

***DRAFT
ENVIRONMENTAL IMPACT REPORT***

for the

Crestmont Project
File #: ER 050007
TPM 7940

State Clearinghouse Number 2005112005

Lead Agency:



Community and Economic Development Agency
250 Frank Ogawa Plaza, Suite 2114
Oakland, California 94612

May 2, 2006

**COMBINED NOTICE OF RELEASE AND AVAILABILITY OF THE
DRAFT ENVIRONMENTAL IMPACT REPORT AND
NOTICE OF PUBLIC HEARINGS ON THE CRESTMONT RESIDENTIAL SUBDIVISION PROJECT**

PROJECT TITLE: Crestmont Residential Subdivision Project

CASE NO. TPM 7940; ER 050007

PROJECT SPONSOR: Andalucia Properties, LLC/Dennis Woodruff

PROJECT LOCATION: Crestmont Drive and Westfield Way, approximately 1.28 acres

DESCRIPTION OF PROJECT: The proposed project is located in the Oakland hills, at the northeast intersection of Crestmont Drive and Westfield Way. The proposed project would provide for the construction of four single-family dwellings. To mitigate potential impacts on rare plant species, the project sponsor has eliminated one building site and proposes to create a conservation easement over about two-thirds of the entire site. The proposed project includes the following components: (1) a tentative parcel map to subdivide two existing lots into four lots; (2) development of the project site and footprints for four custom-built, single-family residences, including parking and landscaping; construct a single family home on each lot; (3) driveways, sidewalks, and retaining walls along Crestmont Drive; (4) geotechnical stabilization of the site; (5) wild land fire mitigation; (6) and storm-water management facilities. The site is located in the South Hills Planning Area of the Oakland General Plan with a land use designation of Hillside Residential and is therefore subject to Neighborhood Objectives and Policies N2, N3, N6, N8, and N11. The Zoning District is R-30, One-Family Hillside Residential Zone.

ENVIRONMENTAL REVIEW: Based on an Initial Study, it was determined that the project may have significant environmental impacts. A Draft Environmental Impact Report (DEIR) was then prepared for the project, under the requirements of the California Environmental Quality Act (CEQA), pursuant to Public Resources Code Section 21000 *et. seq.* The DEIR analyzes potentially significant environmental impacts in the following environmental categories: biological resources, geology and soils, and transportation/traffic (Driveway design only). The Draft EIR identifies no significant unavoidable environmental impacts. Copies of the DEIR are available for review or distribution to interested parties at no charge at the Community and Economic Development Agency, Planning Division, 250 Frank H. Ogawa Plaza, Suite 2114, Oakland, CA 94612, Monday through Friday, 8:30 a.m. to 5:00 p.m.

PUBLIC HEARINGS: The City of Oakland Planning Commission will conduct a Public hearing on the Draft Focused EIR and the project (TPM) on May 17 at 6:30 PM. A Public hearing will be held to certify the Final EIR and consider the approval of the Tentative Map at a meeting date to be scheduled and noticed separately.

The City of Oakland is hereby releasing this Draft EIR, finding it to be accurate and complete and ready for public review. Members of the public are invited to comment on the EIR and the zoning permits. There is no fee for commenting, and all comments received will be considered by the City prior to finalizing the EIR and making a decision on the project. Comments on the Draft EIR should focus on the sufficiency of the EIR in discussing possible impacts on the environment, ways in which adverse effects might be minimized, and alternatives to the project in light of the EIR's purpose to provide useful and accurate information about such factors. Comments may be made at the public hearing described above or in writing. Please address all written comments to Robert Merkamp, Planner, City of Oakland, Community and Economic Development Agency, Planning Division, 250 Frank H. Ogawa Plaza, Suite 2114, and Oakland, CA 94612. Tel: (510) 238-6283. Comments should be received no later than 4:00 p.m. on June 1, 2006. If you challenge the environmental document or discretionary zoning permits in court, you may be limited to raising only those issues raised at the Planning Commission public hearing described above, or in written correspondence received by the Community and Economic Development Agency on or prior to 4:00 p.m. on June 1, 2006. After all comments are received, a Final EIR will be prepared and the Planning Commission will consider certification of the Final EIR and render a decision on the zoning permits for the project at a later meeting date to be scheduled. If you have any questions, please telephone [Robert Merkamp](tel:5102386283) at (510) 238-6283 or email to rmerkamp@Oaklandnet.com

CLAUDIA CAPPIO, Development Director

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I. SUMMARY OF DRAFT EIR

A. INTRODUCTION

In accordance with the California Environmental Quality Act (CEQA), the City of Oakland analyzes the environmental effects of the proposed Crestmont Residential Project to construct four residences along with a range of site and infrastructure improvements. In compliance with CEQA, the results of that analysis are presented in this Draft Focused Environmental Impact Report (DEIR). CEQA requires environmental analysis to identify and minimize the potentially significant environmental impacts that a project would have. All technical studies and reference materials used to prepare this Draft EIR are available from the City of Oakland, Community Development Agency, Planning Division, 250 Frank Ogawa Plaza, Suite 2114, Oakland, CA 94612 Monday through Friday, 8:30 a.m. to 4:00 p.m. by appointment.

B. PROJECT HISTORY

In January 2003 the project sponsor submitted a 4 lot plan, with two lots on the upper shelf of the property to be accessed by a shared access driveway, and two lots on the lower portion of the property. (Figure9). This proposal was withdrawn and a revised 5 lot plan with smaller lots and homes directly fronting Crestmont, was submitted as TTM 7485 on September 25, 2003. (Figure 10). This 5 lot subdivision, under TTM 7485, was approved by the Planning Commission on March 3, 2004 when the project was determined to qualify for a Categorical Exemption pursuant to CEQA Guidelines section 15332 (Infill Development Projects). Subsequently, an appeal to the City Council was filed. Just prior to the hearing on approval of this TTM before the City Council, certain flowers on the Federal list of protected species were identified on the project site. As a consequence of this discovery, the project sponsor withdrew the TTM 5 lot plan and submitted a 4 lot plan under revised TPM 7940, in the same configuration as the 5 lot plan, but with one of the lots eliminated and a conservation easement comprising that lot as well as all the land behind the actual building envelopes of the 4 houses, amounting to about .85 acres, over 2/3rds of the entire site.

C. PROJECT PROPOSAL

The proposed project is located in the hills of the City of Oakland on Crestmont Drive at Westfield Way, 1/3 mile North of Redwood Road, in the general area between Skyline Blvd. and Highway 13. The site is located in the South Hills Planning Area of the Oakland General Plan. The G.P. land use designation is Hillside Residential (single unit structures). The Zoning District is R-30, a one-family residential zone. The proposed 4 lot plan is consistent with the City's General Plan objectives of encouraging the construction of a variety of housing on infill parcels (Policies N3.1, N3.2, and N 6). The site is approximately 1.28 acres in size, has moderately steep to steep

slopes ranging from 2:1 (horizontal: vertical) to 1.5:1. Land uses in the vicinity of the project site are single family residential. The proposed project is to create four lots by means of a Tentative Parcel Map No. 7940. The proposed project includes the following components:

- 1) Development of project site for the footprints of four single-family dwellings
- 2) Construction of the four single-family dwellings, including parking, and landscaping;
- 3) Sidewalk improvements along Crestmont Drive.
- 4) Wild land fire mitigation;
- 5) Geotechnical stabilization;
- 6) Storm-water management facilities;
- 7) Conservation Easement for protection of Special status plant species.

Construction of improvements along Crestmont Drive will occur in conjunction with the completion of each of the 4 homes. Construction of the custom single-family residences would occur within approximately two years and possibly longer depending on the permitting process and market conditions.

D. ENVIRONMENTAL REVIEW PROCESS

An Initial Study was prepared to determine whether a (Mitigated) Negative Declaration or focused EIR should be prepared. The applicant requested that the environmental review proceed in the form of a focused EIR pursuant to Public Resources Code section 21803 and CEQA Guidelines Section 15183, the Initial Study conservatively concluded that a Focused EIR covering Biology, Geology, and Traffic (limited to driveway design), should be prepared. This document is the public Draft Focused EIR for public review and comment. No decisions on permits will be made until the Planning Commission considers this EIR.

The Initial Study prepared for the project, along with the conditions for approval that have been incorporated into the proposed project in the analysis for this EIR constitute Appendix A. The Initial Study (Appendix A) assessed the proposed project's potential impacts in the following areas: aesthetics, agricultural resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and circulation, and utilities and service systems. The Initial Study identified the City's proposed, standard conditions of approval (uniformly applied development standards) that would apply to the Project, regardless of whether an EIR was prepared. The applicant has agreed to voluntarily add all such conditions to the Mitigation Monitoring and Reporting Plan ("MMRP") developed for this EIR. It also identified a set of specific potential impacts that would be discussed further in this EIR. Those impacts were indicated in the Initial Study with a "TBD" code in the table listing each potential impact under each environmental topic and indicating

whether the impact would be significant, less than significant, or no impact. Those impacts were in the broader environmental topics of biological resources, geology and soils, and traffic (limited to driveway design) and they are discussed in this EIR.

The purpose of this Draft EIR is to inform the public, responsible and trustee agencies, and other interested parties of potentially significant environmental effects of the proposed project. The EIR also identifies ways to minimize potentially significant effects and describes reasonable alternatives to this project. Two project alternatives are analyzed, the No Project Alternative (site remains vacant), and the Reduced Density Alternative (three instead of four residences).

This Draft EIR will be circulated for a 45-day public comment period. The City will then prepare a Final EIR containing copies of the comments, responses to those comments, and any necessary revisions to the EIR. With certification of the EIR, the City acknowledges its satisfaction that the Final EIR fully addresses the received public comments and is adequate and complete under CEQA. After certification of the Final EIR the City will consider whether to approve or deny of the proposed project.

Appendix B of this Draft EIR contains the letters and comments received by the City of Oakland Community and Economic Development Agency in response to the Notice of Preparation of the EIR that was sent to the State Clearinghouse on November 2, 2005, along with copies of the Initial Study. The City received 10 comment letters during the 44-day scoping period from agencies and individuals. The letters are set forth in Appendix B and discussed in Sections IV, V, or VI and/or in the Replies section of Appendix B as appropriate.

E. SUMMARY OF ENVIRONMENTAL EFFECTS

This EIR includes analyses of the environmental effects of the proposed project, including application of the City's standard Conditions of Approval and recommends potentially feasible mitigation measures to avoid or reduce potentially significant impacts to less-than-significant. All areas of potential impact, except those involving Biology with respect to the protected flowers, Geology with respect to static and dynamic slope stability, and Traffic with respect to issues arising from driveway designs, have been fully addressed in the Initial Study. All of the potentially significant impacts identified in the Initial Study and this Draft EIR could be avoided or reduced to less-than-significant levels with the mitigations identified in this Draft EIR.

F. ENVIRONMENTALLY SUPERIOR ALTERNATIVE

With the implementation of the standard, uniformly applied conditions of approval the proposed project would not have significant environmental effects. Of the two alternatives analyzed, the No Project Alternative would avoid all of the less than significant environmental effects, both negative and positive, of the proposed project. In the absence of the project, the site's existing conditions (unprotected plant species of concern, uncontrolled storm water drainage, rampant growth of non-native invasive species, and fire hazards) would persist instead of being protected or redressed as they would under the proposed project. Thus, this alternative would avoid both the adverse changes of the proposed project that would be reduced to less-than-significant levels in the proposed project, as well as the beneficial effects. This alternative would not meet the project sponsor's objectives or the City's goals of increasing housing.

The Reduced Density Alternative analyzes three residential sites on the project site. This Reduced Density Alternative would have approximately twenty-five percent lower impacts in areas like population and trip generation, and site grading, which are proportionally related to the number of units built. As with the proposed project, this alternative's potentially significant impacts would be reduced to less- than- significant through compliance with existing laws and regulations, and through the use of best management construction practices that would be incorporated into the project proposal.

Construction of three houses under this alternative – in contrast to the four houses of the proposed project – would only minimally reduce environmental impacts, especially with respect to the plant species of concern as there were few to none observed on these four housing sites during the June 2004 Biological Review. Because the 4 lot plan includes an environmental easement over .85 acres, about 66% of the entire site, the inclusion of the building site of one house under the 3 lot alternative would add less than .08 acres to the conservation easement area.

G. AREAS OF CONTROVERSY

This EIR focuses on the issues of biological resources, geology and soils, and traffic (driveway design features only). All other potential environmental effects were found to be at a less-than-significant level with the application of the City's standard Conditions of Approval that have been agreed to by the project sponsor and which will be incorporated into the MMRP and adoption of proposed mitigation measures.

Residents of the project neighborhood and in the surrounding urbanized area have expressed concerns in the following areas:

-Biology: Environmental impacts on sensitive plant species, including light availability vs. shade; changes in patterns of water flow and absorption; adequate buffers; degradation of habitat; adequacy of conservation easement.

-Traffic: Project compliance with City recommendations for maximum and minimum elevations for garage floors; traffic hazards of driveways.

-Geology: Landslide potential; soils investigation of all four lots.

-Hydrology: Water on the site indicating the possible presence of an underground aquifer.

-Air Quality/Hazardous Materials: Potential for air borne release of naturally occurring asbestos.

The City of Oakland Planning Commission (or the City Council on appeal) will decide on the certification of the DEIR and whether or not to approve the proposed project in light of these known areas of environmental impact.

11. THE ENVIRONMENTAL REVIEW PROCESS

A. THE INITIAL STUDY

The Initial Study assessed the proposed project's potential impacts in the following areas: aesthetics, agricultural resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and circulation, and utilities and service systems. The Initial Study (Appendix A) identified a set of improvement measures representing the City's standard Conditions of Approval that would apply to the project regardless of the results of the Initial Study. The Initial Study also identified a set of specific potential impacts that would be discussed further in this Focused DEIR due to their potential for significant Environmental Impact. Those impacts were indicated in the Initial Study with a "TBD" code in the table listing each potential impact under each environmental topic and indicating whether the impact would be significant, less than significant, or no impact. Those impacts were in the broader environmental topics of biological resources, geology and soils, and traffic issues limited to driveway design, and they are discussed in this Draft EIR. All other impacts were determined by the Initial Study to be less-than-significant or that they would clearly be mitigated to a less-than-significant level.

B. THE DRAFT FOCUSED EIR

1. Type of Document

This is a focused DEIR prepared pursuant to CEQA Guidelines Section 15183 and PRC Section 21083.3 The Initial Study for the proposed project (see Appendix A) identified a limited set of potential impacts for subsequent assessment. The City's standard Conditions for Approval have been incorporated into the proposed project in the Initial Study.

The purpose of this Draft EIR is to inform the public, responsible and trustee agencies, and other interested parties of potentially significant environmental effects of the proposed project. The DEIR also identifies ways to minimize potentially significant effects and describes reasonable alternatives to this project. Two project alternatives are analyzed, the No Project Alternative (site remains vacant), and the Reduced Density Alternative (three instead of four residences).

Based on the extensive environmental evaluation of the Crestmont Project completed prior to this Draft EIR, uniformly-applied development policies and standards have been incorporated into the project as standard Conditions of Approval. Through this EIR process, the public will have additional opportunities to review this analysis and comment. The applicant has voluntarily agreed that the Conditions of Approval will be included in

the Mitigation Monitoring and Reporting Plan ("MMRP") prepared for this EIR, along with additional mitigation measures identified in this EIR.

2. Procedures for Reviewing the Draft EIR

This Draft EIR will be circulated for a 45-day public comment period. The City will then prepare a Final EIR. Consistent with CEQA Guidelines Section 15132, the Final EIR will contain a copy of each comment letter, responses to those comments, and any necessary revisions to the EIR. When the City is satisfied that the Final EIR fully addresses the received public comments, it will consider the adequacy and completeness of the Final EIR.

After certification of the Final EIR, the City will consider approval or denial of the proposed project and any alternative described herein (see CEQA Guidelines Section 15090-15093). If the City approves the proposed project with findings adopting some or all of the conditions of approval and mitigation measures proposed herein, the applicant would be required to adhere to all adopted Conditions of Approval as set forth in such findings (see CEQA Guidelines Section 15091) as well as the mitigation measures identified in this EIR. Any future changes to the proposed project may be subject to additional environmental and planning review by the City.

