OYSTER COVE MIXED USE NEIGHBORHOOD

INITIAL STUDY

MITIGATED NEGATIVE DECLARATION

PREPARED BY:

CITY OF PETALUMA
11 ENGLISH STREET
PETALUMA, CA 94952

DRAFT APRIL 2023
FINAL AUGUST 2023

INITIAL STUDY - OVERVIEW AND BACKGROUND	
Project Title:	Oyster Cove Mixed Use Neighborhood
Lead Agency:	City of Petaluma 11 English Street Petaluma, CA 94952
Contact person and phone number:	Olivia Ervin, Principal Environmental Planner oervin@cityofpetaluma.org (707) 778-4556
Project Location:	100 and 310 East D Street and 0 Copeland Street, City of Petaluma, Sonoma County, California (APNs 007-700-003, -006, and -005)
Project Sponsor:	Joseph Scott Ward, Oyster Cove, LLC. (415) 690-6351 Scott@urbanmixdevelopment.com 149 New Montgomery Street, 4th Floor, San Francisco, CA 94105
Property Owners:	Michael & Barbara Lind (707) 974-5844 ml@lindmarine.com 1295 Schuman Lane, Petaluma, CA 95952
Existing/Proposed General Plan Designation:	Mixed Use (MU) and River Dependent Industrial (RDI) / Mixed Use (MU)
Existing/Proposed Zoning:	Urban Center (T5) and River Dependent Industrial (D3) / Urban Center (T5)
Description of project:	The project proposes development on 6.13 acres to construct 121 condominium townhomes and 11 work-live units within 21 three and four-story buildings. The project includes adaptive reuse of an existing 7,500 square foot building into a commercial and public use space, access easements to the Petaluma River Park and Steamers Landing Park, surface parking, internal driveways, pervious pedestrian paths, and offsite improvements. Primary access would be provided from Copeland Street, with a secondary emergency vehicle access (EVA) at the northeast corner of the project site connecting to Hopper Street.
Surrounding Land Uses and Setting:	Land uses adjacent to the project site include commercial uses to the north and northeast; the David Yearsley River Heritage Center, McNear Canal, River Dependent Industrial, and Petaluma River Park to the east; commercial uses, the SMART rail line, and Petaluma Downtown SMART Station to the north; D Street, the D Street Drawbridge, Copeland Transit Center, and commercial and undeveloped land across D Street to the west; and the Petaluma River to the south.
Other Public Agency Approvals:	U.S. Army Corp of Engineers (Corps), CA Department of Fish and Wildlife (CDFW), U.S. Fish and Wildlife Service (USFW), Regional Water Quality Control Board (RWQCB), Sonoma County Department of Health Services, and Sonoma Water
Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun?	The City of Petaluma conducted notification within the statutory timeframe provided by Public Resources Code §21080.3.1. Notice was sent to the Federated Indians of Graton Rancheria by email and physical mailer on November 2, 2022. On December 6, 2022, the City received a response from the Tribe requesting to enter into consultation. On March 1 ,2023, the City and the Tribe met to consult on the project. As of April 3, 2023, it is understood that Tribal consultation has been satisfied.

OYSTER COVE MIXED USE NEIGHBORHOOD

TABLE OF CONTENTS **PAGE #**

TABLE OF FIGURES

TABLE OF TABLES

ACRONYMS AND ABBREVIATIONS

ADU	ACCESSORY DWELLING UNIT
AFY	ACRE FEET A YEAR
AIR BASIN	SAN FRANCISCO BAY AREA AIR BASIN
APN	ASSESSOR PARCEL NUMBERS
AQP	AIR QUALITY PLAN
APN	ASSESSOR PARCEL NUMBER
ARB	CALIFORNIA AIR RESOURCES
BAAQMD	BAY AREA AIR QUALITY MANAGEMENT DISTRICT
BASMAA	BAY AREA STORMWATER MANAGEMENT AGENCIES ASSOCIATION
BMP	BEST MANAGEMENT PRACTICE
BRA	BIOLOGICAL RESOURCE ASSESSMENT
BRTC	BIOLOGICAL RESOURCES TECHNICAL REPORT
BTU	BRITISH THERMAL UNIT
CALEEMOD	CALIFORNIA EMISSIONS ESTIMATOR MODEL
CBC	CALIFORNIA BUILDING CODE
CCR	CALIFORNIA CODE OF REGULATIONS
CDFW	CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
CEC	CALIFORNIA ENERGY COMMISSION
CEQA	CALIFORNIA ENVIRONMENTAL QUALITY ACT
CESA	CALIFORNIA ENDANGERED SPECIES ACT
CIP	CAPITAL IMPROVEMENT PROGRAM
CORP	ARMY CORPS OF ENGINEERS
CNDDB	CALIFORNIA NATURAL DIVERSITY DATABASE
CNEL	COMMUNITY NOISE EQUIVALENT LEVEL
CNPS	CALIFORNIA NATIVE PLAN SOCIETY

CPSP	CENTRAL PETALUMA SPECIFIC PLAN
CWA	CLEAN WATER ACT
CRHR	CALIFORNIA REGISTER OF HISTORICAL RESOURCES
CTS	CALIFORNIA TIGER SALAMANDER
CUPA	CERTIFIED UNIFIED PROGRAM AGENCIES
DBA	A-WEIGHTED DECIBEL
DBH	DIAMETER AT BREAST HEIGHT
DEIR	DRAFT ENVIRONMENTAL IMPACT REPORT
DPM	DIESEL PARTICULATE MATTER
DPR	DEPARTMENT OF PARKS AND RECREATION
DTSC	DEPARTMENT OF TOXIC SUBSTANCE CONTROL
EIR	ENVIRONMENTAL IMPACT REPORT
ESA	ENVIRONMENTAL SITE ASSESSMENT
ESL	ENVIRONMENTAL SCREENING LEVELS
EVA	EMERGENCY VEHICLE ACCESS
FEIR	FINAL ENVIRONMENTAL IMPACT REPORT
FESA	FEDERAL ENDANGERED SPECIES ACT
FMMP	FARMLAND MAPPING AND MONITORING PROGRAM
GHG	GREENHOUSE GAS
GPD	GALLONS PER DAY PER ACRE
GWH	GIGAWATT-HOURS
HI	HAZARD INDEX
HRA	HEALTH RISK ASSESSMENT
HMBP	HAZARDOUS MATERIAL BUSINESS PLAN
IRWP	INCREMENTAL RECYCLED WATER PROGRAM
IS/MND	INITIAL STUDY/MITIGATED NEGATIVE DECLARATION
ITE	INSTITUTE OF TRANSPORTATION ENGINEERS
ITP	INCIDENTAL TAKE PERMIT
LID	LOW IMPACT DEVELOPMENT
LWWTP	LAGUNA WASTEWATER TREATMENT PLANT
MGD	MILLION GALLONS PER DAY
MBTA	MIGRATORY BIRD TREATY ACT
MEI	MAXIMUM EXPOSED INDIVIDUAL
MM	MITIGATION MEASURE
MMRP	MITIGATION MONITORING AND REPORTING PROGRAM
NPDES	NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
NAHC	NATIVE AMERICAN HERITAGE COMMISSION
NHPA	NATIONAL HISTORIC PRESERVATION ACT
NRHP	NATIONAL REGISTER OF HISTORIC PLACES
NWIC	NORTHWEST INFORMATION CENTER
OEHHA	CALIFORNIA OFFICE OF ENVIRONMENTAL HEALTH HAZARDS ASSESSMENT
PPV	PEAK PARTICLE VELOCITY
PRC	PUBLIC RESOURCES CODE
REC	RECOGNIZED ENVIRONMENTAL CONDITIONS
RCPA	REGIONAL CLIMATE PROTECTION AGENCY
ROG	REACTIVE ORGANIC GAS
RWQCB	REGIONAL WATER QUALITY CONTROL BOARD
SCWA	SONOMA COUNTY WATER AGENCY
SMART	SONOMA MARIN AREA RAIL TRANSIT
SVOC	SEMI-VOLATILE ORGANIC COMPOUND

SCH	STATE CLEARINGHOUSE
SR	STATE ROUTE
SRPCS	SANTA ROSA PLAIN CONSERVATION STRATEGY
SWPPP	STORM WATER POLLUTION PREVENTION PLAN
SWRCB	STATE WATER RESOURCES CONTROL BOARD
TAC	TOXIC AIR CONTAMINANTS
UGB	URBAN GROWTH BOUNDARY
USFWS	UNITED STATES FISH AND WILDLIFE SERVICE
UST	UNDERGROUND STORAGE TANK
UWMP	URBAN WATER MANAGEMENT PLAN
µG/M3	MICROGRAMS PER CUBIC METER
WR&C	WATER RESOURCE AND CONSERVATION DIVISION

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1 PROJECT DESCRIPTION

1.1 PROJECT LOCATION

Regional Setting

Petaluma is located in southwestern Sonoma County along the US 101 corridor approximately 15 miles south of Santa Rosa and 20 miles north of San Rafael. It is situated at the northernmost navigable end of the Petaluma River, a tidal estuary that drains southward to San Pablo Bay. The City originated along the banks of the Petaluma River, spreading outward over the floor of the Petaluma River Valley as the City developed. The valley itself is defined by Sonoma Mountain on the northeast and by the hills extending northward from Burdell Mountain on the west. To the south are the Petaluma Marshlands and the San Francisco Bay beyond.

Petaluma's Urban Growth Boundary (UGB) defines the limits within which urban development may occur and encompasses approximately 9,911 acres. The UGB was implemented in 1987 (as the Urban Limit Line), formally adopted as the UGB in 1998 via Measure I and will expire in 2025 without subsequent action. The General Plan and EIR evaluated potential impacts associated with existing and proposed development within the UGB. The project's location within the City of Petaluma and region is shown in **Figure 1: Regional Location**.

Neighborhood Setting

The project site is located at 100 and 310 East D Street in downtown Petaluma and within the Central Petaluma Specific Plan (CPSP) area. The CPSP is characterized by urban development in proximity to the Petaluma River between Lakeville Highway and Petaluma Boulevard and includes high density residential, commercial, business, and industrial uses. The CPSP contains the Petaluma SMART rail station, the historic downtown, river-dependent industries, and civic spaces. Uses within the CPSP are subject to regulation established by the Petaluma SMART Code. The River Access and Enhancement Plan also provides guidance on development along the river and describes Petaluma's vision for riverfront uses, activities, and developments to result in an active pedestrian and commercial environment with the Petaluma River as the centerpiece. Central Petaluma is envisioned to be a place where a wide range of residential, commercial, and industrial uses can coexist in relative proximity to one another within a lively urban environment.

Across East D Street from the Oyster Cove Mixed Use Neighborhood project site is the Haystack mixed use development which has been approved but not constructed. Currently, this property is undeveloped with the exception of two existing warehouses, once of which has been approved for demolition as part of the Haystack project approvals. On the north side of Copeland Street between East D Street and East Washington Street is the Copeland Street Transit Mall, which provides local and regional transit on a fixed route schedule. North of the Transit Mall and south of Lakeville Street is the Petaluma Downtown SMART station, which provides light commuter rail service. Highway 101 is approximately 0.75 to the north/northeast of the project site and can be accessed via Lakeville Street or East Washington Street.

To the south and west of the site is the Petaluma River and the Turning Basin. The Petaluma River was historically used to move freight to and from San Pablo Bay and warehouses and mills on the waterfront have been converted from industrial to mixed use buildings with local and tourist-serving commercial on the ground floors and residential on upper floors.

To the north of the project site along Lakeville Street and Hopper Street are commercial and industrial businesses including Shamrock Building Materials, and neighborhood-serving commercial businesses. At the corner of East D Street and Copeland Street is a building housing a company called Qualtech which serves local industrial agriculture and brewing operations with sanitary liquid processing technology services. There are two auto service companies located north of the SMART tracks on Hopper Street. There are four grocery stores within half a mile of the project site including Grocery Outlet and Whole Foods on East Washington Street and Lolita's Market and Lucky's on Lakeville Highway.

To the south and east of the project site is the McNear Peninsula, a manmade feature resulting from the excavation of the McNear Canal in 1898. Two parks are adjacent to the project site. Steamer Landing Park is comprised of open space and walking trails around the McNear Canal from Hopper Street to the River Heritage Center, and a

public parking lot for park access at the end of Copeland Street. At the head of the peninsula is the River Heritage Center which is managed by the Friends of the Petaluma River as a site for educational events such as the Green Heron Nature Camp, a summer camp for elementary school children, and river cleanups as well as cultural events such as the Rivertown Revival music festival. Southeast of the Heritage Center, the rest of the McNear Peninsula is privately owned by the non-profit Petaluma River Park Foundation. The Foundation has developed the peninsula for use as a publicly accessible park (Petaluma River Park) and plans to install additional improvements in the future including art installations, walking trails, river access, and ecological restoration (**Figure 2: Project Vicinity**).

Project Site

The approximately 6.13-acre project site is located on the eastern side of East D Street between the Petaluma River, Steamer Landing Park, and Hopper Street and consists of three parcels (APNs 007-700-003, 007-700-006, and 007-700-005). Site elevations range from approximately 10.5 feet to 15.5 feet above sea level and portions are located within the regulated flood plain. The C-shaped project site wraps around the McNear Canal, and is surrounded by the Petaluma River to the south, an unused and abandoned rail spur, several vacant lots, and an industrial building (Qualtech) to the north, East D Street to the west, and Steamer Landing Park and Petaluma River Park (also referred to as the McNear Peninsula) to the east. The site is accessed by a driveway onto Copeland Street and a curb cut and driveway from East D Street. Copeland Street bisects the project site, terminating at the existing Steamer Landing Park parking lot which will remain in place and accessible to the public.

The project site is located within the urban growth boundary (UGB) and a portion of the project, APN 007-700-005, is identified for residential development in the City of Petaluma 2015-2023 Housing Element, prepared December 2014. As provided in the Residential Land Inventory of Opportunity Sites, APN 007-700-005 located at the northern portion of the project site (Site #32), has a residential development potential of 56 units (Table 6: Vacant and Underutilized Sites). APNs 007-153-001 and -002 are also part of Site #32 in the Housing Element, but are not included as part of the Oyster Cove Mixed Use Neighborhood project. As described in the Housing Element, Opportunity Sites are vacant or underutilized parcels that have the potential to be developed as affordable housing to very low- and low-income households.

The project site was historically used for offloading, processing, and distribution of fossilized oyster shells. The site is currently developed with three vacant metal clad industrial buildings. Adjacent to the project site within the navigable river and owned by the state are docks and moorings which supported the former river-dependent industrial operation. Existing land cover within the area of the proposed development includes ruderal herbaceous grassland that supports mostly non-native and weedy plant species. There is an existing stormwater outfall culvert at the southeastern portion of the site that extends into coastal salt marsh habitat at the edge of the Petaluma River and would be replaced by the project. Coast salt marsh habitat lines the edges of the McNear Canal and the Petaluma River. The McNear Canal is a man-made extension of the Petaluma River which is brackish and tidally influenced.

There are 61 trees located on the project site and adjacent public rights of way, of which, 15 will be removed to accommodate the project. Of the 15 trees to be removed, eight (8) are protected pursuant to Chapter 17 of the Petaluma Implementing Zoning Code due to their location within the public right of way, species, and size. The remaining seven (7) trees to be removed are not protected due to their size, species type, or location.

The project site is adjacent to an existing Conservation Easement granted to the Sonoma County Agricultural Preservation and Open Space District by the City of Petaluma that regulates the development and use of all City-owned contiguous land extending from Steamer Landing (east of the project) around the McNear Canal to a point near Hopper Street. This land includes the existing Steamer Landing open space and David Yearsley River Heritage Center, the River Trail, and the Petaluma River Park.

General Plan and Zoning

The project site is located within the Central Petaluma Specific Plan Subarea of the General Plan. A majority of the site is designated Mixed Use (MU) and River Dependent Industrial (RDI) in the Central Petaluma Specific Plan. The MU designation allows for a variety of residential, commercial office, retail, and industrial uses and is intended to promote mixed use throughout the area and vertical mixed uses within the same structure where possible. The RDI designation is for heavy industrial manufacturing, raw material processing, and related uses that require river access

as an integral part of daily operations and transport of a significant portion of goods and materials. Parcels 007-700-003 and 007-700-005 are designated MU (18.1 to 30 dwelling units/acre). Parcel 007-700-006 has two land use designations; approximately half is RDI (residential prohibited) and half is MU. The project proposes a General Plan land use amendment to change the land use of parcel 007-700-006 from RDI to MU to accommodate residential uses (**Figure 3: Existing and Proposed Land Use**).

The project site is zoned Urban Center (T5) and River-Dependent Industrial (D3) and is regulated by the SmartCode. The Urban Center zoning district allows for higher density mixed use buildings that accommodates retail, offices, rowhouses, and apartments with a tight network of streets with wide sidewalks, street tree planting, and buildings set close to the sidewalks. The River Dependent Industrial sites within the CPSP were zoned to accommodate ongoing industrial uses in those areas. Any redevelopment of a RDI zoned site should conform with the standards of the Urban Core (T6) zoning designation for high-density mixed-use structures with ground floor commercial. The project proposes a zoning map amendment to change the zoning of parcel 007-700-006 from D3 to T5 to accommodate residential (**Figure 4: Existing and Proposed Zoning**).

The project site is situated within a designated Priority Development Area (PDA) due to its proximity to the Downtown Petaluma SMART Station (within ¼ mile from the station). PDAs are places identified by Bay Area communities as areas for investment, new homes, and job growth. PDAs are the foundation for sustainable regional growth as envisioned through Plan Bay Area, the region's Sustainable Community Strategy (SCS). The most recently adopted SCS is the Plan Bay Area 2050 prepared as a joint effort between the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG).[1] Implementation of PDA's enhance mobility and economic growth by linking the location of housing and jobs with transit, thus offering a more efficient land use pattern around transit, reducing greenhouse gas emissions, and realizing a greater return on existing and planned transit investments. The project is subject to the Petaluma SMART Rail Station Areas: TOD Master Plan.

The project is subject to the Central Petaluma Specific Plan (CPSP), the SMART Code, the Bicycle and Pedestrian Plan 2008, Petaluma SMART Rail Station Areas: TOD Master Plan, and the River Access and Enhancement Plan. The Bicycle and Pedestrian Plan is undergoing an update as the Active Transportation Plan (ATP) under the guidance of the Bicycle and Pedestrian Advisory Committee (PBAC) in 2023. The Housing Element and the General Plan are also in the process of being updated in 2023.

1.2 PROJECT DESCRIPTION

The Oyster Cove Mixed Use Neighborhood project proposes conversion of an existing industrial site into a mixed-use/residential development consisting of 132 residential condominium homes arranged in 21, 3-4 story buildings oriented to East D Street, the Petaluma River, and the McNear Canal. Exclusively residential buildings will have between 5 and 8 attached units per building with homes ranging in size from 1,345 square feet up to 1,995 square feet with 2 to 3 bedrooms and a convertible home office, and 2 to 3.5 bathrooms. Each will have a private outdoor space in the form of a patio, balcony, or rooftop terrace, and a one or two-car garage. Eleven of the units will be mixed use live/work units oriented to East D Street. These units will be up to 2,100 square feet inclusive of ground floor workspace. Up to 12 accessory dwelling units (ADUs) ranging in size from 300 to 450 square feet will be optional within space otherwise designated as garage parking for the primary dwelling.

The project would comply with the City's inclusionary housing requirement by reserving 15% of units for income-qualifying households (7.5% Low-Income and 7.5% Moderate Income). These affordable housing units will be integrated throughout the development's 132 residential homes.

The project includes adaptive reuse of the Oyster Shed, an existing 6,000 square foot industrial building adjacent to East D Street and the Petaluma River. The Oyster Shed component of the project would include a 6,000 square foot boathouse, 1,500 square foot public plaza with play area, and 1,500 square feet of commercial space. Other site improvements include parking areas, outdoor use areas with a dining patio and multi-use paths, internal driveways, landscaping, and appurtenant improvements. The project's site plan is shown in **Figure 5: Site Plan**.

[1] Final Plan Bay Area 2050 prepared by ABAG/MTC, adopted October 21, 2021.

Oyster Cove Mixed Use Neighborhood Buildings

The 132-unit residential development proposal includes 112 market-rate units and up to 20 affordable units. The proposed unit types include:

- 11 multi-story live/work units of approximately 2,100 square feet inclusive of ground floor commercial space along D Street;
- 121 multi-story attached, 2 and 3-bedroom residential units ranging in size from approximately 1,345 – 1,995 square feet; and
- 12 ground floor Accessory Dwelling Units (ADUs), ranging in size from approximately 300-450 SF, to be optioned within the market-rate townhomes to provide for additional housing choices and affordability levels.
- Each proposed residential unit would have a private outdoor space and either a one- or two-car garage. Units with an ADU will only provide a one-car garage and affordable units may only have a one-car garage.

The new residential buildings will be oriented towards each other and the river to provide residents with views of the water and to minimize the appearance of building mass from D Street. Buildings will be 3 or 4 stories high with flat roofs occupied by solar panels or rooftop terraces with pergolas dedicated to individual units. Building exterior sheathing will be a variety of materials including stucco, undressed concrete, and wood siding. Buildings will incorporate exterior materials in different configurations to create a varied selection of building styles within a similar palette. Windows may be flanked by decorative shutters, topped with sun-filtering awnings, or Juliette balconies. Accessible unit balconies will have metal and wire railings. Garage doors facing the alleys will be colored to look like wood and will be flanked by arbors that support vining plants.

Site Access and Circulation

The site is located within walking distance of Petaluma's Historic Downtown, the Boulevard 14 Cinema, and services at Petaluma River Plaza on East Washington Street. The SMART Petaluma Downtown Station is approximately 900 feet to the northwest from the project site. The Petaluma Transit Mall (Routes 10, 11, and 24) is located 250 feet to the east on Copeland Street. Other nearby bus stops are located within 200 feet of the project site on D Street (Routes 10 and 24).

Primary vehicular access to the project site is from Copeland Street by way of East Washington or East D Street. Throughout the project site, 20- to 26-foot-wide alleyways are proposed to provide internal access for fire apparatus, service trucks, and vehicles. Each building will have an elevation facing internal alleyways where vehicles may access residential garages and an elevation facing pedestrian pathways where pedestrian entrances to residences are located. A network of sidewalks is proposed throughout the complex oriented away from vehicle access alleys and providing pedestrians a dedicated access route to all buildings. Pedestrian access pathways are lined with landscaped areas.

Frontage improvements along D Street and Copeland Street will be installed. These improvements will include new sidewalks, curbs, streetlights, curb cuts, and a Class 4 bike lane on D Street extending from the drawbridge across the project's frontage. Street trees and landscaping will be planted along D Street and Copeland Street in planters on the project site and in the public right of way. The frontage along D Street where the live-work units are proposed feature commercial storefronts that will be furnished with an ADA accessible, split-level sidewalks and ramps. The ground floor of the new buildings will be at an elevation of 14 feet above sea level, which is outside of the floodplain. To accommodate for the elevation difference between the project site and D Street, one level of the sidewalk will be at D Street and allow for access to the street and the lower level of the sidewalk will allow for entry to the buildings. The lower and upper sidewalk will be divided by landscaped planters with wide bench ledges and connecting steps.

In addition, the D Street/Copeland Street intersection will be signalized as part of the project. As set forth in the Transportation Impact Study prepared for the project, the northbound (E D Street traveling toward Lakeville Street) lane configuration includes a 10-foot left turn lane (onto Copeland Street), 11-foot shared through and right turn lane (into the project site), and a 5-foot Class IV cycle track adjacent to the project site. As shown in the project plans, a portion of the site will be dedicated for right-of-way improvements. The southbound (E D Street traveling toward Petaluma Blvd S) lane configuration includes a 12-foot left turn lane (into the project site) and a 12-foot shared through and right turn lane (onto Copeland Steet). The westbound (traveling toward the Copeland Street

transit mall) consists of a 16-foot shared left, through, and right lane. The eastbound (traveling onto the project site) lane configuration consists of a 23-foot shared left, through, and right lane. Improvements will be required to be installed prior to issuance of a Certificate of Occupancy.

The portion of the project site bounded by East D St. to the west, the Petaluma River to the south, and City-and non-profit owned land featuring the Petaluma River Park, River Trail, and Steamer Landing to the north and east, also referred to as 100 E D St. (APN 007-700-003) is subject to a private roadway easement for which the City is beneficiary that would allow the development of a 30-foot wide roadway extending from East D St. to the City-owned Steamer Landing parcel. The right granted under this easement has not been exercised. As part of the project a new public access easement would be granted through the project site providing vehicle, pedestrian, and bicycle access through the site to the City-owned parcel.

Emergency vehicle access (EVA) is proposed through the alley network via the access drive off of Copeland Street and an exclusive secondary EVA access point from Hopper Street at northeast corner of the project site. The secondary access point would be gate controlled for access by emergency personnel only.

Bicyclist access to the site will be from the proposed northbound Class IV bike lane along East D Street and a 10-foot-wide Class I bicycle and pedestrian pathway along the Petaluma River. Signage will be installed as a wayfinding feature to direct pedestrians to the Petaluma River Park. The existing Steamer Landing Class I path along the McNear Canal from Hopper Street to the Heritage Center will be retained. Bicycle racks will be installed throughout the project and in each of the residential parking garages along with an EV charging station in each garage.

Parking

The project proposes up to 253 enclosed parking spaces in garages. Approximately 11 units will be limited to one garage space, other units may have a one-car garage option as a trade-off for additional living space, units that select the ADU option will be limited to one garage space, and ADUs will have no dedicated parking. There is no internal on-street parking proposed for the project. The 8 existing parking spaces on Copeland Street will be retained through on-street parallel parking spaces. Approximately 19 additional spaces will be provided onsite for shared surface parking for visitors and the commercial uses. Surface parking spaces will be accessed from the alley network, as will the proposed approximately 10 space off-site parking lot for the existing Petaluma River Park Heritage Center. In total the project proposes to introduce up to approximately 272 onsite parking spaces.

Landscaping and Lighting

The project will introduce a new 10-foot-wide riverfront trail along the north bank of the Petaluma River connecting D Street to the Heritage Center and Petaluma River Park. Benches will be installed as a public amenity along the trail. This trail will be comprised of pervious concrete and landscaped with foundation plantings between entryways to the riverfront units. The existing 12-foot-wide trail extending from the Steamer Landing parking lot to the River Heritage Center along the McNear Canal would be retained by the project.

The Petaluma River side of the pathway slopes from the top of the bank down to the river. Landscape is proposed to be installed above the ordinary high-water mark and will include native plantings to transition from the natural river bank to the development footprint. Native plants proposed in this transition zone will consist of lower growing grasses, groundcovers and perennials including *Achillea millefolium* – White Yarrow, *Carex tumulicola* – Sedge, *Cistus salvifolius* – Sageleaf Rockrose, *Juncus patens* – Grey Rush, *Limonium perezii* – Statice, *Mimulus auranticus* – Monkeyflower, and *Salvia somomensis* – Creeping Sage.

Smaller secondary open spaces such as paseos, landscaped planters, and bioretention areas are scattered throughout the project site between buildings adjacent to pedestrian paths. Central paseos are designed with bioretention basins at the center, below grade, with groundcover and aesthetic plantings that line either side of pedestrian pathways. The alleyways are proposed to be improved with pervious pavers, shrubs, and pocket planters between concrete driveway aprons.

Landscaped areas will be planted with a palette of drought-tolerant groundcovers and small shrubs that are either native to California, commercial varietals of native plants, or found in other Mediterranean climates around the world. The tree palette includes London Plane, Green Ash, Red Maple, and Western Redbud. Bioretention basins

will be planted with sedges and rushes that can tolerate dry or wet conditions and have a mat-like roots that will keep bioretention soils from eroding as stormwater passes through.

Pedestrian lighting will be integrated into bollards and poles installed along pedestrian paths and within alleyways that complies with IZO performance standards.

The alleyways, trails, landscaping, lighting and bioretention planters would be maintained by the Oyster Cove Mixed Use Neighborhood Homeowner's Condominium Association.

Site Preparation and Construction

Development of the proposed project is presumed to occur over an approximately 24-month construction period starting in 2023 and terminating in 2025 and will initiate with site preparation and grading. Site preparation includes remediation of lead-contaminated soils adjacent to an abandoned rail spur at the northern portion of the site. Soils will be excavated and removed from the site and disposed of at an appropriate facility in accordance with the site remediation plan (**Appendix F-2**). Clean soil will be imported to fill in the voids.

Preparation will also include demolition and removal of two of the three existing steel buildings onsite, removal of existing dry utility facilities and storm drain facilities, removing the existing utility box, removing existing curb, gutter and sidewalk, and scraping existing gravel surfaces, concrete, and asphalt. Site preparation will also involve grubbing to remove grasses, vegetation, and trees. Fifteen (15) trees are proposed to be removed, of which eight (8) are protected and require a Tree Removal Permit. Eight of the trees proposed for removal are protected due to their location within public property and one is protected because of its species (coast live oak). Grading activities will result in transport and fill of approximately 12,500 cubic yards of soil to achieve a level topography to support buildings and site improvements. As proposed, finish floor elevations will be 14 feet above sea level and site improvements outside of buildings will be elevated to 12.3 to 14 feet above sea level, or above the future water surface elevation without a 100-year storm surge. The Oyster Shed building is located within the flood plain and will remain in this location under the proposed project. Improvements to the Oyster Shed building will meet the City's requirements for the renovation of existing buildings within flood zones such as anchoring to prevent floatation, collapse, or lateral movement, use of materials and equipment resistant to flood damage, and providing for adequate drainage of flood waters.

Following completion of grading activities, infrastructure improvements and building foundations will be constructed. Onsite existing overhead lines and pole facilities along D Street and new electrical lines will be routed underground. Utilities, storm drains and catch basins will be installed. As all public utilities currently extend to the project site, improvements will be limited to the installation of new laterals and tie-ins to connect to the existing water, sewer, and electricity utilities in place at D Street and Copeland Street.

Construction equipment expected to be utilized includes tractors, backhoes, haul trucks, graders, pavers, cranes, water trucks and other heavy-duty construction equipment. Staging of construction equipment and materials will occur within the footprint of the project site and within the right-of-way of D Street, Copeland Street, and Hopper Street (through the issuance of an encroachment permit).

Utilities

The project would utilize public water and sewer from existing mains in D Street, Copeland, and Hopper Street. Potable water would be accommodated via the installation of new water lines within the project site that would connect to existing water mains. Wastewater would be conveyed from the project site through new sanitary sewer pipes, to the existing sanitary sewer main within Hopper Street, and ultimately to the Ellis Creek water recycling facility.

Stormwater runoff generated from the new buildings and other impervious surfaces would be collected and routed to landscaped areas, flowing-through bioretention areas throughout the site allowing for treatment prior to discharge. Stormwater would be conveyed to and discharged via two outfall culverts, including one new outfall on the north side of the McNear Canal between proposed buildings 19 and 20 and one existing outfall to the Petaluma River near the southeast portion of the site between proposed buildings 11 and 12, which will be reconstructed. As shown on Sheet 5 of the project plans, water will be conveyed to the respective outfalls via 12- and 18-inch stormdrains.

Offsite Improvements

Offsite improvements relate to primary access and emergency vehicles access. As described above, the East D Street/Copeland Street intersection will be signalized as part of the project and will include striping of through and turn lanes, pavement markings, and crosswalks at all legs of the intersection consistent with Petaluma Public Works Standards. The project would install frontage and offsite improvements along D Street and Copeland Street to extend the project site entry and construct a public sidewalk along D Street and Copeland Street at the frontage of the project site and extending towards the entrance of Steamer Landing Park. D Street and Copeland Street will be improved to the centerline including curb, gutter, and sidewalk.

A secondary 20-foot emergency vehicle access (EVA) driveway would be installed at the northeast corner of the project site, extending offsite to Hopper Street, which would be limited to use by emergency vehicles. The existing offsite Steamer Landing Park, parking lot, and pedestrian paths along the waterfront would be retained. Alternatively, in lieu of the Hopper Street EVA connection, a D Street access could be installed to provide an EVA only connection south of Building 2 (as noted on the Tentative Map sheet No. 9 of the Civil Set dated 6.15.22). The D Street option would provide for emergency vehicle access and non-vehicular access (e.g. pedestrian and bicycle) and would be designed to meet all City Fire Department standards including curb cut and gutters, grade alignment with D Street, required width, and turning radii.

Other offsite improvements include utility connections and tie ins, installation of two outfall culverts for storm water discharge, parking at the Heritage Center and pathways to connect to existing trails at Steamers Landing and the Petaluma River Park.

Project Entitlements

The following entitlements are requested by the subject project:

1. General Plan Land Use Amendment from River Dependent Industrial (RDI) to Mixed Use (MU);
2. SMART Code Zoning Amendment from River Dependent Industrial (D3) to Urban Center (T5);
3. Tentative Subdivision Map for Condominium Purposes;
4. Smart Code Warrants for removal of the planned “loop road” around the McNear Canal that would connect Copeland and Hopper Streets and changes to Ground Floor Ceiling Height, Ground Floor Space Depth, Parking Location, Lot Size, Unit Main Body Width, and Private Open Space, as required;
5. TOD Master Plan Warrant to exempt the project from implementing the planned Hopper Loop Road.

Prior to project construction the following additional entitlements will be required and are anticipated by the analysis presented herein:

1. Site Plan and Architectural Review (SPAR) approval for the site plan, building materials, landscaping design details, and wayfinding signage;
2. Development Permit for development within the FP-C (Floodplain-Combining District); and
3. Tree Removal Permit for removal of trees protected under Petaluma’s Implementing Zoning Ordinance Chapter 17 (Tree Preservation).
4. Lot Line Adjustment for land exchange for EVA and public access (under separate permit).

Public Meetings and Outreach

The project concept was presented to the Pedestrian and Bicycle Advisory Committee on June 1, 2022. The project was also presented at a Neighborhood Meeting on June 8, 2022, which was conducted via Zoom. The project concept was also presented to the Planning Commission during a study session on June 28, 2022. Additionally, the project was discussed at the February 23, 2023 Know Before You Grow meeting. Input received from these meetings include the extension of bike and pedestrian facilities along D Street from the bridge to Lakeville Highway, the addition of a play area for small children, more green space, less parking, inclusion of a riverfront restoration plan, and wayfinding between D Street and the proposed Petaluma River Park.

Approvals From Other Regulatory Agencies

The proposed Oyster Cove Mixed Use Neighborhood project requires approval from the following non-City regulatory agencies:

- Regional Water Quality Control Board (RWQCB), Individual NPDES Permit
- Regional Water Quality Control Board, 401 Water Quality Certification
- Regional Water Quality Control Board, acceptance of Clean Closure Plan
- Army Corps of Engineers (Corps), Section 10 Rivers and Harbor Act and/or 404 Clean Water Act Permit
- National Marine Fisheries Service, consultation through the Corps
- U.S. Fish and Wildlife Service, consultation through the Corps
- California Department of Fish and Wildlife, 1600 Lake and Streambed Alteration Agreement
- Sonoma Water (formerly Sonoma County Water Agency), Stormwater Control Plan

California Native American Tribal Consultation

In accordance with AB 52 (PRC Section 21084.2), lead agencies are required to initiate consultation with a tribe with traditional and/or cultural affiliations in the geographic area where a subject project is located if a project may cause a substantial adverse change in the significance of a tribal cultural resource. Should the tribe respond requesting formal consultation, the lead agency must work with the tribe or representative thereof to identify potential impacts and develop avoidance or mitigation measures to reduce potential impacts to tribal cultural resources. In addition, SB 18 (GC Section 65352.3) requires lead agencies to contact and consult with California Native American tribes prior to amending or adopting any general plan, specific plan, or designating land as open space. In accordance with PRC Section 21080.3.1(d), the City of Petaluma provided written formal notification to the Federated Indians of Graton Rancheria on November 2, 2022, which included a brief description of the proposed project and its location, the City of Petaluma contact information, and project materials.

The City of Petaluma received a response from representatives of the Federated Indians of Graton Rancheria requesting to enter into consultation on December 6, 2022. On March 1, 2023 a consultation meeting was held between City staff and the Federated Indians of Graton Rancheria. FIGR expressed concerns regarding the project site's potential to contain tribal cultural resources within the dredged fill material placed onsite and requested that an onsite monitor be present during ground disturbance, that native plantings be used in landscaping, and that public access to open space land proximate to the Petaluma River be retained. The project design includes public access trails and easement and the preliminary landscaping planting plan provides for natives species. Tribal consultation is understood to have been completed to the satisfaction of FIGR.

