Habitat Redwood Boulevard Project

Draft Initial Study – Mitigated Negative Declaration

prepared by

City of Novato
Community Development Department
922 Machin Avenue
Novato, California 94945
Contact: Brett Walker, Senior Planner

prepared with the assistance of

Rincon Consultants, Inc.
4825 J Street, Suite 200
Sacramento, California 95819

September 2021

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
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Initial Study

1. Project Title

Habitat Redwood Boulevard Project

2. Lead Agency Name and Address

City of Novato
Community Development Department
922 Machin Avenue
Novato, California 94945

3. Contact Person and Phone Number

Brett Walker, AICP
Senior Planner
(415) 493-4711
bwalker@novato.org

4. Project Location

Novato is located in the greater North Bay region of the San Francisco Bay Area and is the northernmost city in Marin County. The city is located northwest of San Pablo Bay approximately 29 miles north of San Francisco, 37 miles northwest of Oakland, and approximately 35 miles north of the San Francisco International Airport.

The project site is located in the northern portion of the City of Novato. The approximately 13.6-acre site is at 8161 Redwood Boulevard (Assessor's Parcel Number 125-180-49), west of and adjacent to the Novato Days Inn and Redwood Boulevard approximately 100 feet west of Highway 101. Figure 1 shows the regional location of the project area, and Figure 2 shows the project location and surrounding uses.

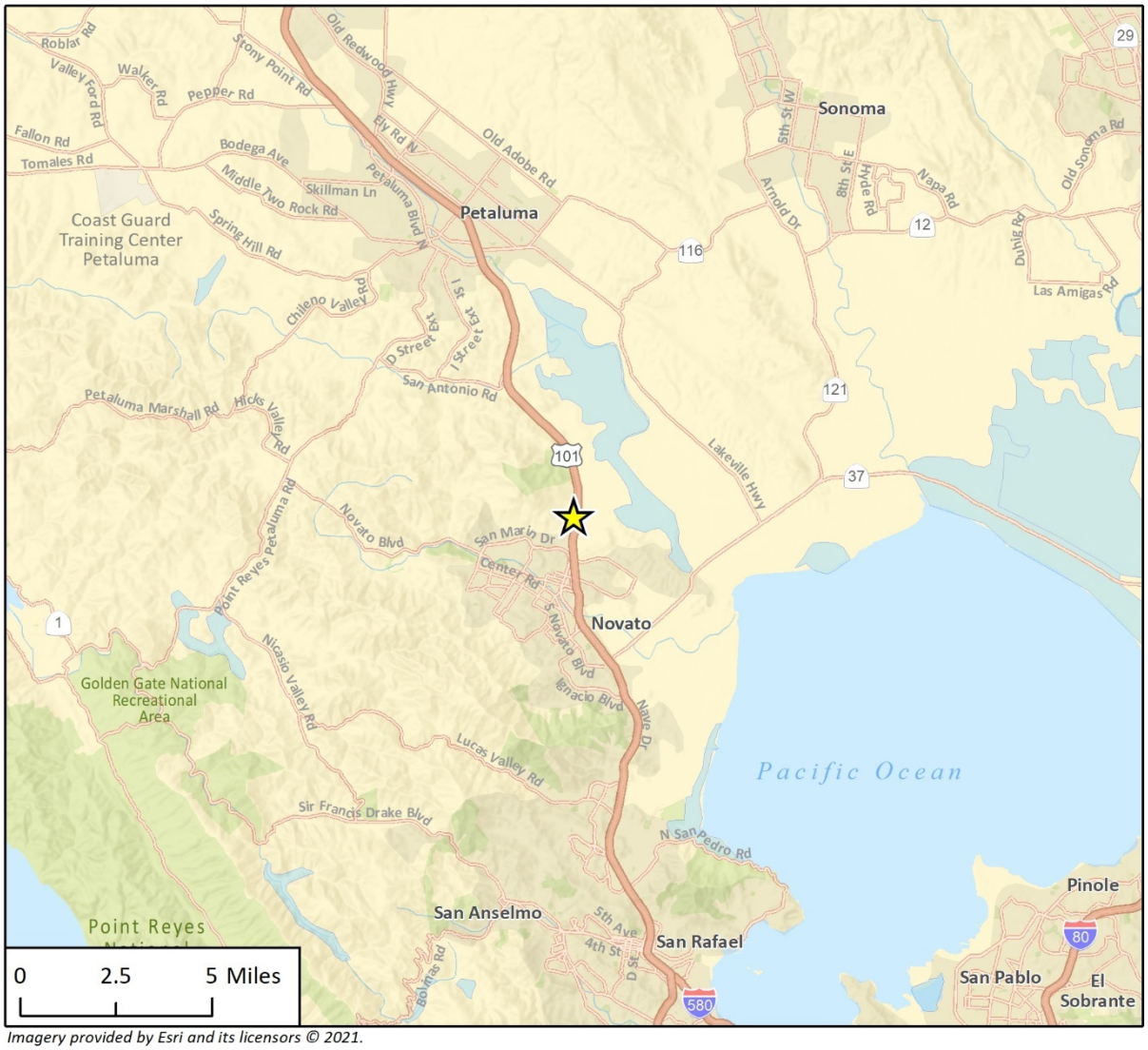
5. Project Sponsor's Name and Address

Maureen Sedonaen
Habitat for Humanity Greater San Francisco, Inc.
500 Washington Street, Suite 250
San Francisco, California 94111

6. General Plan Designation

The project site is designated as Business and Professional Office (BPO) in the City's 2035 General Plan.

Figure 1 Regional Location



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Project Location

N

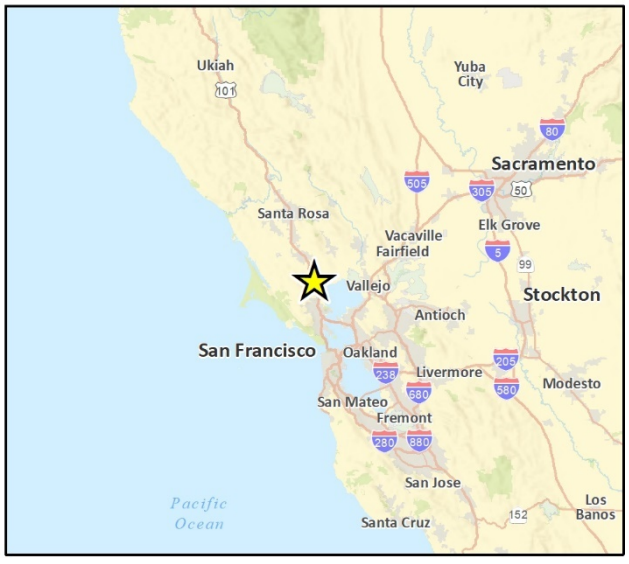

Figure 2 Project Site

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7. Zoning

The project site is zoned Planned District in the City's Zoning Code.

8. Description of Project

The project would involve construction of 80 affordable housing units in 23 residential buildings on an approximately 13.6-acre vacant site at 8161 Redwood Boulevard, Assessor's Parcel Number 125-180-49. The buildings would be made up of five different building types, ranging in size from one to six units and set around common greens and courtyards, as shown in Figure 3. Table 1 and Table 2 include the proposed unit count and type of unit for each building. The site would be designed in an oval pattern around a central open space and crossed by pathways and gathering areas. On-site amenities would include play areas, a small amphitheater for events, dog park, trails, seating areas, benches, tables, community garden, and a community meeting area. The project would be designed to integrate with the existing landscape to the extent possible by using building materials in a natural color pallet. The proposed site plan is shown in Figure 4.

Table 1 Proposed Building and Unit Summary

Building Type	Units per Building	Building Count	Total Units
Building 1	4	6	24
Building 2	6	3	18
Building 3	4	4	16
Building 4	4	4	16
Building 5	1	6	6
Total		**23**	**80**

Table 2 Proposed Unit Size Summary

Unit Type	Total Units	Total Bedrooms	Average Square Feet
2 Bedroom	18	36	870
3 Bedroom	37	111	1,300
4 Bedroom	25	100	1,430
Total	**80**	**247**	**1,266 (average square feet)**

The project would also include a commercial building on a separate legal parcel to be retained by Habitat for Humanity Greater San Francisco, Inc. (HGSF) on a 0.5±-acre portion of the 13.6-acre site. The approximately 2,154-square foot commercial building would be single-story and contain an approximately 700-square foot conference room, two office spaces of approximately 380 and 280 square feet respectively, and a lobby. The office building would be located on the northern portion of the site, north of and adjacent to the existing Novato Days Inn.

The project site has a land use designation of Business and Professional Office (BPO) and the project therefore requires a General Plan Amendment to Medium Density Multi-Family Residential (R10) for the 13-acre portion of the site proposed for residential use. The proposed 0.5-acre commercial lot would retain the existing BPO land use designation. The project also includes a Master Plan, Precise Development Plan, Vesting Tentative Map (Condominium), and Design Review for the development.

Figure 3 Proposed Project Building Configuration

Source: Dorman Associates, 2021.

Figure 4 Proposed Project Site Plans

Source: Dorman Associates, 2021.

Access and Circulation

The site would be accessible from Redwood Boulevard north of the Novato Days Inn. A one-way loop road would circulate the site providing access to the residential buildings and on-site amenities. The roadway would be designed to meet the City's requirements for emergency access and waste hauling. A second private drive aisle would bisect the middle of the site allowing vehicles to avoid driving the entire loop and improving emergency ingress and egress on the site. A total of 185 parking spaces would be spread around the site along the loop road in a mix of parallel, angled, and pull-in 90-degree spaces. One-hundred sixty-two (162) parking spaces are for the residential portion and 23 parking spaces are for the commercial portion of the project. The project would include a total of 45 bicycle parking spaces throughout the site. Of the total 45 bicycling parking spaces, 40 bicycle parking spaces would be for the proposed residential development and the remaining five spaces would be for the office building. Redwood Blvd. frontage improvements would include curb, gutter, and sidewalk a distance of 500± feet on the north side of the Novato Days Inn, 100± feet on the south side of the Novato Days Inn, and off-site a distance of approximately 0.25 mile between Buck Center Drive and Pinkston Road. The off-site sidewalk improvements would connect to an existing sidewalk located on the south side of Pinkston Road.

Stormwater Management

The project would include a stormwater system designed to maintain historical flows on the project site. Stormwater would be captured by a system of swales, pipes, and inlets on the site directed to bioretention areas. The bioretention areas would serve to detain, filter, and clean collected stormwater and meter flows back onto the western portion of the site through percolation and subsurface drainage facilities. There would be a total of four bioretention areas. Release of excessive water flows would be handled by piped systems that connect stormwater outlets that cross beneath Redwood Boulevard.

Landscape Design

The project site would be landscaped with drought tolerant and low water use species designed to be compatible with the existing landscape and surrounding habitats. No trees would be removed and instead the project would include the planting of approximately 107 trees along the internal pathways near the residential buildings and in the outdoor common space areas. As discussed in more detail in Section 4, *Biological Resources*, the project would include purple needlegrass plantings and streambed plantings to address impacts to sensitive species and water features.

Utilities

The project would be all electric and would not extend natural gas infrastructure to the site. The project site is served by an eight-inch sewer line along Redwood Boulevard, which terminates at a pump station near the southern edge of the project site. A private sewer system would be designed and built to serve the site. Potable water would be available for the project from an existing 12-inch water main in Redwood Boulevard north of the project site. The water main would be extended about 700 feet south to serve the project site. An existing recycled water distribution pipeline is located along Redwood Boulevard south of the project site, which is currently being extended to a site (7711 Redwood Boulevard) approximately a half mile to the south. The North Marin Water District (NMWD) would require an extension to the project site, approximately 0.25 mile; on-site irrigation would use recycled water.

Sustainability Features

The project would include several green building features with the major feature being an all-electric energy structure with no natural gas connection. Other specific features include installing a rooftop solar photovoltaics (PV) system (size of system to be determined) that would offset approximately 75 percent of the energy onsite consumption, installing low-flow plumbing fixtures, and providing light emitting diode (LED) lighting. Also, a total of six parking spaces would be reserved for and equipped with electric vehicle (EV) chargers. Furthermore, the development would be GreenPoint rated and would be certified at the Gold level standard or above.

Construction

Construction is anticipated to commence in March 2022. The project would be constructed in two phases with Phase 1 completion in December 2024 and Phase 2 completed in September 2026.

- Phase 1 construction would begin in March 2022. The following would be developed on 4.2 acres: 42 dwelling units (approximately 55,427 square feet), 2,154 square feet of office space, and 108 parking lot spaces. The construction stages would include site preparation, foundational work, office building construction, and residential building construction. Completion of Phase 1 is anticipated in December 2024.
- Phase 2 construction would begin in April 2023 and would overlap with Phase 1 in 2023 and 2024. This phase would include the development of 38 dwelling units (approximately 50,148 square feet) and 77 parking lot spaces on approximately 3.8 acres. Construction would involve site preparation, foundational work, and residential building construction. Construction would be completed in May 2026.

Based on these estimates, construction would occur over approximately four and a half years. The project would implement the Bay Area Air Quality Management District Basic Construction Mitigation Measures as a project design feature.

Maximum Site Buildout

The project site has a land use designation of Business and Professional Office (BPO) and requires a General Plan Amendment to Medium Density Multi-Family Residential (R10) for 13 acres of the 13.6-acre site. The R10 designation allows multi-family housing at a density of 10.1 to 20.0 dwelling units per acre. The proposed project would build out the site with a density of 10.1 dwelling units per acre. Should the proposed General Plan amendment be granted and the Habitat Redwood Boulevard Project not developed, the approximately eight developable acres of the project site would remain available for uses allowed under the R10 designation. Therefore, this Initial Study will also examine an alternative land use to the proposed project at a programmatic level. The alternative land use discussion analyzes buildout of the approximately eight buildable acres of project site at a density of 20.0 units per acre or 160 multi-family housing units. This would be the maximum possible residential density under the proposed land use designation of R10. Although this maximum use is not currently proposed, because this use would represent the greatest environmental impacts, this document will address the potential impacts of this alternative use. An alternative higher development intensity for the 0.5-acre commercial portion of the project is not anticipated due to lot size and site constraints, such as the FEMA flood zone and parking requirements. Therefore, the maximum site buildout only includes the residential portion of the project site. Environmental impacts related to maximum buildout project are analyzed on a

programmatic level throughout this document where applicable, under the heading *Maximum Buildout*.

9. Surrounding Land Uses and Setting

The project site is mostly undeveloped land to be donated by Pacific Gas & Electric (PG&E), the current owner of the site. PG&E uses the site as a surplus property that contains a pair of active 16-inch steel gas transmission mains and a 2-inch gas service lateral. The site has also been used as a staging area for PG&E. There are no other existing structures on the project site.

Elevations on the project site range from 7 feet above mean sea level (amsl) near the northeastern portion of the site to 72 feet amsl at the western portion of the property. Vegetation consists of non-native annual grassland, purple needle grass, and coast live oak woodland. A seasonal wetland, drainage ditch, and ephemeral stream are present on the site.

As shown in Figure 2, the project site is bordered by the Novato Days Inn, Redwood Boulevard, and Highway 101 to the east and by vacant land to the north, south, and west. The Buck Center is located further south of the site and the Birkenstock facility, slated for light industrial development, is located to the north.

Sonoma-Marin Area Rail Transit (SMART) uses the railroad tracks located on the east side of Highway 101 and south of the project site, and a SMART station (Novato San Marin) is located 0.9 mile south of the site on Redwood Boulevard. The rail line also serves overnight freight rail service operated by Northwestern Pacific Railroad Company (NWPR) between the City of Windsor in Sonoma County to the north and Schellville, an unincorporated Sonoma County community, east of Novato. There are no bus stations within the vicinity of the project site. Marin Transit route 49 serves the Novato San Marin SMART station, with service to downtown Novato (Redwood Boulevard and Grant Avenue) and continuing service to the San Rafael Transit Center.

Surrounding General Plan land use designations include light industrial/office (LIO) to the north and Research/Education Institutional to the south and west; the adjacent hotel is designated General Commercial (CG). The land use designation for parcels east of the highway is LIO, with Open Space (OS) further east of the site.

10. Other Public Agencies Whose Approval is Required

The City of Novato is the sole agency with the authority to approve the proposed project's land use entitlements, including:

- General Plan land use amendment from BPO to R10
- Master Plan
- Precise Development Plan
- Vesting Tentative Map (Condominium)
- Design Review

The following service districts require their own permits to approve various aspects of project construction and various project-serving utilities:

- **Novato Fire Protection District (NFPD)** would determine compliance with local fire code requirements for emergency access, life safety systems (e.g., fire sprinklers), and Wildland Urban Interface (WUI) building standards.
- **Novato Sanitary District (NSD)** is the wastewater utility at the fuel facility site. The sanitary district will review the project design and construction of new wastewater infrastructure associated with the project.
- **North Marin Water District (NMWD)** is the domestic and recycled water provider at the site. New domestic and recycled water connections will need to be designed to NMWD standards and approved by NMWD.

The following regional, state, and federal agencies may require their own permits, inspections, reporting and/or certifications prior to construction and/or completion of the project:

- **Regional Water Quality Control Board.** A waste discharge requirement permit (NPDES Construction General Permit) may be required.
- **California Department of Fish and Wildlife (CDFW)**. A Fish and Game Code Section 1602 Lake and Streambed Alteration Permit may be required.

11. Have California Native American Tribes Traditionally and Culturally Affiliated with the Project Area Requested Consultation Pursuant to Public Resources Code Section 21080.3.1?

On March 2, 2021, the City of Novato emailed consultation letters to two (Federated Indians of Graton Rancheria and the Guidiville Indian Rancheria) Native American tribes under the provisions of Assembly Bill 52. The City did not receive any responses. Consultation with local tribes is further detailed in Section 18, *Tribal Cultural Resources*.

12. Project Consistency with General Plan 2035 Mitigation Measures

Mitigation measures from General Plan 2035 would be conditions of approval for the project. Table 3 outlines the project's consistency with mitigation measures included in General Plan 2035 and outlines where applicable mitigation measures are discussed in the IS-MND and the project's consistency with the mitigation measure.

Table 3 General Plan 2035 Mitigation Consistency

General Plan 2035 Mitigation Measure	Project Consistency	IS-MND Section and Page Number
MM AQ-1 Construction Emissions Measures. New discretionary projects in the Plan Area that exceed the construction screening criteria of the Bay Area Air Quality Management District (BAAQMD) shall be conditioned to reduce construction emissions of reactive organic gases, nitrogen oxides, and particulate matter (PM_{10} and $PM_{2.5}$) by implementing the BAAQMD's Basic Construction Mitigation Measures (described below) or equivalent, expanded, or modified measures based on project and site-specific conditions. Basic Construction Mitigation Measures 1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day, with priority given to the use of recycled water for this activity when feasible. 2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered. 3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. 4. All vehicle speeds on unpaved roads shall be limited to 15 mph. 5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. 6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. 7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator. 8. A publicly visible sign shall be posted with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.	During the construction phase, the proposed project would implement all listed basic construction mitigation measures as a condition of approval for the project. CALEEMOD emission estimates can be found in Appendix A, which includes the construction emissions measures and shows that the project would not exceed BAAQMD thresholds. Therefore, the project is consistent with Mitigation Measure AQ-1.	3 – *Air Quality*, pages 30 through 42
Mitigation Measure AQ-2 Health Risk Assessments. Projects that may result in additional toxic air contaminants that are located within 1,000 feet of a sensitive receptors(s) or would place sensitive receptors within 1,000 feet of uses generating toxic air contaminants, such as roadways with volumes of 10,000 average annual daily trips or greater, shall implement Bay Area Air Quality Management District Guidelines and State Office of Environmental Health Hazard Assessment policies and procedures requiring health risk assessments (HRAs) for residential development and other sensitive receptors; screening area distances may be increased on a case-by-case basis if an unusually large source or sources of hazardous emissions are proposed or currently exist. Based on the results of the HRA, identify and implement measures (such as air filtration systems) to reduce potential exposure to particulate matter, carbon monoxide, diesel fumes, and other potential health hazards. Measures identified in HRAs shall be included into the site development plan as a component of a proposed project.	The closest sensitive receptor, single-family homes, is approximately 1,100 feet south of the project site. Illingworth and Rodkin, Inc prepared a Health Risk Assessment for the project in January 2020, which found that risks and hazards would not exceed thresholds. Please see Appendix A. Therefore, the project is consistent with Mitigation Measure AQ-2.	3 – *Air Quality*, pages 30 through 42

General Plan 2035 Mitigation Measure	Project Consistency	IS-MND Section and Page Number
AQ-3 Odor Reduction. Require new manufacturing and laboratory development to be designed and constructed in a way that reduces the potential for future odors. Ensure prompt response to complaints about odors reported by residences and businesses by developing a website link that directs users to BAAQMD's odor reporting and inspection program.	The project would not generate substantial operational odors. As a residential development, Mitigation Measure AQ-3 does not apply to the proposed project.	3 – *Air Quality*, pages 30 through 42
BIO-2 Biological Studies for New Development. Project applicants shall be required to provide a biological resources assessment for projects on parcels with potentially suitable habitat or potential for the occurrence of special status species. The biological resources assessment shall be conducted by a qualified biologist and will include a data review and habitat assessment prior to project activities to identify whether any special-status plant or animal species habitat or sensitive natural communities occur on-site. The data reviewed shall include the biological resources setting, Appendix C species list, and best available, current data for the area, including current review of the California Natural Diversity Database. Habitat assessments shall be completed at an appropriate time of year for identifying potential habitat and no more than one year prior to commencement of project activity. The purpose of these biological resources assessments is to identify appropriate measures to avoid or minimize harm to sensitive biological resources and to incorporate the recommended measures as conditions of approval for the project. Based on the results of the biological resources assessment, the qualified biologist will provide site-specific mitigation measures to avoid special status species or reduce impacts to a less than significant level.	A biological resources assessment (BRA) was prepared by WRA, Inc. in May 2021, please see Appendix B. The assessment identifies three mitigation measures included in the IS-MND, Mitigation Measure BIO-1, BIO-2, and BIO-3, to mitigate impacts to burrowing owl habitat, nesting birds, and purple needlegrass grassland. Therefore, the project is consistent with Mitigation Measure BIO-2.	4 – *Biological Resources*, pages 44 through 50
BIO-3 Biological Resources Inventory for New Development. A detailed inventory of biological resources conducted by an independent, professionally qualified biologist, plant ecologist, arborist, or appropriately qualified specialist shall be required for projects in sensitive and vulnerable habitats, as identified in Mitigation Measure BIO-2. If there are seasonal constraints with performing surveys, presence of such special status species shall be assumed and measures to reduce impacts to special status species and avoidance shall be implemented in accordance with a biological resources assessment and/or project specific California Environmental Quality Act documentation. If sensitive resources are identified on the project site, recommendations to protect the sensitive resources shall conform with applicable State and federal regulations regarding their protection and may include avoidance of the resource, providing setbacks, clustering development onto less sensitive areas, preparing restoration plans, off-site mitigation, and/or other similar measures as determined on a project specific basis.	The BRA prepared by WRA, Inc. maps vegetation, aquatic communities, and unvegetated land and documents plant and wildlife species present on the project site. All Mitigation Measures outlined in the biological resources section of the IS-MND (BIO-1 through BIO-4) would be implemented to protect sensitive resources identified in the BRA. Therefore, the project is consistent with Mitigation Measure BIO-3.	4 – *Biological Resources*, pages 44 through 50
BIO-4 Nesting Bird Protection. All discretionary projects shall retain the services of a qualified biologist(s) to conduct a pre-construction nesting bird survey during the nesting season (February 1 through August 31) at most 14 days prior to any and all development that may remove trees or vegetation that may provide suitable nesting habitat for migratory birds or other special-status bird species. If nests are found the qualified biologist(s) shall identify and the project sponsor shall implement appropriate avoidance measures, such as fenced buffer areas or staged tree removal periods.	Mitigation Measures BIO-1 and BIO-2 in the IS-MND call for protection of burrowing owls and other avian species during nesting. Therefore, the project is consistent with Mitigation Measure BIO-4.	4 – *Biological Resources*, pages 44 through 50

General Plan 2035 Mitigation Measure	Project Consistency	IS-MND Section and Page Number
BIO-6 Biological Studies for Wildlife Movement Corridors. All discretionary projects on parcels with indicators of wildlife movement corridors shall retain the services of a qualified biologist(s) to conduct a biological assessment prior to any and all development that may impact wildlife movement. If movement corridors are potentially impacted by the proposed project, the qualified biologist(s) shall identify appropriate mitigation measures to avoid or minimize the impact. Such measures shall be a condition of approval and implemented by the project sponsor.	The project is not located within a designated wildlife corridor nor would it constrain wildlife movement. Therefore, Mitigation Measure BIO-6 does not apply to the project.	4 – *Biological Resources*, pages 44 through 50
CUL-1 Historical Resources Study Program. All discretionary projects shall investigate the potential to impact historical resources. A historical resources evaluation shall be performed to confirm the presence of historical resources within the project site when there is a structure(s) or feature of a type, period, and/or method of construction that could be qualified as having historic status. The study shall, at a minimum, be conducted by a qualified professional meeting the Secretary of the Interior's (SOI) Professional Qualification Standard (PQS) for architectural history (NPS 1983). The study shall include a pedestrian survey of the project site and background research including a records search at the Northwest Information Center (NWIC), building permit research, and/or research with the local historical society(ies). The subject property(ies) shall be evaluated for federal, state, and local designation on California Department of Parks and Recreation 523 series forms, included as an appendix to the study. If historical impacts are identified, the study shall include recommendations to avoid or reduce impacts on historical resources and the project sponsor shall implement the recommendations or conduct additional environmental review.	A cultural resources study was conducted by LSA in January 2021, see Appendix C. The study includes the results of a California Historical Resource Information System records search, a historic-period map review, a cultural resources geoarchaeological sensitivity assessment, and a pedestrian field survey. No historical impacts were identified on the site. To address impacts to archeological resources Mitigation Measures CUL-1 (archaeological monitoring) and CUL-2 (unanticipated discovery of archaeological resources) in the IS-MND would be implemented if any unanticipated resources are uncovered. Therefore, the project is consistent with Mitigation Measure CUL-1.	5 – *Cultural Resources*, pages 52 through 55
CUL-2 Archaeological Resources Study Program. All discretionary projects shall investigate the potential to disturb archaeological resources. If preliminary reconnaissance suggests that cultural resources may exist, a Phase I cultural resources study shall be performed by a qualified professional meeting the Secretary of the Interior's (SOI) Professional Qualification Standard (PQS) for archaeology (NPS 1983). A Phase I cultural resources study shall include a pedestrian survey of the project site and sufficient background research and, as necessary, field sampling to determine whether archaeological resources may be present. Archival research shall include a records search at the Northwest Information Center (NWIC) and a Sacred Lands File (SLF) search with the Native American Heritage Commission (NAHC), and coordination with Native American tribes listed by the NAHC. The Phase I technical report documenting the study shall include recommendations to avoid or reduce impacts on archaeological resources. The project sponsor shall implement the recommendations.	The cultural resources study conducted for the project concluded that cultural resources are unlikely to exist on the project site. Therefore, a Phase 1 cultural resources study is not required and Mitigation Measure CUL-2 does not apply to the project.	5 – *Cultural Resources*, pages 52 through 55

