# 5 CEQA REQUIRED ASSESSMENTS

# 5.1 SIGNIFICANT UNAVOIDABLE ENVIRONMENTAL EFFECTS

Under CEQA §2100(b)(2)(A), an EIR must identify significant environmental effects that cannot be avoided if the Project or an Alternative is implemented. Significant unavoidable impacts are identified in this EIR in Chapter 4 - Environmental Analysis, as those impacts that remain significant after implementation of mitigation. The Project and/or Alternatives may result in several significant environmental impacts, but most of these can be avoided or reduced to less than significant with the implementation of identified mitigation measures. Significant and unavoidable impacts of the Project and Alternatives are summarized in Table 5-1. These impacts are considered to be significant even after the implementation of recommended mitigation measures.

|   | Tab     | le 5-1 |       |        |     |    |  |  |
|---|---------|--------|-------|--------|-----|----|--|--|
| Significant and Unavoidable Impacts by Alternative                          |         |        |       |        |     |    |  |  |
| Impact  |         |        | Alter | native |     |    |  |  |
| Impact  | Project | 1      | 2     | 3      | 4   | 5  |  |  |
| 4.B. Air Quality  |         |        |       |        |     |    |  |  |
| Impact 4.B-2. Will the Project conflict                                     |         |        |       |        |     |    |  |  |
| with or obstruct implementation of the                                      |         |        |       |        |     |    |  |  |
| applicable Clean Air Plan?  | X       |        |       |        | X   | X  |  |  |
| Impact 4.B-3. Is the Project consistent                                     |         |        |       |        |     |    |  |  |
| with the Clean Air Plan population and                                      |         |        |       |        |     |    |  |  |
| Vehicle Miles Traveled (VMT)  |         |        |       |        |     |    |  |  |
| assumptions and Transportation Control                                      |         |        |       |        |     |    |  |  |
| Plans (TCMs)?   | X       |        |       |        | X   | X  |  |  |
| Impact 4.B-4. Will the Project result in a                                  |         |        |       |        |     |    |  |  |
| substantial net increase of any criteria                                    |         |        |       |        |     |    |  |  |
| pollutant for which the project region is                                   |         |        |       |        |     |    |  |  |
| non-attainment under an applicable  |         |        |       |        |     |    |  |  |
| federal or State ambient air quality  |         |        |       |        |     |    |  |  |
| standard (including releasing emissions                                     |         |        |       |        |     |    |  |  |
| which exceed quantitative thresholds for                                    |         |        |       |        |     |    |  |  |
| ozone precursors)?  | X       |        | X     | X      | X   | X  |  |  |
| Impact 4.B-5. Will the Project result in a                                  | ***     |        | ***   | ***    | *** | ** |  |  |
| significant impact to local air quality?                                    | X       |        | X     | X      | X   | X  |  |  |
| Impact 4.B-7. Will the Project generate                                     |         |        |       |        |     |    |  |  |
| GHG emissions, either directly or   |         |        |       |        |     |    |  |  |
| indirectly, that may have a significant                                     | v       |        |       |        | v   | v  |  |  |
| impact on the environment?  | X       |        |       |        | X   | X  |  |  |
| Impact 4.B-8. Will the Project conflict with an applicable plan, policy, or |         |        |       |        |     |    |  |  |
| regulation adopted to reduce GHG  |         |        |       |        |     |    |  |  |
| emissions?  | X       |        |       |        | X   | X  |  |  |
| 4.F. Hydrology and Water Quality  | Λ       |        | 1     | L      | Λ   | Λ  |  |  |
| Impact 4.F-1. Will the Project  |         |        |       |        |     |    |  |  |
| construction or long-term operations  |         |        |       |        |     |    |  |  |
| cause numeric or narrative water quality                                    |         | X      |       |        |     |    |  |  |
| cause numeric of narrative water quality                                    |         | Λ      |       |        |     |    |  |  |

| Table 5-1  |         |   |       |        |    |    |  |
|--|---------|---|-------|--------|----|----|--|
| Significant and Unavoidable Impacts by Alternative                             |         |   |       |        |    |    |  |
| Impact   |         |   | Alter | native |    |    |  |
| -  | Project | 1 | 2     | 3      | 4  | 5  |  |
| criteria to be exceeded in Las Trampas<br>Creek or other bodies of water?      |         |   |       |        |    |    |  |
| 4.G. Land Use and Agricultural Resour  | res     |   |       |        |    |    |  |
| Impact 4.G-3. Will the Project   |         |   |       |        |    |    |  |
| substantially increase densities?  | X       |   |       |        | X  | X  |  |
| 4.J. Public Services   | 21      |   |       |        | 71 | 21 |  |
| Impact 4.J-1. Will the Project increase  |         |   |       |        |    |    |  |
| demand for public services to such a   |         |   |       |        |    |    |  |
| degree that accepted service standards   |         |   |       |        |    |    |  |
| are not maintained and new facilities are                                      |         |   |       |        |    |    |  |
| required to maintain service standards   |         |   |       |        |    |    |  |
| for the following: a. Police protection?                                       |         |   | X     |        |    |    |  |
| Impact 4.J-1. Will the Project increase  |         |   |       |        |    |    |  |
| demand for public services to such a   |         |   |       |        |    |    |  |
| degree that accepted service standards   |         |   |       |        |    |    |  |
| are not maintained and new facilities are                                      |         |   |       |        |    |    |  |
| required to maintain service standards   |         |   |       |        |    |    |  |
| for the following: a. Fire protection?   |         |   | X     |        |    |    |  |
| Impact 4.J-2. Will the Project impair or                                       |         |   |       |        |    |    |  |
| physically interfere with an adopted   |         |   |       |        |    |    |  |
| emergency response or evacuation plan?   |         |   | X     |        |    |    |  |
| 4.L. Transportation  |         |   |       |        |    |    |  |
| Impact 4.L-1. Will the Project create  |         |   |       |        |    |    |  |
| adverse vehicular impacts on Routes of   |         |   |       |        |    |    |  |
| Regional Significance?   | X       |   |       |        | X  | X  |  |
| Impact 4.L-4. Will the Project create  |         |   |       |        |    |    |  |
| vehicular impacts for signalized   |         |   |       |        |    |    |  |
| intersections in Lafayette?  | X       |   |       | X      | X  | X  |  |
| Impact 4.L-6. Will the Project create  |         |   |       |        |    |    |  |
| vehicular impacts for signalized   |         |   |       | ***    | *7 | 37 |  |
| intersections in Orinda?   | X       |   |       | X      | X  | X  |  |
| Impact 4.L-9. Will the Project   |         |   |       |        |    |    |  |
| substantially increase hazards due to a  |         |   |       |        |    |    |  |
| design feature (e.g., sharp curves or  |         |   |       |        |    |    |  |
| dangerous intersections) or incompatible uses (e.g., farm equipment on roads)? |         |   | X     |        |    |    |  |
| uses (e.g., farm equipment on roads)?  |         |   | Λ     |        |    |    |  |
| Totals   | 10      | 1 | 6     | 4      | 10 | 10 |  |

To approve the Project or an Alternative, the Town of Moraga must make findings that justify the approval of the Project or Alternative that has significant effects that are not substantially lessened or avoided (CEQA Guidelines §15091 (a)). The Town may, after adopting the proper findings, approve the Project or an Alternative if it first adopts a statement of overriding considerations setting forth specific reasons for its determination that the project's "benefits" render "acceptable" its "unavoidable adverse environmental effects" (CEQA Guidelines §15093 (a-b)).

For the 2002 General Plan EIR, the Town adopted Resolution 21-2002 on June 4, 2002 that included findings and a statement of overriding considerations for unavoidable transportation impacts to Highway 24, and intersections in Orinda and Lafayette (Impacts 4.L-1, 4.L-4, and 4.L-6).

## 5.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA §21100(b)(2)(B) requires that an EIR identify any significant irreversible changes that would result from Project implementation, and CEQA Guidelines §15126.2(c) provides guidance on the types changes that may be considered irreversible. Such changes include use of nonrenewable resources, commitment of future generations to similar uses, and environmental accidents that could occur because of the Project.

Construction would commit non-renewable resources including fuels, construction materials, and land. Once constructed, Project buildings would continue to use energy, some of which is derived from non-renewable sources. The precise acreage of land that would be used by the Project cannot be determined as residential building sites and sizes would not be determined until the Precise Development Plan is prepared and submitted to the Town. However, approximately 92 acres of undeveloped land in Bollinger Valley would be designated as R2, allowing construction of up to 126 homes in a low-density residential subdivision. Approximately 94 acres of land would be designated as permanently protection open space (N-OS). An additional 10-15 acres of land would be permanently disturbed for the construction of the EVA and improvement of Valley Hill Drive. The conversion of grazing land to residential development would result in consumption of a non-renewable resource, as the grazing land would be permanently removed from production. Construction and development of the Project would commit the area to suburban land uses on the currently rural, undeveloped site. Significant environmental damage due to hazardous spills is not anticipated, as the use of hazardous materials beyond levels used for construction or household use is not proposed. Residential use is not anticipated to create irreversible damage as a result of accidents or hazards.