More specifically, after the Final EIR has been certified by the City as adequate and complete under CEQA (Guidelines Section 15090), the following actions would be taken before the proposed project or an alternative could be formally approved and implemented.

- In taking action on the Project, the City must address and respond to each significant effect identified in the Final EIR. If the City chooses to approve the proposed project or an alternative despite possible significant environmental effects that might occur, the City must first adopt findings addressing (i) the feasibility of the mitigation measures proposed in the Final EIR and, if necessary, (ii) the feasibility of any alternative that would substantially lessen or avoid any significant effect that could not be substantially lessened by the adoption of feasible mitigation measures (CEQA Guidelines Section 15091(a)).
- The City must adopt a mitigation monitoring and reporting program (MMRP) to facilitate implementation of the mitigation measures. The MMRP will identify a responsible party for implementation, a party responsible for monitoring, and required timing (e.g., prior to issuance of grading permits, prior to start of construction, prior to occupancy, etc.). (CEQA Guidelines Section 15097.)
- Should any significant environmental effects remain despite the adoption of feasible mitigation measures, the City must adopt a "Statement of Overriding Considerations" supported by substantial evidence in the public record that indicates why the City believes that the approved project's economic, social, or other benefits outweigh such significant environmental effects (CEQA Guidelines Section 15093).

- Appendix B of this Draft Focused EIR contains the letters and comments received by the City of Oakland Community and Economic Development Agency (City) in response to the Notice of Preparation of the EIR that was sent to the State Clearinghouse on November 2, 2005, along with copies of the Initial Study. The Project Sponsors Specific Replies to those comments are also provided at App. B. The City observed the 30-day scoping period in accordance with CEQA Guidelines Section 15082 to allow members of the public and public agencies to comment on the scope of the proposed analysis. The City received comment letters during the 30-day scoping period which was ultimately extended to 44 days. In summary, the issues raised are as follows, all of which have been addressed in this DEIR:

-Biology: Environmental impacts on sensitive plant species; changes in patterns of water flow and absorption; adequate buffers; degradation of habitat; and need for the exploration of several alternatives; adequacy of conservation easement.

-Traffic: Project compliance with City recommendations for maximum and minimum elevations for garage floors; traffic hazards of driveways.

-Geology: Landslide potential; soils investigation of all four lots.

-Hydrology: Water on the site indicating the possible presence of an underground aquifer/affect on slope stability

-Air Quality/Hazardous Materials: Potential for air borne release of naturally occurring asbestos.

III. PROJECT DESCRIPTION & OBJECTIVES

A. LOCATION AND SITE DESCRIPTION

The proposed project is located on a west facing slope in the South Hills of the City of Oakland, ½ mile West of Redwood Regional Park between Skyline Blvd. and Highway 13. The undeveloped site is situated immediately East of the intersection of Crestmont Drive and Westfield Way. Figure 1, page 10, shows the location of the project. The G.P. land use designation is Hillside Residential (single unit structures). The Zoning District is R-30, a one-family residential zone. The site is approximately 1.28 acres in size. The site is moderately steep to steep with slopes ranging from 2:1 (horizontal: vertical) to 1.5:1. Figures 2 and 3, pages 11 and 12, depict the proposed site plan and the existing topography, and the Conservation Easement and Biological Survey. Photos of the project area (Figures 4, 5, and 6 on pages 13, 14, and 15) illustrate conditions on Crestmont Drive and on the hillside itself. The proposed house design prototype is shown on Figure 7 and the typical cross sections at Figure 8, on pages 16 and 17.

Land uses in the vicinity of the project site are low density, hillside residential. The homes that lie on hillside lots to the south, east and west, are primarily ranch style homes between 2000-2500 square feet built in the 1960s. The seven homes built on the ridge above in the last seven years, visible from the site, are 3500-5800 square feet.

Figure 1 – Project Location

Figure 2 – Proposed Site Plan

Figure 3 – Conservation Easement; Biological Survey Map

Figure 4 – Project Area Photo

Figure 5 –Project Area Photo

Figure 6 –Photos of Elizabeth Bashnick’s house at 538 Crestmont Drive.

Figure 7- Prototypical House Design

Figure 8- Typical Cross Sections

Figure 9 - Original 4 Lot Plan (Two Lots Up and Two Down)

Figure 10- 5 Lot Plan under TTM 7485

B. PROJECT DESCRIPTION

The proposed project would result in four single-family dwellings by means of Parcel Map No 7940 creating four lots. Existing lots 1 and 2 would be reconfigured into four lots (Figure 2, p.11) with a conservation easement for protection of endangered plants over 2/3rd of the site, or .85 acres (Figure 3, p.12).

1. Project Components

The proposed project includes the following components and they are each described below in more detail:

- Subdivision of the project site for four single-family dwellings
- Construction of the four single-family dwellings, including driveway, sidewalk and retaining wall improvements along Crestmont Drive;
- Geotechnical stabilization of the site
- Wild land fire protection and abatement;
- Storm-water management system;
- Landscaping
- Conservation easement for Protection of Special status plant species

a. Construction of Four Single-Family Dwellings.

Construction of the custom single-family residences would occur over approximately two years, pending permit approvals, and could take longer, depending on election of builder and market conditions. Grading that is proposed on-site would be limited to the dry season between April 15 and October 15, except if specifically approved by the Director of CEDA, approved by the Project Geologist, and subject to all applicable wet weather storm water management best management practices to minimize erosion.

Major construction activities would include the following:

- Installation of site utilities.
- Installation of foundations and building construction.
- Permanent driveway and sidewalk construction.
- Permanent drainage course protections and enhancement.
- Installation of site-specific landscaping.
- Construction of custom residences.

During construction, the number of personnel would vary from a high of 12 personnel during building erection, to a low of four personnel. Construction methods are expected to be standard for hillside developments, and

importation of specialized construction personnel from outside the San Francisco Bay Area would not occur. Construction would occur five days a week. Hours of construction would occur in accordance with the requirements of the Oakland Noise Ordinance. More specifically, the project would entail the following construction and designs:

- **Structures.** The project would ultimately result in the construction of four custom single-family dwellings each not exceeding 3800 square feet of living area. Proposed building heights are 30 feet-with a maximum of 35 feet as allowed on lots with a grade of at least 20%. These heights are similar to the newer down-slope homes built on the ridge above the site on the contiguous hillside. The buildings would be supported by a pier and grade beam foundation system. Setbacks would be similar to those of existing development: garage faces 20 feet from back of curb which, due to the Crestmont Drive right of way, is 10 feet from the property line. Rear set backs would vary from about 60 feet to over 150 feet. Within 20 feet of the property line the maximum height of the homes will be 24 feet in accordance with 17.108.020 of the Planning Code, amended January 18, 2004. Side yard setbacks would be a minimum of five feet and maximum of 60 feet. Each of the four lots will have a 19-foot maximum curb cut to allow for separate garage access. The development shall be subject to the regulations generally applying in the R-30 zone in which it is located. Design review by the Planning Department would be required in accordance with the City's Hillside Design Guidelines Design Review Criteria.
- **Sewage Collection.** Each of the 4 upslope homes will have gravity flow sewer lines connected to the main public sewer line located in front of each lot under Crestmont Drive. An existing sewer easement across lot one, serving a home on Colgett, above, will be rerouted as appropriate within the property line set back area between lots 1 and 2.
- **Access and Parking.** Crestmont Drive, a 40 foot wide, two lane road, with parking on each side, is the access route to the site from either Redwood Road to the South, or Skyline to the North. Each home will have a 19 foot wide driveway which will accommodate off street parking for two vehicles, and a two car garage.
- **Landscaping and Screening.** The project sponsor will prepare a Landscape Plan that conforms to City Development Standards for landscape coverage, screening and fire prevention. The Landscape Plan will address the following: landscaping types, screening types, landscaping walls, preservation of mature trees, as appropriate. The conservation easement will specify in detail the clearance of non-native species on an ongoing basis, reseeding of the endangered plants, and general monitoring and management of the habitat within the easement area.

b. Geotechnical Stabilization

Geotechnical stabilization would occur in accordance with the recommendation of a Certified Engineering Geologist and Geotechnical Engineer and would include the following features and activities:

1. **Foundation and Retaining Walls:** When built the rear foundations and walls will act as retaining walls and slide buffers at the bottom of the hill.¹ Retaining walls would be provided with drainage systems

¹ Findings and Conditions of Approval of TTM 7485, Staff Report, dated February 18, 2004, p.5, Appendix E).

to prevent the build-up of hydrostatic pressures behind the walls, and to provide channeling of any ground water seepage from the lower elevations of the hillside to the storm drains in Crestmont Drive.

2. **Graded Slopes.** No general site grading, except along frontage of lots between 10-15 feet from the curb is planned. Excavation of the building sites to allow construction of foundations and combination retaining and foundation walls will occur. All cut slopes would be examined by the Engineering Geologist during excavation for adverse bedding, seepage, or bedrock conditions that could affect the design of the foundations and retaining walls. The excavation will be performed to create building pads for garages and foundations resulting in cut quantities of approximately 250 yards per home site. There will be little if any fill. If conditions warrant the engineer will recommend, and the developer must implement, any approved changes.

3. **Runoff and Storm-water Collection Systems:** The steeper bottom two thirds of this 1.28 acre site has a runoff coefficient of 9- as it is composed largely of rock which is at, or near the surface. The upper 1/3 of the site is a shallower slope with some surficial soil and vegetation. There will be no construction in that area. The construction of 4 homes at the bottom of this slope on less than .35 acres will cause very little change in the runoff. The plans for development include “V” ditches upslope from the rear of each home to catch the runoff from the slope above and direct it to the storm drains which will also collect water from behind the foundation walls, and downspouts, and carry it to dissipaters in front of each home, and then to the storm drain located in Crestmont Drive in front of the property.

c. Wild land Fire Protection

The project site is located in the fire hazard area. The proposed project would include the following features recommended by the Fire Prevention Bureau, and as prescribed in the Conservation Easement, to reduce the current and future risk from fire to the proposed houses and surrounding properties:

- Extensive abatement of invasive non-native species such as Pampas grass, Eucalyptus, Acacia, and French Broom, for restoration of the serpentine soil habitat of the protected species, and reduction of fire hazard.
- The parcels outside of the conservation easement area would be landscaped with plant species that comply with the City’s vegetation management program intended to reduce fire hazard.
- Houses will have City-approved fire sprinkler systems and tile roofs.

d. Create Conservation Easement for Protection and Enhancement of Habitat for Serpentine Soil Species

The project site is composed largely of serpentinite which is a type of rock in which certain plants make their habitat. This project provides the opportunity to engage in collaboration with the California Native Plant

Society (CNPS) and/or other environmental organizations to develop and oversee a conservation area for the several rare and endangered species found in this type of soil on this site. Without the development going forward the opportunity would not exist. In most cases, active management of the land is necessary to maintain and enhance habitat values for these serpentine soil species. (Recovery Plan for Serpentine Soil Species of the San Francisco Bay Area pp v.-viii, Appendix G). The details of the Conservation Easement plan are set forth in pp. 33-36.

C. REQUIRED PERMITS AND APPROVALS

Prior to undertaking site preparation or construction of improvements identified in this chapter, the project sponsors may be required to obtain permits or approvals, or to engage in consultation with jurisdictional agencies. Table 1 identifies potential discretionary regulatory requirements, and identifies agencies that may rely on the contents of this document to inform their discretionary decision-making process. This list may be modified from time to time, and the absence of an activity or an agency from the list does not preclude its use of this document for purposes of granting permits or approvals, or for engaging in consultation.

Table 1 Permit, Approval, or Consultation Processes that May Rely on the Contents of this Document		
Agency		Permit/Approval/Consultation
	California Department of Fish and Game (CDFG)	Approval of Project Mitigation Taking Permit
Local	City of Oakland	Tentative and Final Parcel Map to create 4 lots. Grading Permit Tree Removal Permit to remove 1 pine tree Special Residential Design Review permits for each house Building Permits for each house Sewer Easement Right-of-Way Curbs, Gutter, Sidewalk Permit Encroachment Permit Obstruction Permit Misc Other Permits as Required

D. PROJECT OBJECTIVES

The project sponsor has the following objectives:

- Construct a high-quality, cost-effective, and economically feasible residential development for four single-family houses and parking to meet the demands of the expanding Oakland economy and growth in the project area.
- Develop a project that is consistent with and enhances the existing single-family, hillside residential design character of the area, while preserving views.
- Geotechnical stabilization of the site.
- Improve storm water management for the area.
- Improve wild land fire protection, including weed abatement and periodic removal of invasive and flammable non-native species, such as eucalyptus, French broom, acacia, and pampas grass.
- Complete the project on schedule and within budget.
- Develop a project with minimal environmental disruption, and which includes a .85 acre conservation easement in collaboration with environmental organizations and the community to protect and enhance the serpentine soil habitat for several rare or threatened species of plants and provide the funding and sources of funds for implementation of these environmental measures.
- Support local job creation and economic stimulus with construction jobs and the purchasing of building materials and fixtures from local suppliers and merchants.

IV. BIOLOGICAL RESOURCES

A. INTRODUCTION

This section describes the existing setting for biological resources and evaluates the associated impacts potentially created by the Project. The analysis assesses the potential for significant impacts to biological resources (see Subsection D. Impacts and Mitigation below). The main conclusions of the analysis are that potential impacts to special status plants are potentially significant and would require mitigation measures to avoid or minimize such impacts. There are no impacts to special status wildlife species. Information in this section is based on a number of biological studies and assessments begun in 2004 and supplemented by more recent 2005 field studies. References to these studies are made in the following discussion and the full citations are in Chapter VII, References. Documents are attached and or available for public review between the hours of 8:00 a.m. and 4:00 p.m. Monday, Tuesday, Thursday and Friday, and 9:30 a.m. to 4:00 p.m. on Wednesday at the City of Oakland Community and Economic Development Agency, 250 Frank Ogawa Plaza, Suite 2114, Oakland. The references to studies and data bases of the California Native Plant Society (CNPS) and the California Natural Diversity Data Base (CNDDDB) may be found on the internet.

B. APPROACH AND METHODOLOGY

The project site is undeveloped hillside composed primarily of serpentinite within a subdivision created in 1956 with over 300 homes. To establish the biological setting of the project site, literature research and field surveys were conducted by qualified biologists and botanists. The following description of biological setting is based on these efforts (Lowe, Technical Memorandum, May 3, 2004; WRA, Inc., 2004; and WRA, Inc., 2005).

Prior to field surveys, the CNDDDB and the CNPS Electronic Inventory of Rare and Endangered Plants of California were reviewed to identify special-status species or communities that could occur in the Berkeley-Oakland Hills. The Recovery Plan for Serpentine Soil Species of the San Francisco Bay Area, created under the auspices of the United States Fish & Wildlife Service in 1998 was also an important source of information regarding this site and the habitat of serpentine soil species. A survey of the property was conducted by a WRA botanist on May 1, 2004 to determine the presence and extent of special status plant species that were in bloom at the time of the survey, and to document the type and approximate extent of habitats present in order to determine the potential for other special status species to occur on-site. Additional site visits were conducted on June 14 and July 19, 2004 and March 9, 2005. The survey was conducted using the protocol for rare plant surveys presented

in the CNPS “Inventory of Rare and Endangered Plants of California” (CNPS 2001) by a botanist experienced with the rare plant species in the vicinity of the in the Study Area. According to this protocol, the entire site was traversed using transects (approximately 15 to 20 feet apart), and all observed plant species were identified to the taxonomic level necessary for determining rarity using *The Jepson Manual* (Hickman 1993) and recorded; a list of these species is included at Appendix B of the WRA Technical Report (Appendix D to this Document).

The potential for special status plant and wildlife species to occur in the Study Area was assessed by first determining which special status species may occur in the vicinity of the Study Area, and then by conducting a site visit to assess existing habitat conditions and search for potential habitat for these species.

