability to clearly see the scene due to the much greater brightness of the bulb, and a resulting reduced contrast of the primary image (RP-33, No. 1). Direct glare is exacerbated by excessive brightness of such directly visible luminaries or other light sources, and is experienced in relation to the level of background luminance in a scene. Discomfort glare, for example, can be reduced by *increasing* background luminance around a direct light source, thus reducing the contrast between the levels of brightness of the two (luminance ratio) (RP-33, p.1, No. 6). The example is given of car headlights viewed at night, and in the daytime. At night the contrast of perceived brightness between the light and background is great, causing glare. During the day, the contrast in brightness between the source (headlights) and background is low, so no glare is experienced (RP-33, No. 6).

Comments suggest that impacts of direct glare can be lessened by the following standard: "Direct glare shall not be observable (outside the originating property limits) at an angle greater than 85 degrees from the nadir of the vertical axis of the light source." The Applicant's Design Guideline 16.5.1 (Outdoor Lighting, Shielding) in the Applicant's Design Guidelines (included in Volume II of the DEIR) specifies that, "All nonexempt outdoor lighting fixtures shall have directed shielding so as to prevent direct light from the fixture from shining beyond the property limits where the fixture is installed. This means that a person standing at the adjacent property line would not see the light-emitting source."

This guideline, expressed as a performance standard, is very explicit in requiring that direct glare not occur off of the property on which a light is located. Thus the only glare that could be allowed with this guideline is glare perceived within the property on which the light source is located. It is actually stricter than the statement suggested by the commentor, since a cutoff angle of 85 degrees as proposed by commentor would *not* necessarily meet the requirements of the standard already in the Design Guidelines, if it still allowed direct light to trespass onto another person's property. If Design Guideline 16.5.1 is observed, no off-site direct glare would be permitted. Thus, in principle, this guideline addresses comments relating to potential direct glare impacts.

The proposed Lighting Guidelines meet or exceed recommended mitigation identified in IESNA RP-33 and RP-8. It should be noted that RP-33 has been set aside and RP-8 is in revision; however the information in these recommended practices is incorporated in the IESNA Lighting Handbook, 9<sup>th</sup> Edition. In order to be responsive to community concerns, the Applicant now proposes Mitigation Measure V-L, as follows:

**“Mitigation Measure V-L: Revise Lighting Design Guidelines**

<i>Text Revision</i>
--------------------------

Mitigation Measure V-L applies to Impacts V-3 and V-4.

The Applicant shall move the Lighting Guidelines to the project’s Development Standards, and revise the language to explicitly add the following:

- Project Development Standards and Design Guidelines will be implemented to achieve consistency with the recommended standards of the Illuminating Engineering Society (IES) (San Juan Capistrano General Plan).
- The IESNA Lighting Handbook, 9<sup>th</sup> Edition, is incorporated by reference as the applicable standard for project roadway lighting under the Project Development Standards.
- In general, direct glare shall not be observable (outside the originating property limits) at an angle greater than 85 degrees from the nadir of the vertical axis of the light source.
- Cut-off luminaires, shields, visors, recessed lights or other devices to direct and control obtrusive light shall be used; luminaire mounting to minimize incidence of direct glare in the observer’s normal field of view; and minimum luminaire brightness consistent with the function of the lighting.
- Where lighting for security purposes is desired or needed, motion sensor-activated lights shall be used to augment area illumination, rather than continuous lighting.
- Directional, shielded lighting shall be used which eliminates all direct glare or obtrusive light and restricts upwardly directed light only to the features being illuminated.
- The Applicant will specify recommended luminance/illuminance values for roadways as recommended in Table 2 of IESNA/ANSI RP-8.
- Street and area-lighting, including lighting for sports activities, parking lots, and vehicle sales lots, shall minimize or eliminate, where feasible, direct upward light emission more than 0.2fc 30 feet beyond the property (above 90 degrees from the nadir).
- Lighting systems that project light upward shall eliminate light that does not illuminate the target area, such as on project entry signs. No spill light shall be allowed to go beyond or above the sign.
- Outdoor lighting shall be turned off after use unless needed for safety and security.
- In general, IESNA recommendations for lighting intensity levels (as found in RP-33, RP-8, RP-2, DG-5, RP-20, and other specific recommendations) will be observed, where recommendations are available.

- Full Cut-Off (FCO) luminaires shall be used for all street lighting, thus minimizing potential direct glare and light pollution. Dropped dish (ovate) refractors shall NOT be used in roadway luminaires. Only FCO luminaires with flat lenses or other recessed and shielded design shall be permitted.”

The Applicant has agreed to incorporate Mitigation Measure V-L as proposed mitigation.