## 5.3 CUMULATIVE IMPACTS

Cumulative impacts are defined as "two or more individual effects which, when considered together are considerable or which compound or increase other environmental impacts" (CEQA Guidelines §15355). Under CEQA Guidelines §15130, an EIR must discuss cumulative impacts when they are significant. Cumulative impacts could result from the project impacts in combination with those from other past, planned, or proposed projects in or near Moraga. The analysis of cumulative impacts of the project and surrounding local and subregional development are presented in Chapter 4 under each issue area. If significant cumulative impacts are identified, mitigation measures have been recommended to reduce impact levels if feasible.

# 5.4 Growth Inducing Impacts of the Project

CEQA Guidelines §15126.2(d) states that an EIR should discuss "...the ways in which the project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." Growth can be induced in a number of ways, including through the elimination of obstacles to growth, or through the stimulation of economic activity within the region. The impact discussion (4.I-2) in Chapter 4.I – Population and Housing discusses the balance between population and housing and the additional impact that might be induced by the Project or Alternatives.

The Project Area is currently designated as a "Study" area that could potentially be developed. The Project and Alternatives 3, 4, and 5 would remove this designation and would allow development. This does not conflict with the General Plan, but the action of removing the "Study" designation would allow for growth within the Project Area. Portions of the Project Area would also be designated as open space, which establishes public access and maintains open space in the currently designated "Study" area.

Development of the Project Area would include the expansion of utilities, including EBMUD's Current Service Boundary. While the Project Area is currently within the Ultimate Service Boundary, it is not currently served by EBMUD infrastructure and would be annexed within the Current Service Boundary prior to development of the Project, Alternative 3, 4, or 5. The annexation would be limited to the Project Area to prevent growth inducement of adjacent areas. Likewise, infrastructure developed to serve the Project would be sized to accommodate the planned development and not future expansion. Water storage, hydrants, and other fire prevention infrastructure may assist in hazardous events outside the Project Area; they would not be sized to regularly accommodate both the Project Area and adjacent areas. Alternative 2 would not include public infrastructure development.

Development of the EVA would not induce growth in Lafayette as the EVA would be gated and locked, and would be used only for emergency access and evacuation. The EVA would not serve as a regular travel route. Other roadway improvements would address current issues on Valley Hill Drive and Bollinger Canyon Road, and would not add new access. Interior roadways would link to Valley Hill Drive and would not provide new access offsite or with adjacent properties.

While the Project and Alternatives would result in direct residential growth, the addition of infrastructure and roadway improvements would be limited to serve the Project Area and not adjacent areas. The growth inducing effect beyond the direct development of the Project Area would be less than significant.

# 5.5 Environmentally Superior Alternative

Table 5-2 compares the potential environmental impacts of the Project and Alternatives. Evaluation of the Project and Alternatives indicates that the environmentally superior alternative is the No Project Alternative (Alternative 1), which assumes the existing environment will remain unchanged. The No Project Alternative would avoid impacts on visual resources, transportation, and habitats associated with new land disturbance and construction related to new development. However, this alternative would not be consistent with the Moraga 2002 General Plan Policy LU 6.1 to establish a land use designation in Bollinger Valley, and Alternative 1 (No Project) would result in the continuation of existing impacts associated with hydrology and water quality due to erosion and sedimentation into nearby bodies of water.

As is required by CEQA Guidelines §15126.6(e)(2), when the No Project Alternative is determined to be the environmentally superior alternative, the EIR shall identify an environmentally superior alternative from the other alternatives. Of the Action Alternatives, the two reduced development alternatives (Alternative 2 [8 units] and Alternative 3 [37 units]) would not avoid all significant impacts associated with the Project, but would lessen many impacts compared to the Project (126 units). As such, the environmentally superior alternative is considered to be Alternative 3 (37 units) with appropriate mitigation measures as described for the Project, including:

- Prepare geologic and soil hazard evaluations for roads and homesites;
- Utilize appropriate foundations for expansive and corrosive soils;
- Capture onsite and treat stormwater runoff prior to discharge to streams;

- Conduct pre-construction rare plant and wildlife surveys;
- Minimize impacts to sensitive habitats and waters of the U.S.;
- Minimize construction related dust and air emissions;
- Apply energy conservation Design Guidelines to reduce GHG emissions;
- Implement noise control measures during construction;
- Prepare Fire Protection and Emergency Services plan;
- Protect inadvertently discovered historic and archaeological resources;

Collectively, the reduced development levels of Alternative 3 (37 units) and the mitigation measures listed above would avoid or substantially lessen significant impacts identified for the Bollinger Valley Project. The reduced impacts include less total ground disturbance (e.g., less impact to water quality, hydrology, wildlife habitats, visual resources), less population growth (e.g., less impact to public services and utility providers), and less traffic generation (e.g., less impact on local roadways, intersections, and regional roadways through other jurisdictions).

Alternative 3 results in fewer significant and unavoidable impacts than Alternative 2 because it includes roadway improvements and the EVA to increase safety and emergency response. Alternative 3 also meets the objectives of the project by minimizing disturbance, improving access, improving storm water management, maintaining open space, minimizing grading, providing utilities, minimizing traffic increases, and accommodating Moraga's future housing needs. It should be noted that Alternative 2 does not meet many of the project objectives, including roadway improvements, water storage, and storm water management. Therefore, Alternative 3 is the environmentally superior action.

## 5.6 ALTERNATIVES CONSIDERED AND REJECTED

During the development of the Project description, a range of residential development levels were investigated to determine their impacts on peak hour traffic levels predicted in the Moraga 2002 General Plan EIR analysis. These conceptual development levels were investigated in a report prepared by Fehr & Peers Associates and provided in Appendix D. Development levels that would increase traffic above the levels predicted in the Moraga 2002 General Plan buildout analysis were rejected from further consideration. Other alternatives that were considered but eliminated from evaluation in the EIR include providing the main vehicle access to the Project Area through Lafayette (along the EVA route), higher density housing in Bollinger Valley, and non-clustered housing at densities greater than 0.05 DUA.

| Table 5-2  Comparison of Potential Impacts (Project and Alternatives)   |   |                            |   |   |  |  |  |
|---|---|----------------------------|---|---|--|--|--|
| Potential Effects   | Project<br>(126 units)  | Alternative 1 (No Project) | Alternative 2 (8 units)   | Alternative 3 (37 units)  | Alternative 4<br>(100 units)   | Alternative 5<br>(121 units)   |  |
| 4.A AESTHETICS  4.A-1. Will the Project have a substantial adverse effect on a scenic vista or substantially damage scenic resources (e.g., natural landforms, trees, rock outcrops and historic buildings along a scenic highway)? | Potential impact to designated Scenic Corridors in Moraga and Viewing Sites in Lafayette. | No impact.                 | Minor change to<br>the existing<br>landscape; no<br>impact to Scenic<br>Corridors in<br>Moraga and<br>Viewing Sites in<br>Lafayette | Potential impact to designated Scenic Corridors in Moraga and Viewing Sites in Lafayette.             | Potential impact to designated Scenic Corridors in Moraga and Viewing Sites in Lafayette.  | Potential impact to designated Scenic Corridors in Moraga and Viewing Sites in Lafayette.                                      |  |
| 4.A-2. Will the Project substantially degrade the existing visual quality of the site and its surroundings?   | Potential substantial change to visual quality in Bollinger Valley.                       | No impact.                 | Potential change to the visual quality in Bollinger Valley.   | Potential substantial change to visual quality in Bollinger Valley.                                   | Potential substantial change to visual quality in Bollinger Valley.  | Potential substantial change to visual quality in Bollinger Valley.  |  |
| 4.A-3. Will the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?  | Substantial new source of light and glare.  | No impact.                 | Potential new source of light and glare, but proportionally less than Alternatives with more homes.                                 | Substantial new source of light and glare, but proportionally less than Alternatives with more homes. | Substantial new source of light and glare, but proportionally less than Alternatives with more homes. Earthen berm, vegetative screening, and buffers reduce impact. | Substantial new source of light and glare, but less than Project due to fewer units and more buffer areas from existing homes. |  |