In order to determine the potential for special status species to occur within the Study Area, the following sources were reviewed to determine which special status plant and wildlife species have been documented within, or may occur within, the vicinity of the Study Area:

- California Natural Diversity Database (CNDDDB) records (CDFG 2004) for the Oakland East USGS quadrangle and the nine surrounding quadrangles,
- California Native Plant Society (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California (CNPS 2004) for the Oakland East USGS quadrangle and the nine surrounding quadrangles, and
- US Fish and Wildlife Service (USFWS) Quad Species Lists (USFWS 2004) for Alameda County.
- Recovery Plan for Serpentine Soil Species of the San Francisco Bay Area, 1998

Based on this review, and based on the habitat conditions observed during the site surveys, a list was compiled of all the special status species with known distributions or occurrences in the vicinity of the Study Area which utilize habitats similar to those observed within the Study Area (Appendix D to the WRA Technical Report).

C. SETTING/ ENDANGERED SPECIES

Based on the results of the site surveys and the review of the database information described above, it has been determined that the Study Area supports three special status plant species as discussed below. Although the Study Area has a low potential to support several special status wildlife species, however they are not considered to have a moderate or high potential to occur on-site (Appendix D to Technical Report).

Special Status Plant Species

Presidio clarkia (*Clarkia franciscana*). Presidio clarkia is a Federal and State Endangered species, and is on CNPS's List 1B (plants that are rare, threatened, or endangered in California and elsewhere). Approximately 700 Presidio clarkia individuals were observed on the Crestmont property on May 1, 2004.

Presidio clarkia is an annual herb in the Onagraceae family that occurs in scrub and grassland habitats on serpentine soils (CNPS 2004). Presidio clarkia grows up to 40 centimeters in height with thin stems and narrow leaves. Each flower has four petals, each of which is wedge-shaped and lavender to pink shading with white in the middle and reddish purple at the base (Hickman 1993). Presidio clarkia flowers bloom between May and July (CNPS 2004). The Alameda County populations of Presidio clarkia are predominantly threatened by competition from non-native plant species, particularly French broom (*Genista monspessulana*) and pampas grass (*Cortaderia jubatum*) (USFWS 1998).

Presidio clarkia is restricted to San Francisco and Alameda Counties. There are three reported occurrences in Alameda County that are extant (USFWS 1998), and two previously unreported occurrences that were observed in April and May 2004 (CDFG 2004; Lowe 2004) The estimated population counts for each of these 5 occurrences, all within 0.75 mile of the Project Site, as reported by Martha Lowe in a May 3, 2004 letter to the City of Oakland (Appendix D- sub App. E.) are as follows:

Crestmont Drive and Westfield Way (project site):	700 to 1,000 individuals
Colgett Drive (previously unreported):	200
Kimberlin Heights (previously unreported):	100 to 150
North of Oakland Tennis Club:	250 to 300
Serpentine Prairie in Redwood Regional Park:	3,500

Total Oakland Hills Population 2004-2005: 4,750-5,150 individuals.

Due to the annual population variation of this plant species, these population numbers can vary widely due to climatic conditions (USFWS 1998). The project site currently represents between 14 and 21 percent of the reported Alameda County population. However, in 1991 the project site was reported to contain 30 individuals. (U.S. Fish and Wildlife Service Recovery Plan for Serpentine Species, App. D.2, p.11-60), which compared to 4000-5000 at the Redwood Park occurrence at that time. (Id.)

The population increase on the subject site may be due to the removal of a large stand of mature eucalyptus trees, approximately 20, and cleaning the area of underbrush including non native species such as Pampas and Scotch Broom, from the area that is now lot one, or which was adjacent to it. (Id.) Therefore, depending on climatic variations within the population and between occurrences, the project site represents a widely varying proportion

of the Alameda County population. Such population variation has also been observed in the two extant San Francisco populations of the species, ranging from less than or around 1,000 plants in the mid- to late 1980's to more than 8,500 in 1994; however, this population increase is attributed to seeding and weed removal efforts in the late 1980's (CDFG 2004; USFWS 1998). The upper limit to the total numbers of plants reported in recent years is approximately 8,000 (USFWS 1998).

Most beautiful jewelflower (*Streptanthus albidus* ssp. *peramoenus*). Most beautiful jewelflower is a Federal Species of Concern and is on CNPS's List 1B. Ten most beautiful jewelflower individuals were observed on the Crestmont property on May 1, 2004. Most beautiful jewelflower is an annual herb in the Brassicaceae family that occurs in chaparral, woodland, and grassland habitats on serpentine soils (CNPS 2004). Most beautiful jewelflower grows up to 80 centimeters in height with pale grayish-green, claw-like leaves. Each flower has four petals which are purple, enclosed by four sepals that are lavender to rose-purple (Hickman 1993). Most beautiful jewelflower blooms between April and June (CNPS 2004). Most beautiful jewelflower is threatened by grazing, development, road construction, and invasion of non-native plant species (USFWS 1998).

Most beautiful jewelflower is endemic to the Bay Area; it occurs in the Oakland-Berkeley Hills, on Mount Diablo, in the hills above Sunol, and on the ridges of Santa Clara County (USFWS 1998). Population sizes range from less than fifty to tens of thousands (CDFG 2004). Like *Presidio clarkia*, populations of most beautiful jewelflower can vary widely from year to year due to their annual nature and their responses to climate variations and to non-native species encroachments. In 1991, 462 plants were observed on the Crestmont property (CDFG 2004), while only ten individuals were observed in 2004.

Tiburon buckwheat (*Eriogonum luteolum* var. *caninum*). Tiburon buckwheat is a Federal Species of Local Concern and is on CNPS's List 3 (plants about which we need more information - a review list). Approximately 2,000 Tiburon buckwheat individuals were observed on the Crestmont property on May 1 and June 14, 2004. Tiburon buckwheat is an annual herb in the Polygonaceae family that occurs in chaparral and grassland habitats on serpentine soils (CNPS 2004). Tiburon buckwheat grows up to 60 centimeters in height with very thin, branching stems and mostly basal leaves in a cluster and tiny white- to rose-colored flowers (Hickman 1993). Tiburon buckwheat blooms between June and September (CNPS 2004). Tiburon buckwheat is threatened by development and invasion of non-native plant species (CNPS 2004). This species is more widespread than the other two species on the proposed project site. At minimum, several 10,000's of Tiburon buckwheat individuals

occur throughout Alameda County; several 100,000's of individuals occur throughout eight counties within and surrounding the Bay Area.

Non Special Status Plants

The proposed project is within a built-out, urbanized area where former biotic habitat and natural vegetation have been replaced with urban uses. This site supports over 40 species of non threatened grasses, flowers and other plants. (See App.B to WRA Technical Report, App D to this document) One 21 inch Monterey pine tree may be removed from Lot 4 to accommodate excavation and construction. A permit is required to remove Monterey pines only if more than 5 per acre are proposed for removal. There are no protected species of trees on, or within 10 feet of the building sites. After Tentative Map approval and recordation of the Final Map, the applicant will be required to apply for a tree removal permit when plans are submitted for design review of the proposed homes.

Wildlife

There were no special status animal species detected on the site. However, based on the characteristics of the site habitat it was determined to have a "Low potential" for certain protected status mammals, birds and insects, and to be not suitable for several others. These species are listed at Appendix D to the WRA Technical Report. The project site is located in an area of residential-wild land interface where homes are built in an accessible area and remaining areas (primarily the steepest slopes) have not been built on. As a result, wildlife expected to be resident on or in the immediate site vicinity are those species able to adapt to a residential area. The history of past and relatively more recent disturbance of the area, such as the 1991 Oakland Hills fire, the steepness of the project site, the lack of permanent surface water, and the extent of surrounding development including a 305 foot frontage and a main thoroughfare and human activity limits the wildlife habitat value of the site. As such, the wildlife species associated with the site are common to non-native grasslands and early successional phases of Northern coast scrub habitat such as deer, squirrels, and rodents.

The project site does not serve as a wildlife corridor for migratory or other natural movement patterns. While the area does have population of various species of raptors, such as the Red tail Hawk, Coopers Hawk, Sparrow Hawk, and the Great Horned Owl, no nests were apparent on the site. There are a number of Monterey Pines within the conservation area which will remain unless the Biological Monitor determines that some or all should be removed for the benefit of the special status species.

Potential Habitat for Other Special Status Species

With respect to other listed species of plants and animals for which there is a low potential on the project site (see App. B. to the Technical Report- DEIR App. D), none of these species were observed on the site during the multiple site visits to conduct the biological survey in the Spring and early Summer of 2004 and the Spring of 2005. None of these species are reported on the CNDDDB, or in any other records, for this site. While some listed species, such as the Alameda Whipsnake may exist within Redwood Regional Park,² whose Western border is approximately .5 miles East of the project site, because the site is totally surrounded by streets and homes, and limited in size, it is highly unlikely that it, or any other listed species, other than those noted, exist or use the site (See letter from WRA, dated January 9, 2006 in response to CNPS letter. App. D. 3).

Moreover, none of the listed species was found to be “peculiar to the project or project site,” in the Initial Study and Biological Survey, and therefore under CEQA Guideline 15183 no further environmental study is required.

However, given that the site will be preserved in a conservation easement at ratio of over 2:1, the impact of the project will be less-than-significant on any species. The precautions, monitoring, and maintenance of the conservation easement will benefit all potential listed species.

Habitat Conservation Plan

There is no known adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan relevant to the site.

D. IMPACTS AND MITIGATION

1. Standards of Significance

² An excerpt from the East Bay Regional Park’s Web site, states: “Redwood Regional Park’s 1,836 acres also contain other evergreens, chaparral, and grasslands. Wildlife within the park includes rare species such as the golden eagle and Alameda striped racer snake.”

The proposed project would have a significant effect on biological resources *if* any of the following criteria are met:

Criterion 1 – Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

Criterion 2 – Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service. [NOTE: The term “sensitive natural community” should be interpreted to include aquatic and wetland habitats, as well as impermanent habitats such as seasonal wetlands and seasonal creeks.]

Criterion 3 – Have a substantial adverse effect on federally protected wetlands (as defined by Section 404 of the Clean Water Act) or state protected wetlands, through direct removal, filling, hydrological interruption, or other means.

Criterion 4 – Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Criterion 5 – Fundamentally conflict with the City of Oakland Tree Preservation and Removal Ordinance (Oakland Municipal Code (OMC) Chapter 12.36) by removal of protected trees under certain circumstances. Factors to be considered in determining significance include: the number, type, size, location and condition of (a) the protected trees to be removed and/or impacted by construction and (b) the protected trees to remain, with special consideration given to native trees.³ Protected trees include the following: *Quercus agrifolia* (California or coast live oak) measuring four inches diameter at breast height (dbh) or larger, and any other tree measuring nine inches dbh or larger except eucalyptus and *pinus radiata* (Monterey pine); provided, however, that Monterey pine trees on City property and in development-related situations where more than five Monterey pine trees per acre are proposed to be removed are considered to be Protected trees.

Criterion 6 – Fundamentally conflict with the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16) intended to protect biological resources. Although there are no specific, numeric/quantitative criteria to assess impacts, factors to be considered in determining significance include whether there is substantial degradation of riparian and aquatic habitat through: (a) discharging a substantial amount of pollutants into a creek; (b) significantly modifying the natural flow of the water; (c) depositing substantial amounts of new material into a creek or causing substantial bank erosion or instability; or (d) adversely impacting the riparian corridor by significantly altering vegetation or wildlife habitat.

³ Oakland Planning Code section 17.158.280E2 states that “Development related” tree removal permits are exempt from CEQA if no single tree to be removed has a dbh of 36 inches or greater **and** the cumulative trunk area of all trees to be removed does not exceed 0.1 percent of the total lot area.

The significance of each impact was determined based on CEQA's Mandatory Findings of Significance (CEQA guidelines Section 15065) and the CEQA Thresholds/Criteria of Significance Guidelines.

CEQA's mandatory findings of significance state that a project would result in a significant impact if it has the potential to (1) reduce substantially the habitat of a fish or wildlife species; (2) cause a fish or wildlife species population to drop below self-sustaining levels; (3) threaten to eliminate a plant or animal community; (4) substantially reduce the number or restrict the range of an endangered, rare, or threatened species; or (5) have possible environmental effects which are individually limited but cumulatively considerable.

2. Assessment

The following section presents the project's potential impacts relative to each of these criteria. Impacts from the proposed project to the special status species and potential habitats present on-site are described below. These impacts are noted as Class II (significant, but mitigable), or Class III (less-than -significant, not requiring mitigation). Mitigation measures are prescribed for all Class II impacts which, following implementation, should reduce these impacts to a level of less- than -significant (Class III)

(Criterion 1 – Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.)

Impact 1 - Removal of special status plant species

The project design was changed from an originally proposed 5-lot plan (in TTM 7485) to a 4-lot plan, upon suggestion of California Department of Fish and Game officials, in order to reduce adverse environmental effects. The following would have been directly removed, or inadvertently removed in areas adjacent to construction activities, by construction of single-family residences on all five lots:

- Approximately 442 individuals of Presidio clarkia, over 60 percent of the on-site population and approximately nine percent of the current East Bay population⁴.

⁴ The population of Presidio clarkia in the East Bay in 2004, as observed by Martha Lowe, was estimated to be between approximately 4,750 and 5,150 individuals, of which the largest population of approximately 3,500 individuals occurs within Redwood Regional Park. Presidio clarkia populations in San Francisco are also variable, due to the annual nature of the species, but were estimated to consist of over 8,500 individuals in the mid-1990's due to seeding and weed removal efforts in the late 1980's (see attached Technical Report in Appendix D).

- Four individuals of Most beautiful jewelflower (approximately 40 percent of the on-site population),
- Approximately 1,000 individuals of Tiburon buckwheat (approximately 50 percent of the on-site population).
- Approximately 0.38 acre of the approximately 1 acre of suitable serpentine habitat for all three species, approximately 30 percent of the entire site and 38 percent of the habitat suitable for the three special status plants currently existing on the property.

There is potential habitat on site for one other special status plant species- Fragrant fritillary (*Fritillaria Liliacea*). Fragrant fritillary is a Federal Species of Concern and is on CNPS's list 1B. Fragrant fritillary is a perennial, bulbiferous herb in the Liliacease family that occurs in woodland, scrub and grassland habitats, often on serpentine and/or clay soils (CNPS 2004). Fragrant fritillary grows up to 35 centimeters in height with nodding, sometimes sweet-scented white flowers (sometimes striped green) (Hickman 1993). Fragrant fritillary blooms between February and April (CNPS 2004). Individual site populations of this herb vary in size from 10 to 10,000 individuals (CDFG 2004).

With respect to comments made during the Initial Study review period concerning the provision of "adequate buffers" in the U.S. Fish and Wildlife Service Recovery Plan,⁵ that plan suggests 500 foot buffers, "where possible." However that Plan also recognizes that sites with smaller than a minimum 2000 population, such as the Crestmont site, have low viability caused by harmful genetic changes which result from inbreeding in small populations and may lead to population extirpation (Recovery Plan II-64 App.D). The Plan states that "until research shows otherwise, recovery should target securing populations containing a minimum of 2,000 plants each (but preferably more) (Recovery Plan II-64). The Crestmont site was reported in 1991 to have a population of 30 Clarkia, and in 2004, between 700-1000. In the present case the entire site is 305 feet at street frontage and from 130-200 feet deep. As noted, the development sites for the four lots comprise only .3 acres, or less than 25% of the entire site. The balance is entirely in the conservation easement area. However, the development site itself is contiguous on its north and south sides with undeveloped serpentine slopes identical to the subject site. Presidio clarkia and most beautiful jewel flower as well as Tiburon buckwheat were identified on these contiguous borders to the site. These adjacent areas, approximating 2 acres in size, are not developable due to lot size, access and easement restrictions. These contiguous non-developable properties to the north and south of the proposed Conservation Easement provide such buffers

⁵ U.S. Fish and Wildlife Service," Recovery Plan for Serpentine Soil Species of the San Francisco Bay Area."

Impact 2 – Loss of Habitat The development of the 4 lots under the proposed plan will impact approximately .3 acres of suitable serpentine habitat. (Technical Report p.14. App.2) This loss is *de minimus* relative to the 1,158 square miles of ultramafic rocks (serpentine soils) in California. Within the San Francisco Bay Area serpentine soils are found within the eight Bay Area counties (Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, and Sonoma). (Recovery Plan for Serpentine Soils of the San Francisco Bay Area. App. D. 3, page 1-1).