General Plan 2035 Mitigation Measure	Project Consistency	IS-MND Section and Page Number
CUL-3 Paleontological Resource Studies. Avoidance and/or mitigation for potential impacts to paleontological resources shall be required for any development in Novato that occurs within high sensitivity geologic units (Pleistocene alluvium [Qpa] and Pleistocene alluvium [Qoa] deposits), whether they are mapped at the surface or occur at the subsurface. When paleontological resources are uncovered during site excavation, grading, or construction activities, work on the site will be suspended until the significance of the fossils can be determined by a qualified paleontologist. If significant resources are determined to exist, the paleontologist shall make recommendations for protection or recovery of the resource. The City shall require the following specific measures for projects that could disturb geologic units with high paleontological sensitivity: ▪ **Retain a Qualified Paleontologist to Prepare a PMMP.** Prior to initial ground disturbance, the project applicant shall retain a Qualified Paleontologist, as defined by the SVP (2010), to direct all mitigation measures related to paleontological resources and design a Paleontological Mitigation and Monitoring Program (PMMP) for the project. The PMMP shall include measures for a preconstruction survey, a training program for construction personnel, paleontological monitoring, fossil salvage, curation, and final reporting, as applicable.	The proposed project is not located in an area with high sensitivity geologic units. Although Mitigation Measure CUL-3 does not apply to the project, the applicant would implement Mitigation Measure GEO-2 in the IS-MND related to paleontological resources.	5 – *Cultural Resources*, pages 52 through 55
GEO-1 Soil Investigation Report. New development projects not connected to the municipal sewer system and requiring the use of septic tanks or alternative wastewater disposal systems shall complete a soil investigation report to be submitted to the City of Novato for review and approval prior to issuance of grading and building permits. The study shall demonstrate the capability of the underlying soils to support the use of septic tanks or alternative wastewater disposal systems. Such report shall be prepared by a registered professional geologist and shall include soil type characteristics, percolation rates, and design recommendations.	The proposed project would be connected to the municipal sewer system and does not require the use of a septic tank or alternative wastewater disposal system. Therefore, Mitigation Measure GEO-1 does not apply to the project.	7 – *Geology and Soils*, pages 64 through 68

General Plan 2035 Mitigation Measure	Project Consistency	IS-MND Section and Page Number
N-1 Construction Noise Reduction Measures. The following measures to minimize exposure to construction noise shall be included as standard conditions of approval for applicable projects involving construction: 1. *Mufflers*. During excavation and grading construction phases, all construction equipment, fixed or mobile, shall be operated with closed engine doors and shall be equipped with properly operating and maintained mufflers consistent with manufacturers' standards. 2. *Stationary Equipment*. All stationary construction equipment shall be placed so that emitted noise is directed away from the nearest sensitive receptors. 3. *Equipment Staging Areas*. Equipment staging shall be located in areas that will create the greatest distance feasible between construction-related noise sources and noise-sensitive receptors. 4. *Smart Back-up Alarms*. Mobile construction equipment shall have smart back-up alarms that automatically adjust the sound level of the alarm in response to ambient noise levels. Alternatively, back-up alarms shall be disabled and replaced with human spotters to ensure safety when mobile construction equipment is moving in the reverse direction.	All construction equipment used for the project would be operated in accordance with manufacturer's standards. RGD Acoustics conducted a construction noise analysis for the project (see Appendix J), and considered stationary equipment and staging areas, and determined noise impacts to be less than significant. Therefore, the proposed project is consistent with Mitigation Measure N-1 and would implement construction noise reduction measures as a condition of approval for the project to further reduce construction noise.	13 – *Noise*, pages 94 through 105
N-2 Construction Vibration Reduction Measures. The following measures to minimize exposure to construction vibration shall be included as standard conditions of approval for applicable projects involving construction: 1. *Building Examination*. The pre-existing condition of any buildings within 25 feet of any construction activities shall be recorded in order to evaluate damage from project-related construction. Fixtures and finishes within a 25-foot radius of construction activities susceptible to damage will be documented (photographically and in writing) prior to construction. All damage will be repaired back to its pre-existing condition. 2. *Stationary Equipment*. All vibratory stationary construction equipment shall be placed as far as possible from the nearest sensitive receptors. 3. *Equipment Staging Areas*. Equipment staging shall be located in areas that will create the greatest distance feasible between construction-related vibration sources and noise-sensitive receptors.	There existing Novato Days Inn Hotel is further than 25 feet from proposed constructions activities and there are no other existing buildings in the vicinity. All stationary equipment would be placed as far as possible from the nearest sensitive receptors per part two of the construction vibration reduction measures condition of approval. Therefore, the proposed project would be consistent with Mitigation Measure N-2.	13 – *Noise*, pages 94 through 105

General Plan 2035 Mitigation Measure	Project Consistency	IS-MND Section and Page Number
T-1 Intersection Delay Mitigations. The following additional intersection improvements are necessary to maintain acceptable operation under Existing plus Project and Cumulative conditions with the proposed project. ▪ San Marin Drive/Simmons Lane (Intersection #1) ▫ Signalize the intersection; restripe both San Marin Drive approaches to include separate left-turn, through, and right-turn lanes. ▫ Alternative Mitigation: install a roundabout; the westbound approach would have two lanes, one serving through/right movements and one serving left-turn movements, and the remaining three approaches would have single lanes. ▫ The alternative roundabout mitigation may require minor right-of-way acquisitions on one or more intersection corners. ▪ Redwood Boulevard/San Marin Drive (Intersection #4) ▫ Widen the SMART railroad overpass to provide space on the westbound approach for two left-turn lanes, two through lanes, and one right-turn lane, as well as bike lanes and a widened sidewalk on the south side of the overpass. ▫ Widen the southbound Redwood Boulevard approach to include a left-turn lane, shared left-turn/through lane, and right-turn lane. ▫ Restripe the northbound Redwood Boulevard to include a left-turn lane, left-turn/through lane, and two right-turn lanes. ▫ Add right-turn overlap signal phasing on the northbound and westbound approaches. ▫ This mitigation would entail roadway and overpass widening that could require right-of-way acquisition. ▫ To make this intersection function acceptably, additional improvements would be needed at the Highway 101 South Ramps/San Marin Drive intersection, as described in the next bullet. ▪ Highway 101 South Ramps/San Marin Drive (Intersection #5) ▫ Modify the eastbound San Marin Drive approach (the SMART railroad overpass) to include a through lane, a shared through/right-turn lane, and a right-turn lane. ▫ Provide an enhanced bicycle-pedestrian crossing at the on-ramp entrance, including modified signal phasing to include protected pedestrian and bicyclist movements across the ramp. ▫ This mitigation would entail roadway and overpass widening that could require right-of-way acquisition, and potentially affect areas that appear to be wetlands between the SMART rail corridor and the off-ramp. ▪ Highway 101 North Ramps/Atherton Avenue (Intersection #6) ▫ Widen the northbound off-ramp to include two left-turn lanes and a shared through/right-turn lane. ▪ Novato Boulevard/San Marin Drive-Sutro Avenue (Intersection #9) ▫ Signalize the intersection.	Since adoption of the General Plan 2035 Environmental Impact Report vehicle miles traveled has replaced level of service as the metric to determine a transportation impact under CEQA pursuant to Senate Bill 743. Therefore, Mitigation Measure T-1 from the General Plan EIR would no longer apply to the project under CEQA. However, the following transportation condition of approval related to pedestrian access would apply to the project: The project would extend the new curb, gutter, and five-foot-wide sidewalk south of the site along the west side of Redwood Boulevard for approximately 1,300 linear feet and connect it to the existing sidewalk fronting 7711 Redwood Boulevard. The alignment of the curb face shall be parallel to the edge of Caltrans' right-of-way and located to provide a minimum Redwood Boulevard half-width (centerline to face of curb) of 18-feet. Road widening would also be required. These improvements would require a Caltrans encroachment permit as they would be within the Caltrans right-of-way.	17 – *Transportation*, pages 114 through 118

General Plan 2035 Mitigation Measure	Project Consistency	IS-MND Section and Page Number
▫ Alternative Mitigation: install a single-lane roundabout with a southbound right-turn "slip" lane. ▫ The alternative roundabout mitigation may require minor right-of-way acquisition on one or more intersection corners. ▪ Diablo Avenue/Novato Boulevard (Intersection #14) ▫ Restripe the eastbound and westbound Diablo Avenue approaches to include separate left-turn, through, and right-turn lanes. ▫ Restripe the northbound Novato Boulevard Approach to include a left-turn lane, through lane, and through/right-turn lane. ▫ Widen and modify southbound Novato Boulevard to include dual left-turn lanes and a shared through/right-turn lane. ▫ Modify the signal phasing to protected left-turns on all approaches plus a westbound right-turn overlap phase. ▫ The mitigation may require minor right-of-way acquisition on Novato Boulevard to the northwest of the intersection. ▪ South Novato Boulevard/Redwood Boulevard (Intersection #30) ▫ Signalize the intersection. ▫ Alternative Mitigation: install a single-lane roundabout with an eastbound right-turn "slip" lane. ▫ The alternative roundabout mitigation may require minor right-of-way acquisition on one or more intersection corners. ▪ Highway 101 South Ramps/Ignacio Boulevard-Enfrente Road (Intersection #32) ▫ On the southbound Highway 101 "loop" off-ramp, extend the length of the dual right-turn pockets to 500 feet. ▫ Optimize signal timing on the coordinated Ignacio Boulevard-Bel Marin Keys Boulevard corridor. ▪ Bel Marin Keys Boulevard/Digital Drive (Intersection #35) ▫ Restripe the westbound approach to include a left-turn lane and a left-turn/through/right-turn lane, and modify the signal to operate with split phasing in the eastbound and westbound directions.		

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Environmental Factors Potentially Affected

This project would potentially affect the environmental factors checked below, involving at least one impact that is "Potentially Significant" or "Less than Significant with Mitigation Incorporated" as indicated by the checklist on the following pages.

☐	Aesthetics	☐	Agriculture and Forestry Resources	☐	Air Quality
■	Biological Resources	■	Cultural Resources	☐	Energy
■	Geology and Soils	☐	Greenhouse Gas Emissions	■	Hazards and Hazardous Materials
☐	Hydrology and Water Quality	☐	Land Use and Planning	☐	Mineral Resources
■	Noise	☐	Population and Housing	☐	Public Services
☐	Recreation	☐	Transportation	■	Tribal Cultural Resources
☐	Utilities and Service Systems	■	Wildfire	☐	Mandatory Findings of Significance

Determination

Based on this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

■ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "less than significant with mitigation incorporated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potential significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature	Date
Brett Walker	Senior Planner
Printed Name	Title

Environmental Checklist

1 Aesthetics

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	■	☐
b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	■
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	■	☐
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	☐	☐	■	☐

a. Would the project have a substantial adverse effect on a scenic vista?

A scenic vista can generally be defined as a public viewpoint that provides expansive views of a highly valued landscape for the benefit of the public. The City of Novato General Plan identifies hillsides and ridgelines surrounding the city as scenic resources that generally enhance the community's visual character, including views of Mt. Burdell. Other scenic resources the City has identified include the Bay plains and Bay shorelines (City of Novato 2014a). The General Plan also requires preservation of views between Highway 101 and Mount Burdell, which is visible in the distance from portions of roadways near the site, as shown in in Figure 5. The General Plan also includes a designation for "Scenic Hills and Ridges" (see General Plan Figure ES-6, Ridgelines and Scenic Resources, City of Novato 2020a); however, the project site is not within that zone.

From Highway 101 or Redwood Road looking west towards the project site, the landscape consists of rolling hills with annual grasses and oak woodland in the foreground and middle ground and higher ridgelines beyond (Figure 5). These hillsides are designated by the city as a scenic resource,

but views from Redwood Boulevard and U.S. 101 in this corridor are not specifically designated as scenic vista points.

Figure 5 Existing Conditions on Project Site from Redwood Boulevard, Looking West

Source: Google Earth 2021

The project would not block views of Mt. Burdell but would obstruct some views of the hillsides to the west of the site from adjacent roadways. However, as the project would be built on the flatter areas of the project site, buildings would not break a substantial portion of the ridgeline from most of these viewpoints and views of hillsides would still be visible over and between most buildings. Since the project would only partially block some views of hillsides from Highway 101 and Redwood Boulevard, impacts would be less than significant. In addition, the project would be designed to integrate with the landscape to the extent possible by limiting grading, using building materials in a natural color palette, and including varied building heights. Finally, development of low height and high quality is anticipated by the General Plan for the area on and around the project site.

LESS THAN SIGNIFICANT IMPACT

b. Would the project substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

There are no officially designated State Scenic Highways in Marin County (California Department of Transportation [Caltrans] 2019). Highway 101 is eligible for State designation for a four-mile stretch in Marin City, nearly 4.3 miles away from the project site, near SR 37 where it terminates at the transition to Highway 101. These eligible stretches of eligible highway are too distant from the project site to be affected by project implementation. Additionally, no trees, buildings or rock outcroppings would be damaged or removed from the project site. Therefore, the project would not damage scenic resources within a state scenic highway. There would be no impact.

NO IMPACT

c. Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

The project site is in a non-urbanized area that is adjacent to existing development, with views of the hills, oak woodland, and ridgelines that form a scenic resource and sense of place throughout Novato. North of the project site is the Birkenstock warehouse, a sprawling, single-story structure with a zig-zag roofline designed by a notable Modernist architect in the early 1960s (Bevk 2012). East and adjacent to the site is a less iconic but similarly low-rise hotel (Days Inn at Novato). The hotel has a roadside sign that presumably is lighted at night. Along the east side of Redwood Boulevard, electricity transmission lines are above ground and the roadway is separated from Highway 101 by a grass median and a chain-linked fence. On the east side of Highway 101, light industrial structures and supporting equipment are visible from the roadway. The Buck Institute borders the project site on the west and features another prominent work of architecture in Novato by I.M. Pei. However, the hills along the western border prevent the project site from being visible from the Buck Institute.

As show in Figure 6, a prominent ridgeline is visible across the project site looking northwest, with the hotel sign and parking lot in the middle and foreground. On the distant, northern horizon, the Sonoma Mountains can be seen below the cloud cover. Industrial features, including development on the east side of the freeway, are visible to persons traveling northbound on Redwood Boulevard and on Highway 101.

Figure 6 View Across Project Site from Redwood Boulevard, Looking Northwest

Source: Google Earth 2021

The General Plan states that "ridgelines and hillsides contribute to Novato's identity by creating a sense of separation for developed areas. These natural features establish physical boundaries for the community that are more recognizable than the jurisdictional boundaries created by the city limit" (City of Novato 2014b, Page 3-15). Hillsides and ridgelines visible across the project site contribute to the sense of place in Novato. Existing nearby development, however, already contrasts with the natural landscape, integrating to varying degrees based on design and allowing those natural features to be seen by virtue of their low heights. In this way, existing development occurs without completely disrupting the beauty and sense of place in the project vicinity. Furthermore, the General Plan anticipates increased commercial and office development along this stretch of Redwood Boulevard.

The hills in the middle ground have between 10 and 25 percent slope, according to the project plans. Most development would be situated in the area with zero to 10 percent slope, although some structures are proposed for the 10 to 25 percent sloped area. Grading would be limited and would retain the topography of the landscape to the extent feasible, thus retaining the distinctive ridgelines and hillsides while accommodating development on the site.

The project architectural design references the hilly topography in its rooflines, building massing, and arrangement. The color palette of the project draws on the hues found in the natural environment, with the browns, greens, and yellows evident in the landscape. The project would also include landscaping, with trees, shrubs, and small grassy areas around which the buildings would be situated and which would continue onto the base of the slopes, increasing vegetation throughout the site, but particularly closer to the roadway.

Furthermore, existing development adjacent to the south and east edge of the project site consists of a single-story hotel (Novato Days Inn) situated adjacent to Redwood Boulevard. This low building does not obscure views of the more distant landscape, except if the viewer is directly in front of the building. The project would change the visual character of the site from undeveloped open space to

residential development. However, a change in landscape does not necessarily create a substantial degradation of the visual quality on the site. The proposed design for the project is aligned with those described in the General Plan and would include perimeter landscaping to soften the effects of new development. Furthermore, because increased development is anticipated in this area by the General Plan, design review during the permitting process would ensure impacts would be less than significant.

While the project would change the visual character of the site from relatively undeveloped open space, periodically used for utility repair staging, to a residential development with medium density and office use, this change would not substantially degrade the visual character of the site or its surroundings.

With adherence to City of Novato regulations that govern visual quality and design review of the project as it is currently designed, it would not degrade the visual quality on the site substantially. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

For purposes of this analysis, light refers to light emissions (brightness) generated by a source of light. Stationary sources of light include exterior parking lot and building security lighting, and interior lights emanating through windows. Moving sources of light include the headlights of vehicles driving on roadways within the project site. Streetlights and other security lighting also serve as sources of light in the evening hours.

Glare is defined as focused, intense light emanated directly from a source or indirectly when light reflects from a surface. Daytime glare is caused in large part by sunlight shining on highly reflective surfaces at or above eye level. Reflective surfaces area associated with buildings that have expanses of polished or glass surfaces, light-colored pavement, and the windshields of parked cars.

The project site is in a less developed area of the city and has limited lighting. Temporary night lighting may be present when PG&E uses the site as a work staging area. Adjacent uses generate moderate levels of light from exterior building and parking lot lighting. Streetlights are present along Redwood Boulevard, and other existing light sources include headlights from vehicles traveling on Redwood Boulevard and Highway 101 at night. The primary source of glare in the project area is from the sun reflecting from light colored building materials and finishes and metallic and glass surfaces of parked vehicles at adjacent uses.

The project would generate new sources of light from windows associated with the residences and office building, exterior safety lighting, and parking area lights. Cars entering and exiting the site at night would temporarily increase light. When implemented, the project could generate glare from sunlight reflected on west-facing windows during certain times of the day. Light-colored or reflective exterior finishes could generate glare, as could the sun shining on the windshields of cars parked on site.

Lighting installed on the project site would be required to comply with City of Novato regulations that include shielding or modification on outdoor lighting to prevent emission of light or glare beyond the property line and requirements to direct light sources to prevent lighting adjacent streets and shielding light sources (Novato Zoning Code Section 19.22.060). The project is designed with color schemes that blend with the natural environment. While pale siding colors include two

shades of white, glare would be prevented by the amount of eave overhang, the variation in siting, and by the density of the vegetation that is proposed in the landscape design. Windows would feature awnings and other shading structures that would alleviate glare. Headlights of vehicles entering and exiting the project site at night would be downcast and shielded by both existing and proposed buildings, fencing, and vegetation. Vehicle headlights would not affect light-sensitive receptors at the hotel on the south and east side of the project site.

The project would generate more light and glare than are currently on the undeveloped site, but with compliance with the City ordinances regulating light and glare, the project would not introduce substantial light or glare that would adversely affect daytime or nighttime views in the area. Therefore, impacts related to light and glare would be less than significant.

LESS THAN SIGNIFICANT IMPACT

Maximum Buildout

Should the proposed General Plan amendment be granted and the 80-unit residential development not be built, the project site would remain available for uses as allowed under the R10 designation. The maximum use under the R10 designation would be represented by a housing development including up to approximately 160 units. The project site is not identified as a scenic resource and denser development on the site would not interfere with scenic vistas. To meet City design standards included in General Plan 2035, views of a proposed 160-unit development from surrounding areas would be softened by landscaping, including trees. Therefore, the 160-unit development would have no impact on a scenic vista.

The project site is not visible from State or locally designated scenic roadways, and, therefore, a 160-unit development would not damage scenic resources within a State scenic highway. Although the project site would include increased massing for additional units most development would be situated in the area with zero to 10 percent slope per the City's hillside ordinance. Pursuant to General Plan design criteria the alternative project would be required to include landscaping, which would protect the visual character of the site.

Although housing units would be designed differently than the proposed project, project approvals would include submittal of a lighting plan that would reduce the impact of new light sources to less than significant. As with the proposed project, the architectural design would include exterior materials in natural colors and that do not include reflective surfaces, in accordance with the General Plan design criteria. The potential number of parked cars would have to be estimated during specific project proposals and car ports or increased parking area trees could be required as part of design review to reduce glare impacts. Therefore, impacts related to light and glare would be less than significant under maximum buildout.

2 Agriculture and Forestry Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	■
b. Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	■
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	■
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	■
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	■

a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

b. Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?

c. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

d. Would the project result in the loss of forest land or conversion of forest land to non-forest use?

e. Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

There are no areas of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance within Novato (California Department of Conservation 2021), and the project site is not under a Williamson Act contract (California Department of Conservation 2016). The site is designated as Business and Professional Office in the Novato General Plan and zoned Planned District (City of Novato 2001). The site does not contain forestland or timberland. Therefore, the project would not result in the conversion of agriculture use to non-agriculture uses, conflict with a Williamson Act contract, or existing zoning for agriculture, forest or timberland or result in the loss of such lands and there would be no impact on agricultural and forestry resources.

NO IMPACT

3 Air Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	■	☐
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	■	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	■	☐
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☐	■

Overview of Air Pollution

The federal and State Clean Air Acts (CAA) mandate the control and reduction of certain air pollutants. Under these laws, the U.S. Environmental Protection Agency (U.S. EPA) and the California Air Resources Board (CARB) have established the National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS) for "criteria pollutants" and other pollutants. Some pollutants are emitted directly from a source (e.g., vehicle tailpipe, an exhaust stack of a factory, etc.) into the atmosphere, including carbon monoxide, volatile organic compounds (VOC)/reactive organic gases (ROG),[1] nitrogen oxides (NO_X), particulate matter with diameters of ten microns or less (PM_{10}) and 2.5 microns or less ($PM_{2.5}$), sulfur dioxide, and lead. Other pollutants are created indirectly through chemical reactions in the atmosphere, such as ozone, which is created by atmospheric chemical and photochemical reactions primarily between ROG and NO_X. Secondary pollutants include oxidants, ozone, and sulfate and nitrate particulates (smog).

Air pollutant emissions are generated primarily by stationary and mobile sources. Stationary sources can be divided into two major subcategories:

- Point sources occur at a specific location and are often identified by an exhaust vent or stack. Examples include boilers or combustion equipment that produce electricity or generate heat.

[1] CARB defines VOC and ROG similarly as, "any compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate," with the exception that VOC are compounds that participate in atmospheric photochemical reactions. For the purposes of this analysis, ROG and VOC are considered comparable in terms of mass emissions, and the term ROG is used in this IS-MND.

- Area sources are widely distributed and include such sources as residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and some consumer products.

Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and can also be divided into two major subcategories:

- On-road sources that may be legally operated on roadways and highways.
- Off-road sources include aircraft, ships, trains, and self-propelled construction equipment.

Air pollutants can also be generated by the natural environment, such as when high winds suspend fine dust particles.

Air Quality Standards and Attainment

The project site is located in the San Francisco Bay Area Air Basin, which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). BAAQMD has jurisdiction over much of the nine-county Bay Area, including Marin County. As the local air quality management agency, the BAAQMD is required to monitor air pollutant levels to ensure that the NAAQS and CAAQS are met and, if they are not met, to develop strategies to meet the standards. Depending on whether the standards are met or exceeded, the San Francisco Bay Area Air Basin is classified as being in "attainment" or "nonattainment." In areas designated as non-attainment for one or more air pollutants, a cumulative air quality impact exists for those air pollutants, and the human health impacts associated with these criteria pollutants, presented in Table 4, are already occurring in that area as part of the environmental baseline condition. Under state law, air districts are required to prepare a plan for air quality improvement for pollutants for which the district is in non-compliance. The San Francisco Bay Area Air Basin is designated a nonattainment area for the federal 8-hour ozone standard, federal $PM_{2.5}$ 24-hour standard, state 8-hour and 1-hour ozone standards, state PM_{10} annual and 24-hour standards, and the state $PM_{2.5}$ 24-hour standard. (BAAQMD 2017a). This nonattainment status is a result of several factors, such as mobile sources, wood burning, industrial combustion, and dust, in the San Francisco Bay Area Air Basin.

Table 4 Health Effects Associated with Non-Attainment Criteria Pollutants

Pollutant	Adverse Effects
Ozone	(1) Short-term exposures: (a) pulmonary function decrements and localized lung edema in humans and animals and (b) risk to public health implied by alterations in pulmonary morphology and host defense in animals; (2) long-term exposures: risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (3) vegetation damage; and (4) property damage.
Suspended particulate matter (PM_{10})	(1) Excess deaths from short-term and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease (including asthma).[1]
Suspended particulate matter ($PM_{2.5}$)	(1) Excess deaths from short- and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes, including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children, such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease, including asthma.

Source: United States Environmental Protection Agency 2018

Air Quality Management

Because the San Francisco Bay Area Air Basin currently exceeds the federal ozone and $PM_{2.5}$ standards and the state ozone, PM_{10}, and $PM_{2.5}$ standards, the BAAQMD is required to implement strategies to reduce pollutant levels to achieve attainment of the NAAQS and CAAQS. BAAQMD adopted the 2017 Clean Air Plan (2017 Plan) as an update to the 2010 Clean Air Plan. The 2017 Plan provides a regional strategy to protect public health and the climate. Consistent with the greenhouse gas (GHG) reduction targets adopted by the state, the 2017 Plan lays the groundwork for a long-term effort to reduce Bay Area GHG emissions to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. To fulfill state ozone planning requirements, the 2017 control strategy includes all feasible measures to reduce emissions of ozone precursors (ROG and NO_X) and reduce transport of ozone and its precursors to neighboring air basins. In addition, the 2017 Plan builds upon and enhances the BAAQMD's efforts to reduce emissions of fine particulate matter and toxic air contaminants (TAC) (BAAQMD 2017a).

Air Pollutant Emission Thresholds

The BAAQMD has adopted guidelines for quantifying and determining the significance of air quality emissions in its *California Environmental Quality Act Air Quality Guidelines* (BAAQMD 2017b). BAAQMD recommends that lead agencies determine appropriate air quality emissions thresholds of significance based on substantial evidence in the record. The BAAQMD's significance thresholds in the updated May 2017 *CEQA Air Quality Guidelines* for project operations within the San Francisco Bay Area Air Basin are the most appropriate thresholds for use in determining air quality impacts of the project. BAAQMD developed screening criteria to provide lead agencies and project applicants with a conservative indication of whether a project could result in potentially significant air quality impacts.

Table 5 presents the significance thresholds for construction and operational-related criteria air pollutant and precursor emissions used for the purposes of this analysis. These represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the San Francisco Bay Area Air Basin's existing air quality conditions. For the purposes of this analysis, the project would result in a significant impact if construction or operational emissions would exceed any of the thresholds shown in Table 5.

Table 5 BAAQMD Air Quality Thresholds of Significance

Pollutant/Precursor	Construction: Average Daily Emissions (lbs/day)	Operation: Maximum Annual Emissions (tpy)	Operation: Average Daily Emissions (lbs/day)
ROG	54	10	54
NO_X	54	10	54
PM_{10}	82 (exhaust)	15	82
$PM_{2.5}$	54 (exhaust)	10	54

lbs/day = pounds per day; tpy = tons per year; ROG = reactive organic gases; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less.; $PM_{2.5}$ = fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less

Source: BAAQMD 2017b, Table 2-1.

The BAAQMD does not have quantitative thresholds for fugitive dust emissions during construction. Instead, the BAAQMD recommends Best Management Practices (BMPs) be implemented to reduce fugitive dust emissions. The project would implement the BAAQMD *Basic Construction Mitigation Measures* as a project design feature. The best management practices include the following:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered or maintain at least two feet of freeboard.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. Enclose, cover, water daily or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.)
6. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
7. Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
8. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for construction workers at all access points.
9. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
10. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The air district's phone number shall also be visible to ensure compliance with applicable regulations.