| Table 5-2  |   |             |  |  |  |  |  |  |  |
|--|---|-------------|--|--|--|--|--|--|--|
| Comparison of Potential Impacts (Project and Alternatives)  Potential Effects  Project Alternative 1 Alternative 2 Alternative 3 Alternative 4 Alternative 5 (120 piles)  (Alternative 2 Alternative 3 (120 piles) |   |             |  |  |  |  |  |  |  |
| 4.B AIR QUALITY AND GREENHOUSE GAS EMISSIONS (8 units) (37 units) (100 units) (121 units)  |   |             |  |  |  |  |  |  |  |
| 4.B-1. Will the Project violate any air quality standard or contribute substantially to an existing or projected air quality violation?  | Construction and operation will add O <sub>3</sub> , PM <sub>2.5</sub> , and PM <sub>10</sub> emissions and contribute to existing non-attainment status. | No impact.  | Construction and operation will add O <sub>3</sub> , PM <sub>2.5</sub> , and PM <sub>10</sub> emissions and contribute to existing non-attainment status. Proportionally fewer emissions than Project (126 units).   ⊙ | Construction and operation will add O <sub>3</sub> , PM <sub>2.5</sub> , and PM <sub>10</sub> emissions and contribute to existing non-attainment status. Proportionally fewer emissions than Project (126 units). | Construction and operation will add O <sub>3</sub> , PM <sub>2.5</sub> , and PM <sub>10</sub> emissions and contribute to existing non-attainment status. Proportionally fewer emissions than Project (126 units). | Construction and operation will add O <sub>3</sub> , PM <sub>2.5</sub> , and PM <sub>10</sub> emissions and contribute to existing non-attainment status. Proportionally fewer emissions than Project (126 units). |  |  |  |
| 4.B-2. Will the Project conflict with or obstruct implementation of the applicable Clean Air Plan?   | Construction and operation emissions will be minor on a regional level, but will conflict with Clean Air Plan population estimates.                       | No impact.  | Construction and operation emissions will be minor on a regional level and not obstruct Clean Air Plan implementation.   | Construction and operation emissions will be minor on a regional level and not obstruct Clean Air Plan implementation.   | Construction and operation emissions will be minor on a regional level, but will conflict with Clean Air Plan population estimates.  | Construction and operation emissions will be minor on a regional level, but will conflict with Clean Air Plan population estimates.  |  |  |  |
| 4.B-3. Is the Project consistent with the Clean Air Plan population and Vehicle Miles Traveled (VMT) assumptions and Transportation Control Plans (TCMs)?  | Conflicts with Clean Air Plan population estimates. •   | Consistent. | Consistent.  | Consistent.  | Conflicts with Clean Air Plan population estimates. •  | Conflicts with Clean Air Plan population estimates. •  |  |  |  |

| Table 5-2  |   |                               |  |   |  |  |  |  |
|--|---|-------------------------------|--|---|--|--|--|--|
| Comparison of Potential Impacts (Project and Alternatives)   |   |                               |  |   |  |  |  |  |
| Potential Effects  | Project<br>(126 units)  | Alternative 1<br>(No Project) | Alternative 2<br>(8 units)   | Alternative 3 (37 units)  | Alternative 4<br>(100 units)   | Alternative 5<br>(121 units)   |  |  |
| 4.B-4. Will the Project result in a substantial net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | Construction and operation will add O <sub>3</sub> , PM <sub>2.5</sub> , and PM <sub>10</sub> emissions and contribute to existing non-attainment status.   | No impact.                    | Construction and operation will add O <sub>3</sub> , PM <sub>2.5</sub> , and PM <sub>10</sub> emissions and contribute to existing nonattainment status. Proportionally fewer emissions than Project (126 units).                  | Construction and operation will add O <sub>3</sub> , PM <sub>2.5</sub> , and PM <sub>10</sub> emissions and contribute to existing nonattainment status. Proportionally fewer emissions than Project (126 units).                 | Construction and operation will add O <sub>3</sub> , PM <sub>2.5</sub> , and PM <sub>10</sub> emissions and contribute to existing nonattainment status. Proportionally fewer emissions than Project (126 units).                  | Construction and operation will add O <sub>3</sub> , PM <sub>2.5</sub> , and PM <sub>10</sub> emissions and contribute to existing nonattainment status. Proportionally fewer emissions than Project (126 units).                  |  |  |
| 4.B-5. Will the Project result in a significant impact to local air quality?   | Construction and operation will add O <sub>3</sub> , PM <sub>2.5</sub> , and PM <sub>10</sub> emissions and contribute to existing nonattainment status. Exacerbates CO concentrations at intersections with LOS below standards. | No impact.                    | Construction and operation will add O <sub>3</sub> , PM <sub>2.5</sub> , and PM <sub>10</sub> emissions and contribute to existing non-attainment status. Exacerbates CO concentrations at intersections with LOS below standards. | Construction and operation will add O <sub>3</sub> , PM <sub>2.5</sub> , and PM <sub>10</sub> emissions and contribute to existing nonattainment status. Exacerbates CO concentrations at intersections with LOS below standards. | Construction and operation will add O <sub>3</sub> , PM <sub>2.5</sub> , and PM <sub>10</sub> emissions and contribute to existing non-attainment status. Exacerbates CO concentrations at intersections with LOS below standards. | Construction and operation will add O <sub>3</sub> , PM <sub>2.5</sub> , and PM <sub>10</sub> emissions and contribute to existing non-attainment status. Exacerbates CO concentrations at intersections with LOS below standards. |  |  |

|   |   | Tab                           | le 5-2  |   |   |   |  |  |
|---|---|-------------------------------|---|---|---|---|--|--|
|   | Comparison of Potential Impacts (Project and Alternatives)  |                               |   |   |   |   |  |  |
| Potential Effects   | Project<br>(126 units)  | Alternative 1<br>(No Project) | Alternative 2<br>(8 units)  | Alternative 3 (37 units)  | Alternative 4<br>(100 units)  | Alternative 5<br>(121 units)  |  |  |
| 4.B-6. Does the Project provide buffer zones around existing and proposed land uses that emit odors and/or toxic air contaminants?    | Potential for minor nuisance issues related to dust and odors from agricultural areas affecting Project residential uses.   | No impact.                    | Potential for minor nuisance issues related to dust and odors from agricultural areas affecting Project residential uses. | Potential for minor nuisance issues related to dust and odors from agricultural areas affecting Project residential uses. | Potential for minor nuisance issues related to dust and odors from agricultural areas affecting Project residential uses.   | Potential for minor nuisance issues related to dust and odors from agricultural areas affecting Project residential uses.   |  |  |
| 4.B-7. Will the Project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment? | Annual mobile source GHGs expected to exceed BAAQMD significance threshold.   | No impact.                    | Minor increase in GHG emissions, up to 153 tpy of CO <sub>2</sub> e.  | Minor increase in GHG emissions, up to 708 tpy of CO <sub>2</sub> e.  | Annual mobile source GHGs expected to exceed BAAQMD significance threshold.   | Annual mobile source GHGs expected to exceed BAAQMD significance threshold.   |  |  |
| 4.B-8. Will the Project conflict with an applicable plan, policy, or regulation adopted to reduce GHG emissions?                      | Annual mobile source GHGs expected to exceed BAAQMD significance threshold during operation, conflicting with plans, policies, or regulations for GHG reductions. | No impact.                    | Minor increase in GHG emissions would not conflict with plans, policies, or regulations for GHG reductions.               | Minor increase in GHG emissions would not conflict with plans, policies, or regulations for GHG reductions.               | Annual mobile source GHGs expected to exceed BAAQMD significance threshold during operation, conflicting with plans, policies, or regulations for GHG reductions. | Annual mobile source GHGs expected to exceed BAAQMD significance threshold during operation, conflicting with plans, policies, or regulations for GHG reductions. |  |  |

|  | Table 5-2   |                               |   |   |   |   |  |  |  |  |
|--|---|-------------------------------|---|---|---|---|--|--|--|--|
| Comparison of Potential Impacts (Project and Alternatives)   |   |                               |   |   |   |   |  |  |  |  |
| Potential Effects  | Project<br>(126 units)  | Alternative 1<br>(No Project) | Alternative 2<br>(8 units)  | Alternative 3 (37 units)  | Alternative 4<br>(100 units)  | Alternative 5 (121 units)   |  |  |  |  |
| 4.C BIOLOGICAL RESOURCES   |   |                               |   |   |   |   |  |  |  |  |
| 4.C-1. Will the Project result in a substantial loss of native vegetation or wildlife populations? | Loss of up to 96 acres of vegetation permanently removed, including 6 acres of oak woodlands 2.2 acres of scrub, and 0.26 acres of wetlands.  | No impact.                    | Loss of common natural vegetation associated with each home, as well as some oak woodland, scrub, and wetlands. | Approximately 15-30 acres of vegetation less than the Project permanently removed, including 4 acres of oak woodlands 2.2 acres of scrub, and 0.26 acres of   | Approximately 15-30 acres of vegetation less than the Project permanently removed, including 4 acres of oak woodlands 2.2 acres of scrub, and 0.26 acres of   | Approximately 15-30 acres of vegetation less than the Project permanently removed, including 4 acres of oak woodlands 2.2 acres of scrub, and 0.26 acres of   |  |  |  |  |
|  |   |                               |   | wetlands. ⊙   | wetlands. ⊙   | wetlands. ⊙   |  |  |  |  |
| 4.C-2. Will the Project cause a permanent loss of sensitive natural communities?                   | Loss of up to 6 acres of coast live oak woodlands, 0.8 acre of northern coyote brush scrub, 1.4 acres of Central Coast riparian scrub, and 0.26 acre of marshes and ponds with associated wetland and riparian habitat types. | No impact.                    | Potential loss of vegetation associated with each home site.  | Loss of up to 4 acres of coast live oak woodlands, 0.8 acre of northern coyote brush scrub, 1.4 acres of Central Coast riparian scrub, and 0.26 acre of marshes and ponds with associated wetland and riparian habitat types. | Loss of up to 4 acres of coast live oak woodlands, 0.8 acre of northern coyote brush scrub, 1.4 acres of Central Coast riparian scrub, and 0.26 acre of marshes and ponds with associated wetland and riparian habitat types. | Loss of up to 4 acres of coast live oak woodlands, 0.8 acre of northern coyote brush scrub, 1.4 acres of Central Coast riparian scrub, and 0.26 acre of marshes and ponds with associated wetland and riparian habitat types. |  |  |  |  |

