Costco Fuel Center Project

Initial Study

State Clearinghouse Number: 2021010190

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

August 2023

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

This section describes the proposed project, including the project applicant, the project site and surrounding land uses, major project characteristics, project objectives, and discretionary actions needed for approval.

1. Project Applicant

Costco Wholesale
999 Lake Drive
Issaquah, Washington 98027

2. Lead Agency Contact Person

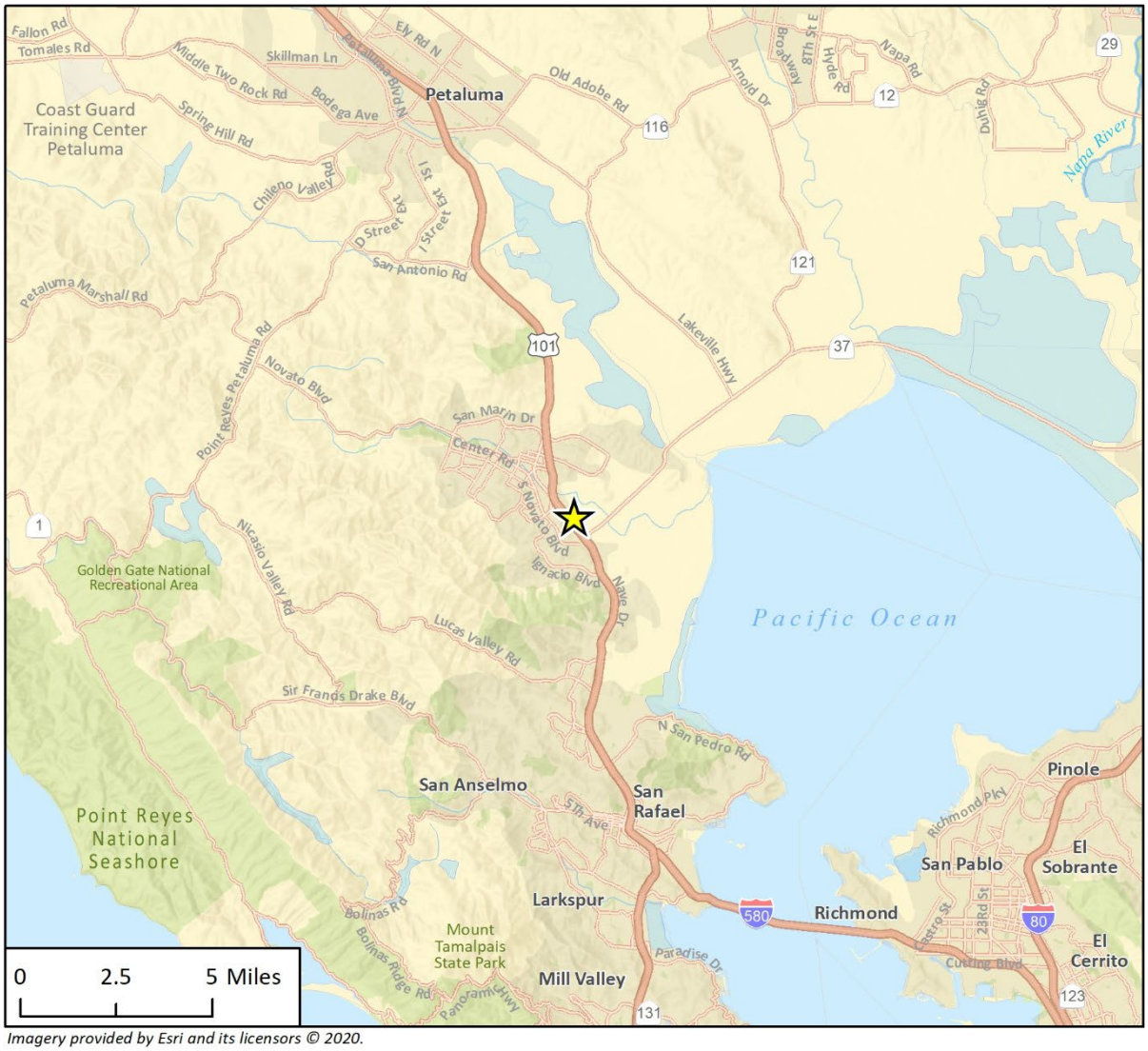
Brett Walker, AICP, Senior Planner
City of Novato
Community Development Department
922 Machin Avenue
Novato, California 94945
(415) 493-4711
bwalker@novato.org

3. 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 is located within and adjacent to the Vintage Oaks Shopping Center in Novato, Marin County, California. Vintage Oaks is located southeast of the Highway 101 (US 101) and Rowland Boulevard freeway interchange. The project proposes to construct a fuel facility (gas station) at an existing Costco Wholesale (Costco) at 300 Vintage Way, and encompasses a portion of an existing parking lot, located southwest of the existing Costco building and includes approximately 1.15 acres of Assessor's Parcel Number 153-340-36 (project site). Costco would also modify Vintage Way to accommodate a left-turn pocket providing access to a driveway serving the project site. Figure 1 shows the regional location of the project area, and Figure 2 shows the proposed project locations and surrounding uses.

Figure 1 Regional Location



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Project Location

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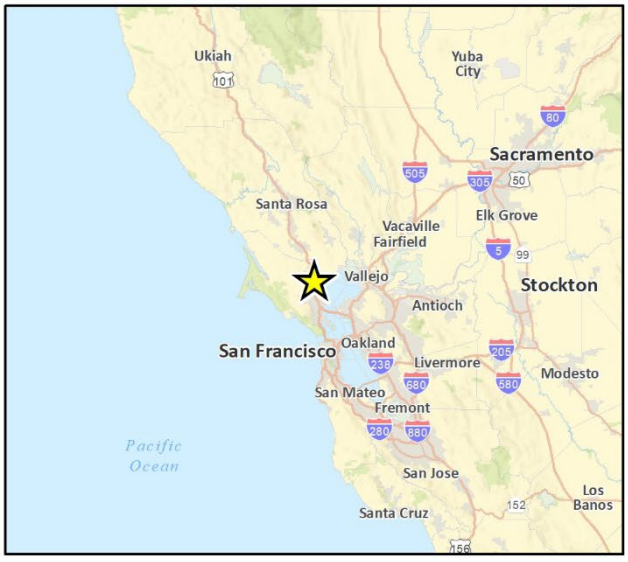


Figure 2 Project Site Location

Imagery provided by Microsoft Bing and its licensors © 2023.

22-13565 EPS
Fig 1 Project Location

4. Existing Site Characteristics

Current Land Use Designation and Zoning

The project site is currently developed with a surface parking lot that serves the adjacent Costco within the Vintage Oaks Shopping Center. The existing parking lot is accessed via several driveways along Vintage Way, the main driveway of which is located approximately 830 feet from the southern Rowland Boulevard and Vintage Way intersection. The project site has a General Plan land use designation of General Commercial (CG). The site is zoned Planned Development (PD), as defined by the City's Zoning Ordinance and the Land Use Element of the General Plan. In addition, the project site is located within the Vintage Oaks Precise Development Plan (PDP) zone. The PD zoning district often applies to large areas capable of being developed as an integrated community neighborhood, with public services, infrastructure, and neighborhood convenience retail services. The purpose of PDPs is to promote innovation and flexibility in the design of the proposed development within the PD zoning district. PDPs are expected to produce a comprehensive development of greater quality than that normally resulting from more traditional development. The proposed project would not require amendments to the City's General Plan or the Novato Municipal Code.

Surrounding Land Uses

As shown in Figure 2, the project site is surrounded by similar commercial uses associated with the Vintage Oaks Shopping Center and other areas east of US 101. An additional commercial building is located immediately across Vintage Way from the project site to the south. The Beverly Ehreth Ecological Preserve is located to the south of Vintage Way, and open space and wetland areas are located to the east of the Vintage Oaks Shopping Center, across Rowland Boulevard. The SMART rail line train tracks are located immediately east of Rowland Blvd. South of the Beverly Ehreth Ecological Preserve is the currently undeveloped Hanna Ranch property. Across US 101 to the southwest are single family and multi-family residential uses, approximately 450 feet from the nearest edge of the project site to the nearest residence's property line.