Through implementation of mitigation measures discussed below, impacts associated with the proposed Crestmont housing development will be reduced from Class II (significant, but mitigable) to Class III (a level of “less than significant”). The overall goal for the project is to substantially increase the number of individual pre-project special status plants and protect and enhance their habitat. By achieving this goal, the project will have **no significant adverse effect** on special status plant species occurring on the project site. The following mitigation measures are recommended to reduce these impacts to a level of less-than-significant.

Mitigation Measure 1.1 – Avoidance and Minimization of Impacts to Special Status Plant Species

Pre-construction Avoidance and Minimization. Avoidance of impacts to the largest concentration of Presidio clarkia by not developing Lot # 1 of the original five-lot plan and permanently placing this area in a conservation easement area to preserve and protect the 0.09 acre of serpentine habitat present and the population of approximately 400 Presidio clarkia present on this lot during the 2004 season. In addition, minimization of impacts to special status plant species and their habitat is accomplished by limiting the residential development area to the area along Crestmont Drive, which at the time of the survey dated May 1, 2004 contained approximately three individuals of the most beautiful jewelflower, approximately 500 individuals of Tiburon buckwheat, and up to 67 individuals of the Presidio clarkia located on Lots #3 and #4. Placing the homes with minimum setbacks from Crestmont Drive in the area most prone to disturbance allows for direct access to the homes and eliminates the need for additional construction of driveways and retaining walls. In addition, grading will only occur in areas used for residential development or to ensure stability of the slope above. Use of the lots above each home will be restricted by a conservation easement to minimize impacts to the preserved Presidio

clarkia, and other special status plant species, and their habitat through associated land uses, such as recreation and gardening (see Mitigation Measure 2 below). The following table quantifies and compares the impacts of the 5 lot plan with the mitigations resulting in the 4 lot plan.

Table 2. Impacts to special status plants associated with the 5 Lot Plan and reduced 4 Lot Plan

Special Status Plant Species	Impacts Associated with 5-Lot Plan		Impacts Associated with 4-Lot Plan	
	# of individual plants removed	% of onsite population removed	# of individual plants removed	% of onsite population removed
Presidio clarkia	467	67	67	10
Most beautiful jewelflower	4	40	3	30
Tiburon buckwheat	1,000	50	500	25
Total area of impacted special status plant species' habitat	0.45 acre		0.30 acre	

Construction-Related Avoidance and Minimization. The following measures should be employed during grading and construction activities associated with development of the residences to the preserve the adjacent preserved habitat and special status plant species:

- Installation and maintenance of an orange construction fence and signs that will prevent entry into the preserved adjacent habitat (including preventing storage of materials and equipment in the preserved habitat).
- Installation and maintenance of erosion control measures such as fabric and a temporary retaining wall to prevent slope failure and erosion of the preserved habitat upslope of the construction area.
- Construction monitoring by a qualified biologist approved by CDFG, the Easement holder and the City of Oakland to ensure that no encroachment into the preserved area occurs and that protection measures are in place and functioning. Monitoring should be conducted daily during grading activities and periodically following grading until a permanent fence is installed between the residences and preserved area. The biological monitor shall have the authority to suspend any and all construction activities if protective measures are not properly followed and/or if activities pose an immediate threat to preserved sensitive resources. The biological monitor shall also have the authority to contact CDFG and/or the City to report any unanticipated impacts to special status species.

-Prohibition of grading during the rainy season (generally November through April 15) to prevent hillside erosion.

-Educational training for the construction crew, including all contractors and subcontractors, regarding identification of the three special status plant species, conservation and protection of their habitat, and endangered species regulations. The training will be conducted by a biologist approved by CDFG and the City of Oakland. The biologist will deliver a brief presentation to the construction crew, including all contractors and each sub-contractor doing any work on the exterior of the building or site development, distribute informational pamphlets to each crew member, and post signs around the construction site with photograph and relevant information on each species. This training will be documented. The education shall include explanation of the reasons for and extent of the Conservation Easement, the importance to the owner/developer and to the holder of the Easement. Any violations of these conditions observed by the biologist will be reported directly to the owner/developer and to the holder of the easement. The consequences of violation of those conditions - which shall include but not be limited to a fine of a minimum of \$100.00 per incident - shall also be explained. Said fines, if any, shall be deposited into the Trust account of the Easement Holder established under the terms of the Easement.

Mitigation Measure 1.2 – Conservation of Special Status Plants and Habitat

The applicant has agreed with CDFG to eliminate Lot 1 of his proposed five-lot subdivision, where the majority of the Presidio clarkia population occurs, as shown on TTM 7485, and to dedicate it to a permanent open space covered by a conservation easement. Compensatory mitigation for removal of the approximately 67 individuals of Presidio clarkia, three individuals of Most beautiful jewelflower, and approximately 500 individuals of Tiburon buckwheat individuals and habitat during residential construction shall consist of permanently protecting the remaining approximately 0.85 acre undeveloped portion of the property through a conservation easement (0.7 acre of which is serpentine habitat for the rare plant species), seeding the conserved habitat with seed salvaged from the development area, and managing the conserved habitat through a weed management and removal of invasive non native trees and vegetation program.

Conservation Easement. Prior to residential construction, a conservation easement shall be placed over the 0.85-acre portion of the property that will not be developed above the home sites (see Figure 3). The terms of the easement shall be approved by the City and CDFG prior to project construction. There will be no grading or other construction activity within the easement boundaries. The easement shall prohibit entry into the preserved area except for weed and species management and monitoring activities, and shall require the installation and

maintenance of protective measures such as fencing and/or signage. The easement shall prohibit development of any kind within the preserved area in perpetuity, and the easement shall transfer to all future property owners. The easement shall also specify allowable uses of property owners both within their home envelope and the Conservation Area, specifically regarding herbicide use, yard waste disposal, and types of landscaping. The easement shall also specify appropriate timing regarding fire control activities required by the City (such as mowing and/or disking) to avoid impacts to special status plants during their germination, blooming, and seed dispersal periods. The easement holder, or trustee, shall be an entity which has as part of its mission the protection of the environment, including lands, plants or animals, and can be expected by its organization and history to stay in existence for the foreseeable future.

Re-seeding. Seed from the plants that will be removed during project residential construction shall be salvaged prior to any grading or construction when the seed is ripe but not yet dispersed, anticipated to be during the months of June and/or July. The seed shall be stored in breathable bags in a dark, temperature- and humidity-controlled environment for no more than one year. The seed, or seed pods, shall be stored such that no more than 1/3 of the storage bag is filled by seed, and the bags must be gently shaken periodically (once every month) to promote drying and prevent growth of fungus or mold. The area will then be seeded using a broadcast seeding technique in the first October or November following seed salvage. The numbers of individual plants is expected to exceed pre-project levels as a result of reseeded efforts and habitat management.

Weed Removal and Control. A Weed Removal and Control Plan shall be developed under the direction of the Easement Holder and implemented to target the removal and prevent re-introduction of invasive weed species such as pampas grass (*Cortaderia juba*), French broom (*Genista monspessulana*) and blue gum eucalyptus (*Eucalyptus globules*) and acacia (*acacia sp.*) The plan shall determine species removal priorities, timing, techniques, and regular eradication and monitoring intervals (at least biannually). Annual weed control efforts shall be discussed in the Annual Monitoring Report as described below. The Weed Removal and Control Plan shall be approved by the City and CDFG prior to project construction. The Plan shall also address fire prevention standards and the timing of such removal so as not to adversely impact the protected plants.

Monitoring. Following construction and restoration activities, a qualified biologist approved by CDFG, Holder of the Conservation Easement and the City of Oakland shall conduct annual monitoring of the site, including the

Conservation Area. Monitoring shall occur to coincide with the peak blooming of Presidio clarkia, Most beautiful jewelflower and Tiburon buckwheat. The number of each of these species shall be counted within each area and the locations of the plants (or patches) shall be mapped over a ten-year monitoring period.

To document on-site population dynamics, monitoring will take place annually for the first five years from the time of creation of the Conservation Easement. Thereafter, it shall take place in Year 7 and Year 10 of the ten-year monitoring period. If it appears that the population of any of the special status species is declining during this ten-year monitoring period, remedial activities as specified, including weed control, will be undertaken, and monitoring resumed on an annual basis for another three years. Annual Monitoring Reports will be submitted to CDFG by September 30 of each year and shall include (1) an evaluation of the current monitoring data in relation to restoration efforts and previous population observations (pre-construction and during previous monitoring years), (2) weed management efforts, (3) observations of trespass or vandalism of protective infrastructure, and (4) any recommended remediation measures, if necessary.

Funding. The owner/developer Andalucia Properties, LLC, or successor, will, as a condition of obtaining the TPM contribute a sum to the Easement holder sufficient to pay all costs for 10 years of overseeing the Conservation Easement, including but not limited to staff time, biologist time monitoring and reporting, weed removal, and all other activities required under of the terms of the Easement. The amount, which is, estimated at between 20 and 25 thousand dollars, will be subject to approval of Easement holder. A separate endowment fund will also be created by owner developer at same time that will be held by the Easement holder. This endowment fund will be established in an amount that is calculated to provide, in ten years, at an annual yield of 4.2% sufficient funds for ongoing over-site and management of the Conservation easement, in perpetuity. Any shortfalls at that time will be made up by assessments to the Homeowner's Association.

Remediation Measures. Any and all recommendations for remediation measures in the periodic monitoring reports will be complied with by the owner(s) of the property, and be subject to the enforcement provisions of this report and the provisions of the Homeowner's Association Agreement. Weed control shall take place according to procedures set forth in the Weed Removal and Control Plan as approved by the City and CDFG. If a decline of the clarkia population in the conservation area is shown to be caused by any human activity such as littering, debris dumping, erosion from properties above, etc. the parties responsible will be held accountable and

prosecuted to the fullest extent of the law if necessary. These measures will be taken by the Homeowner's Association or the trustee of the conservation easement at the expense of the Homeowner's Association.

Impact 2 - Removal of Potential Habitat for Other Special Status Plant Species

The proposed project may remove potential habitat on the regional and world populations of one additional special status species, fragrant fritillary, which has a moderate potential to occur in the Study Area. If the species is determined to be present within the project area, such impacts may be considered a Class II impact - significant, but mitigatable. The following mitigation measures are recommended to reduce this impact to a level of less-than-significant.

Mitigation Measure 2.1 - Pre-Construction Surveys

Botanical surveys should be conducted according to the CNPS and CDFG protocols during the appropriate blooming periods for fragrant fritillary (generally late February through March) prior to construction activities to determine the presence or absence of this species within the proposed project impact area. A survey was conducted by WRA botanists on March 9, 2005 and this species was not found on the site.

Implementation of Mitigation Measure 2.1 will reduce Impact 2 to a level of less-than-significant (Class III).

Impact 3- Evaluation of Cumulative Impact of Project

The measures described above fully mitigate cumulative impacts to special status plant species from the proposed project. Through implementation of these mitigation measures, the project-related cumulative impacts will be reduced to a level of less -than -significant because:

- The project will ensure that over 90 percent of the estimated Presidio clarkia population on the property will not be impacted by the development;
- The project will preserve more than 70 percent of the current estimated populations of Most beautiful jewelflower and Tiburon buckwheat on the property;
- The project will impact less than .8%, .003% and .001% of the Bay Area and World populations of Presidio Clarkia, the Most Beautiful Jewel Flower and Tiburon Buckwheat, respectively. (Table 3)
- The project will salvage seed from special status plants within the development area which will be distributed in the conserved habitat;
- The project will preserve special status plants and habitat from impacts during construction activities;

- The project will retain the general species distribution for the three special status plant species;
- The project will manage threats to the species population by preventing access to the site and by removing, and preventing colonization of, invasive plant species;
- The project will result in a more than 2 to 1 ratio of permanently preserved serpentine habitat for the three special status plant species (approximately 0.7 acre) to permanently impacted serpentine habitat (approximately 0.3 acre), and a ratio of more than 2 to 1 for total land conserved (0.85 acre) to total land developed (0.4 acre);
- The project will have long-term beneficial effects for the three special status plant species on-site through permanent conservation and management of the remaining portion of these populations and existing suitable habitat.
- The combined conservation and management actions will promote the recovery of these three special status plant species.

The cumulative direct negative impacts on each of the special status plant species to their Alameda County, Bay Area and World populations is provided in Table 3 below

Table 3. Cumulative impact analysis based on approximate population numbers obtained from CNDDDB records. These data were collected from multiple field sites during different years; results may vary widely from year to year and site to site.

	SPECIAL STATUS SPECIES		
	Presidio Clarkia	Most Beautiful Jewelflower	Tiburon Buckwheat
ON-SITE POPULATION			
# of individuals on project site	700-1,000	10	2000
# of individuals impacted by project	67	3	500
% of individuals impacted by project	7-10%	30%	25%
ALAMEDA COUNTY POPULATION			
# of documented Alameda Co. individuals	4500	2000	Several 10,000's of individuals are known to occur in Alameda County.
% of Alameda County population	16 %	0.5 %	<1%
% of Alameda County population impacted by project	1.5%	0.15%	<0.05%

	SPECIAL STATUS SPECIES		
	Presidio Clarkia	Most Beautiful Jewelflower	Tiburon Buckwheat
BAY AREA POPULATION⁶			
# of documented Bay Area individuals	>8000	>100,000	At minimum, several 100,000's of individuals are known to occur in 8 counties within and surrounding the Bay Area
% of Bay Area population	<9%	<0.01%	<0.004%
% of Bay Area(World) population impacted by project	<0.8%	<0.003%	<0.001%

This project will not result in a substantial reduction of the number of endangered, rare, or threatened species. Affording permanent protection to a majority of the onsite occurrences of these species and salvaging/reseeding impacted individuals will achieve long-term environmental goals to protect and promote the recovery of the three special status plant species and their associated habitat on this site. The project will not have the potential to substantially degrade the quality of the environment and will not cause these rare plant populations to drop below self-sustaining levels. It is anticipated that as a result of reseeding and habitat enhancement and conservation efforts, the number of individual plants will exceed pre-project numbers.

The project as proposed would impact 1.5%, 0.15%, and less than 0.05% of Alameda County, and less than 0.8%, 0.003%, and 0.001% of Bay Area populations of Presidio clarkia, Most beautiful jewelflower, and Tiburon buckwheat respectively. These impacts are not considered cumulatively significant and the project will not substantially reduce numbers of endangered, rare, or threatened species on a local or regional level.

By protecting these plants and their habitat and replanting individuals removed during construction, the incremental effects of this project will not be cumulatively considerable to the plant populations within a local, regional, or worldwide context. The goal of the Conservation Easement is to preserve, restore, and enhance suitable serpentine habitat and its associated species not only to below a level of significance, but to **increase** the number of individual clarkia, jewelflower, and buckwheat plants than previously existed on the site before project

⁶ Presidio clarkia and Most beautiful jewelflower are endemic to the Bay Area, and Tiburon buckwheat is endemic to eight counties within and surrounding the Bay Area; therefore, this is essentially the “world” population.

implementation through a conservation easement and implementation of the USDFG Recovery Plan strategies to ensure long term survival of these species and the site.

(Criterion 2 – Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service. [NOTE: The term “sensitive natural community” should be interpreted to include aquatic and wetland habitats, as well as impermanent habitats such as seasonal wetlands and seasonal creeks].)

It was determined that the project does not contain any riparian habitat and will not affect other sensitive natural community identified in local or regional plans, policies, and regulations or by CDFG or USFWS (#2). No impacts are anticipated.

(Criterion 3 – Have a substantial adverse effect on federally protected wetlands (as defined by Section 404 of the Clean Water Act) or state protected wetlands, through direct removal, filling, hydrological interruption, or other means.)

The project site does not contain federal or state-protected wetlands. No impacts are anticipated.

(Criterion 4 – Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.)

The site is entirely surrounded by housing developments and will therefore not substantially interfere with wildlife movement. No impacts are anticipated.