## WATER QUALITY

### Master Response GW-1 Water Quality Impacts Resulting from the Use of Pesticides and Herbicides on the Golf Course

The potential for surface water and groundwater quality impacts related to the storage and use of pesticides, herbicides, fertilizers and other potentially hazardous chemicals on the golf course are addressed in Chapters 11 and 12 of the DEIR. Potential impacts resulting from the accidental release of hazardous substances (i.e., fuels, fertilizers, pesticides and herbicides) are discussed in Chapter 11 under Impact HW-6. Potential surface water and groundwater impacts resulting from the use of chemical pesticides and fertilizers are discussed in Chapter 12 under Impact H-6 (Reduced storm water runoff quality after buildout), and Impact H-7 (Reduced groundwater quality), respectively. Each of these potentially significant impacts would be reduced to a less-than-significant level through implementation of Mitigation Measures HW-F (Finalize and implement the Applicant's Golf Course Chemical Application and Management Plan and Water Quality Monitoring Plan (CHAMP)) and H-A (Prepare and implement a post-development storm water management program). Each of these programs is summarized below.

As part of its implementation of CEQA requirements, it is the policy of the County to require preparation of a CHAMP for any golf course project to mitigate potential threats to water quality. The CHAMP documents maintenance policies and procedures to be employed at the golf course and associated facilities to prevent and minimize potential impacts to soil, surface water, and groundwater; provide appropriate management and storage of potentially hazardous materials; and provide for monitoring to demonstrate that the objectives stated in the CHAMP are achieved. County approval of the CHAMP is required as part of the permitting process, and in addition, the County provides oversight, together with the Regional Water Quality Control Board (RWQCB), of monitoring data generated according to CHAMP requirements.

Groundwater and surface water monitoring is critical to ensure efficient management of golf course chemical application and irrigation without impacting water quality. Standards for water quality are contained in the CHAMP, included in Volume IV of the DEIR. For example, the CHAMP specifies (among other performance standards) the following allowable chemical concentrations (in milligrams per liter):

Chemical	Allowable Concentration
2,4-D	0.07
Atrazine	0.003
Bentazon	0.018
Carbofuran	0.018
Glyphosate	0.7
Simazine	0.004

The final CHAMP will provide a sufficient number of groundwater and surface water monitoring points distributed on the project site to provide data to address the water quality objectives. This is discussed in more detail below and in Master Response GW-5. Modified Mitigation Measure HW-F, below, provides recommendations for the general locations of water monitoring points. The recommended locations are shown in Figure GW1-1 at the end of this Master Response. The recommendations for the groundwater monitoring locations were developed through an analytical procedure utilizing the following three criteria:

1. A portion of the groundwater monitoring locations, referred to as “Type 1 wells,” shall be sited in close proximity to potential source areas in order to provide timely data leading to corrective action;
2. The remainder of the groundwater water monitoring locations, referred to as “Type 2 wells,” shall be selected to be representative of water shed basins incorporating the majority of the golf course;
3. Selection of all of the water monitoring locations shall be based on a general conceptual model of surface and shallow groundwater flow for the site.

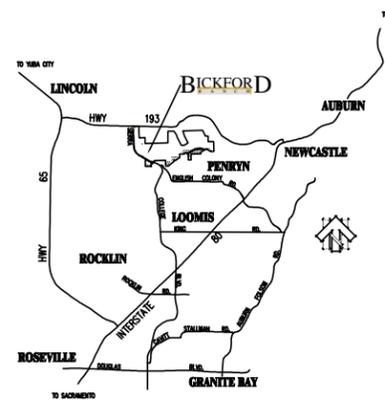
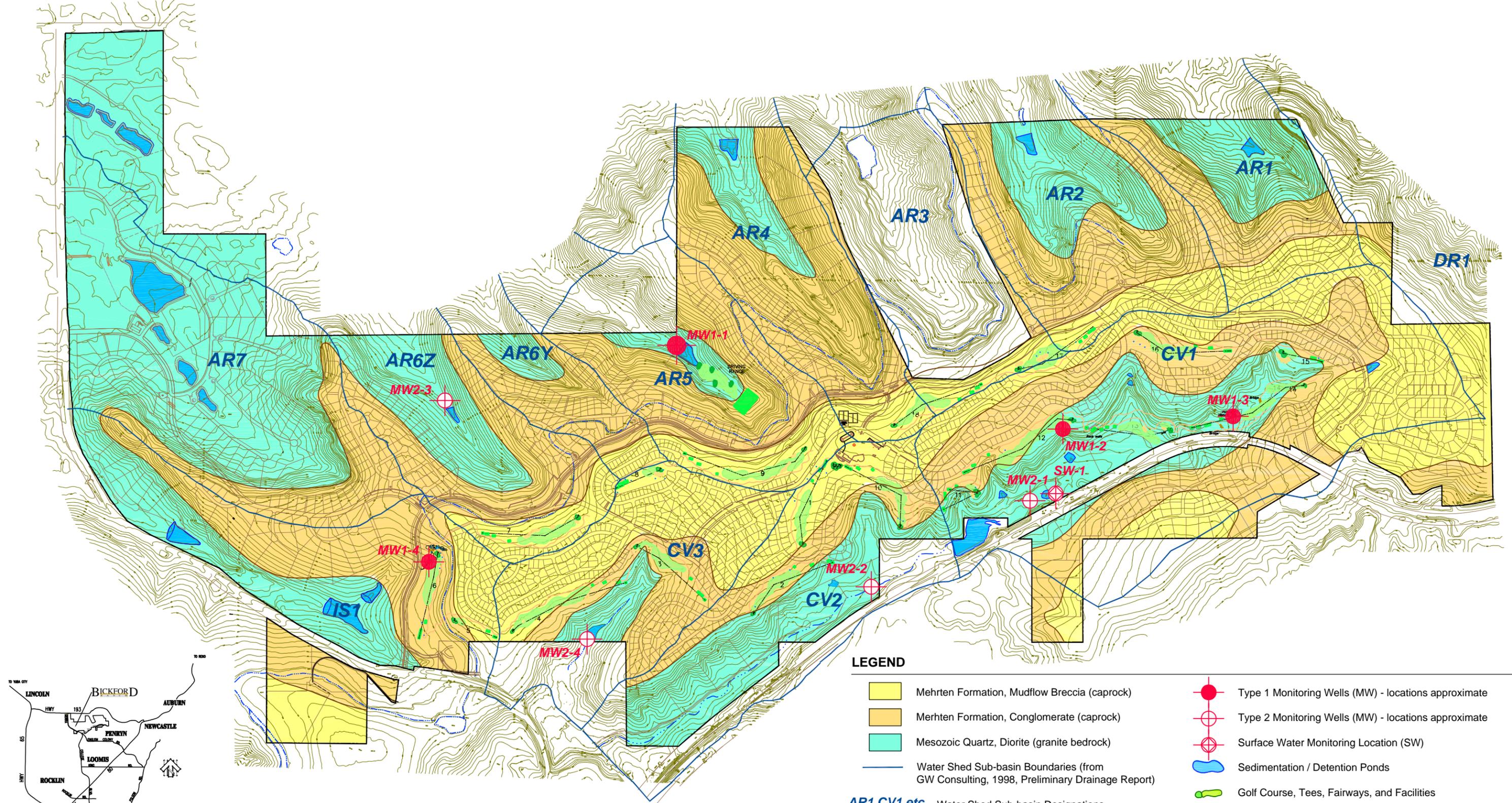
Criterion No. 1 was met by siting four of the eight groundwater monitoring locations adjacent to highly managed fairways and greens in topographic locations that would collect surface water runoff and shallow groundwater underflow.