In the absence of a qualified Community Risk Reduction Plan, BAAQMD has established the following *Thresholds of Significance* for local community risks and hazards associated with TACs and $PM_{2.5}$ for assessing individual source impacts at a local level. Impacts would be significant if:

- The project would result in an increased cancer risk of > 10 in one million
- The project would result in an increased non-cancer (i.e., Chronic or Acute) risk of > 1.0 Hazard Index
- The project would result in an ambient $PM_{2.5}$ concentration increase of > 0.3 $\mu g/m^3$ annual average

A project would be considered to have a cumulatively considerable impact if the aggregate total of current and proposed TAC sources within a 1,000 feet radius of the project fence-line in addition to the project would exceed the *Cumulative Thresholds of Significance*. Impacts would be significant if:

- The project would result in an increased cancer risk of > 100 in one million
- The project would result in an increased non-cancer (i.e., Chronic or Acute) risk of > 10 Hazard Index

- The project would result in an ambient $PM_{2.5}$ concentration increase of > 0.8 µg/m^3 annual average

Excess cancer risks are defined as those occurring in excess of or above and beyond those risks that would normally be associated with a location or activity if toxic pollutants were not present. Non-carcinogenic health effects are expressed as a hazard index, which is the ratio of expected exposure levels to an acceptable reference exposure level.

BAAQMD defines sensitive receptors as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and the chronically ill. These facilities include residences, school playgrounds, child-care centers, retirement homes, and convalescent homes.

Methodology

Air pollutant emissions generated by project construction and operation were estimated using the California Emissions Estimator Model (CalEEMod), version 2016.3.2.[2] CalEEMod uses project-specific information, including the project's land uses, square footages for different uses (e.g., apartments low-rise and general office), and location, to model a project's construction and operational emissions. The analysis reflects the construction and operation of the project as described in the project description. The following discussion is based on an air quality and greenhouse gas assessment prepared for the project by Illingworth & Rodkin, Inc. dated January 2020, included as Appendix A, and peer reviewed by Rincon Consultants. The modeling was based on the construction schedule provided in the project description.

Operational emissions modeled include mobile source emissions (i.e., vehicle emissions), energy emissions, and area source emissions. Mobile source emissions are generated by vehicle trips to and from the project site. The daily trip generation rates were sourced from the project Traffic Study (Appendix K).[3] Emissions attributed to energy use include natural gas consumption by appliances as well as for space and water heating. Area source emissions are generated by landscape maintenance equipment, consumer products and architectural coatings. The project would not have any natural gas infrastructure, but the modeling in Appendix A included natural gas inputs and assumed there would be natural gas hearths, thus providing a conservative assumption.

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

Project Consistency

The California Clean Air Act requires that air districts create a Clean Air Plan that describes how the jurisdiction will meet air quality standards. The most recently adopted air quality plan is the BAAQMD 2017 Plan. The 2017 Plan updates the most recent Bay Area plan, the 2010 Clean Air Plan, pursuant to air quality planning requirements defined in the California Health and Safety Code. To fulfill state ozone planning requirements, the 2017 control strategy includes all feasible measures to reduce emissions of ozone precursors—ROG and NO_X—and reduce transport of ozone and its precursors to neighboring air basins. The CAP builds upon and enhances the BAAQMD's efforts to reduce emissions of fine particulate matter and TACs. The 2017 Plan does not include control

[2] The air quality and GHG assessment was completed in January 2020 prior to the release of CalEEMod version 2020.4.0. The use of the older version of the model is acceptable and aligns with the modeling approach recommended by BAAQMD.
[3] Note that at the time of the analysis only daily trips were provided, thus Illingworth & Rodkin, Inc. calculated the trip generation rates using the total daily trips and proposed residential square footage. The rates calculated differ slightly from the daily trip generation rate provided in the Traffic Study, but the results would not change due to this difference.

measures that apply directly to individual development projects. Instead, the control strategy includes control measures related to stationary sources, transportation, energy, buildings, agriculture, natural and working lands, waste management, water, and super-GHG pollutants.

The 2017 CAP focuses on two paramount goals:

- Protect air quality and health at the regional and local scale by attaining all national and state air quality standards and eliminating disparities among Bay Area communities in cancer health risk from TACs
- Protect the climate by reducing Bay Area GHG emissions to 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050

Under BAAQMD's methodology, a determination of consistency with the 2017 Plan should demonstrate that a project:

- Supports the primary goals of the air quality plan
- Includes applicable control measures from the air quality plan
- Does not disrupt or hinder implementation of any air quality plan control measures

A project that would not support the 2017 Plan's goals would not be considered consistent with the 2017 Plan. On an individual project basis, consistency with BAAQMD quantitative thresholds is interpreted as demonstrating support for the clean air plan's goals. As discussed under criterion (b) below, the project would not exceed BAAQMD significance thresholds related to air quality emission), the project would not result in exceedances of BAAQMD thresholds for criteria air pollutants and thus would not conflict with the 2017 Plan's goal to attain air quality standards. The 2017 Clean Air Plan includes goals and measures to increase the use of electric vehicles, promote the use of on-site renewable energy, and encourage energy efficiency. The project includes features that are consistent with these goals and measures, including meeting California Green Building Standards, being a fully electrified development, and providing 45 spaces of bicycle parking. Therefore, the project would not conflict with or obstruct the implementation of an applicable air quality plan and the project would have a less than significant impact.

LESS THAN SIGNIFICANT IMPACT

Maximum Buildout

Should the proposed General Plan amendment be granted and the Habitat Redwood Boulevard project not developed, the approximately eight acres of useable project site would remain available for uses as allowed under the R10 designation. The maximum use under the R10 designation would be represented by a housing development up to approximately 160 units. Although these units would be designed differently than the project, a larger project would likewise be consistent with the 2017 Plan since emissions generated by the construction and operation of the maximum buildout scenario would similarly not exceed the BAAQMD thresholds (see Table 8 and Table 9), and developments under this scenario would need to incorporate sustainable project features in accordance with the latest California Green Building Standards as well as the Building Energy Efficiency Standards. Therefore, impacts would be less than significant.

b. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

The San Francisco Bay Area Air Basin is designated nonattainment for the NAAQS for ozone and $PM_{2.5}$ and the CAAQS for ozone, $PM_{2.5}$, and PM_{10}. The following subsections discuss emissions associated with construction and operation of the project.

Construction Emissions

Project construction would generate temporary air pollutant emissions associated with fugitive dust (PM_{10} and $PM_{2.5}$) and exhaust emissions from heavy construction equipment and construction vehicles in addition to ROG emissions that would be released during the drying phase of architectural coating. Table 6 summarizes the estimated annualized daily emissions of pollutants during project construction. As shown therein, construction-related emissions would not exceed BAAQMD thresholds. Therefore, project construction would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard. Impacts would be less than significant.

Table 6 Construction Period Emissions

Construction Year	ROG	NO_x	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
Construction Emissions Per Year (tons)				
2022 (Phase 1)	0.18	1.62	0.08	0.07
2023 (Phase 1 & 2)	0.56	2.87	0.15	0.13
2024 (Phase 1 & 2)	0.61	2.35	0.12	0.11
2025 (Phase 2)	0.41	1.58	.07	0.06
2026 (Phase 2)	0.11	0.26	0.01	0.01
Annualized Daily Construction Emissions (pounds/day)				
2022 (202 construction workdays)	1.78	16.06	0.81	0.71
2023 (260 construction workdays)	4.28	22.06	1.14	1.01
2024 (262 construction workdays)	4.68	17.93	0.93	0.81
2025 (261 construction workdays)	3.10	12.10	0.54	0.49
2026 (95 construction workdays)	2.23	5.45	0.27	0.22
BAAQMD Thresholds	54	54	82	54
Threshold Exceeded?	**No**	**No**	**No**	**No**

lbs/day = pounds per day; ROG = reactive organic gases, NO_x = nitrogen oxides, PM_{10} = particulate matter 10 microns in diameter or less, $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

Notes: All emissions modeling was completed using CalEEMod and prepared by Illingworth and Rodkin, Inc. See Appendix A for modeling results.

Operational Emissions

Operation of the project would generate criteria air pollutant emissions associated with area sources (e.g., fireplaces, architectural coatings, consumer products, and landscaping equipment), energy sources (i.e., use of natural gas for space and water heating and cooking), and mobile sources (i.e., vehicle trips to and from the project site). Table 7 summarizes the project's annual and average daily emissions. Operational emissions account for natural gas infrastructure, which would not be included for the project. Thus, in actuality, emissions would be lower than estimated in Table 7 because the project would be an all-electric development. As shown therein, even with natural gas infrastructure, operational emissions would not exceed BAAQMD regional thresholds for criteria pollutants. Therefore, project operation would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment, and impacts would be less than significant.

Table 7 Operational Period Emissions

Emissions Source	ROG	NO_X	PM_{10}	$PM_{2.5}$
2026 Annual Emissions (tons/year)	0.85	0.37	0.52	0.15
BAAQMD Threshold (tons/year)	10	10	15	10
Threshold Exceeded?	**No**	**No**	**No**	**No**
2026 Average Daily Emissions (lbs/day)	4.66	2.02	2.83	0.81
BAAQMD Thresholds (lbs/day)	54	54	82	54
Threshold Exceeded?	**No**	**No**	**No**	**No**

lbs/day = pounds per day; ROG = reactive organic gases, NO_X = nitrogen oxides, PM_{10} = particulate matter 10 microns in diameter or less, $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

Notes: All emissions modeling was completed using CalEEMod and prepared by Illingworth and Rodkin, Inc. See Appendix A for modeling results.

LESS THAN SIGNIFICANT IMPACT

Maximum Buildout

Should the proposed General Plan amendment be granted and the Habitat Redwood Boulevard project not developed, the approximately eight acres of useable project site would remain available for uses as allowed under the R10 designation. The maximum use under the R10 designation would be represented by a housing development including up to approximately 160 units.

The maximum buildout scenario was modeled using CalEEMod as 160 mid-rise apartment dwelling units, 2,154 square feet of general office building, and 185 parking lot spaces (Appendix A). The default construction schedule and equipment list were used since specific project details are not available at this time. Similar to the project a proposed, it was also assumed construction under the maximum buildout scenario would adhere to the BAAQMD's best construction practices to control fugitive dust emissions. Default assumptions for project operation (mobile, energy, and area sources) were used.

Table 8 and Table 9 show the modeled construction and operational emissions from the maximum buildout, respectively. The construction and operational criteria pollutant emissions would not exceed the BAAQMD thresholds Therefore, maximum buildout-related emissions would not result in

a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment, and impacts would be less than significant.

Table 8 Maximum Buildout Construction Period Emissions

Construction Year	ROG	NO_x	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
Construction Emissions Per Year (tons)				
Total Emissions	1.69	4.57	0.23	0.21
Annualized Daily Construction Emissions (pounds/day)				
Average Daily Emissions	10.59	28.57	1.43	1.29
BAAQMD Thresholds	54	54	82	54
Threshold Exceeded?	**No**	**No**	**No**	**No**

lbs/day = pounds per day; ROG = reactive organic gases, NO_X = nitrogen oxides, PM_{10} = particulate matter 10 microns in diameter or less, $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

Notes: All emissions modeling was completed using CalEEMod and prepared by Illingworth and Rodkin, Inc. See Appendix A for modeling results.

Table 9 Maximum Buildout Operational Period Emissions

Emissions Source	ROG	NO_X	PM_{10}	$PM_{2.5}$
2024 Annual Emissions (tons/year)	1.79	0.64	0.99	0.33
BAAQMD Threshold (tons/year)	10	10	15	10
Threshold Exceeded?	**No**	**No**	**No**	**No**
2026 Average Daily Emissions (lbs/day)	9.79	3.52	5.42	1.81
BAAQMD Thresholds (lbs/day)	54	54	82	54
Threshold Exceeded?	**No**	**No**	**No**	**No**

lbs/day = pounds per day; ROG = reactive organic gases, NO_X = nitrogen oxides, PM_{10} = particulate matter 10 microns in diameter or less, $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

Notes: All emissions modeling was completed using CalEEMod and prepared by Illingworth and Rodkin, Inc. See Appendix A for modeling results.

c. Would the project expose sensitive receptors to substantial pollutant concentrations?

Certain population groups, such as children, the elderly, and people with health problems, are particularly sensitive to air pollution. Therefore, the majority of sensitive receptor locations are schools, hospitals, and residences. The closest sensitive receptors to the project site are single-family homes located approximately 1,100 feet south. The project also includes the siting of new sensitive receptors. Localized air quality impacts to sensitive receptors typically result from CO hotspots and TACs, which are discussed in the following subsections.

Carbon Monoxide Hotspots

A CO hotspot is a localized concentration of CO that is above a CO ambient air quality standard. Localized CO hotspots can occur at intersections with heavy peak hour traffic. Specifically, hotspots can be created at intersections where traffic levels are sufficiently high such that the local CO

concentration exceeds the federal one-hour standard of 35.0 ppm or the federal and state eight-hour standard of 9.0 ppm (CARB 2016).

BAAQMD recommends comparing project's attributes with the following screening criteria as a first step to evaluating whether the project would result in the generation of CO concentrations that would substantially contribute to an exceedance of the *Thresholds of Significance*. The project would result in a less than significant impact to localized CO concentrations if:

1. The project is consistent with an applicable congestion management program for designated roads or highways, regional transportation plan, and local congestion management agency plans
2. The project would not increase traffic volumes at affected intersections to more than 44, 000 vehicles per hour
3. the project traffic would not increase traffic volumes at the affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage).

The project would include 80 residential units and 2,154 square feet of office development. Based on the project Traffic Study, the residences would generate 564 trips and the office use would generate 35 trips for a total of 599 trips (Appendix K). The project trip generation is far below the screening thresholds listed above. Therefore, the impact of localized CO emissions would not be significant.

Toxic Air Contaminants

TACs are defined by California law as air pollutants that may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health. The following subsections discuss the project's potential to result in impacts related to TAC emissions during construction and operation.

Construction

Construction-related activities would result in temporary project-generated emissions of diesel particulate matter (DPM) exhaust emissions from off-road, heavy-duty diesel equipment for site preparation, grading, building construction, and other construction activities. DPM was identified as a TAC by CARB in 1998 (CARB 2021).

For assessing community risks and hazards, BAAQMD recommends a 1,000-footinfluence area around the project site boundary. No sensitive receptors were identified within 1,000 feet of the project site, and the closet sensitive receptors are approximately 1,100 south of the project site. Therefore, given the distance of receptors and temporary nature of construction, risks and hazards from construction activities would not expose sensitive receptors to substantial TAC concentrations. Impacts would be less than significant.

Operation

Sources of operational TACs include, but are not limited to, land uses such as freeways and high-volume roadways, truck distribution centers, ports, rail yards, refineries, chrome plating facilities, dry cleaners using perchloroethylene, and gasoline dispensing facilities. The project does not include construction of new gas stations, dry cleaners, highways, roadways, or other sources that could be considered new permitted or non-permitted source of TAC or $PM_{2.5}$ in proximity to receivers. In addition, the project would not introduce a new stationary source of emissions and the mobile

emissions generated from the project would be minimal and spread over a broad geographical area. Furthermore, there are no sensitive receptors within 1,000 feet of the project. Therefore, the operation of the project would not expose nearby sensitive receivers to substantial pollutant concentrations. Impacts would be less than significant.

HEALTH RISK ASSESSMENT OF TAC IMPACTS TO PROJECT RESIDENTS

A Health Risk Assessment (HRA) for the project site was prepared by Illingworth and Rodkin, Inc and peer reviewed by Rincon Consultants. The HRA analyzed the possible health effects associated with TAC emissions from Highway 101 stationary sources within 1,000 feet of the project site, and the nearby major streets and the Sonoma Marin Area Rail Transit (SMART) line (Appendix A).

U.S. 101

The HRA conducted site-specific air dispersion modeling to determine whether health risks to future residents from U.S. 101 exceed the BAAQMD health risk criteria for residences. BAAQMD has health risk criteria for cancer risk, non-cancer risk (i.e., chronic and acute), and annual average $PM_{2.5}$ concentration. Cancer risk is expressed as the maximum number of new cancer cases projected to occur in a population of one million people due to exposure to a cancer-causing substance. Typically, cancer risk is analyzed over a specific exposure duration, such as the average residency. Thirty years is the exposure duration scenario recommended by BAAQMD for residential receptors in the *Air Toxics NSR Program Health Risk Assessment Guidelines* (BAAQMD 2016). Potential acute health risks include severe symptoms that develop rapidly and lead quickly to a health issue due to exposure to a harmful substance, whereas chronic health risks include health crises, such as lung inflammation, immune suppression, and immune sensitization, which develop due to exposure to low levels of a harmful substance over a long period of time.

The HRA analyzed the primary source of TACs near the project site, which is diesel exhaust particulates from heavy duty traffic traveling on U.S. 101. In addition to diesel exhaust particulates from U.S. 101, this analysis also examined total organic compounds (TOG), running evaporative losses for TOG, $PM_{2.5}$, tire and brake wear, and fugitive road dust from $PM_{2.5}$ (Appendix A). The refined modeling accounted for Minimum Efficiency Reporting Value (MERV) 13 filters in the residential buildings. The modeled risks and hazards are reported in Table 10.

BAAQMD Permitting Stationary Sources

A screening-level health risk assessment in accordance with BAAQMD guidelines was conducted to identify major sources within 1,000 feet of the project site. One source was identified with the source being a gas dispensing facility. The screening risk and hazards for the source were adjusted for distance using the BAAQMD *Distance Adjustment Multiplier Tool for Gasoline Dispensing Facilities*. The screened risks and hazards are reported in Table 10.

SUMMARY OF INDIVIDUAL AND CUMULATIVE TAC IMPACTS

The maximum cancer risks were found to be below the BAAQMD cancer risk of 10 per million. Potential acute and chronic health risks for on-site residential units were determined to be below the BAAQMD hazard index of 1.0 and $PM_{2.5}$ would be below the BAAQMD threshold of 0.3 µg/m3. Furthermore, the aggregate total of all sources, including nearby major streets, rail, and stationary sources, would not exceed BAAQMD cumulative thresholds. Therefore, impacts would be less than significant.

Table 10 Individual and Cumulative Cancer Risk and Particulate Matter Concentrations

Source ID[1]	Description	Distance to Project Site (feet)	Cancer Risk (per million)	$PM_{2.5}$ Concentration (µg/m3)	Increased Non-Cancer Risk (Chronic Hazard Index)
N/A	U.S. 101 – Highway[2]	100	5	0.15	<0.01
N/A	SMART Train Line – Rail Line	250	3	<0.01	<0.01
109028	Cagwin and Dorward – Gas Station	900	<1	–	–
Combined Total			<9	<0.16	<0.02
BAAQMD Individual Source Screening Threshold			10	0.3	1
Individual Source Threshold Exceeded?			No	No	No
BAAQMD Cumulative Screening Threshold			100	0.8	10
Cumulative Threshold Exceeded?			No	No	No

[1] Source IDs presented here are those used in the Stationary Source Screening Analysis Tool.

[2] Includes MERV13 filtration in the residential building

N/A: not applicable; data was not provided

Source: Appendix A, Health Risk Screening Assessment

LESS THAN SIGNIFICANT IMPACT

Maximum Buildout

Should the proposed General Plan amendment be granted and the Habitat Redwood Boulevard project not developed, the approximately eight acres of useable project site would remain available for uses as allowed under the R10 designation. The maximum use under the R10 designation would be represented by a housing development including up to approximately 160 units. Construction of the 160 dwelling unit residential development would not expose sensitive receptors to substantial pollutant concentrations since the closest sensitive receptors for TACs are located over 1,100 feet south of the project site. The housing development would also not be a source of TACs nor would it include a permitted source of TACs. In addition, since the project site boundaries would not change with the maximum buildout the individual and cumulative health impacts from exiting, off-site TAC sources would remain the same and health risks would be below the BAAQMD thresholds. Thus, the construction and operation of the housing development would not expose on-site sensitive receptors to substantial cancerous or non-cancerous risks. Impacts would be less than significant.

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

During construction activities, heavy equipment and vehicles would emit odors associated with vehicle and engine exhaust and during idling. However, these odors would be intermittent and temporary and would cease upon completion, and odors disperse with distance. Overall, project construction would not generate other emissions, such as those leading to odors, affecting a substantial number of people. Construction-related impacts would be less than significant.

Table 3-3 in the BAAQMD 2017 *CEQA Air Quality Guidelines* provides screening distances for land uses that have the potential to generate substantial odor complaints. The uses in the table include wastewater treatment plants, landfills or transfer stations, refineries, composting facilities, confined animal facilities, food manufacturing, smelting plants, and chemical plants (BAAQMD 2017b). Multi-

family residential development and office uses are not included in this list, and operation of the project would not generate other emissions, such as those leading to odors, that would affect a substantial number of people. No operational impacts would occur.

LESS THAN SIGNIFICANT IMPACT

Maximum Buildout

Should the proposed General Plan amendment be granted and the Habitat Redwood Boulevard project not developed, the approximately eight acres of useable project site would remain available for uses as allowed under the R10 designation. The maximum use under the R10 designation would be represented by a housing development including up to approximately 160 units. No land uses that have been identified by BAAQMD as potential sources of objectionable odors would be included in the housing development. Construction of the maximum buildout scenario would still result in temporary and intermittent odors from heavy equipment and vehicles. Impacts related to potential odors would be less than significant.

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4 Biological Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. 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 Wildlife or U.S. Fish and Wildlife Service?	☐	■	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	■	☐	☐
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	■	☐	☐
d. 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?	☐	☐	■	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	■	☐
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	■

Methods

A Biological Resources Assessment (BRA) was prepared for the project on May 2021 by WRA, Inc. and a Jurisdictional Delineation Report was prepared by WRA, Inc. on October 2021, both peer reviewed by Rincon Consultants (Appendix B). The BRA mapped vegetation, aquatic communities, and unvegetated land; documented plant and wildlife species present; and evaluated habitats on-site for the potential to support special-status species. A targeted protocol-level survey was conducted on April 19, 2019. The results and project impacts summarized below are based on findings from the BRA.

a. Would the project 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 Wildlife or U.S. Fish and Wildlife Service?

The project site is a vacant parcel covered in non-native annual grasslands with patches of purple needlegrass (*Stipa pulchra*) and coast oak woodlands at the southeastern boundary. Purple needlegrass is considered a sensitive native community and discussed further under Item b. The vegetation on the site also provides potential habitat for nesting bird species. The project site is not suitable habitat for species listed under the Federal Endangered Species Act or California Endangered Species Act. There is medium to high potential for some special status species to occur on-site. During the protocol survey in April 2019, no special status plants were observed, and during a site visit in May 2018 no special status wildlife species were observed.

Special Status Plants

A review of resource agency databases and lists for known special status plant species occurrences in the nine United States Geological Survey (USGS) quadrangles containing and surrounding the project site identified 28 special status plant species (Appendix B). Based on the disturbed nature of the site and each species' specific habitat requirements, 27 of these species were eliminated from the evaluation. The project site contains potentially suitable habitat for one special status plant species, Fragrant fritillary (*Fritillaria liliacea*), which was determined to have a high potential to occur on the project site. This species typically occurs in open, grassy areas in valley and foothill grassland, coastal scrub, and coastal prairie habitat at elevations ranging from 10 to 1,345 feet. Fragrant fritillary has a California Rare Plant Rank (CRPR) of 1B.2, which indicates that the plant is rate, threatened, or endangered in California and elsewhere and it is moderately threatened in California with a 20 to 80 percent chance of being threatened (California Native Plant Society 2021). A protocol-level rare plant survey of the site was conducted on April 19, 2019. The fragrant fritillary was not observed on-site during the survey. Impacts to CRPR 1B.1 or 1B.2 species would only be considered significant under CEQA if the loss of individuals on the project site represented a population-level impact that resulted in a loss of or risk to the entire regional population. Since the Fragrant fritillary was not detected during the rare plant survey and no other special-status plants have a moderate or high potential to occur, impacts to special-status plant species would be less than significant.

Special Status Wildlife and Nesting Birds

A review of resource agency databases for known special status wildlife species occurrences in the nine USGS quadrangles containing and surrounding the project site identified potential for 21 special status wildlife species (Appendix B). Based on the disturbed nature of the site and species-

specific habitat requirements, 15 of these species could be eliminated from the evaluation. Six special status species were identified to have moderate potential to be present on the project site. The species include pallid bat (*Antrozous pallidus*), fringed myotis (*Myotis thysanodes*), hoary bat (*Lasirus cinerus*), burrowing owl (*Athene cunicularia*), white-tailed kite (*Elanus leucurus*), and grasshopper sparrow (*Ammodramus savannarum*). Project construction activities could impact these species.

During a site visit on May 29, 2018, no suitable maternity or hibernation roost habitat were found for the pallid bat, fringed myotis, nor the hoary bat. Common bats may still roost within the project site, but the roosts would not be affected since no trees would be removed. Given the limited amount of suitable habitat and the fact that no tree removal would occur during construction, temporary noise generated during construction would not significantly impact special status bats species.

The project site contains suitable habitat for burrowing owls and nesting bird species (white-tailed kite and grasshopper sparrow). Vegetation removal and ground disturbance during construction has the potential to damage suitable burrows, make burrows inaccessible, and/or harm burrowing owl individuals. Additionally, construction activities, if occurring during nesting season (February 1st through August 31st), have the potential to impact nests of the native nesting birds or lead to the abandonment of active nests by causing auditory, vibratory and/or visual disturbance. Therefore, the project would have potentially significant impacts related to burrowing owls and nesting birds. Implementation of Mitigation Measure BIO-1 would be required to reduce impacts to burrowing owls and implementation of Mitigation Measure BIO-2 would reduce significant impacts for nesting birds. Impacts on burrowing owls and nesting birds would be less than significant with mitigation.

Mitigation Measures

The following mitigation measures would be required to avoid or reduce the project's potentially significant impacts to nesting birds and burrowing owls.

BIO-1 Burrowing Owl Mitigation

A pre-construction survey shall be performed in accordance with the Staff Report on Burrowing Owl Mitigation (CDFG 2012) within 14 days of initial ground disturbance associated with the project. The pre-construction survey shall include suitable habitat within the project site and areas up to 656 feet (200 meters) from the project site. The pre-construction survey shall be conducted prior to the start of staging and construction, regardless of the time of year. If burrowing owls are detected within the project site proposed limits of grade (i.e., where ground-disturbing activities would occur) during the non-nesting season and the burrow cannot be avoided, a burrowing owl exclusion plan shall be prepared and implemented. Mitigation may be required by the CDFW as part of the exclusion plan. If burrowing owl is detected within the project site, but outside of the proposed limits of grade during the non-nesting season, vehicular traffic, construction noise and visual disturbance will be minimized to the extent feasible to minimize the potential for flushing overwintering owls from protective burrows. Occupied burrows will not be disturbed during the nesting season (February 1 through August 31) unless, after consultation with the CDFW, a qualified biologist verifies that either: (1) burrowing owls have not begun egglaying and incubation; or (2) that juveniles from the occupied burrows are foraging independently and capable of independent survival.

BIO-2 Nesting Bird Surveys and Avoidance

Initiation of construction activities during the avian nesting season (February 1 through August 31) shall be avoided to the extent feasible. If the commencement of construction activities begins during the nesting season, pre-construction nesting bird surveys shall be conducted within 14 days of initial ground disturbance or vegetation removal to avoid disturbance to active nests, eggs, and/or young of nesting birds. Surveys can be used to detect the nests of special-status, as well as non-special-status birds. Surveys will occur throughout the limits of grade portion of the project site and the surrounding 500 feet. If any active avian nests are found, an exclusion zone where no construction would be allowed will be established around any active nests until a qualified biologist has determined that all young have fledged and are independent of the nest. Suggested exclusion zone distances differ depending on species, location, and placement of nest, and will be at the discretion of the biologist. These surveys will remain valid as long as construction activity is consistently occurring in a given area and will be completed again if there is a lapse in construction activities of more than 14 consecutive days during the breeding bird season.