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Figure 1: Regional Location

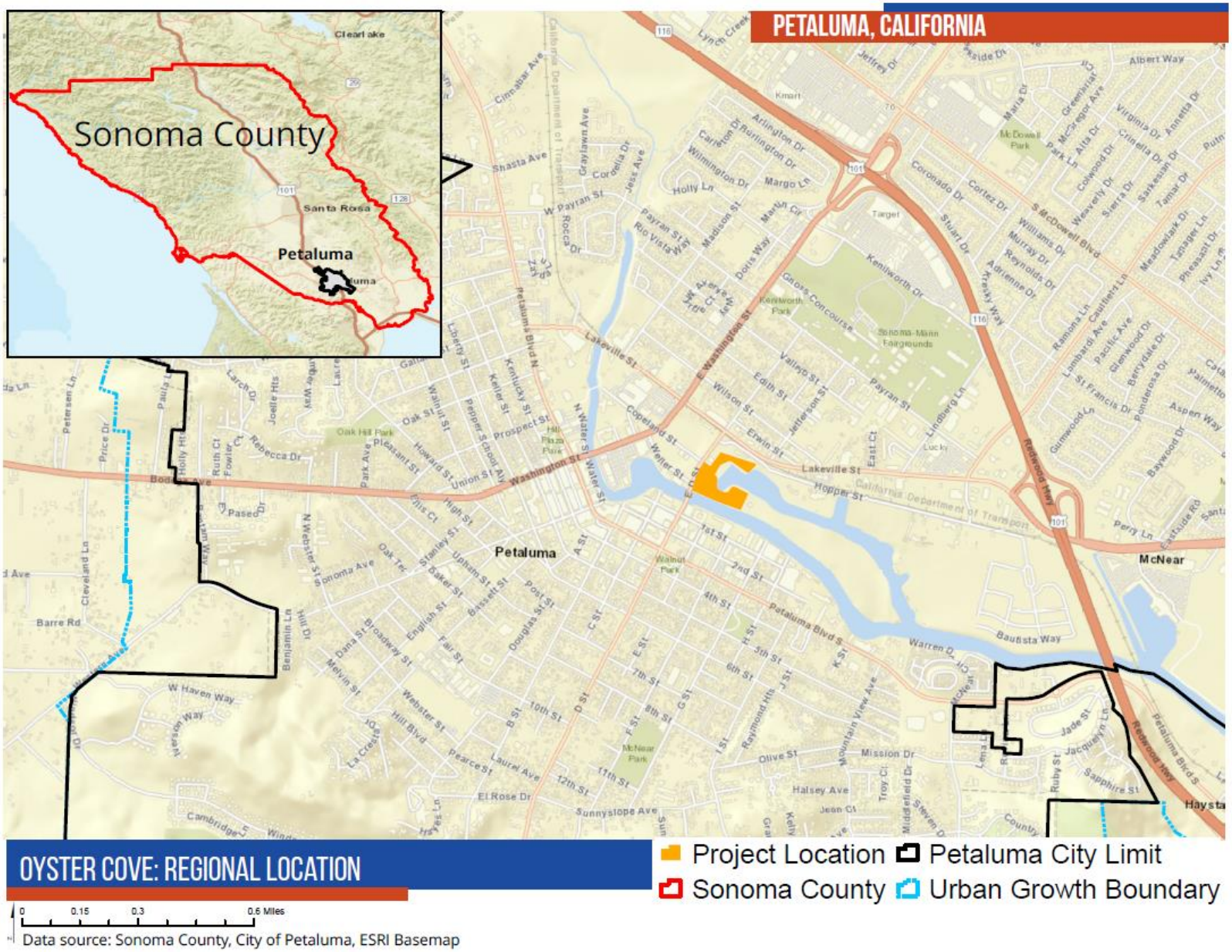

Figure 2: Project Vicinity

Figure 3: Existing and Proposed Land Use

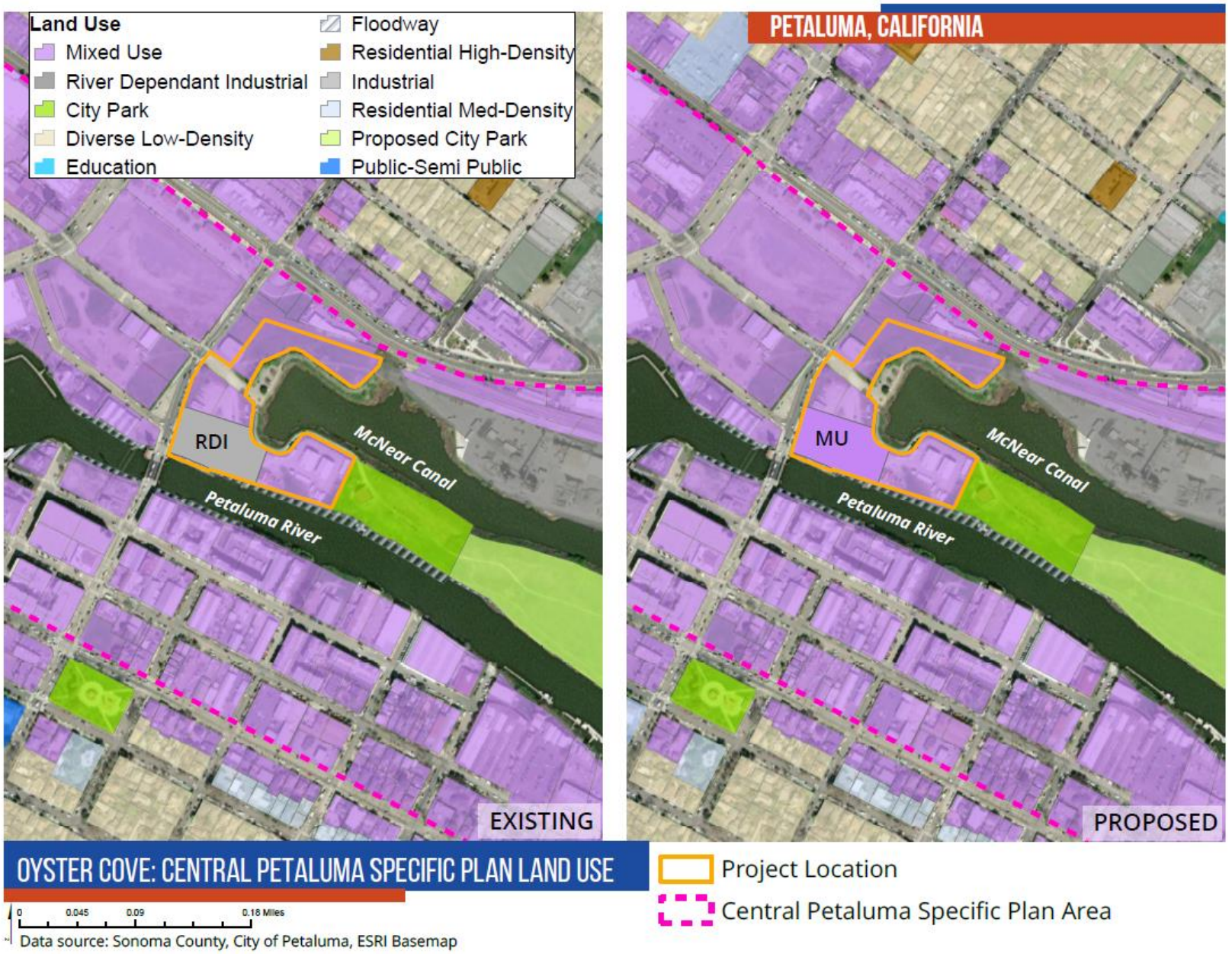

Figure 4: Existing and Proposed Zoning

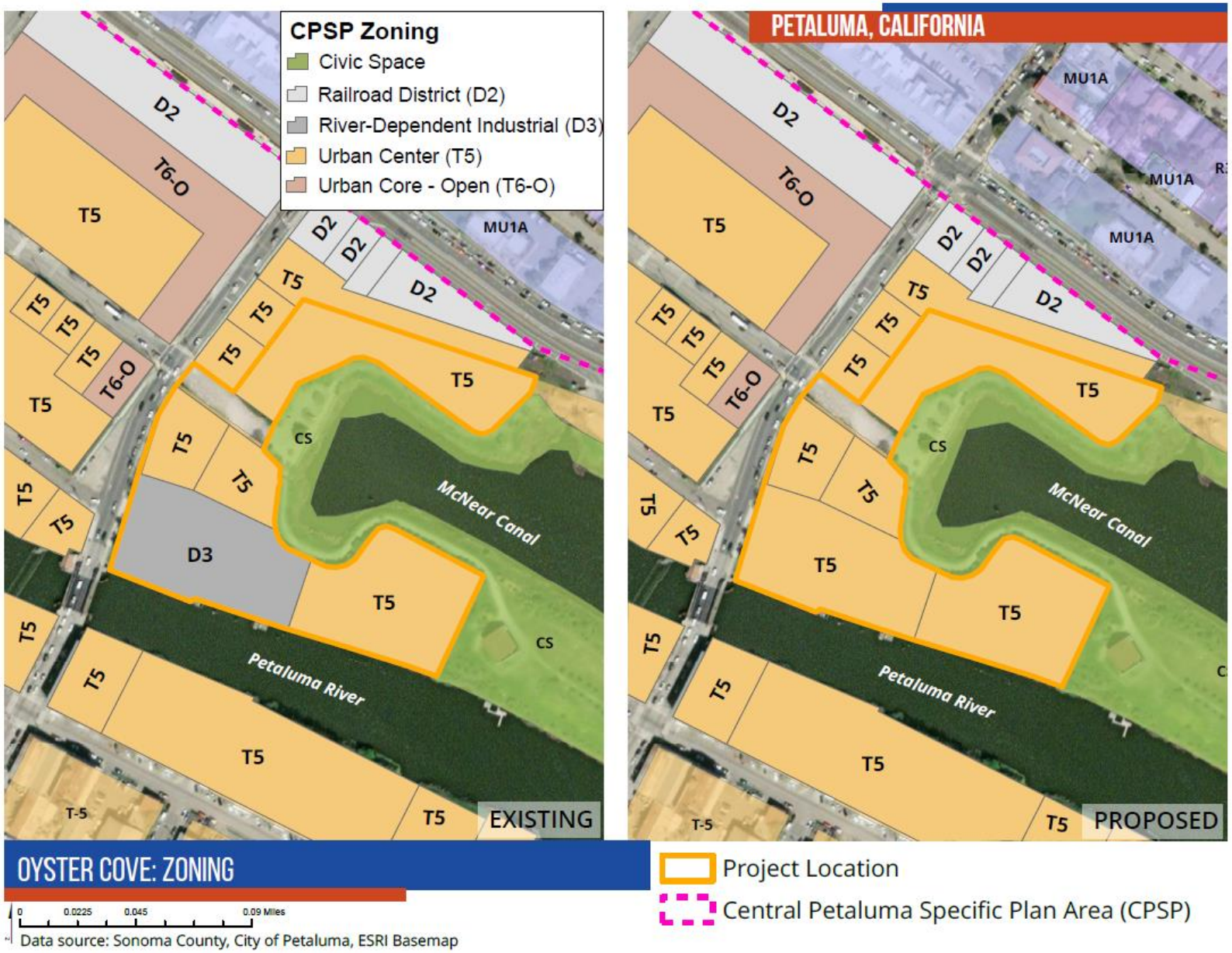

Figure 5: Site Plan

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2 RELEVANT CITY PLANNING DOCUMENTS

This section includes a description of the most relevant planning documents and regulations that are applicable to the proposed project.

2.1 CITY OF PETALUMA GENERAL PLAN 2025

The Petaluma General Plan 2025, adopted in 2008, serves the following purposes:

- Reflects a commitment on the part of the City Council and their appointed representatives and staff to carry out the Plan;
- Outlines a vision for Petaluma's long-range physical and economic development and resource conservation; enhances the quality of life for all residents and visitors; recognizes that human activity takes place within the limits of the natural environment; and reflects the aspirations of the community;
- Provides strategies and specific implementing policies and programs that will allow this vision to be accomplished;
- Establishes a basis for judging whether specific development proposals and public projects are in harmony with Plan policies and standards;
- Allows City departments, other public agencies, and private developers to design projects that will enhance the character of the community, preserve and enhance critical environmental resources, and minimize impacts and hazards; and
- Provides the basis for establishing and setting priorities for detailed plans and implementing programs, such as Development Codes, the Capital Improvement Program (CIP), facilities and Master Plans, redevelopment projects, and the Urban Growth Boundary (UGB).

General Plan EIR

The General Plan 2025 EIR (SCH. No. 2004-082-065) was certified by the City Council on April 7, 2008. The General Plan EIR reviewed potentially significant environmental effects resulting from plan implementation and developed measures and policies to mitigate impacts. Nonetheless, significant and unavoidable impacts were determined to occur under the General Plan. Therefore, the City adopted a statement of overriding considerations, which balance the merits of approving the plan despite the significant environmental effects. The effects identified as significant and unavoidable in the General Plan EIR are:

- Increased motor vehicle traffic which would result in unacceptable level of service (LOS) at six intersections covered in the Master Plan: McDowell Boulevard North/Corona Road, Lakeville Street/Caulfield Lane, Lakeville Street/East D Street, Petaluma Boulevard South/D Street, Sonoma Mt. Parkway/Ely Boulevard South/East Washington Street, and McDowell Boulevard North/Rainier Avenue.
- Traffic related noise at General Plan build-out, which would result in a substantial increase in existing exterior noise levels that are currently above City standards.
- Cumulative noise from proposed resumption of freight and passenger rail operations and possible resumption of intra-city trolley service, which would increase noise impacts.
- Air quality impacts resulting from General Plan build-out to population levels that could conflict with the Bay Area 2005 Ozone Strategy. (This regional air quality plan has since been replaced by the 2017 Clean Air Plan, which is further discussed in Sections 3.3 Air Quality and 3.7 Greenhouse Gases.)
- A possible cumulatively considerable incremental contribution greenhouse gas emissions from development under the General Plan.

A copy of the City of Petaluma's General Plan and EIR are available at the Community Development Department, 11 English Street, Petaluma, California 94952, during normal business hours and online at https://cityofpetaluma.org/planning-documents/.

2.2 CENTRAL PETALUMA SPECIFIC PLAN

The Central Petaluma Specific Plan (CPSP) provides specific land use and development regulations for nearly 400 acres within the geographic heart of the city, adjacent to downtown. It includes an area that is bounded by Lakeville Street on the east and north, Petaluma Boulevard on the west, and Highway 101 on the south. The Central Petaluma Specific Plan was adopted in June of 2003 to direct new growth into this area. The Plan envisions Central Petaluma to be a place where a wide range of new employment, housing, shopping, and entertainment activities develop in relative proximity to one another within a lively urban environment adjacent to the historic downtown and the Petaluma River.

Central Petaluma Specific Plan EIR

The Central Petaluma Specific Plan EIR (SCH. No. 2003-11-2039) was certified by the City Council on June 2, 2003 (Resolution 2003-104). For planning and environmental analysis purposes, the CPSP EIR assumed a maximum development potential of 1,617 dwelling units and 2.9 million square feet of commercial uses. The CPSP EIR reviewed all potentially significant environmental impacts resulting from plan implementation and developed measures and policies to mitigate impacts. Nonetheless, significant and unavoidable impacts were determined to occur under the CPSP. Therefore, the City adopted a statement of overriding considerations, which balance the merits of approving the plan despite the potential environmental impacts. The impacts identified as significant and unavoidable in the CPSP EIR are:

- The increase in residential units in central Petaluma would result in an increase in population and concurrent environmental impacts to transportation facilities, public services and utilities, noise, visual amenities, air quality, stormwater drainage, geological resources, and hazardous materials exposure.
- Cumulative impacts on the US 101 Southbound Ramps/East Washington Street intersection.
- Cumulative impacts at the Lakeville Street / D Street Intersection.
- Cumulative impacts on US 101.
- Cumulative impacts from the installation of roundabouts at the Copeland Street / East Washington Street and Petaluma Boulevard / D Street intersections.

A copy of the City of Petaluma's General Plan and EIR are available at the Community Development Department, 11 English Street, Petaluma, California 94952, during normal business hours and online at https://cityofpetaluma.org/planning-documents/.

2.3 PETALUMA SMART RAIL STATION AREAS: TOD MASTER PLAN

On June 17, 2013 the Petaluma City Council adopted the Petaluma SMART Rail Station Areas: TOD Master Plan, the Amended SmartCode, and a Mitigated Negative Declaration for the project. The primary objectives of the Station Area Master Plan include:

- Provide a framework that will guide future development and redevelopment within the station areas toward uses that will support transit ridership.
- Improve motorized, non-motorized, and transit connectivity between the station sites and existing adjacent commercial, employment, and residential areas.
- Develop and implement urban design standards that promote walkable and livable environments within the station area.

- Identify infrastructure needs and a financing plan with an emphasis on funding opportunities to incentivize future development/redevelopment.

- Inform the public and stakeholders about the master plan process, transit-oriented design concepts, and future opportunities within the two station areas.

- Create an integrated development plan that capitalizes on the SMART rail system.

The Station Area Master Plan (SAMP) identifies three catalyst sites, including the project site, which are intended to transform the Station Area, meeting the goals of the General Plan and the CPSP.

2.4 BICYCLE AND PEDESTRIAN PLAN

The City's Bicycle and Pedestrian Plan serves as an Appendix to the General Plan 2025. Adopted concurrently with the General Plan in 2008, the Bicycle and Pedestrian Plan was prepared by the Pedestrian and Bicycle Advisory Committee (PBAC) with the purpose of making Petaluma a pedestrian- and bicycle-friendly community. The plan focuses on the creation of 'complete' streets, infrastructure improvements, and transportation planning for the benefit of all. Bicycle and pedestrian facilities described in the plan include the East D Street Bike Boulevard Pilot project and the D Street Bridge (page 45), and the Lakeville Street and Highway. East D Street between the D Street Bridge and Lakeville Street is not specifically described by the plan but is an essential connection between the bike boulevard, public transit at Copeland Street, and the SMART station. The Bicycle and Pedestrian Plan requires Class II bicycle lanes in nearby areas, such as Washington Street, and, where this is not possible, high quality Class III lanes should be accommodated. The plan describes transit-oriented development (TOD) and mixed use development areas as ideal for the creation of walkable neighborhoods though the pedestrian facilities in this location are not specifically described. The Bike and Pedestrian Plan is undergoing an update in 2023 along with the General Plan Update and may be adopted and enforced by the time the project applies for building permits.

2.5 RIVER ACCESS AND ENHANCEMENT PLAN

The River Access and Enhancement Plan (RAEP) and associated Negative Declaration were adopted by the City of Petaluma in May 1996. The overriding purpose of the Petaluma River Access and Enhancement Plan is to describe this community's vision for the Petaluma River, including its riverfront uses, activities, and developments. Implementation of this plan will result in a waterfront environment that is the jewel in Petaluma's crown. This plan elaborates on the Petaluma General Plan 1987-2005 regarding the river and the properties abutting it. As the most comprehensive statement of this community's vision for the river and riverfront development, this plan will be used by policymakers, property owners, and interested citizens to guide the metamorphosis of the river into the central feature of Petaluma. The project is located in two segment areas, the Downtown Segment along the D Street and Copeland Street frontages, and the Downstream Segment east of D Street. The Downtown Segment (3.6 Downtown Segment: Goals, Objectives, Policies, and Programs) describes the intersection at Copeland and D Streets as one of two significant gateways to the downtown area that emphasize entry to the city and the significance of the river. Development in this area should orient buildings and statuesque trees to emphasize and preserve views of the river. Continuous walking paths should be placed along the top of bank from the Turning Basin to the McNear Peninsula. Historic buildings along the riverfront should be protected and new river-oriented uses of these structures is encouraged. The Downstream Segment (3.8 Downstream Segment: Goals, Objectives, Policies, and Programs) is envisioned to be a place that slowly transforms from heavy and river-dependent industrial use to mixed commercial and residential with access to open space along the riverfront and continuous trails where possible.

3 INTRODUCTION AND OVERVIEW

This Initial Study/Environmental Checklist for the proposed Oyster Cove Mixed Use Neighborhood project (hereinafter referred to as the "project") has been prepared by the City of Petaluma as lead agency in full accordance with the procedural and substantive requirements of the California Environmental Quality Act (CEQA) and the CEQA Guidelines.

This Initial Study is intended to inform City decision-makers, responsible agencies, trustee agencies, interested parties and the general public of the proposed project and its potential environmental effects. This Initial Study (and

attached appendices) is also intended to provide the CEQA-required environmental documents for all city, regional, local, and state approvals or permits that might be required to implement the proposed project.

CEQA Guidelines Section 15063(c) lists the following purposes of an Initial Study:

1. Provide the Lead Agency with information to use as the basis for deciding whether to prepare an Environmental Impact Report (EIR) or a Negative Declaration.
2. Enable an Applicant or Lead Agency to modify a project, mitigating adverse impacts before an EIR is prepared, thereby possibly enabling the project to qualify for a Negative Declaration.
3. Assist in the preparation of an EIR if one is required.
4. Facilitate environmental assessment early in the design of a project.
5. Provide documentation of the factual basis for the finding in a Negative Declaration that a project will not have a significant effect on the environment.
6. Eliminate unnecessary EIRs.
7. Determine whether a previously prepared EIR could be used with the project.

The City of Petaluma, as the lead agency, has conducted an Initial Study to determine the level of environmental review necessary for the proposed project. Consistent with Section 15070(b) of the CEQA Guidelines, the Initial Study identified potentially significant effects, but:

1. Revisions in the project plans or proposal made by or agreed to by the applicant before a proposed negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effect would occur; and
2. There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.

Therefore, as the lead agency, the City of Petaluma has prepared a Mitigated Negative Declaration.

4 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

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

5 DETERMINATION (TO BE COMPLETED BY THE LEAD AGENCY)

On the basis of this initial evaluation:

I find that the proposed project **COULD NOT** have a significant effect on the environment. 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 in 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 "potentially significant unless mitigated" 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 potentially 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.	☐

Lead Agency: Olivia Ervin, Principal Environmental Planner **Date**

6 EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.

   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources. A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9. The explanation of each issue should identify:

   a) the significance criteria or threshold, if any, used to evaluate each question; and

   b) the mitigation measure identified, if any, to reduce the impact to less than significance.

6.1 AESTHETICS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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 publicly accessible vantage points.) 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 which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Sources: City of Petaluma Central Petaluma Specific Plan and EIR; General Plan 2025 and EIR; City of Petaluma Implementing Zoning Ordinance (IZO); and Civil and Landscape Plans, 2022.

Aesthetics Setting

The natural features that characterize Petaluma and its surroundings create an aesthetically rich setting. The City of Petaluma is in the Petaluma River Valley, which is northwest-southeast trending between Sonoma Mountain and Mount Burdell. The city is flanked by the foothills and peaks associated with these mountain ranges which provide for views of rolling hills and agricultural landscapes. Petaluma is also traversed by the Petaluma River and tributaries, which contribute to the aesthetic quality of the city. A long-established urban form within the city limits contrasts with the surrounding natural and agricultural features.

The project site is located within the Central Petaluma Specific Plan subarea of the General Plan, which is characterized by the Petaluma River, Turning Basin, and an active rail corridor. Older warehouses and light industrial uses mixed with new office and residential developments are located west of the river in an area historically referred to as the warehouse district. The Haystack development site is located west of the project site, and though not yet constructed, is entitled to develop 178 residential dwelling units and approximately 24,855 square feet of retail/commercial use in three and four-story buildings, public and private open space, a new street bisecting the site, frontage improvements, parking, landscaping, and ancillary improvements (approved by Planning Commission Resolution 2019-09). Surrounding uses include low intensity retail and commercial to the north, Downtown Petaluma SMART station and Petaluma Visitors Center to the west, and industrial and vacant land to the north and east. Aesthetic and visual resources present in the project area include views of the Petaluma River corridor, views of the McNear Canal and McNear Peninsula, views of the Sonoma Mountains to the east, and intermittent views of the West Marin hills to the west.

The CPSP EIR describes the visual setting of the Plan area relative to the built environment, streetscape conditions, view corridors, and visual landmarks including buildings and natural features. Within the Lower Reach subarea, the CPSP EIR describes the area as comprised of service commercial and large-lot industrial uses. The area is predominantly oriented to automobiles traffic on and around the Lakeville Street corridor, a major thoroughfare and gateway from the U.S. 101 freeway. From Lakeville Street and D Street there are short range views of the Petaluma River and warehouse buildings along First Street and the high conveyors of Shamrock Materials.

The project site is located immediately north of the Petaluma River and wraps around the head of the McNear

Canal, to the north and south of the terminus of Copeland Street. The site was historically used for industrial purposes, most notably the import and processing of oyster shell for use in the local poultry industry. There are three metal buildings on the lower portion of the site, screening trees along the D Street frontage, and an abandoned rail spur to the north of the project site. The portion of the site south of Copeland Street is currently used as a storage facility and is covered by pavement, compacted soil, gravel, and oyster shell, non-native ruderal vegetation, temporary structures, and three metal buildings. The portion of the site north of Copeland is currently undeveloped land covered by herbaceous, non-native ruderal vegetation but was historically the site of an industrial development inclusive of a rail spur off the main rail line.

The site can be viewed from the warehouse district housing to the south of the Petaluma River, from D Street and the D Street drawbridge, from Lakeville and Hopper Streets, from Steamer Landing and the planned park on McNear Peninsula, from the large lot industrial areas of the Lower Reach, and from river-going vessels. The site runs up to the bank of the Petaluma River on the south side and to the edge of the public Class 1 trail along McNear Canal and has frontage on D Street and Copeland Street.

Construction of the project will involve complete grading and surcharging of the site by several feet due to the impacts of sea level rise. All trees within the extent of the project grading will be removed including some trees within the public right-of-way on D and Copeland Streets, and within Steamer Landing Park. An Arborist Report was prepared for the project (**Appendix B-2**) which evaluated all trees within and near to the project site that may be affected by the project. The report documented a total of 61 trees on the project site, in the public right-of-way, and within Steamer Landing Park. The project will remove a total of 15 trees, of which eight (8) are considered 'protected trees' under Petaluma's Implementing Zoning Ordinance Chapter 17 (Tree Preservation). Protected trees to be removed include one (1) red oak (*Quercus rubra*), two (2) London plane (*Platanus x acerifolia*), one (1) coast live oak (*Quercus agrifolia*), two (2) red willow (*Salix laevigata*), one (1) Fremont cottonwood (*Populus fremontii*), and 1 evergreen ash (*Fraxinus uhdei*). Non-protected trees to be removed include one (1) California black walnut (*Juglans hindsii*), two (2) weeping willow (*Salix babylonica*), two (2) red willow (*Salix laevigata*), and two (2) Fremont cottonwood (*Populus fremontii*). Seven of the eight protected trees to be removed qualify for protection because they are City trees on public property. The single coast live oak that is recommended for removal is protected both by its location on public property and its species, however it is severely fire damaged and will not thrive.

Aesthetic Impact Discussion

6.1 (a, c) (Effect on a Scenic Resource or Vista, Visual Character and Quality) Less Than Significant Impact: Impact 3.11-3 of the General Plan EIR concludes that new development (such as the project) may potentially degrade the existing visual quality of the city through incompatibilities with existing development in scale and/or character. The General Plan EIR elaborates on this potential environmental effect, as follows:

> "The aesthetic resources of the city - the creeks, river, hillsides, and ridgelines - could potentially be impacted by new development unless it is thoughtfully designed. Preservation of significant natural features during construction of new development would help retain the character of existing areas. New development proposed on vacant sites within the city's UGB could also alter the surrounding rural visual character through increased densities and intensities."

Figure 3.11-1 of the General Plan 2025 EIR identifies the following scenic vistas: (a) hills to the west and south of the City; (b) vistas of Sonoma Mountain; and (c) land along the Petaluma River. The General Plan 2025 EIR utilizes the following three public viewpoints to determine potential adverse effects upon the aforementioned vistas: (a) Washington Street overpass; (b) McNear Peninsula; and (c) Rocky Memorial Dog Park.

The Central Petaluma Specific Plan anticipates mixed-use development and river-depended industrial uses on the project site. The CPSP divides distinct reaches of the river into four categories and categorizes the site as being within the Lower Reach Area. The CPSP Architectural Guidelines (CPSP: Appendix A) anticipated buildings in this area from 2 to 6 stories in height. The CPSP EIR identified potentially significant impacts to the visual environment in the Lower Reach Area from the buildout of the Central Petaluma Specific Plan from vista points on the McNear Peninsula (or Island) which was anticipated in 2003 to become a public park. The CPSP EIR imposed Mitigation 9-5, which declared that development along the McNear Canal shall be subject to stringent design review through the Site Plan and Architectural Review (SPAR) process. The project is subject to Site Plan and Architectural Review, which must be satisfied prior to project construction.

The proposed development would be located adjacent to, and visible from, walking paths and trails in the Steamer Landing Park and Petaluma River Park. The proposed townhome buildings would also be visible from the following public viewpoints: Lakeville Street, East D Street, the Petaluma SMART station, Hopper Street, and from vessels on the Petaluma River.

The project would not substantially alter scenic views in the area. While introducing 21 three- or four-story buildings, landscaping, and fences could alter scenic views and vistas, the surrounding environment is predominantly urban in nature and of a similar scale as the project. Views of hills to the south and west, McNear Peninsula, and the McNear Canal from the SMART station, Hopper Street, and Lakeville Street are obscured by existing urban development, including industrial uses, fencing, and disturbed grasslands. Additionally, McNear Canal is lower in elevation than Hopper Street and Lakeville Street and is not visible from these rights-of-way. View of McNear Peninsula, including the David Yearsley River Heritage Center would not be obstructed from this vantage point because the project is constrained to an area that does not project into this viewshed. Further, the project would be of similar scale and height as the commercial and industrial structures, blending into, and largely consistent with, the horizontal and vertical urban protrusions that screen the McNear Peninsula, McNear Canal, and hills to the west and south. While the project would introduce buildings visible from the upper floors of the mixed-use development to the south of the site, adjacent to the Petaluma River on 1st Street, views of Sonoma Mountain and Petaluma River would not be substantially obstructed. Views would not be substantially obstructed or changed because the project would adaptively re-use the existing oyster shed building that obscures views of Sonoma Mountain, and residential structures would be similar in height and scale as this existing use. Further, development would be contained to a site that is already under urban use. Views of Steamer Landing Park, the Petaluma River and hillsides to the north from G and H Street would not be obstructed because those streets are located further to the southwest of the project. Therefore, views would not be substantially altered by the project from northern and southern areas.

The proposed project could enhance views of the Steamer Landing Park. The project would not obscure views of hills to the south and west, the McNear Canal, Petaluma River, and Sonoma Mountain from East D Street because the development would not project into the public right of way. Existing non-native trees along East D Street, extending south towards the D Street Bridge, screen the site. An existing tree at the southern corner of East D Street and Copeland Street partially screens the industrial area of the site and views of the Petaluma River when viewed from the intersection of Copeland Street and East D Street. As part of the public right of way improvements, the frontage along East D and Copeland Streets would be developed for pedestrian use and access to the lower floor commercial spaces of the live-work units along East D Street. This would necessitate the removal of the non-native screening trees along East D Street. The project proposes street trees and landscaping for these areas, but have been selected and placed to provide for views onto and through the project site which currently do not exist. Accordingly, the project could enhance views to the west through the site of the Steamer Landing Park.

The project could enhance views of and from Steamer Landing Park. Currently, there is no public access to the Petaluma River frontage from East D Street. A publicly accessible pathway would be constructed as a part of the project that would allow pedestrians to pass through the site, along the top of the bank of the Petaluma River, and access Steamer Landing Park and the McNear Peninsula. From the park, views of the Petaluma River, Sonoma Mountain, McNear Canal, and hillsides would remain unobstructed because of the locations of these vistas relative to the project. Accordingly, the project would increase access to views of the river, Steamer Landing Park, and hillsides from the project, and would not adversely impact views to the east of the site.

The proposed project implements policies set forth in the CPSP as it includes a multiuse trail at the waterfront along the Petaluma River providing a pedestrian and bike connection from East D Street to publicly accessible open space on the McNear Peninsula and provides a portion of the site for waterfront open space (Design Policy 4.1). Proposed project pathways, along with existing pathways in the vicinity would achieve a continuous circuit of open space (Design Policy 4.2). The project is adjacent to an unused rail spur owned by the Sonoma Marin Area Rail Transit District but is not adjacent to the actively used rail tracks on the north side of Hopper Street. The unused rail spur is not currently planned for use as an open space corridor and construction of the project would not prevent its future development as an open space corridor if the SMART District should so choose (Design Policy 4.3). The proposed project is therefore in alignment with the CPSP EIR as it would implement the design policies set forth therein and as such impacts of the project on scenic resources and vistas will be less than significant.

The new buildings and associated improvements will alter the visual character of the site relative to the existing conditions, but the quality of the aesthetics would be enhanced by the project. The project would retain and

adaptively reuse the existing oyster shed building as a commercial structure with a mixture of uses. The oyster shed would be upgraded with features and materials to appeal to commercial users of the structure. Further, the aesthetics of the site would be enhanced through the removal of dilapidated industrial outbuildings and disturbed grasslands and improvement of the site with landscaping, buildings at a human scale, and publicly accessible pathways. Light and glare established by the project would be minimized through compliance with IZO §21.040(D). The project is subject to the City's Site Plan and Architectural Review process. This process ensures that new development achieves a satisfactory quality of design and harmony of the development with its surroundings. Therefore, while the visual character would be altered, the aesthetics and quality of the site would be enhanced by the proposed project.

Therefore, while the project would introduce uses that would alter vistas of hillsides, Sonoma Mountain, Steamer Landing Park and the McNear Peninsula, and the Petaluma River, it would not be adversely affected by the project. The project would maintain vistas by being largely consistent with the scale of the urban development presently existing in the area, blending in with existing residential, commercial, and industrial structures. Further, the project would improve an underutilized parcel planned for Mixed Use Development within the city's urban core which was previously analyzed under the General Plan EIR and CPSP EIR for this use. Accordingly, impacts to scenic resources, vistas, and the visual character and quality would be less than significant.

6.1 (b) (Scenic Resources) No Impact: According to the California Scenic Highway Program, US 101 (located approximately 0.8 miles north and east of the project site) and State Route 116/Lakeville Highway (located approximately 200 feet north of the project site), are not designated scenic highways within the City of Petaluma, nor are they considered eligible to be officially designated. Development of the proposed project will not damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings viewable from a designated (or eligible) State scenic highway. Therefore, the project will have no impacts to scenic resources within a state scenic highway.

6.1 (d) (Light and Glare) Less Than Significant Impact: The project site is bounded by industrial, open space, and commercial uses to the north, west, and east, and residential uses to the south across the Petaluma River, all of which currently feature site and street lighting. Other existing sources of light and glare in the vicinity of the subject property include street lighting and vehicles traveling along roadways. Exterior lights installed in conjunction with the proposed project will increase artificial light in the vicinity. The project is required to comply with Implementing Zoning Ordinance (IZO) §21.040(D)(Glare), which provides standards to prevent indirect and direct glare impacts including, maximum illumination, light location, height, and relationship to structures. A photometric plan showing that proposed illumination levels will be in conformance with the standards of IZO §21.040(D) must be submitted and reviewed during the SPAR review process. Mandatory compliance with IZO §21.040(D) and SPAR approval ensures that the project's potential light and glare impacts would be less than significant.

Mitigation Measures: None Required.

6.2 AGRICULTURAL AND FORESTRY RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the 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?	☐	☐	☐	☒

Sources: City of Petaluma 2025 General Plan and EIR; and California Department of Conservation, Farmland Mapping and Monitoring Program 2016.

Agricultural and Forestry Setting

The California Department of Conservation, Farmland Mapping and Monitoring Program (FMMP) classifies agricultural land according to soil quality and irrigation status. Based on data from the FMMP, land classifications within the City consist of Prime Farmland, Grazing Land, Farmland of Local Importance, Other Land, and Urban and Built-up Land. There are no identified forestlands within the UGB. Agricultural resources are prevalent outside of City limits, within the County of Sonoma. An impetus to the establishment of the UGB was to preserve natural resources, agricultural lands, and other open spaces.

Agricultural and Forestry Impact Discussion

6.2 (a-b) (Farmland Conversion and Agricultural Use) No Impact: The project site is not classified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The project site does not contain farmland as it used for industrial related purposes and contains disturbed urban grasses and non-native street trees. Accordingly, the project will not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use and will therefore have no impact.