Criterion No. 2 was met by utilizing the delineation of water shed sub-basin boundaries from the *Preliminary Drainage Report* (GW Consulting Engineers, 1998), which are included on Figure GW1-1 together with topographic contours and the golf course layout. Four of the eight groundwater monitoring wells are sited within basins that encompass the majority of the area of the golf course.

Criterion No. 3 involved development of a conceptual model based on geologic, hydrogeologic, and hydrologic data as presented in the DEIR in Section 10.1.2 (Geology), Figure 10-1 (Local Geologic Map), Figure 10-2 (Geologic Cross Section A-A’), Section 10.1.5 (Soils), Section 12.1.1 (Surface Water Hydrology) and the *Preliminary Drainage Report* (GW Consulting Engineers, 1998). The framework for the conceptual model of shallow groundwater flow consists of the two principal geologic units at the site, the Boulder Ridge caprock and the underlying granitic bedrock pluton.

- The **Boulder Ridge caprock** is comprised of the Mehrton Formation mudflow breccia and conglomerate (Figure GW1-1). Soils here are very shallow, typically less than two feet thick, and the caprock is relatively impermeable. Water applied to this surface, either through precipitation or irrigation, runs off as surface water or migrates through the shallow soil to the relatively impermeable surface of the caprock. Water then migrates laterally along the soil and caprock interface toward natural drainages developed on the caprock. Shallow groundwater flow is directed by topography and existing natural drainages. The direction of shallow groundwater flow follows the local topographic slope as surface water does. Therefore, the delineation of surface water shed boundaries (Figure GW1-1) closely represents local shallow groundwater basin boundaries.
- The **granitic bedrock pluton** (Mesozoic quartz diorite) underlies the caprock. The upper portion of the granitic bedrock is highly decomposed. At the mapped contact of caprock with the granitic bedrock, the lateral movement of groundwater on the caprock becomes downward percolation through the decomposed zone of the granitic bedrock. At the base of the decomposed zone, groundwater flow is again directed laterally as it meets more competent rock. As on the caprock, this flow within the shallow groundwater zone is directed by the topography and existing natural drainages. Groundwater moving laterally through the decomposed granite eventually becomes underflow following and intermingling with surface water in Clover Valley Creek, Auburn Ravine, Dutch Ravine, and Ingram Slough. A portion of this water moves vertically downward through fractures in the granite, to recharge deeper, potable water zones within the granitic bedrock.