(Criterion 5 – Fundamentally conflict with the City of Oakland Tree Preservation and Removal Ordinance (Oakland Municipal Code (OMC) Chapter 12.36) by removal of protected trees under certain circumstances. Factors to be considered in determining significance include: the number, type, size, location and condition of (a) the protected trees to be removed and/or impacted by construction and (b) the protected trees to remain, with special consideration given to native trees.⁷ Protected trees include the following: Quercus agrifolia (California or coast live oak) measuring four inches diameter at breast height (dbh) or larger, and any other tree measuring nine inches dbh or larger except eucalyptus and pinus radiata (Monterey pine); provided, however, that Monterey pine trees on City property and in development-related situations where more than five Monterey pine trees per acre are proposed to be removed are considered to be Protected trees.

There are no Protected trees on the project site.

⁷ Oakland Planning Code section 17.158.280E2 states that “Development related” tree removal permits are exempt from CEQA if no single tree to be removed has a dbh of 36 inches or greater **and** the cumulative trunk area of all trees to be removed does not exceed 0.1 percent of the total lot area.

(Criterion 6 – Fundamentally conflict with the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16) intended to protect biological resources. Although there are no specific, numeric/quantitative criteria to assess impacts, factors to be considered in determining significance include whether there is substantial degradation of riparian and aquatic habitat through: (a) discharging a substantial amount of pollutants into a creek; (b) significantly modifying the natural flow of the water; (c) depositing substantial amounts of new material into a creek or causing substantial bank erosion or instability; or (d) adversely impacting the riparian corridor by significantly altering vegetation or wildlife habitat.)

The project does not contain a creek and therefore will not conflict with the City of Oakland Creek Protection Ordinance. No impacts are anticipated.

V. GEOLOGY AND SOILS

A. INTRODUCTION

This section describes the existing setting for geologic and soil resources and evaluates the associated impacts potentially created by the Project. The analysis assesses the potential for significant impacts to geologic and soil resources (see Subsection D. Impacts and Mitigation below). The main conclusions of the analysis are that impacts would not be significant and special mitigation measures would not be required.

B. APPROACH AND METHODOLOGY

Information in this section is based on a number of geologic studies and assessments. References to these studies are made in the following discussion and the full citations are in Chapter VII, References. All documents are available for public review between the hours of 8:00 a.m. and 4:00 p.m. Monday, Tuesday, Thursday and Friday, and 9:30 a.m. to 4:00 p.m. on Wednesday at the City of Oakland Community and Economic Development Agency, 250 Frank Ogawa Plaza, Suite 3315, Oakland.

C. SETTING

Much of the information in the following description of setting was developed as part of geotechnical investigations prepared specifically for the proposed project site. The findings of the investigations are presented in reports and updates to those reports (Justiniano 2000; 2003; 2005; and Pike, 2005-AppendixE). The project site is moderately steep to steep, 2:1,-1.5:1 (horizontal-vertical) with ground elevations ranging from approximately 735 to 855 feet above mean sea level (msl). The project site is located within the San Francisco Bay Area, a region of seismic activity. The closest active fault is the Hayward Fault, which is located approximately 1/3 mile west of the project site.

Site Geology. Exposures along the cut slopes northeast of Crestmont Drive indicate the presence of massive serpentinite. The rocks are sheared to moderately fractured and typically moderately strong, with localized zones of stronger blocks. At locations where the hillside does not exhibit bedrock exposures the rock is covered by a very thin soil mantle. (Justiniano 2000, p.3, Appendix E)

Subsurface Conditions. The results of field investigations indicate that the hillside designated to receive the proposed development is underlain by a moderately strong, slightly weathered to fresh bedrock that would offer acceptable foundation support for the proposed dwellings. (Justiniano 2000, p.6) No significant amount of

colluvial soil deposits or fills were noted. At the higher elevations, the upper foot of surface soil consist of dry, gray to brown silty sandy soil horizon, which is underlain by weathered rock. The underlying bedrock consists of massive serpentinite that is sheared to moderately fractured and typically moderately strong, with localized zones of stronger blocks (Ibid.). This bedrock formation is estimated to be 200 feet deep (Pyke, Letter Report, July 12, 2005).

Slope Stability. Previous mapping by the USGS (Nilsen, 1975) depicts a quarried landscape that would infringe on the southwestern corner of the property. However, the exposed bedrock abounds on the property and during reconnaissance and investigation no features indicative of land sliding in any of the proposed building areas were observed (Justiniano, 2000, p. 4). Some thicker accumulation of colluvial soils may be present within the trees in the southwestern part of the site. Slightly hummocky areas were noted and should be considered prone to unraveling, erosion and minor sloughing, if cutting into the hillsides reduces lateral support.

Seismicity, Faults and Ground Rupture. The project site is located within the San Francisco Bay Area, a region of seismic activity. The closest active fault is the Hayward Fault, which is located approximately 1/3 mile west of the project site. The project site does not lie within the Alquist-Priolo Special Study Zone boundaries. According to the U.S. Geological Survey (USGS), magnitude 7.0 earthquakes can cause landslides, slumps, debris flows or rock falls up to 70 miles from the epicenter or 50 miles from the fault rupture zone. Because the site is composed of rock, with only minor amounts of topsoil in certain areas, with no fill or other soft soils, and because it is not exposed to stream overflow or bodies of water above the site, there is no potential that the site, with or without the project, would be susceptible to landslide, mudslide or severe erosion hazards. The estimated ground accelerations indicate that the site could experience very strong shaking in the event of rupture of the Hayward fault. The existing grade of the slope from 2:1-1.5:1 (horizontal –vertical) results from the fact that the site is underlain by massive serpentinite bedrock that does not exhibit a loss of strength during earthquakes (Pyke Letter, dated June 16, 2005).

Other risks related to the potential for strong seismic shaking include liquefaction, densification, lateral spreading, lurching, and seismically induced slope failure are discussed below. Seismically-induced slope failure may occur in hillside areas, especially when sites are in close proximity to earthquake epicenters. Strong ground shaking from rupture of the Hayward fault could induce failures within the steeper portions of the site, especially in cut areas that are not retained (Justiniano, 2000).

Seismicity, Ground Shaking. The study area is prone to strong seismic ground shaking, as is the entire Bay Area. The probability of one or more large earthquakes (Richter magnitude 6.7 or greater) in the Bay Area

resulting in widespread damage between 2000 and 2030 is estimated at 70 percent, within a 10 percent margin of error (USGS 1999). The Association of Bay Area Governments (ABAG) predicts the most dangerous earthquake area would originate along a combination of both the northern and southern segments of the Hayward-Rogers Creek fault system, and that shaking intensity would be “violent”⁸ to “very violent”⁸ as a result of an earthquake of Richter magnitude 7.1 (ABAG 1995). The overall probability of an earthquake of magnitude greater than or equal to 6.7 on this fault system before the year 2032 is approximately 27 percent (USGS 2002).

A peer review of the geotechnical reports of Henry Justiniano & Associates by Dr. Robert Pyke, Consulting Engineer (Phd. In Civil Engineering, UC Berkeley) revealed the following information in a letter to Dominic Ma, City of Oakland Supervising Engineer (Pyke letter, June 16, 2005). In the case of the proposed project site, Mr. Pyke estimated that the static and seismic factors of safety most likely exceed 3 and that any displacements under even a major earthquake on the nearby Hayward fault would be negligible.

Seismicity, Ground Failure from Liquefaction. In the Bay Area, seismic-related ground failure frequently results from liquefaction, a process whereby water-saturated materials lose strength during strong ground shaking. Liquefaction occurs when the energy from an earthquake increases the pore-water pressure in loose, water-saturated geologic material to the point that it acts as a liquid rather than a solid. When material liquefies, it can move both horizontally and vertically. The most likely materials to liquefy are shallow, loose, water-saturated, well-sorted silts and sands with little or no clay-sized particles at depths less than 40 feet. The site-specific geotechnical investigation concludes that soil conditions likely to result in liquefaction do not exist (Justiniano 2000, p. 4, and 2003; and Pyke, 2005).

Other forms of ground failure include lurching and lateral spreading, whereby the rolling motion of ground surface during an earthquake can cause cracks to form in weaker materials on slopes and adjacent to open channels. Based on the building locations within shallow bedrock, there is very little risk of lurching or densification.

Seismicity, Landslides. Landslides or slope failures occur when material on an inclined face moves downward. This phenomenon can be greatly exacerbated by an earthquake. There is no evidence of instability on the site slope since it was created by grading in Crestmont Drive in 1956 when the “Crestmont” subdivision was created.

⁸ Defined by the Modified Mercalli Scale as follows: General panic. Masonry D destroyed; masonry C heavily damaged, sometimes with complete collapse; masonry B seriously damaged. (General damage to foundations.) Frame structures, if not bolted, shifted off foundations. Frames racked. Serious damage to reservoirs. Underground pipes broken. Conspicuous cracks in ground. In alluvial areas sand and mud ejected, earthquake fountains, sand craters.

The site has a grade approximately 58% at its steepest, and it was un-retained and un-engineered and without any stabilizing benches. While there were several mudslides and foundation failures in the surrounding subdivision in the early 1960s, these occurred, according to City of Oakland records, due to building on deep “fill”, or inadequate or blocked drainage (City of Oakland Records, Monument Map 193 and documented notations of landslides in area. Appendix E). None of these precursor conditions do, or will exist on the proposed site (Justiniano 2000, 2003).

Soils-Non Expansive. Native soils and bedrock in the project area are not expansive, meaning they do not have high plasticity and high to critically high expansion potential. Expansive soils shrink and swell with fluctuations in moisture, and can cause heaving and cracking of foundation, slabs, and other elements of development. Site geology is characterized by massive serpentinite with no fill or other soft soils.

D. IMPACTS AND MITIGATION

1. Standards of Significance

The proposed project would have a significant geologic effect if any of the following criteria are met:

Criterion 1 – Expose people or structures to substantial risk of loss, injury, or death involving:

- a. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map or Seismic Hazards Map issued by the State Geologist for the area or based on other substantial evidence of a known fault (refer to Division of Mines and Geology Special Publications 42 and 117 and PRC §2690 et. seq.);
- b. Strong seismic ground shaking;
- c. Seismic-related ground failure, including liquefaction, lateral spreading, subsidence, collapse;
- d. Landslides.

Criterion 2 – Result in substantial soil erosion or loss of topsoil, creating substantial risks to life, property, or creeks/waterways.

Criterion 3 – Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as it may be revised), creating substantial risks to life or property.

2. Assessment

(Criterion 1.a. – Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map or Seismic Hazards Map issued by the State Geologist for the area or based on other

substantial evidence of a known fault (refer to Division of Mines and Geology Special Publications 42 and 117 and PRC §2690 et. seq.).

As discussed in the setting section above, there are no known faults running through the site of the proposed project that would rupture during an earthquake. The closest active fault is the Hayward Fault, approximately 1/3 mile west of the project site. The project site does not lie within the Alquist-Priolo Special Study Zone boundaries. Mapping by Graymer indicates the presence of a northwest-trending thrust fault immediately south of the property, along the approximate location of Crestmont Drive. Other faulted contacts between the serpentinite and sedimentary and volcanic rocks are also mapped south and northeast of the properties. Thus, conditions necessary for ground rupture do exist at the project site. The site-specific geotechnical analyses by Dr. Pyke, discussed above, estimated that the static and seismic factors of safety most likely exceed 3 and that any displacements under even a major earthquake on the nearby Hayward fault would be negligible. Nevertheless, any risk associated with a rupture of area faults will be mitigated to less- than -significant levels by application of the Uniformly Applicable Conditions of Approval, as discussed below.

(Criterion 1.b. – Strong seismic ground shaking):

As developed in the Initial Study (Appendix A), the following uniformly applicable Conditions of Approval will be applied to the Project and are, therefore, analyzed as part of the project.

Conditions of Approval: Project elements shall meet Uniform Building Code Seismic Zone 4 design standards or better to withstand expected earthquake ground shaking, liquefaction, or other ground failures. Design shall be in accordance with the recommendations of the final Geotechnical Report, and shall be verified for seismic loading by California-registered Professional Civil and Geotechnical Engineers; recommendations by the same regarding site preparation and design shall be incorporated into project plans.

Conditions of Approval:: Site stabilization activities shall be conducted under the supervision of a California-registered Professional Geotechnical Engineer.

The hazard of seismic shaking is shared throughout the region. Strong ground shaking could occur during an earthquake, during either construction or operation of the proposed project. Shaking of the intensity possible in the area could result in substantial adverse effects to structures and could expose people to risk from injury. With the application of the uniformly applicable Conditions of Approval noted above, and as modified through compliance with the City's seismically related building code as part of the building permit process, potentially significant project impacts would be reduced to less-than -significant levels and mitigation measures would not be required. The site itself is not particularly vulnerable to failure from shaking as it has not, and does not exhibit a loss of strength during earthquakes (Dr.Pyke, Letter Dated June 16, 2005,. (App. E. 8)

(Criterion 1.c. – Seismic-related ground failure, including liquefaction, lateral spreading, subsidence, collapse).

Conditions of Approval: discussed above applies to this ground failure impact as well. As discussed in the setting, the site's native soils and bedrock are not expansive, meaning they do not have high plasticity and high to critically high expansion potential. Additionally, the site's soils do not have the characteristics that would lead to liquefaction: shallow, loose, water saturated, well sorted silts and sands with little or no clay-sized particles, and therefore there is no potential for a significant liquefaction impact. Other forms of ground failure, such as lurching and lateral spreading are also unlikely to occur on the site. However, the project as proposed, including the conditions discussed above, and as modified through compliance with the City's seismically related building code as part of the building permit process, would reduce this ground failure impact to a less-than-significant level and no special mitigation measures would be required.

(Criterion 1.d. – Landslides).

Site conditions are currently not conducive to land sliding. The project proposes numerous measures and facilities to address slope stability and land sliding. These include retaining walls, installation of a sub-surface drainage system to more efficiently route existing seepage from the lower slope, and runoff from the upper slope, restrictions on grades, foundation design, and erosion control. With development of the project as proposed and conditions noted above, and as modified through compliance with the City's seismically related building code as part of the building permit process, the impact would be less than significant and special mitigation measures would not be required. Properly designed retaining walls, and correctly installed drainage behind the houses, will remove concerns for potential stability problems. (See Justiniano, Plan Review, April 10, 2003 at App. E.2, and Dr. Pyke Letter Dated June 16, 2005. Appendix E 8.)

With respect to a comment made during the Initial Study review period concerning the possibility of an underground aquifer (Letter from Elizabeth Bashnick dated December 18, 2005, p.2 "Item #2- Appendix B), the source of water presently being intercepted by the hydrauger is evidently from fractures within the bedrock formation. This is a common occurrence, and it should not be confused with an "aquifer" or waterway. Obviously, the efficiency of the proposed retaining wall drains will be far greater than the relatively small hydrauger that is presently intercepting this water. The ensuing improved efficiency in the drainage of the hillside will be beneficial, since a certain increase in overall stability of the hillside will be realized. The evacuation of the collected waters will be simply a conventional operation, since the retaining wall sub-drain pipe can be connected to collector pipes that will be available along the side of the residence, to serve downspout and storm drains. Because the houses and their garages will be 4 to 5-feet above the street, the drainage system will discharge onto

the street gutter by gravity flow. The aforementioned system is standard in the development of hillsides (Justiniano Letter, December 19, 2005, Appendix E 10)

(Criterion 2 – Result in substantial soil erosion or loss of topsoil, creating substantial risks to life, property, or creeks/waterways).

Because the building sites at the bottom 1/3 of the property are primarily exposed bedrock, overlain in areas with a thin soil mantle, there will be no soil erosion or loss of top soil as the result of the development. The runoff coefficient is .9- that is 90% of the water already runoff. The footprints of the four homes will be no more than 7000 square feet, less than 12% of the entire site. This area will be 100% impervious. The drainage systems behind and to the sides of the homes will divert this water to dissipaters and ultimately the existing storm drain in Crestmont Drive. The Staff Report on the previous plan to subdivide the property into 5 lots, (TPM 7485), referenced the Finding of the Engineering Services Division that "since the existing site is bedrock and steeper than a 2:1 slope, there will be little if any augmentation to the runoff, and that when built, the homes themselves will act as retaining walls and slide buffers at the bottom of the hill." ⁹

The following uniformly applicable Conditions of Approval will be applied to the Project as appropriate, to reduce or eliminate any and all effects of water during and after construction and are therefore analyzed as part of the project.