|  |  | Tab                           | le 5-2  |  |  |  |  |  |
|--|--|-------------------------------|---|--|--|--|--|--|
| Comparison of Potential Impacts (Project and Alternatives)   |  |                               |   |  |  |  |  |  |
| Potential Effects  | Project<br>(126 units)   | Alternative 1<br>(No Project) | Alternative 2<br>(8 units)  | Alternative 3 (37 units)   | Alternative 4<br>(100 units)   | Alternative 5<br>(121 units)   |  |  |
| 4.C-3. Will the Project result in a net loss of wetlands, streams or other waters of the U.S.?                               | Potential loss of 0.26 acre of marshes and ponds with associated wetland and riparian habitat types.                   | No impact.                    | Potential loss associated with access road improvement to reach homesites.                                      | Potential loss of 0.26 acre of marshes and ponds with associated wetland and riparian habitat types.                   | Potential loss of 0.26 acre of marshes and ponds with associated wetland and riparian habitat types.                   | Potential loss of 0.26 acre of marshes and ponds with associated wetland and riparian habitat types.                   |  |  |
| 4.C-4. Will the Project cause a loss of individuals or populations of special-status plant species?                          | Potential for a small number of locally rare plants removed in woodlands and adjacent grasslands.                      | No impact.                    | Potential for a small number of locally rare plants removed in woodlands and adjacent grasslands.               | Potential for a small number of locally rare plants removed in woodlands and adjacent grasslands.                      | Potential for a small number of locally rare plants removed in woodlands and adjacent grasslands.                      | Potential for a small number of locally rare plants removed in woodlands and adjacent grasslands.                      |  |  |
| 4.C-5. Will the Project cause a loss of individuals or habitat of endangered, threatened, rare, or fully protected wildlife? | Grading and tree removal will remove potential habitats for endangered, threatened, rare, or fully protected wildlife. | No impact.                    | Home construction will remove potential habitats for endangered, threatened, rare, or fully protected wildlife. | Grading and tree removal will remove potential habitats for endangered, threatened, rare, or fully protected wildlife. | Grading and tree removal will remove potential habitats for endangered, threatened, rare, or fully protected wildlife. | Grading and tree removal will remove potential habitats for endangered, threatened, rare, or fully protected wildlife. |  |  |
| 4.C-6. Will the Project cause a loss of active raptor nests, migratory bird nests, or native wildlife nursery sites?         | Grading and tree removal will remove potential habitat.  ⊙   | No impact.                    | Home construction will remove potential habitat.  | Grading and tree removal will remove potential habitat. ⊙  | Grading and tree removal will remove potential habitat.  ⊙   | Grading and tree removal will remove potential habitat. ⊙  |  |  |

| Table 5-2  |  |                               |  |  |  |  |  |
|--|--|-------------------------------|--|--|--|--|--|
| Comparison of Potential Impacts (Project and Alternatives)   |  |                               |  |  |  |  |  |
| Potential Effects  | Project<br>(126 units)   | Alternative 1<br>(No Project) | Alternative 2<br>(8 units)   | Alternative 3 (37 units)   | Alternative 4<br>(100 units)   | Alternative 5 (121 units)  |  |
| 4.C-7. Will the Project substantially block or disrupt wildlife migration or travel corridors?   | No impact to migration, minor impact to wildlife movement.   | No impact.                    | No impact to migration, minor impact to wildlife movement.   | No impact to migration, minor impact to wildlife movement.   | No impact to migration, minor impact to wildlife movement.   | No impact to migration, minor impact to wildlife movement.   |  |
| 4.C-8. Will the Project conflict with local policies or ordinances for the protection of biological resources?   | Construction activities have the potential to damage existing trees and violate the tree preservation ordinance. | No impact.                    | Construction activities have the potential to damage existing trees and violate the tree preservation ordinance. | Construction activities have the potential to damage existing trees and violate the tree preservation ordinance. | Construction activities have the potential to damage existing trees and violate the tree preservation ordinance. | Construction activities have the potential to damage existing trees and violate the tree preservation ordinance. |  |
| 4.C-9. Will the Project conflict with<br>the provisions of an adopted HCP,<br>NCCP, or other approved local,<br>regional, or state habitat<br>conservation plan? | No impact.   | No impact.                    | No impact.   | No impact.   | No impact.   | No impact.   |  |
| 4.D CULTURAL RESOURCES   |  |                               |  |  |  |  |  |
| 4.D-1. Will the project cause a substantial adverse change in the significance of a historical resource as defined in CEQA §15064.5?                             | Impacts to resources that do not meet CRHR criteria.   | No impact.                    | Impacts to resources that do not meet CRHR criteria.   | Impacts to resources that do not meet CRHR criteria.   | Impacts to resources that do not meet CRHR criteria.   | Impacts to resources that do not meet CRHR criteria.   |  |
| 4.D-2. Will the Project cause a substantial adverse change in the significance of an archaeological resource as defined in CEQA §15064.5?                        | No impacts to known resources; may affect resources inadvertently discovered during construction.                | No impact.                    | No impacts to known resources; may affect resources inadvertently discovered during construction.                | No impacts to known resources; may affect resources inadvertently discovered during construction.                | No impacts to known resources; may affect resources inadvertently discovered during construction.                | No impacts to known resources; may affect resources inadvertently discovered during construction. ⊙              |  |

| Table 5-2   |   |                               |   |   |   |   |  |  |
|---|---|-------------------------------|---|---|---|---|--|--|
| Comparison of Potential Impacts (Project and Alternatives)  |   |                               |   |   |   |   |  |  |
| Potential Effects   | Project<br>(126 units)  | Alternative 1<br>(No Project) | Alternative 2<br>(8 units)  | Alternative 3 (37 units)  | Alternative 4<br>(100 units)  | Alternative 5<br>(121 units)  |  |  |
| 4.D-3. Will the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?  | No impacts to known resources; may affect resources inadvertently discovered during construction.               | No impact.                    | No impacts to known resources; may affect resources inadvertently discovered during construction.               | No impacts to known resources; may affect resources inadvertently discovered during construction.               | No impacts to known resources; may affect resources inadvertently discovered during construction.               | No impacts to known resources; may affect resources inadvertently discovered during construction.               |  |  |
| 4.D-4. Will the Project disturb any human remains, including those interred outside of formal cemeteries?   | No impacts to known remains or sites; may affect remains or sites inadvertently discovered during construction. | No impact.                    | No impacts to known remains or sites; may affect remains or sites inadvertently discovered during construction. | No impacts to known remains or sites; may affect remains or sites inadvertently discovered during construction. | No impacts to known remains or sites; may affect remains or sites inadvertently discovered during construction. | No impacts to known remains or sites; may affect remains or sites inadvertently discovered during construction. |  |  |
| 4.E GEOLOGY AND SOILS  4.E-1. Will the Project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking or seismic related ground failure including liquefaction? | Exposes 126 new homes, along with associated roads and infrastructure, to geologic risks.                       | No impact.                    | Exposes 8 new homes to geologic risks.  | Exposes 37 new homes, along with associated roads and infrastructure, to geologic risks.                        | Exposes 100 new homes, along with associated roads and infrastructure, to geologic risks.                       | Exposes 121 new homes, along with associated roads and infrastructure, to geologic risks.                       |  |  |