Because it is located along the ridge top, no intermittent or perennial surface water features exist within the golf course. However, due to the shallow bedrock throughout the project site, shallow groundwater is



**LEGEND**

- Mehrten Formation, Mudflow Breccia (caprock)
- Merhten Formation, Conglomerate (caprock)
- Mesozoic Quartz, Diorite (granite bedrock)
- Water Shed Sub-basin Boundaries (from GW Consulting, 1998, Preliminary Drainage Report)
- Type 1 Monitoring Wells (MW) - locations approximate
- Type 2 Monitoring Wells (MW) - locations approximate
- Surface Water Monitoring Location (SW)
- Sedimentation / Detention Ponds
- Golf Course, Tees, Fairways, and Facilities

**AR1, CV1, etc** Water Shed Sub-basin Designations  
 AR - Auburn Ravine  
 CV - Clover Valley Creek  
 DR - Dutch Ravine  
 IS - Ingram Slough

**BICKFORD**  
RANCH



**RECOMMENDED WATER QUALITY MONITORING LOCATIONS**

2000 Bickford Ranch Specific Plan EIR  
 21305-002-043 Placer County, California



FIGURE GW1-1

SOURCES: Hayes Land Planning, Inc., GW Consulting Engineers and MHM Engineering-Surveying

intimately associated with surface water in terms of quantity, direction of movement, and quality. As such, both the Type 1 and Type 2 wells will provide data relevant to surface water sheet flow and other runoff from the golf course. A PCWA pond will be constructed adjacent to the 13<sup>th</sup> hole which will become part of the canal operating system. This pond would also receive surface water inflow from watershed sub-basins which include several fairways at the eastern end of the golf course, and should therefore be incorporated into the CHAMP monitoring program.

The Applicant will prepare a Final CHAMP. The final CHAMP must be approved by the County prior to issuance of grading permits or approval of improvement plans for the project, whichever is first issued. In addition, Mitigation Measure HW-F lists specific items to be included by amendment in the CHAMP upon completion of the golf course final design.

Mitigation Measure HW-F is revised to read:

**“Mitigation Measure HW-F:** Finalize and implement the Applicant’s Golf Course Chemical Application Management Plan

<i>Text Revision</i>
--------------------------

Mitigation Measure HW-F applies to Impacts HW-6, H-6, H-7, B-17, and B-18.

The Applicant shall prepare a draft Golf Course Chemical Application and Management Plan (CHAMP) and Water Quality Monitoring Plan. The purpose of the CHAMP is to document turf/landscape maintenance policies and procedures to be employed at the golf course and associated facilities. The specific objectives of the policies and procedures are to:

- Prevent and minimize potential impacts to soil, surface water (runoff), and groundwater from use of pesticides, fertilizers, and other potentially hazardous materials;
- Provide for appropriate management and storage of potentially hazardous chemicals used at the golf course; and
- Provide for monitoring to provide data for management feedback and to demonstrate these objectives have been achieved.

Locations for water monitoring shall be based on the management information objectives of the CHAMP and shall have a sound hydrogeologic basis. Monitoring points shall be located generally as indicated on Figure GW1-1. Two types of groundwater monitoring wells shall be provided. Type 1 monitoring wells shall be located in the shallow groundwater zone within the zone of decomposed granitic bedrock adjacent to selected fairways to provide early feedback for management purposes. Type 2 wells shall be sited to provide more general coverage within the shallow groundwater zone of portions of the golf course and associated detention basins.

- Type 1 Monitoring Wells – A minimum of four groundwater monitoring locations shall be sited, as shown in Figure GW1-1, directly adjacent to selected fairways and the driving range to provide early identification of potential water quality problems and implementation of corrective actions within a short time frame. The wells shall be sited in proximity to the flowlines of existing natural drainageways. Siting of the wells shall be directed by a professional geologist or hydrogeologist to monitor shallow, laterally migrating groundwater within the zone of decomposed granitic bedrock, and shall be completed and screened to the base of the zone of decomposition. These wells are identified as:

- Monitoring Well (MW)1-1, to be located adjacent to the lower end of the driving range;
  - MW1-2, to be located adjacent to the fairway and green of the 12<sup>th</sup> hole;
  - MW1-3, to be located in proximity to a drainage way below the fairway of the 14<sup>th</sup> hole; and
  - MW1-4, to be located in proximity to a drainage way adjacent to the fairway and green of the 6<sup>th</sup> hole.
- Type 2 Monitoring Wells – Four groundwater monitoring locations shall be sited on the golf course perimeter to provide overall coverage of the majority of the golf course area. The wells shall be sited in proximity to the flowlines of existing natural drainageways, and shall be designed to monitor shallow, laterally migrating groundwater within the zone of decomposed granitic bedrock. Installation of these wells shall be supervised by a geologist or hydrogeologist, and they shall be completed and screened to the base of the zone of decomposition.
    - MW2-1 shall be located in Clover Valley approximately ¼ mile northeast and upgradient from Clover Valley Reservoir. This location provides coverage of shallow groundwater draining managed turf areas associated with golf course holes 12 through 16 and a portion of the 17<sup>th</sup> fairway. MW2-1 is also downgradient of three detention ponds and a PCWA storage pond.
    - MW2-2 shall be located at the confluence of the Clover Valley Creek drainage and a drainage which includes the 10<sup>th</sup> hole and a portion of the 1<sup>st</sup> hole. This location is also downgradient of the portion of the golf course monitored by MW2-1.
    - Monitoring well MW2-3 is to be located downgradient of a detention pond within a drainage to the north of Boulder Ridge. The fairway and green of the 7<sup>th</sup> hole is located in the upper end of the drainage.
    - Monitoring well MW2-4 is located downgradient of a detention pond in the drainage that includes the 3<sup>rd</sup> and 4<sup>th</sup> holes.
  - Surface Water Monitoring – The PCWA pond that will be constructed adjacent to the 13<sup>th</sup> hole will become part of the canal operating system. This pond would intercept surface water runoff from several fairways on the eastern portion of the golf course and shall be incorporated into the monitoring program as surface water monitoring location SW-1.