Surrounding General Plan land use designations include General Commercial (GC) within the entirety of Vintage Oaks Shopping Center, as well as the parcel located south of Vintage Way. The Beverly Ehreth Ecological Preserve and area east of Rowland Boulevard (between Vintage Way [north] and Vintage Way [south]) are designated as Open Space (OS). The area east of the project site is zoned as Planned Development (PD) and has a land use designation of Medium Density Multiple Family Residential (R10). Similarly, surrounding zoning designations include Planned District (PD) in the above-mentioned GC-designated areas and Open Space (OS) in the above-mentioned OS-designated areas.

5. Project Characteristics

The project would develop a new fuel facility in place of an existing parking area adjacent to an existing Costco Wholesale store (Costco), on an approximately 1.15-acre portion of the Costco parking lot site. Costco is a membership-only store, and the proposed project would be for use by Costco members, and not open to the general public who are not members. The project includes a 10,244-square-foot fuel dispenser canopy, 14 dispensers (28 fueling positions), three 40,000-gallon gasoline underground storage tanks (UST), one 1,500-gallon additive UST, an approximately 125 square-foot controller enclosure, a vapor processing unit, directional striping, and an approximately 6,086 square-foot net increase in landscaped areas. Costco's Fueling Facility Program (Appendix A)

provides details on proposed safety and design features intended to provide environmental safeguards and prevent public health or hazardous materials issues. Such features include monitoring during operational hours, emergency and automatic shut-offs, video surveillance, alarm systems, leak detection systems, the use of joint sealers, an oil/water separator, double-walled tanks, anchoring straps and reinforced concrete slabs, flexible piping connections, and Phase I and II Enhanced Vapor Recovery (EVR) systems (98 and 95 percent effective, respectively).

The fuel canopy would be designed consistent with the architecture of the existing Costco Wholesale, with a flat roof, metal-wrapped canopy fascia, and painted metal columns. The materials and colors would be similar to those used at the existing Costco Wholesale building. The design would also be consistent with the Vintage Oaks Design Manual description for the Costco Wholesale. Under-canopy lighting would consist of Costco's standard Cree light emitting diode (LED) lighting fixtures, focused downward and/or shielded per City Council Resolution No. 128-90, which is the Vintage Oaks Precise Development Plan approval document. Signage is proposed on each side of the fuel canopy, consistent with the Vintage Oaks Master Sign Plan, including maximum letter height and painted metal sign type requirements. Signage lighting will include downward "gooseneck" fixtures. The maximum height of the fuel canopy would be approximately 18.5 feet above finished grade.

The project would reduce the total existing impervious surface area by approximately 1,796 square feet, from 62,061 square feet to 60,265 square feet.

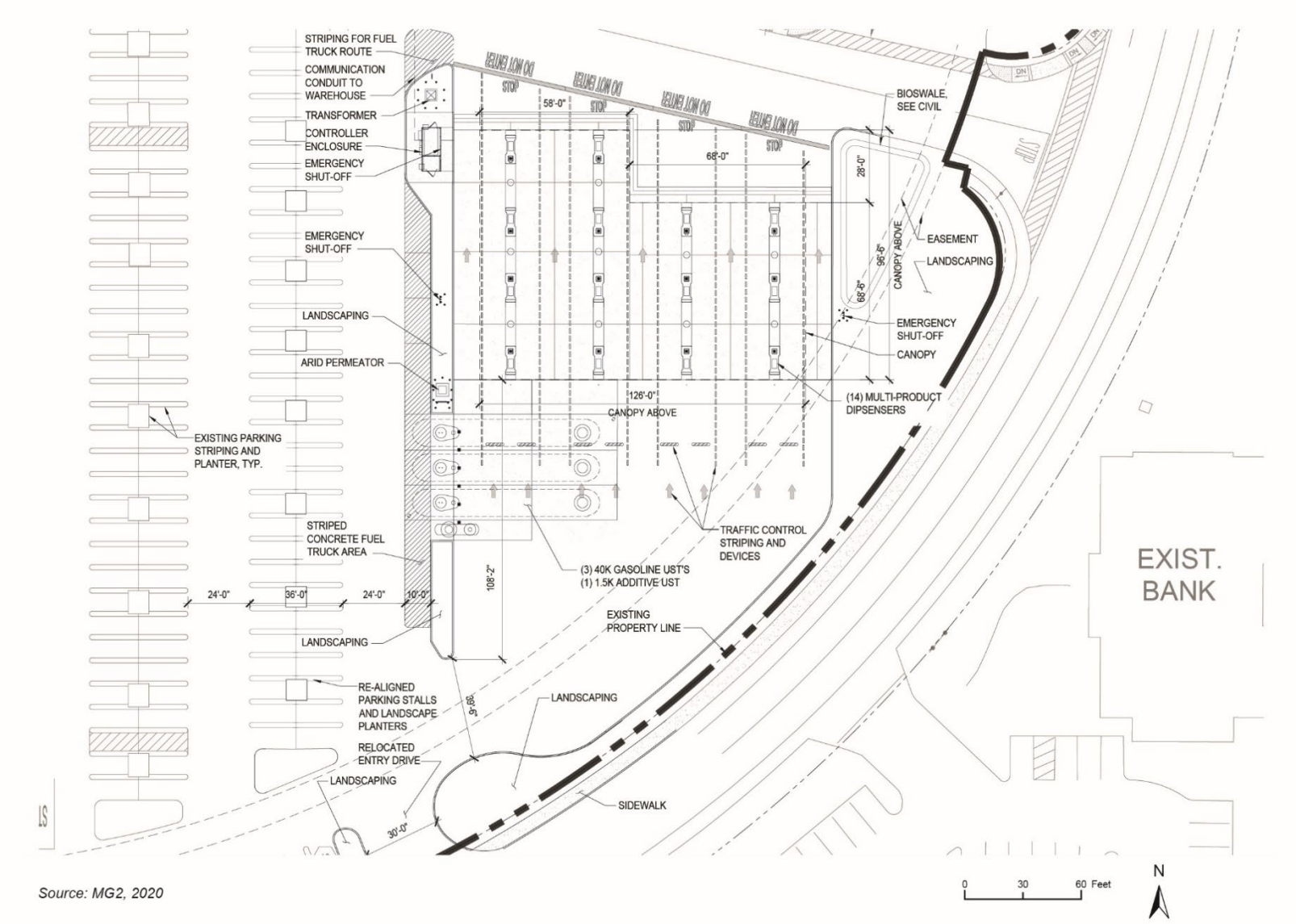
The existing project site currently does not use low impact development (LID) strategies. The project would install two bioretention areas sized to retain stormwater runoff from the entire project site. The drainage management area (DMA #09, 12,936 square feet in size) that collects runoff from the proposed fueling area would drain to the existing sanitary sewer and be treated by an oil/water separator, consistent with Section SC-20 of the California Stormwater Quality Association (CASQA) Stormwater Best Management Practice Handbook. Runoff from one drainage management area (DMA #10, 1,729 square feet in size) that encompasses the proposed driveway, would remain untreated. Additionally, the project includes several permanent source control and operational source control BMPs, specified in the Stormwater Control Plan for the project.

Proposed Site Plan

See Figure 3 for the project site plan and Figure 4 for the proposed Vintage Way striping improvements. Additional site plan details are provided in Appendix B.