Implementation of Mitigation Measure BIO-1 and BIO-2 would reduce impacts to special status species to a less than significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

CDFW provides protection for sensitive vegetation and aquatic natural communities. Any impacts to CDFW defined sensitive natural communities or communities identified in local or regional plans must be evaluated. Purple needlegrass (*Stipa pulchra*), a sensitive natural community, occurs in patches on the east and northeast facing hillslopes of the project site. The project would result in removal of 1.17 acres of purple needlegrass grassland. However, with implementation of Mitigation Measure BIO-3, the project design would include hydroseeding of approximately 1.17 acres of purple needlegrass grassland in the western section of the project site that would remain undeveloped, to offset impacts to existing purple needlegrass on the project site. The proposed purple needlegrass community would replace purple needlegrass at a 1:1 ratio and result in a more contiguous habitat in the western portion of the project site. To ensure new and existing purple needlegrass is monitored, maintained, and protected, a maintenance and monitoring program would be adopted as part of the project. Therefore, sensitive natural community impacts would be less than significant with mitigation incorporated.

Mitigation Measures

BIO-3 Hydroseeding of Purple Needlegrass Grassland

The project shall include the hydroseeding of approximately 1.17 acres of purple needlegrass grassland (*Stipa pulchra*) to replace the 1.17 acres of purple needlegrass that would be removed by the project. Replacement of purple needlegrass grassland shall occur at a 1:1 ratio and western portion of the site where hydroseeding would occur shall remain undeveloped. A maintenance and monitoring program shall be prepared by a qualified biologist to ensure that new and existing purples needlegrass is monitored, maintained, and protected.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

c. Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Wetlands are sensitive environmental resources that are protected at federal, state, and local levels. The State Water Resources Control Board (SWRCB) and Regional Water Quality Control Boards (RWQCB) issue permits for the discharge of fill material into surface waters. As discussed in the formal wetland delineation conducted for the project in May 2018 by WRA Environmental Consultants, the project site contains one seasonal wetland, two ephemeral streams, and three manmade drainage ditches (Appendix B). Construction of the project would result in filling and grading of one ephemeral stream and two manmade drainage ditches, which would result in approximately 0.07 acre of wetland impacts. Mitigation Measure BIO-4 therefore requires construction of an 856-linear foot stream on the western portion of the project site that would tie into the off-site portion of the existing ephemeral stream. The stream would convey flows directly into a culvert located south of the Novato Days Inn and improve the on-site hydrologic conditions compared to the impacted existing ephemeral stream, which dissipates after 151 linear feet and results in sheet flow across the site. The stream would mimic existing stream conditions and connect to a drainage ditch at an angle to avoid overbank flow and erosion. A maintenance and monitoring program would also be required.

The project applicant has applied for a Waste Discharge Requirements permit from the RWQCB and a Section 1602 Lake and Streambed Alteration Agreement from CDFW. An application for a jurisdictional determination to disclaim all aquatic features on the project site from the CWA regulation under the Navigable Waters Protection Rule was submitted in October 2020. If the aquatic features are not exempt, then the project applicant would also be required to apply for a Section 404 nationwide permit from the United States Army Corps of Engineers (Corps) and a Section 401 quality certification from the RWQCB. An approved jurisdiction determination was completed by the Corps on February 20, 2021. It was concluded that the seasonal wetland, the two ephemeral streams, and two of the three manmade drainage ditches do not qualify as waters of the United States. The northernmost drainage ditch would be regulated by the Corps but the ditch would be avoided by the project (Appendix B). Therefore, with the construction of the new linear stream under Mitigation Measure BIO-4 and obtainment of the applicable aquatic resource permits, the impacts to aquatic resources would be less than significant.

Mitigation Measures

BIO-4 Stream Channel

The project shall include the construction of an 856-linear foot stream on the southwestern portion of the project site that shall tie into the off-site portion of the existing ephemeral stream. The stream shall convey flows directly into a culvert located south of the Novato Days Inn. The proposed stream shall mimic existing stream conditions and connect to a drainage ditch at an angle to avoid overbank flow and erosion. There must be at a minimum a 30-footbuffer between the stream channel and the residential buildings. The stream design shall be approved by the City of Novato Department of public works and constructed prior to grading and excavation for the residential project. The project proponent is responsible for all costs associated with the City's review of plans, reports, and/or monitoring associated with this mitigation measure, including costs associated with a City-hired consultant for peer review, if necessary.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

d. Would the project 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?

Wildlife movement includes migration (i.e., usually one way per season), inter-population movement (i.e., long-term genetic flow) and small travel pathways (i.e., daily movement corridors within an animal's territory). While small travel pathways usually facilitate movement for daily home range activities such as foraging or escape from predators, they also provide connection between outlying populations and the main corridor, permitting an increase in gene flow among populations. Redwood Boulevard and Highway 101 border the project site to the east and Buck Center Drive borders the project to the south. Undeveloped grassland and woodland border the project site to the west and north. The surrounding roadways act as barriers to movement for terrestrial species, thus eliminating connectivity between blocks of core habitat and constraining wildlife movement in the immediate vicinity of the project site. Furthermore, the project is not located within a designated wildlife corridor (Appendix B). Therefore, the impacts on the movement of native resident or migratory species would be less than significant.

LESS THAN SIGNIFICANT IMPACT

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

General Plan 2035 and the Novato Municipal Code contain policies, development standards, and permitting procedures applicable to sites containing wetlands, waterways and riparian habitat, hillsides, and woodland resources. Applicable ordinances are as follows: City of Novato Wetland Protection Ordinance, City of Novato Waterways and Riparian Protection Ordinance, and City of Novato Woodland and Tree Preservation Ordinance.

The project site contains one seasonal wetland that would be avoided by the project. Additionally, the wetland was determined to be exempt from regulation under the CWA per the February 2021 approved jurisdiction determination., which disqualifies the wetland under the City's definition. The City defines wetlands as any wetland delineated by the Corps under provision of the CWA. Therefore, the project would not conflict with the City of Novato Wetland Protection Ordinance. Novato defines a Stream Protection Zone as part of the City of Novato Waterways and Riparian Protection Ordinance. The project site is located outside the boundaries of an area that requires a Stream Protection Zone as shown in 1996 General Plan EN Map 1 (City of Novato 1996).[4] Thus, the project would not conflict with the City of Novato Waterways and Riparian Protection Ordinance. Lastly, the project would not involve removal or trimming of trees and the City of Novato Woodland and Tree Preservation Ordinance would not apply to the project. Therefore, the project would not conflict with local policies and ordinances. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

[4] Consistent with the City of Novato Municipal Code Section 19.35.020, the EN Map 1 from the 1996 General Plan is used to identify the steam protection zone.

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The project site is not located within the boundaries of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. As such, the project would not conflict with the provisions of an applicable plan, and no impact would occur.

NO IMPACT

Maximum Buildout

Should the proposed General Plan amendment be granted and the Habitat Redwood Boulevard project not be developed, the approximately eight acres of useable project site would remain available for uses as allowed under the R10 designation. The remaining five acres would not be developed due to the sloped topography of the site, existing biological communities on site, including the purple needlegrass grassland, the three manmade drainage ditches, the two ephemeral streams, and the seasonal wetland. The maximum use under the R10 designation would be represented by a housing development up to approximately 160 units. Construction of a 160-unit housing development would not be significantly different from the project as proposed in terms of area of disturbance, and would therefore have generally similar impacts to biological resources. Assuming that biological conditions on the site would not be significantly different if such a project were proposed, the same mitigation measures would be required for an alternative project and impacts to biological resources under this alternative would be generally the same as for the proposed project.

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5 Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	■	☐	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	■	☐	☐
c. Disturb any human remains, including those interred outside of formal cemeteries?	☐	■	☐	☐

This section provides an analysis of the project's impacts on cultural resources, including historical and archaeological resources, as well as human remains, and is based on the cultural resource study attached as Appendix C.

CEQA requires a lead agency determine whether a project may have a significant effect on historical resources (Public Resources Code [PRC] Section 21084.1) and tribal cultural resources (PRC Section 21074 [a][1][A]-[B]). A historical resource is a resource listed in, or determined to be eligible for listing, in the California Register of Historical Resources (CRHR), a resource included in a local register of historical resources, or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (*CEQA Guidelines* Section 15064.5[a][1-3]).

A resource shall be considered historically significant if it:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage
2. Is associated with the lives of persons important in our past
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values
4. Has yielded, or may be likely to yield, information important in prehistory or history

In addition, if it can be demonstrated that a project would cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC Section 21083.2[a-b]).

PRC Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

A Cultural Resources Study was competed for the project by LSA in January 2021 and peer reviewed by Rincon Consultants. The study includes the results of a California Historical Resource Information System (CHRIS) records search, a historic-period map review, a cultural resources geoarchaeological sensitivity assessment, and a pedestrian field survey.

The cultural resources records search was conducted on October 28, 2020 at the Northwest Information Center (NWIC) located at Sonoma State University. The search was performed to identify previously conducted cultural resources studies, as well as previously recorded cultural resources within the project sites and a 0.25-mile radius. The CHRIS search included a review of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the Office of Historic Preservation Historic Properties Directory, the California Inventory of Historic Resources, and the Archaeological Determinations of Eligibility list. The NWIC records search identified that four previously conducted cultural resources studies have been performed within a 0.25-mile radius of the project site, all within the current project site (Appendix C). Additionally, four cultural resources are recorded within a 0.25-mile radius of the project site with two within 1,000 feet of the site but no resources were identified onsite. The historic map and aerial photography identified structures in the northeast corner that have since been removed and are no longer present. The geoarchaeological sensitivity assessment, which was part of geoarchaeological study for U.S. 101, concluded that based on Holocene-age alluvial fan deposits and the sites proximity to fresh water that there is potential for buried archaeological resources onsite. Lastly, a pedestrian field survey was conducted on October 9, 2020 with no observations or identification of cultural resources.

The City of Novato initiated consultation with the Native American Heritage Commission (NAHC) on February 4, 2021. A Sacred Lands File (SLF) search was completed by the NAHC with positive results for the project vicinity, who then recommended contacting the Federated Indians of Graton Rancheria (FIGR) and the Guidiville Indian Rancheria (GIR) for additional details. The City of Novato provided project details to the FIGR and GIR on March 2, 2021 with no response from either tribe. The presence of any Native American resources within the project site was not indicated.

a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Based on the results of the cultural resources records search, Native American scoping, and pedestrian field survey, no cultural resources were identified within the project site. Although the Sacred Lands File search returned with positive results, the FIGR and GIR did not indicate the presence of Native American resources within the project site. However, the unanticipated discovery of archaeological resources, that may also be considered historical resources, during construction of the project remains a possibility and impacts to unanticipated resources are potentially significant. The following mitigation measures would reduce archaeological impacts to less than significant levels by requiring halting construction in the vicinity of any cultural resources found during construction and requiring evaluation and treatment of resources determined to be significant.

Mitigation Measure

CUL-1 Archaeological Monitoring

A qualified archaeological monitor shall be retained by the Project Applicant to observe all project-related ground disturbing activities. Ground disturbing activities include, but are not limited to, asphalt removal, hand excavation, clearing, grubbing, and removing and/or recompacting unconsolidated soils near the ground surface. Archaeological monitoring shall be performed under the direction of an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology (National Park Service 1983). Monitoring shall occur within limits of the grading and project footprint and only where alluvial fan deposits may be buried.

If suspected archaeological resources are encountered at any point during project construction on either project site, work within a minimum of 60 feet of the suspected resource must halt and the find evaluated for listing in the CRHR. If a resource is determined to be a tribal cultural resource, then the provisions of Mitigation Measures TCR-1 shall control. The 60-foot radius may be reduced or expanded at the discretion of the qualified archaeologist if the potential resource is not determined to be a tribal cultural resource subject to Mitigation Measures TCR-1. Archaeological monitoring may be reduced to spot-checking or eliminated at the discretion of the monitor, in consultation with the qualified archaeologist, Native American monitor required pursuant to TCR-1, and lead agency, as warranted by conditions such as encountering bedrock, sediments being excavated are fill, or negative findings during the first 60 percent of rough grading. If monitoring is reduced to spot-checking, spot-checking shall occur when ground-disturbance moves to a new location within the project sites and when ground disturbance will extend to depths not previously reached (unless those depths are within bedrock).

CUL-2 Unanticipated Discovery of Archaeological Resources

If archaeological resources are encountered during ground-disturbing activities, work within a minimum of 60 feet shall be halted and an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology (National Park Service 1983) shall be contacted immediately to evaluate the find. If necessary, the evaluation may require preparation of a treatment plan and archaeological testing for CRHR eligibility. If the discovery proves to be eligible for the CRHR and cannot be avoided by the project, additional work, such as data and/or heritage

recovery excavation, may be required. Treatment of the resource(s) shall be determined on a case-by-case basis based on the nature of the find between the qualified archaeologist, and lead agency. If a resource is determined to be a tribal cultural resource, then the provisions of Mitigation Measures TCR-1 shall control.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

c. Would the project disturb any human remains, including those interred outside of formal cemeteries?

No human remains have been identified within the project sites; however, the discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the Coroner would notify the Native American Heritage Commission, which would determine and notify a most likely descendant (MLD). The MLD has 48 hours from being granted site access to make recommendations for the disposition of the remains. If the MLD does not make recommendations within 48 hours, the landowner shall reinter the remains in an area of the property secure from subsequent disturbance. With adherence to State law and incorporation of Mitigation Measure CUL-1 and CUL-2, impacts related to the discovery of human remains would be less than significant.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

Maximum Buildout

Should the proposed General Plan amendment be granted and the Habitat Redwood Boulevard project not be developed, the approximately eight acres of useable project site would remain available for uses as allowed under the R10 designation. The maximum use under the R10 designation would be represented by a housing development up to approximately 160 units. Construction of a 160-unit housing development would not be significantly different from the project as proposed in terms of area and depth of disturbance and would therefore have similar impacts to cultural resources. Assuming that conditions on the site would not be significantly different if such a project were proposed, the same mitigation measures would be required and impacts to cultural resources under this alternative would be generally the same as the project.

6 Energy

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	■	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	■	☐

As a state, California is one of the lowest per capita energy users in the United States, ranked 48th in the nation, due to its energy efficiency programs and mild climate (United States Energy Information Administration 2021). Electricity and natural gas are primarily consumed by the built environment for lighting, appliances, heating and cooling systems, fireplaces, and other uses such as industrial processes in addition to being consumed by alternative fuel vehicles. Most of California's electricity is generated in state with approximately 28 percent imported from the Northwest and Southwest in 2019. However, the state relies on out-of-state natural gas imports for nearly 90 percent of its supply (California Energy Commission [CEC] 2021a and 2021b). In addition, approximately 32 percent of California's electricity supply comes from renewable energy sources, such as wind, solar photovoltaic, geothermal, and biomass (CEC 2021a). In 2018, Senate Bill 100 accelerated the state's Renewable Portfolio Standards Program, codified in the Public Utilities Act, by requiring electricity providers to increase procurement from eligible renewable energy and zero-carbon resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045. Electricity and natural gas service would be provided to the project by Pacific Gas and Electric (PG&E). Marin Clean Energy (MCE) is another electricity provider in the City of Novato and would be available for future residents to join. MCE is a community choice aggregation program in Northern California that provides consumers to the choice to utilize electricity that is sourced from a higher percentage of eligible renewables. Table 11 summarizes the electricity and natural gas consumption for Marin County, in which the project site would be located, and for PG&E, as compared to statewide consumption.

Table 11 2019 Electricity and Natural Gas Consumption

Energy Type	Marin County	PG&E	California	Proportion of PG&E Consumption	Proportion of Statewide Consumption[1]
Electricity (GWh)	1,355	78,071	279,402	1.7%	0.5%
Natural Gas (millions of therms)	70	4,942	13,158	1.4%	0.5%

GWh = gigawatt-hours

[1] For reference, the population of Marin County (257,774 persons) is approximately 0.7 percent of the population of California (39,466,855 persons) (California Department of Finance 2021).

Source: CEC 2021c

Petroleum fuels are primarily consumed by on-road and off-road equipment in addition to some industrial processes, with California being one of the top producers of petroleum in the nation (CEC 2021d). Gasoline, which is used by light-duty cars, pickup trucks, and sport utility vehicles, is the most used transportation fuel in California with 15.4 billion gallons sold in 2019 (CEC 2020). Diesel, which is used primarily by heavy duty-trucks, delivery vehicles, buses, trains, ships, boats and barges, farm equipment, and heavy-duty construction and military vehicles, is the second most used fuel in California with 1.8 billion gallons sold in 2019 (CEC 2020). Table 12 summarizes the petroleum fuel consumption for Marin County, in which the project site would be located, as compared to statewide consumption.

Table 12 2019 Annual Gasoline and Diesel Consumption

Fuel Type	Marin County (millions of gallons)	California (millions of gallons)	Proportion of Statewide Consumption[1]
Gasoline	96	15,365	0.6%
Diesel	4	1,756	0.2%

[1] For reference, the population of Marin County (257,774 persons) is approximately 0.7 percent of the population of California (39,466,855 persons) (California Department of Finance 2021).

Source: CEC 2020

Energy consumption is directly related to environmental quality in that the consumption of nonrenewable energy resources releases criteria air pollutant and greenhouse gas (GHG) emissions into the atmosphere. The environmental impacts of air pollutant and GHG emissions associated with the project's energy consumption are discussed in detail in Section 3, *Air Quality*, and Section 8, *Greenhouse Gas Emissions*, respectively.

a. Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

The project would use nonrenewable and renewable energy resources for construction and operation of the project. The anticipated use of these resources is detailed in the following subsections. Applicant-provided information, the CalEEMod outputs for the air pollutant and GHG emissions modeling (Appendix A) were used to estimate energy consumption associated with the project.

Construction Energy Demand

The project would require site preparation and grading, including hauling material off-site; pavement and asphalt installation; building construction; architectural coating; and landscaping and hardscaping. During project construction, energy would be consumed in the form of petroleum-based fuels used to power off-road construction vehicles and equipment on the project site, construction worker travel to and from the project site, and vehicles used to deliver materials to the site. As shown in Table 13, project construction would require approximately 29,874 gallons of gasoline and approximately 221,130 gallons of diesel fuel.

Table 13 Estimated Fuel Consumption during Construction

	Fuel Consumption (gallons)	
Source	**Gasoline**	**Diesel**
Construction Equipment & Hauling Trips	N/A	221,130
Construction Worker Vehicle Trips	29,874	N/A

N/A = not applicable

See Appendix D for energy calculation sheets.

Energy use during construction would be temporary in nature, and construction equipment used would be typical of similar-sized construction projects in the region. In addition, construction contractors would be required to comply with the provisions of California Code of Regulations Title 13 Sections 2449 and 2485, which prohibit diesel-fueled commercial motor vehicles and off-road diesel vehicles from idling for more than five minutes and would minimize unnecessary fuel consumption. Construction equipment would be subject to the U.S. EPA Construction Equipment Fuel Efficiency Standard, which would also minimize inefficient, wasteful, or unnecessary fuel consumption. Furthermore, per applicable regulatory requirements such as 2019 CALGreen, the project would comply with construction waste management practices to divert a minimum of 65 percent of construction debris. These practices would result in efficient use of energy necessary to construct the project. In the interest of cost-efficiency, construction contractors also would not utilize fuel in a manner that is wasteful or unnecessary. Overall, project construction would be temporary and typical of similar types of projects. Therefore, the project would not involve the inefficient, wasteful, and unnecessary use of energy during construction, and the construction-phase impact related to energy consumption would be less than significant.

Operational Energy Demand

Operation of the project would contribute to regional energy demand by consuming electricity, and gasoline and diesel fuels. The proposed development would be 100 percent electric and not use natural gas. Electricity would be used for heating and cooling systems, lighting, appliances, and water and wastewater conveyance, among other purposes. Gasoline and diesel consumption would be associated with vehicle trips generated by residents and employees. Note that the CalEEMod output in Appendix A assumed natural gas usage in the model. Therefore, the natural gas consumption in the CalEEMod output was converted into electricity consumption to account for the increased electricity use. Table 14 summarizes estimated operational energy consumption for the project. As shown therein, project operation would require approximately 59,719 gallons of gasoline and 10,294 gallons of diesel for transportation fuels, and 0.88 GWh of electricity. Vehicle trips

associated with future residents and employees would represent the greatest operational use of energy associated with the project.

Table 14 Estimated Project Annual Operational Energy Consumption

Source	Energy Consumption[1]	
Transportation Fuels		
Gasoline	59,719 gallons	6,556 MMBtu
Diesel	10,294 gallons	1,312 MMBtu
Electricity	0.88 GWh	3,018 MMBtu

MMBtu = million metric British thermal units; GWh = gigawatt-hours

[1] Energy consumption is converted to MMBtu for each source

See Appendix D for energy calculation sheets and Appendix A for CalEEMod output results for electricity usage.

The project would be required to comply with all standards set in the latest iteration of the California Building Standards Code (California Code of Regulations Title 24), which would minimize the wasteful, inefficient, or unnecessary consumption of energy resources by the built environment during operation. California's CALGreen standards (California Code of Regulations Title 24, Part 11) require implementation of energy-efficient light fixtures and building materials into the design of new construction projects. Furthermore, the 2019 Building Energy Efficiency Standards (California Code of Regulations Title 24, Part 6) require newly constructed buildings to meet energy performance standards set by the CEC. These standards are specifically crafted for new buildings to result in energy efficient performance so that the buildings do not result in wasteful, inefficient, or unnecessary consumption of energy. In addition, per CALGreen, all plumbing fixtures used for the project would be high-efficiency fixtures, which would minimize the potential the inefficient or wasteful consumption of energy related to water and wastewater.

Furthermore, the project would increase housing density in proximity to the Novato San Marin SMART station (1 mile south), which would facilitate the use of transit and alternative transportation modes such as walking and biking. Therefore, project operation would not result in potentially significant environmental effects due to the wasteful, inefficient, or unnecessary consumption of energy. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

Maximum Buildout

Should the proposed General Plan amendment be granted and the Habitat Redwood Boulevard project not be developed, the approximately eight acres of useable project site would remain available for uses as allowed under the R10 designation. The maximum use under the R10 designation would be represented by a housing development up to approximately 160 units. As shown in Table 15 and Table 16, the construction and operational fuel consumption would be not be significantly different from the project as proposed. The alternative project would also be required to adhere to the same state regulations for construction and energy efficiency standards as the proposed project for new developments. Therefore, the alternative project would not result in potentially significant environmental effects due to the wasteful, inefficient, or unnecessary consumption of energy during construction or operation. Impacts would be less than significant.

Table 15 Maximum Buildout Estimated Fuel Consumption during Construction

Source	Fuel Consumption (gallons)	
	Gasoline	Diesel
Construction Equipment & Hauling Trips	N/A	85,861
Construction Worker Vehicle Trips	19,166	N/A

N/A = not applicable

See Appendix [X] for energy calculation sheets.

Table 16 Maximum Buildout Estimated Annual Operational Energy Consumption

Source	Energy Consumption[1]	
Transportation Fuels		
Gasoline	106,928 gallons	11,739 MMBtu
Diesel	18,310 gallons	2,334 MMBtu
Electricity	0.75 GWh	2,573 MMBtu
Natural Gas	15,472 U.S. Therms	1,439 MMBTU

MMBtu = million metric British thermal units; GWh = gigawatt-hours

[1] Energy consumption is converted to MMBtu for each source

See Appendix D for energy calculation sheets and Appendix A for CalEEMod output results for electricity and natural gas usage.

b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Table 17 lists applicable Novato Climate Change Action Plan Greenhouse Gas Reduction Measures that are included as Appendix E to the City's General Plan 2035 energy efficiency goals and policies and summarizes the project's compliance with these policies. As shown in Table 17, the project would be compliant with applicable energy efficiency goals and policies from the Novato Climate Change Action Plan (included as Appendix E to the City's General Plan). Therefore, potential impacts associated with renewable energy and energy efficiency would be less than significant.

Table 17 Project Compliance with Energy Efficiency Goals and Policies

Energy Efficiency Goal or Policy	Project Consistency
RM 4: *Energy Efficient Programs (Community)*. Continue and expand residential and commercial energy efficiency programs.	**Consistent.** The project would be served by PG&E and residential developments would include LED lighting. The project would not utilize natural gas as a source of energy and would be an all-electric development.
RM 6: *Clean Electricity.* Encourage residences and businesses to switch to GHG-free electricity and encourage MCE Clean Energy to reach its goal to provide 100 percent GHG-free by 2025.	**Consistent.** The project would utilize electricity provided by PG&E, which is subject to requirements per SB 100 and required to procure more electricity from renewable energy sources over time. MCE is also available and could be opted into.

Energy Efficiency Goal or Policy	Project Consistency
RM 9. *Renewable Energy*: Identify and remove barriers to small-scale, distributed renewable energy production within the community. This can be accomplished through: 1) adoption of incentives, such as permit streamlining and fee waivers, as feasible; 2) amendments to development codes, design guidelines, and zoning ordinances, as necessary; 3) installation of solar panels on carports and over parking areas on municipal facilities, commercial projects, and new large-scale residential developments, and; 4) implementation of Property Assessed Clean Energy (PACE) financing programs for residential and commercial projects	**Consistent.** The project would include rooftop solar panels with the goal to offset approximately 75 percent of the energy consumption.
RM 12: *Urban Forest.* Increase tree cover and increase shade of structures and other improvements within the City.	**Consistent.** The project would not remove existing trees and proposes to plant 107 new trees. The new trees would be planted along the new internal pathways, by the residential buildings, and in the outdoor common space areas (dog park and play areas).
RM 17: *Low-Emissions Vehicle Infrastructure* Improve infrastructure for low emission vehicles.	**Consistent**. The project would provide a total of six EV parking spaces onsite.
RM 21. *Affordable Housing*. Reduce community vehicles miles traveled through development of affordable housing for lower-income households.	**Consistent.** The project is a 100 percent affordable housing project that would provide residences for lower-income households. The project is located in proximity to public transit options and approximately two miles north of downtown Novato. The Novato San Marin SMART station is approximately 1 mile south of the project. The Marin Transit Route 49 bus service and Golden gate Transit Route 54 commuter bus route both provide services from this station. Compared to the office land use assumed in the General Plan EIR, this residential development would generate fewer trips.
RM 22: *Pedestrian Infrastructure.* Promote walking through design standards and amenities that concentrate uses, reduce the need for vehicular travel, and enhance the pedestrian experience.	**Consistent.** Approximately 45 bike parking spaces would be provided for residences and office employees. There would also be a dog park, trails and pathways, community garden, and playgrounds onsite for resident use. Sidewalks would be provided along the private roadway loops proposed in the project, allowing residents to walk within the development.
RM 23-24: *Bicycle Infrastructure (Commercial and Residential).* Increase the number of Novato workers who commute by bicycle. Increase the number of multi-family residents who bike to work and for other utilitarian purposes.	**Consistent.** The project would provide 40 bicycle parking spaces for residents and 5 bicycle parking spaces for office employees, which exceeds the City's parking code requirements. Providing bicycle parking spaces would allow residents and employees to store their bicycles onsite and encourage people to travel by bike, which would reduce VMT and transportation fuel consumption.

Source: City of Novato 2020

LESS THAN SIGNIFICANT IMPACT

Maximum Buildout

Should the proposed General Plan amendment be granted and the Habitat Redwood Boulevard project not be developed, the approximately eight acres of useable project site would remain available for uses as allowed under the R10 designation. The maximum use under the R10 designation would be represented by a housing development up to approximately 160 units. Although these units would be designed differently than the proposed project, it likewise would be required to be consistent with the Novato Climate Change Action Plan Greenhouse Gas Reduction Measures and impacts would be less than significant.