Details of the plan cover the specific sampling parameters to be used, the frequency of sampling, and the reporting of results. This is described in more detail in Master Response GW-5. The draft CHAMP is generally adequate for the current status of the project. When a golf course owner/operator prepares operational plans, it will then be appropriate to amend the CHAMP with details of the following:

- Golf course layout.
- Drainage facilities.

- A minimum 25-foot natural area buffer zone between managed turf and water bodies.
- A map delineating the relationship between managed turf, natural areas, and surface water bodies.
- Selection of plant and turf material to minimize need for pesticide use.
- A specific list of chemicals to be used.
- Procedures for the use of each chemical.
- Schedule for soil nutrient testing that provides for testing once per year, after one year of testing that demonstrates that nutrient requirements remain relatively constant.

The County must accept the final CHAMP prior to issuance of grading permits or approval of improvement plans, whichever is issued first.

Implementation of a CHAMP approved by Placer County would reduce the potential impacts of the use of golf course chemicals to a less-than-significant level.”

As required by the CHAMP, the golf course operator is responsible for implementation of the monitoring program. The Water Quality Monitoring Plan which is included as part of the golf course CHAMP requires semiannual sampling of surface and groundwater and annual reporting to the County and the RWQCB. More frequent monitoring and immediate reporting to those agencies is required in the event that water quality goals are exceeded. The RWQCB is empowered by the California Code of Regulations to require additional assessment by a professional environmental consultant and remediation of groundwater contamination that may be indicated by the monitoring program mandated by the CHAMP. If remediation of soil and/or groundwater becomes necessary in the future, the RWQCB is empowered to ensure that water quality is restored by the party responsible for its degradation. Therefore, although implementation of the CHAMP is the responsibility of the golf course operator, the Regional Water Quality Control Board is part of the process to ensure that water quality goals are achieved. See also Master Response GW-5.

In addition to the CHAMP, the Applicant will prepare and implement a post-development storm water management program. The storm water management program will be developed under the guidelines set up by the Placer County Flood Control and Water Conservation District’s Storm Water Management Manual which includes elements for the prevention of adverse water quality. As stated in Section 12.4 of the DEIR, Placer County does not have a National Pollutant Discharge Elimination System (NPDES) permit covering storm water discharges in the County; however the Placer County General Plan sets forth several policies which function to bring the County into compliance with the substantive requirements of the NPDES program. As identified in Mitigation Measure H-D on page 12-23 of the DEIR, the Applicant will be required to apply for coverage under the SWRCB’s NPDES General Permit for Storm Water Discharges Associated with Construction Activities. See Mitigation Measures H-D and H-E for a discussion of this permit process and specific requirements relative to sampling locations, timing, etc. Part of the storm water management program will identify potential sources of surface water runoff impacts and a monitoring program designed to evaluate the need for Best Management Practice (BMP) modifications or additional BMPs.

## **Master Response GW-2 Water Quality Impacts Resulting from Use of Residential Landscape Chemicals and Runoff from Paved Areas**

Potential impacts to surface water and groundwater quality from runoff or infiltration of residential landscape chemicals and runoff from paved areas are addressed in Section 12.3.2 of the DEIR. Potentially significant impacts to the chemical quality of surface water draining into the local stream channel and groundwater recharge areas are identified and discussed in detail under Impact H-4 (Reduced storm water chemical quality due to construction activities) and Impact H-6 (Reduced storm water runoff quality after buildout [excluding sedimentation]). These impacts would be reduced to a less-than-significant level through Mitigation Measures H-D (Prepare and implement a Storm Water Pollution Prevention Plan for construction activities); HW-F (Finalize and implement the Applicant's Golf Course Chemical Application Management Plan); H-A (Prepare and implement a post-development storm water management program); and H-H (Finalize and implement the Applicant's Lake Management Plan for constructed lakes and wetlands). Performance standards for these plans and programs are either set forth by the regulating agency as part of the plan requirements, or are set forth in the mitigation measures.

Potential impacts to groundwater quality are addressed in Section 12, Impact H-7. The discussion of this impact identifies the golf course, man-made lakes, individual septic systems, and sanitary sewers as sources of potentially significant groundwater quality impacts. These impacts would be reduced to a less-than-significant level by the mitigation measures noted above, together with Mitigation Measures H-J (Implement Placer County policies and ordinances related to permitting, design, construction, and maintenance of septic systems); and H-K (Notify Placer County Department of Environmental Health and affected property owners if off-site sewer pipeline breaks).