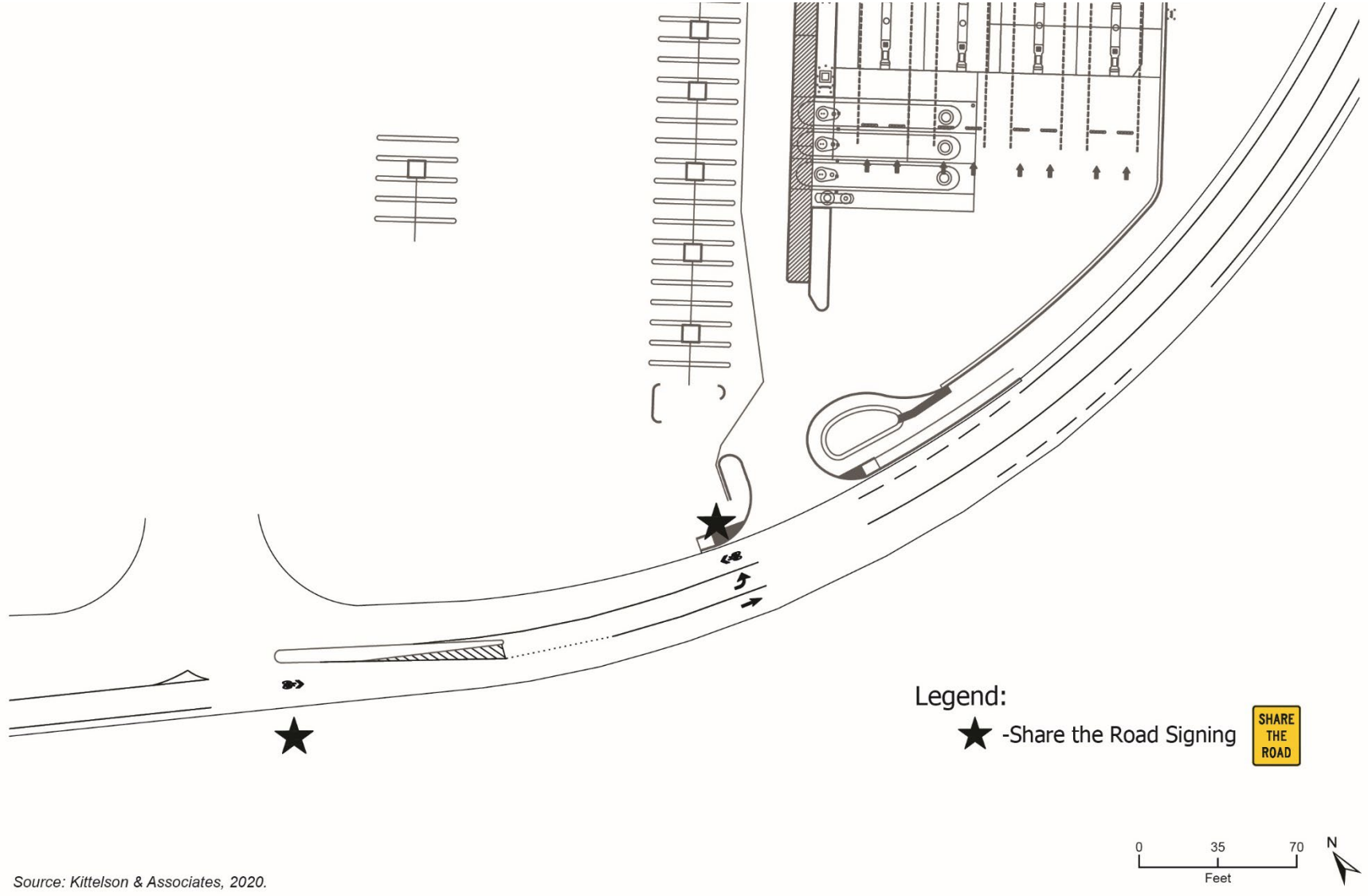
The project will provide a net increase of approximately 6,086 square feet of landscape area for the overall Costco development. The Vintage Oaks Design Manual requires a minimum of five percent (5%) of the interior parking area to be landscaped exclusive of required perimeter landscaping. The Precise Development Plan requires a minimum of 30 percent of shade coverage for the parking area. The project would remove 27 trees and install 6,086 square feet of new landscaping.

Figure 3 Project Site Plan



Source: MG2, 2020

Figure 4 Vintage Way Striping Modification



Source: Kittelson & Associates, 2020.

Parking and Site Access

The project would remove 129 existing parking spaces from the Costco warehouse development. Additionally, one row of 62 parking spaces and associated tree planters would be relocated two (2) feet to the northwest to allow for adequate drive aisle spacing between the parking row and fuel facility. Despite removing 129 parking stalls, Vintage Oaks would continue to conform to Novato's parking requirements for shopping centers. Notably, the Rowland Boulevard Public Works Project, which was completed in November 2022, implemented traffic calming measures and added 195 parking stalls along Rowland Boulevard behind Vintage Oaks. The additional parking stalls expand parking for employees of the businesses at Vintage Oaks thereby reserving on-site parking for shoppers.

The project would also relocate an existing driveway on Vintage Way from approximately 320 feet south to approximately 260 feet south of the existing Men's Wearhouse clothing store. Costco would modify a segment of Vintage Way to provide a left-turn pocket providing access to the relocated driveway. Adding the left-turn pocket would involve modifying lane striping to accommodate two vehicle travel lanes and the left turn-pocket within the existing curb-to-curb width of Vintage Way. This lane reconfiguration would result in the replacement of an approximately 200-foot segment of Class II bike lane with a Class III bicycle route (i.e., bicycles and vehicles share the same lane) and associated pavement markings and signs.

Utilities

The North Marin Water District (NMWD) will be responsible for providing water to the project site. Wastewater services are provided by the Novato Sanitary District (NSD) and treated at the Novato Treatment Plant (NTP). Pacific Gas & Electric (PG&E) supplies electricity. The proposed project would not connect to or utilize any natural gas sources. The NSD 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 proposed project.

Construction and Grading

Costco Fuel Facility construction is anticipated to last approximately three months. Grading and excavation are required for the installation of canopy footings, USTs, product piping, stormwater improvements, and utility installation. USTs would require excavation to depths of approximately 16 feet and would be installed with 5 to 7 feet of cover.

6. Project Objectives

The applicant's project objectives are as follows:

- Develop a new fuel facility as an extension of the Costco Wholesale in the Vintage Oaks Shopping Center to support the fueling needs of local Costco members.
- Design and construct a project in accordance with Costco's Fueling Facility Program that provides details on proposed safety and design features intended to provide environmental safeguards and prevent public health or hazardous materials issues.
- Develop a fuel facility of a design providing safe and efficient vehicle circulation (customer vehicles and fuel trucks) and minimizing customer wait and vehicle idling times.

7. Required Approvals

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

- **Use Permit.** The Vintage Oaks Precise Development Plan (PDP), the primary zoning/land use regulatory document applicable to the site, requires approval of a Use Permit for gas stations.
- **Design Review**. Design Review is required for new commercial development projects. A recommendation from the Design Review Commission on the project's design, architecture, and landscaping was made on October 7, 2020.

The following service districts require their own permits to approve the construction detail design and inspection and acceptance of various project-serving improvements:

- **Novato Fire Protection District (NFPD)** would determine compliance with local fire code requirements for emergency access and life safety systems (e.g., fire sprinklers).
- **Novato Sanitary District (NSD)** is the wastewater utility at the project 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 would require their own permits, inspections, reporting and/or certifications prior to construction and/or operation of the gas station:

- **United States Environmental Protection Agency (USEPA)**
  - USEPA National Emissions Standards for Hazardous Air Pollutants Subpart CCCCCC (National Emission Standards for Hazardous Air Pollutants [NESHAP] 6C)
    - 120-Day Initial Notification for Gasoline Dispensing Facilities
    - 60-Day Notification of Performance Test
    - 180-Day Notification of Compliance Status/ Testing and Reports for Gasoline Dispensing Facilities
  - Tier II Chemical Reporting
  - Emergency Planning and Community Right-to-Know Act Hazardous Chemical Inventory Reporting
  - Class A/B Operator Training
- **California Department of Industrial Relations**
  - Trench/Excavation Permit
- **Marin County Certified Unified Program Agency (CUPA)**
  - Hazardous Materials/Waste Management Plan
  - Underground Storage Tank Permit to Install
- **Marin County Department of Agriculture, Weights, and Measures**
  - Gas Pump Inspection/Certification

- **Bay Area Air Quality Management District**
  - Authority to Construct/Permit to Operate
- **Regional Water Quality Control Board**
  - NPDES Construction General Permit

Environmental Factors Potentially Affected

The City originally prepared an Initial Study/Mitigated Negative Declaration (IS/MND) for the project, and approved the IS/MND and the project on March 9, 2021. The sufficiency of the IS/MND was challenged in court. The trial court determined that evidence in the administrative record supported a fair argument that there *may* be a significant environmental impact from the project with respect to air quality and health risks requiring preparation of an EIR. Therefore, an EIR will be prepared to study air quality, as well as other CEQA topics of demonstrated public interest. In order to respond to the court decision and prior community interest in certain topics, the following topics will be analyzed in full in an EIR:

- Air Quality
- Biological Resources
- Cultural and Tribal Cultural Resources
- Energy and Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Transportation

The City has prepared this Initial Study to assess whether and confirm that the remaining CEQA topics can be scoped out of the EIR. As to certain environmental topic areas, the Initial Study concludes that standard conditions of approval can be implemented to ensure that no significant environmental impacts will occur. Such conditions are set forth herein as mitigation measures and will be imposed as conditions on the project (if approved) and incorporated into the Mitigation Monitoring and Reporting Program. The Initial Study will be included as an appendix to the EIR.

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.