The subject property is not zoned for agricultural uses and the project will not interfere with a Williamson Act contract. The project site has a General Plan land use designation of MU and RDI and proposes to redesignate the RDI portion to MU. The site is zoned Urban Center (T5) and River-Dependent Industrial (D3), and the project proposes a zoning map amendment to change the zoning of parcel 007-700-006 from D3 to T5. These zones do not support agricultural uses. The property is not under a Williamson Act contract. Accordingly, the project will have no impact due to a conflict with zoning in support of agricultural uses or a Williamson Act contract.

6.2 (c-d) (Forestland and Timberland) No Impact: The subject property does not contain any forestland or timberland within its boundaries, nor is the project site zoned for such uses. Therefore, the project will have no impact on forestry resources.

6.2 (e) (Other Conversions of Farmland or Forestland) No Impact: The subject property is located within the UGB and surrounded by land designated as MU, RDI, City Park, and Open Space on the Central Petaluma Specific Plan Land Use map. None of the lands surrounding the project site are under a Williamson Act contract. According to the California Department of Conservation FMMP, there is no land adjacent or near to the project site that is under agricultural use or designated as Farmland of Local Importance.

Therefore, land designated as Farmland of Local Importance would not be converted to non-agricultural uses as a result of the project. Therefore, the project will have no impacts associated with the conversion of farmlands.

In the absence of forested lands within the subject property, and the absence of forested lands within the UGB, the proposed project would not encourage the loss or conversion of forested land to other uses. Therefore, the project will have no impacts associated with the conversion of forestlands.

Mitigation Measures: None Required.

6.3 AIR QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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 in 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?	☐	☐	☒	☐

Sources: City of Petaluma General Plan 2025 and EIR; Bay Area Air Quality Management District Bay Area 2017 Clean Air Plan; Bay Area Air Quality Management District, CEQA Guidelines, May 2017; Air Quality Assessment, prepared by Kimley Horn, May 2022.

Air Quality Setting

The City of Petaluma is located within the San Francisco Bay Area Air Basin, which is regulated by the Bay Area Air Quality Management District (BAAQMD). Air quality within the Bay Area Air Basin is affected by natural geographical and meteorological conditions as well as human activities such as construction and development, operation of vehicles, industry and manufacturing, and other anthropogenic emission sources. The Federal Clean Air Act and the California Clean Air Act establish national and state ambient air quality standards. The BAAQMD is responsible for planning, implementing, and enforcing air quality standards within the Bay Area Air Basin including the City of Petaluma.

The Bay Area Air Basin is designated as non-attainment for both the one-hour and eight-hour state ozone standards; 0.09 parts per million (ppm) and 0.070 ppm, respectively. The Bay Area Air Basin is also in non-attainment for the PM10 and PM2.5 state standards, which require an annual arithmetic mean (AAM) of less than 20 µg/m3 for PM10 and less than 12 µg/m3 for PM2.5. In addition, the Basin is designated as non-attainment for the national 24-hour fine particulate matter (PM2.5) standard and will be required to prepare a State Implementation Plan (SIP) for PM2.5. All other national ambient air quality standards within the Bay Area Air Basin are in attainment.

Air quality emissions of carbon monoxide (CO), ozone precursors (ROG and NOx) and particulate matter (PM10 and PM2.5) from construction and operation are evaluated pursuant to the BAAQMD CEQA Air Quality Guidelines established in May 2010[2] and updated in May 2017. With release of the 2017 Bay Area Clean Air Plan (CAP) and the associated EIR, it is expected that updated thresholds and guidelines may be developed in the near term. In the absence of updated guidelines and thresholds, based upon its own judgment and analysis, the City of Petaluma recognizes that these thresholds represent the best available scientific data and has elected to rely on BAAQMD Guidelines dated May 2017 in determining screening levels and significance.[3]

[2] Adopted by Board of Directors of the BAAQMD in June 2010 (Resolution No. 2010-6).

[3] In March 2012, the Alameda County Superior Court ordered BAAQMD to set aside use of the significance thresholds within the BAAQMD 2010 CEQA Guidelines and cease dissemination until they complete an assessment of the environmental effects of the thresholds in accordance with CEQA. The Court found that the thresholds, themselves, constitute a "project" for which environmental review is required. In August 2013, the First District Court of Appeal reversed the Alameda County Superior Court's decision. The Court held that adoption of the thresholds was not a "project" subject to CEQA because environmental changes that might result from their adoption were too speculative to be considered "reasonably foreseeable" under CEQA. In December 2015, the California Supreme Court reversed the Court of Appeal's decision and remanded the matter back to the appellate court to reconsider the case in light of the Supreme Court's opinion. The BAAQMD published a new version of

BAAQMD air quality thresholds are presented in Table 1 below.

TABLE 1: AIR QUALITY SIGNIFICANCE THRESHOLDS

Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (lbs./day)	Average Daily Emissions (lbs./day)	Annual Average Emissions (tons/year)
Criteria Air Pollutants			
ROG	54	54	10
NOx	54	54	10
PM10	82	82	15
PM2.5	54	54	10
CO	Not Applicable	9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Fugitive Dust	Construction Dust Ordinance or other BMP	Not Applicable	
Single-Source Health Risks and Hazards for New Sources or New Receptors			
Excess Cancer Risk	> 10.0 per one million		
Chronic or Acute Hazard Index	> 1.0		
Incremental annual average $PM_{2.5}$	> 0.3 µg/m^3		
Cumulative Health Risks and Hazards for Sensitive Receptors			
Excess Cancer Risk	> 100.0 per one million		
Chronic Hazard Index	> 10.0		
Annual Average $PM_{2.5}$	> 0.8 µg/m^3		

Source: BAAQMD's May 2017 CEQA Air Quality Guidelines; BMP = Best Management Practices
Note: ROG = reactive organic gases, NOx = nitrogen oxides, PM10 = course particulate matter or particulates with an aerodynamic diameter of 10 micrometers (µm) or less, PM2.5 = fine particulate matter or particulates with an aerodynamic diameter of 2.5µm or less; and GHG = greenhouse gas.

The City's General Plan sets forth policies and programs to maintain and enhance air quality. There are several policies that are particularly applicable to the subject project, including 4-P-6 to improve air quality through the planting of trees along streets, 4-P-15D to reduce emissions from residential uses, and 4-P-16 to reduce emissions during construction.

Kimley Horn prepared an Air Quality Assessment for the proposed development project (**Appendix A**). The California Emissions Estimator Model (CalEEMod) Version 2016.3.2 was used to estimate emissions from construction and operation assuming full build-out of the project. Results of the Assessment have been incorporated into the impact discussion below. Greenhouse gases are discussed in Section 6.8.

Air Quality Impact Discussion

6.3 (a) (Air Quality Plan Conflict) Less Than Significant Impact: The BAAQMD adopted the 2017 Bay Area Clean Air Plan (CAP) on April 19, 2017 to comply with state air quality planning requirements set forth in the California Health & Safety Code. The 2017 CAP includes a wide range of control measures designed to decrease emissions of the air pollutants most harmful to Bay Area residents and which include particulate matter (PM), ozone (O3), and toxic air contaminants (TACs). The CAP further aims to reduce emissions of methane and other "super-greenhouse gases (GHGs)" that are potent climate pollutants in the near-term and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

Projects are considered consistent with the 2017 CAP if they incorporate all applicable and feasible control

the Guidelines dated May 2017, which includes revisions made to address the Supreme Court's opinion. The May 2017 Guidelines update does not address outdated references, links, analytical methodologies or other technical information that may be in the Guidelines or Thresholds Justification Report. The BAAQMD is currently working to update any outdated information in the Guidelines.

measures from the 2017 CAP and would not disrupt or hinder implementation of any 2017 CAP control measures. The proposed control strategy for the 2017 CAP consists of 85 distinct measures targeting a variety of local, regional, and global pollutants. The CAP includes control measures for stationary sources, transportation, energy, buildings, and agriculture, natural and working lands, waste management, water, and super-GHG pollutants. Implementation of some of the control measures could involve retrofitting, replacing, or installing new air pollution control equipment, changes in product formulations, or construction of infrastructure that have the potential to create air quality impacts. As identified in Appendix A, Table 6: Project Consistency with Applicable CAP Control Measures, the project is consistent with all applicable control measures and would not disrupt or impede implementation of any control measure.

The BAAQMD CEQA Guidelines set forth criteria for determining consistency with the CAP. In general, a project is consistent if a) the project supports the primary goals of the CAP, b) includes control measures and c) does not interfere with implementation of the CAP measures. The proposed project would have a less than significant impact and would not conflict with the Clean Air planning efforts since, a) the project supports the goals of the CAP in that it will include all-electric development within existing urban limits proximate to transit and goods and services and includes enhanced bicycle and pedestrian facilities to encourage alternative modes of travel; b) includes control measures to protect air quality during construction by implementing best control measures set forth by BAAQMD; and c) the proposed project would generate air quality emissions well below the BAAQMD criteria pollutant thresholds (see Section 6.3(b) below). Therefore, project impacts due to a conflict with the regional air quality plan will be less than significant.

6.3 (b) (Cumulatively Considerable Net Increase of Criteria Pollutant) Less Than Significant Impact: Air quality emissions associated with the proposed project would result from short-term construction activities and ongoing operation. BAAQMD Guidelines include “screening criteria” that provide a conservative estimate above which a project would be considered to have a potentially significant impact to air quality. Projects that are below the screening criteria threshold are reasonably expected to result in less than significant impacts to air quality since pollutant generation would be minimal and below BAAQMDs established thresholds.

Construction Activities

During construction activities, the project would generate temporary air pollutant emissions associated with site preparation, ground disturbance, the operation of heavy-duty construction equipment, workers traveling to and from the site, and the delivery of materials. These activities would create temporary emissions of fugitive dust from ground disturbance, and the release of toxic air contaminants, particulate matter, and ozone precursors (ROG and NOx) from combustion of fuel and the operation of heavy-duty construction equipment.

Table 2 provides the estimated levels of ROGs, NOx, PM10, and PM2.5 that will be generated from construction activities including grading, off-hauling of materials, paving and building construction. All criteria pollutants generated by construction are well below BAAQMD thresholds of significance.

Construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM10 and PM2.5. The BAAQMD CEQA Air Quality Guidelines consider contributions of fugitive dust to be less-than-significant if best management practices (BMPs) are implemented. As such, Mitigation Measure AQ-1, which provides for a variety of dust control measures during construction activities including watering the project site, covering haul loads, and limiting idling time, , is set forth below. With the implementation of Measure AQ-1 (BAAQMD-recommended best management practices), construction activities will have less than significant impacts to air quality.

Table 2: Construction Emission Estimates

Scenario	ROG	NOx	PM10 Exhaust	PM2.5 Exhaust
Construction emissions (tons per year)	4.2	5.0	0.2	0.2
Average Daily Emissions (lbs per day)[1]	23.14	27.56	1.27	1.17
BAAQMD Thresholds (lbs per day)	54	54	82	54
Exceeds Threshold?	**No**	**No**	**No**	**No**

Source: Air Quality Assessment, Kimley Horn, May 2022
[1] Assumes 387 days of construction activity.

Operation

The BAAQMD CEQA Guidelines contains screening criteria, as shown in Table 3, for whether a proposed project could result in potentially significant air quality impacts during operation (i.e., post-construction). The operational screening levels are generally representative of new development on greenfield sites without any form of mitigation measures taken into consideration. In addition, the screening criteria do not account for project design features, attributes, or local development requirements that could also result in lower emissions. For projects that are infill and/or proximate to transit and local services (i.e., the proposed project), emissions would be less than the greenfield type project that the screening criteria are based on.

If all of the screening criteria are met by a proposed project, quantification of the project's air pollutant emissions is not necessary to make a determination that the impact will be below the thresholds of significance. Table 3 below includes the screening level results for the project's long-term operational emissions.

Table 3: BAAQMD Operational Pollutant Screening Results

Land Use Type	Project	BAAQMD Screen Level	Above Screening Level?
Apartment, Mid-Rise	132 units	494 units	No

Source: Bay Area Air Quality Management District, CEQA Air Quality Guidelines, May 2017, Table 3-1, pg. 3-2.

Given the screening results of the Table above, it can be conservatively determined the project would result in a less than significant impact due to operational emissions. This determination was verified by project-specific quantification of operational emissions as detailed in the Air Quality and Greenhouse Gas Assessment. Table 4 below provides the estimated levels of ROGs, NOx, PM10, and PM2.5 that will be generated at project operation, including heating and cooling, water and wastewater treatment and conveyance, as well as emissions from vehicle trips generated by residents and patrons of commercial uses. As shown, all criteria pollutants generated during operation will be well below BAAQMD thresholds of significance. Therefore, the project will result in a less than significant impact to air quality from emissions at operation.

Table 4: Operational Emission Estimates

Scenario	ROG	NOx	PM10	PM2.5
Annual Project Operational Emissions (pounds/day)	7.2	3.2	2.3	2.3
BAAQMD Thresholds (pounds/day)	54	54	82	54
Exceeds Threshold?	**No**	**No**	**No**	**No**

Source: Air Quality Assessment, Kimley Horn, May 2022

6.3 (c) (Exposure of Sensitive Receptors to Substantial Pollutant Concentrations) Less Than Significant Impact: The BAAQMD defines sensitive receptors as "facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly and people with illnesses." Examples of sensitive receptors include places where people live, play, or convalesce and include schools, day care centers, hospitals, residential areas, and recreation facilities.

Sensitive receptors that could potentially be affected by dust and equipment exhaust generated by construction activities include nearby residences north of, and adjacent to, the project site. To evaluate lifetime cancer risks and non-cancer health effects of concentrations resulting from project construction, emissions and dispersion modeling were conducted. For expanded detail on the methodology used to measure construction related impacts to sensitive receptors, see the Air Quality Assessment prepared by Kimley Horn (**Appendix A**).

The project site is in an urban area of Petaluma, with a mixture of land uses surrounding the site. The Table below lists the sensitive receptors and distances from the project site to the receptors.

Table 5: Sensitive Receptors

	Receptor Description	Distance from the Project Site
1	Multi-family residential community	220 feet south
2	Single-family residential community	410 feet north
3	Hampton Inn Petaluma	500 feet northeast
4	Single-family residential community	950 feet southeast
5	Single-family residential community	1,250 feet south
6	San Antonio High School	1,500 feet northeast
7	Petaluma Historical Library and Museum	1,520 feet southwest
8	Children's Corner Preschool	1,600 feet north

Construction

Project-related construction activities will result in short-term air quality emissions that have the potential to affect existing nearby sensitive receptors (residences to the north). Heavy equipment used during construction activities would emit diesel particulate matter (DPM), which is recognized by the State of California as containing carcinogenic compounds. The risks associated with exposure to substances with carcinogenic effects are typically evaluated based on a lifetime of exposure. This is defined by the California Air Pollution Control Officers Association as 24 hours per day, 7 days per week, 365 days per year, for 70 years for residences and 40 years for children.

An evaluation of health risk from construction was conducted in accordance with the BAAQMD *Air Toxics NSR Program Health Risk Assessment Guidelines* (December 2016) and the OEHHA *Air Toxics Hot Spots Program Risk Assessment Guidelines* (February 2015). Construction-related activities would result in project-generated emissions of DPM from the exhaust of off-road, heavy-duty diesel equipment for demolition; site preparation (e.g., clearing, grading); building construction; paving; application of architectural coatings; on-road truck travel; and other miscellaneous activities. For construction activity, DPM is the primary toxic air contaminant of concern.

Using the maximum annual modeled DPM concentration, the maximum increased cancer risk at the location of the maximally exposed individual (MEI) was calculated (Table 6: Construction Risk Assessment). The maximum concentrations at the maximally exposed residential, worker, and student receptors would be 0.03 µg/m3, 0.20 µg/m3, and 0.005 µg/m3 which would not exceed the BAAQMD threshold of 0.3 µg/m3. The highest calculated carcinogenic risk from project construction would be 9.4 per one million, which would not exceed the BAAQMD threshold of 10 in one million. Furthermore, implementation of Mitigation Measure AQ-1 will minimize particulate matter emissions during construction. As such, impacts to sensitive receptors during project construction will be less than significant.

Table 6: Construction Risk Assessment

Exposure Scenario	Pollutant Concentration (ug/m^3)	Cancer Risk (Per Million)	Hazard Index
Residential[1]	0.03	9.4	0.006

Worker[2]	0.20	6.5	0.040
Student[3]	0.005	2.2	0.001
BAAQMD Threshold	**0.3**	**10**	**1.0**
Threshold Exceeded?	No	No	No

[1] **T**he maximally exposed residential receptor is located approximately 900 feet to the northeast

[2] The maximally exposed worker receptor is located immediately adjacent to the northern property boundary.

[3] The maximally exposed student receptor is located approximately 2,000 feet to the northeast

Source: Air Quality Assessment, Kimley Horn, May, 2022

Operation

At operation, the project will not generate stationary source emissions that could affect sensitive receptors and impacts will be less than significant. In addition to off-site sensitive receptors, the project's new residents have the potential to be exposed to toxic air contaminants (TACs) released by vehicles traveling on nearby roads as well as from stationary sources permitted by BAAQMD. Exposure of new residents to an ambient condition is not considered an environmental impact under CEQA, and CEQA does not require evaluation of the environment's impact on a project.

However, introducing new sensitive receptors to areas with elevated TAC levels could introduce an inconsistency with General Plan Policy 4-P-17: Avoid potential health effects and citizen complaints that may be caused by sources of odors, dust from agricultural uses, or toxic air contaminants.

The BAAQMD provides CEQA community risk and hazards screening tools for lead agencies to use when considering whether there should be further, more detailed environmental review of a project. Lead agencies may use the screening tools to assess a project's potential risk and hazard impacts, compare the results to the lead agency's applicable thresholds of significance, and determine whether additional analysis is necessary.

The BAAQMD Risk and Hazard Screening Analysis Process Flowchart directs that lead agencies should identify three (3) emission sources (i.e., highway, major roadway, stationary) within 1,000 feet of a project's boundary and compare each source individually against the screening criteria and directs that the values from all sources be compared against a cumulative screening value. The emission sources in the vicinity of the project site include Lakeville Highway and stationary source emitters (gas dispensing facilities, a generator, and a coffee roaster).

Permitted Stationary Sources

Stationary sources have permits to operate from the BAAQMD and emit one or more toxic air contaminants. These types of sources include, but are not limited to, refineries, gasoline-dispensing facilities, dry cleaners, diesel internal combustion engines, natural gas turbines, crematories, landfills, wastewater treatment facilities, hospitals, and coffee roasters. Table 7 below identifies stationary sources within 1,000 feet of the project site, and include four gasoline stations, a sign company, and auto body shop.

Table 7: Cumulative Operational Health Risk

Source	Annual PM2.5 µg/m3	Cancer Risk (per million)	Chronic Hazard Index
Project Mobile Emission	0.03	9.4	0.006
Major Street Sources[1]	0.02	1.50	0.12
Highway Sources[1]	0.05	2.98	0.20
Railway Sources[1]	0.00	0.52	0.00
Stationary Sources			

Silver Creek Valley Shell	0.00	0.17	0.00
Lind Marine Incorporated	0.00	0.00	0.00
Gasco	0.00	1.14	0.005
Kresky Signs, Inc.	0.00	0.00	0.00
Rich's Collision and Repair Services, Inc.	0.00	0.00	0.00
Petaluma Valero	0.00	0.37	0.002
Petaluma Chevron	0.00	0.47	0.002
Cumulative Health Risk Values	**0.1**	**16.55**	**0.34**
BAAQMD Cumulative Threshold	*0.8*	*100*	*10*
Threshold Exceeded?	**No**	**No**	**No**

[1] BAAQMD GIS Data

Source: Air Quality Assessment, Kimley Horn, May~~,~~ 2022

As demonstrated in ~~,~~ the project would not locate sensitive receptors in proximity to stationary sources of toxic air contaminants at levels above BAAQMD established thresholds of significance. Therefore, the siting of new sensitive receptors at the project site is consistent with General Plan Policy 4-P-17 related to stationary sources.

Highway/Roadway Emissions

Lakeville Street is located approximately 400 feet north of the project site and conveys 37,000 annual average daily trips. There are no other roadways within 1,000 feet of the project site that convey more than 10,000 vehicles per day. As shown in Table 7, emissions from major street sources are below the BAAQMD significance thresholds at the project site. Therefore, the siting of new sensitive receptors at the project site is consistent with General Plan Policy 4-P-17 related to roadways.

6.3 (d) (Other Emissions and Odors) Less Than Significant Impact: Odor impacts could result from siting a new odor source near existing sensitive receptors or by creating a land use conflict as a result of siting a new sensitive receptor near an existing odor source. Major sources of potential odors include wastewater treatment plants, wastewater pumping facilities, sanitary landfills, transfer stations, composting facilities, petroleum refineries, asphalt batch plants, chemical and fiberglass manufacturing, painting/coating operations, food processing facilities, and green waste and recycling operations. Although there may be occasional emissions leading to odors during construction associated with street paving and architectural coating, these are short term in duration and will cease once construction is complete. Furthermore, any odors generated during construction will be temporary and not likely noticeable beyond the immediate construction zone and implementation of Mitigation Measure AQ-1 will further reduce odor perceptions through requiring that haul loads be covered, limiting idling times, and staging construction equipment as far away as possible from sensitive receptors. As a mixed-use development, the project will not create other emissions, such as those leading to odors, affecting a substantial number of people at operation. As such, impacts resulting from other emissions during construction and operation of the project will be less than significant.

Mitigation Measures:

AQ-1: The applicant shall incorporate the Best Management Practices (BMPs) for construction into the construction and improvement plans and clearly indicate these provisions in the specifications. In addition, an erosion control program shall be prepared and submitted to the City of Petaluma prior to any construction activity. BMPs shall include but not be limited to the BAAQMD Basic Construction Mitigation Measures as modified below:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered three times per day.

2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

4. All vehicle speeds on unpaved roads shall be limited to 15 mph.

5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

8. Construction equipment staging shall occur as far as possible from existing sensitive receptors.

9. The Developer shall designate a person with authority to require increased watering to monitor the dust and erosion control program and provide name and phone number to the City prior to issuance of grading permits. Post a publicly visible sign with the telephone number of designated person and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

6.4 BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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 (Formerly Fish and Game) 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, regulations or by the California Department of Fish and Wildlife (formerly Fish and Game) 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?	☐	☐	☐	☒

Sources**:** City of Petaluma General Plan 2025 and EIR; Petaluma River Access and Enhancement Plan; City of Petaluma Implementing Zoning Ordinance (IZO); Arborist Report, prepared by WRA Environmental Consultants, June 2022; Biological Resources Technical Report, prepared by WRA Environmental Consultants, March 2022; and Rare Plant Survey Results Letter, prepared by WRA Environmental Consultants, July 2022.

Biological Resources Setting

Biological resources are protected by statute including the Federal Endangered Species Act (FESA), the California Endangered Species Act (CESA), and the Clean Water Act (CWA). The Migratory Bird Treaty Act (MBTA) affords protection to migratory bird species including birds of prey. These regulations provide the legal protection for plant and animal species of concern and their habitat. As reported in the 2025 General Plan EIR several plant and animal species with special status have been recorded or are suspected to occur within the Urban Growth Boundary of the City of Petaluma. The City also contains species identified in the California Natural Diversity Database (CNDDB) due to rarity and threats and are considered sensitive resources. Sensitive communities and special status species are regulated by state and federal agencies, including the U.S. Army Corps of Engineers, Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW).

Within the Urban Growth Boundary, biological resources are largely limited to the Petaluma River and its tributaries, which contain aquatic and riparian resources, as well as wetlands. The National Wetland inventory identifies fresh emergent wetlands in the southern portion of the Petaluma River and Northern coastal salt marsh wetland and brackish marsh wetland in the lower reaches of the Petaluma River.

Biological Resources Technical Report

A Biological Resources Technical Report (BRTR) was prepared for the project in March 2022 (**Appendix B**). The BRTR was prepared to document sensitive biological communities and special status plant and wildlife species, and to assess the potential of the site to support special status plant and wildlife species. Information contained in the BRTR is based on observations made during site surveys conducted by WRA on January 11 and January 21, 2022, literature resources, and database searches including the California Natural Diversity Database (CNDDB), National Wetlands Inventory (NWI), California Aquatic Resources Inventory, and California Native Plant Society (CNPS) Inventory. The study area includes the project site, portions of the McNear Canal, Petaluma River, and Steamers Landing Park as shown in Figures 2-4 of the BRTR.

Vegetation Communities and Land Cover Types

As described in the BRTR, the project site is comprised of four land cover types including two terrestrial (developed/disturbed and ruderal herbaceous grassland) and two aquatic (coastal salt marsh fringe, and tidal walers) communities.

Non-sensitive Biological Communities

Developed/disturbed and ruderal herbaceous grasslands comprise most of the study area (4.45 and 3.75 acres, respectively). The developed/disturbed area is comprised of structures, pervious and impervious surfaces, and landscaping containing shrubs, ornamental and native trees, and non-native grasses and forbs. The ruderal herbaceous grassland area is dominated by non-native, weedy herbaceous plants. Though these biological communities are not considered sensitive, they have the potential to contain habitat for special status species.

Sensitive Biological Communities

Coastal salt marsh fringe comprises approximately 0.58 acres of the study area and extends in a one-half (0.5) to

a one-and-a-half (1.5) foot band along the high tide line of the Petaluma River and in a one-half (0.5) to four (4) foot band along the McNear Canal (see Figure 3 of the BRTR). Developed features within this area includes wooden docks and a 12-inch PVC outfall culvert along the Petaluma River shoreline, and a 3-foot stormwater outfall along the northern most bank of the McNear Canal. Coastal salt marsh fringe is considered a jurisdictional wetland subject to Section 404/401 of the CWA and the Porter-Cologne Water Quality Control Act. Navigable and hydrologically connected tidal waters comprise approximately 2.48 acres of the study areas and are located beyond the salt marsh fringe habitat on the banks of the Petaluma River and the McNear Canal. Both channels are considered traditionally navigable waters subject to Section 404/401 of the CWA, the Rivers and Harbor Act (RHA), Porter-Cologne Water Quality Control Act, and CFGC Section 1600-1616.

Special-status Species

No special-status plant or wildlife species were observed during site surveys conducted as part of the BRTR. Based on a review of available databases, the BRTR identified 99 special status plant species and 69 special-status wildlife species that have been documented in the vicinity of the study area. Appendix B of the BRTR summarizes the potential for each species to occur onsite. The following sections discuss species with the potential to occur onsite.

Special-status plant species

As noted above, no special status plant species were observed during site surveys conducted in January 2022. However, the BRTR concluded that pappose tarplant (*Centromadia parryi* ssp. *Parryi*), which blooms from May to November, has a moderate potential to occur onsite due to the presence of disturbed grasslands and the species known ability to occur in highly disturbed areas as well as the documented occurrence of a similar, non-rare species. Due to the timing of the biological resource assessment (BRA) and the species' moderate or high potential to occur onsite, a protocol level rare plant survey was performed to determine the presence of special status plant species. WRA performed the protocol-level rare plant survey for the pappose tarplant (*Centromadia parryi* ssp. *parryi*) on June 24, 2022 (**Appendix B-1**). No pappose tarplant were detected on the project site. Consistent with survey protocols set forth by CNPS and CDWF, a documented reference site in Calistoga was visited on June 23, 2022 where several individuals of pappose tarplant were observed, indicating that the species would be in bloom during the time of the site survey.

Special-status wildlife species

Of the 69 special-status wildlife species documented in the vicinity, 11 have a moderate potential to occur onsite including 6 fish species (green sturgeon, white sturgeon, pacific lamprey, river lamprey, steelhead, Sacramento splittail), four special status bat species (pallid bat, Townsend's western big-eared bat, fringed myotis, long-legged myotis), one special status bird species (white-tailed kite). In addition, non-status birds protected under the Migratory Bird Treaty Act (MBTA) have the potential to occur in the study area. A brief summary of each species is provided below.

Fish Species:

Green sturgeon (*Acipenser medirostris*). Federal Threatened, CDFW Species of Special Concern, spawn in the Sacramento River with the principal spawning area located in the lower Feather River. The Petaluma River is a tributary to the San Pablo Bay, ESA designated critical habitat for this species. The study area does not contain suitable spawning habitat but does provide potential habitat for foraging of juvenile and adult green sturgeon within the Petaluma River.

White sturgeon (*Acipenser transmontanus*). CDFW Species of Special Concern, found in the San Francisco Bay estuary system, spawn in the Sacramento River, and are not known to enter freshwater or nontidal reaches of the estuary system. The aquatic portion of the study area occurs within the Petaluma River, which is habitat for this species. Although the study area does not provide suitable spawning habitat, this species has a potential to occur during migration, or use the study area to forage.

Pacific lamprey (*Entosphenus [Lampetra] tridentatus*). CDFW Species of Special Concern, is typically found at the mouths of spawning streams. This species may occur in the Petaluma River, which provides suitable migrating habitat, but does not provide suitable spawning habitat.

River lamprey (*Lampetra ayresi*). CDFW Species of Special Concern, The Petaluma River provides suitable migrating habitat, but does not provide suitable spawning habitat.

Steelhead (*Oncorhynchus mykiss irideus*). Central California Coast DPS – (*Oncorhynchus mykiss irideus*), Federal Threatened, Species under the Jurisdiction of the NMFS, extend from the Russian River to Aptos Creek, and the drainages of San Francisco and San Pablo Bays eastward to the Napa River (inclusive), excluding the Sacramento-San Joaquin River Basin. The portion of the study area that will be within the Petaluma River has the potential to support various life stages of steelhead and therefore is determined to have a moderate potential to occur within the study area. The Petaluma River is designated as ESA critical habitat for this species.

Sacramento splittail (*Pogonichthys macrolepidotus*). CDFW Species of Special Concern, Species included in a USFWS Recovery Plan or Draft Recovery Plan, are primarily freshwater fish, congregate in dead-end sloughs, and are found in slow-moving rivers, the Delta and Suisun Marsh. Although the study area does not contain suitable flooded vegetated habitat to support spawning or foraging for young, this species may occur within the study area as it provides suitable foraging habitat. The nearest documented occurrence is 0.5 mile north of the study area.

Bat Species:

Pallid bat (*Antrozous pallidus*). CDFW Species of Special Concern, Western Bay Working Group (WBWG) High Priority, occur in a number of habitats ranging from rocky arid deserts to grasslands and higher elevation coniferous forests. They are most abundant in the arid Sonoran life zones below 6,000 feet. Trees within and adjacent to the study area may provide suitable roosting habitat for pallid bats and a nearby occurrence has been recorded. Additionally, the Petaluma River and open areas within the study area provide suitable foraging habitat for this species, therefore the BRTR concluded that this species has a moderate potential to occur within the study area.

Townsend's western big-eared bat (*Corynorhinus townsendii townsendii*). CDFW Species of Special Concern, WBWG) High Priority, is strongly associated with the presence of caves but roosting also occurs within man-made structures including mines and buildings. While many bat species wedge themselves into tight cracks and crevices, big-eared bats hang from walls and ceilings in the open. The study area contains structures that may provide roosting habitat for this species, thus there is moderate potential for the species to occur.

Long-legged myotis (*Myotis volans*). WBWG High Priority, ranges across western North America from southeastern Alaska to Baja California and east to the Great Plains and central Texas. They use abandoned buildings, cracks in the ground, cliff crevices, exfoliating tree bark and hollows within snags as summer day roosts. The study area contains some structures that may support roosting, thus this species has moderate potential to occur.

Fringed myotis (*Myotis thysanodes*). WBWG High Priority, ranges throughout much of western North America from southern British south to southern Mexico. Buildings can be used for maternity and night roosts; tree cavities/hollows are also use. The study area contains some structures that may support roosting; thus this species has moderate potential to occur.

Bird Species:

White-tailed kite (*Elanus leucurus*).CDFW Fully Protected Species, are associated with annual grasslands, agricultural areas, scrub habitats, wet meadows, and emergent wetlands throughout the lower elevations of California. Nesting generally occurs in shrubs or small trees. Individuals are likely to forage over open areas of the site throughout the year. The non-native annual grassland and marsh provide foraging habitat; nesting habitat is available in the eucalyptus trees within the project area.

Migratory Birds. As noted above, non-status migratory birds protected under the MBTA also have the potential to nest in trees located on the project site.

In addition to the BRTR, WRA Environmental Consultants prepared an Arborist Report in June 2022 (**Appendix B-2**) to evaluate impacts to trees onsite and in the project vicinity. The project proposes removal of fifteen trees, eight (8) of which qualify for protection under Petaluma Implementing Zoning Ordinance , Chapter 17 (Tree Preservation).

Biological Resources Impact Discussion

6.4 (a) (Special Status Species) Less Than Significant Impact with Mitigation: The following includes an analysis of the project's impacts to special-status plant and wildlife species including impacts resulting from habitat modification.

Special-status Plant Species

As noted in the BRTR, of the 99 special status plant species that have been documented in the vicinity of the study area, one was determined to have moderate potential to occur onsite. A protocol level rare plant survey was performed in June 2022 during the blooming period for pappose tarplant, and concluded that no individuals were present onsite and that the site lacked suitable habitat to support such species. As such, impacts to special-status plant species as a result of the project will be less than significant.

Special-status Wildlife Species

As noted in the BRTR, of the 69 special status wildlife species that have been documented in the vicinity of the study area, 11 have a moderate potential to occur within the study area, including six fish species, four bat species, and one bird species. In addition, birds protected under the Migratory Bird Treaty Act have the potential to occur within the study area.

Fish Species

As stated previously, the Petaluma River has the potential to support special status fish including the green sturgeon, white sturgeon, steelhead, Sacramento splittail, river lamprey, and Pacific lamprey. Additionally, the project study area is in designated critical habitat for green sturgeon and steelhead, and the Petaluma River supports prey species for special status fish. The project includes alterations to the existing storm drainage system that include the removal and replacement of an existing culvert at the Petaluma River, and the installation of a new culvert at the McNear Canal that could result in impacts to special-status fish species during project construction.. In addition, development activities proposed proximate to the Petaluma River and McNear Canal have the potential to result in disturbance that could inadvertently impact special-status fish species if not properly controlled. Replacement of the existing outfall and installation of a new outfall have the potential to mobilize sediment and temporarily increase turbidity levels in areas where fish may be present which would impede these species ability to feed on prey. Noise and vibration from construction activity could adversely impact special status fish, and individuals if fish are isolated and stranded behind barriers during outfall construction activities. Additional impacts to special status fish species may occur from the spills of pollutants or the introduction of an invasive species resulting from project construction activities. Site construction activities could result in potential habitat degradation, which would be considered a significant impact to fish species if not avoided.

To avoid potential impacts to special-status fish species, the project shall comply with Mitigation Measure BIO-1, which requires appropriate permitting through regulatory agencies and incorporation of avoidance and minimization measures that are to be implemented during outfall installation and project construction activities proximate to the shoreline. With implementation of BIO-1, potential impacts to special status fish species will be reduced to less than significant levels.

Bat Species

Existing trees and buildings onsite provide suitable roosting habitat for special-status bat species and as such, renovation, rehabilitation, and demolition proposed by the project has the potential to result in impacts to these special-status species if present onsite. Therefore, the project shall comply with Mitigation Measure BIO-2, which requires pre-construction surveys to identify whether special-status bats are present onsite and sets forth measures to ensure their protection. With implementation of measure BIO-2, impacts to special-status bats as a result of the project will be less than significant.

Bird Species

The White-tailed Kite is a fully protected species under the California Fish and Game Code and is also protected

under the Federal Migratory Bird Treaty Act. The White-tailed Kite nests in a variety of trees and generally reside near water sources where prey is more abundant. Given the site's proximity to the Petaluma River, there is a potential for the White-tailed Kite to be present onsite and may be significantly impacted if construction occurs during the nesting season (March through August). As such, Mitigation Measure BIO-3 shall be implemented which provides protection to nesting birds, their eggs, and their young by restricting construction activities to outside the bird nesting season or requiring pre-construction nesting bird surveys and avoidance protocols to protect active nests. Implementation of Mitigation Measure BIO-3 will reduce potential impacts to nesting birds, including the White-tailed Kite during the construction phase of the project to less than significant.

6.4 (b-c) (Riparian Habitat or Sensitive Communities, Wetlands) Less Than Significant Impact with Mitigation: Much of the project site is occupied by non-sensitive biological communities including areas with industrial uses (4.45 acres) and ruderal grassland (3.75 acres) dominated by non-native, weedy herbaceous plants. The project site has been disturbed by industrial uses involving discing, mowing and other human induced disturbance. These land types are not considered sensitive habitats and have low biological resource value due to their highly disturbed condition and surrounding urban development including streets, warehouses, and office buildings. The BRTR did not identify riparian habitats on the project site and as such impacts to riparian habitats will be less than significant.