In addition to the mitigation measures noted above, the overall design of the proposed project would minimize water quality impacts. The project site soil and geologic conditions favor high runoff to local stream channels and other low-lying areas where the majority of local groundwater recharge occurs (Section 12.1.2). The majority of the proposed project will be served by sanitary sewers, will be supplied water by the local water service, and will have stormwater runoff controls in place. As described in Impact H-8 on page 12-18 of the DEIR, the proposed project would not significantly alter recharge potential of the project site. See also Master Response GW-3 regarding groundwater surcharge.

Water quality concerns in residential areas focus on substances washed from paved surfaces and carried into streams or other bodies of water during storms. The lotting plan and street layout of the proposed project provide buffer zones between developed areas and natural drainageways and groundwater recharge areas. In higher elevations, roads are placed along or below ridgelines, with houses just off the ridge edge. As a result pavement and roofs are separated from the preserved natural drainage system by undeveloped open space left in a natural state. Runoff from impervious surfaces flows slowly over pervious, vegetation-covered areas, percolating through the soil, which filters out most pollutants before the runoff reaches drainageways and groundwater recharge areas. All of these principles are inherent to the design of the proposed project.

In addition, under U.S. Environmental Protection Agency (EPA) guidelines, allowable chemical usage and application rates are regulated to reduce the potential for groundwater impacts. The formulation, manufacture, labeling and recommended usage of commercially available chemical products (such as fertilizers, pesticides and herbicides) are regulated by the EPA. Use of septic systems is regulated by the County, and minimal impact to water quality is anticipated from their use within the proposed project. Of the 1,950 dwelling units included within the proposed project, only 18 residential parcels would have individual septic systems for disposal of wastewater. This number is significantly less than the number of septic systems that would be required should the property be developed utilizing 5- and 10-acre parcels as typified by the surrounding vicinity.

The potential for surface and groundwater impacts due to runoff from paved areas would be reduced due to the proposed stormwater controls, management plan, and proposed mitigation measures. All of these factors would allow the quality of stormwater to be monitored and managed. Therefore, the proposed project's stormwater management system will be more protective of surface water than the surrounding residential parcels in which no stormwater management controls are in place.

### **Master Response GW-3 Groundwater Effects Resulting from Ripping the Site Caprock During Construction**

The DEIR has shown that the opportunity for groundwater recharge under existing site conditions is limited (Section 12.1.2), particularly on the ridge and slope areas. The development design utilizes these areas of the site for roadways and lots, leaving existing drainages, where the majority of groundwater infiltration takes place, undeveloped. Since the ridge and slope areas correspond to the locations where the majority of grading activity would occur, the impact of grading on groundwater recharge would be less than significant.

Grading, ripping, and trenching for the development of roadways, utilities, building pads and the golf course would not penetrate the volcanic caprock of the ridge, which consists of the Mehrten volcanic mudflow. The Mehrten volcanic mudflow is between approximately 60 and more than 100 feet thick along the ridge tops. It is underlain by the Mehrten conglomerate, a cemented alluvial deposit of approximately the same thickness as the overlying mudflow rocks. These rocks in turn are underlain by granitic bedrock. As described in the DEIR, ripping of the caprock for utility trenches or mass grading could result in fractures extending beyond the excavation site that could increase the *surface* permeability and potentially affect vernal pools (see DEIR Section 10.1.2 and Impact B-13). This statement should not be construed, however, to suggest that the overall permeability of these rocks would be affected, allowing increased seepage to groundwater. As described in Section 12.1.2, groundwater recharge in the area of the project site is largely limited to local stream channels and other low-lying areas, which would be unaffected by grading activities on the ridgetops.

Furthermore, with the exception of the areas to be developed by the golf course, ripping, grading, and trenching would generally be followed by compaction and construction of structures and roadways. Areas of the proposed project in which construction would not take place would not be subject to ripping, grading and trenching. Most major utilities are placed underneath roadways for later accessibility in the need of repairs or upgrades. The process of compaction alone reduces the permeability of a material, thus slowing the infiltration of water. Infiltration in these areas is further reduced by the subsequent placement of a structure or pavement cover, and as stated above, ripping and grading for development of the golf course would not be deep enough to affect the overall permeability of the caprock. Therefore, ripping, grading and trenching of the native materials at the proposed project site would not increase the potential for groundwater impacts.

#### **Master Response GW-4 Detailed Hydrologic Study**

Data regarding groundwater conditions in the study area have been provided by several previous professional reports, including those by Crawford, Multari and Starr et al. (1994); EIP Associates (1997b); Wallace-Kuhl & Associates (1998); and PEM (1996a). These data were summarized in Section 12.1.2 of the DEIR in sufficient detail to identify potential significant impacts to groundwater quality as a result of the proposed project. The DEIR identifies mitigation measures for impacts to groundwater quality, summarized in Master Response GW-1.

The majority of the proposed project would be supplied potable water from PCWA. Twelve residential parcels would rely on water supplied from domestic wells. This water usage would have an insignificant effect on the underlying groundwater conditions. Therefore, since the majority of water usage for the proposed project is not drawing upon the underlying aquifer, a detailed hydrologic study of the proposed project site is unnecessary.