| Table 5-2   |  |                               |  |   |  |  |  |  |
|---|--|-------------------------------|--|---|--|--|--|--|
| Comparison of Potential Impacts (Project and Alternatives)  |  |                               |  |   |  |  |  |  |
| Potential Effects   | Project<br>(126 units)   | Alternative 1<br>(No Project) | Alternative 2<br>(8 units)   | Alternative 3 (37 units)  | Alternative 4<br>(100 units)   | Alternative 5 (121 units)  |  |  |
| 4.E-2. Will the Project expose people or structures to major geologic hazards such as strong seismic ground shaking or seismic related ground failure including rupture of a known earthquake fault as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? | Exposes 126 new homes, along with associated roads and infrastructure, to geologic risks.                    | No impact.                    | Allows 8 new homes exposed to geologic risks. ⊙  | Exposes 37 new homes, along with associated roads and infrastructure to geologic risks.                     | Exposes 100 new homes, along with associated roads and infrastructure to geologic risks.                     | Exposes 121 new homes, along with associated roads and infrastructure to geologic risks.                     |  |  |
| 4.E-3. Will the Project result in placement of structures or infrastructure in locations susceptible to landslides or slope instability?  | Exposes 126 new homes, along with associated roads and infrastructure, to unstable slope or soil conditions. | No impact.                    | Exposes 8 new homes, along with associated roads and infrastructure, to unstable slope or soil conditions. | Exposes 37 new homes, along with associated roads and infrastructure, to unstable slope or soil conditions. | Exposes 100 new homes, along with associated roads and infrastructure, to unstable slope or soil conditions. | Exposes 121 new homes, along with associated roads and infrastructure, to unstable slope or soil conditions. |  |  |
| 4.E-4. Does the Project or<br>Alternatives have the potential to<br>result in damage to structures or<br>infrastructure due to settlement of<br>natural deposits or improperly<br>constructed fills?  | Exposes 126 new homes, along with associated roads and infrastructure, to settlement damage.                 | No impact.                    | Exposes 8 new homes, along with associated roads and infrastructure, to settlement damage.                 | Exposes 37 new homes, along with associated roads and infrastructure, to settlement damage.                 | Exposes 100 new homes, along with associated roads and infrastructure, to settlement damage.                 | Exposes 121 new homes, along with associated roads and infrastructure, to settlement damage.                 |  |  |

| Table 5-2   |  |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|--|
| Comparison of Potential Impacts (Project and Alternatives)  |  |  |  |  |  |  |  |  |
| Potential Effects   | Project<br>(126 units)   | Alternative 1<br>(No Project)                            | Alternative 2<br>(8 units)   | Alternative 3 (37 units)   | Alternative 4<br>(100 units)   | Alternative 5 (121 units)  |  |  |
| 4.E-5. Will the Project or<br>Alternatives result in substantial soil<br>erosion or loss of topsoil?  | Site construction and development could result in substantial soil erosion or the loss of topsoil.               | The moderate level of soil erosion onsite would persist. | Site construction and development could result in substantial soil erosion or the loss of topsoil. Proportionally smaller impact than Project due to smaller development area. | Site construction and development could result in substantial soil erosion or the loss of topsoil. Proportionally smaller impact than Project due to smaller development area. | Site construction and development could result in substantial soil erosion or the loss of topsoil. Proportionally smaller impact than Project due to smaller development area. | Site construction and development could result in substantial soil erosion or the loss of topsoil. Proportionally smaller impact than Project due to smaller development area. |  |  |
| 4.E-6. Will the Project or Alternatives be located on expansive or corrosive soil, creating substantial risk to life or property?   | Exposes 126 new homes, along with associated roads and infrastructure, to potentially expansive soil conditions. | No impact.   | Exposes 8 new homes to potentially expansive soil conditions.  | Exposes 37 new homes, along with associated roads and infrastructure, to potentially expansive soil conditions.  | Exposes 100 new homes, along with associated roads and infrastructure, to potentially expansive soil conditions.   | Exposes 121 new homes, along with associated roads and infrastructure, to potentially expansive soil conditions.   |  |  |
| 4.E-7. Will the Project or<br>Alternatives have soils incapable of<br>adequately supporting the use of<br>septic tanks or Alternative<br>wastewater disposal systems where<br>sewers are not available for the<br>disposal of wastewater? | No impact.   | No impact.   | Allows up to 8 new septic systems on potentially unsuitable soils. ⊙   | No impact.   | No impact.   | No impact.   |  |  |

|   | Table 5-2  |                                     |  |  |  |  |  |  |  |  |
|---|--|-------------------------------------|--|--|--|--|--|--|--|--|
| Comparison of Potential Impacts (Project and Alternatives)  |  |                                     |  |  |  |  |  |  |  |  |
| Potential Effects   | Project<br>(126 units)   | Alternative 1<br>(No Project)       | Alternative 2<br>(8 units)   | Alternative 3 (37 units)   | Alternative 4<br>(100 units)   | Alternative 5<br>(121 units)   |  |  |  |  |
| 4.F HYDROLOGY AND WATER QUALITY   |  |                                     |  |  |  |  |  |  |  |  |
| 4.F-1. Will the Project construction or long-term operations cause numeric or narrative water quality criteria to be exceeded in Las Trampas Creek? | Grading and residential development avoid and minimize impacts to water quality from construction and operation through compliance with the existing federal, State, County and Town regulations and environmental protections programs. | Existing degraded condition remains | Existing degraded condition remains with potential impacts from new construction.                          | Grading and residential development avoid and minimize impacts to water quality from construction and operation through compliance with the existing federal, State, County and Town regulations and environmental protections programs. | Grading and residential development avoid and minimize impacts to water quality from construction and operation through compliance with the existing federal, State, County and Town regulations and environmental protections programs. | Grading and residential development avoid and minimize impacts to water quality from construction and operation through compliance with the existing federal, State, County and Town regulations and environmental protections programs. |  |  |  |  |
| 4.F-2. Will the Project substantially deplete groundwater supplies or interfere with groundwater recharge?  | Possible deformation and effects to groundwater recharge.  | No impact.                          | Impacts to groundwater unknown until geologic and hydrologic investigations are completed for new parcels. | Possible deformation and effects to groundwater recharge. Proportionally smaller impact than Project due to smaller development area.  | Possible deformation and effects to groundwater recharge. Proportionally smaller impact than Project due to smaller development area.  | Possible deformation and effects to groundwater recharge. Proportionally smaller impact than Project due to smaller development area.  |  |  |  |  |

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|--|--|--------------------------------------|---|--|--|--|--|--|
| Comparison of Potential Impacts (Project and Alternatives)   |  |                                      |   |  |  |  |  |  |
| Potential Effects  | Project<br>(126 units)   | Alternative 1<br>(No Project)        | Alternative 2<br>(8 units)  | Alternative 3 (37 units)   | Alternative 4<br>(100 units)   | Alternative 5<br>(121 units)   |  |  |
| 4.F-3. Will the Project substantially alter existing drainage patterns and result in erosion, sedimentation, or flooding or result runoff that exceeds storm drain capacity? | Grading and residential development may impact drainage patterns due to soil compaction, vegetation removal, impervious surfaces, and channelized runoff from developed areas. | Existing degraded condition remains. | Existing degraded condition remains with potential impacts from new construction. | Grading and residential development may impact drainage patterns due to soil compaction, vegetation removal, impervious surfaces, and channelized runoff from developed areas. Proportionally smaller impact than Project due to smaller development area. | Grading and residential development may impact drainage patterns due to soil compaction, vegetation removal, impervious surfaces, and channelized runoff from developed areas. Proportionally smaller impact than Project due to smaller development area. | Grading and residential development may impact drainage patterns due to soil compaction, vegetation removal, impervious surfaces, and channelized runoff from developed areas. Proportionally smaller impact than Project due to smaller development area. |  |  |
| 4.F-4. Will the Project expose people or structures to inundation by seiche, tsunami or mudflow?   | Exposure of up to 126 new homes and associated roads and infrastructure to mudflow risk.   | No impact.                           | Exposure of up to 8 new homes to mudflow risk.                                    | Exposure of up to 37 new homes and associated roads and infrastructure to mudflow risk.  | Exposure of up to 100 new homes and associated roads and infrastructure to mudflow risk.   | Exposure of up to 121 new homes and associated roads and infrastructure to mudflow risk.   |  |  |
| 4.F-5. Will the Project expose people or structures to a significant risk of loss, injury, or death involving flooding as a result of the failure or a levee or dam?         | No impact.   | No impact.                           | No impact.  | No impact.   | No impact.   | No impact.   |  |  |

| Table 5-2  |  |   |   |  |  |  |  |  |  |
|--|--|---|---|--|--|--|--|--|--|
| Comparison of Potential Impacts (Project and Alternatives)   |  |   |   |  |  |  |  |  |  |
| Potential Effects  | Project<br>(126 units)   | Alternative 1<br>(No Project)   | Alternative 2<br>(8 units)  | Alternative 3 (37 units)   | Alternative 4 (100 units)  | Alternative 5<br>(121 units)   |  |  |  |
| 4.F-6. Will the Project place structures within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, which would impede or redirect flood flows? | No impact.   | No impact.  | No impact.  | No impact.   | No impact.   | No impact.   |  |  |  |
| 4.F-7. Will the Project expose people or structures to increased potential for flooding, bank erosion and/or sedimentation?  | Implementation of the CDP and CREP will maintain drainage patterns and peak discharge rates, avoid downstream erosion or increased runoff, and comply with Town and FC District standards. | Existing potential for bank erosion and sedimentation downstream remains, but would not increase. | Existing potential for bank erosion and sedimentation downstream remains and may increase due to increased impervious surface coverage and continued grazing. | Implementation of the CDP and CREP will maintain drainage patterns and peak discharge rates, avoid downstream erosion or increased runoff, and comply with Town and FC District standards. | Implementation of the CDP and CREP will maintain drainage patterns and peak discharge rates, avoid downstream erosion or increased runoff, and comply with Town and FC District standards. | Implementation of the CDP and CREP will maintain drainage patterns and peak discharge rates, avoid downstream erosion or increased runoff, and comply with Town and FC District standards. |  |  |  |