Sensitive biological communities occur in the vicinity of the project site including coastal salt marsh fringe and tidal waters. These communities are sensitive aquatic resources which are considered Waters of the United States and State. Most of these areas are located offsite and will not incur direct impacts from the project. However, approximately 0.003 acres (149 sf.) of the coastal tidal marsh fringe, and 0.001 acre (22 sf.) of tidal water below the high tide line will be impacted as a result of installation of two culvert outfalls and rip rap footings from the project. Additionally, project construction and operation could introduce sediment runoff into the Petaluma River and McNear Canal that could adversely affect water quality. These activities could result in potentially significant impacts to wetlands unless mitigation is incorporated. To ensure that wetlands and waters onsite, and in the immediate site vicinity, are not adversely impacted during construction, Mitigation Measure BIO-4 shall be implemented. Mitigation Measure BIO-4 requires the necessary permitting from the U.S. Army Corps of Engineers, the RWQCB, and the CDFW for work in jurisdictional wetlands. Should any wetlands be lost, they are required to be replaced at a ratio of 1:1. BIO-4requires that the Petaluma River be protected from sediments and pollution during construction and post construction. With implementation of Mitigation Measures BIO-4 and BIO-5 impacts to federally protected wetlands will be less than significant.

6.4 (d) (Wildlife/Fish Movement & Nursery) Less Than Significant Impact: The subject property is bounded by open space to the east, the Petaluma River to the south, established development patterns to the north, and roadways and planned development to the west. Based on existing development patterns, the site does not serve as a migratory wildlife corridor for terrestrial species. Furthermore, the project site is disturbed and lacks suitable habitat for most species. Open space lands in the vicinity of the project site will be retained, including Steamer Landing Park and the Petaluma River Park between the project site and the Petaluma River to the east. The Petaluma River provides suitable migratory habitat for several special-status fish species. However, the project will not alter aquatic habitat beyond minor alterations associated with construction of culvert outfalls.

Nighttime illumination associated with the introduction of new light sources associated with the project can intrude into wildlife habitats mimicking extended daylight conditions and disturbing nocturnal behavior and movement patterns as well as increasing the predation risk. However, as discussed in Section 6.1(d), all outdoor lighting will be shielded downward and comply with the maximum illumination requirements in IZO §21.040(D). Accordingly, the project will not 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. Therefore, the project will have less than significant impacts to wildlife corridors and species movements.

6.4 (e) (Tree Preservation) Less Than Significant Impact with Mitigation: Petaluma's Implementing Zoning Ordinance (IZO) Chapter 17 addresses tree preservation requirements with development projects. IZO Section 17.040 defines which tree species and sizes are subject to review and further identifies general tree characteristics defining a protected tree, including heritage trees, significant groves or stands of trees, trees located in riparian corridors or in public rights of way, and trees from mitigation.

Fifteen (15) trees are proposed to be removed, of which eight are protected and require a Tree Removal Permit.

Eight of the trees proposed for removal are protected due to their location within public property and one is protected because of its species (coast live oak).

Section 17.065(A)(1) of the IZO provides that for new commercial and/or residential (2 or more parcels) development projects, "all protected trees determined by the project arborist to be in good (4) or excellent (5) health, and/or with moderate (3) to good (4) structure, shall be replaced on a one-to-one trunk diameter basis." The project is planning to remove seven (7) protected trees in fair condition (trees #18, 19, 24, 30, 43, 49, and 61) and one (1) (tree #46) in very poor condition. The sum trunk diameter of protected trees in fair condition proposed for removal is 326.6 inches. The project's preliminary landscape site plan (Ripley Design Group 2022) proposes installation of approximately 116, 24-inch box trees. Based on an estimated trunk diameter of two (2) inches for 24-inch box trees (ANSI Standard for Nursery Stock), the total replacement diameter would be 232 inches, which is 94.6 inches less than the replacement requirement. Additional trees, larger size box trees, or payment of an in-lieu fee will be required to ensure compliance with Petaluma Tree Preservation Ordinance.

To avoid a potential conflict with the City's Tree Preservation Ordinance due to the removal of eight protected trees, Mitigation Measure BIO-5 shall be implemented which requires replacement onsite at a 1:1 trunk diameter basis, which equates to 326.6 inches of trunk diameter replacement. With implementation of measure BIO-5, as well as the proposed onsite planting and supplemental planting plan, potential impacts due to a conflict with the City's tree preservation ordinance will be reduced to less than significant.

6.4 (f) (Habitat Conservation Plan) No Impact: There is no Habitat Conservation Plan, Natural Community Conservation Plan, or other regional or state habitat conservation plan that exists for Petaluma. No impact would result under this criterion.

Mitigation Measures:

BIO-1: Prior to issuance of grading permit, the project applicant shall provide documentation to the City of Petaluma that the required permits for installation of culvert outfalls from regulatory agencies have been obtained. The permit authorization process shall include, if needed and at the discretion of the regulatory agencies involved, consultation with National Marine Fisheries Service (NMFS), U.S. Fish and Wildlife Service (USFWS), and/or California Department of Fish and Wildlife (CDFW) to determine if avoidance, minimization, and mitigation measures beyond those described below are necessary. At a minimum, the following measures shall be implemented:

- Project work shall be conducted, as much as practicable, during the dry season (May through October) to reduce runoff. If rainfall is in the forecast predicted to be greater than one-half inch over a 24-hour period, standard erosion control measures (e.g., straw waddles, bales, silt fencing) shall be deployed and grading shall be suspended.

- Erosion control measures shall be utilized throughout all phases of the project where sediment runoff from construction may potentially enter waters. Erosion control structures shall be monitored for effectiveness and will be repaired or replaced as needed. Appropriate erosion control measures shall be installed around any stockpiles of soil or other materials which could be mobilized by rainfall or runoff. Erosion control structures shall not include plastic monofilament or other components that may entrap wildlife. Following completion of ground disturbance, silt wattles or other erosion control methods shall be installed along the stream bank, above the mean high tide water level. Silt wattles shall be made of jute and not plastic.

- All equipment shall be staged above the top of bank and spill kits shall be located within working equipment. Equipment fuels and lubricants shall be prevented from reaching the river by locating fueling/maintenance areas an appropriate distance away from the river or drainage ways to the river and construction contractors shall have a spill prevention kit and plan on location.

- Uncured concrete shall not be exposed to water flowing to the river or within the river itself and all excess uncured concrete shall be properly disposed of at an offsite location.

- Areas of vegetation removal shall be limited to the smallest area feasible. Any areas of bare ground shall be re-seeded immediately following completion of all ground disturbance work. Additional erosion control

measures (jute, hay) as feasible will be installed prior to rainy season. Areas of exposed stream bank above the mean high water shall be planted with native species appropriate for area and habitat.

- An environmental awareness training program shall be given to all crew members working on the outfall replacement part of the project. The training will be given by a qualified biologist and shall include education on sensitive resources such as protected fish and wildlife with the potential to occur within the study area, water quality, and environmental protection measures.

- Equipment shall be thoroughly cleaned prior to being moved onsite and prior to being removed such that it will not pose a potential to introduce or spread invasive plant or animal species.

- Prior to construction, an Accidental Spill Prevention and Cleanup Plan shall be prepared. This plan shall include required spill control absorbent material, for use beneath stationary equipment, to be present on-site and available at all times.

- No fueling, cleaning, or maintenance of vehicles or equipment shall take place within any areas where an accidental discharge may cause hazardous materials to enter waterways.

- Any equipment or vehicles used for the project will be checked and maintained daily to prevent leaks of fluids that could be deleterious to aquatic habitats.

- Construction disturbance or removal of vegetation shall be restricted to the minimum footprint necessary to complete the work. The work area shall be delineated by the project biologist where necessary to minimize impacts to vegetated habitats beyond the work limit, and to protected vegetation within the work area.

- Staging and storage areas for equipment, materials, fuels, lubricants and solvents, shall be located outside of the floodplain and set back as far as feasible from channel banks and seasonal wetlands.

- Stationary equipment such as motors, pumps, and generators, located adjacent to aquatic features shall be positioned over secondary containment sufficient to arrest a catastrophic failure.

- All activities performed near aquatic features shall have absorbent materials designated for spill containment and cleanup activities on-site for use in an accidental spill.

- Stockpiles of excavated soil or other shall be covered when not in active use (i.e. will not be used, or moved for 72 hours). All trucks hauling soil, sand, and other loose materials will be covered.

- No construction debris of any type will be allowed to enter or be placed where they may be washed into any aquatic features.

- At the end of the project construction activities all temporary flagging, fencing, or other materials shall be removed from the project site and vicinity of the channel.

- No equipment shall be washed down where runoff could enter waterways.

Avoidance and Minimization Measures for NMFS Species and resources (including critical habitat and essential fish habitat) that shall be implemented during project construction activities are outlined below.

- Any work below the top of bank shall be completed during the dry season, between June 15 and October 15.

- No work requiring heavy machinery to enter the wetted channel of the Petaluma River shall be conducted. To the greatest extent feasible, any work below the top of bank of the Petaluma River and McNear Canal shall be conducted using an excavator or other similar equipment capable of reaching the work area from above top of bank.

- Work shall be conducted during the lowest tidal periods of the day to minimize disturbance to aquatic habitat and preclude need for using a coffer dam.

- Prior to beginning work below the high tide line, a qualified biologist shall place exclusion nets to prevent fish from temporarily occupying waters that may be accidentally impacted by landslides or similar failures. The exclusion nets shall be of sufficient height to span the water column and small enough in size (1/8 inch or less) to exclude juvenile fish from areas that may be subject to disturbance during excavation.

- To prevent the spread of turbidity that might be caused by liberation of sediment, a turbidity curtain shall be installed within the exclusion zone created by block nets whenever equipment makes contact with substrate below the high tide line and when rip-rap is installed.

- Native vegetation removed shall be limited to the minimum necessary in order to complete outfall culvert installation and shall be replanted within the work area where appropriate. (For mitigation of loss of wetland habitat, see MM BIO-4).

BIO-2: Tree and building removal shall be performed from September 1 through March 1, outside of the general bat maternity season. If tree or building removal during this period is not feasible, a bat roost survey shall be performed by a qualified biologist no more than 60 days prior to demo/removal to determine if bats are present in the trees or structures. During this survey, the qualified bat biologist shall determine if an active roost is present and if colonization by bats is likely. If bats are present, a bat exclusion plan shall be developed and implemented. If bats are absent, but potential for colonization is determined to be likely, the biologist shall make recommendations to prevent colonization. Within 14 days of commencement of construction, the biologist shall resurvey the structures and trees to determine if any bats are present. If no roosting bats are detected, then no further action is warranted. If bat maternity roosts are detected, then roost trees and structures shall be avoided until the end of the maternity roosting season. Irrespective of time of year, all felled trees and demolished buildings shall remain on the ground for at least 24 hours prior to chipping, off-site removal, or other processing to allow any bats present to escape. If more than 7 days lapse between the end of the survey and start of construction, the survey shall be repeated.

BIO-3: Vegetation removal (including trees) and initial ground disturbance shall occur from September 1 to January 31 which is outside of the general bird nesting season. If tree/vegetation removal during this time is not feasible, a pre-construction nesting bird survey shall be performed by a qualified biologist no more than 7 days prior to the initiation of tree removal or ground disturbance, paying special attention to areas of more dense vegetation cover. The survey shall include the project area and surrounding areas within 500 feet. Survey results shall be provided to the City of Petaluma Planning Director or director's designee. If active bird nests are found during the survey, an appropriate no-disturbance buffer specific to the bird species shall be established by the qualified biologist. Once it is determined that the young have fledged (left the nest) or the nest otherwise becomes inactive (e.g., due to predation), the buffer restriction shall be removed and work may be initiated within the buffer. If more than 7 days lapse between the end of the survey and start of construction, the survey shall be repeated.

BIO-4: Prior to issuance of grading permit the applicant shall provide proof of authorization to the City of Petaluma that temporary or permanent impacts to coastal salt marsh fringe wetland related to outfall replacement upgrade have been authorized by the appropriate regulatory agencies. Permits which may be necessary include a Section 10 Rivers and Harbors Act and/or a Section 404 CWA permit from the Corps, a Section 401 Water Quality Certification from RWQCB, and a 1602 Lake and Streambed Alteration Agreement (LSAA) from CDFW. As part of the CORPS/RWQCB permit application packages, the applicant shall demonstrate that impacts to approximately 0.004 acres (171 square feet) of tidal wetlands will be replaced at a minimum 1:1 ratio on a functions and values basis, or as otherwise determined by the regulatory agencies. Preference shall be given to on-site mitigation, but ~~Mitigation~~ may include purchase of created wetlands credits from an approved mitigation bank or proponent created wetlands at an on- or off-site location, as deemed most appropriate by the regulatory agencies. The appropriate permits shall be obtained from regulatory agencies prior to initial grading/construction which shall include approval of a wetlands mitigation plan.

BIO-5: Prior to any tree removal or alteration, the applicant shall obtain approval from the City of Petaluma to implement a plan for tree preservation and replacement in accordance with the City's Tree Preservation Ordinance. Replacement of the protected trees onsite shall be replaced at a one-to-one trunk diameter basis. Replacement trees shall be consistent with the preliminary landscape plan, except that additional trees or larger size box trees (e.g. 36-inch) shall be included as recommended in the Arborist Report prepared by WRA Environmental Consultants, dated June 2022. ~~be at the minimum 24-inch box size~~. Acceptable replacement for the removal of 326.6 dbh of protected trees shall be determined in replacement planting plan provided to the City of Petaluma Planning Director, or director's designee for review and approval. Replacement trees shall be planted onsite in the same generally vicinity as the removed tree. In the event that replacement onsite is infeasible, the applicant shall pay a tree in-lieu fee. The replacement tree costs for the purposes of satisfying in-lieu fees shall be based on the typical northern California wholesale tree cost plus average installation cost for a minimum 24-inch box tree. If payment of an in-lieu fee is proposed, an arborist-prepared in-lieu replacement value for the remaining tree mitigation shall be required.

6.5 CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	☐	☒	☐	☐

Sources: City of Petaluma General Plan 2025 and EIR; Pacific Legacy Inc., Historic Resources Evaluation, May 2022 (confidential); Pacific Legacy Inc., Archaeological Survey Report, May 2022 (Confidential)

Cultural Resources Setting

Petaluma's historic and cultural resources contribute to the city's unique character and identifiable sense of place. The city and adjacent areas contain resources that date to the inhabitation of the Coastal Miwok Tribe and several resources that visibly chronicle the evolution of the city from early settlement through present day. Such resources include buildings, structures, landscapes, sites, and objects. The history of Petaluma is present in the contemporary landscape and the unique character that arises from the side by side existence of new and old. Petaluma's historical resources are preserved and encouraged through policies and programs that serve to maintain the historic character.

The project site is relatively flat and consists of fill, stockpile material, and alluvial fan deposits that date to the Holocene Epoch. Soils on the project site belong to the Clear Lake and Yolo soil series, and Tidal Marsh, which are described as alluvium from basic and sedimentary rock or thin loams underlain by alluvium from volcanic and marine origins. The Clear Lake series are deep to very deep poor-draining clay soils that are found on terraces, plains, and flat basins. The Yolo series are well-drained loams found on alluvial fans and flood plains. Buried cultural resources have been discovered in similar landforms in the Santa Rosa Valley, demonstrating that there is a moderate potential for earlier living surfaces to be in the project vicinity.

The closest source of water to the project site is the Petaluma River and the McNear Canal, located adjacent to the site. The McNear Canal was first dredged in 1893.

Historic Resource Studies

A Historic Resources Evaluation and an Archaeological Survey Report for the project site were prepared by Pacific Legacy, Inc., dated May 2022 (Appendix C and C-1 - confidential). The studies include information gathered from archival and records searches through the California Historical Resources Information System (CHRIS) at the

Northwest Information Center (NWIC) at Sonoma State University, a review of environmental, ethnographic, prehistoric, and historic period data for the project area, review of historic maps, field surveys, and outreach with Native American tribes, including a Sacred Lands File search.

The project area has been previously studied as part of 25 prior cultural resource studies, and 41 additional studies have been conducted within a surrounding one-quarter (0.25) mile radius. The archival and records search revealed no previously recorded cultural resources within the project area, but results indicate cultural resources are present within the surrounding one-quarter (0.25) mile area.

As detailed in the Archaeological Survey, at the time of European settlement, the study area was included in the territory controlled by the Coast Miwok. The Coast Miwok settled in a village system located along principal creeks or rivers, with satellite or special-use sites in the surrounding areas. Primary sites were occupied throughout the year, while subsidiary sites were visited to procure resources. Tribelet leaders were chiefs who played roles in leading subsistence procurement, ceremonies, and dance.

Historically, the study area is within the Petaluma Rancho granted to Mariano Guadalupe Vallejo in 1834, 1843, and 1844. When granted, it consisted of 66,622 acres of land that extended from the Petaluma River on the west side to nearly Sonoma on the east side. Vallejo's adobe, more commonly known as the Petaluma adobe, is located approximately four-and-one-half (4.5) miles northeast of the study area.

The project site is connected to multiple components of Petaluma's historical economy. The Petaluma River facilitated steamboat travel between Petaluma and San Francisco, thereby promoting economic commerce. In 1879, L.C. Brice developed an egg incubator and Petaluma began mass chicken farming. Oyster shells were determined to be a key chicken feed supplement, and to allow steamboat access to Petaluma's chicken and grain businesses, John McNear had the McNear Canal dredge in 1892.

Historical maps indicate that buildings first occurred in the project area as early as 1885. At some point between 1906 and the 1920s, the portion of the site facing the Petaluma River was repurposed for storing oyster shells dredged from the San Francisco Bay. Ludwig Hans Beck appears to have initiated this use in the project area. Pioneer Shell Company was active from 1931 until 1969, under the tutelage of Hans Beck. The company constructed plant facilities at the east side of the Petaluma River and D Street in 1950. Facilities consisted of a 180-foot wharf, 57 feet drying kiln, steel tanks, and an 8,000-sf. building constructed of redwood and clad in corrugated metal. The plant produced crushed shells from poultry feed, fertilizers, landscaping, and other purposes.

The operation underwent ownership changes following the 1970s, ultimately being owned by Mitch Lind, who named the operation Lind Marine. Dredging of the Petaluma River ceased in 2017 and the operations onsite were moved to Collinsville and Mare Island.

There are multiple structures onsite, each described below:

- Shell plant: The plant measures approximately 40 x 200 feet. It is a mix of wood and metal framing. The roof is constructed of wooden trusses. The entire building is clad in corrugated metal sheeting. The building rests on a concrete slab foundation.

  A small office was added to the building, and along the east elevation of the building are a series of four elevated silos used for storing bulk shell that are not original to the building. Original equipment has been removed from the plant.

- Wharf: The wharf runs along the northeast bank of the Petaluma River, for the length of the plant building and extends southward beyond the building for approximately another 200 feet. The wharf is composed of a mix of wood and iron pilings driven into the river bed. A metal handrail has been erected along much of the wharf. The wooden decking has been removed from much of the southern end of the wharf.

- Three other buildings: Two of the three buildings were built by Lind in the 1990s as shops and the third is a weigh station built in the 1980s.

The site and these buildings are not designated as local historic landmarks by the City of Petaluma, nor are they

on the California Register of Historical Resources or National Register of Historic Places.

On March 2, 2022, a field survey was conducted for the entire site in transects spaced 10-15 meters apart. During the field survey, no resources, features, or artifacts were identified. The site consisted of the documented structures, ruderal grasses, gravel piles, shipping containers, and pavement areas. No auger holes were drilled as part of this reconnaissance.

Pacific Legacy, Inc. contacted the Native American Heritage Commission (NAHC) seeking information from the sacred lands files as well as names of Native American Individuals and groups that should be contacted about the project on January 12, 2022. Pacific Legacy, Inc. did not receive a response from the NACH by May, 2022. The City initiated tribal consultation. As further described in Section 6.18 Tribal Cultural Resources, the City of Petaluma notified the FIGR Tribe in accordance with AB 52 and entered consultation.

Cultural Resources Impact Analysis

6.5 (a) (Historical Resource) Less Than Significant Impact: CEQA defines a "historical resource" as a resource that meets one or more of the following criteria: (1) listed in, or determined eligible for listing in, the California Register; (2) listed in a local register of historical resources as defined in PRC Section 5020.1(k); (3) identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); or (4) determined to be a historical resource by a project's Lead Agency (PRC Section 21084.1 and State CEQA Guidelines Section 15064.5[a]).

If a Lead Agency determines that an archaeological site is a historical resource, the provisions of *PRC Section 21084.1* and *CEQA Guidelines Section 15064.5* would apply. If an archaeological site does not meet the CEQA Guidelines criteria for a historical resource, then the site is to be treated in accordance with the provisions of *PRC Section 21083* regarding unique archaeological resources. The CEQA Guidelines note that if a resource is neither a unique archaeological resource nor a historical resource, the effects of a project on that resource shall not be considered a significant effect on the environment (*CEQA Guidelines Section 15064[c][4]*).

To be eligible for the California Register of Historical Resources (CRHR), a prehistoric or historic period property must be significant at the local, state, and/or federal level under one or more of the following criterion:

Criterion 1: It is associated with events that have made a significant contribution to the broad patterns or local or regional history of the cultural heritage of California or the United States;
Criterion 2: It is associated with the lives of persons important to local, California, or national history;
Criterion 3: It embodies the distinctive characteristics of a type, period, region, or method of construction or represents the work of a master or possesses high artistic values; or
Criterion 4: It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

For a resource to be eligible for the CRHR, it must also retain enough of its character or appearance (integrity) to be recognizable as a historical resource and to convey the reason for its significance. A historic resource that does not retain sufficient integrity to meet the National Register of Historic Places (NRHP) criteria may still be eligible for listing in the CRHR.

The project site is not located within a designated historic district and does not contain any historically significant above ground resources, nor does it constitute a historic site. The project site is previously disturbed by the oyster shell operation. Further, during the field survey, no historical resources were identified.

With respect to whether the project would impact an eligible resource, the following four criteria were considered:

Criterion 1: The Pioneer Shell Company was one of several shell processing facilities in the San Francisco Bay Area; it was not the first nor the largest. The company is not associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage. The use of oyster shells in animal feedstock was employed elsewhere before taking hold in the San Francisco Bay Area. Accordingly, the plant does satisfy Criterion 1.

Criterion 2: The plant's original builders and operators were locally known dredge operators, tug captains, shell processors. Later owners were regionally known in the industry. Accordingly, the professional reputations are highly localized. Therefore, the plant does not appear to be associated with the lives of persons important in our past. The site does not appear to be eligible for the CRHR under Criterion 2.

Criterion 3: No original equipment remains in the plant. The silos outside the building and offices are additions to the building that diminishes the sites integrity. The wharf has been rebuilt and is newer than that plant onsite. Further, the building is a sheet metal clad structure without a unique, authentic, or identifiable architectural style that embodies distinctive characteristics of a type, period, region or method of construction. The wharf and plant are not tied to a creative individual and they do not have high artistic values due to their utilitarianly basic design. Due to these modifications, the site does not embody the distinctive characteristics of a type, period, region, or method of construction, nor represent the work of an important creative individual, or possesses high artistic values. The site does not appear to be eligible for the CRHR under Criterion 3.

Criterion 4: Without the original equipment in the plant or knowledge of its layout, there is no information related to specific processes and technology used at the plant. The plant has not yielded, nor is it likely to yield, information important in prehistory or history relating to significant research themes such as technology and labor. The site does not appear to be eligible for the CRHR under Criterion 4.

In the absence of any historic resources within the subject property, the proposed project would not directly or indirectly affect the significance of a historical resource. Therefore, the project would have a less than significant impact due to a change in the significance of a historical resource.

6.5 (b) (Archaeological Resources) Less Than Significant with Mitigation: As defined in *PRC Section 21083.2*, a "unique" archaeological resource is an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

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

If a Lead Agency determines that an archaeological site is a historical resource, the provisions of *PRC Section 21084.1* and *CEQA Guidelines Section 15064.5* would apply. If an archaeological site does not meet the CEQA Guidelines criteria for a historical resource, then the site is to be treated in accordance with the provisions of *PRC Section 21083* regarding unique archaeological resources. The CEQA Guidelines note that if a resource is neither a unique archaeological resource nor a historical resource, the effects of a project on that resource shall not be considered a significant effect on the environment (*CEQA Guidelines Section 15064[c][4]*).

The potential for uncovering buried archaeological deposits is dependent on many factors including landform age, proximity to water, and slope. Buried prehistoric archaeological sites are found in or beneath Holocene-age landform deposits. Although no archaeological resources were identified during the field survey, the Archaeological Survey Report concluded that there is a probability of discovering buried prehistoric archaeological sites within the project site during ground disturbing activities for the following reasons: 1) the project site is comprised of Holocene alluvial fan and mud deposits; 2) the Petaluma River is located adjacent to the project site; 3) the study area was included in the territory controlled by the Coast Miwok; 4) of the 25 prior cultural resources studies, 14 have identified positive cultural resources onsite, and there have been 21 positive cultural resources within one-quarter (0.25) mile of the study area; and 5) there could be buried cultural resources associated with the rail yard, warehouse, or the shell plant. As such, the project site has the potential to contain buried cultural resources, which if present could be adversely impacted during remediation and construction activities.

To avoid inadvertently causing a substantial adverse change in the significance of an archaeological resource (prehistoric or historic-era), **Mitigation Measure CUL-1** shall be implemented which sets forth requirements for pre-construction training, onsite monitoring, post-review for any discoveries found, and preparation of an archaeological monitoring report. As part of the City's consultation with FIGR, in addition to monitoring by a qualified professional archaeologist, Mitigation Measure CUL-1 also requires monitoring by a representative of the Federated Indians of Graton Rancheria during grading and groundwork activities. Implementation of CUL-1 will ensure that in the event of accidental discovery, the potential for the project to adversely impact or result in a change to the significance of archaeological resources would be less than significant.

6.5 (c) (Human Remains) Less Than Significant Impact: No evidence suggests that human remains have been interred within the boundaries of the project site. However, in the event that human remains are discovered during construction activities, the project shall comply with **Mitigation Measure CUL-2**, which requires compliance with state law including the immediate cessation of ground disturbing activities near or in any area potentially overlying adjacent human remains. With implementation of measure CUL-2, the project will result in less than significant impacts due to disturbance of human remains interred outside the boundaries of a formal cemetery.

Mitigation Measures:

CUL-1: To ensure the project does not result in impacts to buried archaeological resources onsite, if present, the following shall be implemented:

1. **Training.** Prior to commencement of ground-disturbing activities, a professional archaeologist shall conduct a preconstruction training for construction personnel. The training shall familiarize individuals with the potential to encounter prehistoric artifacts or historic-era archaeological deposits, the types of archaeological material that could be encountered within the project area, and the requirement for a monitor to be present during initial ground-disturbing activities.

2. **Monitoring.** During initial ground disturbing activities, a Secretary of the Interior-qualified archeologist and Federated Indians of Graton Rancheria-approved monitor shall be onsite to monitor activities. The monitor shall have the authority to temporarily halt work to inspect areas as needed for potential cultural materials or deposits. Daily monitoring logs shall be completed by the monitor.

3. **Post-review Discoveries.** In the event that cultural resources are exposed during construction, all earth work occurring within 100 feet of the find shall be immediately stopped until a Secretary of Interior-qualified Archaeologist inspects the material(s), assess historical significance. The monitoring archaeologist shall consult with the Federated Indians of Graton Rancheria-approved monitor, may consult with other stakeholders, and as needed provide recommendations for the treatment of the discovery.

4. **Archaeological Monitoring Report.** Within 60 days following completion of construction work, an archeological monitoring report shall be submitted to the City. The report shall include the results of the monitoring program (even if negative), a summary of any findings or evaluation/data recovery efforts, and supporting documentation (e.g., daily monitoring logs).

CUL-2: In the event that human remains are encountered within the project area during project-related, ground-disturbing activities, all work must stop, and the County Coroner immediately notified of the discovery. If the County coroner determined that remains are, or are believed to be Native American, then the Native American Heritage Commission must be contacted by the Coroner so that a "Most Likely Descendant" (MLD) can be designated to provide further recommendations regarding treatment of the remains. A Secretary of Interior-qualified Archaeologist should also evaluate the historical significance of the discovery, the potential for additional human remains to be present, and to provide further recommendations for treatment of the resource in accordance with the MLD recommendations. Federal regulations require that Native American human remains, funerary objects, and object of cultural patrimony are handed consistent with the requirement of the Native American Graves Protection and Repatriation Act.

6.6 ENERGY

Would the project:	Potentially	Less Than	Less Than	No

	Significant Impact	Significant with Mitigation	Significant Impact	Impact
a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Sources: City of Petaluma General Plan 2025 and EIR; BAAQMD 2017 Bay Area Clean Air Plan; Air Quality and Greenhouse Gas Assessment, Kimley Horn, May 2022; Climate Action 2020 and Beyond, Sonoma County Regional Climate Action Plan, prepared by the Sonoma County Regional Climate Protection Authority, July 2016; City of Petaluma Climate Emergency Resolution, March 2019; 2019 California Green Building Standards Code, effective January 1, 2020; and California Energy Commission various publications.

Energy Setting

Energy resources include electricity, natural gas, and other fuels. The production of electricity requires the consumption or conversion of energy resources, including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources, into energy. Energy production and energy use both result in the depletion of nonrenewable resources (e.g., oil, natural gas, coal, etc.) and emission of pollutants. Energy consumption is measured using the British Thermal Unit (BTU). BTU is the amount of energy that is required to raise the temperature of one pound of water by one-degree Fahrenheit.

To address energy efficiency at the State level, the California Energy Commission adopted the 2019 Building Energy Efficiency Standards (Title 24, Part 6 of the CCR) in May 2018, which took effect on January 1, 2020. The new standards focus on four key areas: smart residential photovoltaic systems; updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa); residential and nonresidential ventilation requirements; and nonresidential lighting requirements. The building standards require that solar photovoltaic systems be installed on single-family residences, multi-family buildings, hotels/motels, and non-residential buildings constructed in 2020 and beyond. In 2020, the City of Petaluma adopted the Tier 2 CalGreen Standards to meet higher levels of building energy efficiency through the adoption of Ordinance No. 2705 N.C.S. Most recently, the 2022 Building Energy Efficiency Standards went into effect on January 1, 2023. The new standards establish requirements related to heat pumps, requires that new single-family homes be electric-ready, and expands solar and storage requirements. It is estimated that over a 30-year period, the 2022 energy code will reduce greenhouse gas (GHG) emissions by 10 million metric tons.[4]

California Energy Consumption

According to the California Energy Commission (CEC), total system electric generation for California in 2021 was 277,764 gigawatt-hours (GWh).[5] California's non-CO_2 emitting electric generation categories (nuclear, large hydroelectric, and renewable generation) accounted for 49 percent of total in-state generation for 2021 as compared to 51 percent in 2020. It is noted that the decrease in non-CO2 emitting electric generation was attributable to the State's ongoing drought. California's in-state electric generation was 194,127 GWh with electricity imports accounting for approximately 30 percent of total system electric generation. In 2020, the CEC reported that Sonoma County had a total electricity consumption of 2,894 GWh.[6]

According to the CEC, approximately 45 percent of the natural gas burned in California was used for electricity generation with the remainder consumed in the residential (21 percent), industrial (25 percent), and commercial (9 percent) sectors. Natural gas is used for many things including generating electricity for cooking and heating, as

[4] State of California, Energy Commission, 2022 Building Energy Efficiency Standard Summary, August 2021.
[5] California Energy Commission, Total System Electric Generation (2021), https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2021-total-system-electric-generation, accessed March 2022.

[6] California Energy Commission, Electricity Consumption by county, http://www.ecdms.energy.ca.gov/elecbycounty.aspx, accessed March 2022.

well as an alternative transportation fuel.[7]

According to the CEC, gasoline has remained the dominant fuel within the transportation sector, with diesel fuel and aviation fuels following. In 2015, California consumed approximately 15 billion gallons of gasoline and approximately 4.2 billion gallons of diesel fuel.[8] An increasing amount of electricity is being used for transportation energy, which is chiefly attributed to the acceleration of light-duty plug-in electric vehicles.

Sonoma Clean Power

Sonoma Clean Power is a program that allows businesses and residents in Mendocino and Sonoma Counties to purchase energy created from renewable resources, including geothermal, solar, wind, water, and biomass. This service provides energy through alternative generation processes while using existing infrastructure through PG&E for delivery. By using existing delivery infrastructure, Sonoma Clean Power is billed to customers through PG&E for providing electric generation service. In 2016, 88% of eligible customers were receiving electricity from Sonoma Clean Power. As of 2018 Sonoma Clean Power generated 39% less greenhouse gas emissions as compared to PG&E's energy portfolio.[9]

City of Petaluma

The City of Petaluma contains energy resources that encompass a variety of fuels that provide lighting for residential and commercial uses, provide heating and cooling for indoor environments, and aid in the operation of transportation systems. According to the Sonoma County Regional Climate Action Plan, in 2010 the City of Petaluma's annual household consumption rate was 6,000 kwh (electricity) and 493 therms (natural gas). The City of Petaluma's largest energy consumer is the transportation sector.

The General Plan contains goals, policies, and programs to reduce energy consumption. Chapter 2: Community design, Character, and Green Building identifies sustainable building strategies and practices, which minimize energy consumption. Chapter 4: The Natural Environment contains policies and programs to reduce reliance on non-renewable energy sources in existing and new development. Energy policies supporting alternative and efficient transportation systems, and the reduction of energy consumption in buildings by means of appropriate design and orientation are identified in Section 3.3: Sustainable Building and Chapter 5: Mobility. Residential energy efficiency is addressed in Chapter 11: Housing Element.

The following General Plan policies related to energy resources are applicable to the subject project:

- Policy 4-P-9: Require a percentage of parking spaces in large parking lots or garages to provide electrical vehicle charging stations.

- Policy 4-P-15D: Reduce emissions from residential and commercial uses by requiring the following:

    - Use of high efficiency heating and other appliances, such as cooking equipment, refrigerators, and furnaces, and low NOx water heaters in new and existing residential units;
    - Compliance with or exceed requirements of CCR Title 24 for new residential and commercial buildings; and
    - Incorporation of passive solar building design and landscaping conducive to passive solar energy use for both residential and commercial uses, i.e., building orientation in a south to southeast direction, encourage planting of deciduous trees on west sides of structures, landscaping with drought resistant species, and use of groundcovers rather than pavement to reduce heat reflection.

- Policy 4-P-19D: Encourage use and development of renewable or nontraditional sources of energy.

[7] *California Energy Commission, Supply and Demand of Natural Gas in California* https://www.energy.ca.gov/data reports/energy-almanac/californias-natural-gas-market/supply-and-demand-natural-gas-california*, accessed March 2023*
[8] California Energy Commission, Transportation Energy, https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy, Accessed July 3, 2019.
[9] Sonoma Clean Power 2019 Annual Report, https://vimeo.com/379072737, accessed June 22, 2020.

Consider the feasibility of requiring a percentage of new development to meet 50% of their energy needs from fossil fuel alternatives (e.g. solar panels, etc.).

The City of Petaluma has also taken steps to address GHG emissions within its city limits, which in turn assist in reducing energy consumption (see Section 6.8 Greenhouse Gas Emissions).

On May 6, 2019, the City of Petaluma adopted a Climate Emergency Resolution. The Resolution elevates climate issues to the highest priority, makes a commitment to achieving carbon neutrality as quickly as possible and no later than 2045, and establishes a climate commission to guide policy direction on climate action.

On December 10, 2020 the City's Climate Action Commission approved the Climate Emergency Framework and forwarded a recommendation for its adoption to the City Council. On January 11, 2021, the City Council and the Climate Action Commission held a joint hearing which resulted in adoption of the Framework. The Framework is intended to guide the City's ongoing response to and discussion about the climate crisis and guides and informs subsequent policies and implementation strategies. The principles identified in the Framework establish Petaluma's shared vision of a healthy, sustainable, and equitable community and advances the City's objective of achieving carbon neutrality by 2030. Subsequently, on May 3, 2021, the City adopted Ordinance 2775 N.C.S to add an "All-Electric Construction in New Constructed Buildings" Chapter to the Petaluma Municipal Code (PMC), banning the use of natural gas in new construction.