## **Master Response GW-5 Groundwater Monitoring**

As described in Master Response GW-1 and in Response I85-16, groundwater monitoring would be conducted twice yearly, and monitoring results would be reported at least annually to the County and the RWQCB, as specified in the draft CHAMP (DEIR Appendix H). Details of the placement of water monitoring locations will be included in the final CHAMP, which must be approved by the County prior to construction of the proposed project. Placement of water monitoring locations will be based on the requirements set forth in Revised Mitigation Measure HW-F (see Master Response GW-1).

The water quality monitoring plan focuses on the golf course, which is the most likely potential source of contaminants in sufficient quantity to constitute a significant threat to groundwater quality. Details of the plan cover the sampling parameters, i.e., the chemicals to be analyzed, the frequency of sampling, and reporting of results to regulatory agencies. Monitoring results would be used for both operation and regulatory purposes. Procedures for interpreting the results include two levels of action for responding to water monitoring results. Concentrations exceeding initial action levels would be referred to as “Cautionary.” These results would guide operation of chemical application and/or irrigation and would call for specific management actions to reduce concentration levels. Cautionary results would be reported to regulatory agencies together with all monitoring results on the annual reporting schedule. Any concentrations exceeding the second level would be referred to as “Unsatisfactory,” and would require notification of regulatory agencies, including the County and the RWQCB, within 30 days, together with actions to reduce concentrations.

Eight on-site groundwater monitoring wells and one surface water monitoring point will be included in the Final CHAMP monitoring plan, according to the requirements of Revised Mitigation Measure HW-F. Baseline data and periodic monitoring data would be collected from all of these wells to assess existing groundwater quality prior to the initiation of golf course operation and maintenance, to provide ongoing management data, and provide for public confirmation of efficient chemical application management. Four wells would be located in drainages on the golf course perimeter and completed within the shallow decomposed granodiorite zone. These wells would intercept shallow, laterally flowing groundwater derived as runoff from the majority of the area of the golf course. Four wells would be located within the golf course adjacent to fairways and greens. They would be located in proximity to the flowlines of existing natural drainageways and completed within the shallow, decomposed granodiorite zone to provide early identification of water quality problems and implementation of corrective actions within a short time frame.

This well monitoring program will be sufficient to provide early management data in the event over-watering or over-fertilizing of the golf course were to occur. It will identify potential water quality impacts from surface water runoff as well as impacts to shallow groundwater before deeper, potable groundwater zones are likely to be affected.

Because the two levels of coverage provided by the four Type 1 and four Type 2 monitoring wells would provide for appropriate management response at potential source areas, monitoring wells in the deeper, fractured granitic bedrock would not be necessary. In addition, monitoring of the granitic bedrock would provide data that would be inappropriate with respect to providing water quality information beneath the golf course. Because groundwater moves within a complex fracture system, it is very difficult to determine the source, since the water within the fractures may be derived from distant sources. Off-site monitoring would also be inappropriate for these reasons, and because such monitoring is generally only required for landfills and other more likely potential sources of contaminants. The design of the proposed project, which allows for buffer zones of natural areas, together with the various mitigation measures listed in Master Response GW-1, would control potential groundwater impacts to the extent that such monitoring would not be indicated.

## Master Response SWQ-1 Storm Water Quality

Several questions were raised regarding the proposed project's impact on water quality. The proposed project would be predominantly a residential land use community. Impacts of the project on water quality are discussed in Section 12.3.2 of the DEIR. This section states that storm water quality would be reduced; that pollutants would be flushed from pavement, roofs and other impermeable surface; that metal loads would be increased; and that new pollutant loads, such as oils, grease, pesticides and fertilizers, would be introduced. Section 12.3.2 also states: "Following construction of the proposed project, storm water runoff quality can be expected to decline as more potential pollutants will be generated by the activities of man." Table 12-5 in the DEIR presents an estimate of runoff pollutant constituents associated with roads, residential and commercial areas and their probable range of concentration.

The State Water Resources Control Board has developed an NPDES program and guidelines for establishing BMPs for the purpose of reducing pollutant loads in storm water. Although Placer County does not have an NPDES permit for storm water, the County's General Plan sets forth several policies, which when implemented, would result in compliance with the substantive requirements of the NPDES program. These policies include (among others):

- Policy 4.E.5. The County shall continue to implement and enforce its Grading Ordinance and Flood Damage Prevention Ordinance.
- Policy 4.E.10. The County shall strive to improve the quality of runoff from urban and suburban development through use of appropriate and feasible mitigation measures including, but not limited to, artificial wetlands, grassy swales, infiltration/sedimentation basins, riparian setbacks, oil/grit separators, and other BMPs.
- Policy 4.E.14. The County shall require projects that have significant impacts on the quantity and quality of surface water runoff to allocate land as necessary for the purpose of detaining post-project flows and/or for the incorporation of mitigation measures for water quality impacts related to urban runoff.