Conditions of Approval: The contractor shall employ all or any combination of the following to avoid and minimize erosion, and to avoid sedimentation:

No grading during the rainy season unless approved by the director of CEDA and subject to appropriate best management practices to minimize erosion (a wet weather grading permit may be issued as discussed below):

- Tops of fill or cut slopes shall be graded to prevent water from flowing freely down the slopes
- Hydro seed or mulch cut slopes
- Use silt fences, hay wattles, or bales to contain sedimentation
- Street sweep to remove soil related to construction activities
- Plant low-water landscaping shortly after site preparation

If a wet weather grading permit is issued, it should employ the following best management practices:

- a. On sloped properties, the downhill end of the construction area must be protected with silt curtains and hay bales oriented parallel to the contour of the slope (at a constant elevation) to prevent erosion to creeks and/or storm drains.

⁹ Planning Commission Staff Report, TPM 7485, City Of Oakland, March 3, 2004. App. E.10, p. 5

- b. Minimize removal of natural vegetation or ground cover from the site in order to minimize the potential for erosion and sedimentation problems. Maximize the replanting of the area with native vegetation as soon as possible. All bare slopes in the area covered by the wet weather grading permit must be covered with staked tarps when rain is occurring or is expected and all such staked tarps and the like must be available at the jobsite.
- c. Install filter materials (such as sandbags, filter fabric, etc.) at the storm drain inlet nearest the downstream side of the project site prior to: start of the rainy season (October 1); site dewatering activities; and saw cutting asphalt or concrete, in order to retain any debris or dirt flowing into the City storm drain system. Filter materials shall be maintained and/or replaced as necessary to ensure effectiveness and prevent street flooding.
- d. Ensure that concrete/granite supply trucks or concrete/plaster finishing operations do not discharge wash water into street gutters, drains, or creeks.
- e. Direct and locate tool and equipment cleaning so that wash water does not discharge into creek or storm drains.
- f. Create a contained and covered area on the site for the storage of bags of cement, paints, flammables, oils, fertilizers, pesticides, or any other materials used on the project site that have the potential for being discharged to the storm drain system by wind or in the event of a material spill. No hazardous waste material shall be stored on site.
- g. Cover stockpiles of debris, soils or other material subject to being blown by the wind, with approved materials and methods.
- h. Gather all construction debris on a regular basis and place them in a dumpster or other container which is emptied or removed on a weekly basis. When appropriate, use tarps on the ground to collect fallen debris or splatters that could contribute to storm water pollution.
- i. Remove all dirt, gravel, rubbish, refuse and green waste from the sidewalk, street pavement, and storm drain system adjoining the project site. During wet weather, avoid driving vehicles off paved areas and other outdoor work.
- j. Broom sweep the sidewalk and public street pavement adjoining the project site on a daily basis. Caked-on mud or dirt shall be scraped from these areas before sweeping. At the end of each workday, the entire site must be cleaned and secured against potential erosion, dumping, or discharge to creeks or storm drains.

Application of the uniformly applied Conditions of Approval, would reduce erosion and flooding impacts to less than significant and mitigation measures would not be required.

(Criterion 3 – Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as it may be revised), creating substantial risks to life or property.)

Site-specific geotechnical investigations identify the subject area to be uniformly composed of rock, with a thin mantle of soil in certain areas, and therefore not expansive. No impact is anticipated.

VI. TRANSPORTATION AND TRAFFIC

A. INTRODUCTION

This section describes the existing setting for traffic and evaluates the associated impacts potentially created by the proposed project pertinent to driveway design (see Subsection D. Impacts and Mitigation below). The main conclusions of the analysis are that potential impacts would be less than significant and that mitigation measures would not be required.

B. APPROACH AND METHODOLOGY

Information in this section is based on a number of studies and assessments. References to these studies are made in the following discussion and the full citations are in Chapter IV, References. All documents are available for public review between the hours of 8:00 a.m. and 4:00 p.m. Monday, Tuesday, Thursday and Friday, and 9:30 a.m. to 4:00 p.m. on Wednesday p.m. at the City of Oakland Community and Economic Development Agency, 250 Frank Ogawa Plaza, Suite 3315, Oakland.

C. SETTING

The information in the following description of setting for traffic is described in the following studies prepared for the proposed project:

- TPM 7940, Initial Study – Transportation/Traffic, Kimley-Horn & Associates, Inc., June, 2005.

The traffic analysis is based on a field review of site conditions and computer modeling conducted by staff of Kimley-Horn Associates (Kimley-Horn and Associates Letter Dated June 20, 2005, and March 20, 2006, Appendix F).

Crestmont Drive is a 40 foot wide two lane collector street (two twelve foot lanes in each direction and 8 foot wide parking lanes on each side) with curbs and sidewalks on either side (except presently in front of the undeveloped project site). The posted speed limit on Crestmont is 25 miles per hour. At the location of the proposed project Crestmont Drive intersects with Westfield Way.

The City of Oakland's Transportation Engineering Dept. maintains computerized accident records for the period commencing Jan 1, 1999 to December 31, 2004. During this period, in the area near the project site, there was only one accident which occurred on March 28, 2002. It resulted from a car traveling north on Crestmont that rear ended a parked car 900 feet to the North of the intersection of Crestmont and Westfield Way (Collision Report Summary App. F.3). There were no injuries. The Police Department purges accident records every 5 years, except for those involving fatalities. The Police Department does not have any records as far back as 1995 of any fatalities resulting from traffic accidents on Crestmont Drive in front of or near the site. Records earlier than 1995 were not available for inspecting.

D. IMPACTS AND MITIGATION

1. Standards of Significance

The proposed project would have a significant traffic effect if the following criterion is met:

Criterion 1 Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

The following section presents the project's potential impacts relative to the criterion.

2. Assessment

(Criterion 1 –Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).)

The analysis of the impact of the project with respect to driveway design is based on a number of factors including traffic generated by the project, lot/driveway layout, stopping sight distance, corner sight distance, and driveway configuration.

Traffic Generated by the Project

The project will generate an estimated 40 vehicle trips per day, or 4 peak hour vehicle trips, which is not substantial in relation to existing traffic load and capacity of the street system. Therefore, the impact of the project with respect to vehicle trips would be less than significant.

Lot/Driveway Layout

The project will construct four homes on individual lots fronting Crestmont Drive, each with a separate driveway connection. To address the question of the project potentially increasing hazards substantially, the stopping sight distance was evaluated for drivers on Crestmont Drive adjacent to the project and corner sight distances for drivers leaving the project driveways. Sight distance is defined as the continuous length of roadway ahead visible to the driver. It is a customary measure used by traffic and civil engineers to design roadway features as well as evaluate the potential implications of improvements to and adjacent to roadways. The minimum stopping sight distance required by the driver of a vehicle, traveling at a given speed, is that distance necessary to bring his or her vehicle to a stop after an object on the road becomes visible. Corner sight distance is the clear line of sight between the driver of a vehicle waiting to enter the roadway from a driveway or side street and the driver of an approaching vehicle. Configurations of the project driveways relative to Crestmont Drive were also evaluated.

Stopping Sight Distance

In the case of the project, stopping sight distance is critical and controlling in the northbound direction given that the project is directly adjacent to the northbound traffic lane. The minimum stopping sight distance for a speed of 25 miles per hour, the posted speed limit on Crestmont Drive, is 165 feet (based on Table 201.1 of the Highway Design Manual). Based on field measurement, the approximate stopping sight distance for northbound traffic is 190 feet, which exceeds the minimum of 165 feet for a speed of 25 miles per hour. Also, the measured distance of 190 feet correlates to a speed of 30 miles per hour, meaning there is adequate sight distance with the project for vehicles traveling northbound at 30 miles per hour or less.

To a driver traveling southbound on Crestmont, the project would potentially introduce a backing vehicle onto the roadway. Therefore, on the southbound side, the available stopping sight distance between the crest of the hill to the north of the project and the nearest project driveway to the crest must exceed the minimum standard for the given speed. In field measurements, the southbound sight distance between the crest of the hill and the lateral location of the nearest project driveway (Lot 1) was estimated to be 300 feet, which exceeds the minimum of 165 feet for a speed of 25 miles per hour. Also, this available sight distance correlates to a speed of 40 miles per hour. This means there is adequate stopping sight distance with the project for vehicles traveling southbound at approximately 40 miles per hour or less.

Existing conditions of relatively restricted stopping sight distances without a history of accidents indicates that the stopping sight distances to the proposed project, of a minimum of 300 feet in the southbound direction and 190 feet in the northbound direction, are more than adequate given actual driving practices on Crestmont. For example, the traffic driving southbound, down Crestmont, encounters the driveways of parcels 17 and 18 (as shown on Assessor's Map 37 A 3147) within approximately 60 feet and 130 feet respectively from the crest of the road, which correlates to a Stopping Sight Distance of below the minimum sight distance of 165 feet for a speed of 25 miles per hour.

Mitigation Measure 3.1

The project design will not cause traffic impacts that would substantially increase hazards at the posted speed limit. However, the City of Oakland has no current data on the actual speed of travel on Crestmont Drive. To determine the actual critical speed (85th percentile speed) on Crestmont Drive in the project vicinity the applicant shall conduct a critical speed survey, prior to filing of final map, in accordance with standard industry practice and the requirements of the City of Oakland, Public Works Agency, Transportation Services Division (TSD). If the critical speed exceeds 30 miles per hour in the northbound direction or 40 miles per hour in the southbound direction, the project sponsor shall implement appropriate signage, pavement markings or other appropriate measures as determined by TSD to help reduce vehicle speed

Implementation of Mitigation Measure 3.1 will reduce potentially significant impacts to less than significant levels.

Corner Sight Distance

The corner sight distance at each driveway was found in field measurement approximations to be 165 feet for a driver looking at the northbound traffic lane and a minimum of approximately 300 feet for a driver looking at the southbound traffic lane. These values indicate there is adequate corner sight distance for the northbound case for vehicles traveling at 25 miles per hour or less, and the southbound case for vehicles traveling at 40 miles per hour or less.

Driveway Configuration

It was noted that the driveways for Lots 1, 2, and 4 are slightly off perpendicular relative to Crestmont Drive. This is due to the customary geometric realities of designing home sites in topographic settings such as the Crestmont project. In the opinion of Kimley-Horn Associates, the driveway design is nevertheless a functional, workable solution.

Driveway Grade

With regard to the elevations and slope of the preliminary driveway cross section shown on the TPM 7940, any adjustments required to the garage floor elevation to allow the construction of a driveway meeting the City's Standards will take place at the appropriate time. For example, while the illustrative elevation for the garage floor on the "Typical Cross Section" is shown at 752- this could be lowered, if required, to reduce the grade of the driveway from the street to comply with City Standards. Adjustments to the level of the garage floors will not affect any of the set back or height limitations on the home. To even the slope of the driveway from side to side the upper side will be lowered by the simple expedient of a retaining wall 1-2 feet high-as dictated by actual conditions. In sum, all grade and angle of slope issues will be resolved prior to issuance of grading and building permits.

Conclusion

The project design features will not cause traffic impacts that would substantially increase hazards at the posted speed limit. However, the City of Oakland has no current data on the actual speed of travel on Crestmont Drive. To determine the actual critical speed (85th percentile speed) on Crestmont Drive in the project vicinity the applicant shall conduct a critical speed survey, prior to filing of final map, in accordance with standard industry practice and the City of Oakland, Public Works Agency, Transportation Services Division (TSD). If the critical speed exceeds 30 miles per hour in the northbound direction or 40 miles per hour in the southbound direction, the project sponsor shall implement appropriate signage, pavement markings or other appropriate measures as determined by TSD to help reduce vehicle speed. Therefore, there will be less than significant impacts related to traffic hazards

VII. ALTERNATIVES

A. INTRODUCTION

This Draft EIR evaluates two alternatives:

1. No Project Alternative so that the project site would remain in its existing condition as a vacant area with no protection for the endangered species;
2. The Reduced Density 3 Lot Subdivision, in which three units would be built.

B. ALTERNATIVE 1: No Project

Under the No Project Alternative, existing conditions on the site would remain unchanged. The site's development potential under the Oakland *Planning Code* would remain the same (single-family residential). No houses would be constructed and so the associated less-than-significant aesthetic changes on the visual character and quality of the site and its surroundings under the proposed project would not occur. As with the proposed project, the site is not a formally protected public scenic vista and the No Project alternative would not affect that type of visual resource.

The No Project Alternative would leave unprotected the habitat of three special status plant species (Presidio clarkia, Most beautiful jewelflower, and Tiburon buckwheat) as there would be no .85 acre conservation easement for their protection as proposed with the project. Further, over time invasive plant species such as Eucalyptus, Scotch Broom, Pampas Grass, and common weeds would have the potential to overtake the site's sensitive plant species. As well, the annual brush and pampas grass removal for fire safety along a 10 foot wide strip of public property bordering the site would have negative effects on the 400 individuals of Presidio clarkia now existing on Lot 1 (not developed in the project), as found in the 2004 site survey. Active management of the land is necessary to maintain and enhance habitat values. (Recovery Plan for Serpentine Soil Species, pages vi, vii, II-59-II-62 App.D. 3). . Without the development this site would remain as is, with no mediation of the multiple conditions contributing to the decline of these rare and endangered species.

The mitigation measures established and enforced through the terms of the conservation easement will "have long term beneficial effects on the three special status plant species on-site through permanent conservation and management of the remaining portion of those populations and existing suitable habitat." And, "the combined conservation and management actions will promote the recovery of these three special status plant species." (Technical Report, Appendix D. p. 14)

The No Project Alternative would avoid the proposed project's geology and soils impacts. Since buildings would not be constructed or occupied, the existing soils issues (ground shaking, lurching, and lateral spreading) that would be reduced to less-than-significant under the City of Oakland's seismically-related building code as part of the building permit process for the proposed project would be avoided under the No Project Alternative.

The absence, under the No Project Alternative, of construction and operation of the proposed project's four houses would avoid the proposed project's hydrology and water quality effects, reduced to less-than-significant through the proposed conditions and compliance with existing regulations and laws. In summary those impacts are as follows: (1) containment of construction-generated water to avoid groundwater and storm water runoff water quality effects; (2) erosion effects, and (3) storm water drainage impacts.

The No project Alternative would avoid all potentially significant construction-related noise that would be reduced to less-than-significant under the proposed project through conditions and compliance with existing regulations and laws. This alternative would also avoid the small increase in ambient noise conditions from use of the four new houses under the proposed project, including associated vehicle trips.

The No Project Alternative would not meet any of the project sponsor's objectives for the project.

C. ALTERNATIVE 3: Reduced Density 3 Lot Alternative

Each of the proposed lots and homes accounts for approximately 25% of the less than significant impact of the project. For example, under the Reduced Density 3 Lot Subdivision Alternative, three lots of the project would be developed along Crestmont, reducing development intensity by twenty five percent (from the currently proposed fully mitigated plan for 4 lots). This Alternative would include Lots 1, 2, and 3 of the proposed project (see Figure 3)-because these lots have the least habitat or plant population of special status species. The three houses would be the same general height and massing as proposed under the project – 35-foot maximum at finished grade. Thus, this alternative would have similar project components as the proposed project, except that it would construct three houses instead of four.

With the three houses to be constructed under the Reduced Density Alternative, this alternative would have fewer aesthetic changes in the visual character and quality of the site and the its surroundings as the proposed project, as there would be one less house built on the property. As with the proposed project, the site is not within a formally protected public scenic vista and so this alternative would not affect a scenic vista.

The Reduced Density Alternative would only minimally reduce impacts on biological resources than the proposed project. This alternative would avoid a few special status plant species found on Lot 4 of the project during the June 2004 site inspection (about 27 total Presidio clarkia and 1 Most beautiful jewel flower-See Figure 3, p.12). The size of the conservation easement associated with the 4 lot plan, .85 acres or over 37,000 square feet, would under this alternative increase by the size of the building site for one home-an .08% of an acre area (3500 square feet). Direct impact on some Tiburon Buckwheat might also be avoided. Development of other aspects of the site would remain the same between this alternative and the proposed project.