Energy Impact Analysis

6.6 (a) (Wasteful, Inefficient, Unnecessary Consumption of Energy) Less Than Significant Impact: Development of the proposed project would involve the use of energy during construction and at operation. Site preparation, grading, paving, and building construction would consume energy in the form of gasoline and diesel fuel through the operation of heavy off-road equipment, trucks, and worker traffic. However, consumption of such resources would be temporary and would cease upon the completion of construction. As stated in Section 6.3 Air Quality, the City of Petaluma will impose BAAQMD best management practices as described by Measure AQ-1, which will minimize the inefficient, wasteful, and unnecessary consumption of energy during construction by limiting idling times and requiring that all construction equipment be maintained and properly tuned in accordance with manufacturer's specifications. Implementation of AQ-1 will minimize energy used during construction activities. As such, construction-related energy impacts would be less than significant.

Long-term operational energy use associated with the project includes electricity consumption associated with use of lighting, electronics, heating, air conditioning, refrigeration, energy consumption related to water usage and solid waste disposal, and vehicle fuel consumption (gasoline and diesel) associated with the trips by residents, workers, and visitors to and from the site.

Electricity consumption at project operation is estimated through CalEEMod as part of the Air Quality and GHG Analysis, prepared by Kimley Horn. Electricity consumption is estimated to be 1,320,654 kWh/year (apartment buildings + parking). Natural gas is prohibited by the City for new construction. Accordingly, the project would not consume natural gas during construction and operation. At operation, the proposed project would result in the consumption of petroleum-fuel related to vehicular travel to and from the project site.

The City of Petaluma requires that all new development demonstrate compliance with California Green Building Standards Code (CalGreen) Tier 2 Building standards (Title 24, Part 6 of the CCR), which generally achieve energy efficiency approximately 30% beyond Title 24 2008 standards, as well as a construction waste diversion rate of 75%. CalGreen Tier 2 reduces energy consumption for heating, air conditioning, and ventilation and requires use of low-water irrigation systems, water efficient appliances and faucets, cool roofs, short- and long-term bicycle parking, electric vehicle charging spaces, outdoor energy performance lighting and other mandatory energy efficiency measures. Prior to issuance of a building permit, the proposed structures onsite will be required to demonstrate compliance with CalGreen Tier 2 standards.

Features and landscaping have been incorporated into the design of the project to achieve energy conservation. For example, trees are proposed along the perimeter of each building to provide shading and minimize energy requirements. In addition, most landscaping includes drought resistant species (e.g., approximately 65 percent has a low water use).

At operation, energy would be consumed through daily residential activities, the delivery of water for potable and irrigation purposes, solid waste management, and daily vehicle use by residents, workers, and visitors. While the long-term operation of the project would result in an increase in energy consumption compared to existing conditions, the project will incorporate design measures (related to electricity and water use) in compliance with CalGreen, the General Plan, and the Petaluma IZO to minimize energy consumption. Additionally, the project will include electric vehicle charging stations and is proximate to the SMART station, Copeland Street Transit Mall, and bicycle and pedestrian facilities, which will reduce energy consumption associated with vehicle use by introducing residents to an area with options for alternative modes of travel. Therefore, operation of the proposed project would not result in the wasteful, inefficient, and unnecessary consumption of energy and impacts would be less than significant.

6.6 (b) (Conflict with State or Local Plan) Less Than Significant Impact: As previously described, the proposed project would have a less than significant impact due to a conflict with the 2017 CAP since the 2017 CAP is based on land use and growth projections consistent with those used in the Petaluma General Plan and the project's proposed density is consistent with that assumed by the General Plan for the project site. There are no other control measures of the 2017 CAP that apply to the project. Therefore, the project will not conflict with or obstruct implementation of the Bay Area 2017 Clean Air Plan and no impact will result.

In December 2007, the CEC prepared the State Alternative Fuels Plan in partnership with the CARB and in consultation with the other state, federal, and local agencies. The plan presents strategies and actions California must take to increase the use of alternative non-petroleum fuels in a manner that minimizes costs to California and maximizes the economic benefits of in-state production. The plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuels use, reduce greenhouse gas emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality. As a mixed-use project that would install energy conservation features, the proposed project would not conflict with or obstruct implementation of the State Alternative Fuels Plan and impacts would be less than significant.[10]

The project is subject to the goals, policies and programs in the General Plan related to energy conservation. The project is required to comply with Policy 4-P-9, which specifies that a percentage of parking spaces in large parking lots or garages provide electrical vehicle charging stations. All private garages (~132 garages) include plumbing for future installation of electric vehicle charging equipment. A total of 19 uncovered parking spaces are proposed for surface parking, and these stalls are not EV equipped (Civil Sheet C-4). However, the project complies with the 2019 CalGreen Building Code by meeting the requirement to provide at least 10% of stalls as EV capable and exceeding the Tier 2 standard of providing 20% EV capable. Therefore, the project will have less than significant impacts due to a conflict with Policy 4-P-9.

Policy 4-P-15D requires that new residential uses incorporate passive solar building design and landscaping conducive to passive solar energy use. The project complies with this policy by planting trees along the perimeter of each building. Additionally, landscaping includes drought tolerant species. The project would be required to provide solar ready installations on rooftops. Furthermore, the project will comply with Title 24 CalGreen including thermal envelop standards, efficient heat pump systems, air filtration and ventilation for improved indoor air quality, energy efficient windows, and energy star appliances. Therefore, the project complies with General Plan policies 4-P-15D and 4-P-19D.

The Petaluma General Plan Goal 4-G-4 requires the city to reduce its dependency on non-renewable energy sources in existing and proposed development. Policy 4-P-18 establishes several approaches to lower energy consumption in the city, beginning by utilizing energy building standards that exceed Title 24 "Energy Efficiency Standards for Residential and Nonresidential Buildings." As described above, the city of Petaluma requires new construction to achieve CalGreen Tier 2 standards which achieves energy efficiency 30% greater than Title 24 building standards.

As a mixed-use development that would be developed pursuant to CalGreen Tier 2 standards, the proposed project

[10] California Energy Commission, Final Adopted State Alternative Fuels Plan, Adopted December 2007, https://ww2.energy.ca.gov/2007publications/CEC-600-2007-011/CEC-600-2007-011-CMF.PDF, Accessed July 9, 2019.

would not conflict with or obstruct implementation of the State Alternative Fuels Plan or local policies regarding energy efficiency and impacts would be less than significant.

Mitigation Measures: None Required.

6.7 GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. 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? Refer to Division of Mines and Geology Publication 42.	☐	☐	☐	☒
ii. Strong Seismic ground shaking?	☐	☒	☐	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☒	☐	☐
iv. 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 waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Sources: City of Petaluma General Plan 2025 and EIR; ENGEO Limited Geotechnical Exploration July 19, 2021; Berlogar, Stevens & Associates Due Diligence Geotechnical Investigation; , Pacific Legacy, Inc. Archaeological Survey Report for the Oyster Cove Project, May 2022; and California Building Code of Regulations.

Geology and Soils Setting

The City of Petaluma lies within a seismically active region classified by the California Building Code (CBC) as Seismic Zone 4 where the most stringent CBC standards apply. Geologic hazards within the City of Petaluma are largely related to seismic ground shaking and associated effects such as liquefaction, ground failure, and seismically induced landslides. Faults in the vicinity of Petaluma are capable of generating large earthquakes that could produce strong to violent ground shaking. The Rodgers Creek Fault is located less than 5 miles to the northeast of the City. Although branches of the Rodgers Creek Fault closest to the City are not historically active (within the last 200 years), they do show evidence of activity during the last 11,000 years, which is a relatively short time in terms of geologic activity.

Expansive soils and soil erosion are also of general concern within the City of Petaluma. Expansive soil materials occur in the substrate of the clays and clayey loams in the City and represent a potential geologic hazard. Without proper geotechnical considerations, buildings, utilities, and roads can be damaged by expansive soils due to gradual cracking, settling, and weakening. These effects create safety concerns and risk of financial loss.

A Limited Geotechnical Exploration and Geotechnical Investigation for the project site was prepared by ENGEO in 2021 and Berlogar, Stevens & Associates in 2018, respectively (Appendices D-1 and D, respectively). Based on review of the site conditions, the prior exploration, the ENGEO study and project plans, it is ENGEO's opinion that the proposed development and site improvements are feasible from a geotechnical standpoint. Based on a review of available geologic maps and knowledge of the subsurface conditions at the site, Berlogar, Stevens & Associates classified the site as Site Class F, in accordance with Chapter 20 of the American Society of Civil Engineers (ASCE) Publication ASCE 7-10.").

To provide an understanding of the existing soils conditions on the project site, below is a summary of the findings and recommendations in the Soil Investigation Report prepared by Berlogar, Stevens & Associates on December 19, 2018:

- The south portion of the site, generally southwest of Copeland Street is underlain by Young Bay Mud deposits. Bay Mud deposits are alluvial sediment composed of highly compressible plastic clay and silty clay with an elevated water content and is susceptible to subsidence under heavy loads. The northeastern portion of the site is underlain by Terrace Deposits, which are predominantly sands, silts, and gravels with some clay.

- The southern portion of the site is underlain with soft saturated clay deposits ranging from approximately six feet (6') to 12 feet thick. This clay soil has an expansion potential.

- Berlogar, Stevens & Associates indicate that there is a high risk of liquefaction on the site. They indicate the site as having a moderate liquefaction potential in the area mapped as Bay Mud, with a high liquefaction potential where Terrace Deposits are mapped. However, ENGEO performed analysis on three soil profiles onsite. These profiles vary in their risk of liquefaction. Two samples were not susceptible to liquefaction while one sample was indicated that soils were susceptible to liquefaction.

- A lateral spread potential exists in the soils analyzed. Flow failure of the clay slopes at the river and canal banks could potentially occur.

- The bay mud deposits encountered on the site exhibit low strength and could be subject to settlements under new loading conditions. The compressible soils range in thickness from about six feet (6') to 12 feet. Based on analysis, estimates of settlement due to primary consolidation may be on the order of eight-inches (8") to 14-inches over the next 20 years.

- The site has had previous development activities and is blanketed by uncontrolled fills on the order of three feet (3') to five feet (5') thick.

- Mapped active faults capable of causing strong to intense ground shaking at the site include the San Andreas fault, located about 14.7 miles southwest of the site, the Hayward fault northeast extension, mapped approximately 13.8 miles south-southeast of the site, and the Rodgers Creek fault, located approximately 5.1 miles to the northeast.

Geology and Soils Impact Discussion

6.7 (a.i.) (Faults) No Impact: The project site is not located within an Alquist-Priolo Earthquake Fault Zone and no known active faults directly traverse the site (Plate 4, Appendix D). Therefore, there is no risk of fault-related ground rupture during earthquakes within the limits of the site due to a known Alquist-Priolo Earthquake Fault zone.

6.7 (a.ii) (Ground-Shaking) Less Than Significant Impact with Mitigation: As is the case throughout the City's UGB, development has the potential to expose people or structures to substantial adverse effects from strong

seismic ground shaking. The project site is located within Zone 8 – Very Strong of the Mercalli Intensity Shaking Severity Level. In the event of a magnitude 7.1 earthquake, the project area and the City of Petaluma could experience severe ground shaking that could damage buildings, structures, infrastructure, and result in the risk of loss of life or property.

The most notable active faults in the vicinity of the site are those associated with the: Rodgers Creek fault zone, located approximately 5 miles northeast of the site; San Andreas fault zone, located about 15 miles southwest of the site; West Napa fault zone, located about 20 miles east of the site; and, the Hayward fault zone, located about 20 miles east of the site. The epicenter for the August 14, 2014, earthquake on the West Napa Fault is located about 18 miles northeast of the site. Based on this information, the potential for the site to experience significant ground shaking from future earthquakes is relatively high.

Conformance with Title 24 (California Building Code Standards) and the Seismic Hazards Mapping Act as required by the California Building Code of regulations will assure that potential impacts from seismic shaking are less than significant. Mandatory compliance with standards set forth in the Building Code of Regulations, Title 24, Part 2 (the California Building Code 3.7-20 Chapter 3: Setting, Impacts, and Mitigation Measures [CBC]) and the California Public Resources Code, Division 2, Chapter 7.8 (the Seismic Hazards Mapping Act) will ensure that potential impacts from seismic shaking are less than significant.

The Due Diligence Geotechnical Investigation prepared by Berlogar, Stevens & Associates, as well as the Limited Geotechnical Investigation prepared by ENGEO do not include recommendations of a CBC soil type to be utilized to inform design specifications and to ensure that potential impacts from seismic activity remain at less than significant levels. This is a potential significant impact without mitigation. Accordingly, **Mitigation Measure GEO-1** requires a design level geotechnical report be prepared that identifies appropriate soil type utilized to inform design specifications, with a minimum of a Site Class D requirement, which includes recommendations for foundation types, appropriate structural systems, and ground stabilization strategies. With incorporation of Class D specifications for ground motion parameters, mandatory compliance with all other related building code standards, and conformance with a design level geotechnical report required in Mitigation Measure GEO-1, potential impacts from seismic activities are less than significant.

6.7 (a.iii) (Seismic-Related Ground Failure/Liquefaction) Less Than Significant Impact with Mitigation: Liquefaction is the rapid transformation of saturated, loosely packed, fine-grained sediment to a fluid like state as a result of ground shaking. Potential for liquefaction is most pronounced when the groundwater table is shallow (typically less than 50 feet below the surface) and the liquefaction potential becomes increasingly heightened as the water table becomes shallower. The Petaluma water table is generally found 10-20 feet below the surface. Figure 3.7-5 of the General Plan EIR indicates that much of the UGB falls within a “Moderate Liquefaction Hazard Level” with the area abutting the Petaluma River exhibiting a “High to Very High Liquefaction Hazard Level”. Based on the Soil Investigation Report, groundwater was encountered at depths of approximately four (4) to 15 feet below the ground surface and is expected to vary seasonally.

The liquefaction risk on the subject property ranges from low (**Exhibit 1, Appendix D-1**) to high (**Plate 5, Appendix D**). Additionally, the site exhibits settlement potential due to the underlying Bay Mud and confirmed potential for lateral spreading. To ensure that the project can adequately withstand liquefaction and settlement, the project shall comply with **Mitigation Measure GEO-1**, which requires preparation of a design level geotechnical analysis specifying the earthwork and foundation design recommendations. With implementation of Mitigation Measure GEO-1, potential impacts relating to seismic-related ground failure will be reduced to less than significant levels.

6.7 (a.iv) (Landslide) No Impact: The potential for a risk of landslide is dictated by several factors including precipitation conditions, soil types, steepness of slope, vegetation, seismic conditions, and level of human disturbance. When certain conditions are present landslides can be triggered because of seismic activity. Landslides have been known to occur in Sonoma County but are typically limited to slopes steeper than 15% and confined to areas underlain by geologic units that have demonstrated stability problems in the past. The project site is located outside of the Landslide Complex (areas of previous ground failure) as identified in Figure 3.7-5 of the Petaluma General Plan 2025.The topography of the site lacks steep slopes and is generally flat with elevations ranging from 8 to 20 feet above sea level. Based on the negligible slope of the site and the fact that the project will be located a sufficient distance from any sloped terrain, there will be no impacts related to landslides or slope failure.

6.7 (b) (Erosion) Less Than Significant Impact with Mitigation: Development of the project will require site preparation and grading activities that will potentially result in soil erosion or the loss of topsoil if not properly controlled. Water and wind serve as the primary catalyst of soil erosion, with steeper slopes intensifying the effects. Vegetation removal as part of the site preparation process as well as grading and ground disturbing activities associated with development can heighten the potential for and accelerate soil erosion.

All earthwork, grading, trenching, backfilling, and compaction activities associated with the project are subject to the City of Petaluma's Grading and Erosion Control Ordinance. Similarly, these activities are also covered by the mandatory requirements of the National Pollution Discharge Elimination System (NPDES) General Permit which is implemented through a Storm Water Pollution Prevention Plan (SWPPP).

Grading activities and ground disturbance on the project site including removal of undocumented fill has the potential to result in soil erosion if not properly controlled. To ensure that potential impacts related to soil erosion are reduced to levels below significant, **Mitigation Measure GEO-2** shall be implemented. Measure GEO-2 requires that the applicant submit an erosion control plan that identifies measures to be implemented during all construction activities including remediation and establishes provisions for grading activity during the rainy season. At operation, the project will be set back from the top-pf-bank of the Petaluma River and McNear Canal and will include landscaping that serves to prevent erosion. Based on the project design and with implementation of GEO-2, impacts associated with soil erosion during construction and at operation will be less than significant

6.7 (c) (Unstable Geologic Unit) Less Than Significant with Mitigation: Lateral spreading, lurching and associated ground cracking can occur during strong ground shaking. Lurching and ground cracking generally occurs along the tops of slopes where stiff soils are underlain by soft deposits or along steep channel banks whereas lateral spreading generally occurs where liquefiable deposits flow towards unconfined spaces, such as channel banks, during an earthquake. The proposed development would be set back ~~approximately~~ 30-feet or more from the Petaluma River and McNear Canal top-of-bank. Therefore, development would not be located along any steep channel banks.

The bay mud deposits encountered on the site exhibit low strength and could be subject to significant settlements under new loading conditions. The compressible soils range in depth from about six (6) to 12 feet. The amount and rate of settlement are influenced by several factors, including past loading history, thickness and weight of planned fills, new building loads and variations in the thickness and compressibility of the bay mud soils. Generally, maximum settlements will occur in areas of thickest new fills or heaviest structural loads overlying thickest bay mud deposits. Bay mud deposits on the project site are generally located in the southern portion of the project site. Bay muds have low strength and high expansive potential which can cause subsidence and differential settlement if not properly addressed, which could result in potential impacts due to an unstable geological unit.

The site is subject to lateral spreading and has uncontrolled fill on the order of three (3) to five (5) feet deep, both of which present unstable geologic conditions. The due diligence geotechnical investigation states that additional investigations, analyses, and a design level geotechnical report are needed to identify ground improvements to mitigate lateral spreading, and if any uncontrolled fill needs to be removed and then replaced as engineered fill to support the proposed project.

To ensure that the project can adequately withstand settlement under new loading conditions, containment of lateral spreading, and the condition of uncontrolled fill on the project site, the project shall comply with **Mitigation Measure GEO-1**, which requires a design level geotechnical report be prepared. With implementation of Mitigation Measure GEO-1, potential impacts relating to unstable geologic units will be reduced to less than significant levels.

6.7 (d) (Expansive Soils) Less Than Significant with Mitigation: Soil expansion occurs when clay particles interact with water causing seasonal volume changes in the soil matrix. The clay soil swells when saturated and then contracts when dried. This phenomenon generally decreases in magnitude with increasing confinement pressures at increasing depths. These volume changes may damage lightly loaded foundations, concrete slabs, pavements, retaining walls and other improvements. Expansive soils also cause soil creep on sloping ground.

The project site contains a mixture of soil deposits. In the south portion of the site, young bay mud exists, which is frequently associated with soft, compressible, clay, and may include silt, peat, and fine sand deposits. Soil profiles from this portion of the site indicated that soils are predominately clays with thin beds of silty sand soils. The

northeastern portion of the site is underlain by Terrace Deposits, which are predominantly sands, silts, and gravels with some clay. These soils are listed on Table 1806.2 of the California Building Code and may exhibit expansive potential. To reduce potential impacts due to the presence of expansive soils, **Mitigation Measure GEO-1**, shall be implemented, which requires a preconstruction design level geotechnical report be prepared to mitigate the effect of expansive clay on the planned improvements. Adherence to Mitigation Measure GEO-1, including any other recommendations derived through mandatory conformance with Title 24 (California Building Code Standards), will ensure the project results in a less than significant impact from expansive soils.

6.7 (e) (Septic Tanks) No Impact: The proposed project will be connected to the existing sewer system that treats all wastewater effluent generated within the UGB. There are no septic tanks or alternative wastewater disposal systems proposed as part of the project. Therefore, there will be no impact resulting from the adequacy of soils to support septic tanks or other wastewater disposal system.

6.7 (f) (Unique Paleontological Resource) Less Than Significant Impact with Mitigation: The Petaluma General Plan does not identify the presence of any paleontological or unique geological resources within the boundaries of the UGB. Moreover, the project site has experienced ground disturbance, as it is occupied by the Pioneer Shell Company building, large graveled parking lot, and seasonal grasses. However, prior studies recorded cultural resources within a 0.25-mile radius of the project area. Further, the site is located adjacent to the Petaluma River and McNear Canal, which are known to have a moderate potential for prehistoric buried sites.

The potential remains for the discovery of buried paleontological resources. Accordingly, **Mitigation Measure CUL1** and **CUL-2,** are included and require archaeological monitors during disturbance of soils. Further, a condition of approval will be imposed on the project that requires construction activity to halt in the event of accidental discovery during grading activities in accordance with CEQA §21083.2 and CEQA Guidelines §15064.5. Given the project's location and application of **Mitigation Measure CUL-1** and **CUL-2,** and a condition addressing accidental discovery, the project is not expected to result in a substantial adverse change to unique paleontological or geologic resources and impacts will be less than significant with mitigation.

Mitigation Measures:

GEO-1: The project Applicants shall submit for City's approval a preconstruction design-level geotechnical report for the Oyster Cove Mixed Use Neighborhood project. The report shall include all applicable geologic report standards, reconnaissance and subsurface exploration data, laboratory test results, and conclusions and recommendations, including, but not limited to, those pertaining to: 1) site preparation, excavation, fill placement and compaction, temporary and permanent cut and fill slope inclinations (including whether slopes steeper than 3:1 can be used at the site), slope stability, slope erosion mitigation, and landslide movement mitigation; 2) surface and subsurface drainage systems, including drainage associated with grading for landslide movement mitigation and new cut and fill slopes; 3) foundations and floors for planned residential structures; 4) foundations for planned site improvements, including, but not limited to restrooms, barn, pedestrian bridges, and other structures; 5) settlement and swell estimates for planned residential structures and site improvements, including those bearing of engineered fill; 6) foundations, back-drains, and lateral earth pressures for site retaining walls; 7) seismic design parameters for the planned residential structures, site improvements, and site retaining walls; 8) pavement design for driveways, parking lots, pathways and trails, where applicable; 9) utility trench backfill, including check dams and trench drainage, if appropriate; 10) geologic/geotechnical construction monitoring, testing, and certification requirements; and 11) trail construction and long-term maintenance requirements, including criteria for inspecting and maintaining culverts and pathway surfaces, as appropriate.

The geotechnical report shall include measures, as necessary, to reduce the potential for static and earthquake-induced slope movements that may adversely impact the Oyster Cove Mixed Use Neighborhood project. Engineering analyses shall estimate the factors of safety against slope movements in the development area.

As determined by the City Engineer and/or Chief Building Official, all recommendations outlined in the preconstruction design-level geotechnical report for the Oyster Cove Mixed Use Neighborhood project are herein incorporated by reference and shall be adhered to in order to ensure that appropriate measures are incorporated into the design and construction of the project. Nothing in this mitigation measure shall

preclude the City Engineer and/or Chief Building Official from requiring additional information be provided to determine compliance with applicable standards. The project geotechnical engineer shall review the project plans and specifications and submit a letter certifying to the City that the project plans and specifications have been prepared in accordance with the geotechnical recommendations for the project. The project geotechnical engineer or personnel under their direct supervision shall inspect the construction of geotechnical and/or geologic aspects of the project and shall submit a letter certifying to the City that prior to issuance of a certificate of occupancy, the geotechnical and geologic aspects of the project plans and specifications have been appropriately constructed at the site and are acceptable to the project geotechnical engineer.

GEO-2: Prior to issuance of a grading permit, an erosion control plan along with grading and drainage plans shall be submitted to the City Engineer for review. All earthwork, grading, trenching, backfilling, and compaction operations shall be conducted in accordance with the City of Petaluma's Grading and Erosion Control Ordinance #1576, Title 17, Chapter 17.31 of the Petaluma Municipal Code. Plans shall detail erosion control measures such as site watering, sediment capture, equipment staging and laydown pad, and other erosion control measures to be implemented during all construction activity.

6.8 GREENHOUSE GAS EMISSIONS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

Sources: City of Petaluma General Plan 2025 and EIR; Bay Area Air Quality Management District Bay Area 2017 Clean Air Plan; Bay Area Air Quality Management District, CEQA Guidelines, May 2017; Sonoma County Regional Climate Action Plan 2020 and Beyond, prepared July 2016; and City of Petaluma Climate Emergency Resolution, adopted May 6, 2019; City of Petaluma Climate Emergency Framework; and Kimley Horn Greenhouse Gas Emissions Assessment, May 2022.

Greenhouse Gas Setting

Greenhouse gases (GHGs) are generated from natural geological and biological processes and through human activities including the combustion of fossil fuels and industrial and agricultural processes. GHGs include carbon dioxide (CO2), nitrous oxide (N2O), methane (CH3), chlorofluorocarbons, hydrofluorocarbons, and perfluorocarbons.

While GHGs are emitted locally they have global implications. GHGs trap heat in the atmosphere, which heats up the surface of the Earth. This concept is known as global warming and is contributing to climate change. Changing climatic conditions pose several potential adverse impacts including sea level rise, increased risk of wildfires, degraded ecological systems, deteriorated public health, and decreased water supplies.

To address GHG's at the State level, the California legislature passed the California Global Warming Solutions Act in 2006 (Assembly Bill 32), which requires that statewide GHG emissions be reduced to 1990 levels by 2020 and an 80 percent reduction below 1990 levels by 2050. In 2016, the Legislature passed SB 32, which codifies a 2030 GHG emissions reduction target of 40 percent below 1990 levels. With SB 32, the Legislature passed companion legislation AB 197, which provides additional direction for developing the Scoping Plan. The 2017 Climate Change Scoping Plan identifies how the State can reach the 2030 climate target to reduce GHG emissions by 40 percent from 1990 levels, as set by Executive Order B-30-15 and codified by SB 32. The 2017 Climate Change Scoping Plan also describes how the State can substantially advance toward the 2050 climate goal to reduce GHG emissions by 80 percent below 1990 levels.

The City of Petaluma has taken steps to address GHG emissions within city limits. The City adopted Resolutions 2002-117, 2005-118, and 2018-009 (incorporated herein by reference), which calls for the City's participation in the Cities for Climate Project effort and established GHG emission reduction targets.

A Climate Action Plan has been prepared in partnership with the County and other local jurisdictions (July 2016). This effort implements General Plan Policy 4-P-27. A number of General Plan policies serve to reduce GHG emissions associated with project construction, design, and operation. General Plan Goal 5-G-8, which calls for the City to "expand the use of alternative modes of mobility serving regional needs," is being implemented in part through the Sonoma Marin Area Rail Transit (SMART) Plan, which as of fall 2017 provides light rail commuter service to Petaluma. The light rail effort is estimated to take more than 1.4 million car trips off Highway 101 annually and reduce GHGs by at least 124,000 pounds per day. In addition, General Plan policy 3-P-127 requires that projects prepare a Construction Phase Recycling Plan that would address recycling of major waste generated by demolition and construction activities. This requirement is a standard under the CalGreen Building Code and is implemented as part of the building permit process.

The City of Petaluma requires that all new development demonstrate compliance with CalGreen Tier 2 Building standards, which generally achieve energy efficiency approximately 30% beyond Title 24 as well as a construction waste reduction rate of 45%. As such, new development is expected to be more energy efficient, use fewer resources and emit fewer GHGs.

On January 22, 2018, the City of Petaluma adopted Resolution No. 2018-009 N.C.S reaffirming the City's intent to reduce greenhouse gas emissions as part of a coordinated effort through the Sonoma County Regional Climate Protection Authority. As presented in the Sonoma County Climate Action Plan, the City of Petaluma could achieve GHG reduction through a combination of state, regional and local measures. Reduction measures at the state level are promulgated through state laws and mandates addressing topics, including but not limited to vehicle fuel efficiency standard, green building standards, low carbon fuel standards and the Renewable Portfolio Standard. When realized locally in Petaluma, these measures will achieve a GHG reduction in the amount of 119,000 metric tons of carbon dioxide equivalence ($MTCO_2e$). Separate regional efforts implemented within Petaluma by entities such as the Regional Climate Protection Authority, Sonoma County Water Agency, County of Sonoma Energy Independence Office, Sonoma County Transportation Authority, and Sonoma Clean Power will result in an additional GHG reduction of 28,200 $MTCO_2e$. Under the City of Petaluma's authority, the Sonoma County Climate Action Plan identifies 12 goals and 24 measures that would achieve an additional GHG reduction of 18,490 $MTCO_2e$. Taken altogether, the state, regional and local measures combined can achieve a GHG reduction of 166,350 $MTCO_2e$ within Petaluma.

Under a business as usual approach (i.e., without state, regional or local GHG reduction measures), the City of Petaluma was projected to emit 542,970 $MTCO_2e$ by 2020. With implementation of reduction measures, GHG emissions were projected to be reduced to 376,620 $MTCO_2e$. This represents a 31% reduction of GHG emissions relative to the 1990 per capita emission levels. The Sonoma County Regional Climate Action Plan is an advisory document to assist the City in achieving its stated intent to reduce GHG emissions. Development projects within the City of Petaluma are encouraged to comply with the intent of the Climate Action Plan and realize GHG reductions through voluntary application of reduction measures.

On May 6, 2019, the City of Petaluma adopted a Climate Emergency Resolution. The Resolution recognizes scientific findings and social implications related to global warming while calling for citywide emergency actions to reduce greenhouse gas emissions. A Climate Action Commission was appointed to help craft policies for recommendations to the City Council, coordinate workshops with experts on climate change, encourage community involvement, and identify best practices to address climate change that can be applied in Petaluma. On January 11, 2021, the City Council adopted the Climate Emergency Framework which directs the City to achieve carbon neutrality by 2030, guides the City's ongoing response to and discussion about the climate crisis, and guides and informs subsequent policies and implementation strategies. The Climate Emergency Framework provides policies and implementation strategies toward this goal in four sections: equity and climate justice, mitigation and sequestration, adaptation and social resilience, and community engagement. The principles identified in the Framework establish Petaluma's shared vision of a healthy, sustainable, and equitable community. By setting the shared intention of this framework and working from the framework in subsequent planning efforts to create policy and implementation, the City will actively work to avoid catastrophic climate change and adapt to its expected impacts. The Climate Emergency Framework sets broad goals, which serves to guide policy development for future

planning efforts while providing guidance for City staff and decision makers.[11] In addition, on May 3, 2021, the City adopted Ordinance 2775 N.C.S to add an "All-Electric Construction in New Constructed Buildings" Chapter to the Petaluma Municipal Code (PMC), banning the use of natural gas in new construction.

Greenhouse Gas Significance Thresholds

BAAQMD published updated GHG thresholds in April 2022 for land use projects. The new thresholds establish that a project is considered to have a less-than-significant impact due to GHG emissions if it is consistent with a local GHG Reduction Strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b), or meets the following design elements:

1. Buildings:
    a. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).
    b. The project will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.

2. Transportation:
    a. Achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA
    b. Achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.

Greenhouse Gas Impact Analysis

6.8 (a) (Significant GHG Emissions) Less Than Significant Impact: Construction of the project will result in GHG emissions from heavy-duty construction equipment, worker trips, and material delivery and hauling. Construction GHG emissions are short-term and will cease once construction is complete. GHG emissions associated with construction were estimated as part of the Greenhouse Gas Assessment (**Appendix E**) that was prepared for the subject project. GHG emissions are projected to be 673 MT of CO2e over the estimated 24-month construction period. Amortized over a 30-year period, this amounts to 22 MT of CO2e. The BAAQMD has not established thresholds of significance for GHG emissions resulting from construction activities. Rather, BAAQMD encourages the incorporation of best management practices to reduce GHG emissions during construction. As stated under Section 6.3 Air Quality, the project will be required to implement BAAQMD's best management practices during construction (AQ-1). Further AQ-2 will be implemented, which requires the development and implementation of a construction plan demonstrating that off-road equipment used on-site to construct the project would achieve a fleet-wide average 60 percent reduction, or more, in particulate matter exhaust emissions. Accordingly, GHG emissions generated from the project's construction activities will be minimized and impacts are considered to be less than significant.

Operational Emissions

The project is consistent with BAAQMD's thresholds for land use projects for buildings in that it will not include natural gas appliances or natural gas plumbing and will not result in wasteful use of energy as analyzed above in Section 6.6 Energy. The project will be consistent with Title 24 building efficiency standards, will comply with the California Energy Commission's standards for lighting efficiency, and will comply with lighting standards. As discussed further in Section 6.17 Transportation, the project will not result in significant VMT impacts and will be required to comply with off-street electric vehicle (EV) requirements in the most recently adopted version of CALGreen Tier 2. Based on the project's consistency with BAAQMD's thresholds for land use projects, impacts resulting from GHG emissions at project operation will be less than significant.

[11] Climate Emergency Framework, prepared by the City of Petaluma, January 11, 2021.

6.8 (b) (GHG Plan Conflict) Less Than Significant Impact: The City of Petaluma has adopted GHG emission reduction policies and programs as part of the General Plan 2025. These policies and programs address energy efficiency, transportation, conservation and provide for educational programs. General Plan Policy 4-P-9 states, "Require a percentage of parking spaces in large parking lots be equipped to provide electric vehicle charging facilities." Policy 4-P-15D requires that new residential uses incorporate passive solar building design and landscaping conducive to passive solar energy use. Policy 4-P-19D encourages the use of renewable or nontraditional sources of energy (e.g., solar panels) in new development. Additionally, the City adopted CalGreen Tier 2 standards, which include a detailed list of green building features that address energy efficiency, water efficiency, waste reduction, material conservation and indoor air quality.

The project is required to comply with the CalGreen Building Tier 2 standards and Building & Energy Efficiency Standards. All new residences onsite will meet the mandatory requirements of Tier 2, which provides for increased energy efficiency and an associated reduction in GHG emissions. The project will install solar panels on new buildings intended to generate energy equivalent to building demands and will use high efficiency heating and other appliances in all units. As with all energy users in the City of Petaluma, new residents introduced by the project will be provided with the option to participate in Sonoma Clean Power Program, which relies on renewable energy and minimized GHG emissions from energy production. Additionally, the project includes water efficient landscaping and complies with the maximum applied water allowance and the City's water conservation regulations. The project proposes to equip all garages with pre-plumbing to support EV charging.

The project provides onsite bicycle parking spaces, in addition to bike parking in garages, and includes a public sidewalks along Copeland Street, and a multi-use path along the site's southern property boundary with connectivity to the existing Steamers Landing Park. Trees are proposed along the perimeter of the site to provide shading and minimize energy requirements. In addition, the majority of landscaping includes drought resistant species (e.g., approximately 65 percent has a low water use).

As proposed, the project is consistent with relevant General Plan policies and GHG regulations. Therefore, potential impacts due to the generation and emission of greenhouse gases would be less than significant.

Mitigation Measures: None Required.

6.9 HAZARDS/HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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 one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment?	☐	☒	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within	☐	☐	☐	☒

	two miles of a public airport of 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?	☐	☐	☒	☐

Sources: City of Petaluma General Plan 2025 and EIR; Phase I Environmental Site Assessment, prepared by ENGEO Inc., November 20, 2018; Environmental Summary Letter, prepared by ENGEO Inc., September 2, 2022; Site Remediation Plan, prepared by ENGEO, Inc., November 1, 2022.

Hazards/Hazardous Materials Setting

Regulations governing the use, management, handling, transportation and disposal of hazardous materials and waste are administered by federal, state, and local governmental agencies. Federal regulations governing hazardous materials and waste include the Resource Conservation, and Recovery Act of 1976 (RCRA); the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA); and the Superfund Amendments and Re-authorization Act of 1986 (SARA).

In California hazardous materials and waste are regulated by the Department of Toxic Substances (DTSC). Pursuant to the California Planning and Zoning Law the DTSC maintains a hazardous waste and substances site list, also known as the "Cortese List." In California the Secretary for Environmental Protection established the Unified Hazardous Materials and Hazardous Waste Management Program, also known as "Unified." The Unified program is intended to consolidate and ensure consistency in the administration of requirements, permits and inspections for six programs, including the Underground Storage Tank (UST) program.

The six programs established by the Unified Program are administered and implemented locally through "Certified Unified Program Agencies" (CUPA). The Petaluma CUPA manages the acquisition, maintenance and control of hazardous materials and waste generated by industrial and commercial business under the auspices of the Petaluma Fire Department. Under CUPA, projects that intend to store, transport, or generate hazardous waste must apply for and obtain a permit and submit a Hazardous Materials Release Response Plan and Inventory on an annual basis.

Phase I Environmental Site Assessment

A Phase I Environmental Site Assessment (ESA) was conducted by ENGEO Consultants on November 20, 2018 for the subject property in accordance with the guidelines of the American Society of Testing and Materials (ASTM) Standard Practice E1527-13 and the EPA Standard and Practices for All Appropriate Inquiries (40 CFR Part 312). The Phase I ESA (**Appendix F**) discusses the Recognized Environmental Conditions (RECs), Controlled Recognized Environmental Conditions (CRECs), and Historical Recognized Environmental Conditions (HRECs) in connection with the site assessment. No RECs, CRECs, or HRECs were identified for the project site.