Section 12.3.3 presents a complete discussion of General Plan Policies relevant to hydrology and water quality.

Impacts H-3, H-4, H-5 and H-6 in Section 12.3.2 of the DEIR identify potential project impacts associated with a reduction in storm water quality. Construction-related and post-construction conditions are discussed separately, as are impacts associated with erosion/sedimentation and chemical constituents. Mitigation Measures proposed by the Applicant include:

- G-B (Prepare and implement a grading and erosion control plan)
- H-A (Prepare and implement a post-development stormwater management program)
- H-D (Prepare and implement a Storm Water Pollution Prevention Plan for construction activities)
- H-E (Monitor erosion and sediment control measures during construction)
- H-F (Monitor site erosion and sediment control measures for two years after implementation of final erosion control measures)

- H-G (Design runoff retention basins to promote solids settling and provide capacity for accumulated sediment)
- H-H (Finalize and implement the Applicant’s Lake Management Plan for constructed lakes and wetlands areas)
- HW-F (Finalize and implement the Applicant’s Golf Course Chemical Application Management Plan).

Mitigation Measure H-G is changed to require runoff *detention* basins instead of runoff *retention* basins. This results in the following changes to the DEIR:

Page 12-14, under Proposed Mitigation for Impact H-5, page 13-38, under Proposed Mitigation for Impact B-17, page 13-39, under Proposed Mitigation Measure for Impact B-18, and pages 12-24 and 13-57, Mitigation Measure H-G, are changed to read:

Text  
Revision

“Mitigation Measures H-G: Design runoff detention basins to promote solids settling and provide capacity for accumulated sediment”

Text  
Revision

References to Mitigation Measure H-G throughout the DEIR are hereby incorporated to reflect this change.

Mitigation Measure H-I is clarified as follows:

Text  
Revision

Page 12-15, under Recommended Mitigation for Impact H-6, and page 12-25, 2nd paragraph, line 1, are changed to read:

“Mitigation Measure H-I: Design and construct improvements to protect water quality in canals in accordance with PCWA standards and County requirements for a 100-foot setback from structures.”

Mitigation Measure H-A (Prepare and implement a post-development storm water management program), cited in Section 12.4, states: “The purpose of this mitigation measure is to provide a plan for ensuring that structural BMPs constructed as part of the proposed project are maintained appropriately such that they continue to perform their intended function as long as the project site is occupied.” CEQA requires that mitigation measures not defer mitigation to a future time, but allows for mitigation that specifies performance standards that can be accomplished in more than one way (CEQA Guidelines §15126.4(a)). This mitigation measure requires that the stormwater management program addresses specific drainage characteristics, storm water conveyance systems, discharge points, potential sources of runoff quality impacts, specific maintenance programs for structural BMPs, a monitoring program designed to evaluate the need for BMP modifications or additional BMPs, and identification of specific parties responsible for implementing each part of the plan. Therefore, specific BMPs will be implemented to manage runoff rate, runoff volume and runoff quality. The BMPs will be developed based upon the Placer County Storm Water Management Manual, requirements of the Placer County General Plan, and State Water Resources Control Board general guidelines for development of BMPs.

Typical BMPs that could apply to management of runoff quality from roadways and private lawns and other project areas include both structural systems and operational programs or procedures such as:

- The use of grassed waterways and swales to convey runoff. Grassed waterways and swales work by slowing the passage of runoff, filtering and settling particulates and biological uptake of nutrients.

- Regular street sweeping.
- Public education/awareness programs aimed at educating the public on proper use of fertilizers, pesticides and irrigation water.
- Public education/awareness programs aimed at educating the public on proper disposal of waste oils and paints.
- Storm drain inlet stenciling with word such as “No Dumping – Leads to River” and the image of a fish so that people who may be thinking of dumping waste products (such as used oil or leftover paint) into the storm drain will understand that the drain leads to a water body.
- Design of sumps in storm drain manholes to capture sediments.
- Design of detention ponds to temporarily hold water, thereby promoting settlement of particulates and biological uptake of nutrients.
- Oil and debris skimmers on detention basin outlets.
- Erosion protection at culvert and storm drain outfalls, etc.

BMPs identified for implementation will be specified in the Storm Water Management Program and will require approval by County staff as a condition of project approval.

The above mitigation measures, when implemented in accordance with the Placer County Storm Water Management Manual and General Plan Policies, require compliance with specific standards for the design, construction and maintenance of storm water conveyance and storm water quality systems as well as operational and maintenance procedures to keep the systems functioning in accordance with their intended purpose. Therefore, when implemented, the above mitigation measures would reduce the impacts of the project on surface water and groundwater quality to a level that is less than significant.

Refer to DEIR Sections 10.4, 11.4, 12.4 and 13.4 for more complete discussions of mitigation measures applicable to storm water and groundwater quality. Also see Master Responses SW-1 for additional information on the proposed project impacts on runoff rate and volume, GW-1 for water quality resulting from use of pesticides and herbicides on the golf course, and GW-2 for water quality from runoff or infiltration of residential landscaping and runoff from paved areas.