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7 Geology and Soils

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	■	☐
2. Strong seismic ground shaking?	☐	☐	■	☐
3. Seismic-related ground failure, including liquefaction?	☐	☐	■	☐
4. Landslides?	☐	■	☐	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	■
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	■	☐	☐
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	■	☐	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	■
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	■	☐	☐

A geotechnical investigation report was prepared for the project by Miller Pacific Engineering Group in January 2021 (Appendix E). The report summarized the current geologic site conditions, identified geologic hazards, and recommended specific project-design features that would need to be incorporated to reduce risk from geological hazards. The contents of this investigation inform the following discussions.

a.1. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

a.2. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

The project site is located in a seismically active region due to its proximity to the active margin of the North American and Pacific Plates. The nearest fault is the Burdell Mountain fault, located approximately 0.6 miles northeast of the project site (USGS 2019). No known active faults run through the project site; therefore, the potential for surface rupture resulting from the movement of nearby major faults is low.

Ground shaking refers to movement of the Earth's surface during a seismic event. Ground shaking is normally the major cause of damage in earthquakes. To address the threat from earthquakes and ground shaking, all new developments must conform to current City and State seismic and geotechnical codes. The California Building Code (CBC), which the City of Novato has adopted under Municipal Code Section 4-1.3, includes seismic regulations that would be enforced during the design and construction phases of the project. Adherence to these requirements during development would help ensure integrity and safety during seismic activity. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.3. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

Liquefaction is the process by which soil is temporarily transformed to fluid form during intense and prolonged ground shaking or because of a sudden shock or strain. Liquefaction typically occurs in areas where the groundwater is less than 30 feet from the surface and where the soils are composed of poorly consolidated fine to medium sand. The project site is located in an area with low liquefaction potential (City of Novato 2020a). The Geotechnical Investigation prepared for the project also indicated that the site does not lie within a zone of high liquefaction potential (Appendix E). Therefore, impacts regarding liquefaction hazards would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.4. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

The project site is relatively flat in the eastern portion and increases in slope towards the west with an average slope of 9.8 percent. The southwestern, western, and northwestern portions of the project site have slopes that range up to 25 percent. Therefore, the project site is located in a high landslide potential hazard zone (City of Novato 2020a). The area has experienced landslides in the past with a small landslide occurring in 2017 on the eastern side of the access road to the Buck Institute. The Geotechnical Investigation indicated that that there is potential for slope instability since the hillside is susceptible to soil creep or shallow landsliding. In addition, soils near the drainage channels have the potential for bank instability. Natural weathering and cuts into the hillside would further increase the potential for slope instability (Appendix E). The following mitigation measure would reduce the potential for landslides by specifying design and construction criteria to avoid accelerating soil creep or induce shallow landsliding.

Mitigation Measure

GEO-1 Geotechnical Recommendation

The Geotechnical Investigation produced by Miller Pacific Engineering Group (prepared on January 6, 2021) provides recommendations that would ensure the project is suitable from a geotechnical standpoint and would increase the safety and integrity of the project. All recommendations in the Geotechnical Investigation as described in Sections 4 and 5 of the Geotechnical Investigation shall be included as conditions of approval and shall be implemented during construction and prior to occupancy of the project. The recommendations address but are not limited to: Grading, Surface and Subsurface Drainage, Foundations, Miscellaneous Concrete Flatwork, Retaining Walls and Foundations, Pavement Areas, Utility Trenches, and project review and construction monitoring.

Implementation of Mitigation Measure GEO-1 would reduce potential landslide impacts to less than significant levels; in particular, Item 4.3 of the Geotechnical Investigation includes setbacks, excavation requirements, retaining wall support, and cut requirements, and Item 5.4 lists design criteria for the deep foundation design to ensure stability to prevent landslides.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

b. Would the project result in substantial soil erosion or the loss of topsoil?

Implementation of the project includes grading and drainage improvements, including bioretention basins, and associated hardscaping. The project site is relatively flat across the eastern section of the site with slopes of 10 to greater than 25 percent along the west and southwest and northwestern portions of the site. The average slope of the entire project site is 9.8 percent. A majority of the project site would require grading, which would increase the potential for erosion on site. Incorporation of Mitigation Measure GEO-1 would include erosion control measures during and after construction to reduce risk of erosion, specifically measures that conform the most recent version of the Erosion and Sediment Control Field Manual as described in Item 4.8 of the Geotechnical Report. In addition, the proposed construction activities would be required to comply with Novato Municipal Code 7-4.10(c), which requires construction plans to include erosion control BMPs, such as silt fences, straw waddles, and hydroseeding. Therefore, impacts would be less than significant with mitigation incorporated.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

c. Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

As discussed under threshold *a.4* of this section, the project is located in a known high landslide potential zone. Landslides have occurred along the western side of the project site within the Buck Institute property. The western hillside has higher potential for landslides because the soils are more susceptible to soil creep or shallow landsliding. Impacts would be less than significant with incorporation of Mitigation Measure GEO-1 as described above, including Item 4.8, that requires usage of deep foundations to reduce on site erosion; and Items 5.3 and 5.4, that would ensure that the foundations can tolerate soil criteria.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

d. Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Expansive soils are soils that due to their composition and moisture content have a potential to undergo significant changes in volume, in the form of either shrinking or swelling. Periodic shrinking and swelling of expansive soils can cause extensive damage to buildings, other structures and roads. Additionally, the Geotechnical Report indicated the presence of expansive soils at the project site. A near-surface soils exploration discovered soils with low to medium expansion potential and high to very high expansion potential (Appendix E). Therefore, there is a moderate risk that the expansive soil could affect the project. To avoid and reduce potential adverse impacts on life or property, implementation of Mitigation Measure GEO-1, as described above, including Item 4.3, requiring usage of non-expansive materials for fill on site and avoiding deep unsupported excavation, would be required. Impacts would be less than significant with mitigation.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No septic tanks or alternative wastewater disposal systems are proposed as part of the project. No impact would occur.

NO IMPACT

f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The project site is in an area of low paleontological sensitivity (City of Novato 2020b). As the project sites are located in a low sensitivity geologic unit, the project is unlikely to encounter paleontological resources. However, the possibility exists that construction may uncover previously undiscovered paleontological resources. Impacts would be less than significant with incorporation of Mitigation Measure GEO-2.

Mitigation Measure

GEO-2 Discovery of Previously Unidentified Paleontological Resources

In the event a previously unknown paleontological resource is uncovered during construction, all work shall cease until a certified paleontologist can investigate the find(s) and make appropriate recommendations. Any artifacts uncovered shall be recorded and removed for storage at a location to be determined by the paleontologist.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

Maximum Buildout

Should the proposed General Plan amendment be granted and the Habitat Redwood Boulevard project not be developed, the approximately eight acres of useable project site would remain available for uses as allowed under the R10 designation. The maximum use under the R10 designation would be represented by a housing development up to approximately 160 units. Construction of a 160-unit housing development would not be significantly different from the project as proposed in terms of overall footprint on the site and would be built within similar parameters with regards to the geologic components discussed above. Assuming that geology and soil conditions on the site would not be significantly different if such a project were proposed, the same mitigation measures would be required for an alternative project and geologic impacts under this alternative would be similar to those of the proposed project.

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8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	■	☐
b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	■	☐

Overview of Climate Change and Greenhouse Gases

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period of time. Climate change is the result of numerous, cumulative sources of GHG emissions contributing to the "greenhouse effect," a natural occurrence which takes place in Earth's atmosphere and helps regulate the temperature of the planet. The majority of radiation from the sun hits Earth's surface and warms it. The surface, in turn, radiates heat back towards the atmosphere in the form of infrared radiation. Gases and clouds in the atmosphere trap and prevent some of this heat from escaping into space and re-radiate it in all directions.

GHG emissions occur both naturally and as a result of human activities, such as fossil fuel burning, decomposition of landfill wastes, raising livestock, deforestation, and some agricultural practices. GHGs produced by human activities include carbon dioxide (CO_2), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Different types of GHGs have varying global warming potentials (GWP). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emitted, referred to as "carbon dioxide equivalent" (CO_2e), which is the amount of GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, methane has a GWP of 28, meaning its global warming effect is 28 times greater than CO_2 on a molecule per molecule basis (IPCC 2014).[5]

Anthropogenic activities since the beginning of the industrial revolution (approximately 250 years ago) are adding to the natural GHG effect by increasing the concentration of GHGs in the atmosphere that trap heat. Since the late 1700s, estimated concentrations of CO_2, methane, and nitrous oxide in the atmosphere have increased by over 43 percent, 156 percent, and 17 percent, respectively, primarily due to human activity (U.S. EPA 2020). Emissions resulting from human

[5] The IPCC's (2014b) *Fifth Assessment Report* determined that methane has a GWP of 28. However, the 2017 Climate Change Scoping Plan published by the California Air Resources Board uses a GWP of 25 for methane, consistent with the IPCC's (2007) *Fourth Assessment Report*. Therefore, this analysis utilizes a GWP of 25.

activities are thereby contributing to an average increase in Earth's temperature. Potential climate change impacts in California may include loss of snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (State of California 2018).

Regulatory Framework

In response to climate change, California implemented Assembly Bill (AB) 32, the "California Global Warming Solutions Act of 2006." AB 32 required the reduction of statewide GHG emissions to 1990 emissions levels (essentially a 15 percent reduction below 2005 emission levels) by 2020 and the adoption of rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions. On September 8, 2016, the Governor signed Senate Bill (SB) 32 into law, extending AB 32 by requiring the State to further reduce GHG emissions to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, the California Air Resources Board (CARB) adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program and the Low Carbon Fuel Standard, and implementation of recently adopted policies and legislation, such as SB 1383 (aimed at reducing short-lived climate pollutants including methane, hydrofluorocarbon gases, and anthropogenic black carbon) and SB 100 (discussed further below). The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2013 Scoping Plan Update, the 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends local governments adopt policies and locally-appropriate quantitative thresholds consistent with a statewide per capita goal of six metric tons (MT) of carbon dioxide equivalents (CO_2e) by 2030 and two MT of CO_2e by 2050 (CARB 2017).

Other relevant state laws and regulations include:

- SB 375: The Sustainable Communities and Climate Protection Act of 2008 (SB 375), signed in August 2008, enhances the state's ability to reach AB 32 goals by directing the CARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles by 2020 and 2035. Metropolitan Planning Organizations are required to adopt a Sustainable Communities Strategy (SCS), which allocates land uses in the Metropolitan Planning Organization's Regional Transportation Plan (RTP). On March 22, 2018, CARB adopted updated regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. The Metropolitan Transportation Commission (MTC)/Association of Bay Area Governments (ABAG) was assigned targets of a 10 percent reduction in per capita GHG emissions from passenger vehicles from 2005 levels by 2020 and a 19 percent reduction in per capita GHG emissions from passenger vehicles from 2005 levels by 2035. MTC/ABAG adopted Plan Bay Area 2040 in July 2017, which meets the requirements of SB 375. An update to the RTP/SCS is currently underway (Plan Bay Area 2050) with the draft EIR; the public comment period was from June 4, 2021, and July 20, 2021. The draft EIR is available for review at: https://www.planbayarea.org/draftEIR.
- SB 100: Adopted on September 10, 2018, SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the state's Renewables Portfolio Standard Program. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.
- California Building Standards Code (California Code of Regulations Title 24): The California Building Standards Code consists of a compilation of several distinct standards and codes

related to building construction including plumbing, electrical, interior acoustics, energy efficiency, and handicap accessibility for persons with physical and sensory disabilities. The current iteration is the 2019 Title 24 standards. Part 6 is the Building Energy Efficiency Standards, which establishes energy-efficiency standards for residential and non-residential buildings in order to reduce California's energy demand. Part 12 is the California Green Building Standards Code (CALGreen), which includes mandatory minimum environmental performance standards for all ground-up new construction of residential and non-residential structures.

City of Novato Climate Change Action Plan

The City of Novato's Climate Action Plan (CAP) is incorporated into General Plan 2035 and Appendix E to the General Plan includes the specific GHG reduction measures. General Plan 2035 provides goals and associated measures, also referred to as climate change mitigation measures, in the sectors of energy use, transportation, water conservation, land use, and solid waste. In addition, Appendix E of General Plan 2035 includes reduction measures and an emissions reduction summary with the anticipated reduction in emissions for each local action. The intent of the CAP is to guide Novato towards achieving or exceeding the State's emissions reductions targets. The CAP documents and forecasts 2015, 2020, and 2035 GHG emissions (City of Novato 2020a).

Methodology

GHG emissions associated with project construction and operation were estimated using CalEEMod, version 2016.3.2, with the assumptions described under Section 3, *Air Quality*, in addition to the following:

- **Utility Energy Intensity Factors.** The project was assumed to be served by both Marin Clean Energy (MCE) and PG&E.[6] Therefore, specific energy intensity factors (i.e., the amount of CO_2e per megawatt-hour) for both providers were used in the calculations of GHG emissions. The 2017 CO_2 intensity provided for MCE (123 pounds of CO_2 per megawatt-hour [lbs/MWhr]) and for PG&E (210 lbs/MWhr) were used. It was assumed that 86 percent of participants would enroll with MCE and 14 percent would enroll with PG&E. The adjusted CO_2 intensity rate used was 123 lbs/MWhr .[7] The energy intensity factors do not account for the continuing effects of the statewide RPS Program per SB 100, which requires utility providers to increase the percent of electricity procured from renewable sources. Therefore, the GHG emissions from energy sources are higher since the modeling did not adjust the intensity factors for the RPS program.
- **Service Population.** The project's per person GHG emissions were calculated by dividing total GHG emissions by the project's service population (residents plus employees). Based on applicant provided information there would be a total of 327 future residents and approximately four to five full-time employees. The project's service population would be 331 persons.

Significance Thresholds

Individual projects do not generate sufficient GHG emissions to influence climate change directly. However, physical changes caused by a project can contribute incrementally to significant cumulative effects, even if individual changes resulting from a project are limited. The issue of climate change typically involves an analysis of whether a project's contribution towards an impact

[6] The air quality and greenhouse gas assessment prepared for the project by Illingworth & Rodkin, Inc. dated January 2020 assumed that the project would have some MCE participation, but the project would use electricity from PG&E

[7] The adjusted rate was calculated using the following formula: ([109 lbs/MWhr* 0.86] + [210 lbs/MWhr * 0.14]) = 123 lbs/MWhr

would be cumulatively considerable. "Cumulatively considerable" means the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (*CEQA Guidelines* Section 15064[h][1]).

According to *CEQA Guidelines* Section 15183.5(b), projects can tier from a qualified GHG reduction plan, which allows for project-level evaluation of GHG emissions through the comparison of the project's consistency with the GHG reduction policies included in a qualified GHG reduction plan. This approach is considered by the Association of Environmental Professionals (2016) in its white paper, *Beyond Newhall and 2020*, to be the most defensible approach presently available under CEQA to determine the significance of a project's GHG emissions.

The Novato CAP is considered a qualified GHG reduction strategy per Section 15183.5(b)(1) of the *CEQA Guidelines* and the May 2017 BAAQMD CEQA Air Quality Guidelines. A qualified GHG reduction strategy is one that includes the following elements:

1. Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area.
2. Establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable.
3. Identify and analyze the GHG emissions resulting from specific actions or categories of actions anticipated within the geographic area.
4. Specify measures or a group of measures, including performance standards that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level.
5. Monitor the plan's progress.
6. Adopt the GHG Reduction Strategy in a public process following environmental review.

As discussed above, General Plan 2035 serves as the City's CAP and quantifies 2005, 2015, 2020, and 2035 GHG emissions for all sectors in the City. Figure ES-9 of General Plan 2035 shows projected community emissions through the year 2035. Appendix E of General Plan 2035 includes an emissions reduction summary including local and state actions. Additionally, Appendix E establishes a community wide emissions level of 191,003 MT CO_2e per year as the City's cumulative contribution to GHG emissions in 2035. An emissions level of 191,003 MT CO_2e per year in 2035 is a 48 percent reduction from the City's 2005 emissions baseline. This reduction would be achieved through actions 1 through 30 in Appendix E: Greenhouse Gas Reduction Measures of the 2035 General Plan. These measures would reduce emissions by approximately 48,408 MT CO_2e per year by 2035. Compliance with specific GHG reduction policies in General Plan 2035, denoted with a leaf symbol in the General Plan, would ensure compliance and monitoring of the local GHG reduction actions. Finally, General Plan 2035, the incorporated CAP, and Environmental Impact Report for the General Plan were adopted and certified at the October 27, 2020, City Council hearing. Therefore, the Novato CAP is considered a qualified CAP and project consistency with the Novato CAP is used to determine project GHG impacts. Project construction and operational GHG emissions are provided for informational purposes.

a. Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

b. Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Table 18 evaluates the project's consistency with the applicable GHG reduction actions outlined in General Plan 2035 and CAP and shows that the project would be consistent with relevant measures. The CAP includes specific actions to meet estimated reductions for compliance with state GHG reduction goals, and the project complies with these local actions and reduction measures.

Table 18 Project Consistency with the Novato Climate Action Plan

Novato CAP Reduction Measures (RM)	Project Consistency
RM 1: *Energy Efficient Streetlights*. Minimize energy used for streetlights.	**Consistent.** The project would use exterior street and circulation lighting that would be dark sky compliant per Title 24 and Green Point Rating requirements
RM 4: *Energy Efficient Programs (Community)*. Continue and expand residential and commercial energy efficiency programs.	**Consistent.** The project would be served by PG&E and residential developments would include LED lighting. The project would not utilize natural gas as a source of energy and would be an all-electric development.
RM 6: *Clean Electricity.* Encourage residences and businesses to switch to GHG-free electricity and encourage MCE Clean Energy to reach its goal to provide 100 percent GHG-free by 2025.	**Consistent.** The project would utilize electricity provided by PG&E, which is subject to requirements per SB 100 and required to procure more electricity from renewable energy sources over time. MCE is also available and could be opted into.
RM 12: *Urban Forest.* Increase tree cover and increase shade of structures and other improvements within the City.	**Consistent.** The project would not remove existing trees and proposes to plant 107 new trees. The new tress would be planted along the internal pathways near the residential buildings and in the outdoor common space areas.
RM 13: *Water Conservation.* Conserve water through improved efficiency.	**Consistent.** The project would install low-use water fixtures to conserve water use. Additionally, landscaping at the project site would include primarily low-water use plants, irrigation with recycled water and compliance with North Marin Water District Regulation No. 15 addressing water use efficiency.
RM 17: *Low-Emissions Vehicle Infrastructure* Improve infrastructure for low emission vehicles.	**Consistent**. The project would provide a total of six EV parking spaces on site.
RM 21. *Affordable Housing*. Reduce community vehicles miles traveled through development of affordable housing for lower-income households.	**Consistent.** The project is a 100 percent affordable housing project and provide homes for lower-income households. The project is located in proximity to public transit options and approximately two miles north of downtown Novato. The SMART station is approximately 1 mile south of the project site and the Marin Transit Route 49 bus service and Golden gate Transit Route 54 commuter bus route both provide services from the SMART station.
RM 22: *Pedestrian Infrastructure.* Promote walking through design standards and amenities that concentrate uses, reduce the need for vehicular travel, and enhance the pedestrian experience.	**Consistent.** Approximately 45 bike parking spaces would be provided for residences and office employees. There would also be a dog park, trails and pathways, community garden, and playgrounds on the site for resident use. Sidewalks would be provided along the private roadway loops, allowing residents to walk within the development.

Novato CAP Reduction Measures (RM)	Project Consistency
RM 23-24: *Bicycle Infrastructure (Commercial and Residential).* Increase the number of Novato workers who commute by bicycle. Increase the number of multi-family residents who bike to work and for other utilitarian purposes.	**Consistent.** The project would provide 40 bicycle parking spaces for residents and 5 bicycle parking spaces for office employees. The proposed amount exceeds parking code requirements.
RM 30: *Zero Waste.* Achieve Zero Waste diversion goals.	**Consistent.** The project would comply with state and local statues and regulations related to solid waste regarding increased recycling efforts per Assembly Bill 341 and the City's General Plan Policy ES-27f by providing recycling services.

RM = Reduction Measure

Source: City of Novato 2020a, Appendix E

In addition to the emissions reduction measures discussed in Table 17, the project would be required to comply with Chapter 4 of the NMC, which incorporates the California Green Building Standards Code. This code includes specific requirements related to recycling, construction materials, and energy efficiency standards that would apply to project construction to minimize wasteful, inefficient, and unnecessary energy consumption.

The project would also comply with General Plan 2035 goals and policies. Specifically, the project would comply with Program PF-3a that encourages water conservation measures and various mobility policies by providing access to alternate modes of transportation, including transit (SMART station within 1 mile), bicycling (parking), and pedestrian facilities (walkways provided on the site).

Therefore, the project would be consistent with the Novato CAP and would not conflict with state regulations intended to reduce GHG emissions statewide. Impacts related to GHG emissions would be less than significant.

Project-Generated GHG Emissions

LESS THAN SIGNIFICANT IMPACT

Maximum Buildout

Should the proposed General Plan amendment be granted and the Habitat Redwood Boulevard project not be developed, the approximately eight acres of useable project site would remain available for uses as allowed under the R10 designation. The maximum use under the R10 designation would be represented by a housing development up to approximately 160 units. A 160-unit housing development would be required to comply with the Novato CAP. GHG impacts under this alternative would be the similar to impacts as discussed for the project and compliance with the Novato CAP would ensure GHG emissions would not exceed regulatory standards.

9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	■	☐	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	■	☐	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	☐	☐	■	☐
d. Be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	■	☐	☐
e. For a project located in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	■	☐
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	■	☐
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	■	☐

Methods

A Phase I Environmental Site Assessment (ESA) was prepared for the project on June 2021 by Arcadis U.S., Inc. (Appendix F), and peer reviewed by Rincon Consultants. The Phase I ESA summarized the current and historical uses of the project site; described the records of hazardous waste incidents from federal, state, and local regulatory databases; and identified potential hazardous risks. A site reconnaissance was conducted on September 18, 2020. The results and project impacts summarized below are based on findings from the Phase I ESA.

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Construction

Project construction may include the temporary transport, storage, and use of potentially hazardous materials including fuels, lubricating fluids, cleaners, or solvents. As the project may involve the disturbance of soil, grading and excavation could also result in the upset of hazardous materials at the site. Project construction would also require heavy construction equipment, the operation of which could result in a spill or accidental release of hazardous materials, including fuel, engine oil, engine coolant, and lubricants.

According to the Phase I ESA report, there is potential for contaminated soil on site due to the previous uses that could be disturbed and released during construction. The site was a gasoline service station from 1973 to 1994 and then utilized as a staging area for PG&E from June 2020 to the end of 2020. There is potentially elevated concentrations of aerially deposited lead (ADL) due to the historical usage of leaded gasoline in motor vehicles. In addition, during a site reconnaissance of PG&E's staging area, the Phase I ESA observed sealed roll-off bins on site with some areas of spilled soils from these bins that was characterized as non-hazardous waste by PG&E. However, since PG&E did store hazardous waste on the project site during their tenure and Arcadis was unable to characterize the soil, the soil could be contaminated with hazardous waste from the previous bins. Thus, construction workers on the site could be exposed to hazardous materials that may be uncovered during ground disturbing activities. Therefore, implementation of Mitigation Measure HAZ-1, which requires soil sampling assessment and potential remediation, Mitigation Measure HAZ-2, which requires a soil management plan for impacted soils, and HAZ-3, which requires remediation for hazardous materials, would be required to avoid hazardous impacts during project construction. Construction impacts would be less than significant with mitigation.

Operation

Residential uses such as those proposed typically do not use or store large quantities of hazardous materials other than those typically used for household cleaning, maintenance, and landscaping. Therefore, the project would not involve the use, storage, transportation, or disposal of hazardous materials in significant quantities. Operational impacts would be significant impact.

Mitigation Measure

HAZ-1 Soil Assessment

Prior to construction, the project site shall be thoroughly assessed for the possible presence of contaminated materials through soil sampling under the oversight of a qualified environmental consultant (PG or PE). The sampling program outlined below shall be implemented prior to issuance of grading permits for areas suspected of being contaminated:

- Soil samples shall be collected in the areas where spilled soil from PG&E storage bins were identified in the Phase I ESA. The investigation shall include soil borings to a minimum depth of 2.5 below ground surface (bgs) using hand auger sampling methods. All soil samples shall be analyzed for the presence of total petroleum hydrocarbons (TPH) by EPA Method 8015B, volatile organic compounds (VOC) by EPA Method 8260B, polychlorinated biphenyls (PCB) by EPA Method 8082, pesticides by EPA Method 8081A, and total metals by EPA method 6010B/7471A.
- Soil gas samples shall be collected adjacent to the natural gas transmission pipeline on the 8161 Redwood Boulevard property. Soil gas samples shall be analyzed for the presence of TPH and VOCs, by EPA Method 8260 or TO-15.
- Soil samples shall be collected along the eastern boundary of the site adjacent to the road to identify the presence of Aerially Deposited Lead (ADL). The investigation shall include soil borings to a minimum depth of 2.5 bgs using hand auger sampling methods. All soil samples from the ADL investigation shall be analyzed for the presence of total lead by EPA Method 6010.

As part of the soil assessment, analytical results shall be screened against the San Francisco Bay Regional Water Quality Control Board (SFB RWQCB) environmental screening levels (ESLs). These ESLs are risk-based screening levels for direct exposure of residents, commercial workers or construction workers under various depth and land use scenarios.

If contamination exceeding regulatory action levels is found in any of the above locations, appropriate remediation shall be undertaken prior to issuance of grading permits for the contaminated area. This may include the preparation of a Soil Management Plan for Impacted Soils (see Mitigation Measure HAZ-2) prior to issuance of a grading permit. If contaminants are detected in the subsurface at the project site at concentrations exceeding SFB RWQCB ESLs or hazardous waste screening thresholds for contaminants in soil (California Code of Regulations [CCR] Title 22, Section 66261.24 Characteristics of Toxicity), appropriate steps shall be taken to protect site workers during project construction. This may include the completion of remediation (see Mitigation Measure HAZ-3) at the project site prior to on site construction. Any remedial activity shall be conducted to the satisfaction of the appropriate regulatory oversight agency (for example, the County Environmental Health Department, Regional Water Quality Control Board, Department of Toxic Substances Control). The results of the soil assessment shall be documented in a soil investigation report and provided to the City of Novato. The City of Novato Public Works Department shall be responsible for monitoring compliance with this requirement. The project proponent is responsible for all costs associated with the City's review of plans, reports, and/or monitoring associated with this mitigation measure, including costs associated with a City-hired consultant for peer review, if necessary.

HAZ-2 Soil Management Plan for Impacted Soils

If impacted soils or other impacted wastes are present at the project site, a Soil Management Plan (SMP) or equivalent document shall be prepared by a qualified environmental consultant (PG or PE) prior to construction. The SMP, or equivalent document, shall be prepared to address on site handling and management of impacted soils, and reduce hazards to construction workers and off-site receptors during construction. The plan shall establish remedial measures and/or soil management practices to ensure construction worker safety, the health of future workers and visitors, and the off-site migration of contaminants from the site. These measures and practices may include, but are not limited to:

- Stockpile management including dust control, sampling, stormwater pollution prevention, and the installation of BMPs
- Mitigation of soil vapors
- Proper disposal procedures of contaminated materials
- Monitoring and reporting
- A health and safety plan for each contractor working at the site that addresses the safety and health hazards of each phase of site construction activities with the requirements and procedures for employee protection
- The health and safety plan will also outline proper soil handling procedures and health and safety requirements to minimize worker and public exposure to hazardous materials during construction.

The City of Novato shall review and approve the project site Soil Management Plan for Impacted Soils prior to start of grading and on-site construction. The project proponent is responsible for all costs associated with the City's review of plans, reports, and/or monitoring associated with this mitigation measure, including costs associated with a City-hired consultant for peer review, if necessary.