The property was formerly used as an oyster shell processing factory and is currently used for office and storage by a marine shipping and transport company. The property has existed as a light industrial business operation since the early 1900s, with some hazardous substances use and storage of diesel fuel. All records of diesel fuel spills were minor and show that they were properly remediated. However, there is the potential for residual hydrocarbons impacts and chemical impacts from industrial uses. Site reconnaissance found presence of factory equipment associated with oyster shell processing, storage of small quantities of hydrocarbons in fuel drums, and one yellow drum labelled as hazardous waste. Given the former and current rail lines that exist adjacent to the property, there may exist the potential for residual heavy metals and polyaromatic hydrocarbons (PAHs) to exist within near surface soils or ballast materials. Given the age of the structures onsite, it is possible that lead-based paints and asbestos-containing materials were used and may still be present.

ENGEO recommended the completion of a Phase II ESA to investigate the potential for soil contamination associated with the rail line and with soil residues from historic industrial uses.

Phase II Environmental Site Assessment

A Phase II ESA (Phase II) was conducted by ENGEO Consultants in May of 2021, as recommended by the Phase 1 ESA. The Phase II evaluated the potential for soil contamination from past industrial uses and as a railroad spur. Analyses for CAM-17 metals, polycyclic aromatic hydrocarbons (PAHs), gasoline, diesel, and motor oil were conducted on samples of soil, groundwater, and soil gas collected throughout the site. Analytical results were compared to environmental screening levels (ESLs) provided by the Department of Toxic Substances Control (DTSC), the US Environmental Protection Agency (EPA), and the Regional Water Quality Control Board (RWQCB).

Based on review of the laboratory analytical reports, the shallow surface soil within portions of the site exhibited lead and semi-volatile organic compound (SVOC) concentrations exceeding DTSC residential soil screening levels. Lead concentrations found in surface soil samples S9 through S012 exceeded established residential ESLs. One sample exhibited concentrations of PAHs exceeding one or more ESLs for residential use. Soil boring samples exhibited lead concentrations exceeding ESLs for residential use at two locations, indicating that lead is not only present at the surface of the soil but is also present to a depth up to 18 inches in some locations. Samples of soil vapor revealed volatile organic compound, specifically benzene in detectable concentrations and in two locations trichloroethylene was found. These soil gas concentrations exceed the most conservative ESLs for residential use. Groundwater samples did not exhibit any concentrations of metals or PAHs above applicable screening levels. The Phase II concluded that the impacts to soil and soil gas do not preclude the redevelopment of the site for residential use if soil remediation activities were to be conducted to reduce impacts below applicable ESLs.

Remediation/Clean Closure Plan

To address past contamination onsite, a remediation/clean closure plan for the property has been developed in conjunction with the Regional Water Quality Control Board (RWQCB), CalRecycle, and the Sonoma County Lead Enforcement Agency (Sonoma County Department of Health Services). The site remediation objective (SRO) is to reduce the human health risks associated with the compounds of concern (COPCs) to a level that is acceptable for future unrestricted residential development. The clean closure plan calls for the removal of all impacted materials and proper offsite disposal. Remediation activities will involve excavation of lead and SVOC impacted soils; stockpiling of the excavated soils for profiling; soil management, handling and/or transport based on stockpile analysis; and collection of confirmation soil samples across the excavation areas and sidewalls to verify the removal of the COPC impacted soils. Excavation activities will proceed until the soil cleanup levels are achieved on the base and the sidewalls of an excavation. Any soil to be off hauled will be excavated and stockpiled to be profiled for landfill disposal and/or appropriate soil management practices, with laboratory reports provided to recipient facilities. Soil import for backfilling excavated areas will be assessed in accordance with DTSC's *Clean Import Fill Material* guidance document (October 2001). Clean closure activities will be documented in a final report for acceptance by the RWQCB, as the lead regulatory agency responsible for overseeing waste cleanup sites. Clean closure will only be accepted by the RWQCB once remediation activities are complete, and testing verifies that contaminant in soil concentrations fall below the ESL's for residential use.

The Impact Analysis below identifies the potential environmental impacts from development of the site and the necessary remediation effort that must be carried out prior to construction of the proposed development.

Hazards/Hazardous Materials Impact Analysis

6.9 (a) (Routine Transport) Less Than Significant Impact: As a mixed-use development with residential, commercial, and publicly accessible open space, the project will not create a significant hazard to the public or the environmental through the routine transport, use, or disposal of hazardous materials at operation. Activities onsite are limited to residential, commercial, and recreational uses which do not typically result in the use or storage of large quantities of hazardous materials or generate hazardous waste. Cleaners, solvents, and other products may be routinely used, which do not present a significant hazard to people or the environment. Within the live-work units and oyster shed, commercial uses are allowed that shall be subject to the City's occupancy permit process which will ensure that commercial uses are compatible with the site and not industrial in nature. The project includes landscaping, which require maintenance and involve periodic application and storage of regulated chemicals, fuels,

and related products. Potentially hazardous materials such as cleaning products and landscaping supplies may be transported to the project site in small quantities intended for consumer use. Materials are required to be handled, transported, and stored in manner that complies with all existing federal, state, and local regulations. Furthermore, based on the site's proximity to the Petaluma River, a condition of approval will be imposed on the project restricting the use of herbicides/pesticides within 100-feet of the top of bank of the Petaluma River and McNear Canal. Therefore, impacts from the project due to routine transport of hazardous materials and hazardous waste will be less than significant.

6.9 (b) (Upset and Accident Involving Release) Less Than Significant Impact with Mitigation: Site preparation and construction activities will result in the temporary presence of potentially hazardous materials including, but not limited to fuels and lubricants, paints, solvents, insulation, electrical wiring, and other construction related materials onsite. Although these potentially hazardous materials may be present onsite during construction, the applicant is required to comply with all existing federal, state, and local safety regulations governing the transportation, use, handling, storage, and disposal of potentially hazardous materials. Once construction is complete there will not be ongoing use or generation of hazardous materials onsite.

As described above, no RECs, historical RECs, or controlled RECs were identified on the subject property. However, surface soil within portions of the site exhibited lead and semi-volatile organic compound (SVOC) concentrations exceeding DTSC residential soil screening levels, and soil gas vapor concentrations of VOCs that exceed the most conservative ESLs. As such, contaminated soils may potentially be encountered during construction activities. To protect people and the environmental from exposure to contamination, the applicant shall perform remediation consistent with the Draft Site Remediation Plan, inclusive of a Health and Safety Plan, prepared by ENGEO on November 1, 2022, as required by **Mitigation Measure HAZ-1**, which will ensure that contaminated soils are handled in a manner that precludes exposure of construction workers to elevated concentrations of contaminants. With implementation of Mitigation Measure HAZ-1, potential impacts associated with the release of hazardous materials into the environment and exposure to people will be less than significant.

Prior to commencement of site preparation, a Storm Water Pollution Prevention Plan (SWPPP) that includes Best Management Practices (BMPs) will be prepared and implemented during all construction activities (see also Section 6.10 Hydrology and Water Quality). Compliance with all existing federal, state, and local safety regulations governing the transportation, use, handling, storage, and disposal of potentially hazardous materials will ensure that potential impacts are less than significant.

6.9 (c) (Emit of Handle Within ¼ Mile of School) Less Than Significant Impact: The project site is not located within a quarter mile of a school. The nearest school, McKinley Elementary School, is located over 0.5-mile north of the project site. As a mixed-use site with a large proportion of residential units, the project would not emit or handle hazardous materials capable of impacting the school. During cleanup activities and remediation as well as construction, all requirements of federal and state laws regarding treatment and disposal of contaminated materials will be carried out and all Mitigation Measures identified herein and any additional measure required by CUPA, the County, and/or the RWQCB will be implemented. The Petaluma Fire Prevention Bureau regulates hazardous materials. If and when construction activities involve the on-site storage of potentially hazardous materials, a declaration form will be filed with the Fire Marshal's office and a hazardous materials storage permit will be obtained. Therefore, impacts related to the emission or handling of hazardous, or acutely hazardous materials, within one-quarter mile of an existing or proposed school will be less than significant.

6.9(d) (Existing Hazardous Material Sites) Less Than Significant with Mitigation: The California Environmental Protection Agency (CAL-EPA) annually updates the California Hazardous Waste and Substances Site List (also known as the "Cortese List"). As part of the Phase I ESA, ENGEO consultants conducted a database review, which indicated that the project site is listed in several databases, including the State Water Resources Control Board GeoTracker database from soil and groundwater contamination. The project site contains soils with documented occurrence of contaminants that exceed the residential ESL. Without remediation, the introduction of residential uses onsite could result in a potentially significant exposure hazard to the public. In order to ensure that existing contamination is remediated, **Mitigation Measure HAZ-1**, which calls for the removal of approximately 775 cubic yards of impacted materials shall be implemented. Measure HAZ-1 further requires that contaminated soils onsite be remediated in accordance with the Site Remediation Plan and demonstrate acceptance of a Final Site Remediation Plan by the RWQCB verifying that onsite pollutant concentrations fall below ESLs for residential uses. With completion of remediation activities and acceptance of a Final Clean Closure Plan, as required by Mitigation

Measure HAZ-1, potential impacts due to existing hazardous contamination onsite, will be less than significant.

6.9 (e) (Public Airport Land Use Plan) No Impact: The project is not located within the boundaries of an airport land use plan or located in close proximity to a private airstrip; the nearest airport is the Petaluma Municipal Airport located 2.0 miles northeast of the project site. Therefore, no impacts associated with airport-related hazards are expected.

6.9 (f) (Impair Emergency Response Plan) Less Than Significant Impact: The project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. The project will not alter any emergency response or evacuation routes. Site access adequately accommodates emergency vehicles and provides connectivity to the existing circulation and street system. Therefore, the proposed project will have no impact on the emergency response plan or emergency evacuation plan.

6.9 (g) (Wildland Fire) Less Than Significant Impact: Wildland fires are of concern particularly in expansive areas of native vegetation of brush, woodland, grassland. The project site is categorized as a Non-VHFHZ by CAL FIRE and surrounded by urban uses and open water. Therefore, impacts related to the exposure of people or structures to a significant risk of loss, injury or death involving wildland fires will be less than significant.

Mitigation Measures:

HAZ-1: Prior to issuance of a grading permit, ~~approval of the Site Remediation Plan by the RWQCB shall be submitted to the City of Petaluma,~~ the applicant shall seek regulatory oversight for the proposed site remediation by the State, either the DTSC or RWQCB, pursuant to the 2005 Memorandum of Agreement between DTSC, the State Water Resources Control Board, Regional Water Quality Control Boards, and the California EPA for the Oversight of Investigation and Cleanup Activities at Brownfield Sites. If regulatory oversight is required, r~~R~~emediation activities onsite shall be conducted in accordance with the Final Site Remediation Plan (Draft prepared by ENGEO, dated November 1, 2022), unless otherwise directed by the regulatory oversight. All impacted soils and vegetation shall be removed and remediated, in compliance with ~~oversight by~~ the DTSC or RWQCB, and disposed of at a facility licensed to accept contaminated materials. Prior to issuance of a certificate of occupancy, the applicant shall provide documentation to the City of Petaluma demonstrating that remediation has effectively reduced pollutant concentrations onsite and all contaminants fall below ESLs for residential uses. Remediation activities shall be conducted in accordance with the Site-Specific Health and Safety Plan.

6.10 HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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 on 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 offsite;	☐	☐	☒	☐

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?	☐	☐	☒	☐

Sources: City of Petaluma General Plan 2025 and EIR; Our Coast Our Future; Federal Emergency Management Agency's Flood Insurance Rate Map, Map Number 06097C0982G, effective October 2, 2015, accessed on January 30, 2023; Groundwater Sustainability Plan for the Petaluma Valley Basin, December 2021; ENGEO Phase I Environmental Site Assessment, November 20, 2018; CBG Sea Level Rise Assessment, June 17, 2022; Petaluma Urban Water Management Plan (UWMP), June 2021;

Hydrology and Water Quality Setting

Surface water quality in Petaluma is regulated by the San Francisco Regional Water Quality Board (RWQCB) via the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan). The RWQCB is responsible for implementing Section 401 of the Clean Water Act through the issuance of a Clean Water Certification when development includes potential impacts to jurisdictional areas such as creeks, wetlands, or other Waters of the State. As described in Section 6.4(c) of this document, the project is subject to Section 401 of the Clean Water Act because there are identified waters of the State that will be impacted by the project.

Section 402 of the Clean Water Act regulates the discharge of pollutants to waters of the U.S. Locally, this is implemented through the National Pollution Discharge Elimination System (NPDES) General Permit. Requirements apply to the project's construction activities (e.g. grading, grubbing, and other site disturbance). Construction activities on more than one acre are subject to NPDES permitting requirements including, the preparation of a Storm Water Pollution Prevention Plan (SWPPP). The NPDES General Permit requirements also address post-construction conditions resulting from development including, but not limited to, Low Impact Development (LID) requirements. Under LID requirements, new development, including the project, is required to mimic pre-developed conditions, protect water quality, and retain runoff from new impervious surfaces introduced onsite. Guidance for compliance with LID and the Phase II Small MS4 General Permit is set forth in the Bay Area Stormwater Management Agencies Association (BASMAA) Post Construction Manual (2019).

Sonoma Water (formerly Sonoma County Water Agency) manages flood control facilities throughout the County, including flood Zone 2A, within which the entire City of Petaluma is located. Sonoma Water is responsible for structural repairs to culverts and spillways, grading and reshaping channels, and debris removal to maintain hydraulic capacity of all waterways within Zone 2A. The drainage ditch adjacent to the project site along Casa Grande Road is City owned and maintained. The segment of the Petaluma River, south of the project site, is federally owned and maintained by the United States Army Corp of Engineers (Corps).

The Petaluma River is the primary watercourse within the City of Petaluma and the Petaluma watershed (an area of approximately 46 square miles). The Petaluma River is tidally influenced and flows in a southeast direction into San Pablo Bay. The Petaluma River is used for recreational boating and water sports as well as river-dependent industrial operations. Periodic dredging of the Petaluma River is necessary to maintain navigability for commercial shipping.

The Federal Emergency Management Agency's (FEMA's) flood hazard mapping program provides guidance for the City in planning for flooding events and regulating development within identified flood hazard areas. FEMA's National Flood Insurance Program is intended to encourage State and local governments to adopt responsible floodplain management programs and flood measures. As part of the program, the FEMA defines floodplain and floodway boundaries that are shown on the Flood Insurance Rate Maps (FIRMs).

Review of Federal Emergency Management Agency's Flood Insurance Rate Map panel numbered 06097C0982G, shows that some of the project site is located within Zone X, which is subject to 0.2 percent annual chance of a flood hazard, or the 500-year flood, some of the project site is Zone AE, subject to the 100-year flood with a base flood elevation of 10 feet, and some of the project site is outside of the flood hazard areas.

The project site is located within the boundaries of a Special Flood Hazard Area (SFHA) as defined by FEMA and an "Area of Special Flood Hazard", regulated by the City of Petaluma under the Flood Plain-Combining District (FP-C)[12] and is subject to provisions of the City's municipal code and Implementing Zoning Ordinance (IZO).

Chapter 6 of the City's IZO contains regulations for properties situated in floodways and floodplains to minimize property damage from flood waters and safeguard public health, safety, and general welfare. Section 6.011 of the IZO (Findings of Fact) states that:

A. The flood hazard areas of the City of Petaluma are subject to periodic inundation which can result in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare.

B. These flood losses can be caused by the cumulative effect of obstructions in areas of special flood hazards which increase flood heights and velocities, and when inadequately anchored, damage uses in other areas. Uses that are inadequately flood proofed, elevated, or otherwise protected from flood damage also contribute to the flood loss.

Section 6.013 of the IZO (Methods of Reducing Flood Losses) includes the following methods and provisions to reduce flood losses in the City of Petaluma:

A. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or flood heights or velocities;

B. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;

C. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;

D. Controlling filling, grading, dredging, and other development which may increase flood damage; and

E. Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas.

The FP-C applies to the southern portion of the subject property. Section 6.070(D) of the IZO contains regulations related to residential construction within a FP-C zone, and states:

> "New construction and substantial improvement of any residential structure permitted in FP-C (Flood Plain-Combining) zones shall have the lowest habitable floor, including basement, elevated at least 12 inches above the level of the base flood elevation or depth number specified on the FIRM (Flood Insurance Rate Map), whichever applies to the area, unless otherwise restricted in Section 6.070(D2). Upon the completion of the structure, the elevation of the lowest floor, including basement, shall be certified by a registered professional engineer or surveyor, to be properly elevated. The datum for this elevation shall be as specified in this article. Such certification or verification shall be provided to the Floodplain Administrator."

The terrain of the project site is somewhat level due to use of the site for industrial activities. The stormwater runoff from most of the site sheet flows overland to the surrounding areas, including Petaluma River, McNear Canal, D

[12] As described in Section 6.040 of the IZO, all areas within the boundaries of the "Area of Special Flood Hazard" but outside the "Floodway" areas are zoned to the Flood Plain/Flood Prone Area – Combining District (FP-C).

Street and the rail corridor. There is a small system of existing drainage inlets, pipelines and an outfall on the southern portion of the project site that discharges runoff from these portions of the site to the Petaluma River.

Groundwater

The City of Petaluma's central and eastern lands are situated above the Petaluma Valley Groundwater Basin as identified by the California Department of Water Resources Bulletin 118 Groundwater Basins published in 2018. The State of California adopted the Sustainable Groundwater Management Act (SGMA) in 2014 that called for the creation of local Groundwater Sustainability Agencies to develop and implement Groundwater Sustainability Plans for the long-term management of a healthy and functioning groundwater resource. In 2018, the Petaluma Valley Groundwater Sustainability Agency (PVGSA) was formed from representative government agencies, including the City of Petaluma, to begin assessing baseline conditions, defining sustainability for the basin, and developing a Groundwater Sustainability Plan (GSP)[13] and corresponding projects. The GSP was submitted to the California Department of Water Resources (DWR) and approved on January 26, 2023. The GSP establishes a standard for sustainability of groundwater management and use and determines how the basin will achieve this standard by 2024. The indicators include lowering groundwater levels, sea water intrusion, reduction of storage, land subsidence, degraded groundwater quality, and surface water depletion. The PVGSA is scheduled to begin implementation of projects that demonstrate improvements to groundwater sustainability by 2042 with the goal of maintaining sustainability through 2072.

Sea Level Rise

Sea level rise results from global warming through two main processes: expansion of seawater as the oceans warm and melting of ice over land. Sea level rise is not uniform and is largely dependent on factors such as atmospheric and oceanic circulation, tectonics, and gravitational/deformational effects generated by land mass changes. Sea level rise will most directly affect areas that are on the coast. As a tidally influenced river, the Petaluma River will also be affected.

While the magnitude of sea level rise ranges widely, the San Francisco Bay Conservation and Development Commission (BCDC) developed Sea Level Rise projections based on sixteen (16) inches of sea level rise by mid-century (year 2050) and fifty-five (55) inches of sea level rise at the end of the century (year 2100).[14] BCDC generally suggests that the anticipated sea level rise projections largely correspond with today's 100-year flood zone. Meaning that, under a reasonably foreseeable expectation of sea level rise, the 100-year floodplain would be subject to flooding not just during a 100-year flood event, but also during high tide.

Sea level rise projection data from the California Coastal Commission's Sea Level Rise Policy Guidance, adopted August 12, 2018, and updated November 7, 2018 suggests that sea level rise scenarios may be more extreme. Using local tidal datum based on information from the National Oceanic and Atmospheric Administration (NOAA) and the sea level rise projections set forth by the Coastal Commission, sea level rise scenarios at the project site are presented in the Sea Level Rise Assessment sheet and project an increase of 6.6 feet in 2100 under the Medium-High Risk Aversion model scenarios. As shown on the Sea Level Rise Assessment, Our Coast, Our Future (OCOF) Viewer to establish the minimum elevation for the future buildings to be at or above the future water surface elevation and avoid inundation estimated in the 2100 SLR Scenario w/ 100-year storm surge. This minimum elevation is 14 feet. Accordingly, the project is designed such that the minimum building pad elevation of the buildings is 14 feet.

Sea level rise scenarios are provided for informational purposes and not to assess potential environmental impacts of the project. The project site is forecast to be affected by sea level rise in the future, which is an impact of the environment on the project, as opposed to the project's impacts on the environment. The California Environmental Quality Act (CEQA) is concerned with environmental impacts caused by the project, and not the impacts of the

[13] Petaluma Valley Groundwater Sustainability Plan, https://petalumavalleygroundwater.org/gsp/.

[14] Bay Conservation Development Commission. *2011 Living with a Rising Bay: Vulnerability and Adaption in the San Francisco Bay and on its Shoreline*. Available at: http://bcdc.ca.gov/BPA/LivingWithRisingBay.pdf

environment on the project.[15]

Hydrology and Water Quality Impact Analysis

6.10 (a) (Water Quality Standards) Less Than Significant Impact with Mitigation: The mandatory requirements of the NPDES General Permit apply to the project's construction and post-construction stormwater discharges. Prior to construction, the project applicant is required to file for coverage under the State Water Resources Control Board (SWRCB) for Discharges of Storm Water Runoff Associated with Construction Activity (General Permit). Petaluma is also covered under the Phase II Small MS4 general permit dated July 1, 2014, Order # 2013-001 DWQ for post construction water regulations.

Mandatory requirements cover construction activities including, but not limited to, clearing, grading, excavation, stockpiling, and reconstruction of existing facilities involving removal and replacement of impervious surfaces (e.g., asphalt). Compliance is initiated through submittal of a Notice of Intent (NOI) to the State Water Resources Control Board (SWRCB) and carried out through a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP is required to contain a site map, existing and proposed buildings, lots, roadways, storm water collection and discharge points, general topography both before and after construction, and drainage patterns across the project. The project will implement best management practices for erosion control during construction activities as required by the City's grading and erosion control ordinance (Chapter 17.31 of the Municipal Code).

Construction activities have the potential to result in runoff that contains sediment and other pollutants that could degrade water quality if not properly controlled. Sources of potential pollution associated with construction include fuel, grease, oil and other fluids, concrete material, sediment, and litter. These pollutants have the potential to result in impacts due to chemical contamination from the presence of construction equipment and materials that could pose a hazard to the environment or degrade water quality if not properly managed.

To avoid potential impacts to water quality **Mitigation Measure HYDRO-1,** set forth below, requires that the project implement a SWPPP with BMPs that include, but are not limited to, fiber roll protection at all drains, the use of gravel at access driveways during construction, designated washout areas, and the development and implementation of a hazardous materials spill prevention plan. These and other BMPs are designed to protect water quality from potential contaminants in stormwater runoff emanating from construction sites. With implementation of HYDRO-1, the project's potential to result in a violation of water quality standards during construction would be reduced to levels below significance.

As discussed in Section 6.9 Hazards/Hazardous Materials, contaminated groundwater may be encountered during construction activities and adherence to a Clean Closure Plan including protocol for the management of groundwater shall be implemented in accordance with measure HAZ-1 set forth above. According to the Phase I Environmental Site Assessment, groundwater was encountered at approximately five (5) to eight-and-a-half (8.5) feet below the ground surface. Grading, remediation, and site preparation activities have the potential to encounter groundwater and may require dewatering during construction activities. The discharge of construction dewatering could result in increased sediment loads to the storm drain system, which could adversely impact water quality if not properly controlled. To avoid potential impacts to water quality as a result of construction dewatering, **Mitigation Measure HYDRO-2**, set forth below shall be implemented. Measure HYDRO-2 requires that the project comply with waste discharge requirement specified by the RWQCB, including the reuse of dewaters onsite, allowing settlement of sediment to occur prior to release, and other BMPs. With implementation of measure HYDRO-2, the project's potential to result in a violation of water quality standards due to dewatering associated with construction would be less than significant.

At operation, stormwater runoff could degrade water quality via non-point contaminants such as oils, grease, and exhaust that settles onsite. Stormwater from the new buildings and other impervious surfaces would be collected and routed to bio-retention areas throughout the site, allowing for treatment and infiltration. Stormwater would be routed to new storm drains within the project site and conveyed to outfalls along the western and eastern limits of the site. Stormwater runoff at operation has the potential to result in water quality impacts if not properly treated. To

[15] Section 21083 (c) Public Resources Code and case law established through *California Building Industry Association v. Bay Area Quality Management District*.

ensure that the project does not result in adverse impacts to water quality at operation of the project, compliance with the MS4 General Permit is required in accordance with **Mitigation Measure HYDRO-3**. With implementation of water quality control and wastewater discharge standards, including as they may be refined under the mandatory provisions of the NPDES General Plan, along with the SWPPP, and measure HYDRO-3 the project's impacts to water quality will be less than significant at operation.

6.10 (b) (Groundwater Supply and Recharge) Less Than Significant Impact: The City of Petaluma has historically used surface water, groundwater, and recycled water supplies to meet customer demands. The near-term supply strategy of the 2020 Urban Water Management Plan (UWMP) relies on surface water from Sonoma Water and recycled water from the City's Ellis Creek water recycling facility. The City has decreased groundwater use since 2015 and is only using groundwater for short term scenarios. The City intends to only use groundwater in the future for emergency backup supply, to meet peak demands, or for other short-term scenarios. According to the U.S. Census Bureau, as of July 2022 the City of Petaluma had a population estimate of approximately 59,403 people.[16] As shown in Table 3-1 (Population – Current and Projected) of the 2020 UWMP, the projected service area population at buildout (2045) is 69,980 people. The project will introduce 132 new dwelling units, resulting in a project population of approximately 363 residents. As such, water demand from the subject project is accounted for in the 2020 UWMP Development onsite will be subject to the latest standards for water conservation and water use efficiency including indoor and outdoor water use and will be subject to development impact fees, including water and wastewater capacity fees. Based on the above, and in accordance with the 2020 UWMP, the City of Petaluma has adequate water supply resources to accommodate development of the project without depleting, degrading, or altering groundwater supplies or interfering substantially with groundwater recharge.

The proposed project will rely exclusively on potable water delivered by the City of Petaluma and does not involve any groundwater extraction onsite. Thus, the project would not result in the lowering of the aquifer or the local groundwater table. The project's water demands are consistent with water demands evaluated in the City UWMP, which found sufficient water supplies are available to meet existing and planned future demands. Groundwater reserves will not be depleted due to the proposed development as the City's water supply is largely dependent on surface water flows from Sonoma Water. There are no groundwater wells proposed as part of the project, rather the project will be served by the City's municipal water supply. Therefore, the project will result in less than significant impacts to groundwater supply and recharge.

6.10 (c.i-iii) (Drainage Pattern – erosion, surface runoff, stormdrain capacity) Less Than Significant Impact with Mitigation: The proposed project will not substantially alter the course of a stream or river, or otherwise substantially alter the drainage pattern relative to predevelopment conditions. Currently stormwater runoff from the project site sheet flows overland to the surrounding areas, including Petaluma River, McNear Canal, D Street and the rail corridor.

The proposed project would introduce new impervious surfaces to the project site and onsite storm drain infrastructure. The new storm drain system introduced by the project will collect stormwater runoff from new impervious surfaces via downspouts, swales, area drains and direct runoff towards bio-retention basins. As previously stated, stormwater from the new buildings and other impervious surfaces would be collected and routed to bio-retention areas throughout the site, allowing for treatment and infiltration. The bio-retention areas are designed to remove sediment from surface flows thereby preventing erosion and siltation from entering water ways. Pre-treated stormwater runoff flows through onsite storm drains within the project site and is discharged to outfalls proposed at the southern edge of the project site, with one to McNear Canal and the other outfall at the Petaluma River. **Mitigation Measure BIO-1** and **HYDRO-3** includes provisions to ensure that storm water runoff will not degrade water quality.

Therefore, with the new storm drain systems and bio-retention areas onsite, the new impervious surfaces will not contribute surface runoff water that: 1) results in substantial erosion or siltation on- or off-site; 2) exceeds the capacity of the existing storm drain system; 3) results in flooding on-or offsite; or 4) provides substantial additional sources of polluted water. Therefore, impacts to drainage, erosion, and runoff from the proposed project would be less than significant.

[16] United States Census Bureau, Quick Facts, accessed April 2023, https://www.census.gov/quickfacts/petalumacitycalifornia

6.10 (c.iv) (Drainage Pattern – impede or redirect flood flows) Less Than Significant Impact: The area proposed for development is previously disturbed, contains compacted soils, fills and stockpiles which have limited infiltration capacity and the balance of the site is dominated by ruderal/non-native annual grasslands, which facilitate infiltration and retain water during flooding. To accommodate the proposed project grading will alter onsite elevations, remove existing grasslands, and includes replacement and upgrades to outfall culverts in coastal salt marsh fringe areas that constitute wetland habitat. Grading will redistribute soils onsite and elevate the site by approximately 3-4 feet, thereby elevating the site well above the base flood elevation (i.e. 14-feet above mean sea level). During 100-year storm events, the floodplain of the Petaluma River becomes inundated and under existing conditions would result in floodwater on the project site, where elevations are at or below 10 feet above mean sea level. Under the proposed project, at buildout, ground surface elevations and graded slopes will preclude flood waters during a 100-year storm event from entering. The proposed changes in the grade and site improvements will impede or redirect flood flows by precluding onsite flooding and will direct flood waters elsewhere in the vicinity, but not at a volume or intensity that would result in significant environmental impacts. Therefore, the project will not substantially impede, or redirect flood flows and impacts will be less than significant.

6.10 (d) (Flood Hazard, Tsunami, Seiche Zones) Less Than Significant Impact with Mitigation: The existing Oyster Shed building is located within Zone AE (a special hazard flood area), which is subject to 100-year flooding with a base flood elevation of 10 feet. The balance of the project site is located within Zone X, which is subject to 0.2 percent annual chance of a flood hazard, or 500-year flood. The City of Petaluma's IZO allows for development within the floodplain (Section 6.040). The flood designation for the Oyster Shed building would not preclude the change to the City's General Plan Land Use Diagram, amending the land use designation from RDI to MU.

As described above, the project site has a base flood elevation of 10 feet. Per Section 6.070(D) of the IZO, new residential structures permitted in FP-C (Flood Plain-Combining) zones shall have the lowest habitable floor, including basement, elevated at least 12 inches above the level of the base flood elevation (which would be 11 feet above mean sea level). As shown in the Preliminary Grading Plan (sheet C-5), new buildings introduced onsite would have finished floor elevations ranging from 14 feet to 15.8 feet, which would exceed the City's requirements to elevate 12 inches above the base flood elevation (Section 6.070(D) of the IZO). Although the project will elevate the lowest habitable floor in compliance with the standards set forth in the IZO, the project will introduce people, structures, public facilities, roads, and other infrastructure in a flood hazard area, which could risk release of pollutants due to inundation.

To ensure compliance with the City's requirements in Section 6.070(D) of the IZO, **Mitigation Measure HYDRO-4** shall be implemented, which requires that prior to issuance of a certificate of occupancy, the elevation of the lowest habitable floor, including basements, shall be certified by a registered professional engineer or surveyor, to be properly elevated. Compliance with Section 6.070(D) of the IZO and implementation of measure HYDRO-3, reduces potential impacts due to flood hazards to less than significant.

The project site is not located within a tsunami or seiche zone. Therefore, the project site will have no impacts regarding inundation by tsunami or seiche.

6.10 (e) (Conflict with Water Quality Control or Sustainable Groundwater Management Plans) Less than Significant Impact: The project will not conflict with a water quality control plan or a sustainable groundwater management plan. As described above, the project includes bio-retention areas that will minimize runoff, reduce sedimentation, and protect water quality. Additionally, mitigation measures set forth above further provide for protection of water quality during construction and at operation. The project will not conflict with implementation of the Groundwater Sustainability Plan for the Petaluma Valley Groundwater Basin, adopted January 2023 nor will it conflict with the 2020 UWMP and as such impacts of the project will be less than significant.

Mitigation Measures:

HYDRO-1: In accordance with the National Pollution Discharge Elimination System (NPDES) regulation, the applicant shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) prior to construction. The SWPPP shall address erosion and sediment controls, proper storage of fuels, identification of BMPs, and use and cleanup of hazardous materials. A Notice of Intent, fees, and other required documentation shall be filed with the Regional Water Quality Control Board. During construction a monitoring report shall be conducted weekly during dry conditions and three times a day during storms

that produce more than 1/2" of precipitation.

HYDRO-2: Should construction dewatering be required, the applicant shall either reuse the water on-site for dust control, compaction, or irrigation, retain the water on-site in a grassy or porous area to allow infiltration/evaporation, or obtain a permit to discharge construction water to a sanitary sewer or storm drain. Discharges to the sanitary sewer system shall require a one-time discharge permit from the City of Petaluma. Measures may include characterizing the discharge and ensuring filtering methods and monitoring to verify that the discharge is compliant with the City's local wastewater discharge requirements. Discharges to a storm drain shall be conducted in a manner that complies with the Regional Water Quality Control Board Waste Discharge Requirements for Low Threat Discharges to Surface Waters in the North Coast Region. In the event that groundwater is discharged to the storm drain system, the Applicant shall submit permit registration documents and develop a Best Management Practices/Pollution Prevention Plan to characterize the discharge and to identify specific BMPs, such as sediment and flow controls sufficient to prevent erosion and flooding downstream.

HYDRO-3: The project shall implement appropriate post-construction stormwater treatment measures to reduce water quality and hydromodification impacts to downstream reaches, as required by the current post construction controls regulations of the Small MS4 General Permit. Upon completion of the final project design, the Applicant shall provide a final stormwater control plan (SWCP) to the City of stormwater management measures that show compliance with the Small MS4 General Permit. The report shall delineate individual drainage management areas (DMAs) within the project site and provide analysis to show compliance with the volumetric or flow-based treatment criteria as described in the Small MS4 General Permit and outlined in the BASMAA (2019) Post-Construction Manual. The report shall also include design calculations that show post-project runoff for the 24-hour, 2, 5, 10, 25, and 100 year storm event does not exceed pre-project flow for each DMA, and that each DMA has appropriate stormwater quality treatment based on flow- or volumetric-based calculation, as outlined in the Small MS4 General Permit and in compliance with the BASMAA Manual. The final SWCP documentation shall be submitted to the City and Sonoma Water for review and an approval letter from Sonoma Water prior to the issuance of a grading permit.

HYDRO-4: Following construction of the residential buildings within the FP-C (Flood Plain – Combining District), and prior to occupancy, the elevation of the lowest floor, including basement, shall be certified by a registered professional engineer or surveyor, to be properly elevated. Such certification or verification shall be provided to the Floodplain Administrator. The Floodplain Administrator shall require standards in accordance with the City's FP-C, such as the following:

1. All new improvements shall be anchored to prevent flotation, collapse, or lateral movement.

2. All new improvements shall be constructed with materials and utility equipment resistant to flood damage and using methods and practices to minimize flood damage.

3. All electrical, heating, air conditioning, ventilation, and plumbing shall be designed and located to prevent water from entering or accumulating within components during flooding.

4. All new construction and improvements shall insure that fully enclosed areas below the lowest floor that are subject to flooding be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of flood waters. A minimum of two opening not less than one square inch for every square foot of enclosed area shall be provided.

6.11 LAND USE AND PLANNING

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?

Sources: City of Petaluma General Plan 2025 and EIR; Figure 3.1-2 Planning Subareas Plan; City of Petaluma Implementing Zoning Ordinance (IZO); the Petaluma River Access and Enhancement Plan; Petaluma Station Area Master Plan; Central Petaluma Specific Plan; and SmartCode.

Land Use Setting

The City's land uses within the Urban Growth Boundary include residential, commercial, industrial, agricultural, open space and public lands. Approximately 44% of land within the UGB is designated for residential development with 40% of the existing residential development consisting of single family residential. Approximately 0.8% of the UGB lands are designated for commercial use. The 2025 General Plan proposes commercial/retail development that would increase the existing development by 2.87 million square feet relative to 2005 conditions. At buildout, commercial/retail uses are expected to total 7.06 million square feet, accounting for approximately 3% of the land uses.

The project site is located within the UGB, City limits, and the General Plan's Central Petaluma Specific Plan (CPSP) Subarea. Within the CPSP, the project site is within the Lower Reach Subarea which consists of a mix of commercial, industrial, and open space land uses. The Lower Reach is the largest portion of land within the CPSP, consists of approximately 163 acres encompassing frontage on the Petaluma River and McNear Canal and the entirety of the McNear Peninsula. The Lower Reach is envisioned by the CPSP as a regional commercial and employment center with connectivity to regional rail transit and a robust pedestrian and bicycle transportation network with public access to the river.