Brett Walker	08/08/2023
Signature	Date
Brett Walker, AICP	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 viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public. The City of Novato General Plan identifies hillsides and ridgelines surrounding Novato as scenic resources which generally enhance the community's visual character. The project site is not within a scenic hill or ridge area or a scenic conservation area, per General Plan Figure ES-6 (City of Novato 2020a). From the project site looking to the west, distant views of hills can be seen. But views of scenic areas are generally obstructed by existing buildings, topography, and trees in the vicinity of the site.

The project includes the development of a fuel facility on an existing parking lot. The scale and massing for the proposed fuel facility is similar to the existing commercial uses in the Vintage Oaks Shopping Center, an area that is not designated as a scenic resource. The project would not have an adverse effect on an identified scenic resource, nor would the project improvements substantially

block views of the surrounding hillsides and ridgelines. Therefore, impacts to scenic vistas would be less than significant.

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). Therefore, the project would not cause substantial damage to 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 developed and located within and adjacent to commercial development in the Vintage Oaks Shopping Center to the north and east; a commercial building to the south across Vintage Way; open space and wetland areas to the northeast, east, and southeast of Rowland Boulevard, as well as south of Vintage Way; and residences across US 101 to the southwest. Therefore, it is within an urbanized area.

The project would not alter the General Plan land use designation or zoning designation of the project site. The project would develop a fuel facility in place of a portion of an existing surface parking lot. The fuel facility design would be consistent with the Vintage Oaks Design Manual description for Costco Wholesale. Thirty-seven trees would be planted at the fuel facility site to replace 41 trees proposed for removal, and 6,086 square feet of new landscaping and two bioretention areas would be installed.

The proposed fuel facility is subject to the City's Design Review process, which includes an assessment of site design, architecture, and landscaping to, in part, consider the project's compliance with applicable design standards and aesthetic compatibility. The project was presented to the Novato Design Review Commission on August 19, 2020, and October 7, 2020. The Design Review Commission found the site, architectural, and landscape design of the fuel facility to be consistent with the Vintage Oaks Design Manual and the Costco Wholesale warehouse. Accordingly, the Design Review Commission voted to recommend that the Planning Commission and City Council approve the fuel facility design on October 7, 2020.

The proposed modifications to Vintage Way, including the new left-turn pocket, would involve lane striping modifications and new pavement markings and signs to identify shared bicycle use of travel lanes. These modifications would not impede scenic views or alter the visual character of the area since the noted features are primarily at-grade and already exist along Vintage Way.

The Novato General Plan identifies scenic resources under Environmental Stewardship policy ES-15 (Scenic Resources) and programs ES-15a (Hillside and Ridgeline Protection), ES-15b (Ridgeline Map), and ES-15c (Allowances for Pre-Existing Homes). General Plan Figure ES-6 (City of Novato 2020a) identifies scenic lands. Policy ES-15 and its accompanying programs are intended to protect visual values on hillsides, ridgelines, and other scenic resources. The project site is not located in a scenic

area identified on Figure ES-6 of the General Plan, and Section 19.26 of the Hillside and Ridgeline Protection ordinance found in the Novato Municipal Code (NMC) does not apply.

Overall, no zoning and General Plan regulations governing scenic quality apply to this project. Further, the project would not impair views of the scenic lands to the east of Rowland Boulevard. Therefore, there is a less than significant impact on scenic quality.

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?

The project site is in a developed area with high levels of existing lighting and currently includes standard exterior parking lot lighting. Existing light sources also include lighting from adjacent commercial buildings and parking areas, as well as headlights from the SMART commuter trains, NWPR freight trains, and vehicles travelling on Rowland Boulevard, Vintage Way, and within Vintage Oaks Shopping Center. The primary source of glare in the project area is the sun's reflection off of light-colored and reflective building materials and finishes, and from metallic and glass surfaces of parked vehicles.

Vehicle use of the project site would generate glare from reflected sunlight during certain times of the day. Such glare currently exists at the Costco Warehouse parking lot and would be somewhat reduced as a result of vehicles temporarily parking under the fuel facility canopy. In addition, the fuel facility itself does not propose to introduce materials into the design that would create substantial glare. Proposed materials would be consistent with the design and materials used for the existing Costco Wholesale building, which include non-reflective finishes. Proposed canopy lighting would consist of Costco's standard Cree LED lighting fixtures, focused downward and/or shielded per City Council Resolution No. 128-90 and Novato Zoning Code Section 19.22.060. Headlights of vehicles entering and exiting the project site at night would be downcast and shielded by both existing and proposed structures and vegetation.

The project site is in a generally urban environment with numerous existing sources of light and glare. The project would not substantially alter this condition. Therefore, impacts related to light and glare would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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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 2022a), and the project site is not under a Williamson Act contract (California Department of Conservation 2022b). The site is designated as General Commercial in the Novato General Plan, zoned Planned Development, and in the Vintage Oaks Precise Development Plan. The site does not contain forestland or timberland. Therefore, the proposed 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?	■	□	□	□

All of the environmental topic areas within Air Quality, as outlined above, will be addressed in the EIR.

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?	■	□	□	□

All of the environmental topic areas within Biological Resources, as outlined above, will be addressed in the EIR.

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?	■	□	□	□

All of the environmental topic areas within Cultural Resources, as outlined above, will be addressed in the EIR.

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?	■	□	□	□

The environmental topics associated with Energy, as outlined above, will be addressed in the EIR.

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?	☐	■	☐	☐

The City of Novato requires that a geotechnical report be submitted with the grading permit application when required grading is equal to or exceeds 100 cubic yards. A Geotechnical Study was prepared for the proposed project by Kleinfelder in April 2020, which is included as Appendix C. Typically, geotechnical reports are submitted at the permitting stage with construction and design recommendations. However, because the required geotechnical report has already been prepared, geotechnical information and recommendations are known at this time and will be included in the discussion below.

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 1.7 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 considered low.

Ground shaking refers to movement of the Earth's surface during a seismic event. Ground shaking is normally the major cause of structural damage in earthquakes. The project includes construction of a controller structure and fuel canopy, fuel dispensers, as well as the placement of underground fuel storage tanks. These structures would not expose people to adverse effects of seismic ground shaking since they are required to be designed to meet the requirements of the California Building Code, including seismic design criteria providing the minimum standards for structure foundations, anchoring, and bracing to resist ground shaking and collapse. Compliance with the California Building Code is mandatory by state and local law and will be confirmed via plan checks performed upon submittal of a building permit application for the fuel center and inspections performed during its construction.

The underground fuel storage tanks are proposed to be designed to withstand ground movement, including being secured in place with anchoring straps (tie-downs) connected to concrete hold downs (deadmen), backfilled with pea gravel, and capped with an 8-inch thick reinforced concrete slab (Appendix B). Further, the tank systems will feature flexible pipe joints and flexible fiberglass double walled tank construction. The tank system also includes leak detection equipment to immediately identify any fuel escaping from a tank(s), which is considered a low probability given the redundancies built into the system. The fuel dispenser system is designed with break-away connections that include cut-off valves immediately stopping the flow of fuel through the dispenser if it is knocked off its anchoring or a hose is pulled from a unit. These features are mandated by federal and state design and construction standards for fuel facilities by the agencies noted in Environmental Checklist Section 10 of this Initial Study and subject to associated permits and inspections during construction to determine compliance with such standards. Therefore, 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. According to the geotechnical study included in Appendix C, the project site is located on alluvial soils and Bay Mud (sandy clay over fat clay and elastic silt). Although groundwater is less than 30 feet from the surface of the project site, there is not a liquefaction hazard at the site due to the absence of cohesionless soils (Appendix C).