HAZ-3 Remediation

If soil present at the project site contains chemicals at concentrations exceeding SFB RWQCB ESLs or hazardous waste screening thresholds for contaminants in soil (California Code of Regulations [CCR] Title 22, Section 66261.24), additional analytical testing shall be required to determine the soil waste categorization. If analytical testing indicates that hazardous waste soils are present at the project site, the impacted soils shall be removed and disposed properly. Remediation of impacted soils may require additional delineation of impacts; additional analytical testing per landfill or recycling facility requirements; soil excavation; and offsite disposal or recycling.

Prior to construction, the City of Novato shall review and approve the project site disposal recommendations prior to transportation of waste soils offsite. The project proponent is responsible for all costs associated with the City's review of plans, reports, and/or monitoring associated with this mitigation measure, including costs associated with a City-hired consultant peer review, if necessary.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

The project is not located within 0.25 mile of the any existing or proposed schools. There would be no impact.

NO IMPACT

d. Would the project be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

The Phase I ESA included an Environmental Data Resources (EDR) report from the Environmental Data Resources, Inc. to summarize the federal, tribal, and local environmental record source databases (Appendix F). The following regulatory agencies and databases were queried during the preparation of the Phase I ESA, for known hazardous materials contamination at the project site:

- **U.S. EPA**
  - Envirofacts and Enforcement & Compliance History Information (ECHO) database (2020).
  - No records available
- **California Regional Water Quality Control Board (RWQCB)**
  - Recovered Government Archive Leaking Underground Storage Tank
  - Records received
- **State Water Resources Control Board (SWRCB)**
  - Geotracker Database
- **California Department of Toxic Substances Control (DTSC)**
  - Cortese Hazardous Waste and Substances Site List
  - HAZNET
  - Hazardous waste Tracking System
- **Marin County Department of Environmental Health**
  - Records received
- **City of Novato Fire Department**
  - Records received but no pertinent files for the project site were provided

As discussed in the Phase I ESA, the project site appeared in the Underground Storage Tank (UST), Leaking Underground Storage Tank (LUST), Recovered Government Archive Leaking Underground Storage Tank (RGA LUST), Cortese, Historical Cortese, HAZNET, and Hazardous Waste Tracking System (HWST) databases. The UST, LUST, Cortese and Historical Cortese findings, as discussed under criterion *(a)* and *(b)*, include that the site was historically developed with a gas station that contained four fuel tanks and one waste oil underground storage, which were removed in the 1970s. The LUST investigation was closed on April 12, 1996 (SWRCB 2021). The HAZNet, and HWTS did not provide any records of historical hazardous waste, regulated waste, or non-hazardous waste on site. Even though the LUST investigation was closed, and no further action was required, there is potential for residual hazardous materials to be present on site from the PG&E staging area as described in criterion (a) and (b). Therefore, the project would be located at a site with potentially

hazardous materials and Mitigation Measure HAZ-1 would be required to reduce impacts to a less than significant level.

Additionally, a natural gas transmission pipeline was identified beneath the project site. When the natural gas pipeline is operational there is potential for the release of natural gas condensate, which could build-up in the soil resulting in contamination with petroleum hydrocarbons. However, no cases of natural gas condensate releases have been documented at the site (Appendix F). Furthermore, the project would involve the construction of roadways, parking, and landscaping above the natural gas pipeline. No residential units would be placed directly above the pipeline and future residents would not be exposed to contaminated soil. Impacts from the natural gas pipeline would be less than significant.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

Gnoss Field, the nearest airport, is located approximately 0.5 miles northeast of the project site, which is within the Gnoss Field area of influence (County of Marin 1991). The project site is located in Aviation Safety Zone 3 – Traffic Zone/ Federal Aviation Regulations (FAR) Part 77 Horizontal Surface as identified in the Marin County Airport Gnoss Field Airport Land Use Plan (County of Marin 1991). As discussed, under the Planning Considerations section in the Airport Land Use Plan, the Traffic Zone is the area under the flight paths of aircraft where aircrafts prepare for landing or perform initial departure. The risk of an off-airport accident is low (approximately four percent) with a majority of accidents occurring at the airport. Additionally, as discussed in Section 13, *Noise*, the project is within a conditionally compatible noise contour, and the project would include noise easements and sound insulation as part of the project design to decrease noise from aircrafts. Thus, construction and operation of the project would not expose people residing or working in the project area to airport-related safety hazards or excessive noise. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Novato is a participant in the Marin County Multi-Jurisdictional Hazard Plan (2018). The project would not interfere with this adopted emergency response plan or the City of Novato Emergency Operations Plan. The project would not result in closure, rerouting or substantial alteration of streets or property access points during or after construction. Redwood Boulevard, which is an evacuation route, would not be closed during project construction or operation. Fire and emergency vehicle access would be provided from a private driveway off of Redwood Boulevard (Novato Fire District 2021). Construction would occur solely on the site. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

As noted in Section 20, *Wildfire*, the project site is adjacent to open space to the north and west, Highway 101 to the east, and limited development to the south. The project site is not located in a State Responsibility Area or Very High Hazard Severity Zone for wildland fires (California Department of Forestry and Fire Protection [CALFIRE] 2021). The site is classified as a Local Responsibility Area, where responsibility for fire protection falls on the Novato Fire Protection District (NFPD), rather than the state or federal government (CALFIRE 2021). The project site is also not located within the Wildland Urban Interface (WUI), an area of high fire hazard, as mapped by the NFPD (Marin County 2021). The project would not expose people or structures to a significant risk involving wildland fires. Furthermore, the project would be required to comply with the applicable fire safety provisions of the California Building Code, thereby reducing the risk of damage from fire to the maximum extent practicable. Impacts would be less than significant. Refer to Section 20, *Wildfire*, for additional details regarding wildfire risks at the project site.

LESS THAN SIGNIFICANT IMPACT

Maximum Buildout

Should the proposed General Plan amendment be granted and the Habitat Redwood Boulevard project not be developed, the approximately eight acres of useable project site would remain available for uses as allowed under the R10 designation. The maximum use under the R10 designation would be represented by a housing development up to approximately 160 units. Construction of a 160-unit housing development would not be significantly different from the project as proposed and would be built within similar parameters and have similar risks related to hazards and hazardous materials. Assuming that hazardous conditions on the site would not be significantly different if such a project were proposed, the same mitigation measures would be required for an alternative project and impacts from hazards and hazardous materials under this alternative would be similar to those of the proposed project.

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10 Hydrology and Water Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	■	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	■	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) Result in substantial erosion or siltation on- or off-site;	☐	☐	■	☐
(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	■	☐
(iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	■	☐
(iv) Impede or redirect flood flows?	☐	☐	■	☐
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	■	☐
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	■	☐

a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Temporary site preparation, grading, and paving activities associated with construction of the project could result in soil erosion that may degrade water quality. However, on-site construction activities would be required to comply with the requirements of the City of Novato Municipal Code Chapter 7-4 (the City's Urban Runoff Pollution Prevention Ordinance) and National Pollutant Discharge Elimination System (NPDES) permit requirements. In addition, all of Marin County, including Novato, is under the jurisdiction of the Marin County Flood Control and Water Conservation District, which is responsible for managing stormwater and flooding problems in the County. The City adheres to the Marin County Stormwater Pollution Prevention Program (MCSTOPPP) to minimize the negative impacts of storm runoff. Specifically, proposed construction activities would be required to comply with Novato Municipal Code 7-4.10(c), which requires construction plans to include construction, erosion, and sediment control BMPs. Because the project would disturb more than one acre of land, the applicant would be required to obtain coverage under the NPDES Construction General Permit and prepare a Stormwater Pollution Prevention Plan (SWPPP), which includes BMPs for erosion control. The project would also be subject to the City's Urban Runoff Pollution Prevention Ordinance.

The project would increase the amount of impervious surface on the site. The total impervious area would be 220,174 square feet, which is approximately 37 percent of the total project area (13.57 acres). The site is currently undeveloped and has no impervious area.

Although the project would introduce new impervious surfaces, the site would be designed for runoff from impervious areas to be routed to one of four biorientation facilities proposed on the site prior to being discharged into the existing stormwater drain systems adjacent to Redwood Boulevard (Appendix G). Additionally, the project would be required to comply with the City of Novato Municipal Code 7-4.6 and 7-4.10(d), which requires the project site to be designed to control pollutants, pollutant loads, and runoff volume to the maximum extent feasible by minimizing impervious surface area and controlling runoff from impervious surfaces through infiltration, evapotranspiration, bioretention, and/or rainfall harvest and use. Adherence to these regulations would ensure that pollutants to do not affect water quality. Therefore, impacts to water quality would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

The North Marin Water District (NMWD) supplies water to the City of Novato from the Russian River, Stafford Lake and recycled water. The NMWD has no local, developed groundwater supply source (NMWD 2016). The project would not involve or require the use of groundwater and, as discussed in Section 18, *Utilities and Service Systems,* the NMWD has an existing water supply available to serve the project. Additionally, the bioretention basins and swales would allow groundwater recharge. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c.(i) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?

c.(ii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

c.(iii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

c.(iv) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?

The project would result in filling and grading of one ephemeral stream and two manmade drainage ditches. However, the project would be graded in a matter that would mimic existing flow patterns (direction and volume) and direct stormwater to the same outlet locations used under the existing conditions. As described in the preliminary drainage report for the project prepare by DVC Group in April 2021, project runoff would be directed to one of the four bioretention areas for treatment and any overflow would be directed to one of the existing storm drains along Redwood Boulevard. All four storm drains have the capacity to handle the increased runoff from the proposed project (Appendix H). Runoff from the site would not cross property lines onto the adjacent Novato Days Inn property (Appendix I). In addition, to comply with the City's urban runoff programs, implementation of these project design features would capture and treat stormwater runoff, reduce the quantity and level of pollutants in runoff leaving the site, and would ensure project runoff does not exceed the capacity of stormwater drainage systems. The project would not increase the rate or amount of surface runoff in a manner that would result in on- or off-site flooding or exceed the capacity of the stormwater drainage system, nor that would impede or redirect flood flows. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

The project site is located approximately 4.3 miles west of San Pablo Bay and 3.9 miles east of Stafford Lake, the nearest large bodies of water. There is low potential for a seiche to form on San Pablo Bay and, due to the distance between the site and the San Pablo Bay, there is likely no risk if one were to form. Although a seiche could form on Stafford Lake during a seismic event, there would be no risk of inundation from a seiche at the project site due to the relatively small size of Stafford Lake and distance from Stafford Lake to the project site. The project site is also not within the Stafford Lake Dam inundation area and would not be flooded if the Novato Creek Dam failed (City of Novato 2020a).

Although an earthquake on the Hayward and Rodgers Creek fault complex, which runs under the San Pablo Bay, could create a tsunami, the potential for a tsunami to impact the City of Novato and

the project site is low (City of Novato 2020a). In addition, and project site is not located within a tsunami inundation zone as shown in Figure 4.8-5 of the General Plan 2035 Final EIR (City of Novato 2020). The project site is also not within a 100-year or 500-year flood plain (see Figure 4.8-2 from the General Plan 2035 Final EIR). A portion of the northwestern section of the site is within a Federal Emergency Management Agency (FEMA) AE flood zone where there is a 1 percent annual chance of flooding (FEMA 2016). This area of the project site would be constructed to be above the required flood elevation. Additionally, the proposed bioretention areas and on-site stormwater treatment would ensure that off-site pollution does not occur if the project site was to be inundated. Therefore, impacts resulting in flood hazard, tsunami, or seiche release of pollutants due to project inundation would be less than significant.

LESS THAN SIGNIFICANT IMPACT

e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

The project site is located within the Novato Valley Groundwater Basin, which is a low priority basin according to the Department of Water Resources (DWR) Sustainable Groundwater Management Act Basin Prioritization dashboard (DWR 2020). Low priority basins are not required to adopt a groundwater sustainability plan.

The project would be subject to the San Francisco Bay Basin Water Quality Control Plan (Basin Plan) (SWRCB 2018). The San Francisco Bay RWQCB is responsible for adopting and updating the Basin Plan, which establishes water quality control measures and flow requirements needed to provide reasonable protection of beneficial uses in the watershed. As discussed in criterion (a), the project would be required to comply with NPDES requirements and portions of the NMC, such as Chapter 7-4 (Urban Runoff Pollution Prevention) and Chapter 7-5 (Regulatory Fee for Clean Stormwater Activities) relevant to water quality. The project would therefore not conflict with or obstruct implementation of the Basin Plan.

As discussed in Section 19, *Utilities and Service Systems,* the City of Novato is served by the NMWD which provides potable and recycled water service to the City, surrounding unincorporated areas, and portions of West Marin. Approximately 80 percent of the Novato water supply comes from the Russian River through the NMWD wholesale water supplier, the Sonoma County Water Agency. The remaining 20 percent comes from local runoff into Stafford Lake. NMWD has no local, developed groundwater sources (NMWD 2016).

Additionally, as discussed under criterion (a), the project includes features that comply with NMC Sections 7-4.6 and 7-4.10(d), which require the project to be designed to control pollutants, pollutant loads, and runoff volume to the maximum extent feasible by minimizing impervious surface area and controlling runoff from impervious surfaces through infiltration, evapotranspiration, bioretention, and/or rainfall harvest and use, which would decrease the amount of runoff from the site, allowing for more infiltration. The project would not use groundwater and would not conflict with a sustainable groundwater management plan. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

Maximum Buildout

Should the proposed General Plan amendment be granted and the Habitat Redwood Boulevard project not be developed, the approximately eight acres of useable project site would remain available for uses as allowed under the R10 designation. The maximum use under the R10 designation would be represented by a housing development up to approximately 160 units. Construction of a 160-unit housing development would not be significantly different from the project as proposed. The alternative project would also be required to comply with the City of Novato Municipal Code 7-4.6 and 7-4.10(d), which requires the project site to be designed to control pollutants, pollutant loads, and runoff. Thus, the alternative housing development would not degrade water quality. It would also source water from NMWD and not deplete groundwater supplies by using wells or well-water. The other conditions of construction and operation that avoid hydrology and water quality impacts as discussed above for the project would be similar for an alternate project, and impacts would be less than significant.

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11 Land Use and Planning

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	☐	☐	■	☐
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	■	☐

a. Would the project physically divide an established community?

The project site is in an area of Novato that is largely undeveloped and without substantial residential development. Adjacent uses include a motel, open space and, across Highway 101 to the east, light industrial uses along the freeway. West of the adjacent open space are institutional and office uses on large parcels. The project would not involve constructing bridges, roadways, or other linear features that would divide an established community. Neither would it result in the removal of existing roadways that could prevent access within an established community. Therefore, development of the site would not physically divide an established community and no impact would occur.

NO IMPACT

b. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The project site has a General Plan designation of Business and Professional office (BPO). The proposed project includes a request for a General Plan Amendment to modify 13± acres of the site's land use designation from BPO to Medium Density Multiple Family Residential (R10). The City of Novato zoning for the project site is Planned District (PD). A portion of the project site would retain the existing BPO land use to allow for the construction of a 2,154-square foot commercial building with offices and a conference room to accommodate the Habitat for Humanity facility.

The project would be consistent with the R10 land use designation, which would allow medium density residential development at 10.1 to 20 units per gross acre. This includes single-family, two-family, and multi-family buildings and related residential uses, such as parking, open space, and recreation amenities. The project site includes areas with 25 percent slope and other areas with sensitive biological resources that would be maintained as open space planted with purple needle grass and streambed plantings to address impacts to sensitive species (see discussion in Section 4, *Biological Resources*). These areas have been subtracted from the gross acreage as they are not considered buildable. The project site is 13.6 acres, some of which is not buildable and would be

retained as open space on the site, and the project would build out the site with a density of 10.1 units per gross acre.

The City's Housing Element (updated last in 2014) demonstrates that affordable housing is needed in Novato (City of Novato 2014). While the Housing Element identifies specific opportunity areas for affordable housing development throughout Novato, HO Policy 9.3 indicates that the City will review additional housing opportunity sites as they arise. Implementing program HO Program 9.A specifies that rezoning and General Plan amendments will be undertaken when developers seek to construct affordable housing within Novato. The City determined that the project site was appropriate for the development of affordable housing and would support the General Plan Housing Element policies to provide adequate supply of housing opportunities for Novato's workforce that matches affordability with household income (HO Policy 6.2). It also supports policies to maintain a resident population of diverse age, social, and economic background (HO Policy 7.1) and to achieve a mix of housing types, densities, affordability levels, and designs (HO Policy 7.2).

The project would also include adoption of a master plan, a precise development plan, a vesting tentative subdivision map, and subject to the City's design review process, including a required plan consistency review. As discussed throughout this Initial Study, the project includes features, is subject to regulatory requirements, and is assigned mitigation measures that avoid or reduce potential impacts to a less than significant level.

Because the project aligns with these policies and programs and addresses the need for additional affordable housing, assuming approval of the requested General Plan Amendment the project would be consistent with applicable City land use plans, policies, and regulations. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

Maximum Buildout

Should the proposed General Plan amendment be granted and the 80-unit residential development not be built, the project site would remain available for uses as allowed under the R10 designation. The maximum use under the R10 designation would be represented by a housing development including up to approximately 160 units. As with the proposed project, maximum buildout would increase density but would not include roads, bridges, or other components that would divide an established community. Neither would the increased density conflict with other plans, policies, or regulations established for the purpose of mitigating environmental impacts. Impacts to this issue area would remain less than significant.

12 Mineral Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	■
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	■

a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

b. Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

The project is in an area of Novato where there are no active mining operations or known mineral resources present. The project site does not fall within a Mineral Resource Zone (Stinson et al. 1982). In addition, Novato's General Plan 2035 does not identify mineral resources within the vicinity of the project area (City of Novato 2020a). No mineral resources would be altered or displaced by the project. There would be no impact.

NO IMPACT

Maximum Buildout

Should the proposed General Plan amendment be granted and the Habitat Redwood Boulevard project not be developed, the approximately eight acres of useable project site would remain available for uses as allowed under the R10 designation. The maximum use under the R10 designation would be represented by a housing development up to approximately 160 units, which would be constructed in the same location as the project; thus, there would be no impacts to mineral resources.

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13 Noise

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in:				
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	■	■	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	■	☐
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	■	☐

Overview of Noise and Vibration

Noise

Sound is a vibratory disturbance created by a moving or vibrating source, which is capable of being detected by the hearing organs. Noise is defined as sound that is loud, unpleasant, unexpected, or undesired and may therefore be classified as a more specific group of sounds. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance, and, in the extreme, hearing impairment (California Department of Transportation [Caltrans] 2013).

HUMAN PERCEPTION OF SOUND

Noise levels are commonly measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound pressure levels so that they are consistent with the human hearing response. Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used to measure earthquake magnitudes. A doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB; dividing the energy in half would result in a 3 dB decrease (Caltrans 2013).

Human perception of noise has no simple correlation with sound energy: the perception of sound is not linear in terms of dBA or in terms of sound energy. Two sources do not "sound twice as loud" as one source. It is widely accepted that the average healthy ear can barely perceive changes of 3 dBA, increase or decrease (i.e., twice the sound energy); that a change of 5 dBA is readily perceptible (8 times the sound energy); and that an increase (or decrease) of 10 dBA sounds twice (half) as loud (10.5 times the sound energy) (Caltrans 2013).

SOUND PROPAGATION AND SHIELDING

Sound changes in both level and frequency spectrum as it travels from the source to the receiver. The most obvious change is the decrease in the noise level as the distance from the source increases. The manner by which noise reduces with distance depends on factors such as the type of sources (e.g., point or line), the path the sound will travel, site conditions, and obstructions.

Sound levels are described as either a "sound power level" or a "sound pressure level," which are two distinct characteristics of sound. Both share the same unit of measurement, the dB. However, sound power (expressed as L_{pw}) is the energy converted into sound by the source. As sound energy travels through the air, it creates a sound wave that exerts pressure on receivers, such as an eardrum or microphone, which is the sound pressure level. Sound measurement instruments only measure sound pressure, and noise level limits are typically expressed as sound pressure levels.

Noise levels from a point source (e.g., construction, industrial machinery, air conditioning units) typically attenuate, or drop off, at a rate of 6 dBA per doubling of distance. Noise from a line source (e.g., roadway, pipeline, railroad) typically attenuates at about 3 dBA per doubling of distance (Caltrans 2013). Noise levels may also be reduced by intervening structures; the amount of attenuation provided by this "shielding" depends on the size of the object and the frequencies of the noise levels. Natural terrain features, such as hills and dense woods, and man-made features, such as buildings and walls, can significantly alter noise levels. Generally, any large structure blocking the line of sight will provide at least a 5-dBA reduction in source noise levels at the receiver (Federal Highway Administration [FHWA] 2011). Structures can substantially reduce exposure to noise as well. The FHWA's guidance indicates that modern building construction generally provides an exterior-to-interior noise level reduction of 10 dBA with open windows and an exterior-to-interior noise level reduction of 20 to 35 dBA with closed windows (FHWA 2011).

DESCRIPTORS

The impact of noise is not a function of loudness alone. The time of day when noise occurs and the duration of the noise are also important factors of project noise impact. Most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors have been developed. The noise descriptors used for this study are the equivalent noise level (L_{eq}), Day-Night Average Level (DNL; may also be symbolized as L_{dn}), and the community noise equivalent level (CNEL; may also be symbolized as L_{den}). The L_{90} is the sound level exceeded 90 percent of the time. The L_{max} is the maximum noise level reached during a single noise event.

L_{eq} is one of the most frequently used noise metrics; it considers both duration and sound power level. The L_{eq} is defined as the single steady-state A-weighted sound level equal to the average sound energy over a time period. When no time period is specified, a 1-hour period is assumed. The L_{max} is the highest noise level within the sampling period, and the L_{min} is the lowest noise level within the measuring period. Normal conversational levels are in the 60 to 65-dBA L_{eq} range; ambient noise levels greater than 65 dBA L_{eq} can interrupt conversations (Federal Transit Administration [FTA] 2018).

Noise that occurs at night tends to be more disturbing than that occurring during the day. Community noise is usually measured using Day-Night Average Level (L_{DN}), which is the 24-hour average noise level with a +10 dBA penalty for noise occurring during nighttime hours (10:00 p.m. to 7:00 a.m.). Community noise can also be measured using Community Noise Equivalent Level (CNEL or L_{DEN}), which is the 24-hour average noise level with a +5 dBA penalty for noise occurring from 7:00 p.m. to 10:00 p.m. and a +10 dBA penalty for noise occurring from 10:00 p.m. to 7:00 a.m. (Caltrans 2013).[8] The relationship between the peak-hour L_{eq} value and the L_{DN}/CNEL depends on the distribution of noise during the day, evening, and night; however noise levels described by L_{DN} and CNEL usually differ by 1 dBA or less. Quiet suburban areas typically have CNEL noise levels in the range of 40 to 50 CNEL, while areas near arterial streets are in the 50 to 60+ CNEL range (FTA 2018).

Groundborne Vibration

Groundborne vibration of concern in environmental analysis consists of the oscillatory waves that move from a source through the ground to adjacent buildings or structures and vibration energy may propagate through the buildings or structures. Vibration may be felt, may manifest as an audible low-frequency rumbling noise (referred to as groundborne noise), and may cause windows, items on shelves, and pictures on walls to rattle. Although groundborne vibration is sometimes noticeable in outdoor environments, it is almost never annoying to people who are outdoors. The primary concern from vibration is that it can be intrusive and annoying to building occupants at vibration-sensitive land uses and may cause structural damage.

Typically, ground-borne vibration generated by manmade activities attenuates rapidly as distance from the source of the vibration increases. Vibration amplitudes are usually expressed in peak particle velocity (PPV) or root mean squared (RMS) vibration velocity. The PPV and RMS velocity are normally described in inches per second (in/sec). PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is often used as it corresponds to the stresses that are experienced by buildings (Caltrans 2020).

High levels of groundborne vibration may cause damage to nearby building or structures; at lower levels, groundborne vibration may cause minor cosmetic (i.e., non-structural damage) such as cracks. These vibration levels are nearly exclusively associated with high impact activities such as blasting, pile-driving, vibratory compaction, demolition, drilling, or excavation. The American Association of State Highway and Transportation Officials (AASHTO) has determined vibration levels with potential to damage nearby buildings and structures; these levels are identified in Table 19.

Table 19 AASHTO Maximum Vibration Levels for Preventing Damage

Type of Situation	Limiting Velocity (in/sec)
Historic sites or other critical locations	0.1
Residential buildings, plastered walls	0.2–0.3
Residential buildings in good repair with gypsum board walls	0.4–0.5
Engineered structures, without plaster	1.0–1.5

Source: Caltrans 2020

[8] Because DNL and CNEL are typically used to assess human exposure to noise, the use of A-weighted sound pressure level (dBA) is implicit. Therefore, when expressing noise levels in terms of DNL or CNEL, the dBA unit is not included.

Numerous studies have been conducted to characterize the human response to vibration. The vibration annoyance potential criteria recommended for use by Caltrans, which are based on the general human response to different levels of groundborne vibration velocity levels, are described in Table 20.

Table 20 Vibration Annoyance Potential Criteria

	Vibration Level (in/sec PPV)	
Human Response	Transient Sources	Continuous/ Frequent Intermittent Sources[1]
Severe	2.0	0.4
Strongly perceptible	0.9	0.10
Distinctly perceptible	0.25	0.04
Barely perceptible	0.04	0.01

in/sec = inches per second; PPV = peak particle velocity

Source: Caltrans 2020

[1] Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Project Noise Setting

An environmental noise study was prepared for the project by RGD Acoustics on June 11, 2021, which was peer reviewed by Rincon Consultants. The information and analysis below are informed by the findings of the analysis.

Sensitive Receivers

Noise exposure goals for various types of land uses reflect the varying noise sensitivities associated with those uses. The City of Novato General Plan states that noise-sensitive receivers generally include schools, hospitals, libraries, group care facilities, and convalescent homes (City of Novato 2020a). There are no sensitive receivers within 1,000 feet of the site. For the purpose of this analysis, the receivers at the adjacent hotel, Novato Days Inn, were considered a sensitive receiver. The adjacent hotel is located approximately 73 feet west of the nearest proposed building on the project site, which would be constructed as part of Phase 2, and 120 feet from the nearest building that would be constructed as part of Phase 1.

Noise Measurements

To characterize ambient sound levels at and near the project site noise measurements were conducted by RGD Acoustics. The most prevalent source of noise in the project site vicinity is vehicular traffic on Highway 101 to the east. Seven 15-minute sound level measurements were conducted on Monday, December 3, 2018 between 12:56 p.m. through 2:45 p.m., February 4, 2020 between 4:23 p.m. and 5:58 p.m. Two long-term 72-hour noise measurements were also conducted from 3:00 p.m. Friday November 30, 2018 through 3:00 p.m. Monday December 3, 2018. Table 21 shows the noise measurement locations, and Table 21 summarizes the results of the short term noise measurements. Detailed sound level measurement data and a figure of the noise measurement locations are included in Appendix J.

Table 21 Project Site Vicinity Sound Level Monitoring Results- Short-Term

Measurement Location/Height Above Ground		Sample Times	L_{eq} (dBA)	L_{max} (dBA)
ST-1	24 feet	12:56 – 1:11 p.m.	74	75
	5 feet		71	73
ST-2	24 feet	1:41 – 1:56 p.m.	65	68
	5 feet		62	65
ST-3	24 feet	2:18 – 2:33 p.m.	62	64
	5 feet		62	64
ST-4	5 feet	2:39 – 2:54 p.m.	62	65

ST = short term; L_{eq} = average noise level equivalent; dBA = A-weighted decibel; L_{min} = minimum instantaneous noise level; L_{max} = maximum instantaneous noise level

Detailed sound level measurement data are included in Appendix J

Regulatory Setting

City of Novato 2035 General Plan

The City of Novato General Plan Noise Element contains goals and policies that are designed to include noise control in the planning process in order to maintain compatible land uses with acceptable environmental noise levels and protect Novato residents from excessive noise. The Noise Element establishes the following goals and policies that would apply to the project:

Goal N 1: Maintain a Quiet Community

Objective NS 1: Compatibility of New Development

Protect people in new development from excessive noise by applying the Land use Compatibility Standards in Figure LW-5 in locating and designing new development.