City of Petaluma General Plan land designations adjacent to the site include Mixed Use (MU), River Dependent Industrial (RDI), and City Park. The General Plan land use designations for the site are Mixed Use (18.1 to 30 dwelling units/acre) and River Dependent Industrial (**Figure 3: Existing and Proposed Land Use**). The General Plan identifies the site as being in the CPSP. The CPSP zones properties around the project site as Civic Space (CS), Railroad District (D2), Urban Center (T5), and Urban Core – Open (T6-O). The CPSP land use designations for the site are Mixed Use and River Dependent Industrial, and the CPSP zoning for the project site is Urban Center (T5) and River Dependent Industrial District (D3).

The project proposes a General Plan land use amendment from RDI to MU and a zoning amendment from River Dependent Industrial (D3) to Urban Center (T5) on APN 007-700-006. Residential density standards and Floor Area Ratio maximums do not apply to areas designated MU in the CPSP, rather density and intensity are indirectly regulated by the SmartCode's building form, mass, and height standards. The T5 Zone anticipates higher density mixed-use buildings that accommodate retail, offices, rowhouses and apartments with a tight network of streets, wide sidewalks, steady street tree plantings, and buildings set close to the sidewalks.

The project site is located within the planning area of the Petaluma Station Area Master Plan (PSAMP). The PSAMP identifies portions of the project site as Priority Opportunity Sites. This designation provides additional development opportunity to complement the development of the catalyst sites (Haystack and SMART parcels) and reinforces the goals and vision for the Station Area Plan.

The project site is surrounded by a mixture of land uses. The Petaluma River is located south of the subject property, while the McNear Canal, the Steamer Landing Park, and industrial land uses are located to the east of the project. West of the project, land uses are industrial properties and undeveloped sites. The Haystack property, identified in the Petaluma Station Area Plan, has been entitled as a mixed-use development. The SMART parcel was previously proposed for mixed-use development, but no entitlements have been granted. To the north of the site are undeveloped properties, auto service shops, and the Petaluma train station.

The General Plan identifies the River Dependent Industrial portion of the project site as within the 100-year floodplain of the Petaluma River, and has the overlay land use designation of FP-C (Flood Plain-Combining District), as defined by Section 6.040 of the IZO. This portion of the site is subject to the applicable policies and provisions of Chapter 6 of the City's IZO pertaining to floodplains.

The Petaluma River Access and Enhancement Plan, finalized in 1996 evaluates 140 acres adjacent to the Petaluma

River south of the Marina and north of Adobe of Creek including disturbed wetland habitat, the former City landfill, industrial, commercial, and open space areas. The Plan identifies the site as in the Downstream Segment of the river. Access and Enhancement Objectives include giving river-dependent commercial and industrial uses priority over public access, providing public access along the bank top where feasible, and developing McNear Peninsula as a park with informal passive uses. The Plan calls for a public access trail along the existing entrance to the project site to access McNear Peninsula and Steamer Landing Park.

The City of Petaluma adopted a Climate Emergency Resolution, formed a Climate Action Commission and on January 11, 2021, the City Council adopted the Climate Emergency Framework. The Framework guides the City's ongoing response to and discussion about the climate crisis and informs subsequent policies and implementation strategies. The principles identified in the Framework establish Petaluma's shared vision of a healthy, sustainable, and equitable community and advances the City's objective of achieving carbon neutrality by 2030.

The City's Bicycle and Pedestrian Plan and Figure 5-2 of the General Plan identify existing and proposed bicycle routes throughout the City. Existing Class I bicycle facilities in the vicinity of the project site include the Lynch Creek Trail, which is accessible via Lakeville Street, and around the interior perimeter of the site bordering McNear Canal. On-street Class II bicycle facilities in the project vicinity are located along East D Street from the City limits to Fourth Street, Caulfield Lane between Lakeville Street and Ely Boulevard, along Johnson Street, and along Lakeville Street from the Highway 101 interchange to East D Street. Existing Class III bicycle routes are located on Lakeville Street from East D Street to Petaluma Boulevard, on East D Street from Fourth Street to Payran Street, and along Petaluma Boulevard, East Washington Street, Payran Street, and Ellis Street.

The project is subject to provisions contained in the Implementing Zoning Ordinance including Chapter 21 (Performance Standards) and Site Plan and Architectural Review under Chapter 24 (Administrative Procedures). In addition, the project is subject to the requirements of the SmartCode including Section 3 (Building Function Standards), Section 4 (Urban Standards), Section 5 (Thoroughfare Standards), and Section 6 (Parking Standards and Procedures).

Land Use Impact Analysis

6.11 (a) (Divide an Established Community) No Impact: Division of an established community typically occurs when a new physical feature, in the form of an interstate or railroad, physically transects an area, thereby removing mobility and access within an established community. The division of an established community can also occur through the removal of an existing road or pathway, which would reduce or remove access between a community and outlying areas.

The project would not divide an established community since it is a mixed-use project located on an underutilized property planned to accommodate such uses. Rather, the proposed project would introduce mixed use (residential and commercial) and live-work development on a property zoned for mixed use at a density anticipated by the General Plan and Zoning Code. The project does not contain any elements that would introduce a physical feature that would impede mobility or access. The project proposes the installation of a pervious pathway from East D Street, bordering the Petaluma River, connecting to McNear Peninsula and Steamer Landing Park. Additionally, the project would retain and facilitate access to the existing Class I multi-use pathway along the perimeter of the site adjacent to McNear Canal. New multi-use paths introduced by the project would enhance public access to the existing public trail network associated with the existing Park on the McNear Peninsula. Therefore, the project will have no impacts due to physically dividing an established community.

6.11 (b) (Land Use Plan, Policy, Regulation Conflict) Less Than Significant Impact: The proposed project is generally consistent with the General Plan, Zoning, and land use regulations for the site as established by the City of Petaluma. The project conforms to development standards prescribed in the T5 Zoning District of the SmartCode regarding building height limits (45 feet), parking, civic space, and private frontages. Though the project proposes a warrant for removal of the planned loop road around the McNear Canal – connecting Copeland and Hopper Streets – and changes to Ground Floor Ceiling Height, Ground Floor Space Depth, Parking Location, Lot Size, Unit Main Body Width, and Private Open Space standards, Section 8.1.020(H) of the code provides for these deviations so long as the project is consistent with the overall intent of the code. As stated therein, where a project is inconsistent with a specific provision, but meets the overall intent of the code, a warrant may be granted allowing deviation from the specific requirements.

A portion of the project site – development proposed on APN 007-700-005 – is identified as site #32 in the Residential Land Inventory Opportunity Sites (Appendix E) of the City's 2015-2023 Housing Element. As described in the 5th Cycle Housing Element, the Mixed Use classification within the Central Petaluma Specific Plan area anticipates a residential density of up to 60 dwelling units per acre. However, there are no established residential densities within the CPSP. Instead, density is regulated through the specific building form, mass, and height limits set forth in the SmartCode. The 6th Cycle Housing Element was adopted by the City Council on March 20th, 2023. The project site is identified as opportunity site O-5 therein, which anticipates residential development of the proposed Oyster Cove Mixed Use Neighborhood project consisting of 132 residential units with 15% available to low and moderate income households.

Although the project proposes a General Plan land use amendment to change a portion of the site from RDI to MU and rezoning the site from D3 to T5, it would not present a conflict resulting in a potentially significant environmental impact. The proposed General Plan amendment and rezone are consistent with the intent and objectives of the City of Petaluma General Plan and the CPSP, which seek to densify central Petaluma, activate street frontages, and place the highest density residential uses near existing transit. The project accomplishes these goals by redeveloping an underutilized property planned to accommodate mixed-use development, activating East D Street by introducing live-work units along the street frontage, and introducing 132 new residential dwelling units to the downtown area and within approximately 1,000 feet of the SMART train station. Therefore, the project as proposed would not result in land use compatibility conflicts.

The following discussion provides a summary of the project's potential to cause a significant environmental impact due to a conflict with the City's level of service standard, Climate Emergency Framework, Bicycle and Pedestrian Plan, the City's River Access and Enhancement Plan, and floodplain regulation:

Level of Service (LOS)

As further discussed in Section 6.17 Transportation below**,** the City is already experiencing existing traffic conditions that do not meet General Plan Policy 5-P-10, which aims to maintain an intersection level of service (LOS) standard for motor vehicle circulation of D or better. Study area intersections currently operate at LOS D or better without the proposed project, except for one study intersection (D Street and Copeland) during the PM peak travel period and are projected to remain at the same level under pipeline and future scenarios without the proposed project. The addition of project trips to the City's circulation system will not worsen the LOS at study intersections. Accordingly, the project would not conflict with General Plan Policy 5-P-10. As directed by the State through SB 743, LOS is no longer to be taken into consideration as a means for assessing environmental impacts of a project, rather a VMT metric is to be used as described in Section 6.17. As such, the project's contribution to the already-degraded LOS is not an environmental impact caused by the project. Furthermore, as noted in Section 2.1, the General Plan EIR concluded that increased motor vehicle traffic would result in unacceptable LOS at six intersections including two project study intersections (Lakeville Street/East D Street and Petaluma Boulevard South/D Street). Therefore, impacts to LOS have been previously identified in the General Plan EIR and the project would not introduce a conflict that would result in a significant environmental impact due to a conflict with Policy 5-P-10.

Climate Emergency Framework

In January of 2021, the City Council adopted the Climate Emergency Framework with the intent of providing guidance to develop and implement climate strategies. Goals identified in the Climate Emergency Framework that are particularly relevant to the project include reducing VMTs through active transportation, access to transit, maximizing density, and installing supportive infrastructure for non-combustion vehicles (EV ready garages). Additionally, the project is subject to Traffic Impact Fees which are used to fund transportation infrastructure improvements citywide including pedestrian and bicycle and transit facilities. As proposed new buildings incorporate sustainable design features, including solar energy generation, preclusion of natural gas, and compliance with the latest Building Energy Efficiency Standards of the California Building Code Title 24. The project also proposes to install public multi-use paths, which provide connectivity to existing public paths offsite. Additionally, the project meets the intent of the Framework by introducing 132 residential units, of which 15% will be available at the low and moderate income level, to the City's urban core, proximate to goods and services and within walking distance to the downtown SMART station. Therefore, the project would not introduce a conflict that would result in a significant environmental impact due to a conflict with the Climate Emergency Framework.

Bicycle and Pedestrian Plan

The City's Bicycle and Pedestrian Plan identifies a proposed Class II Bike facility (on-street, striped bicycle lane) along the East D Street, existing Class I Bike facility (off-street) around the interior perimeter of the McNear Canal, and proposed Class I Bike facilities along the perimeter of Steamer Landing Park. As proposed, the project is in full compliance with the City's Bicycle and Pedestrian Plan. The project includes a dedicated bicycle lane along East D Street, and a new 10 foot wide Class I multi-use trail along the Petaluma River that will complement the existing Class I path along the McNear Canal. Therefore, the project is consistent with the City's Bicycle and Pedestrian Circulation Plan and does not present any conflicts that would result in an environmental impact.

River Access and Enhancement Plan (RAEP)

The project is generally consistent with the River Access and Enhancement Plan. As proposed the project provides for public access trails in the form of a continuous Class I multi-use trail connecting East D Street on the western edge of the site and along the Petaluma River waterfront connecting to the existing Petaluma River Park. The project also preserves and enhances access along Copeland Street by connecting the street to the parking lot for the existing Steamers Landing and Petaluma River Parks, and by providing dedicated five-foot (5') wide sidewalks along the street edge. Through access to the existing Parks on the McNear Peninsula is preserved by the project. Additionally, the preliminary landscape plan introduces native and drought tolerant species to enhance the river edge. Additionally, the project implements the Guiding Principle of the RAEP by including uses such as retail, boat storage, bike lanes, public plazas and pathways that are accessible to Petalumans, thereby maintaining a close-knit, neighborly and family friendly city. Specifically, the project introduces a distinctive river oriented community by design and includes the adaptive reuse of the existing Oyster Shed building to provide for river access including boat storage and public plaza adjacent to the River. Wayfinding signage will be introduced by the project which will encourage use of the publicly accessible pathways introduced by the project as well as existing parks in the project vicinity. Therefore, the project is consistent with the City's River Access and Enhancement Plan and does not present any conflicts that would result in an environmental impact.

Floodplain Regulation

The City of Petaluma General Plan and zoning regulation allow for development within the 100-year floodplain, provided that specific standards are met. Per Section 6.070(D) of the IZO, new residential structures permitted in FP-C (Flood Plain-Combining) zones shall have the lowest habitable floor, including basement, elevated at least 12 inches above the level of the base flood elevation or depth number specified on the Flood Insurance Rate Map (FIRM). FIRM No 06097C0982G, dated December 2, 2015, indicates that the 100-year floodplain elevation is 10' (NAVD88). The existing site elevations range from 10.5 feet to 15.3 feet (NAVD88) and are above the current 100-year floodplain elevation. The project proposes raising site elevations to provide protection from future sea level rise projected to occur by 2100. The proposed site grading plan would raise elevations such that all new buildings are at or above an elevation of 14 feet. Therefore, the project would comply with all provisions of the IZO regarding the FP-C as implemented through Mitigation Measure HYDRO-4, set forth above. As such, the project is consistent with Section 6.070(D) of the IZO, and would not introduce a conflict that would result in a potential environmental impact.

Summary

As described above, the project is generally consistent with the guiding land use policies and regulation in place for the project site. Other potential conflicts with City land use regulations are discussed within each section of this document (Aesthetics, Air Quality, Biological Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, and Transportation). Mitigation measures to avoid or minimize potential conflicts with City land use regulations are identified therein. Therefore, environmental impacts due to a conflict with City land use regulations will be less than significant.

Mitigation Measures: None Required

6.12 MINERAL RESOURCES

Would the project:	**Potentially**	**Less Than**	**Less Than**	**No**

	Significant Impact	Significant with Mitigation	Significant Impact	Impact
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?	☐	☐	☐	☒

Sources: City of Petaluma General Plan 2025 and EIR.

Mineral Resource Impact Discussion

6.12 (a-b) (Mineral Resources or Plan) No Impact: There are no known mineral resources within the UGB. The project site has not been delineated as a locally important resource recovery site. It is not expected that the project will result in the loss of availability of a known mineral resource, including those designated as "locally important." Therefore, the proposed project will have no impact that results in the loss of availability of mineral resources.

Mitigation Measures: None Required.

6.13 NOISE

Would the project result in:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

Sources: City of Petaluma General Plan 2025 and EIR; Acoustical Assessment, prepared by Kimley Horn, May 2022; and City of Petaluma Implementing Zoning Ordinance (IZO).

Noise Setting

Noise is generally defined as unwanted sound. It is characterized by various parameters that include the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). The sound pressure level is the most common descriptor used to characterize the loudness of an ambient (existing) sound level. The decibel (dB) scale is used to quantify sound intensity, given that the human ear is not equally sensitive to all frequencies in the entire spectrum, noise measurements are weighted more heavily for frequencies to which humans are sensitive in a process called "A-weighting," written as "dBA" and referred to as "A-weighted decibels". In general, human sound perception is such that a change in sound level of 1 dB cannot typically be perceived by the human ear, a change of 3 dB is just noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling the sound level.

The City of Petaluma regulates the noise environment through Section 21.040 of the Implementing Zoning

Ordinance (IZO). The IZO stipulates an hourly average level of 60 dBA as the maximum that may be generated on one land use that may affect another land use; the allowable levels are adjusted to account for the ambient noise levels and in no case shall the maximum allowed noise level exceed 75 dBA after adjustments are made.

The 2025 General Plan provides policies to protect the health and welfare of the community from undesirable noise levels. Figure 10-2 of the General Plan shows the Land Use Compatibility Standards for various land uses and provides the relative acceptability level. Multi-family residential land uses are considered normally acceptable in a noise environment up to 65 dB (Ldn or CNEL). The Noise Contours Figure 10-1 indicates that noise levels at the site are projected to be 60 dB CNEL at General Plan build out.

Project Site Noise Conditions

A project level Acoustical Assessment was prepared that characterizes existing noise conditions onsite and evaluates potential noise impacts of the project (**Appendix G**). The existing mobile noise environment at the project site is primarily influenced by vehicles and trucks traveling along Highway 101, Lakeville Highway and East D Street, and operations of the nearby Sonoma Marine Area Rail Transit (SMART) corridor The existing stationary noise environment consists of operations of existing mixed-used commercial and industrial uses surrounding of the project site. A noise monitoring survey was conducted on February 9, 2022, to quantify the existing noise environment. The noise monitoring survey included four short-term (ST) noise measurements at the locations shown in Figure 6 below. The results of those measurements are shown in Table 8 below.

Figure 6: Noise Monitoring Locations

TABLE 8: NOISE MEASUREMENT DATA (dBA)

Noise Measurement Location	Lmax	Lmin	Lpeak	Leq
ST-1: First Street	67.9	42.9	90.2	55.6
ST-2: D Street	77.6	45.4	95.7	56.4
ST-3: Copeland Street	80.5	49.6	97.6	65.4
ST-4: Hopper Street	72.8	53.4	96.3	63.4

Source: Environmental Noise Assessment, Kimley Horn May 2022

Noise Impact Analysis

6.13 (a) (Noise Standards) Less Than Significant Impact with Mitigation:

Construction Noise

The City's Noise Ordinance establishes standards to minimize the temporary noise impacts associated with construction, such as limitations on the time of day and week when construction activities are acceptable. Construction of the project would result in temporary noise disturbances that could potentially impact nearby sensitive receptors due to the site's proximity to surrounding residential development.

Construction of the proposed project would result in temporary and intermittent noise increases onsite and in the project vicinity from the use of heavy equipment, truck deliveries and off-haul of materials. Construction noise associated with the proposed project would be perceptible to established uses in the immediate vicinity including nearby residences to the north and south, hotel uses, and office/industrial uses to the north and east.

Noise impacts resulting from construction of the project depend upon the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive areas. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction occurs over extended periods of time.

Construction of the proposed project is anticipated to occur over an approximately 24-month period and would include removal of soil, remediation, site preparation, grading and excavation, trenching, building erection, and paving. During each stage of construction, there would be a different mix of equipment operating, and noise levels would vary based on the amount of equipment in operation and the location at which the equipment is operating.

Most demolition and construction noise is in the range of 80 to 90 dBA at a distance of 50 feet from the source. These noise levels drop off at a rate of about 6 dBA per doubling of distance between the noise source and receptor. The loudest noise levels generated during construction would be 68.3 dBA Leq and 65.3 dBA Leq at the nearest sensitive receptor (existing single family and multi-family residential use). These noise levels would exceed the City's hourly threshold of 60 Leq for single family residential uses and 65 Leq for multifamily residential uses. Additionally, the loudest noise level would be 79.7 Leq at the nearest off-site industrial structure, which would exceed the City's 75 Leq for industrial uses.

Although nearby residents will be exposed to elevated noise levels from construction, exposure is intermittent and temporarily and will cease once construction is complete. The project is required to adhere to the standards set forth in Section 21.040.A.3.a of the City's Implementing Zoning Ordinance (IZO). In order to ensure the temporary construction noise does not result in a significant impact to existing sensitive receptors in the project vicinity, **Mitigation Measures NOI-1** is imposed to ensure that best management practices for noise controls are implemented pursuant to the City's IZO. Therefore, with Measure NOI-1, construction noise levels will be minimized and potential impacts will be reduced to less than significant levels.

Operation

At operation, the proposed project would contribute to the ambient noise environment from additional vehicles traveling on roadways, mechanical equipment, residential activity, truck deliveries, parking areas, and landscaping maintenance.

Project-Generated Traffic Noise

A significant impact would be identified if traffic generated by the project would substantially increase noise levels at sensitive receivers in the vicinity. A substantial increase would occur if the project traffic on area roadways were

to result in a noise level increase of 4 dBA CNEL or greater. To cause a 4 dBA increase in noise along D Street, Lakeville Street, Copeland Street, and Washington Street the project would have to generate enough traffic to increase current roadway volumes by over 150%. As shown in Table 11 of the Acoustical Assessment, traffic introduced by the project would increase noise levels of project area roadways by up to 1 dBA, which is well below the 4 dBA threshold. Therefore, the increase in traffic noise generated by the project would be below the noise significance criteria for permanent noise increases. As such, the project's contribution to the existing ambient noise levels from increased traffic would result in less than significant impacts.

Mechanical Equipment

The proposed project will include mechanical equipment such as heating, ventilation, and air conditioning systems (HVAC). Noise generated by mechanical equipment introduced by the proposed project is expected to produce a sound level of up to 52 dBA at 50 feet from the source. The acoustical assessment prepared for the project indicates that HVAC equipment would not exceed a 49 dBA at the closest receptors, which is below the City's established Noise Ordinance limit of 60 dBA. Therefore, mechanical equipment noise introduced by the project would have less-than-significant impacts on ambient noise levels.

Residential Activities

The proposed project will introduce new sources of noise from the residential use including dogs barking, music playing, and people talking. These noise sources can generate noise levels up to 65 dBA at 50 feet. Noise from residential activities are typically sporadic and short in duration. Stationary noise levels from residential activities at operation of the project would not result in a noticeable increase in the ambient noise levels and would comply with the City's Municipal Code (Table 13 of the Acoustical Assessment). Therefore, potential impacts to the ambient noise environmental from residential activities would be less than significant.

Loading Activities

The proposed project will introduce new sources of noise from the commercial uses associated with deliveries and loading. Noise from heavy duty trucks including breaking, diesel engines, exhaust systems, ramps, back up alarms, and maneuvering are projected to generate noise levels up to 64 dBA at 50 feet. Given the that the nearest sensitive receptor is located more than 220 feet from the project site, noise from loading activities at operation of the project would not result in a noticeable increase in the ambient noise levels and would comply with the City's Municipal Code (Table 13 of the Acoustical Assessment). Additionally, noise from loading activities are typically sporadic and short in duration. Additionally, noise from loading activities would be attenuated by intervening buildings and trees surrounding the project site. Therefore, potential impacts to the ambient noise environmental from loading activities would be less than significant.

Parking Areas

The proposed project will introduce new sources of noise from the parking areas onsite including engine starts, door slams, music playing, and people talking. Noise from parking areas are expected to be in the range of 53 to 61 dBA. Noise from parking areas are typically instantaneous and short in duration. Noise levels from parking areas would not result in a noticeable increase in the ambient noise levels and would comply with the City's Municipal Code (Table 13 of the Acoustical Assessment). Therefore, potential impacts to the ambient noise environmental from parking areas would be less than significant.

Landscaping Activities

The proposed project will introduce new sources of noise from the ongoing maintenance of landscaping including lawnmowers, leaf blowers, and other landscaping equipment. These noise sources can generate noise levels up to 50 dBA at 50 feet. Noise from landscaping activities are typically sporadic and short in duration Noise from landscaping activities would not result in a noticeable increase in the ambient noise levels and would comply with the City's Municipal Code (Table 13 of the Acoustical Assessment). Therefore, potential impacts to the ambient noise environmental from landscaping activities would be less than significant.

6.13 (b) (Groundborne Vibration and Noise) Less Than Significant Impact: Construction activities would include

site preparation work such as demolition, grading, installation of utilities, foundation work, and new building framing. Construction techniques that generate the highest vibration levels, such as impact or vibratory pile driving, are not expected to occur during construction of the project.

For structural damage, the California Department of Transportation uses a vibration limit of 0.5 in/sec, PPV for buildings structurally sound and designed to modern engineering standards. Table 9 presents vibration source levels for typical construction equipment at a distance of 25 feet. Jackhammers typically generate vibration levels of 0.035 in/sec PPV and vibratory rollers generate vibration levels of 0.21 in/sec PPV at a distance of 25 feet. Vibration levels would vary depending on soil conditions, construction methods, and equipment used. At distances of 25 feet or greater, construction activities would be below the 0.5 in/sec PPV damage criteria.

TABLE 9: VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT

Equipment	PPV at 25 feet (in/sec)
Vibratory roller	0.210
Large bulldozer	0.089
Loaded trucks	0.076
Jackhammer	0.035
Small bulldozer	0.003

Source: Acoustical Assessment, prepared by Kimley Horn, May 2022.

Though vibration generated during project construction is not expected to cause structural damage, vibration levels during construction may still be perceptible. However, the periods of perceptible vibration would be brief, limited to the immediate construction area, and would not approach significance levels (0.5 in/sec PPV). At operation the project would not generate groundborne vibration that would be perceptible. Therefore, the project would not expose people or structures to excessive groundborne vibration and impacts from groundborne vibration would be less than significant.

6.13 (c) (Airport Noise) No Impact: The project site is not located within a private airstrip, an airport land use plan or within two miles of a public airport or public use airport and would therefore not expose people residing or working in the project area to excessive noise levels. The Community Noise Equivalency Level (CNEL) noise contours from the Petaluma Municipal Airport do not affect the subject site. The project would not expose people working onsite to significant noise levels generated by the Petaluma Municipal Airport. Therefore, noise from the Petaluma Airport will have no impact to people residing or working onsite.

Noise Mitigation Measures:

NOI-1: The following Best Construction Management Practices shall be implemented to reduce construction noise levels emanating from the site, limit construction hours, and minimize disruption and annoyance:

1. Limit construction hours to between 7:00 a.m. and 7:00 p.m., Monday through Friday and between 9:00 a.m. and 7:00 p.m. on Saturday. Construction activities shall be prohibited on Sunday and State, Federal and Local Holidays.

2. Delivery of materials and equipment to the site and truck traffic coming to and from the site is restricted to the same construction hours specified above.

3. Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.

4. Unnecessary idling of internal combustion engines shall be strictly prohibited.

5. Locate stationary noise-generating equipment such as air compressors or portable power generators as far as possible from sensitive receptors. If they must be located near receptors, adequate muffling (with enclosures where feasible and appropriate) shall be used to reduce noise levels at the adjacent sensitive receptors. Any enclosure openings or venting shall face away from sensitive receptors.

6. Acoustically shield stationary equipment located near residential receivers with temporary noise barriers.

7. Utilize "quiet" air compressors and other stationary noise sources where technology exists.

8. Construction staging areas shall be established at locations that will create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction activities.

9. Locate material stockpiles, as well as maintenance/equipment staging and parking areas, as far as feasible from existing residences.

10. Control noise from construction workers' radios to a point where they are not audible at the existing Parks bordering the project site.

11. The contractor shall prepare a detailed construction schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination with the owner/occupant of nearby residential land uses so that construction activities can be scheduled to minimize noise disturbance.

12. Notify all residences by assessor parcel number (within 1,000 feet of the project site) of the construction schedule, in writing, and provide a written schedule of "noisy" construction activities to the adjacent land uses as well as contact information, including phone number of the disturbance coordinator.

13. Designate a "disturbance coordinator" who would be responsible for responding to any complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., bad muffler, etc.) and will require that reasonable measures be implemented to correct the problem. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include in it the notice sent to neighbors regarding the construction schedule.

6.14 POPULATION AND HOUSING

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) 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)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☐

Sources: City of Petaluma General Plan 2025 and EIR; and City of Petaluma Housing Element

Population and Housing Setting

According to the U.S. Census Bureau, as of July 2022 the City of Petaluma had a population estimate of

approximately 59,403 people.[17] The 2025 General Plan contemplates development of approximately 6,000 additional residential units and a buildout population of approximately 72,700. This represents an annual growth rate of nearly 1.2% per year. The project would add 132 dwelling units. The City's 6th Cycle Housing Element identifies the Oyster Cove Mixed Use Neighborhood development with a potential of 132 units on the project site.

Population and Housing Impact Analysis

6.14 (a) (Substantial Growth) Less Than Significant Impact: The project site is located within the City's Urban Growth Boundary (UGB) and will not directly or indirectly induce substantial growth beyond what has been anticipated by the City's General Plan and the CPSP. The project proposes the construction of 132 multi-family dwellings on a site that is identified as a Housing Opportunity Site (O-5) in the City's 6th Cycle Housing Element.

The project includes a General Plan amendment to change the land use designation from RDI to MU and a rezone from D3 to T5. The proposed General Plan amendment and rezone is limited to a portion of the site and will not generate substantial growth. Assuming 2.75 persons[18] per household, the projected population increase from the proposed project would be approximately 363 persons. The projected population does not constitute a substantial increase and remains sufficiently below the General Plan 2025 population projections. Accordingly, the project is not expected to promote further development beyond what is proposed for the project site. The extension of utilities will be limited to provide services to the subject property and will not extend services to areas where services were previously unavailable. Therefore, the project will have less than significant impacts related to growth inducement.

6.14 (b) (Housing or Person Displacement) Less Than Significant Impact: At present the project site does not contain any residences. As such, the project will not displace a substantial number of existing people or housing, necessitating the construction of replacement housing elsewhere. The project would implement the City's Housing Element by contributing 132 multi-family dwellings to the existing housing stock within the City of Petaluma including 15% available at low and moderate income levels. Therefore, the project will have less than significant impacts due to the displacement of people or existing housing.

Mitigation Measures: None Required.

6.15 PUBLIC SERVICES

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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:				
a) Fire protection?	☐	☐	☒	☐
b) Police protection?	☐	☐	☒	☐
c) Schools?	☐	☐	☒	☐
d) Parks?	☐	☐	☒	☐

[17] United States Census Bureau, Quick Facts, accessed April 2023, https://www.census.gov/quickfacts/petalumacitycalifornia

[18] State of California, Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State, 2011-2019 with 2010 Census Benchmark, May 2019.

e) Other public facilities?	☐	☐	☐	☒

Sources: City of Petaluma General Plan 2025 and EIR.

Public Services Setting

The City of Petaluma charges one-time impact fees on new private development to offset the cost of improving or expanding City facilities to accommodate the demand generated by new development. Impact fees are used to fund the construction or expansion of capital improvements. Petaluma also collects impact fees for open space, parkland, and other amenities. Development impact fees are necessary to finance public facilities and service improvements and to pay for new development's fair share of the costs of the City planned public facilities and service improvements identified to accommodate buildout of the General Plan. The project is within development anticipated at General Plan buildout and the General Plan EIR concluded that impacts to Public Services would be less than significant.

Public Services Impact Analysis

6.15 (a-b) (Fire & Police Protection) Less Than Significant Impact: The project site is in an area with existing residential and commercial development that is well served by public services. The proposed project is expected to increase demands for police and fire service. However, new demands on fire and police services from new development have been previously anticipated as part of General Plan build-out and are accounted for with the City Facilities Development Impact Fee that are intended to offset the impacts of growing demand for fire and policing services.

General Plan policy 7-P-19 establishes a four-minute travel time and six-minute response time for emergencies within the city. The project is located approximately one-quarter (0.25) mile from Fire Station No. 1 located at 198 East D Street, and approximately 1.6 miles from Fire Station 3, at 831 S McDowell Boulevard. The project is within the response radii of both fire stations (General Plan EIR Figure 3.4-2) and travel time is achievable within the targeted 4 minutes. The project is consistent with the General Plan 2025 because of the ability of emergency response vehicles to override traffic controls with lights, sirens, and signal pre-emption, and their ability to travel in opposing travel lanes in congested conditions. Additionally, the project proposes an emergency vehicle access roadway (EVA), extending from the site's northern parking area to Hopper Street. The proposed EVA provides a secondary means of access for emergency personnel, in addition to the primary access at the site entrance at Copeland. Further, the addition of project trips to the street network is not expected to cause a reduction in travel speeds sufficient to cause significant delays for emergency vehicles.

Although additional fire and/or police service calls may occur as a result of the project, substantial new fire protection or police protection facilities will not be warranted to maintain necessary levels of service. As a standard condition of project approval, the applicant shall pay all applicable development impact fees, including a facilities fee to pay for identified fire/police facility improvements. These funds are sufficient to offset any cumulative increase in demands to fire and police protection services and ensure that impacts from new development are less than significant.

6.15 (c) (Schools) Less Than Significant Impact: The project will not result in substantial adverse physical impacts or require new school facilities. The project site is located within the Petaluma Unified School District which includes elementary (K-6) and secondary (7-12) educational services. The nearest schools to the project site include McKinley Elementary School, located approximately one mile north on Ellis Street, Petaluma Junior High School, located approximately 1.7 miles west of the site on Bantam Way, and Petaluma High School, located approximately 1.2 miles west on Fair Street. The General Plan projects that the Petaluma Unified School District will experience a slight increase in enrollment, but that the projected enrollment would not exceed the existing capacity of the public elementary schools located within the city limits. Overall, the projected enrollment for public elementary schools would decline and would utilize 93.9 percent of current capacity. Adequate school facilities are in place to accommodate the increase in enrollment associated with development of the proposed 132 multi-family units. The project is subject to the payment of statutory school impact fees to offset any cumulative impacts on the school system. Therefore, the proposed project will have less than significant impacts to schools.

6.15 (d) (Parks) Less Than Significant Impact: The City has adopted a citywide parks standard of 5 acres of parkland per 1,000 residents. There are existing public open space areas located near the project site, including the Steamer Landing Park and Petaluma River Park adjacent to the project site, Walnut Park, located approximately 0.3 mile south of the site, and Rocky Memorial Dog Park and Shollenberger Park, located approximately 2 miles east of the site. The Steamer Landing and Petaluma River Parks are adjacent to the project site and the project is proposing internal pathways and easements to maintain public access and provide connections to these public parks.

The project proposes a new riverfront trail and open space within and adjacent to the State Lands Public Trust Easement Parcel as the project's principal outdoor/shared amenity. Smaller public open space areas such as paseos, pocket greens, and a plaza are scattered throughout the site plan. Existing park facilities and proposed onsite amenities are expected to be sufficient to meet active and passive recreational demands of new residents. A substantial adverse impact to park facilities is not expected to occur from implementation of the subject project. Therefore, impacts to park lands due to the project will be less than significant.

6.15 (e) (Other Public Facilities) No Impact: The Project will not result in substantial adverse impacts associated with any other public facilities. The project area is surrounded by established mixed-use development and is well served by existing public services. The project will not generate a substantial increase in demands that warrant the expansion or construction of new public facilities. Therefore, there would be no impacts related to other public facilities.

Mitigation Measures: None Required.

6.16 RECREATION

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐
Sources: City of Petaluma General Plan 2025 and EIR.				

Recreation Setting

The City of Petaluma offers a variety of passive and active recreation opportunities within the UGB with approximately 18% of land (1,300 acres) devoted to parks and open space according to the Petaluma General Plan 2025. Sonoma County and the State also operate parks and recreational facilities near the City of Petaluma. Petaluma Adobe State Historic Park, east of the Petaluma city limits, is owned and operated by the California State Parks Department. The 256-acre Helen Putnam Regional Park, located to the southwest of the city, is managed by the Sonoma County Regional Parks Department. The City of Petaluma and Sonoma Water own and maintain most of Petaluma's creeks and channels, with several waterways designed to include a multi-use trail alongside banks. These creekfront and riverfront trails contribute to outdoor recreational opportunities.

Existing Park facilities are located on the McNear Peninsula adjacent to the project site including the Steamer Landing Park and the Petaluma River Park. These existing public parks are comprised of passive open space, grasslands and trails. An existing Class I bicycle trail provides access from a parking area at the northwestern end of the park, adjacent to the project site, to the David Yearsley River Heritage Center, an existing structure named after the Petaluma River advocate. Cavanaugh Landing is located at the Turning Basin to the west of the site at the

intersection of Petaluma Boulevard South/D Street, and Wickersham Park, which is located at the corner of G Street/Fourth Street. Farther to the west of the project is Weller Street and Penny Park, while south of the project site are the Walnut and Wickersham Parks. Approximately 2 miles east of the project site, downriver, are the Shollenberger Park and the Rocky Memorial Dog Park.

General Plan Policy 6-P-1 and programs set forth therein provide guidance to retain and expand recreational resources for the health and welfare of the city's inhabitants. Program 6-P-1-F requires that new development alongside pathways does not detract from scenic or aesthetic qualities of the corridor. Policy 6-P-6 requires the city maintain a park standard of 5 acres per 1,000 residents, or approximately 0.005 acres of park space per resident. Park land development and open space acquisition impact fees are required to offset any potential impacts on recreation resources generated by development projects.

Recreation Impact Discussion

6.16 (a) (Park Deterioration) Less Than Significant Impact: The project will result in an incremental increase in the use of nearby parks as well as designated open space areas. The project's contribution to increased park use would not result in substantial physical deterioration of facilities nor would deterioration be accelerated. Moreover, the park and open space-related development impact fees required of the project adequately address incremental increase in the use of parks. Therefore, impacts related to the physical deterioration of parks and other recreational areas would be less than significant.