The geotechnical report (Appendix C) recommends standard construction techniques that will be incorporated into the project's design. Further, the fuel canopy would be designed as required by the CBC. Sections 1804 through 1812 of the CBC contain information for the design and verification of adequate soils and foundation support for individual elements of the project. Section 1802 of the CBC requires the use of this information in the seismic analyses prepared for the site-specific investigations, which must be prepared in connection with the permits for individual elements of the project. Additionally, Novato's grading permit requirements mandate a geotechnical report to be submitted with the grading permit application when projects require grading equal to or exceeding 100 cubic yards (CY). The project would include approximately 1,727 CY of cut soil and the project applicant has already completed a geotechnical report that complies with this requirement. Accordingly, the project would not increase the risk of loss, injury, or death due to liquefaction. Impacts 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, and is not located in an identified landslide hazard zone (City of Novato 2020a). Therefore, the project would not expose people or structures to risk of loss, injury, or death involving landslides or liquefaction; impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The project site is relatively flat and therefore has a low risk of soil erosion. Being flat, with minimal slopes, substantial runoff would not occur within the project site, which would minimize the risk of soil erosion. Proposed construction activities would be required to comply with NMC 7-4.10(c), which requires construction plans to include erosion control best management practices (BMP). Additionally, the project would be required to comply with National Pollutant Discharge Elimination System (NPDES) Construction General Permit requirements and prepare a Stormwater Pollution Prevention Plan (SWPPP), which includes BMPs for erosion control. Impacts from soil erosion or loss of topsoil would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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 criteria *a.3* and *a.4* of this section, the project would have less than significant impacts regarding landslides as the project is located on a relatively level site and is not located in a designated landslide hazard zone. Similarly, as discussed under criterion *a.3* of this section, the

project would have a less than significant impact regarding liquefaction as site soils are not considered a liquefaction hazard (Appendix C). Furthermore, adherence to applicable regulations and requirements would result in less than significant impacts related to landslides and liquefaction. In addition, the construction and operation of the project itself would not generate ground movement or vibration capable of inducing liquefaction or associated lateral spreading of the ground. The project does not involve ground-based resource extraction activities, such as mining or pumping ground water, that could result in ground subsidence. The project in and of itself has a low risk of causing any on- or off-site structure collapse based on the observations above. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. Would the project be located on expansive soil, as defined in Table 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. The project site is not underlain by expansive soils (Appendix C). As discussed under criteria *a.1*, *a.2*, *a.3* and *a.4*, above, the project would be subject to applicable regulations and requirements regarding soil hazards. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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 to no paleontological sensitivity (Graymer et al. 2006). As the project site is 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-1.

Mitigation Measure

GEO-1 Discovery of Previously Unidentified Paleontological Resources

Paleontological Worker Environmental Awareness Program. Prior to the start of construction, a Qualified Professional Paleontologist (as defined by Society of Vertebrate Paleontology [2010]) or their designee shall conduct a paleontological Worker Environmental Awareness Program training for construction personnel regarding the appearance of fossils and the procedures for notifying paleontological staff should fossils be discovered by construction staff.

Unanticipated Discovery of Paleontological Resources. In the event a fossil is discovered during construction of the project, excavations within 50 feet of the find shall be temporarily halted or delayed until the discovery is examined by a Qualified Professional Paleontologist retained by the applicant. The project applicant shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. If the find is determined by the Qualified Professional Paleontologist to be significant, the Qualified Professional Paleontologist shall design and carry out a data recovery plan consistent with the Society of Vertebrate Paleontology (2010) standards.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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?	■	□	□	□

The environmental topics associated with Greenhouse Gas Emissions, as outlined above, will be addressed in the EIR.

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?	■	□	□	□

The environmental topics associated with Hazards and Hazardous Materials, as outlined above, will be addressed in the EIR.

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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?	■	☐	☐	☐

The environmental topics associated with Hydrology and Water Quality, as outlined above, will be addressed in the EIR.

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 located in an area with similar commercial uses, with the closest residences located across US 101 to the southwest. The project would not result in the removal of any existing roadways or the construction of barriers that could prevent access within an established community. Therefore, the project 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 Novato General Plan designation of General Commercial (GC). The project site is zoned by the City of Novato as Planned Development (PD). The site is also located in the Vintage Oaks Precise Development Plan (PDP) area and involves striping modifications to a segment of Vintage Way. The project would include approval of a use permit to allow a fueling station under the PDP. The project has been evaluated by the Design Review Commission, and a recommendation was made on October 7, 2020 by the Commission. The project would be consistent with General Plan 2035.

The project would be consistent with General Plan policy PF-3a, regarding water conservation and water-efficient landscaping, and policy ES-27f regarding provision of recycling services. While the proposed project would not include recycling bins, the associated Costco Wholesale does provide recycling facilities that would be available to customers.

As discussed in Environmental Checklist Section 13, *Noise,* the addition of the project would not result in noise levels greater than the maximum normally acceptable exterior sound levels described in Chapter 4 of the General Plan.

Additionally, the project is consistent with the City's CAP, adopted as part of General Plan 2035.The project would be consistent with CAP Reduction Measures such as RM 11 and RM 13 by using lightly colored material on the facility's canopy to increase albedo and installing low water use landscaping.

No physical impact would be created through inconsistency with any applicable City land use plan, policy, or regulation. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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 would occur in a developed 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, the General Plan 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

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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 (or 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}).

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 (DNL or 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).[1] 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 man-made 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 1.

Table 1 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

[1] 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 2.

Table 2 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.

Ambient Noise Levels

According to the Citywide existing noise contour map, the project site is within the 65 dBA L_{dn} noise contour (City of Novato 2020a). The primary off-site noise sources in the vicinity of the project site are motor vehicles (e.g., automobiles, buses, and trucks) along Rowland Boulevard, Vintage Way, and US 101 and the Sonoma Marin Area Rail Transit (SMART) commuter train and Northwestern Pacific Railroad Company freight train. Motor vehicle noise is of concern because it is characterized by a high number of individual events, which often create sustained noise levels. Ambient noise levels are generally highest during the daytime and rush hour unless congestion slows traffic speeds substantially. Other sources of noise in the project vicinity include general conversations from passersby activities associated with the Vintage Oaks Shopping Center.

Sensitive Receivers

Noise exposure goals for various types of land uses reflect the varying noise sensitivities associated with those uses. Noise-sensitive receivers generally include schools, hospitals, libraries, group care facilities, and convalescent homes (City of Novato 2020a). For the purposes of this analysis, single- and multi-family residences are also considered to be noise sensitive. The predominant noise-sensitive land use in the area of the project site is residences. The nearest residences are approximately 450 feet[2] southwest of the project site.

Regulatory Setting

Chapter 4, *Living Well*, of the Novato General Plan addresses noise. The General Plan permits a maximum normally acceptable exterior sound level of 60 dBA CNEL for residential areas. The maximum allowable interior noise level is 45 dBA CNEL.

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

[2] Measured from the project site boundary to the nearest residential building.

uses and interior 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 3. These 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. 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. Construction is not permitted on Sundays or federal national holidays, unless authorized by the City.

Table 3 City of Novato Allowable Exterior Noise Levels[1]

Type of Land Use	Time Interval	Maximum Noise Level (dBA)[2]
Residential	10:00 p.m. to 6:00 a.m.	45
	6:00 a.m. to 10:00 p.m.	60
Commercial	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 thestandard.

[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 anytime.

Source: NMC Section 19.22.070, Table 3-5

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.

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

Methodology

Construction noise was estimated using the Federal Highway Transit Administration Roadway Construction Noise Model (RCNM) (2006). RCNM predicts construction noise levels for a variety of construction operations based on empirical data and the application of acoustical propagation formulas. Using RCNM, construction noise levels were estimated at noise-sensitive receivers near the project site. RCNM provides reference noise levels for standard construction equipment, with an attenuation of 6 dBA per doubling of distance for stationary equipment.

For construction noise assessment, construction equipment can be considered to operate in two modes: stationary and mobile. As a rule, stationary equipment operates in a single location for one or more days at a time, with either fixed-power operation (e.g., pumps, generators, and compressors) or variable-power operation (e.g., pile drivers, rock drills, and pavement breakers). Mobile equipment moves around the construction site with power applied in cyclic fashion, such as bulldozers, graders, and loaders (FTA 2018). Noise impacts from stationary equipment are assessed from the center of the equipment, while noise impacts from mobile construction equipment are assessed from the center of the equipment activity area (e.g., construction site).

Variation in power imposes additional complexity in characterizing the noise source level from construction equipment. Power variation is accounted for by describing the noise at a reference distance from the equipment operating at full power and adjusting it based on the duty cycle, or percent of operational time, of the activity to determine the L_{eq} of the operation (FTA 2018).

Each phase of construction has a specific equipment mix, depending on the work to be accomplished during that phase. Each phase also has its own noise characteristics; some will have higher continuous noise levels than others, and some may have high-impact noise levels. The maximum hourly L_{eq} of each phase is determined by combining the L_{eq} contributions from each piece of equipment used in that phase (FTA 2018). In typical construction projects, grading activities generate the highest noise levels because grading involves the largest equipment and covers the greatest area.