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|--|---|---|---|---|--|---|--|--|--|--|
| Comparison of Potential Impacts (Project and Alternatives)   |   |   |   |   |  |   |  |  |  |  |
| Potential Effects  | Project<br>(126 units)  | Alternative 1<br>(No Project)   | Alternative 2<br>(8 units)  | Alternative 3 (37 units)  | Alternative 4<br>(100 units)   | Alternative 5<br>(121 units)  |  |  |  |  |
|  | 4.G LAND USE AND AGRICULTURAL RESOURCES   |   |   |   |  |   |  |  |  |  |
| 4.G-1. Is the Project consistent with the Town of Moraga, City of Lafayette, and Contra Costa County General Plans adopted for the purpose of avoiding, minimizing, or monitoring environmental effects? | Mitigation measures achieve consistency.  | Consistent with Moraga General Plan Implementation Measure schedule for Policy LU6.1 – Bollinger Canyon Special Study Area. | Mitigation measures achieve consistency.  | Mitigation measures achieve consistency.  | Mitigation measures achieve consistency.   | Mitigation measures achieve consistency.  |  |  |  |  |
| 4.G-2. Will the Project result in conflicts between adjacent land uses (i.e., residential and industrial or residential and agricultural) or result in incompatible residential densities?               | Potential for conflicts between proposed residential uses with existing adjacent agricultural uses. | No impact.  | Lots would have sufficient size to accommodate similar small-scale, low intensity agriculture-related uses. | Potential for conflicts between proposed residential uses with existing adjacent agricultural uses are reduced compared to the Project due fewer home sites near Project Area boundary. | Potential for conflicts between proposed residential uses with existing adjacent agricultural uses are reduced compared to the Project due to increased buffer distances, vegetation, and earthen berms. | Potential for conflicts between proposed residential uses with existing adjacent agricultural uses are reduced compared to the Project due to increased buffer distances. |  |  |  |  |

|   | Table 5-2   |                               |   |  |   |   |  |  |  |
|---|---|-------------------------------|---|--|---|---|--|--|--|
| Comparison of Potential Impacts (Project and Alternatives)  |   |                               |   |  |   |   |  |  |  |
| Potential Effects   | Project<br>(126 units)  | Alternative 1<br>(No Project) | Alternative 2<br>(8 units)  | Alternative 3 (37 units)   | Alternative 4 (100 units)   | Alternative 5 (121 units)   |  |  |  |
| 4.G-3. Will the Project substantially increase densities?   | Substantial residential density increase, from 0 to 0.68 DUA. Exceeds housing units analyzed in the EIR for the buildout of the General Plan by 86 units. | No impact.                    | Minor residential density increase, from 0 to 0.05 DUA. Density is consistent with other N-OS and OS-M lands in Moraga, and there would be fewer housing units than analyzed in the EIR for the buildout of the General Plan. | Minor residential density increase, from 0 to 0.2 DUA. Density is consistent with other N-OS and OS-M lands in Moraga, and there would be fewer housing units than analyzed in the EIR for the buildout of the General Plan. | Substantial residential density increase, from 0 to 0.54-0.59 DUA. Exceeds housing units analyzed in the EIR for the buildout of the General Plan by 60-70 units. | Substantial residential density increase, from 0 to 0.65 DUA. Exceeds housing units analyzed in the EIR for the buildout of the General Plan by 81 units. |  |  |  |
| 4.G-4. Will the Project physically divide an established community?   | No impact.  | No impact.                    | No impact.  | No impact.   | No impact.  | No impact.  |  |  |  |
| 4.G-5. Will the Project convert or result in the conversion of forestland, Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural or non-forestland uses, or conflict with a Williamson Act contract? | No impact.  | No impact.                    | No impact.  | No impact.   | No impact.  | No impact.  |  |  |  |

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|--|---|-------------------------------|--|---|---|---|--|--|
| Comparison of Potential Impacts (Project and Alternatives)   |   |                               |  |   |   |   |  |  |
| Potential Effects  | Project<br>(126 units)  | Alternative 1<br>(No Project) | Alternative 2<br>(8 units)   | Alternative 3 (37 units)  | Alternative 4<br>(100 units)  | Alternative 5 (121 units)   |  |  |
| 4.G-6. Will the Project result in loss of potential public open space?                             | Designation of 94.33 acres of potential publically accessible N-OS land and loss of 92 acres of potential publically accessible N-OS designated land. | No impact.                    | Designation of 186.33 acres of potential publically accessible N-OS designated land. | Designation of 166 acres of potential publically accessible N-OS land and loss of approximately 18.5 acres of potential publically accessible N-OS designated land. O | Designation of 131 acres of potential publically accessible N-OS land and loss of approximately 55 acres of potential publically accessible N-OS designated land. O | Designation of 115 acres of potential publically accessible N-OS land and loss of approximately 71 acres of potential publically accessible N-OS designated land. O |  |  |
| 4.H NOISE  |   |                               | •  |   |   |   |  |  |
| 4.H-1. Will Project construction expose people to high noise levels or ground-borne vibration?     | Construction may generate substantial noise.  ⊙   | No impact.                    | Construction may generate substantial noise, proportionally less than the Project.   | Construction may generate substantial noise, proportionally less than the Project.  ©   | Construction may generate substantial noise, proportionally less than the Project.  ©   | Construction may generate substantial noise, proportionally less than the Project.  ©   |  |  |
| 4.H-2. Will operation of the Project expose people to high noise levels or ground-borne vibration? | Minor increase in noise due to residential uses.  | No impact.                    | Minor increase in noise due to residential uses.                                     | Minor increase in noise due to residential uses.  | Minor increase in noise due to residential uses.  | Minor increase in noise due to residential uses.  |  |  |

| Table 5-2  |   |                               |   |   |   |   |  |  |
|--|---|-------------------------------|---|---|---|---|--|--|
| Comparison of Potential Impacts (Project and Alternatives)   |   |                               |   |   |   |   |  |  |
| Potential Effects  | Project<br>(126 units)  | Alternative 1<br>(No Project) | Alternative 2<br>(8 units)  | Alternative 3 (37 units)  | Alternative 4<br>(100 units)  | Alternative 5 (121 units)   |  |  |
| 4.H-3. Will Project traffic result in increased noise at existing residential land uses that exceed acceptable exterior noise level standards?                             | Minor increase in noise due to residential uses. Traffic noise increase above 3 dB on Bollinger Canyon Road, could be mitigated to undetectable levels with roadway treatments. | No impact.                    | Minor increase in noise due to residential uses. Traffic noise increase is expected to be below level of human detection. | Minor increase in noise due to residential uses. Traffic noise increase is expected to be below level of human detection. | Minor increase in noise due to residential uses. Traffic noise increase above 3 dB on Bollinger Canyon Road, could be mitigated to undetectable levels with roadway treatments. | Minor increase in noise due to residential uses. Traffic noise increase above 3 dB on Bollinger Canyon Road, could be mitigated to undetectable levels with roadway treatments. |  |  |
| 4.I POPULATION AND HOUSING   |   |                               |   |   |   |   |  |  |
| 4.I-1. Will the Project result in a net loss, through conversion or demolition, of homes occupied by low- or moderate-income households, or of multifamily rental housing? | No impact.  | No impact.                    | No impact.  | No impact.  | No impact.  | No impact.  |  |  |

| Table 5-2  |  |                               |   |   |   |  |  |  |
|--|--|-------------------------------|---|---|---|--|--|--|
| Comparison of Potential Impacts (Project and Alternatives)   |  |                               |   |   |   |  |  |  |
| Potential Effects  | Project<br>(126 units)   | Alternative 1<br>(No Project) | Alternative 2<br>(8 units)  | Alternative 3 (37 units)  | Alternative 4<br>(100 units)  | Alternative 5 (121 units)  |  |  |
| 4.I.2. Will the Project create a demand for housing or induce population growth in excess of growth anticipated in the Moraga General Plan either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)? | Exceeds housing units and population analyzed in the EIR for the buildout of the General Plan for Study land uses by 86 units and 344 residents; however, implementation of the General Plan amendment would eliminate conflict. | No impact.                    | Fewer housing units and less population growth than analyzed in the EIR for the buildout of the General Plan. | Fewer housing units and less population growth than analyzed in the EIR for the buildout of the General Plan. | Exceeds housing units and population analyzed in the EIR for the buildout of the General Plan for Study land uses by 60units and 240 residents; however, implementation of the General Plan amendment would eliminate conflict. | Exceeds housing units and population analyzed in the EIR for the buildout of the General Plan for Study land uses by 81 units and 324 residents; however, implementation of the General Plan amendment would eliminate conflict. |  |  |
| 4.J PUBLIC SERVICES  |  |                               |   |   | T   | Г  |  |  |
| 4.J-1. Will the Project increase demand for public services to such a degree that accepted service standards are not maintained and new facilities are required to maintain service standards for the following:   |  |                               |   |   |   |  |  |  |
| a. Police protection?  | The 504 new residents increase demand for up to 0.5 FTE. ⊙   | No impact.                    | The 32 new residents increase demand for up to 0.03 FTE. ⊙  | The 138 new residents increase demand for up to 0.15 FTE. ⊙   | The 400 new residents increase demand for up to 0.44 FTE. ⊙   | The 484 new residents increase demand for up to 0.48 FTE. ⊙  |  |  |