This alternative would lower by 25% the less-than-significant geology and soils impacts of the proposed project due to its construction and use of the three new residences, and would include the same extent of geologic hazard

abatement and wild land fire protection. Construction and operation of the three houses under the Reduced Density Alternative would have less hydrology and water quality effects as the proposed project. .

This alternative would have less extensive potentially significant construction-related noise effects as the proposed project. As under the proposed project, these effects would be reduced to less-than-significant under this alternative through conditions of approval and compliance with existing regulations and laws. This alternative would have a somewhat lower, less-than-significant, increase in ambient noise conditions associated with the use of the four houses under the proposed project, including associated vehicle trip

D. ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The No Project Alternative would avoid all of the less than significant environmental effects of the proposed project. However, in the absence of the project, the site's existing conditions (threats to special status plant species) would continue instead of being ameliorated as they would under the proposed project. Thus, this alternative avoids both the adverse changes of the proposed project (that would be reduced to less-than-significant levels in the proposed project), as well as the beneficial effects. This alternative would not meet the project sponsor's objectives or the City's goals of increasing housing.

The Reduced Density Alternative would lower by 25% the less than significant impacts in areas such as visual quality, geology, hydrology, population, trip generation and noise, that are proportionally related to the number of units built. Habitat loss under the 4 lot plan of about .35 acres would be reduced by about .07 acres and there would be a small reduction of impact on the few special status species on lot 4. As with the proposed project, this alternative's potentially significant impacts would be reduced to less-than- significant through compliance with existing laws and regulations, and through the use of best management construction practices that would be incorporated into the project proposal.

Since CEQA requires designation of an alternative other than the "no-project" if the no-project alternative is the environmentally superior alternative, the Reduced Density Alternative becomes the environmentally superior alternative.

VIII. OTHER CEQA CONSIDERATIONS

A. GROWTH INDUCEMENT

CEQA requires a discussion of a project's growth-inducing impacts – that is, the ways in which the proposed action could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. In other words, a project would be considered growth inducing if its construction and use would encourage population increases and/or new development that might not occur if the project were not approved and implemented. The proposed project entails the preparation of four residential sites for construction of four single-family residences. The additional residential space would increase the daily population on the project site by approximately 11 residents from the currently vacant site. The proposed project would use the site in the manner envisioned under current

zoning – single-family residential development. Thus, the proposed use would not change the potential for growth under present zoning and planning controls in the surrounding area. The proposed project would not directly build or influence the construction of additional housing in the surrounding environment- as the project site is situated in the middle of a large-over 300 home tract, and therefore constitutes an “In-fill” development which is encouraged under the General Plan Policy N.3.2.

The new population to the area who would live in the new residences would directly foster economic growth in proportion to their increase in the area’s residential population. This economic stimulation would occur through the residents’ new direct purchases of economic goods and services. Economic growth would be fostered indirectly through the economic multiplier effect of additional purchases of goods and services used by the many businesses that produce the intermediate materials and services required in the final products and services (the production supply chain). This increase would be minimal in light of the 4 additional residences and up to 11 or so new residents in an area occupied by, and served by, the population and economy of Oakland and the wider Bay Area.

B. CUMULATIVE IMPACTS

Cumulative development in the area from reasonably foreseeable future projects is expected to be limited due to the low capacity of the area for further development and the City’s planning controls that limit future development. Such controls include General Plan policies that generally specify the location, type, size and density of future growth to enhance and not degrade Oakland’s neighborhoods and districts and to protect its natural environment. The *Planning Code*, through zoning regulations, makes these guiding policies of the General Plan more specific. In particular, open space is generally conserved or protected from development. There are restrictions on development in wild land areas subject to fire hazards. The project is an infill development project and would not, therefore, involve access to other parcels for potential development. Adjacent lots are already developed where possible, and additional development is not possible due to lot size limitations, lack of access, and easement restrictions from further development. Development within the City of Oakland and its surrounding adjacent lands has resulted in the cumulative loss of foraging, cover and reproduction habitat for a number of commonly occurring, casually occurring, rare or special-status species. The loss of annual grasslands that are not currently occupied by special-status species, however, is a less-than-significant environmental impact because this vegetation type is not a sensitive natural community.

In the region, cumulative loss of annual-grassland habitat will continue in the near future because of future development in the Oakland Hills Area. Past land disturbance, including fire, the introduction of the invasive

blue gum (Eucalyptus) and the surrounding residential development reduces the habitat values of the grasslands on the Project site. Moreover the placement of the conservation easement over .85 acre of the site, including all of the grassland –which exists on the upper slope of the property, will reduce any impact on grass-land habitat to less than significant. Without the development this site would remain as is, with no mediation of the multiple conditions contributing to the decline of the two endangered species, and the one species of local concern.

Any loss would contribute to the loss of such habitat throughout the Oakland Hills and the City of Oakland. Although the loss of annual grassland is a less-than-significant Project impact, it does represent a cumulatively small contribution to the ongoing regional loss of habitat in the region for a wide range of species that depend on remaining open spaces. However, because no special-status wildlife species occur on the site, the small contribution to the cumulative loss of grassland habitat is cumulatively less-than-significant. The special status plant species on the site would be protected by a conservation easement.

There are over 1150 square miles of serpentine soil which is habitat for 10 % of the flora within the state California. (Recovery Plan App. D.3, 1-1). There are an estimated 12-16 acres of serpentine prairie in Redwood Regional Park ½ mile to the East of the project which supports a population of 3,500 Presidio Clarkia alone. Technical Memorandum from Martha Lowe dated May 3, 2004. (App. E. to WRA Technical Report)

Thus, the limited cumulative development expected in the vicinity of the proposed project would not be expected to result in the basis for significant cumulative impacts. Further, the proposed project’s four new residences would avoid or reduce potentially significant impacts to less-than-significant levels.

C. SIGNIFICANT EFFECTS THAT CANNOT BE AVOIDED

As developed in Appendix A, Initial Study and Conditions of Approval, and in Chapters IV, V, and VI of the Draft Focused EIR, all of the potentially significant impacts of the proposed projects could be avoided or reduced to less-than-significant levels through the conditions incorporated into the project, that include “best practices,” compliance with existing laws and regulations, and creation of the conservation easement. If the required critical speed survey shows speeds in excess of those designed to be accommodated by the project design, mitigation measures to reduce those to a less than significant level will be incorporated. Accordingly, one key finding of the environmental review process is that the proposed project would not have unavoidable significant environmental effects.

D. SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA Guidelines Section 15126.2 requires a discussion of the irreversible environmental changes that a project could have and defines such change as either irretrievable commitment of resources and/or irreversible damage resulting from environmental accidents. Operation of the proposed project would include maintenance of the residential structures and improvements, and vehicle trips. These activities would use non-renewable resources such as fossil fuels and the wood, metal, and other materials required in the various improvements. The change in visual setting would be unlikely to revert to its current state even though it may not be considered fully irreversible. The construction and operation of the proposed project would not involve the transport, use, or disposal of hazardous materials that could result in a substantial accidental release if not properly managed. The types of hazardous materials to be used would be routine household and landscaping substances that would be similar to products used in residential neighborhoods across the City.

REFERENCES

The following information sources were used to develop the Initial Study and this Focused EIR

Biology

Sources:

WRA Inc., Technical Report, August, 2005, and Supplemental Letter Report dated January 9, 2006. DEIR App. D.

California Department of Fish and Game (CDFG). 2004. California Natural Diversity Database search of records for *Clarkia franciscana* and other rare plants on the Oakland East quad and surrounding quads, May 2004.

California Native Plant Society (CNPS). 2004. Electronic Inventory of Rare and Endangered Plants of California. Search of rare plants on the Oakland East quad and surrounding quads, May 2004.

U.S. Fish and Wildlife Service (USFWS). 2004. List of Federal Endangered and Threatened Species that may be affected by projects in Alameda County. Database updated June 1, 2004. Sacramento District.

Recovery Plan for Serpentine Soil Species of the San Francisco Bay Area, USDFG 1998. DEIR APP. D.3

Geology

Sources:

Geotechnical Investigation, Henry Justiniano, September 27, 2000

Oakland General Plan: Land Use & Transportation Element, Community Services Analysis, Technical Report 5, October 1995 Letter

Findings and Conditions of Approval of TTM 7485, Staff Report dated February 18, 2004. APP E.10

Alquist-Priolo Geologic Hazards Zone Act Special Studies Zone Map U.S. Soil Conservation Service, Environmental Hazards Element, and Environmental Factors Analysis

Oakland General Plan: OSCAR Element

Oakland Environmental Factors Analysis Report, October 1995

Oakland General Plan, Safety Element, 2004.

City of Oakland, CEDA Planning and Building Subdivision Plans, Drainage and Runoff Calculations
Oakland General Plan: Open Space, Conservation, and Recreation Element, Earth Resources. Technical
Report 4, July, 1992

Geotechnical Engineering Report - A geotechnical investigation of the remainder of APN 37A3148-35.
Henry Justiniano and Associates, September 2000.

Letter Report, re: "Criteria for Project Approval", Henry Justiniano, July 14, 2003.

Staff Report on 5 lot proposal under TTM 7485, February 18, 2004

Lab Report on Chrysotile content of rock samples from site. Micro Analytical Labs, 11/23/04

Water Analysis, EBMUD, August 26, 2003.

Reports on drainage from lower slope, Pipe Pros, 6-3-05, and 6-8-05

City of Oakland, CEDA Planning and Building

Monument Map 193 with Land Stability incidents recorded and underlying document of Mines and
Geology), Henry Justiniano, July 14, 2003.

August 26, 2004 Field Survey (No report per se)

Project Description and Plans

Dr. Robert Pyke's Reports dated June 16, 2005, and July 12, 2005.

Traffic

Sources:

TPM 7940, Initial Study, Transportation/Traffic, Kimley-Horn Associates, June 20, 2005.

TPM 7940, Transportation/Traffic, Kimley-Horn Associates, March 20, 2006

Computerized Traffic Accident Records, January 1, 1999-December 31, 2004, City of Oakland
Transportation Engineering Dept.

APPENDICES

APPENDIX A – NOP, INITIAL STUDY AND CONDITIONS OF APPROVAL

APPENDIX B –COMMENT LETTERS AND REPLIES

**APPENDIX C – CEQA GUIDELINES SECTION 15183 – PROJECTS CONSISTENT WITH A
COMMUNITY PLAN OR ZONING**

APPENDIX D –BIOLOGICAL REPORTS

APPENDIX E – SUPPLEMENTAL GEOTECHNICAL REPORTS

APPENDIX F – TRAFFIC SAFETY REPORT

APPENDIX A – NOP, INITIAL STUDY AND CONDITIONS OF APPROVAL

APPENDIX B –COMMENT LETTERS and SPECIFIC REPLIES

Comment Letters:

- 1. EBMUD letter dated November 30, 2005;**
- 2. Letter from Crestmont Neighbors, dated December 5, 2005;**
- 3. Letter from Frank Lovsin and John Shively, dated December 6, 2005;**
- 4. Letter from California Native Plant Society dated December 6, 2005;**
- 5. E mail from Ron Bishop dated December 6, 2005;**
- 6. Letter from Frank Lovsin, dated December 16, 2005/with cover letter.**
- 7. Email from Lewis Goldsmith dated December 17, 2005**
- 8. Letter from Elizabeth Bashnick, dated December 18, 2005;**
- 9. Letter from Fish and Game dated November 21, 2005;**
- 10. E-mail from Ralph Kanz, dated January 20, 2006?**

Specific Replies (in order of comments listed above):

1. EBMUD Sub-basin waste water capacity: There is available subbasin capacity for maximum allowable peak waster water flow and waste water flows from this project as stated in email from Gus Amirzehni, PE, Engineering Division of the Public Works Agency of the City of Oakland, to the case planner, Eric Angstadt, dated March 22, 2006.

2. Crestmont Neighbors:

II A. Geology and Soils. The issues raised concerning slope stability have been addressed in the original Geotechnical Report, and in the Supplemental Plan Reviews, and Slope Stability Analyses set forth

at Appendix E 1-10. See approval of Peer reviewer's comments from Dominic Ma, Supervising Civil Engineer, Building Services, CEDA, City of Oakland, dated August 11, 2005. (Attached at F.12)

B. Traffic. The traffic safety issues, including the slightly off perpendicular angle that 3 of the 4 driveways intersect with Crestmont Drive, have been addressed by the Traffic Engineering firm of Kimley - Horn in letter report dated June 20, 2005. With regard to issues raised over elevations and slope of the preliminary driveway cross section shown on the TPM 7940, any adjustments required to the garage floor elevation to allow the construction of a driveway meeting the City's Standards will take place at the building permit stage, as per standard policy and practice. For example, while the illustrative elevation for the garage floor on the "Typical Cross Section" is shown at 752- this could be lowered, if required, to reduce the grade of the driveway from the street to comply with City Standards. Adjustments to the level of the garage floors will not affect any of the set back or height limitations on the home. With respect to the slope of the driveway from side to side, as shown on Mr. Lovsin's drawing, it is assumed that the driveway will be installed at the existing grade of the slope. In fact the upper side will be lowered by the simple expedient of a retaining wall 1-2 feet high-as dictated by actual conditions thereby evening out the grade differential from side to side. In sum, all grade and angle of slope issues will be resolved prior to issuance of grading and building permits.

C. Biological Resources. All potentially significant environmental impacts to Biological Resources will be reduced to less than significant pursuant to the reduced density 4 lot development plan and the terms and conditions of the conservation easement, as fully discussed in the Biological section of the DEIR, the Technical Report, and the Supplemental letter report from WRA dated January 9, 2006. (App. D. 1 & 3)

III. Other CEQA Areas of Concern

A. Hazardous Material -Airborne Asbestos fibers. With respect to comments made concerning the potential for air borne release of naturally occurring asbestos, in the form of Chrysotile in the Serpentine rock, and the assessment of related public health impacts, the Air Quality section of the Initial Study identifies fugitive dust control measures as well as specific measures to control the release of naturally-occurring asbestos fibers from serpentine bedrock. The latter measures are recommended by the California Air Resources Board (ARB) and are further detailed in ARB's "Fact Sheet #3, Ways to Control Naturally-Occurring Asbestos Dust" for construction projects, and in Resolution 01-28 adopting an "Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, or Surficial Mining Operation, which can be

found on ARB's website (.www.arb.ca.gov).It should be noted that ARB and air quality professionals support the use of these standard conditions of approval/mitigation measures. Also, ARB staff do not support quantitative measurements of naturally-occurring asbestos fibers released into the air because of because of the difficulty of conducting accurate measurements. No further analysis or conditions/mitigation measures are warranted.

B. Air Quality. See Response to A, above.

C. Hydrology. The source and identification of the water evident at the bottom of the slope in the vicinity of Lots 1 and 2 are contained in the reports from Pipe Pros dated June 3, and June 8, 2005 (App. E.6) and in the letter report from Justiniano and Associates dated December 19, 2005. (App. E.9). These reports show that the water is not from an "aquifer" but is a common occurrence in slopes with fractured bedrock, and that the construction of the proposed homes with their foundation and drainage systems will provide a beneficial improvement of the natural drainage.

IV. Crestmont Homeowners Association CC&R Violations. The HOA claims that it has jurisdiction via its CC& Rs over the design of the homes to be built on the lots. While the project sponsor disputes this jurisdiction, the City of Oakland does not oversee the compliance with private CC& Rs, but only insures enforcement of its Planning and Zoning and Design Rules and Regulations.

V. Other Issues. The HOA also claims that the project violates the "applicable City Building Code" with respect to its setbacks and driveway design as purportedly shown in the letter of Frank Lovsin. All issues with respect to the final driveway design will be controlled through design review-which may not take place until after the TPM is approved. (See also letter from Kimley-Horn and Associates dated June 20, p. 2. App. F.) Applicant is not applying for design review until after approval of TPM so that design issues are not and will not become part of the scope of the EIR (Eric Angstadt, Oakland Planning dept.).