Project construction is estimated to occur over approximately three months. Construction phases would include site preparation and grading, trenching and utilities, building construction, architectural coating, and paving. Construction would not require any blasting or pile driving. It is assumed that diesel engines would power all construction equipment. For assessment purposes, and to be conservative, the loudest hour has been used for assessment. Noise levels are based on a potential construction scenario of one backhoe, one excavator, and one bulldozer operating simultaneously during the fuel facility grading phase. At a distance of 580 feet (distance from the center of the project site construction area to the nearest residential receiver), one backhoe, one generator, and one crane would generate a noise level of approximately 60 dBA L_{max} (RCNM Calculations are included in Appendix D). At a distance of 160 feet (distance from the center of the construction area to the nearest commercial receiver), one backhoe, one excavator, and one bulldozer would generate a noise level of approximately 72 dBA L_{max} (RCNM Calculations are included in Appendix D).

Analysis

Construction activity would result in temporary increases in ambient noise levels in the project area on an intermittent basis and, as such, would expose surrounding sensitive receivers to increased noise levels. Increases in noise levels at off-site receivers during construction of the proposed project would be temporary in nature and would not generate continuously high noise levels, although occasional single-event disturbances from construction would be possible. Noise levels would fluctuate depending on the construction phase, equipment type and duration of use, distance between the noise source and receptor, and presence or absence of noise attenuation barriers.

As described above, at a distance of 580 feet, one backhoe, one generator, and one crane would generate a noise level of approximately 60 dBA L_{max} and a noise level of approximately 72 dBA L_{max} at a distance of 160 feet. Additional factors to consider are that the estimated construction noise level does not take into account that equipment would be dispersed in various areas of the site in both time and space and other barriers such as vegetation and walls may lower noise levels. Therefore, the calculated noise levels represent a conservative estimate of construction noise.

The estimated construction noise of approximately 60 dBA L_{max} at the nearest residential receivers would not exceed the daytime exterior noise level thresholds for residential land uses provided in the NMC. The estimated construction noise of approximately 72 dBA L_{max} at the nearest commercial receivers would exceed the daytime exterior noise level thresholds for commercial land uses (refer to Table 3). However, as stated in Section 19.22.070(B) of the NMC, authorized construction activities are exempt when construction occurs between 7:00 a.m. and 6:00 p.m. on weekdays, 10:00 a.m. and 5:00 p.m. on Saturdays. Construction is not permitted anytime on Sundays or federal

holidays. As a standard condition of approval, project construction would occur within construction hours specified in the NMC Section 19.22.070. Therefore, construction noise would be compliant with the regulations in the NMC and impacts would be less than significant.

Operation

The project would generate operational noise that would be typical of fuel facilities, including vehicle and parking lot noise. Noise produced by the project would be similar in character to the existing noise environment associated with surrounding commercial uses.

Off-site Traffic Noise

The proposed project would generate new vehicle trips and increase traffic on area roadways. As noted in the Traffic Impact Study by Kittelson & Associates, Inc. in Appendix E, the project would add approximately 172 Saturday peak hour trips to nearby roadways (the project would result in 117 new weekday peak hour trips; therefore, the Saturday peak hour trips are considered here to provide a conservative noise analysis). Entrances to the fuel facility are provided along Vintage Way; therefore, all new trips were added to Vintage Way. The Saturday peak hour traffic volume along Vintage Way is estimated at approximately 2,726 trips.

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. The 172 Saturday peak hour trips added by the project would constitute an approximately 6 percent increase in traffic volume along Vintage Way, resulting in a traffic noise increase of less than 0.4 dBA along Vintage Way. Such an increase would be imperceptible to sensitive receivers located more than 350 feet from Vintage Way due to the distance and the noise attenuation rate, and would not result in a substantial permanent increase in ambient noise levels, and thus would meet city standards and have a less than significant impact.

On-site Parking Lot and Conversational Noise

The project site would replace existing parking spaces with the fueling facility and associated dispenser queuing area. Parking lot and conversational noise at the project site is not anticipated to substantially change. Parking area noise would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The project does not include substantial vibration sources associated with its operation, the most notable including fueling truck movements at the site. Thus, construction activities have the greatest potential to generate ground-borne vibration affecting nearby sensitive receivers, especially during grading of the project site.

Certain types of construction equipment can generate high levels of groundborne vibration.

Construction of the proposed project would potentially utilize vibratory equipment including loaded trucks, bulldozers, and rollers throughout the duration of project construction. The closest building to the project site is the existing Costco Warehouse at approximately 37 feet from the facility.

Groundborne vibration from construction equipment at a reference distance of 25 feet is shown in Table 4. While the commercial buildings in the Vintage Oaks Shopping Center would not be considered fragile, the threshold for fragile buildings (1 in/sec PPV) was used for structural damage to provide a conservative analysis.

Table 4 Vibration Levels at Sensitive Receptors

Equipment	VdB at 25 feet	PPV (in/sec) at 25 feet
Large bulldozer	87	0.089
Loaded trucks	86	0.076
Jackhammer	79	0.035
Vibratory Roller	94	0.210
Small bulldozer	58	0.003

Source: FTA 2018

As shown above, vibration levels would not exceed 1 in/sec PPV at a reference distance of 25 feet. Therefore, project construction would not exceed 1 in/sec PPV at the nearest commercial building 37 feet from the fuel facility. Additionally, the NMC Section 19.22.090 states that vibration from temporary construction, demolition, and vehicles that enter and leave the subject parcel for construction are exempt from NMC requirements regarding perceptible groundborne vibration, thus vibration from the project construction would not be considered excessive. The nearest sensitive receivers (existing homes west of the project site across US 101) would be approximately 450 feet at the nearest property line to the center of the project site. A vibratory roller would create approximately 0.210 in/sec PPV at 25 feet, as shown in Table 4 (FTA 2018). This would equal a vibration level of less than 0.009 in/sec PPV at 450 feet,[3] which is less than the lowest vibration perceptibility level of 0.01 for continuous or frequent intermittent sources (refer to Table 2). Therefore, there would be no perceptible groundborne vibration or noise at the closest sensitive receptors, and no nearby buildings would be damaged from construction equipment vibration. Therefore, vibration impacts would be less than significant.

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?

Gnoss Field, the nearest airport, is located approximately 3.2 miles north of the project site. The project site is not within the Gnoss Field area of influence identified in the airport land use plan (County of Marin 1991). Therefore, the project site is not located within two miles of a public airport, public use airport, or private airstrip. The project would not expose people residing or working in the project area to excessive noise levels generated by aircraft activities. There would be no impact.

NO IMPACT

[3] PPVEquipment = PPVRef (25/D)^n (in/sec), PPVRef = reference PPV at 25 feet, D = distance, and n = 1.1

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 proposed project would not directly induce population growth in the area as no housing units are proposed. The project would be typically staffed by at least one Costco employee. This level of employment generation would not lead to substantial population growth. The project would not indirectly induce population growth through the extension of roads or infrastructure, as infrastructure connections are already readily available in the vicinity of the project site. Therefore, the proposed project would not induce directly nor indirectly substantial, unplanned population growth.

LESS THAN SIGNIFICANT IMPACT

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

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

NO IMPACT

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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 City of Novato is served by the Novato Fire Protection District (NFPD). The NFPD provides fire protection services, emergency medical services, and fire and rescue response for vehicle and hazardous materials incidents. The nearest fire station to the project sites is located approximately 1.8 driving-miles to the northwest, at Station 61 located at 7025 Redwood Boulevard. Based on the 2009/2013 NFPD Strategic Plan, the district provides emergency services to the district from five stations, comprising 88 personnel (66 firefighters, 9 command staff and 13 administrative staff) (NFPD 2009). Station 61 accommodates 6 firefighting personnel, including two paramedics, one captain, one engineer, one firefighter/paramedic from the Paramedic Engine Company, and one battalion chief. Station 61 is the largest station in the district. Per the Novato Fire District Comprehensive Annual Financial Report, 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 exist.

As discussed in Environmental Checklist Section 14, *Population and Housing*, the proposed project would not directly or indirectly induce population growth. Service demands associated with the project would be within the current service area and would be adequately served by NFPD. It is not anticipated that the project would increase response times for the NFPD and would meet NFPD standards. The project would not require the construction of additional fire protection facilities, and 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 City of Novato is served by the Novato Police Department (NPD), which provides 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 a volunteer program (City of Novato 2020b). The project site would be served by the NPD and receive auxiliary services from the Marin County Sheriff's Office and California Highway Patrol (City of Novato 2020c). The nearest police station is located approximately 2.5 driving-miles northwest of the project site at 909 Machin Avenue.