| Table 5-2  |   |                               |   |   |   |   |  |  |  |
|--|---|-------------------------------|---|---|---|---|--|--|--|
| Comparison of Potential Impacts (Project and Alternatives) |   |                               |   |   |   |   |  |  |  |
| Potential Effects  | Project<br>(126 units)  | Alternative 1<br>(No Project) | Alternative 2<br>(8 units)  | Alternative 3 (37 units)  | Alternative 4<br>(100 units)  | Alternative 5 (121 units)   |  |  |  |
| b. Fire protection?  | Residential development exceeds distance and response time standard of 1.5 miles/3 minutes. Bollinger Canyon Road/ Valley Hill Road improvements and EVA meet access standards. | No impact.                    | New development exceeds distance and response time standard of 1.5 miles/3 minutes. Access and circulation do not meet MOFD road standards. | Residential development exceeds distance and response time standard of 1.5 miles/3 minutes. Bollinger Canyon Road/ Valley Hill Road upgrades and EVA meet access standards. | Residential development exceeds distance and response time standard of 1.5 miles/3 minutes. Bollinger Canyon Road/ Valley Hill Road improvements and EVA meet access standards. | Residential development exceeds distance and response time standard of 1.5 miles/3 minutes. Bollinger Canyon Road/ Valley Hill Road improvements and EVA meet access standards. |  |  |  |
| c. Parks?  | Demand for up to 2.52 acres of new park space.  | No impact.                    | Demand for up to 0.16 acre of new park space.   | Demand for up to 0.74 acre of new park space.   | Demand for up to 2.0 acres of new park space.  ⊙  | Demand for up to 2.42 acres of new park space.  |  |  |  |
| d. Libraries?  | Increased demand for library services by 344 residents above the level analyzed in the EIR for the buildout of the General Plan for Study land uses.                            | No impact.                    | Less demand fro library services than analyzed in the EIR for the buildout of Study land uses in the General Plan.                          | Less demand fro library services than analyzed in the EIR for the buildout of Study land uses in the General Plan.  | Increased demand for library services by 240 residents above the level analyzed in the EIR for the buildout of the General Plan for Study land uses.                            | Increased demand for library services by 324 residents above the level analyzed in the EIR for the buildout of the General Plan for Study land uses.                            |  |  |  |

|  | Table 5-2  |                               |  |   |   |   |  |  |  |
|--|--|-------------------------------|--|---|---|---|--|--|--|
| Comparison of Potential Impacts (Project and Alternatives)   |  |                               |  |   |   |   |  |  |  |
| Potential Effects  | Project<br>(126 units)   | Alternative 1<br>(No Project) | Alternative 2<br>(8 units)   | Alternative 3 (37 units)  | Alternative 4<br>(100 units)  | Alternative 5<br>(121 units)  |  |  |  |
| 4.J-2. Will the Project impair or physically interfere with an adopted emergency response or evacuation plan?  | Development of the EVA and improvements to Valley Hill Drive and Bollinger Canyon Road to MOFD standards improves evacuation of the area.                      | No impact.                    | Access and circulation do not meet MOFD road standards.  | Development of the EVA and improvements to Valley Hill Drive and Bollinger Canyon Road to MOFD standards improves evacuation of the area. | Development of the EVA and improvements to Valley Hill Drive and Bollinger Canyon Road to MOFD standards improves evacuation of the area.                     | Development of the EVA and improvements to Valley Hill Drive and Bollinger Canyon Road to MOFD standards improves evacuation of the area.                     |  |  |  |
| 4.J-3. Will the Project expose people or structures to a significant risk of loss, injury or death involving wild land fires, including where wild lands are adjacent to urbanized areas or where residences are intermixed with wild lands? | Up to 126 new homes in a wildland urban interface in a location that exceeds response time standards. ⊙  | No impact.                    | Up to 8 new homes in a wildland urban interface, without adequate emergency vehicle access or fire hydrants.             | Up to 37 new homes in a wildland urban interface in a location that exceeds response time standards. ⊙                                    | Up to 100 new homes in a wildland urban interface in a location that exceeds response time standards.   | Up to 121 new homes in a wildland urban interface in a location that exceeds response time standards. ⊙   |  |  |  |
| 4.K SCHOOLS  4.K-1. Will the Project increase demand for schools to such a degree that accepted service standards are not maintained and new facilities are required?  | Approximately 102 new students, or 68 more than analyzed in the buildout of Study land uses in the 2002 General Plan EIR. Would not exceed current capacity. O | No impact.                    | Approximately 6 new students, or 28 fewer than analyzed in the buildout of Study land uses in the 2002 General Plan EIR. | Approximately 30 new students, or 4 fewer than analyzed in the buildout of Study land uses in the 2002 General Plan EIR. O                | Approximately 81 new students, or 47 more than analyzed in the buildout of Study land uses in the 2002 General Plan EIR. Would not exceed current capacity. O | Approximately 98 new students, or 64 more than analyzed in the buildout of Study land uses in the 2002 General Plan EIR. Would not exceed current capacity. O |  |  |  |

|  | Table 5-2  |                               |   |   |  |  |  |  |  |
|--|--|-------------------------------|---|---|--|--|--|--|--|
| Comparison of Potential Impacts (Project and Alternatives)   |  |                               |   |   |  |  |  |  |  |
| Potential Effects  | Project<br>(126 units)   | Alternative 1<br>(No Project) | Alternative 2<br>(8 units)  | Alternative 3 (37 units)  | Alternative 4<br>(100 units)   | Alternative 5<br>(121 units)   |  |  |  |
| 4.K-2. Will the Project conflict with local policies for providing public school facilities?  4.L TRANSPORTATION | Consistent with local policies.  | No impact.                    | Consistent with local policies.   | Consistent with local policies.   | Consistent with local policies.  | Consistent with local policies.  |  |  |  |
| 4.L-1. Will the Project create adverse vehicular impacts on Routes of Regional Significance?                     | Increase in Delay Indices on Routes of Regional Significance above the level analyzed for Study land uses in the General Plan EIR. | No impact.                    | Minor increase in traffic, fewer than 10 peak hour trips.               | Minor increase in traffic, below the level analyzed for Study land uses in the General Plan EIR.              | Increase in Delay Indices on Routes of Regional Significance above the level analyzed for Study land uses in the General Plan EIR. | Increase in Delay Indices on Routes of Regional Significance above the level analyzed for Study land uses in the General Plan EIR. |  |  |  |
| 4.L-2. Will the Project create adverse vehicular impacts for signalized intersections on streets in Moraga?      | Minor increases in traffic, intersections operate within LOS standards.  | No impact.                    | Minor increases in traffic, intersections operate within LOS standards. | Minor increases in traffic, intersections operate within LOS standards.                                       | Minor increases in traffic, intersections operate within LOS standards.  | Minor increases in traffic, intersections operate within LOS standards.  |  |  |  |
| 4.L-3. Will the Project create adverse vehicular impacts for unsignalized intersections in Moraga?               | Increases in traffic at Moraga Road and Corliss Drive would cause the intersection to exceed LOS standards.  ⊙                     | No impact.                    | Minor increases in traffic, intersections operate within LOS standards. | Increases in traffic at Moraga Road and Corliss Drive would cause the intersection to exceed LOS standards. ⊙ | Increases in traffic at Moraga Road and Corliss Drive would cause the intersection to exceed LOS standards. ⊙                      | Increases in traffic at Moraga Road and Corliss Drive would cause the intersection to exceed LOS standards.                        |  |  |  |