3. Letter from Frank Lovsin and John Shively, dated December 6, 2005:

Regarding the scope of the DEIR, the City has determined through the Initial Study that the only potentially significant impacts of the proposed 4 home project are to biological resources, geology, and traffic (driveway design only), and that all other impacts are less than significant or would be reduced to a less-than-significant level with the imposition of standard conditions of approval or mitigation measures. (NOP p.2, App. A)

4. California Native Plant Society letter of Dec 6, 2005:

The concerns expressed in this letter have been addressed in both the text of the DEIR, in the Biology Section, the Technical Report (App. D. 1), and in the supplemental letter from WRA, Inc, dated January 9, 2006(App. D. 2),

5. Email from Ron Bishop dated December 6, 2005:

Mr. Bishop seems to be suggesting that this private land become a network of public pedestrian trails similar to those “like Rockridge”. The land is not suitable for stairs or pedestrian trails due to its topography, small area, and location surrounded by private homes. Such use would also be incompatible with the goals of the conservation easement which are to protect and enhance the habitat of certain rare flowers. As explained in the Staff Report on the previous 5 lot plan, TTM 7485, “ the remainder parcel (of which this project site is a part) was originally designated as a city park, however the City of Oakland never accepted the dedication of this land, and therefore its ownership reverted back to the original sub-divider who subsequently sold the land to a private developer.” (App E.11, p.3)

6. Letter from Frank Lovsin re Driveway Design dated December 16, 05.

This is an amendment to Mr. Lovsin’s driveway analysis attached to the Crestmont Neighbors letter of December 6, 2005, discussed at 2.B, above.

7. Email from the Goldsmiths dated December 17, 2005.

This email expresses that the Goldsmiths are in agreement with the issues raised in the Crestmont Neighbors’ letter of December 6, 2005, and is therefore not here separately responded to.

8. Letter from Elizabeth Bashnick dated December 18, 2005:

All of the stated concerns regarding “Geology/Soils, Hydrology, and Endangered Species, and Traffic Problems” have been addressed in the Focused DEIR Sections IV and V and VI, and in the materials in Appendices B, D, E and F. With respect to Mrs. Bashnick’s statement in the Section on “Traffic Problems” sub paragraph C “Past Proof”, that “There have been 4 recorded pedestrian deaths that have occurred in front of my home over the recent past due to lack of visibility for the driver and speed of vehicle as it pertains to this exact area of proposed development” (Item # 3 C. of letter), there are no records at the City of Oakland, either the

Police Department or the Transportation Services Division, of such accidents. In fact Transportation Service Division, which maintains records of all accidents indexed by street location, shows in its Collision Summary Report for the location of Crestmont Drive & Westfield Way, that in the 5 year period from 1/1/99 -12/31/04 that the only accident in the vicinity was a rear ending of a parked car by a car traveling up Crestmont about 900 feet above the Crestmont Drive/Westfield Way intersection. No death, no injury reported. (App. F.2). The Transportation Departments records are purged every five years. The Police Department does not generally make its permanent records of accidents involving fatalities available to the public, but a search of said records was allowed back to 1996- and no accidents involving fatalities are reported.[YOUR COMMENT HERE WAS THAT THE “CITY STAFF NEEDS TO CHECK WITH THE PWA AND POLICE TO VERIFY THIS” Therefore we have done nothing further on this point]

With Respect to the claim “ that the development will “reduce my views by 50% “ please see pictures in Figures 5 and 6 of DEIR at pp. 13 and 14. They show that the front elevation of the Bashnick house at 538 Crestmont Drive, faces West towards the street and the Bay. No reduction of these views will occur. The pictures also show the north side of the house facing across the project site, are the side elevations. The oblique view of the Bay from the side front window will be impacted very little if at all due to new setback requirements of new homes (20 feet from property line-which itself is 10 feet from back of curb-for a total of 30 feet from curb Municipal Planning Code section 17.16.120). This is 10 feet greater set back than Mrs. Bashnick’s home which is 20 feet from the curb. The remainder of the view of the next door slope, the project site, is already obstructed by a 6 foot fence, and in any event is not a protectable view corridor.

9. Letter from California Department of Fish and Game, dated November 21, 2005

A complete assessment of the flora and fauna within and adjacent to the project area, as requested, has been completed. See discussion of “Potential Habitat for Other Special Status Species, at page 29, of the DEIR , and survey results at App.D of the Technical Report, DEIR App. D . This project will result in a more than 2-1 ratio of or permanently impacted serpentine habitat (approximately 0.3 acre), and a ratio of more than 2-1 for total land conserved (0.85 acre) to total land developed (0.4 acre) All filing fee requirements will be complied with at the appropriate time.

10. Email from Ralph Kanz dated January 20, 2006

- **Scoping Meeting:** A scoping meeting is not legally required because the proposed project is not one of “statewide, regional or area wide significance pursuant to CEQA Guidelines Section 15206 (b), as the project will

not ‘substantially affect’ sensitive habitats. Indeed, the project, as mitigated will provide further habitat protection for certain species. Moreover, California Fish and Game, a public agency that has jurisdiction by law with respect to the project, was informed of the project and did not request a Scoping Session.

-Inadequate Noticing: In that the time was extended twice to afford Mr. Kanz an extra 24 days beyond the 30 day statutorily required period stated in the NOP there was adequate noticing, and no detriment incurred by reason of claimed failure to post the property with the NOP. Mr. Kanz states that he saw the NOP posted on adjacent properties by December 10, 2005, and his comments were submitted on January 10, 2006.

-Supporting Reports: All documents cited in the Initial Study are available for viewing at the Planning and Zoning Department, CEDA, City of Oakland, 250 Frank Ogawa Plaza, Oakland, CA 94612.

-Introduction & Project History: Further response or discussion of the Project History is beyond the scope of the EIR.

-Air Quality: The lab report from Micro Analytical Laboratories, Inc. dated 9.15.04 is at App E. 5 of the DEIR.

-Biological Resources: It is beyond the scope of this DEIR, if not impossible, to analyze the amount of habitat lost to past, present, and future projects on serpentine soils in Oakland. However, the supplemental letter report of WRA, dated January 9, 2006 (App. D.2) explains that there can be no more development of the open serpentine hillside on which the project site is located due to lot size and easement restrictions, and that this contiguous area provides a buffer conservation easement area. With respect to wildfire prevention activities, the Mitigation Measures that will be applied to this project, and which will be incorporated into the Conservation Easement have provisions for minimizing the impact of wildland fire clearance activities. (DEIR Section IV. Mitigation Measure 1.2 “Conservation of Special Status Plants and Habitat”- “Weed Removal and Control”, p.37 and under “Mediation Measures” at page 38. The information regarding the Presidio clarkia, Most beautiful jewel flower, is not disputed and is for the most part consistent with that included in the Technical Report, and the DEIR>

-Geology and Soils: All of the documents regarding geotechnical and soil analysis relied upon in the DEIR are available at the Planning and Zoning Department, and or are attached to the DEIR.

- Hydrology and Water Quality: All reports related to water issues are available at the Planning and Zoning Department, and or attached to the DEIR in Appendix E.

-Land Use and Planning: Any determination of compliance of this project with the OSCAR and LUTE elements of the General Plan will be determined by the Lead Agency as part of its review of this project. The Crestmont project clearly conforms to the City of Oakland General Plan and Zoning Regulations: the facility type is permitted under the General Plan and is consistent with the Hillside Residential General Plan designation; the density is less than the maximum permitted under the General Plan; the project is consistent with General Plan policies; and the project is permitted under the R-30 zoning designation.

There are three key policies of the Land Use and Transportation Element that are important in this regard. These are:

“Policy N7.1. Ensuring Compatible Development. New residential development in Detached Unit and Mixed Housing Type areas should be compatible with the density, scale, design, and existing or desired character of surrounding development.”

The Crestmont 4 unit proposed subdivision is compatible with the density of the surrounding area which is typically developed with lots averaging 8,000 square feet built in the 60s, some larger newer homes above the project, and some townhouses in the nearby surrounding area. Because the applicant will build the 4 units close to Crestmont, they will not appear to dominate the site as would be the case if they were to be built on the upper part of the hilly site.

“Policy N7.2. Defining Compatibility. Infrastructure availability, environmental constraints and natural features, emergency response and evacuation times, street width and function, prevailing lot size, predominant development type and height, scenic values, distance from public transit, and desired neighborhood character are among the factors that could be taken into account when developing and mapping zoning designations or determining “compatibility.” These factors should be balanced with the citywide need for additional housing.”

As documented in the Initial Study, the project would be located in an urban area already served by public services and utilities. Environmental constraints have been taken into account in terms of the proposed conservation easement designed to protect plant species of concern. The project is in keeping with the type of development in the area. Although not directly served by public transit, the project would be reasonably close to AC Transit service and BART. In the Aesthetics section of the Initial Study, no significant impacts were found with respect to effects on scenic vistas or degradation of the existing visual character of the site and surroundings.

“Policy N7.6 Developing Subdivided Parcels. Development on subdivided parcels should be allowed where site and building design minimize environmental impacts, building intensity and activity can be accommodated by available and planned infrastructure, and site and building designs are compatible with neighborhood character.”

As documented in the Initial Study and Draft EIR all potentially significant environmental impacts can be mitigated to less-than-significant. Existing infrastructure in terms of roadway, water, sewer, power and telecommunications is available to serve the project. Site and building designs are compatible with neighborhood character.

Relevant key policies of the Open Space, Conservation and Recreation Element (OSCAR) are:

“Policy OS-1.3: Development of Hillside Sites. On large sites with subdivision potential, generally conserve ridges, knolls and other visually prominent features as open space. Maintain development regulations which consider environmental and open space factors such as land stability, plant and animal resources, earthquake and fire hazards, and visual impacts, in the determination of allowable density. Where hillside development does occur, encourage creative architecture and site planning which minimizes grading and protects the natural character of the hills.”

The project site’s ridges and other prominent features are protected by the conservation easement on the upper slope and ridge of the site as well as the location of the proposed 4 units along Crestmont on the lower portion of the site. These two features of the proposed development also serve to protect plant and animal resources, and protect against earthquake and fire hazards and visual impacts. Because of the location of the proposed 4 units on the lower portion of the site as well as their split level design, grading is minimized and the natural character of the hillside preserved.

Policy CO7.1. Protection of Native Plant Communities. Protect native plant communities, especially oak woodlands, redwood forests, native perennial grasslands, and riparian woodlands, from the potential adverse impacts of development. Manage development in a way which prevents or mitigates adverse impacts to these communities.

The proposed conservation easement on .85 acres (66% of the entire site), which includes the vast majority of the plant species of concern as described in the Biology section of the EIR, protects these species with the various mitigations aimed at preventing development that would adversely impact the species. Management of the easement includes: pre-construction avoidance and minimization by

limiting development to an area along Crestmont Drive; various measures during the construction phase such as construction monitoring by a qualified biologist; re-seeding of any plants removed during construction; weed removal and control; and monitoring and funding over a 10 year period to oversee the Conservation Easement.

Action CO7.1.3. Use of Conservation Easements. Establish an Office of Planning and Building Standard Operating Procedure which encourages the use of conservation easements to protect native plant communities on private lands where development may be proposed in the future.

The use of the conservation easement on the Crestmont project responds affirmatively to Action CO7.1.3. It is a good example of the design and use of a conservation easement to protect plant species of concern.

Policy CO7.2. Native Plant Restoration. Encourage efforts to restore native plant communities in areas where they have been compromised by development or invasive species, provided that such efforts do not increase an area's susceptibility to wildfire.

Principal components of the Conservation easement are the "Weed removal and Control Plan" which will target the removal of and prevent re-introduction of weeds and non native species that encroach on the habitat of the protected species, and the "Re-seeding" of the conservation area with seed harvested from the plants on lot one that will be impacted by the construction. Seeds will be stored according to specific protocols and the area seeded during the fall planting season. The numbers of individual plants is expected to exceed pre-project levels as a result of reseeded efforts and habitat management.

Policy CO9.1. Habitat Protection. Protect rare, endangered, and threatened species by conserving and enhancing their habitat and requiring mitigation of potential adverse impacts when development occurs within habitat areas.

Habitat protection of the plant species of concern is assured by the use of the .85 acre Conservation Easement and the various pre-construction, construction and post-construction mitigations described in the Biology section of the EIR.

-Mandatory Findings of Significance The DEIR concludes that there will be less than significant impacts associated with this project, both at the project level and cumulative level.

-Mitigation Measures. The mitigation measures described and to be adopted, if the project is approved, will be enforced as a condition of approval and according to the terms of the conservation plan.

-Cumulative Impacts: The proposed 4 lot project will impact about .3 acres of suitable serpentine habitat, while at the same time creating a conservation easement over an area more than twice that size, in which all recommended measures for enhancing the habitat for these special status species will be undertaken. These include, periodic removal of non native species, fire control management at the appropriate times of the year so as not to interfere with the gestation and maturation of the special status plants, reseeding, restricting access, monitoring and enforcing the conservation easement provisions. There are over 1150 square miles of serpentine soil which is habitat for 10 % of the flora within the state California. (Recovery Plan App. D.3, 1-1). There are an estimated 12-16 acres of serpentine prairie in Redwood Regional Park ½ mile to the East of the project which supports a population of 3,500 Presidio Clarkia alone. Technical Memorandum from Martha Lowe dated May 3, 2004. Because this project will create additional, protected and maintained habitat, and result in no project specific impacts, there are no cumulative impacts.

APPENDIX C- CEQA GUIDELINES

APPENDIX D –BIOLOGICAL REPORTS

- 1. Technical Report on Biological assets of the Crestmont Project Site, TPM 7940, and Mitigation and Conservation Plan. WRA, Inc. August 2005;**
- 2. WRA, Inc., letter, dated January 9, 2006 in response to letter from CNPS dated 12/6/05**
- 3. Recovery Plan for Serpentine Soil Species of the San Francisco Bay Area, excerpts.**

APPENDIX E – SUPPLEMENTAL GEOTECHNICAL REPORTS

- 1. Geotechnical Investigation, September 2000, Henry Justiniano & Associates.
(Available at the City of Oakland Community and Economic Development Agency,
Planning Division, 250 Frank Ogawa Plaza, Suite 2114, Oakland, CA 94612 Monday through Friday,
8:30 a.m. to 4:00 p.m.)**
- 2. Plan Review by Geotechnical Engineers: Letter from Henry Justiniano & Associates, April 10, 2003.**
- 3. Letter Report, re “Criteria for Project Approval”, Henry Justiniano, July 14, 2003.**
- 4. Water Analysis, EBMUD, August 26, 2003.**
- 5. Lab Report on Chrysotile content of rock samples from site. Micro Analytical Labs, 11/23/04.**
- 6. Reports on drainage from lower slope, Pipe Pros, 6-3-05, and 6-8-05.**
- 7. Plan Review by Geotechnical Engineers: Letter from Henry Justiniano & Associates, February 8, 2005.**
- 8. Peer review report on “Static and Seismic Slope Stability” by Robert Pyke, Ph.D., G.E., dated June 16, 2005 to Dominic Ma and Transmittal Letter of and Report June 17, 2005;

Supplemental Report re TPM 7940 Slope Stability, by Robert Pyke, Ph.D., G.E., dated July 14, 2005.**
- 9. Report re “Subsurface Water” on project site of TPM 7940 from Henry Justiniano & Associates, dated December 19, 2005.**
- 10. Staff Report to Planning Commission on 5 lot version of the project under TTM 7485, February 18, 2004.**
- 11. Records of City re incidents of slope instability within Monument Map 193 area (Crestmont).**
- 12. Peer Review Approval: Email from Dominic Ma, Supervising Civil Engineer, Building Services, DEDA, to Andrew Smith approving peer reviewer, Dr. Pyke’s comments on slope stability of project site, dated August 12, 2005.**

APPENDIX F – TRANSPORTATION/TRAFFIC REPORT

- 1. Transportation Traffic Report from Kimley-Horn re TPM 7940, dated June 20, 2005.**
- 2. Traffic Report from Kimley- Horn dated March 20, 2006.**
- 3. Collision Report Summary for Crestmont Drive & Westfield Way, 1/1/99-12/31/05**