As discussed in Environmental Checklist Section 14, *Population and Housing*, the proposed project would not directly or indirectly induce population growth. Service demands associated with the project would be within the current service area and would be adequately served by NPD. It is not anticipated that the project would increase response times for the NPD and would not increase the demand for services from NPD. The project would not require the construction of additional police protection facilities, and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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?

The nearest public school is Lynnwood Elementary School, which is approximately 2,800 feet west of the project site. Private schools near the project site include Good Shepherd Lutheran School located 2,400 feet southwest of the site, and North Bay Christian Academy located 4,500 feet northwest of the project site. As discussed in Environmental Checklist Section 14, *Population and Housing*, the proposed project would not directly or indirectly induce population growth, and thus would not increase the student population in the city. Because the project would not increase the number of students in Novato schools, no alterations or expansions of schools would be required. The project would have no impact.

NO 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 Environmental Checklist Section 16, *Recreation.* As discussed in Environmental Checklist Section 14, *Population and Housing*, the proposed project would not directly or indirectly induce population growth, and thus would not increase the demand for park facilities in the city. The project would not require the construction of a new park or require the physical alteration of an existing park or public facility. The project would have no impact.

NO 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?

Libraries for the City of Novato are provided by the Marin County Free Library District. The Marin County Free Library (MCFL) District also services unincorporated areas of Marin County as well as the cities of Corte Madera, Ross, and Fairfax. There are a total of 11 facilities and one bookmobile in the District. As discussed in Environmental Checklist Section 14, *Population and Housing*, the proposed project would not directly or indirectly induce population growth, and thus would not increase the demand for library facilities in the city. The project would not require the construction of a new library or other public facility. The project would have no impact.

NO IMPACT

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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?	☐	☐	☐	■
a. 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?

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?

The City of Novato manages and operates 28 parks totaling approximately 317 acres, or approximately 5.8 acres per one thousand residents (City of Novato 2020a). Parks in Novato feature hiking trails, playground, playing fields, outdoor courts, an amphitheater, a skate park, a dog park, a community swimming pool, and picnic areas. The City also operates recreational and cultural facilities such as history museums, child and senior centers, and a gymnastic center.

The proposed project would not include any residential or other land uses typically associated with an increased usage of existing park and recreational facilities. As discussed in Environmental Checklist Section 14, *Population and Housing*, the project would not increase the City's population; therefore, the project would not generate new demand for existing or planned parks. The project would not substantially alter citywide demand for parks, nor would it result in a substantial physical deterioration of existing recreational facilities. No impact would occur.

NO IMPACT

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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 environmental topics associated with Transportation, as outlined above, will be addressed in the EIR.

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.	■	□	□	□

All of the environmental topic areas within Tribal Cultural Resources, as outlined above, will be addressed in the EIR.

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 North Marin Water District (NMWD) via existing utilities and new connections on and adjacent to the project sites. Approximately 67 percent of the Novato water supply is sourced from the Russian River, and the remainder comes from local runoff

into Stafford Lake that is treated at the NMWD Stafford Water Treatment Plant (NMWD 2021). Water supply is discussed further under criterion (b) below.

Novato's water supply system includes roughly 5,887 acre-feet (AF) of imported water, a storage capacity of 37 million gallons, and two water rights permits for diversion of surface water from Novato Creek for the annual diversion of 8,454 AF. 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.

The proposed project would involve the addition of new water facilities, and the project applicant would enter into an agreement with NMWD and complete financial arrangements for new water facilities as a condition of permit approval. The project would incrementally increase demand for water above existing conditions on the project site as a result of new landscaping. The project's estimated water demand would be approximately 0.42 million gallons per year for fuel facility site use, including landscaping water use (CalEEMod 2023), or approximately 1,156 gallons per day, which is approximately 0.009 percent of Novato's water supply during a normal year and approximately 1.0 percent of Novato's water supply system surplus capacity by 2040. 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 2021). Additionally, project landscaping would be designed to receive recycled water pursuant to NMWD standards. New development would offset new water demand through NMWD's water connection rate structure, which funds water infrastructure maintenance. The project would be required to conform with NMWD Regulation 15, Mandatory Water Conservation Measures, which prohibits activities including but not limited to using potable water for landscaping, and the unnecessary washing of driveways and parking lots. 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 3.2 MGD for dry weather flow and 12.6 MGD for peak wet weather flow (NSD 2022).

The project's estimated wastewater generation would be approximately 0.35 million gallons per year (assuming water use is approximately 120 percent of wastewater generation), or approximately 959 gallons per day. This estimate is considered to be conservative because the majority of water used on site would be for landscape irrigation, which would percolate through the site soils or overflow into the bioretention basins or stormwater drainage system. This would represent approximately 0.03 percent of the NTP remaining capacity for average dry weather flow and 0.008 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. Additionally, 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 2019). Therefore, 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 proposed project. On-site stormwater generated by the fuel facility impervious surfaces will drain to two bioretention areas and undergo treatment from an oil/water separator prior to discharge into the existing sanitary sewer. Additionally, the project would not require an expansion of existing or new stormwater infrastructure aside from those features proposed within the fuel center. Pursuant to NMC Section 7-5, owners of real property in the City are required to pay an annual parcel tax to the City for clean stormwater activities, which include capital improvements to the City's storm drainage system. 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 likely be necessary.

The project is expected to require approximately 45,178 kilowatt-hours of electricity per year. PG&E maintains power lines along eastern Rowland Boulevard and Vintage Way, which serve the project site. The substation and power lines that serve the project site have a capacity of 15.84 megawatts (MW) and a peak load of 10.8 MW, with a remaining capacity of 5.0 MW (PG&E 2023). The project would require approximately 0.045 MW, approximately 0.9 percent of the remaining capacity of the PG&E substation that serves the project site. 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. This impact 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 67 percent of the Novato water supply comes from the Russian River through the NMWD wholesale water supplier, the Sonoma County Water Agency. The remainder comes from local runoff into Stafford Lake. NMWD has no local, developed groundwater sources (NMWD 2021).

The NMWD's 2020 Urban Water Management Plan (UWMP) addresses NMWD'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 5.

Table 5 NMWD Water Supply and Demand in Acre-Feet for Normal, Single Dry, and Multiple Dry Year

	Year				
	2025	2030	2035	2040	2045
Normal Year					
Supply Totals	15,913	15,926	15,940	15,954	15,968
Demand Totals	10,679	10,857	11,085	11,108	11,152
Difference	5,234	5,069	4,855	4,846	4,816
Single Dry Year					
Supply Totals	15,913	13,684	13,585	13,472	13,345
Demand Totals	10,679	10,857	11,085	11,108	11,152
Difference	5,234	2,827	2,500	2,364	2,194
Multiple Dry Years	**Year**				
	2025	**2030**	**2035**	**2040**	**2045**
First Year					
Supply Totals	15,913	15,926	15,940	15,954	15,968
Demand Totals	10,679	10,857	11,085	11,108	11,152
Difference	5,234	5,069	4,855	4,846	4,816
Second Year					
Supply Totals	15,913	15,926	15,940	15,954	15,968
Demand Totals	10,679	10,857	11,085	11,108	11,152
Difference	5,234	5,069	4,855	4,846	4,816
Third Year					
Supply Totals	15,913	15,926	15,940	15,954	15,968
Demand Totals	10,679	10,857	11,085	11,108	11,152
Difference	5,234	5,069	4,855	4,846	4,816

Notes: Parentheses denote a negative number

Source: NMWD 2021

Table 5 shows that NMWD's projected water supplies are sufficient to meet projected demands during normal, single, and multiple dry year conditions (NMWD 2021).

NMWD currently serves the project site through existing utilities and services would continue to do so during project operation. The project would include a fuel station and new landscaping on the project site. The project's estimated water demand would be approximately 1,156 gallons per day, or 0.42 million gallons per year (CalEEMod 2023).

The project's water demand would represent less than 0.009 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. This impact 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 0.35 million gallons per year (assuming water use is approximately 120 percent of wastewater generation), or approximately 959 gallons per day. This would represent approximately 0.03 percent of the NTP remaining capacity for average dry weather flow and 0.008 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 2019). 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. The estimated closure date of the landfill is 2036 (CalRecycle 2020a).

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 proposed 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).