NS 1a: **Acoustical Compatibility Study**. Require an acoustical study for all new residential projects with a future exterior noise exposure of 60 dBA L_{dn} or greater as shown on Figure LW-6 and consider mitigation measures to lower noise exposure.

NS 1b: Indoor Noise Standard. The maximum acceptable interior noise level for all new residential development, including hotels and motels, is 45 dBA L_{dn}.

NS 1c: Residential Near Gnoss Field. An acoustical investigation and noise mitigation should be considered for residential development within the 55 dBA CNEL contour. For any residential development where outdoor noise exceeds 60 dBA L_{dn} require deed disclosure to all residents of the noise levels anticipated.

NS 1d: Exterior Noise Standard. New residential development should be located in areas where outdoor noise levels are no greater than 60 dBA L_{dn} in areas where outdoor use is a major consideration, such as backyards in single family developments and recreation areas in multifamily developments. This standard should not be applied to outdoor areas such as small decks and balconies typically associated with multifamily residential developments, which can have a higher standard of 65 dBA L_{dn}. This standard shall not apply to outdoor

areas for residences in mixed use developments. Additional standards may be applied on a case-by-case basis where supported by acoustical analysis to mitigate the effects of single-event noise sources such as aircraft noise.

Objective NS 2: Noise Impacts of Development

Prevent land uses which increase surrounding noise levels above acceptable standards.

NS 2a: Acoustic Impact Study. Require acoustical studies and mitigation measures for new developments and transportation improvements which affect sensitive receptors such as schools, hospitals, libraries, group care facilities, and convalescent homes

NS 2b: Noise Mitigation. Consider mitigation measures for new projects or land uses that would cause a substantial increase in noise (i.e., cause an increase above 60 dBA L_{dn} or cause an increase in 5 dBA L_{dn} or more in the noise ambient noise levels) in adjacent residential areas or in residential areas affected by traffic generated by the proposed project.

Objective NS 3: Noise Mitigation – Sound Walls

To minimize noise impacts, consider site planning options prior to consideration of sound wall construction, such as increasing the distance from the noise source and receiver, careful building placement and taking advantage of the natural shape and terrain of the landscape. Avoid sound walls where possible, but where necessary, reduce visual impacts with interesting wall design and extensive landscaping.

City of Novato Municipal Code

NMC Section 19.22.070 prohibits exterior noise that exceeds 45 dBA between 10:00 p.m. and 6:00 a.m. and exterior noise that exceeds 60 dBA between 6:00 a.m. and 10:00 p.m. at residential land uses and exterior noise that exceeds 60 dBA between 10:00 p.m. and 6:00 a.m. and exterior noise that exceeds 70 dBA between 6:00 a.m. and 10:00 p.m. at commercial land uses, as shown in Table 22. These maximum noise levels may not be exceeded for an aggregate period of more than three minutes within a one-hour time period or by more than 20 dBA at any time. Section 19.22.070(B) exempts authorized construction activities from these noise level requirements between 7:00 a.m. and 6:00 p.m. on weekdays and between 10:00 a.m. and 5:00 p.m. on Saturdays.

Table 22 City of Novato Municipal Code Table 3-5: Allowable Exterior Noise Levels[1]

Type of Land Use	Time Interval	Maximum Noise Level (dBA)[2]
Commercial[4]	10:00 p.m. to 6:00 a.m.	60
	6:00 a.m. to 10:00 p.m.	70
Industrial or Manufacturing	Any time	70

[1] Each of the noise limits specified shall be reduced by 5 dBA for impulse or simple tone noises. If the ambient noise exceeds the resulting standard, the ambient shall be the standard.

[2] Maximum noise levels shall not be exceeded for an aggregate period of more than three minutes within a one-hour time period or by more than 20 dBA at any time.

[3] Residential standards apply to sensitive receivers such as schools, hospitals, libraries, group care facilities, and convalescent homes. These uses may require special mitigation.

[4] Commercial standards apply to Mixed Use Districts

Source: City of Novato Municipal Code Section 19.22.070, Table 3-5

Construction is not allowed on any time on Sunday or a federal holiday unless authorized in writing by the Community Development Director. Authorized grading is not allowed to occur between 6:00 p.m. to 7:00 a.m. on weekdays and never allowed on weekends.

NMC Section 19.22.090 prohibits groundborne vibration that is perceptible without instruments to the average person along or beyond the property line of a subject parcel, and exempts vibrations from temporary construction, demolition, and vehicles that enter or leave the parcel.

Marin County Gnoss Field Airport Land Use Plan

The project site is within the Referral Area of the Marin County Gnoss Field Airport Land Use Plan (1991), which is the area that is within two miles of the future boundary of the Gnoss Field Airport. The following policies would apply to the project:

- **Policy NC-1.4: Residential Land Use**. New residential development should be prohibited within the 60 dB CNEL noise contour.
- **Policy NC-1.5: Noise Easements**. As a condition of approval, noise easements should be granted to the County or any zoning changes or new residential development within the 55 dB or higher CNEL noise contour.
- **Policy NC-2.6: Acoustical Study**. As a condition of approval, an acoustical study shall be required for any proposed new residential development within the 55 dB CNEL noise contour. Recommendations in the study regarding sound insultation shall be implemented.

Noise Level Increases over Ambient Noise Levels

The operational and construction noise limits used in this analysis are set at reasonable levels at which a substantial noise level increase as compared to ambient noise levels would occur. Operational noise limits are lower than construction noise limits to account for the fact that permanent noise level increases associated with continuous operational noise sources typically result in adverse community reaction at lower magnitudes of increase than temporary noise level increases associated with construction activities that occur during daytime hours and do not affect sleep. Furthermore, these noise limits are tailored to specific land uses; for example, the noise limits for residential land uses are lower than those for commercial land uses. The difference in noise limits for each land use indicates that the noise limits inherently account for typical ambient noise levels associated with each land use. Therefore, an increase in ambient noise levels that exceeds these absolute limits would also be considered a substantial increase above ambient noise levels. As such, a separate evaluation of the magnitude of noise level increases over ambient noise levels would not provide additional analytical information regarding noise impacts and therefore is not included in this analysis.

a. Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Construction Noise

Construction activity would generate temporary noise in the project site vicinity, exposing surrounding sensitive receivers to increased noise levels during project construction. Construction noise would be generated by heavy-duty diesel construction equipment used for site preparation, grading, building construction, and paving activities. Each phase of construction has a specific equipment mix and associated noise characteristics, depending on the equipment used during that phase. Construction noise would typically be higher during the more equipment-intensive phases of initial construction (i.e., site preparation, and grading work) and would be lower during the later construction phases (i.e., building construction and paving). Construction noise was estimated using reference noise levels and equipment use factors from the FHWA Roadway Construction Noise Model (RCNM; 2006).

Noise impacts from construction equipment are typically assessed from the center of the equipment activity area over the time period of a construction day (e.g., construction site, site preparation area, grading area, etc.). Maximum hourly noise levels were estimated to be 78 dBA L_{eq} at a distance of 120 feet for Phase 1 construction and maximum hourly noise levels were estimated to be 82 dBA L_{eq} at a distance of 73 feet for Phase 2 construction (see Appendix J).

Per NMC Section 19.22.070, noise generated by construction activities is exempt from compliance with the noise level limits contained in NMC Section 19.22.070 if construction occurs between the hours of 7:00 a.m. to 6:00 p.m., Monday through Friday and 10:00 a.m. to 5:00 p.m. on Saturday. However, for purposes of analyzing impacts from this project, the FTA *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018) criteria were used. The FTA provides reasonable criteria for assessing construction noise impacts based on the potential for adverse community reaction. For commercial and residential uses, the daytime noise threshold is 85 dBA L_{eq} and 80 dBA L_{eq}, respectively, for an 8-hour period (FTA 2018).

The closest sensitive receivers to project construction would be hotel users approximately 120 feet from Phase 1 and 73 feet from Phase 2 construction. Over the course of a typical construction day, the construction equipment would be mobile and is estimated to operate at an average distance of 150 feet from the nearest sensitive receivers. Therefore, construction noise levels would be approximately 76 dBA L_{eq} at the nearest sensitive receivers, which not exceed the daytime construction noise threshold for residential land uses of 80 dBA L_{eq}. Construction noise levels at other nearby sensitive receivers would be substantially lower than the noise levels at the Days Inn due to distance attenuation. Therefore, construction noise impacts would be less than significant.

Operational Noise

The project would generate operational noise that would be typical of residential uses, including heating, ventilation, and air conditioning (HVAC) equipment, parking lot activities, and solid waste collection and recycling operations. Noises produced by the project would be similar in character to the existing noise environment associated with surrounding residential uses.

On-site Mechanical Equipment Noise

The project would include an electric strip heating system with a continuous energy recovery ventilator (ERV) as part of the mechanical equipment system. No exterior HVAC systems are proposed. Noise levels from the proposed ERV cannot exceed 60 dBA between the hours of 6:00 a.m. to 10:00 p.m. and 45 dBA between the hours of 10:00 p.m. to 6:00 a.m. in accordance with the NMC. To ensure that that proposed mechanical equipment does not exceed these standards, Mitigation Measure NOI-1 would need to be incorporated. Impacts would be less than significant with mitigation.

Mitigation Measure

NOI-1 Mechanical Equipment Noise Requirements

Prior to issuance of building permits a noise analysis for the project's proposed outdoor mechanical equipment shall be conducted to determine the noise control measures, if any, that would be included in the project design such that the combined noise level generated by all noise-generating outdoor mechanical equipment shall comply with the City's municipal code requirements per Section 19.22.070. Noise control measures may include but are not limited to equipment screening and placement in relation to noise receivers. The noise analysis shall show that mechanical equipment noise would not exceed 60 dBA between the hours of 6:00 a.m. to 10:00 p.m. and 45 dBA between the hours of 10:00 p.m. to 6:00 a.m. with implementation of noise control measures or that noise control measures are not needed to meet City noise standards. The analysis shall be conducted and submitted to the City of Novato prior to building permit issuance. The applicant shall implement all recommendations included in the mechanical equipment analysis to ensure noise levels do not exceed City noise standards.

Off-site Roadway Noise

As discussed in Section 17, *Transportation*, project operation would add approximately 1,130 average daily trips (ADT) to the nearby roadways. Traffic noise impacts are evaluated in accordance with the City's Noise and Land Use Compatibility Guidelines (see Table 17-3) (City of Novato 2014) and community response to changes in ambient noise levels. As discussed under *Overview of Noise and Vibration*, the average healthy ear can barely perceive an increase of up to 3 dBA in noise levels, and a change of 5 dBA is readily perceptible. Based on this information, off-site traffic noise impacts would be significant if project-related traffic would result if one of the following would occur:

- A noise level increase of 5 dBA or greater if noise levels remain within the same land use compatibility classification at the sensitive receiver;
- A noise level increase of 3 dBA or greater if noise levels change the land use compatibility classification of the sensitive receiver;
- Any increase in noise levels if existing noise levels fall within the "normally unacceptable" or "clearly unacceptable" ranges at the sensitive receiver.

The project's contribution to roadway noise was evaluated by comparing existing traffic noise levels to traffic noise levels with operation of the project. Generally, a doubling of traffic (i.e., 100 percent traffic increase) would increase noise levels by approximately 3 dBA, which is the human level of perception for an increase in noise (FTA 2018). Therefore, a 10 percent increase in the number of vehicles on a roadway would result in a noise increase of approximately 0.4 dBA. Project-generated traffic was modeled using the federal Highway Administrations Traffic Noise Model (TNM 2.5) with

project-specific traffic volumes from the Traffic Impact Study (TIS) and highway traffic volumes from Caltrans (Appendix J). The modeled noise levels are shown in Table 23. The highest noise increase, 0.4 dBA, would occur on Redwood Boulevard south of San Marin Drive for existing plus project conditions. All other traffic noise increases from the project are equal to 0.1 dBA or less. Under the cumulative plus project scenario the highest increase in traffic noise would be 0.2 dBA on the same roadway segment. All other project contributions (existing and cumulative) would be 0.1 dBA or less. These increases in traffic noise would be below the significant increase threshold of 3 dBA. Therefore, impacts to roadway noise levels would be less than significant.

Table 23 Increase in Traffic Noise Levels from the Project

Roadway	Existing	Existing Plus Project	Increase due to Project	Cumulative No Project	Cumulative Plus Project	Existing to Future with Project Increase in L_{dn}	Project Contribution to Future L_{dn}
Redwood Boulevard south of San Marin Drive	65.5	65.9	0.4	68.9	69.1	3.6	0.2
Redwood Boulevard north of San Marin Drive	69.4	69.5	0.1	70.1	70.1	0.7	<0.1
San Marin Drive west of Redwood Boulevard	72.6	72.6	0.0	7.3.3	73.4	0.8	<0.1
Atherton Avenue east of Redwood Boulevard	71.7	71.7	<0.1	71.8	71.8	0.1	<0.1

Source: Appendix J

LESS THAN SIGNIFICANT IMPACT

b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Construction

Project construction would not involve activities typically associated with excessive groundborne vibration such as pile driving or blasting. The equipment utilized during project construction that would generate the highest levels of vibration would include rollers, loaded trucks, and bulldozers. The City of Novato has not adopted standards to assess vibration impacts during construction and operation. However, Caltrans has developed limits for the assessment of vibrations from transportation and construction sources. The Caltrans vibration limits are reflective of standard practice for analyzing vibration impacts on structures from continuous and intermittent sources. The thresholds of significance used in this analysis to evaluate vibration impacts are based on these impact criteria, as summarized in Table 24.

Project construction may require operation of vibratory equipment such as jackhammers, vibratory rollers, loaded trucks, and bulldozers within 120 feet of the neighboring hotel building during Phase 1 and 73 feet from the hotel during Phase 2. As shown in Table 24, vibration levels from individual pieces of construction equipment would not exceed the threshold at which damage can occur to residential structures, 0.20 PPV, or the threshold at which transient vibration sources would be distinctly perceptible to 0.25 PPV. Construction vibration levels at all other buildings in the immediate vicinity, including residences to the east, would be less than the levels shown in Table 24 because vibration levels would attenuate with distance. Furthermore, in accordance with NMC 19.22.070 Section 5-16.02(i), project construction would be required to occur during daytime hours

and would not disturb guests of the adjacent hotel during sensitive hours of sleep. Therefore, construction vibration impacts would be less than significant.

Table 24 Vibration Levels at Sensitive Receivers

Equipment	Estimated PPV at Nearest Building (48 feet)
Vibratory Roller	0.08
Hoe Ram	0.03
Large Bulldozer	0.03
Caisson Drilling	0.03
Loaded Trucks	0.03
Jackhammer	0.01
Small Bulldozer	<0.01
Threshold	**0.25**
Threshold Exceeded?	No

PPV = peak particle velocity

See Appendix J for vibration analysis worksheets.

Operation

As a residential development with residential and office uses, the proposed project would not generate significant stationary sources of vibration, such as manufacturing or heavy equipment operations. No operational vibration impact would occur.

LESS THAN SIGNIFICANT IMPACT

c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The airport closest to the project site is the Gnoss Field Airport, which is located approximately half a mile northeast of the project site. The project site is located within the 60 dB noise contours shown in Figure 3.2 of the Marin County Gnoss Field Airport Land Use Compatibility Plan (Marin County Planning Department 1991). However, this contour was based on aircraft activities on a crosswind runway that has not been constructed at this time and is no longer being considered as future development for the airport. Therefore, recent publications were reviewed to assess noise levels generated by aircrafts from the airport. Based on Figure 10 from the 2035 Novato General Plan, the project site is located outside the existing airport noise contour of CNEL 60 dBA (City of Novato 2020). In addition, Figure 11 from final EIR for the proposed Runway 13/31 extension at Gnoss Field Airport's indicated that the project site would be located outside the airport noise contour of CNEL 60 dBA (Marin County 2013).

Per the Airport Land Use Compatibility Plan, a residential development located outside the CNEL 60 dBA airport noise contour and within the CNEL 55 dBA airport is considered conditionally compatible. While the CNEL 55 dBA contour is not shown in either recent publication, the project would adhere to Policy NC 1-5 Airport Land Use Compatibility for noise easements and sound

insulation would be part of the project design. Therefore, due to the noise contours and project design, project construction and operation would not expose workers nor future users of the project to excessive noise levels from the airport. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

Maximum Buildout

Should the proposed General Plan amendment be granted and the Habitat Redwood Boulevard project not be developed, the approximately eight acres of useable project site would remain available for uses as allowed under the R10 designation. The maximum use under the R10 designation would be represented by a housing development up to approximately 160 units. Construction noise and vibration for the alterative project would be similar to the project as proposed because construction would be required to comply with NMC Section 19.22.070 and similar types of construction equipment would be used. Although construction would take longer than the project as proposed louder construction equipment, such as pile drivers, would not be used for an alternative project. The NMC would ensure that construction would only occur between the hours of 7:00 a.m. to 6:00 p.m., Monday through Friday and 10:00 a.m. to 5:00 p.m. on Saturday. Similarly, the alternative project would be required to comply with Mitigation Measure NOI-1 to reduce noise from mechanical equipment. As an alternative project would be built in the same location as the proposed project, it would not conflict with an airport land use plan or contribute to cumulative excessive noise levels within the vicinity of an airport. Noise impacts under this alternative would be the same as the project.

14 Population and Housing

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	■	☐
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	■

a. Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

The project would directly induce population growth in the area through the proposed construction of 80 dwelling units, which would result in approximately 204 new residents.[9] Novato's current population is approximately 53,702 persons (California Department of Finance 2021. Plan Bay Area anticipates that the population of Novato will grow to 56,295 by 2040 (Association of Bay Area Governments 2020). The Novato General Plan 2035 anticipates that the population of Novato will grow to 55,360 by 2035. The population increase that the project would generate, therefore, falls within the growth projected by Plan Bay Area and General Plan 2035. Therefore, the proposed project would not directly or indirectly induce substantial, unplanned population growth. Impacts would be less than significant.

LESS THAN SIGNIFICANT

b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The project site does not currently contain housing or habitable structures, and the project would not result in the removal of housing. Therefore, the project would not displace people or housing. There would be no impact.

NO IMPACT

Maximum Buildout

Should the proposed General Plan amendment be granted and the 80-unit residential development not be built, the project site would remain available for uses as allowed under the R10 designation. The maximum use under the R10 designation would be represented by a housing development

[9] 80 units multiplied by 2.55 persons per unit (DOF 2021).

including up to approximately 160 units. These new units could generate approximately 419 new residents, an increase in population that is within the ABAG population forecast for the City. An alternate project would likely include no new full-time employees. Therefore, the impact of maximum buildout would be less than significant.

15 Public Services

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a.	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
	1 Fire protection?	☐	☐	■	☐
	2 Police protection?	☐	☐	■	☐
	3 Schools?	☐	☐	■	☐
	4 Parks?	☐	☐	■	☐
	5 Other public facilities?	☐	☐	■	☐

a.1. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The Novato Fire Protection District (NFPD) provides fire protection services, emergency medical services, and fire and rescue response for vehicle and hazardous materials incidents to Novato. The City of Novato and the NFPD operate a joint Emergency Operations Center in the NFPD Administrative office at 95 Rowland Way (City of Novato 2020a).

Station 63 is the nearest fire station to the project site, approximately 3 miles to the west, at 65 San Ramon Way. Based on the 2009-2013 NFPD Strategic Plan, the district provides emergency services to the area from five stations, comprising 88 personnel (66 firefighters, 9 command staff and 13 administrative staff (NFPD 2009). Station 65 also serves Novato and is 7.1 miles from the project site. Station 65 accommodates a three-person fire district paramedic engine company, and it is part of the 15-person Tam fire crew, in cooperation with the Marin County Fire Department during wildland fire season. This location also has office space used by the Novato Police, Marin County Sheriff, and California Highway Patrol.

According to the City of Novato Emergency Operations Plan, the NFPD's goal is to maintain overall total response time of 8 minutes or less 90 percent of the time for all dispatch emergencies and have five fire stations with adequate equipment to meet local needs (NFPD 2019). No future plans for expansion or renovation of NFPD facilities are in place.

As discussed in Section 13, *Population and Housing*, the project would involve the construction of 80 new multi-family housing units to accommodate 204 persons.[10] The project site is located in the NFPD service area and within three miles of a fire station. Therefore, the NFPD would respond to demands associated with the project and retain an 8-minute response time, which would be adequate to serve demands potentially generated by the project. It is not anticipated that the project would increase response times for the NFPD or impact other NFPD standards. The project would not require the construction of additional fire protection facilities. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.2. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, or the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The Novato Police Department (NPD) serves the city of Novato, providing professional and proactive street patrol, investigative services, traffic enforcement, narcotics enforcement, a 911 dispatch center, and emergency and preparedness services. The police department is staffed by approximately 80 staff, including 60 sworn personnel and volunteers (City of Novato 2021).

The NPD would service the project site and receive auxiliary support from the Marin County Sheriff's Office and California Highway Patrol (City of Novato 2019). The nearest police station is approximately 2 miles south of the project site at 909 Machin Avenue. Police units are more often mobile and dispatch to emergency calls from where they are in the service area, rather than from the police station. The distance between the facility and the location of the emergency, therefore, does not usually determine response times. Instead, response times correlate more closely with the number of police officers on the street.

When occupied, the project would add approximately 204 new residents to the city, which would slightly increase demand for police protection services. The Novato Police Department currently maintains a ratio of 1.10 sworn officers per 1,000 residents and does not have a standard for staffing levels (City of Novato 2013). With an additional 204 new residents to Novato's existing population of 53,703, the ratio of officers per officers per 1,000 residents would exceed 1.10 per 1,000 residents. The project would not require construction of new or expanded police facilities. Therefore, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

[10] Based on California DOF calculation of 2.62 persons per unit (DOF 2019)

a.3. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered schools, or the need for new or physically altered schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

Public schools near the project site include Olive Elementary School, 2.4 miles southeast of the project site at 629 Plum Street, and Lynwood Elementary School, 3.6 miles south of the site, at 1320 Lynwood Drive. Novato High School is 3.5 miles southwest of the project site on 625 Arthur Street.

The additional residents that the project generates would increase the number of students attending schools in the Novato Unified School District. The project would add approximately 33 new students, based on a generation rate of 0.41 students per housing unit (Novato Unified School District 2014). Although 33 new students is considered a nominal increase, the applicant for the project would be required to pay school development fees prior to the issuance of building permits, as dictated by State law. According to Government Code Section 65996 (3)(h), payment of such fees constitutes full mitigation of any school impacts under CEQA. Therefore, impacts from the increase in school enrollment would be offset by the required payment of development fees. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.4. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered parks, or the need for new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

Project-related impacts to parks are discussed in Section 16, *Recreation.* The project would not require the construction of a new park or require the physical altering of an existing park or public facility. The project includes an area that will be improved as a park available for public use. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.5. Would the project result in substantial adverse physical impacts associated with the provision of other new or physically altered public facilities, or the need for other new or physically altered public facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The Marin County Free Library District provides library services for Novato along with Corte Madera, Ross, and Fairfax and unincorporated areas of Marin County. The district includes 11 facilities and one bookmobile. The Novato Main Branch is the closest to the project site, at 2.7 miles southwest, on 1720 Novato Boulevard. The 2007 Marin County Free Library Vision Plan found the South Novato Branch to need additional space to accommodate its service population (City of Novato 2014). An agreement between the Novato Unified School District and the Marin County Free Library would double the size of the South Novato branch, ostensibly offloading the demand on the Novato Branch as well.

The project would add 204 new residents to Novato, increasing demand for library services. Plan Bay Area anticipates that the population of Novato will grow to 56,295 by 2040 (ABAG 2020). The number of residents introduced by the project is not a substantial percentage of the growth anticipated in Plan Bay Area and would not constitute significant or unplanned growth.

Furthermore, the library expansion already planned would accommodate the needs of increased population. Therefore, the impact related to the provision of library services or other public facilities under the proposed project would be less than significant.

LESS THAN SIGNIFICANT IMPACT

Maximum Buildout

Should the proposed General Plan amendment be granted and the 80-unit residential development not be built, the project site would remain available for uses as allowed under the R10 designation. The maximum use under the R10 designation would be represented by a housing development including up to approximately 160 units. Although 160 multi-family units could allow for up to twice as many people as the proposed project (approximately 419 people), the increase in population would not be more than that anticipated by the ABAG or General Plan 2035 projections. Therefore, the alternate project would not necessitate the expansion of police, fire, school, or other public facilities that would cause environmental impacts. Neither would maximum buildout result in increased response times or ratio of officers per 1,000 residents. Impacts to all issue areas would be less than significant.

16 Recreation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	■	☐
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	■	☐

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Within five miles of the project site there are four local parks and two nature preserves/open space areas: the Miwok Park, Pioneer Park, Slade Park, Scottsdale Pond, Bahia Oak Park, Night Heron Park, and Mount Burdell Preserve and Deer Island Open Space Preserve. The Olompali State Historic Park is also about 1.2 miles north of the project site. The project would include on-site open space amenities that would include a central open space around which pathways and gathering areas would be situated. On-site amenities may include play areas, a dog park, trails, seating areas with benches and tables, and a community garden and meeting area. Site plans are presented in Figure X. The final design of the on-site open space amenities will be determined during the design process. These facilities are expected to supplement the local recreational facilities available to the 204 new residents on the project site.

Additionally, the City of Novato requires new residential developments to pay development fees for the purpose of maintaining existing parks and developing new parks to serve increased demand for recreational land, though it is not anticipated that new recreational facilities or parks would be required to satisfy increased demand from new residents. Therefore, the project would have a less than significant impact on the physical deterioration of existing recreational facilities.

NO IMPACT

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Although the project would introduce up to 204 new residents to the area, this is within the population forecast for Novato and the on-site recreational facilities along with the nearby parks, open spaces, and nature preserves would meet the recreational needs of these residents. The project would not require that new or expanded recreation facilities be built that might have an adverse effect on the environment. There would be no impact.

NO IMPACT

Maximum Buildout

Should the proposed General Plan amendment be granted and the 80-unit residential development not be built, the project site would remain available for uses as allowed under the R10 designation. The maximum use under the R10 designation would be represented by a housing development including up to approximately 160 units. Although 160 multi-family units could allow for up to twice as many people as the proposed project (approximately 408 persons), the increase in population would not be more than that anticipated by the ABAG projection. Furthermore, as part of the permitting process, project impact fees would still be required. Therefore, the alternate project would not cause substantial deterioration to existing facilities or necessitate the expansion of recreation facilities. Impacts would be less than significant.

17 Transportation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	■	☐
b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	■	☐
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?	☐	☐	■	☐
d. Result in inadequate emergency access?		☐	■	☐

The transportation analysis provided herein is based on the Transportation Impact Study (TIS) completed by Fehr & Peers in August 2021, which is included as Appendix K. The road network surrounding the proposed mixed-use development analyzed as part of the project includes the following intersections:

1. San Marin Drive/Redwood Boulevard
2. Atherton Avenue/Highway 101 SB Ramps
3. Atherton Avenue/Highway 101 NB Ramps

Additionally, the following streets provide alternative modes of transportation in the form of pedestrian and bicycle facilities:

- Pedestrian sidewalks are present north of San Marin Drive along Redwood Boulevard on the west side of the street until Pinkston Road. North of Pinkston Road, there is a sidewalk on the east side of Redwood Boulevard until Buck Center Drive. There are no sidewalks north of Buck Center Drive on either side of Redwood Boulevard. Pedestrians in that area have the option use the six-foot wide shoulder/bike lane.
- Class II bicycle lanes (on-street right-of-way lane) are located north-south on Redwood Boulevard and east-west on San Marin Drive and Atherton Avenue.