|   | Table 5-2  |                               |  |  |  |  |  |  |  |
|---|--|-------------------------------|--|--|--|--|--|--|--|
| Comparison of Potential Impacts (Project and Alternatives)                                    |  |                               |  |  |  |  |  |  |  |
| Potential Effects   | Project<br>(126 units)   | Alternative 1<br>(No Project) | Alternative 2<br>(8 units)                   | Alternative 3 (37 units)   | Alternative 4<br>(100 units)   | Alternative 5<br>(121 units)   |  |  |  |
| 4.L-4. Will the Project create vehicular impacts for signalized intersections in Lafayette?   | Worsens AM peak hour LOS at Moraga Rd./Moraga Blvd. and Moraga Rd./ Brook St.  | No impact.                    | Minor impact, fewer than 10 peak hour trips. | Worsens AM peak hour LOS at Moraga Rd./Moraga Blvd. and Moraga Rd./Brook St.   | Worsens AM peak hour LOS at Moraga Rd./Moraga Blvd. and Moraga Rd./Brook St.   | Worsens AM peak hour LOS at Moraga Rd./Moraga Blvd. and Moraga Rd./Brook St.   |  |  |  |
| 4.L-5. Will the Project create vehicular impacts for unsignalized intersections in Lafayette? | Worsens AM and/ or PM peak hour LOS at Deer Hill Rd./Oak Hill Rd.; Glenside Dr./Reliez Station Rd.; Glenside Dr./Burton Dr.; Pleasant Hill Rd./Olympic Blvd., and Reliez Station Rd./Olympic Blvd. | No impact.                    | Minor impact, fewer than 10 peak hour trips. | Worsens AM and/ or PM peak hour LOS at Deer Hill Rd./Oak Hill Rd.; Glenside Dr./Reliez Station Rd.; Glenside Dr./Burton Dr.; Pleasant Hill Rd./Olympic Blvd., and Reliez Station Rd./Olympic Blvd. | Worsens AM and/ or PM peak hour LOS at Deer Hill Rd./Oak Hill Rd.; Glenside Dr./Reliez Station Rd.; Glenside Dr./Burton Dr.; Pleasant Hill Rd./Olympic Blvd., and Reliez Station Rd./Olympic Blvd. | Worsens AM and/ or PM peak hour LOS at Deer Hill Rd./Oak Hill Rd.; Glenside Dr./Reliez Station Rd.; Glenside Dr./Burton Dr.; Pleasant Hill Rd./Olympic Blvd., and Reliez Station Rd./Olympic Blvd. Station Rd./Olympic Blvd. |  |  |  |
| 4.L-6. Will the Project create vehicular impacts for signalized intersections in Orinda?      | Worsens PM peak hour LOS at Camino Pablo/ Brookwood Rd. and AM peak hour LOS at Glorietta Blvd./Moraga Way.  | No impact.                    | Minor impact, fewer than 10 peak hour trips. | Worsens PM peak hour LOS at Camino Pablo/ Brookwood Rd. and AM peak hour LOS at Glorietta Blvd./Moraga Way.  | Worsens PM peak hour LOS at Camino Pablo/ Brookwood Rd. and AM peak hour LOS at Glorietta Blvd./Moraga Way.  | Worsens PM peak hour LOS at Camino Pablo/ Brookwood Rd. and AM peak hour LOS at Glorietta Blvd./Moraga Way. •  |  |  |  |

| Table 5-2  |  |                               |  |   |   |   |  |
|--|--|-------------------------------|--|---|---|---|--|
| Comparison of Potential Impacts (Project and Alternatives)   |  |                               |  |   |   |   |  |
| Potential Effects  | Project<br>(126 units)   | Alternative 1<br>(No Project) | Alternative 2<br>(8 units)   | Alternative 3 (37 units)  | Alternative 4<br>(100 units)  | Alternative 5 (121 units)   |  |
| 4.L-7. Will the Project create vehicular impacts for unsignalized intersections in Orinda?   | Minor impact,<br>would not<br>change LOS<br>during peak<br>hours.  | No impact.                    | Minor impact,<br>fewer than 10<br>peak hour trips.   | Minor impact,<br>would not<br>change LOS<br>during peak<br>hours.   | Minor impact,<br>would not<br>change LOS<br>during peak<br>hours.   | Minor impact,<br>would not<br>change LOS<br>during peak<br>hours.   |  |
| 4.L-8. Will the Project adversely affect public transit service levels or accessibility to public transit service?   | Minor impact, adding up to 5 new riders.   | No impact.                    | Minor impact, adding less than 5 new riders.   | Minor impact, adding less than 5 new riders.  | Minor impact, adding up to 5 new riders.  | Minor impact, adding up to 5 new riders.  |  |
| 4.L-9. Will the Project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment on roads)? | Project roads would be built or improved to current design safety standards; potentially increased hazards at Bollinger Canyon Rd./St. Mary's Rd.  © | No impact.                    | Emergency vehicle access, evacuation routes, and circulation do not meet MOFD road standards.                  | Project roads would be built or improved to current design safety standards; potentially increased hazards at Bollinger Canyon Rd./St. Mary's Rd. ⊙ | Project roads would be built or improved to current design safety standards; potentially increased hazards at Bollinger Canyon Rd./St. Mary's Rd. ⊙ | Project roads would be built or improved to current design safety standards; potentially increased hazards at Bollinger Canyon Rd./St. Mary's Rd. ⊙ |  |
| 4.L-10. Will the Project cause adverse impacts on the use of bicycle and/or pedestrian travel ways?  | Increased traffic creates greater potential for auto, bike, and pedestrian conflicts.  | No impact.                    | Minor impact<br>due to increased<br>vehicle traffic;<br>no new bike or<br>pedestrian<br>travelways<br>created. | Increased traffic increases potential for auto, bike, and pedestrian conflicts.   | Increased traffic creates greater potential for auto, bike, and pedestrian conflicts.   | Increased traffic creates greater potential for auto, bike, and pedestrian conflicts.   |  |
| 4.L-11. Will the Project create adverse impacts to existing parking or access to existing parking?   | Potential for inadequate parking to be provided in Project Area.   | No impact.                    | Minor impact<br>due to small<br>number of homes<br>and large lot<br>sizes.                                     | Potential for inadequate parking to be provided in Project Area.  | Potential for inadequate parking to be provided in Project Area.  | Potential for inadequate parking to be provided in Project Area.  |  |

| Table 5-2  |   |                               |  |   |   |   |  |  |
|--|---|-------------------------------|--|---|---|---|--|--|
| Comparison of Potential Impacts (Project and Alternatives)   |   |                               |  |   |   |   |  |  |
| Potential Effects  | Project<br>(126 units)  | Alternative 1<br>(No Project) | Alternative 2<br>(8 units)   | Alternative 3 (37 units)  | Alternative 4<br>(100 units)  | Alternative 5<br>(121 units)  |  |  |
| 4.L-12. Will the construction traffic from the Project have a significant, though temporary, impact on traffic flow and circulation, parking, and pedestrian safety?   | Potential impacts if trucks use St. Mary's Road due to narrow width, sharp curves, and residential areas. | No impact.                    | Minor impact due to small number of homes and construction vehicles and expected staggered schedule of construction. O                                   | Potential impacts if trucks use St. Mary's Road due to narrow width, sharp curves, and residential areas. | Potential impacts if trucks use St. Mary's Road due to narrow width, sharp curves, and residential areas. | Potential impacts if trucks use St. Mary's Road due to narrow width, sharp curves, and residential areas. |  |  |
| 4.M UTILITIES AND HAZARDS  4.M-1. Will the Project increase demand for water, wastewater treatment and disposal, solid waste or hazardous waste disposal that accepted service standards are not maintained and/or new facilities are required to maintain acceptable service standards? | Increased demand for services to 126 new homes, within existing capacity of utility service systems. ⊙    | No impact.                    | Increase demand for services to 8 new homes, within existing capacity of utility service systems. Individual water and wastewater systems for each home. | Increased demand for services to 37 new homes, within existing capacity of utility service systems. ⊙     | Increased demand for services to 100 new homes, within existing capacity of utility service systems. ⊙    | Increased demand for services to 121 new homes, within existing capacity of utility service systems. ⊙    |  |  |

| Table 5-2   |  |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|--|
| Comparison of Potential Impacts (Project and Alternatives)  |  |  |  |  |  |  |  |  |
| Potential Effects   | Project<br>(126 units)   | Alternative 1<br>(No Project)                                | Alternative 2<br>(8 units)                                   | Alternative 3<br>(37 units)  | Alternative 4<br>(100 units)   | Alternative 5<br>(121 units)   |  |  |
| 4.M-2. Will the Project create a significant hazard to the public or the environment through the routine transport, use, disposal of, or reasonably foreseeable upset and accidental release of hazardous materials?                          | No impact related to hazardous materials; potential impact related to mosquito breeding habitat in stormwater detention ponds. | Less than significant exposure to mosquito breeding habitat. | Less than significant exposure to mosquito breeding habitat. | No impact related to hazardous materials; potential impact related to mosquito breeding habitat in stormwater detention ponds. | No impact related to hazardous materials; potential impact related to mosquito breeding habitat in stormwater detention ponds. | No impact related to hazardous materials; potential impact related to mosquito breeding habitat in stormwater detention ponds. |  |  |
| 4.M-3. Will the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ½ - mile of an existing or proposed school?  | No impact.   | No impact.   | No impact.   | No impact.   | No impact.   | No impact.   |  |  |
| 4.M-4. Will the Project be located on a site, which is included on a list of hazardous materials sites compiled pursuant to Government Code 65962.5, and, as a result, would it create a significant hazard to the public or the environment? | No impact.   | No impact.   | No impact.   | No impact.   | No impact.   | No impact.   |  |  |

Key Level of Significance:

Significant impact before and after mitigation

• Significant impact before mitigation; less than significant impact after mitigation

O Less than significant impact; no mitigation proposed

== No impact

# 6.0 PREPARERS AND REFERENCES

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