Using an estimated solid waste generation rate provided by CalRecycle for general commercial land uses, the project would result in an increase of approximately 11 pounds of solid waste per day, or 1.9 tons per year (using a rate of 10.53 pounds per employee per day) (CalRecycle 2020b). This represents approximately 0.0002 percent of the permitted daily throughput of the Redwood Landfill and Recycling Center. This does not represent a substantial increase in the waste stream, and the project would be served by a landfill with 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. While the proposed project would not include recycling bins, the associated Costco Wholesale does provide recycling facilities that would be available to customers. Therefore, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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19 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?*

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?*

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?*

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 adjacent to existing urban development in Novato and is classified as a Local Responsibility Area, where responsibility for fire protection falls on the NFPD, rather than the state or federal government. The project site does not fall within a very high fire hazard severity zone (VHFHSZ). The nearest VHFHSZ is located approximately 1.4 miles southwest of the site (CAL FIRE 2008). The project site is not located in the wildland-urban interface (WUI), an area subject to high fire hazard, as mapped by the NFPD (NFPD 2020). Furthermore, the proposed construction areas are generally flat and this topography would not enhance the spread of wildfire. The project would not involve the construction of new utility infrastructure that could exacerbate fire risk, such as overhead power lines. Emergency vehicle access would remain available to the project area via Rowland Boulevard and Vintage Way, and direct access to the fuel center would be provided through existing driveways and the relocated driveway along Vintage Way. 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

20 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?

The project would involve construction and operation of a new fuel facility within a developed area of Novato. The project would be constructed within an existing paved parking lot that does not contain suitable habitat for fish and wildlife species. The project would not 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, or substantially reduce the number or restrict the range of a rare or endangered plant or animal.

The project site is known to contain an archaeological resource, and potential impacts to archaeological resources will be discussed further in the EIR.

POTENTIALLY SIGNIFICANT IMPACT

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)?

Cumulative impacts could occur if the construction of other projects occurs at the same time as the proposed project and in the same geographic scope, such that the effects of similar impacts of multiple projects combine to create greater levels of impact than would occur at the project level. Environmental issue areas where cumulative impacts may occur in relation to construction include air quality, biological resources, cultural and tribal cultural resources, greenhouse gas emissions, hazards and hazardous materials, noise, and transportation. These environmental topics, except noise, and their potential cumulative impacts will be discussed in the EIR. Additionally, cumulative impacts related to greenhouse gas emissions, hazards and hazardous materials, and transportation as the project would generate greenhouse gas emissions, involve the routine transport of hazardous materials, and increase trips in the project vicinity. Impacts could be cumulatively considerable, and potential cumulative impacts will be discussed under each environmental issue area in the EIR.

Overlapping construction activities associated with cumulative development projects in conjunction with proposed project activities could result in cumulative noise impacts related to a temporary increase in ambient noise levels at the same noise-sensitive receivers located throughout the area, especially during construction activities. However, similar to the proposed project, cumulative development projects would be subject to compliance with the noise level limits established in Novato Municipal Code Section 19.22.070. Additionally, as discussed above in Environmental Checklist Section 13, *Noise,* the project would not generate a substantial amount of noise and would not result in significant noise impacts to nearby sensitive receivers. Therefore, the project would not contribute to a cumulatively considerable noise impact. Cumulative construction noise impacts would be less than significant.

Other cumulative impacts will be addressed in the EIR.

POTENTIALLY SIGNIFICANT IMPACT

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, hydrology and water quality, and noise. As discussed in the Environmental Checklist section of this Initial Study, the project would not result in substantial adverse effects related to geology and soils and noise, and the analyses and conclusions herein support a determination that there would be no adverse effects on human beings in those topic areas. Environmental topic areas for which the project could result in a a substantial adverse effect on human beings (air quality, hazards and hazardous materials, and hydrology and water quality) will be discussed further in the EIR.

POTENTIALLY SIGNIFICANT IMPACT

References

Bibliography

California Department of Conservation (DOC). 2022a. Important Farmland Finder. https://maps.conservation.ca.gov/DLRP/CIFF/ (accessed April 2023).

_____. 2022b. Williamson Act Enrollment Finder. https://maps.conservation.ca.gov/dlrp/WilliamsonAct/ (accessed May 2023).

California Department of Forestry and Fire Protection (CAL FIRE). 2008. Novato: Very High Fire Hazard Severity Zones in LRA. Sacramento, CA. October 16, 2008. https://osfm.fire.ca.gov/media/5859/novato.pdf (accessed May 2023).

California Department of Resources Recycling and Recovery (CalRecycle). 2020a. SWIS Facility/Site Activity Details. Redwood Landfill (21-AA-0001). https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/3054?siteID=1727 (accessed May 2023).

_____. 2020b. Estimated Solid Waste Generation Rates. https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates (accessed May 2023).

California Department of Transportation (Caltrans). 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol. September 2013. https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf (accessed May 2023).

_____. 2019. Designated and Eligible State Scenic Highways. https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa (accessed April 2023).

_____. 2020. Transportation and Construction Vibration Guidance Manual. April 2020. https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf (accessed May 2023).

California Emissions Estimator Model (CalEEMod). 2023. Water Use Rates (gallons per year) for Gasoline/Service Station Land Use.

Federal Highway Administration (FHWA). 2011. Highway Traffic Noise: Analysis and Abatement Guidance. December 2011. https://www.fhwa.dot.gov/environment/noise/regulations_and_guidance/analysis_and_abatement_guidance/revguidance.pdf (accessed May 2023).

Federal Transit Administration (FTA). 2018. Transit Noise and Vibration Impact Assessment Manual. September 2018. https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf (accessed May 2023).

Graymer, R.W., B.C. Moring, G.J. Saucedo, C.M. Wentworth, E.E. Brabb, and K.L. Knudsen. 2006. Geologic map of the San Francisco Bay Region. U.S. Geological Survey, Scientific Investigations Map 2918. Map scale 1:275,000.

Marin, County of. 1991. Airport Land Use Plan: Marin County Airport Gnoss Field. June 10, 1991. https://www.marincounty.org/~/media/files/departments/cd/planning/currentplanning/publications/landuseplan/airport-land-use-plan--marin-county-airport-gnoss-field.pdf (accessed April 2023).

North Marin Water District (NMWD). 2021. 2020 Urban Water Management Plan. June 2021. https://nmwd.com/wp-content/uploads/2021/07/NMWD-UWMP-2020_w_appendices.pdf (accessed May 2023).

Novato, City of. 2020a. General Plan 2035, February 2020. https://www.novato.org/government/community-development/general-plan-update (accessed May 2023).

_____. 2020b. Police Department: About Us. https://www.novato.org/government/police-department/divisions?locale=en (accessed May 2023).

_____. 2020c. Novato Police Department Policy Manual. July 14, 2020. https://www.novato.org/home/showdocument?id=31200 (accessed May 2023).

Novato Fire Protection District (NFPD). 2009. 2009/2013 Strategic Plan. https://www.novatofire.org/home/showpublisheddocument/32/635984085232470000 (accessed May 2023).

_____. 2019. Novato Fire Protection District: Comprehensive Annual Financial Report for the Year Ended June 30, 2019. https://www.novatofire.org/home/showdocument?id=9160 (accessed May 2023).

_____. 2020. WUI Map. https://www.novatofire.org/home/showpublisheddocument/75/635984085232470000 (accessed May 2023).

Novato Sanitary District (NSD). 2011. Current Franchise Agreement for Solid Waste. March 2011. https://novatosan.com/doc/1039/ (accessed May 2023).

_____. 2019. Collection System Master Plan. August 2019.

_____. 2022. 2022 Annual Operations and Maintenance Report. https://novatosan.com/?taxonomy=rccd_doc_cat&term=annual-operations-and-maintenance-reports (accessed May 2023).

Pacific Gas & Electric Company (PG&E). 2023. Solar Photovoltaic (PV) and Renewable Auction Mechanism (RAM) Program Map. https://www.pge.com/b2b/energysupply/wholesaleelectricsuppliersolicitation/PVRFO/PVRAMMap/index.shtml (accessed May 2023)

Stinson, Melvin C., Manson Michael, W. and Plappert John, J. 1982. Mineral land classification map, special report 146, plate 3.8. California department of conservation. Sacramento, CA. https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=regulatorymaps (accessed May 2023).

United States Geological Survey. 2019. Quaternary Faults Web Application. Geologic Hazards Science Center – Earthquake Hazards. https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=5a6038b3a1684561a9b0aadf88412fcf (accessed April 2023).

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