Regional transit service is provided by Marin County Transit (MCT), Golden Gate Transit (GGT), and Sonoma Marin Area Rail Transit (SMART). GGT has stops along Highway 101, Redwood Boulevard, San Marin Drive, and Atherton Avenue. GGT Route 54 connects Novato to San Francisco and has a stop on Atherton Avenue approximately 1.3 miles south of the proposed project. The proposed

project is approximately one mile north of the Novato San Marin SMART rail station, which is accessible via MCT Route 49 and connects to the Sonoma County Airport.

a. Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Pedestrian and Bicycle Facilities

In the project area, Class II bike lanes exist along Redwood Boulevard from the project site south into Downtown Novato. The project would not disrupt or interfere with existing bike lanes and would provide 45 new bike parking spaces.

In accordance with Mobility Policy MO-20a in General Plan 2035, all new development projects are required to include a sidewalk, path or shoulder on all property frontages. There is an existing sidewalk on the west side of Redwood Boulevard, extending north to from Pinkston Road and 0.5 miles south of the proposed project driveway. A raised asphalt sidewalk is located on the east side of Redwood Boulevard from Pinkston Road to Buck Center Drive. There are no sidewalks on Redwood Boulevard north of Buck Center Drive.

The project would provide a sidewalk on the west side of Redwood Boulevard, along its frontage, and an internal path from the project site to the northwest corner of Redwood Boulevard and Buck Center Drive intersection. Construction of the project would not disrupt or interfere with pedestrian facilities.

While the project would not disrupt or interfere with pedestrian facilities, the raised asphalt sidewalk on the east side of Redwood Boulevard is seldom used because its access requires crossing traffic on Redwood Boulevard twice. Instead, pedestrians choose to walk in the bicycle lane on the west side of Redwood Boulevard. Therefore, as a condition of approval, see Table 3, for consistency with General Plan 2035 policies, the project would extend the new curb, gutter, and five-foot-wide sidewalk south of the site along the west side of Redwood Boulevard for approximately 1,300 linear feet and connect it to the existing sidewalk fronting 7711 Redwood Boulevard. The alignment of the curb face shall be parallel to the edge of Caltrans' right-of-way and located to provide a minimum Redwood Boulevard half-width (centerline to face of curb) of 18-feet. Road widening would also be required. These improvements would require a Caltrans encroachment permit as they would be within the Caltrans right-of-way.

Development of the proposed project would not impair bicycle or pedestrian facilities. Therefore, the project would have no significant impact on pedestrian or bicycle facilities.

Transit Facilities

The Novato San Marin SMART rail station, one mile north of the project site, would remain accessible to future project residents via auto, bicycle, or ridesharing services. MCT Route 49 also provides access to the SMART station. GGT Route 54 provides access to San Francisco. Both of these routes are accessible from the Atherton Avenue bus pads, approximately 1.3 miles south of the proposed project. GGT Route 101 provides access to Santa Rosa and San Francisco, which has a stop approximately 1.4 miles south of the project site.

Existing train and bus routes are adequate to support the project, given that future residences would not result in a substantial demand for transit service with the proposed location and supply of parking spaces. The project would have no significant impact on transit facilities.

Development of the proposed project would not impair roadways or conflict with planned pedestrian, bicycle, and transit facilities in the vicinity. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

The City of Novato has not yet adopted a standard of significance for evaluating VMT; therefore, Governor's Office of Planning and Research's (OPR) recommended VMT threshold for residential projects is used for the purposes of this analysis. According to OPR's guidance a project that generates VMT that exceeds a level of 15 percent below existing regional VMT per capita would be considered a significant impact. As such, VMT per resident of the proposed project cannot exceed the threshold of 14.5 miles, based on the citywide baseline rate of 17 miles (see Appendix K for methods and calculations). The VMT analysis applied four project travel metrics to determine the VMT per resident as described below. VMT in relation to office use was not included in the analysis in accordance with OPR's guidance that the dominant land use in mixed use projects be evaluated.

- Generation of 564 weekly residential vehicle trips.
- The average home-based vehicle trip length would be 8.9 miles.
- The population of the residential development would be 359 persons.
- Considering that 50 percent of housing units would be occupied by low-income residents, there would be a VMT reduction of 5.1 percent.

Based on the above VMT calculations, the project would result in an average VMT per resident of 13.3 miles. Thus per capita VMT for the project would be more than 15 percent below (14.5 miles) the citywide per capita VMT of 17 miles. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?

At the three intersections of intersections of interest, there were a total of 27 collisions between 2014 and 2018, 15 of which resulted in property damage and none of which were fatal. None of the collisions involved pedestrians or cyclists. The existing intersection is thus not considered dangerous (Appendix K).

The site would be accessible from Redwood Boulevard north of the Novato Days Inn. A one-way loop road would circulate the site providing access to the residential buildings and on-site amenities. A second private drive aisle would bisect the middle of the site. Neither of these drives would increase hazards. Neither the access to Redwood Boulevard nor internal drives would substantially increase hazards due to design or use. Therefore, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. Would the project result in inadequate emergency access?

The site would be accessible from Redwood Boulevard north of the Novato Days Inn. A one-way loop road would circulate the site providing access to the residential buildings. The roadway would be designed to meet the City's requirements for emergency access. A second private drive aisle would bisect the middle of the site allowing vehicles to avoid driving the entire loop and improving emergency ingress and egress on the site. Therefore, the proposed project would have adequate emergency access. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

Maximum Buildout

Should the proposed General Plan amendment be granted and the Habitat Redwood Boulevard project not be developed, the approximately eight acres of useable project site would remain available for uses as allowed under the R10 designation. The maximum use under the R10 designation would be represented by a housing development up to approximately 160 units, which would be constructed in the same location as the project. An alternative project with between 81 and 160 units would represent a higher residential density than the proposed project. Increased density is not anticipated to result in increased VMT because areas with higher residential density typically have lower VMT (OPR 2018). OPR's Technical Advisory states that project alternatives that increase density may reduce VMT. Increased density associated with an alternative project, coupled with the condition of approval to construct a pedestrian sidewalk along the project frontage and between the project site, as well as pedestrian access to the existing sidewalk located 0.25-mile south at Pinkston Road, would not result in an increase VMT. The alternative project would also not conflict with a City transportation plan, program, ordinance, or policy; would not increase hazards due to a design feature or incompatible uses; and would not result in inadequate emergency access; thus, there would be less than significant impact to transportation.

18 Tribal Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in a Public Resources Code Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?	☐	■	☐	☐
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	■	☐	☐

PRC Section 21074 (a)(1)(A) and (B) defines tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and is:

1. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying these criteria, the lead agency shall consider the significance of the resource to a California Native American tribe.

AB 52 also establishes a formal consultation process for California tribes regarding those resources. The consultation process must be completed before a CEQA document can be certified. Under AB 52, lead agencies are required to "begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project." Native American tribes to be included in the process are those that have requested notice of projects proposed within the jurisdiction of the lead agency.

California Government Code Section 65352.3 (adopted pursuant to the requirements of SB 18) also requires local governments to contact, refer plans to, and consult with tribal organizations prior to making a decision to adopt or amend a general or specific plan and prior to making any decisions on zoning changes related to open space. The tribal organizations eligible to consult have traditional lands in a local government's jurisdiction, and are identified, upon request, by the Native American Heritage Commission (NAHC). As noted in the California Office of Planning and Research's Tribal Consultation Guidelines (2005), "*The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places*."

a. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?*

b. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074 that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?*

The City of Novato prepared and emailed a notification letter to the NAHC-recommended list of tribes on March 2, 2021 pursuant to AB 52 and SB 18. Consultation letters were submitted to the Federated Indians of Graton Rancheria and the Guidiville Indian Rancheria. Responses were not received from either tribe. As discussed in Section 5, *Cultural Resources*, there are no identified cultural resources on-site. However, because the project involves ground disturbance, there is the possibility of encountering undisturbed subsurface tribal cultural resources during construction of the project. Therefore, the project could result in potentially significant impacts to tribal cultural resources. Mitigation Measure TCR-1 is required to reduce impacts to a less than significant level.

Mitigation Measure

TCR-1 Unanticipated Discovery of Tribal Cultural Resources

If cultural resources of Native American origin are identified during construction of the project all earth-disturbing work in the vicinity of the find must be temporarily suspended or redirected until an archaeologist has evaluated the nature and significance of the find and an appropriate Native American representative, based on the nature of the find, is consulted. If the City determines that the resource is a tribal cultural resource and thus significant under CEQA, a mitigation plan shall be prepared and implemented in accordance with state guidelines and in consultation with Native American groups. The plan would include avoidance of the resource or, if avoidance of the resource is infeasible, the plan would outline the appropriate treatment of the resource in coordination with the archeologist and the appropriate Native American representative.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

Maximum Buildout

Should the proposed General Plan amendment be granted and the Habitat Redwood Boulevard project not be developed, the approximately eight acres of useable project site would remain available for uses as allowed under the R10 designation. The maximum use under the R10 designation would be represented by a housing development up to approximately 160 units. Construction of a 160-unit housing development would not be significantly different from the project as proposed in terms of disturbed area and would therefore have similar impact potential to tribal cultural resources. Assuming that conditions on the site would not be significantly different if such a project were proposed, the same mitigation measures would be required for an alternative project and impacts to tribal cultural resources under this alternative would be generally the same as for the proposed project.

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19 Utilities and Service Systems

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	■
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	■
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	■
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	■	☐
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	■	☐

a. Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Water

Water for the project would be provided by the NMWD via existing utilities on and adjacent to the project site. Approximately 80 percent of the Novato water supply is sourced from the Russian River, and the remaining 20 percent comes from local runoff into Stafford Lake that is treated at the

NMWD Stafford Water Treatment Plant (City of Novato 2014). Water supply is discussed further under criterion (b) below.

Novato's water supply system includes roughly 6,034 acre feet (AF) of imported water, a storage capacity of 37 million gallons, and two water rights permits for diversion of surface water from Stafford Lake for the annual diversion of 8,454 AF, with a total of 8,461 AF diverted in 2015. Novato's total water supply contracted volume is 14,100 AF per year. NMWD projects that future supplies would be sufficient to meet forecasted demand under normal year and multiple-dry year scenarios (NMWD 2015).

The project's estimated water demand would be approximately 5.59 million gallons per year for the indoor water use and approximately 3.52 million gallons per year for outdoor water use (Appendix A), or approximately 24,959 gallons per day, which is approximately 0.24 percent of Novato's water supply during a normal year, approximately 0.3 percent of Novato's water supply during a dry year and approximately 24 percent of Novato's water supply system surplus capacity by 2040. The estimated outdoor water usage does not account for the usage of recycled water on-site. Thus, this is a conservative water usage assumption and would be slightly lower if recycled water was included in the estimate.

Existing supplies may be insufficient to meet forecasted demand for a single dry year scenario; however, the NMWD contingency plan would allow for the reduction of water supplied by up to 50 percent if needed (NMWD 2016). New development would offset new water demand through NMWD's water connection rate structure, which funds water infrastructure maintenance. In addition, the project would comply with the City's General Plan Policy PF-3a and NMWD Regulation No. 15, which require water-saving landscaping and related water conservation measures. Therefore, impacts would be less than significant.

Wastewater

The Novato Sanitary District (NSD) provides wastewater collection, treatment, and disposal services for the Novato Community. Wastewater is transported to the Novato Treatment Plant (NTP) where most of the water undergoes primary and secondary treatment and is either discharged to San Pablo Bay or used for pasture irrigation. The NTP is designed for an average dry weather flow of 7.0 million gallons per day (MGD) and peak wet weather flow of 30.7 MGD. The NTP has remaining processing capacity of approximately 3.5 MGD for dry weather flow and 17.9 MGD for peak wet weather flow (NSD 2019a).

The project's estimated wastewater generation would be approximately 4.66 million gallons per year (assuming water use equivalent to the indoor water use predicted in the CalEEMod Output [Appendix A] approximately 120 percent of wastewater generation), or approximately 12,767 gallons per day. This would represent approximately 0.36 percent of the NTP wastewater treatment plant remaining capacity for average dry weather flow and 0.07 percent remaining capacity for peak wet weather flow. Therefore, the NTP has capacity to meet the wastewater treatment demands that would be generated from the project. Impacts associated with project's incremental wastewater generation would be less than significant.

Stormwater

The project would be designed and engineered with drainage features appropriate to accommodate the needs of the project and mimic the historical flow patterns. As discussed in Section 10, *Hydrology and Water Quality*, the project would not require an expansion of existing or new

stormwater infrastructure to the site. On-site stormwater generated by the project's impervious surfaces would drain into one of four bioretention areas and undergo treatment prior to discharge into the existing sanitary sewer. Overflow of the bioretention areas would be directed to the existing storm drains. As detailed in Appendix I, the overflow from the bioretention areas would match the existing runoff volumes and not outlet across property lines. In addition, based on hydraulic capacity calculations performed by the DVC Group in the preliminary drainage report, the proposed drainage systems are sufficiently sized to meet 25- and 100-year flood flows (Appendix I). Thus, the volume of stormwater runoff would not exceed the capacity of the storm drain system serving the site. The proposed project would not require the construction of new off-site stormwater drainage facilities or expansion of existing facilities. Impacts would be less than significant.

Electricity, Natural Gas, and Telecommunications

The project would not connect to or utilize natural gas as a source of energy and would use electricity provided by PG&E. A significant impact to electricity and telecommunications facilities may occur if a project's demand for these services exceeds the capacity of local providers. PG&E maintains the electricity distribution lines and substations that serve the project area. Telecommunications are generally available in the project area, and facility upgrades would not be necessary.

As described in Section 6, *Energy*, the project would require approximately 884 megawatts-hours (MW) of electricity per year. PG&E maintains power lines along Redwood Boulevard, which would serve the project site. The substation that powers lines in the vicinity of the project site has a capacity of 16 megawatts (MW) and a peak load of 11 MW, with a remaining capacity of 5 MW (PG&E 2020). The project would require approximately 0.043 MW, less than one percent of the remaining capacity of the PG&E substation that serves the project sites. Accordingly, the project would be accommodated adequately by existing electricity and telecommunication facilities and would not require improvements to existing facilities, or the provision of new facilities, that would cause significant environmental effects. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

As described above under criterion (a), the City of Novato is serviced by the NMWD, which provides potable and recycled water service to the City, the surrounding unincorporated areas. Approximately 80 percent of the Novato water supply comes from the Russian River through the NMWD wholesale water supplier, the Sonoma County Water Agency. The remaining 20 percent comes from local runoff into Stafford Lake. The District has no local, developed groundwater sources (NMWD 2016).

The NMWD's 2015 Urban Water Management Plan (UWMP) addresses the District's water system and includes descriptions of water supply sources, water use, comparisons of supply and demand during dry years, etc. Per the UWMP, normal year, single dry year, and multiple dry year supply and demand comparisons are shown below in Table 25.

Table 25 NMWD Water Supply and Demand in Acre-Feet for Normal, Single Dry, and Multiple Dry Year

	Year				
	2020	2025	2030	2035	2040 (Opt)
Normal Year					
Supply Totals	12,067	11,828	11,531	11,271	11,046
Demand Totals	10,662	10,708	10,713	10,805	10,930
Difference	1,405	1,120	818	466	116
Single Dry Year					
Supply Totals	12,067	10,459	10,034	9,647	9,339
Demand Totals	10,662	10,708	10,713	10,805	10,930
Difference	1,405	(249)	(679)	(1,158)	(1,591)
Multiple Dry Years	**Year**				
	2020	**2025**	**2030**	**2035**	**2040 (Opt)**
First Year					
Supply Totals	12,067	11,828	11,531	11,271	11,046
Demand Totals	10,662	10,708	10,713	10,805	10,930
Difference	1,405	1,120	818	466	116
Second Year					
Supply Totals	12,067	11,828	11,531	11,271	11,046
Demand Totals	10,662	10,708	10,713	10,805	10,930
Difference	1,405	1,120	818	466	116
Third Year					
Supply Totals	12,067	11,828	11,531	11,271	11,046
Demand Totals	10,662	10,708	10,713	10,805	10,930
Difference	1,405	1,120	818	466	116

Notes: Parentheses denote a negative number

Source: NMWD 2016

Table 25 shows that the District's projected water supplies are sufficient to meet projected demands during normal and multiple dry year conditions. During a single dry year scenario, the District would not have adequate supplies and would need to impose mandatory water use restrictions (NMWD 2016). A single dry year represents the lowest water supply available, while a multiple dry year represents the lowest average water supply available for a three-year period. The NMWD's water supply volume would be sufficient during a multiple dry year scenario since the volume is based on an average, while the single dry year represents the lowest volume available and is the worst-case scenario.

NMWD currently serves the project site through existing utilities and services would continue to do so during project operation. The project would include 80 multi-family units and applicable landscaping on the project site including a community garden and parks. The project's estimated water demand would be approximately 24,932 gallons per day, or 9.1 million gallons per year (Appendix A).

The project's water demand would represent less than 0.24 percent of projected available NMWD supply. Based on the project's incremental contribution to future demand, new sources of water

supply would not be required to meet project water needs. Additionally, the NMWD Board adopted an Amended Emergency Water Conservation Ordinance 41 (Ordinance 41) on April 20, 2021 that prohibits new water connections due to drought conditions in the area. The ordinance restricts overhead irrigation, pool filling, portable water use, car washing, and golf course irrigation. Drip irrigation, hand watering, and recycled water are exempt from the prohibitions with the exception of water waste. The project applicant proposes to maintain landscaping using recycled water; thus Ordinance 41 does not apply and there would be sufficient water supplies for the project. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c. Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

As described in response to criterion (a), above, the project's estimated wastewater generation would be approximately 4.66 million gallons per year (assuming water use is approximately 120 percent of wastewater generation), or approximately 12,767 gallons per day. This would represent approximately 0.1 percent of the NTP wastewater treatment plant remaining capacity for average dry weather flow and 1.3 percent remaining capacity for peak wet weather flow. Therefore, the NTP has capacity to meet the wastewater treatment demands that would be generated from the proposed project. As discussed under criterion (a), NSD has indicated that the existing sewer force main in Rowland Boulevard is not anticipated to have capacity deficiency issues and none of the sewer gravity pipelines in the area have a risk priority above "very low" (NSD 2019b). Therefore, impacts associated with project's incremental wastewater generation would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

e. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Solid waste from the City of Novato is taken to the Redwood Landfill and Recycling Center located north of the Novato city limit. The landfill is permitted to accept 2,300 tons of material per day and has a design capacity of about 26 million cubic yards (CalRecycle 2020a). The estimated closure date of the landfill is 2036 (City of Novato 2020).

The Novato Sanitary District and its franchise service provider Recology provide solid waste and recycling disposal services in the project vicinity for the provision of trash, recycling and organics services to the project. In 2011, NSD amended its franchise agreement to make major progress toward achieving zero waste goals. The contract requires Recology (the recycling, composting, and garbage collection provider) to achieve an 80 percent diversion of waste to recycling by 2025 (NSD 2011).

Assuming 2.55 residents per dwelling unit (DOF 2020), the project would add an estimated 204 residents. Using an estimated solid waste generation rate provided by CalRecycle for residential land uses, the project would result in an increase of approximately 978 pounds of solid waste per day, or 178 tons per year (using a rate of 12.23 pounds per household per day) (CalRecycle 2020a).

This represents approximately 0.02 percent of the permitted daily throughput of the Redwood Landfill and Recycling Center. This does not represent a substantial increase in waste and the project would not be served by a landfill without sufficient capacity. The project would comply with state and local statues and regulations related to solid waste regarding increased recycling efforts per Assembly Bill 341 and the City's General Plan policy ES-27f by providing recycling services to residents. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

Maximum Buildout

Should the proposed General Plan amendment be granted and the Habitat Redwood Boulevard project not be developed, the approximately eight acres of useable project site would remain available for uses as allowed under the R10 designation. The maximum use under the R10 designation would be represented by a housing development up to approximately 160 units. Construction of a 160-unit housing development would result in increased water and electricity consumption and generate more wastewater and solid waste as compared to the project as proposed. However, similar services would be required and the utilities that would be used by the project would have sufficient supply and capacity to serve the alternative Impacts from an alternate project would be less than significant.

20 Wildfire

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	■	☐
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	■	☐
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	■	☐
d. Expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	■	☐	☐

a. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

The project site is adjacent to open space to the north and west, Highway 101 to the east, and limited development to the south in Novato. The site is classified as a Local Responsibility Area, where responsibility for fire protection falls on the NFPD, rather than the state or federal government (California Department of Forestry and Fire Protection [CAL FIRE] 2021). The project site is adjacent to a Moderate Fire Hazard Severity Zone to the north and northwest in a State Responsibility Area (SR). The nearest Very High Fire Hazard Severity Zone is approximately five miles south of the site. Thus, the project would not impair an adopted emergency response plan or an evacuation plan within a Very High Fire Hazard Severity Zone. Emergency vehicle access would be provided at the northeastern entrance to the project, off Redwood Boulevard. The project would not interfere with emergency access. Therefore, the project would not expose people or structures

to a significant risk involving wildfire, nor would it exacerbate the risk of wildfire. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

The project site is not in an SRA or lands classified as Very High Fire Hazard Severity Zone. It is adjacent to SRA lands classified as Moderate Fire Hazard Severity Zone. The project site is adjacent to/in the Wildland Urban Interface (WUI), considered an area subject to high fire hazard, as mapped by the NFPD. Project design features include components to reduce risks of impacts from wildfire, such as the following:

- Before building permit final approval, the property would undergo vegetation clearance in compliance with California Fire Code Section 4906.
- Roof gutters would be designed to prevent accumulation of leaves and debris in the gutter.
- Roof and attic vents would be designed to resist the intrusion of flame and embers through the ventilation openings.
- Eave or cornice vents would not be installed 12 feet above grade unless they are designed to prevent ember/flame intrusion.
- Windows, window walls, glazed doors, and glazed openings in exterior doors would be fire resistant.
- Exterior doors and exterior walls would be made from or finished with non-combustible or ignition-resistant materials.
- Roof openings and open roof eaves would be designed so that flames and embers cannot intrude. Non-combustible or ignition-resistant materials will be used to finish these areas.

The project itself would not exacerbate wildfire risks and expose occupants to pollutant concentrations from a wildfire or uncontrolled spread of wildfire, and project design features would help to protect project buildings from the effects of wildfire. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

The project site is not in an SRA or lands classified as Very High Fire Hazard Severity Zone. It is adjacent to SRA lands classified as Moderate Fire Hazard Severity Zone. The project would not involve the construction of new utility infrastructure that could exacerbate fire risk. All utility infrastructure would be under-grounded, reducing the risk of wildfire caused by overhead power lines. Furthermore, roads, fuel clearance, maintained landscaping, and fire-resistant building materials would help to prevent the spread of uncontrolled wildfire. Wildfire impacts from associated project infrastructure would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

The project site is relatively flat in the eastern portion of the site, where the project would be constructed. The site increases in slope toward the west, at an average of 9.8 percent over the flatter areas where development would occur. The southwestern, western, and northwestern portions of the project site have slopes up to 25 percent and the site is in an area considered to have a high landslide potential (City of Novato 2020a). The Geotechnical Study for the project indicated there is potential for slope instability due to soil creep, natural weathering, and cuts into the Hillside (Appendix E). To reduce the potential for impacts from landslide in general, Mitigation Measure GEO-1 would ensure the project is designed in such a way to reduce the impacts from landslides due to slope instability. In the event a wildfire occurred on these slopes and was followed by a heavy rainstorm, a landslide could occur. Mitigation Measure WF-1 would be required to reduce impacts.

WF-1 Implement Post-Fire Erosion Control Plan and Application

As part of the permitting process, the project proponent shall develop a plan for immediate erosion control to be deployed in the event of a wildfire that affects slopes of 20 percent or more within the project site. The plan shall include provisions for erosion control as soon as possible after the event and shall include one or more of the following, as applicable:

1. Install mulch to cover the soil and reduce rain drop impact, overland flow, and soil particle movement. This can be certified weed-free straw, slash, and geotextile fabrics and should be installed as quickly as possible after the fire event.
2. Apply hydro-mulch mixture of water, fiber mulch, and tackifier on burned slopes to prevent soil erosion and foster revegetation. Seed, fertilizer, or soil stabilizing polymers can also be applied with the hydro-mulch.
3. Spray seed grasses or legumes with a layer of straw mulch over seeded grasses. Ensure the mix of seed includes native grasses and plants with value for local wildlife.

With implementation of Mitigation Measure WF-1, impacts concerning landslides that result from post-fire runoff, slope instability, or drainage changes would be reduced to less than significant.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

Maximum Buildout

Should the proposed General Plan amendment be granted and the 80-unit residential development not be built, the project site would remain available for uses as allowed under the R10 designation. The maximum use under the R10 designation would be represented by a housing development including up to approximately 160 units. The site conditions would remain the same and the buildable area of the project site would, similarly, remain the same. Therefore, impacts under this issue area would remain less than significant with mitigation, and Mitigation Measure WF-1 would be required.

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21 Mandatory Findings of Significance

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Does the project:				
a. Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	■
b. Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☐	■
c. Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	■

a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

As discussed in this Initial Study, the project would have no impact, a less than significant impact, or a less than significant impact after mitigation with respect to all environmental issues. Regarding biological resources, the existing habitat onsite does not currently support special status species. Therefore, there is low potential for special-status species to occur, except for burrowing owls and nesting birds. Implementation of mitigation measures BIO-1 and BIO-2 would reduce potential impacts to burrowing owls and nesting birds to a less-than-significant level by requiring pre-construction surveys to determine the presence of burrowing owls and nesting birds and

implementing necessary avoidance measures if they are found. In addition, Mitigation Measure BIO-3 would reduce impacts to purple needlegrass requiring replanting at a 1:1 ratio and preservation of over an acre of purple needlegrass and Mitigation Measures BIO-4 would require construction of a linear stream channel to convey stormwater flows into an existing culvert. No historical or archeological resources are known to occur at the project site, as stated in Section 5, *Cultural Resources*. Potential impacts to unknown prehistoric archeological sites on the project site would be reduced to a less-than-significant level with implementation of Mitigation Measure CUL-1, CUL-2, and TCR-1, which would require notification and appropriate protective measures in the event of an unanticipated discovery of cultural resources.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

The proposed project was determined to have no impact in comparison to existing conditions for Agriculture and Forestry Resources and Mineral Resources. Therefore, as there would be no direct or indirect impacts, the proposed project would not contribute to cumulative impacts to these issue areas.

For all other issue areas, the proposed project would have either direct or indirect impacts that have been determined to be less than significant, or less than significant with mitigation incorporated. The project would involve the construction of residential and office development on a site that is currently vacant. The project would not adversely affect biological, cultural, or other physical resources outside of the project site. Other impacts, such as air quality, GHG emissions, noise, transportation, and utilities impacts, would be minor and would not be cumulatively considerable. There are no major nearby proposed developments that the project would potentially overlap with during construction. Therefore, construction equipment exhaust emissions, GHG emissions, noise would not overlap during construction. The effects of the project would not combine with impacts from other projects in the vicinity to result in a significant cumulative impact.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Effects on human beings are generally associated with impacts related to issue areas such as air quality, geology and soils, hazards and hazardous materials, noise, and transportation. As discussed in this Initial Study, the project would have a less than significant impact or a less than significant impact with mitigation in each of these resource areas. Therefore, the project would not cause substantial adverse effects on human beings, either directly or indirectly and impacts associated with the project would be less than significant with mitigation incorporated.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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