6.16 (b) (Recreation Facilities) Less Than Significant Impact: The project includes a dedicated bicycle lane along East D Street, and a new, 10 ft. wide Class I multi-use trail along the Petaluma River that will complement the existing Class I path along the McNear Canal. The project also includes a passive open space plaza, with seating and landscaping, and access to an adaptive reuse of the Oyster Shed building, which is proposed to include a boathouse (6,000sf), covered public plaza (1,500sf), commercial use (1,500sf), and an outdoor dining patio on the structure's southeast side. Because the project will not induce substantial population growth and is within the population growth anticipated in the General Plan, there is little expectation that it would put further pressure on recreational amenities thereby requiring construction or expansion of such facilities. Therefore, impacts are expected to be less than significant as a result of the proposed project.

Mitigation Measures: None Required.

6.17 TRANSPORTATION

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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 uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

Sources: City of Petaluma General Plan 2025 and EIR; GP Figure 5-1; City of Petaluma VMT Implementation Guidelines, June 2021; Kimley Horn Transportation Impact Study, May 2022

Transportation Setting

The City of Petaluma is bisected by U.S. 101, which serves as the primary route between San Francisco and Marin

and Sonoma Counties. U.S. 101 accommodates over 92,000 vehicles per day within Petaluma. The City is served by several bus operators including Golden Gate Transit, Sonoma County Transit, Petaluma Transit, and Sonoma Marin Area Rail Transit (SMART). The SMART rail corridor bisects the city and provides commuter rail service via Petaluma's Downtown Station. The circulation system within the City of Petaluma consists of approximately 140 miles of streets including arterials, collectors, connectors, and local streets. The City's roadway system also includes a bicycle network, sidewalks, and off-street trails.

Level of service (LOS) has historically been used as a standard measure of traffic service within the City of Petaluma and focuses on delay-based criteria. The City of Petaluma, through General Plan policy 5-P-10 establishes a goal of maintaining a LOS 'D' or better. Although LOS was formerly an acceptable measure for evaluating traffic impacts under CEQA, as of July 1, 2020, jurisdictions in California must comply with CEQA Guidelines section 15064.3(b), which requires analysis of transportation-related impacts using a vehicle miles traveled (VMT) metric. The VMT metric focuses on balancing the needs of congestion management with statewide goals related to infill development, promotion of public health through increased active transportation facilitated by closer proximity to alternative travel modes, and the reduction of greenhouse gas emissions.

In July 2021, the City adopted VMT Implementation Guidelines that provide thresholds of significance, screening criteria, and mitigation options. Pursuant to the City's VMT Implementation Guidelines, projects that are located within one half mile of an existing high quality transit corridor or major transit station screens out from the requirement to prepare a VMT analysis. Because the project is located in close proximity to a major transit stop, within ½ mile of the existing downtown SMART station, no VMT analysis is required. Furthermore, the Project is located in an urban area that is well served by nearby goods and services, and is adjacent to local and regional bus routes and pedestrian and multi-use trails.

The General Plan EIR determined that implementation of the General Plan would result in less than significant impacts from an increased demand for transit service and safe bicycle parking. General Plan policies 5-P-40 through 5-P-45 support the expansion of the bus transit system and the location of transit-oriented development along transit corridors. General Plan policy 5-P-31 requires future development to provide bicycle support facilities.

Kimley Horn prepared a Transportation Impact Study to evaluate the project's potential to impact pedestrian, bicycle and traffic safety, VMT, level of service (LOS) standards, access, and/or introduce conflicts with the General Plan (**Appendix H**). As described above, VMT is used to evaluate potential environmental impacts under CEQA Guidelines Section 15064.3 subdivision (b). LOS is no longer used to evaluate environmental impacts, but is included for informational purposes.

The Transportation Impact Study (TIS) prepared for the project addresses operating conditions at the following six study intersections:

1. D Street/Lakeville Street – Signal
2. D Street/Copeland Street – Side-Street Stop-Controlled (SSSC)
3. D Street/1st Street – Signal
4. D Street/Petaluma Boulevard – Signal
5. Washington Street/Lakeville Street – Signal
6. Washington Street/Copeland Street – Signal

Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, pedestrian signal phases, curb ramps, curb extensions and various streetscape amenities such as lighting, benches, etc. In general, a network of sidewalks, crosswalks, pedestrian signals, and curb ramps provide access for pedestrians in the vicinity of the project. There are existing sidewalks present along both sides of D Street adjacent to the project site. There are also existing sidewalks on the north side of Copeland Street, a pedestrian path on the south side of Copeland Street, and sidewalks on both sides of Washington Street. There is an existing Class I multi-use path beyond the project site in the Steamer Landing Park.

Bicycle Facilities

There is a network of existing and planned Class I, II, and III bicycle facilities around the project site. Additionally, a Class IV cycle track is proposed to be constructed on D Street between Weller Street and Lakeville Street. The Table below describes these bicycle facilities in the study area of the project:

Table 10 : Existing and Planned Bicycle Facilities

Bicycle Facility Classification	Existing	Planned
Class I	• Along McNear Canal adjacent to the project site • Lynch Creek Trail • Adjacent to the railroad tracks north of Lakeville Street.	• Along McNear Canal extending near the US-101 freeway • Along Petaluma River running parallel to Petaluma Boulevard • Hopper Street between D Street and east of the study area
Class II	• D Street between 6th Street and south of Pinnacle Drive • B Street between 4th Street and El Rose Drive • Western Avenue from Howard Street to Chileno Valley Road • Lakeville Street between D Street and the US-101 interchange • Kenilworth Drive between Washington Street and Lindberg Lane • Johnson Street between Washington Street and Kenilworth Drive.	• Petaluma Boulevard between D Street and Rovina Lane • D Street between Petaluma Boulevard and 6th Street • D Street between 1st Street and Lakeville Street • Payran Street between Jefferson Street and Caulfield Lane • Western Avenue between the Petaluma River and Howard Street • Copeland Street between Washington Street and Petaluma Boulevard.
Class III	• Lakeville Street between D Street and Petaluma Boulevard • G Street between Petaluma Boulevard and Sunnyslope Avenue • I Street between Petaluma Boulevard and Sunnyslope Road • 6th/Howard Street between Mountain View Avenue and West Street • 8th Street between I Street and B Street • Petaluma Boulevard between E Street and Lakeville Street • 10th Street/Fair Street between Western Avenue and D Street • D Street between 1st Street and Payran Street	• 2nd Street between D Street and H Street • D Street between Petaluma Boulevard and Weller Street • Madison Street between Lakeville Street and Ellis Street • 1st Street between D Street and Petaluma River • Washington Street between Kenilworth Drive and 6th Street • Copeland Street between D Street and Washington Street • Payran Street between Washington Street and Lynch Creek Trail • B Street between 4th Street and 2nd Street

Transit Facilities

Three separate transit agencies provide regular bus service to the City of Petaluma: Petaluma Transit, Sonoma County Transit, and Golden Gate Transit.

- *Petaluma Transit* – provides fixed route bus service in the City of Petaluma. There are three routes near the project site:
    - Route 10 provides service between the Downtown Petaluma SMART station and the Park and Ride near the intersection of Gossage Avenue and Petaluma Boulevard. Route 10 operates between 7:32 AM and 6:29 PM on 30-minute to 60-minute headways, and does not operate on weekends. The closest Route 10 bus stops to the site are both approximately 500 ft. away at the Copeland Street Transit Mall and at D Street near Hopper Street.
    - Route 11 provides service between the Downtown Petaluma SMART station and the Washington Square Shopping Center. Route 11 operates between 6:30 AM and 8:23 PM on 15-minute to 30-minute headways on weekdays, with 30-minute headways on weekends between 7:30 AM and 8:23 PM. The closest Route 11 bus stops are the same as the Route 10 bus stops.
    - Route 24 provides service between the Downtown Petaluma SMART station and the Kaiser Permanente Hospital on Pine View Way. Route 24 operates 6:15 AM and 7:09 PM on 15-minute to 60-minute headways on weekdays and does not operate on weekends. The closest Route 24 stops to the site are the same as Route 10 bus stops.
- *Sonoma County Transit* – provides regional service between Petaluma and surrounding communities. There are three routes near the project site, which are described below.
    - Routes 40 provides service between the Downtown Petaluma SMART station and the Sonoma Plaza and operates between 6:10 AM and 9:55 PM on approximately 2-hour to 4- hour headways. It does not operate on weekends. The nearest bus stop is near the intersection of Copeland Street and Washington Street.
    - Route 44 and Route 48 provides service between the Downtown Petaluma SMART station and the Coddingtown Shopping Center in Santa Rosa. Route 44 operates 6:20 AM to 10:27 PM and Route 48 operates 6:15 AM to 10:47 PM. The nearest bus stop is near the intersection of Copeland Street and Washington Street.
- *Golden Gate Transit* – provides regional service between San Francisco and the North Bay, including Petaluma.
    - Route 101 travels between Santa Rosa and San Francisco and has stops at the Copeland Street Transit Mall, approximately 500 feet from the project site. On weekdays and weekends, Route 101 operates 3:52 AM and 1:28 AM in approximately 60-minute headways.
    - Route 172 travels between the Cities of Santa Rosa and San Francisco. On weekdays, Route 172 operates in the southbound direction between 4:11 AM and 9:28 AM and in the northbound direction between 2:06 PM and 7:38 PM. Route 172 does not operate on weekends. The closest Route 172 bus stop to the project site is located at the intersection of Lakeville Street and Washington Street.

Two or three bicycles can be carried on most Petaluma Transit, Sonoma County Transit and Golden Gate Transit buses. Bike rack space is on a first come, first served basis. Additional bicycles are allowed on Petaluma Transit buses at the discretion of the driver. Petaluma Paratransit is available for those who are unable to independently use the transit system due to a physical or mental disability. Paratransit is designed to serve the needs of individuals with disabilities within Petaluma and the greater Petaluma area.

Sonoma Marin Area Rail Transit

In addition, SMART operates train service throughout Sonoma and Marin counties. The Downtown Petaluma SMART station is located proximate to the site at the corner of Lakeville St/E D St and provides regional service between the Sonoma County Airport to the north and Larkspur to the south. Future SMART service is proposed to extend as far north as Cloverdale.

Transportation Impact Analysis

6.17 (a) (Conflicts with Plans, Policies, Ordinances) Less Than Significant Impact: As detailed in the Transportation Impact Study (**Appendix H**), the anticipated trip generation for the proposed project was estimated using standard rates published by the Institute of Transportation Engineers (ITE) in Trip Generation Manual, 11th Edition for multifamily housing (low rise) (ITE Land Use #220), live/work residential units, strip retail plaza (ITE Land Use #822), and public plaza and boat storage. As presented in Table 11 below, the project will generate 481 net new daily trips including 45 AM peak hour trips and 63 PM peak hour trips.

Table 11 : Trip Generation Summary

Land Use	Units / KSF	Daily	AM Peak Hour			PM Peak Hour		
		Trips	Total	In	Out	Total	In	Out
Existing Trip Generation								
Existing Industrial Building	17k sf.	150	5	4	1	15	8	7
Project Trip Generation								
Muli-Family Housing (Low-Rise, Close to Rail Transit)[2]	122 units	576	46	13	33	74	44	30
Live / Work Residential Units[3]	10 units	37	0	0	0	0	0	0
Strip Retail Plaza (<40k sf)[2]	1.5k sf	82	4	2	2	10	5	5
Public Plaza[4]	1.5k sf	0	0	0	0	0	0	0
Institutional/Boat Storage[4]	6k sf	0	0	0	0	0	0	0
Internal Capture (Daily 2%, AM 0%, PM 4%)[5]		-59	0	0	0	-4	-2	-2
Pass-By (Daily 20%, AM 0%, PM 40%)[6]		-5	0	0	0	-2	-1	-1
Total Proposed Trip Generation		631	50	15	35	78	46	32
Net New Trip Generation		**481**	**45**	**11**	**34**	**63**	**38**	**25**

Source: Table 3, p.18, Transportation Impact Study, Kimley Horn, May 2022

KSF = 1,000 square feet; DU = Dwelling Units

[1] Existing trip generation based on count data.

[2] Average rate from ITE Trip Generation Manual, 11th Edition used to develop trip generation.

[3] ITE Trip Generation Manual, 11th Edition does not provide a land use for live/work from home residential units. Therefore, it is assumed that these units will generate zero AM and PM peak hour trips. Daily trips were based on the daily rates for ITE Land Use Code 220, excluding the AM and PM peak hour trips that would be generated if these units were townhomes.

[4] These uses are assumed to be for resident use and will be captured within the trips generated by the townhomes.

[5] Internal capture derived from ITE Trip Generation Handbook, 3rd Edition. Daily rates are not provided and therefore were developed based on an average of the AM and PM peak hour reduction rates.

[6] Pass-by derived from ITE Trip Generation, 11th Edition. AM rates are not provided and therefore is assumed to be zero. Daily rates are not provided and therefore were developed based on an average of the AM and PM peak hour reduction rates.

General Plan policy 5-P-10 specifies that level of service (LOS) should be maintained at Level D or better for motor vehicles due to traffic from any development project. As described above, LOS is no longer used to assess environmental impacts and instead VMT is relied upon. As noted previously, the General Plan EIR concluded that LOS standards would be exceeded at six intersections throughout the city, including two project study intersections (Lakeville Street/East D Street and Petaluma Boulevard South/D Street). The project's Transportation Impact Study includes a level of service analysis and evaluation of General Plan policy 5-P-10.

Existing Plus Project Conditions

Upon the addition of project-related traffic to the existing volumes, the study intersections are expected to operate similarly to Existing Conditions. All project study intersections are expected to operate under acceptable level of service established by General Plan Policy 5-P-10 with the proposed project. The D Street / Copeland Street intersection operates under a deficient LOS standard without the project in the PM peak hour operations. However, the project is expected to improve the LOS at this intersection because of traffic signal installation that will coordinate vehicle turning movements. Accordingly, intersections delay would not further degrade under the Existing Plus Project Condition, and the project is not introducing a new conflict with the City's level of service policy. These results are summarized in Table 12.

Table 12: Existing and Existing Plus Project Peak Hour Intersection LOS

Study Intersection		Existing Conditions				Existing plus Project			
		AM Peak		PM Peak		AM Peak		PM Peak	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1.	D Street/Lakeville Street – Signal	37	D	38.7	D	37.5	D	39.8	D
2.	D Street/Copeland Street – Signal	3.7	A	6.9	A	19.3	B	23.4	C
	Worst Approach – Stop	19.4	C	**89.5**	**F**				
3.	D Street/1st Street – Signal	18.7	B	21	C	14	B	17.1	B
4.	D Street/Petaluma Boulevard – Signal	34.1	C	40.2	D	40.2	D	42.8	D
5.	Washington Street/Lakeville Street – Signal	38.6	D	46.5	D	38.7	D	47	D
6.	Washington Street/Copeland Street – Signal	30.7	C	17	B	30.8	C	17.6	B

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; **Bold** text = deficient operation

Pipeline Plus Project Conditions

With project-related traffic added to Pipeline volumes, and with the Pipeline Conditions signal phase modifications, the study intersections are expected to operate similarly to Pipeline Conditions. As shown in the Table below all study intersections operate at an acceptable LOS under Pipeline Plus Project conditions. The installation of a signal at the intersection of D Street and Copeland would improve LOS standards. Improvements at other intersections are the result of the traffic model adjusting the vehicle arrivals because of the upstream signal and improves the intersection delay. Accordingly, the project is consistent with policy stated in the General Plan such as 5-P-10.

Table 13: Pipeline and Pipeline Plus Project Peak Hour Intersection LOS

Study Intersection		Pipeline				Pipeline Plus Project			
		AM Peak		PM Peak		AM Peak		PM Peak	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1.	D Street/Lakeville Street – Signal	39.9	D	41.4	D	40.5	D	42.7	D
2.	D Street/Copeland Street – Signal	22.9	C	**48.1**	**E**	22.7	C	34.4	C
	Worst Approach – Stop	**>150.0**	**F**	**>150.0**	**F**				
3.	D Street/1st Street – Signal	22.9	C	26.8	C	16.4	B	24.3	C
4.	D Street/Petaluma Boulevard – Signal	40.3	D	44.8	D	43.5	D	49.7	D

5.	Washington Street/Lakeville Street – Signal	43.8	D	53.9	D	54.6	D	54.6	D
6.	Washington Street/Copeland Street – Signal	32.9	C	20.0	C	32.8	C	20.8	C

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; **Bold** text = deficient operation

Cumulative Plus Project Conditions

As shown in Table 14, with the addition of project-generated traffic to future volumes, and with optimized signal timing, study intersections would operate at the same levels of service grade without the project. The delay is expected to increase at the intersections of D Street at Lakeville Street, and Washington Street at Lakeville Street, which already exceed level of service requirements under General Plan Policy 5-P-10 under cumulative conditions without the project. This deficiency is not an environmental impact of the project.

Table 14: Cumulative and Cumulative Plus Project Peak Hour Intersection LOS

Study Intersection		Cumulative				Cumulative Plus Project			
		AM Peak		PM Peak		AM Peak		PM Peak	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1.	D Street/Lakeville Street – Signal	**59.1**	**E**	**55.1**	**E**	**60.5**	**E**	**57.2**	**E**
2.	D Street/Copeland Street – Signal	23.2	C	**70.8**	**F**	22.1	C	45.9	D
	Worst Approach – Stop	**>150**	**F**	**>150**	**F**				
3.	D Street/1st Street – Signal	17.7	B	27.1	C	11.1	B	23.6	C
4.	D Street/Petaluma Boulevard – Signal	44	D	46.7	D	44.1	D	41.5	D
5.	Washington Street/Lakeville Street – Signal	**66.5**	**E**	**77.2**	**E**	**67.1**	**E**	**79.3**	**E**
6.	Washington Street/Copeland Street – Signal	35.6	D	25	C	35.5	D	26.1	C

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; **Bold** text = deficient operation

Transit, Bicycle and Pedestrian Facilities

Public pedestrian, bicycle, and transit facilities in the project vicinity will not be substantially impacted by the proposed development. Given the proximity of good and services, it is reasonable to assume that some project residents would walk, bicycle, and/or use transit for trips to and from the project site. Sidewalks exist along East D Street and the north side of Copeland Street entering the project site. The project would include the installation of sidewalks along the project frontage on Copeland Street. The project would also introduce onsite pedestrian amenities in the form of a multi-use pathway along the southern edge of the project, connecting East D Street to multi-use pathway in Steamers Landing Park. Further, the project is designed in such a way that it would not conflict with the existing pathway that border the McNear Canal. Therefore, pedestrian facilities serving the project site would be adequate and impacts would be considered less than significant.

There is currently an existing Class I bicycle path on the east leg of the intersection of Copeland Street and D Street that extends into the perimeter of the McNear Canal. There is also an existing Class III bicycle route along D Street, just west of the project site, between 1st Street and Payran Street which allows bicyclists access to nearby transit stops and the Downtown Petaluma SMART station. The project includes a new multi-use trail along the Petaluma River and dedicated bicycle lane along East D Street. Bicycle racks are proposed on the project site and bicycle parking can be accommodated in private garages. With project implementation bicycle facilities onsite and in the immediate vicinity will comply with the City's Pedestrian and Bicycle Plan. Therefore, the project would have less than significant impacts related to bicycle facilities.

Existing transit routes are expected to adequately accommodate project-generated transit trips with the improvements to pedestrian connections. Existing bus stops are located approximately 500 feet northeast of the site near the intersection of East D Street and Lakeville Street. Existing sidewalks provide safe pedestrian connectivity. As such, existing transit facilities are accessible from the project site located within acceptable walking distance. Transit facilities serving the project site are adequate with the existing and proposed pedestrian connections. Therefore, the project would have less than significant impacts related to transit facilities.

Overall, the project is generally consistent with General Plan policies regarding circulation including the City's Bicycle and Pedestrian Plan. Therefore, there would be less than significant impacts due to a conflict with transportation related plan, policies, and ordinances.

6.17 (b) (Conflict with 15064.3(b) VMT) Less Than Significant: The City's VMT Implementation Guidelines provide standards for the VMT analysis, including screening criteria to determine whether a project would be exempt from a VMT analysis. Pursuant to the City's VMT Implementation Guidelines, projects are exempt from a VMT analysis if they are within one-half (0.5) mile of an existing or planned high quality transit corridor or major transportation station. The Downtown Petaluma SMART Station qualifies as a major transit station, and the project site is located less than one-quarter (0.25) miles from the SMART Station. Accordingly, the project satisfies the distance screening criteria.

The VMT Implementation Guidelines provide additional screening standards that if a project satisfied, would not exempt it from VMT analysis. A presumption of a less than significant should not be applied, and a VMT analysis should be performed, if the project:

- FAR of Less Than 0.75: The project would have an FAR of approximately 1.13. Therefore, this criterion is not met and the project is not subject to a VMT analysis.

- More Parking Than Required: The Smart Code requires a minimum of one parking space per market rate unit and 0.5 parking spaces for each affordable unit, and 2 spaces per 1,000 square feet of commercial space. The total minimum parking spaces required for the proposed residential uses is 131 spaces, and for the commercial space a minimum of 15 parking spaces are required, for a total of 146. The Smart Code does not identify parking maximums. Outside of the Smart Code, the City's standard is to provide one covered space plus two additional spaces (covered or uncovered) for residential uses and one space for each 300 square feet of retail. As such up to 396 residential parking spaces and an additional 10 spaces for retail, for a total of 496 parking spaces, would typically be required. The project is proposing up to 272 onsite parking spaces. Therefore, this criterion is not met and the project is not subject to further VMT analysis.

- Inconsistent with Plan Bay Area: Plan Bay Area 2050 is a long-range strategic plan for Bay Area. Based on the project description and site plan, there are no known project inconsistencies with the strategic plan. Therefore, this criterion is not met and would exempt the project from a VMT analysis.

- Replaces Affordable Residential Units: The project site contains industrial land uses; affordable units are not existing onsite. Therefore, this criterion is not met and would exempt the project from a VMT analysis.

As such, the project will have a less than significant impact with regard to a conflict or inconsistency with CEQA Guidelines 15064.3 subdivision b.

6.17 (c) (Geometric Design Feature Hazard) Less Than Significant: The project site would be accessed from East D Street via Copeland Street. The eastbound and westbound approaches on Copeland Street are currently stop-controlled while the northbound and southbound approaches on D Street are uncontrolled. The intersection will be signalized with the proposed project. The project includes landscaping along East D Street and internal frontages. However, the landscaping is positioned such that adequate site lines are maintained. The project does not include signs or monuments at any public or internal street intersection. Therefore, sight distances will not be interrupted. Further, the project has provided an emergency vehicle turning template demonstrating that emergency access vehicles can navigate all areas of the site. The Petaluma Fire Department and Public Works and Utilities Department have reviewed the turning template, site layout, and intersection improvements and has found the design to be acceptable and consistent with applicable standards.

As a condition of project approval, landscaping along the project frontage shall be maintained such that foliage does not encroach into a clear vision triangle. In addition, as a condition of approval, signs, or monuments that may be proposed along the project frontage should be placed so that sight distance is not obstructed at the project entrance. Therefore, sight distance is expected to be adequate at the project entrance on Copeland Street and East D Street. The proposed project would not introduce any geometric design feature hazards. Therefore, impacts related to design hazards would be less than significant.

6.17 (d) (Emergency Access) Less Than Significant: The project's access has been reviewed by the Petaluma Public Works and Fire Departments. Emergency vehicle access is provided from the primary access point from Copeland Street. A secondary emergency vehicle access is proposed through a connection to Hopper Street in the northeast corner of the site. The secondary access point would be gate controlled for access by emergency personnel only. Site circulation was determined to be adequate, including sufficient alley way width to allow for fire truck access to the proposed apartment buildings. Therefore, the project's potential to result in impacts due to inadequate emergency access would be less than significant.

The increase of construction vehicles traveling to and from the project site on a temporary basis would not result in inadequate emergency access. East D Street and Copeland Street would remain open to travel during construction of all phases of the proposed project. To construct the project, road closure is not anticipated, although temporary encroachment may occur during frontage improvements to East D Street and Copeland Street. Therefore, temporary impacts to emergency access will be less than significant during project construction.

Mitigation Measures: None Required.

6.18 TRIBAL CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, 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:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☒	☐	☐
ii) 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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Sources: City of Petaluma General Plan 2025 and EIR; Pacific Legacy, Inc. Archaeological Survey Report, prepared May 2022; and Pacific Legacy, Inc. Historic Resources Evaluation Report, prepared May 2022.

Tribal Cultural Resources Setting

As presented in Section 6.5 Cultural Resources above, a Historic Resources Evaluation and Archaeological Survey was prepared by Pacific Legacy, Inc. that analyzes the potential for the project to impact cultural and tribal cultural resources. The report includes previously conducted site studies and recorded cultural resources discovered in the project area. As presented therein, the project site is located in the vicinity of the Petaluma River and has been heavily disturbed from past activities associated with former onsite uses including the Pioneer Shell Company building and wharf.

In accordance with PRC Section 21080.3.1(d), the City of Petaluma provided notice to Federated Indians of Graton Rancheria (FIGR) in a letter dated November 2, 2022, which included a brief description of the proposed project and its location, the project specific cultural resources evaluation, city staff's contact information, and a notification that the Tribe has 30 days to request consultation. On November 30, 2022, FIGR replied to the City of Petaluma requesting formal consultation under Public Resources Code section 21080.3.1. The City of Petaluma responded to FIGR's request for formal consultation on December 30, 2022 and provided additional materials to inform the consultation process. On March 1, 2023 a consultation meeting was held between City staff and the FIGR. FIGR expressed concerns regarding the project site's potential to contain tribal cultural resources within the dredged fill material places onsite and requested that an onsite monitor be present during ground disturbance, that native plantings be used in landscaping, and that public access to open space land proximate to the Petaluma River be retained. The project design includes public access trails and easement and the preliminary landscaping planting plan provides for natives species. Tribal consultation is understood to have been completed to the satisfaction of FIGR.

Tribal Cultural Resources Impact Analysis:

6.18 (ai- aii) (Listed or Eligible for Listing) Less than Significant with Mitigation: The Historic Resources Evaluation and Archaeological Survey evaluated past studies and reports that have assessed the existence of Native American resources onsite and in the project site vicinity. Aside from the shell processing plant, no Native American or other historic period cultural deposits, features, or artifacts were identified. Although the past studies and current pedestrian survey did not yield potentially eligible tribal cultural resources, due to known resources in the vicinity it was determined that the project site holds an elevated potential to contain tribal cultural resources. The pedestrian site survey yielded negative results for tribal cultural resources, noting that most of the soils have been previously disturbed by past uses, including a graveled parking lot and dense seasonal grasses.

Despite negative results, the project site's proximity to known resources elevates the potential for the site to contain tribal cultural resources. Excavation, trenching and grading activities would involve disturbance to dredged fill material and may encounter undisturbed native soils, which have the potential to contain tribal cultural resources. If eligible resources were present, construction activities from the proposed project could result in adverse impacts to tribal cultural resources. To avoid inadvertently causing a substantial adverse change in the significance of an archaeological resource, Mitigation Measures CUL-1, set forth above, provides for training and monitoring procedures during construction and Measure CUL-2 provides for treatment in the event that resources are uncovered. Therefore, with implementation of measures CUL-1 and CUL-2 potential impacts to tribal cultural resources onsite will be reduced to less than significant levels.

Mitigation Measures: Implement Measure CUL-1 and CUL-2.

6.19 UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

Sources: City of Petaluma General Plan 2025 and EIR; Water Resource and Conservation 2020 UWMP; Sonoma Water 2020 UWMP.

Utilities and Service Systems Settings

The City of Petaluma collects development and capacity fees on new construction within the city to support the maintenance and growth of public utility infrastructure, including water, wastewater, and storm drains. The project is subject to all applicable development fees.

Water Supplies

In 2021, the City updated the UWMP, to include a baseline and target demand analysis, a water service reliability and drought risk assessment, projected urban water use to 2045, and a description of programs to achieve the target demand reductions in the UWMP. Instream flow requirements have also been established to protect fish and wildlife species and recreation.[19] Based on regional water supply availability and use, the UWMP expects to be able to increase annual water deliveries to Petaluma from approximately 9,487 acre-feet (AF) in 2020 to 12,117 AF by 2045. In 2020, the City's average per capita water usage rate was 102 gallons per capita per day (GPCD). As presented in the City's UWMP the SB X7-7 GPCD target for the City of Petaluma, was 141 for the year 2020. The results of that comparison find that potable water demand is well within the available Sonoma Water supply, both for this project, and for cumulative demand through 2045 as set forth in the 2021 UWMP.

To assure that the City of Petaluma has sufficient water supplies to meet increased water demand, the General Plan requires routine monitoring of water supplies against actual use and evaluation for each new development project (Policy 8-P-4). Development of the project site at the proposed density has been planned for in the General Plan and EIR and captured in the water demand assumptions of the City's UWMP. The City's water supplies are sufficient to accommodate increased demand generated by the proposed project and the project will be subject to water and wastewater capacity development impact fees. Additionally, the project is subject to the latest building code standards, which require water efficiency for indoor and outdoor water uses.

The project proposes to install 8 inch diameter potable water pipelines within the new internal access drive aisles that connect to the City's existing municipal water infrastructure within Copeland Street.

[19] State Water Resources Control Board: Decision No. 1610, http://www.waterboards.ca.gov/waterrights.

Wastewater

The Ellis Creek Water Recycling Facility treats all wastewater generated by the City of Petaluma and the unincorporated Sonoma County community of Penngrove. The collection system is comprised of approximately 195 miles of underground piping and nine (9) pump stations. The treatment capacity is about 6.7 million gallons per day (average dry weather flow). Approximately five (5) million gallons per day are treated under the existing wastewater generation condition, leaving approximately 1.7 million gallons in available treatment capacity. In the winter, secondary treated wastewater effluent is conveyed to the Petaluma River. During the summer, effluent receives tertiary treatment and the recycled water is used for irrigation of agricultural lands, golf courses, city parks, schools, and landscaped areas of residential and commercial development.

The project proposes to install 8 inch diameter sanitary sewer pipelines within the new internal access drive aisle that connect to the City's existing infrastructure within Hopper Street for conveyance to the regional treatment facility.

Storm Drains

Within the City of Petaluma storm drains convey runoff from impervious surfaces such as streets, sidewalks, and buildings to gutters that drain to creeks and the Petaluma River and ultimately the San Pablo Bay. Most stormwater is untreated and carries with it any contaminants picked up along the way such as solvents, oils, fuels, and sediment. The City has implemented a storm drain-labeling program to provide a visual reminder that storm drains are for rainwater only. The City's Stormwater Management and Pollution Control Ordinance, set forth in Chapter 15.80 of the City's Municipal Code, establishes the standard requirements and controls on the storm drain system. All existing and proposed development must adhere to the City's Stormwater Management and Pollution Control Ordinance.

The project proposes onsite stormdrain infrastructure including 12 and 18 inch diameter pipelines, bio retention areas, as well as an outfall to the Petaluma River.

Utilities and Service Systems Impact Analysis

6.19 (a) (Relocation/Expansion of Utilities) Less Than Significant Impact: The project will not require or result in the relocation or expansion of offsite utilities. Existing water, wastewater, electric power, and telecommunications facilities already extend to the project site and will provide opportunities for connection from East D Street, Copeland Street, and Hopper Street and have sufficient capacity to serve the proposed development. The project will not result in significant environmental impacts due to the expansion of utilities or construction of new utilities as improvements are limited to activities onsite and along the site frontages at East D Street and Copeland Street, and offsite at Hopper Street.

Existing drainage onsite is comprised of overland sheet flow to the surrounding area, including the Petaluma River, McNear Canal, D Street and the rail corridor. There is an existing storm drain system within the site that conveys untreated stormwater from impervious surfaces on parcel 007-700-006 to an existing stormwater outfall into the Petaluma River at the southeast of the project site. The project would demolish the existing stormwater infrastructure on site and replace it with a new system. The northern portion of the project site, parcel 007-700-005, does not have any existing storm drain infrastructure.

The project includes new storm drainage infrastructure to accommodate the increase in impervious surfaces resulting from development of the site. Onsite improvements include installation of a new storm drain that pretreats in bioswales distributed throughout the site within landscaped areas before discharging to a 12-inch storm drainpipe located under project alleyways and ultimately discharging to a reconstructed outfall at the location of the existing outfall. Proposed LID measures include tree plantings and bio-retention areas that will capture stormwater runoff during precipitation events and provide for treatment and filtration of stormwater runoff onsite prior to release. Onsite storm drain infrastructure will be sized and designed to ensure that the project's outflows are maintained with the available capacity of the storm drain infrastructure. The environmental impacts associated with the proposed storm drains and bio-retention areas have been evaluated throughout this document and will be subject to conditions of approval and mitigation measures set forth herein.

Extension of utility and service systems is consistent with needs anticipated under the General Plan and CPSP. As stated in the CPSP EIR, replacement and upgrading of mains and lateral lines in a looped system are expected to occur within existing City-owned rights-of-way or easement, which will result in temporary construction-related impacts such as traffic, noise, and dust. The project will be required to implement BAAQMD best management practices to reduce dust emissions associated with construction, as set forth in Section 6.3 (Air Quality). The project is also subject to City of Petaluma noise regulations for construction activity and requirements for application of an encroachment permit when work is performed in the public right-of-way. With implementation of required best construction management practices and standard conditions of approval, the project will have less than significant impacts due to the installation of storm water drainage, water, and wastewater facilities onsite. Therefore, the project is expected to result in less than significant impacts due to the expansion of existing utilities or construction of new facilities.

6.19 (b) (Sufficient Water Supplies) Less Than Significant Impact: In evaluating the sufficiency of water supplies to meet existing water demands in addition to water demand generated by the proposed project, the City has compared General Plan 2025 projected water demand to actual use. In 2020 the City's average per capita water usage rate was 102 gallons per capita per day (GPCD).[20] As presented in the City's UWMP the SB X7-7 GPCD target for the City of Petaluma, was 141 gpcd for the year 2020.[21] As such, the City is meeting the planned GPCD target and available Sonoma Water supplies. Therefore, existing supplies will be sufficient to meet demand of the project and existing and planned demands through 2035 as set forth in the 2020 UWMP.

Based on the 2020 UWMP the demand for potable water supplies in 2019 was 7,321 acre-feet for all uses including single and multi-family residential, commercial, industrial, institutional/governmental, and landscaping. [22] Water demand for buildout of the General Plan is projected to be 10,705 acre-feet per year.[23] For year 2020, the UWMP concludes that the City complies with the 2020 water use target, which aims to achieve a 5% reduction in the per capita use relative to the 5-year baseline.

The UWMP establishes Demand Management Measures and a Water Shortage Contingency Plan, which provide a means for water conservation and planning for periods of drought. Additionally, individual development projects are required to comply with the City's Water Conservation Ordinance for interior and exterior water usage, thereby minimizing water demands generated by new development. The UWMP concludes that there are sufficient water supplies to meet water demands projected by the General Plan.

The land use designation change from RDI to MU would not adversely impact water use or increase demand beyond supplies. The project will be subject to the latest California Building Code requirements including plumbing and water efficiency standard as well as the City's Water Conservation Ordinance, which will further reduce water demands generated by the proposed project. Therefore, existing water supplies, facilities, and infrastructure are sufficient to meet the water demands of the project and future development during normal, single, and multiple dry year events. Therefore, impacts of the project to water supplies are considered to be less than significant.

6.19 (c) (Sufficient Wastewater Treatment Capacity) Less Than Significant Impact: Wastewater generated by the project is within the expected conveyance and treatment capacity anticipated by the General Plan and will not require the expansion of treatment facilities. Applicable City Wastewater Capacity fees will be collected from the applicant to fund the project's share for use of existing facilities and planned improvements. Wastewater flows from the proposed project will be conveyed to the Ellis Creek Water Recycling Facility, which has sufficient operating capacity to handle the additional flows generated by the proposed project. There would be no new construction or expansion of wastewater facilities as part of the proposed project. The project will direct effluent to the existing sewer trunk main within Hopper Street and will install onsite sewer pipelines, manholes, laterals, and tie-ins to collect and convey wastewater offsite. All wastewater generated onsite will be process through the City's municipal sanitary sewer system and treated at the Ellis Creek Water Recycling Facility.

The 132-unit residences, 6,000 square foot boathouse, 1,500 square foot covered public plaza, and 1,500 square feet of commercial space is not expected to exceed wastewater treatment requirements set forth by the Regional

[20] City of Petaluma 2020 UWMP, Section 5.6, pg 5-3
[21] City of Petaluma 2020 UWMP, Section 5.6, pg 5-3
[22] City of Petaluma 2020 UWMP, Table 4-1, Historical Water Demands by Water Use Sector, AF
[23] City of Petaluma 2020 UWMP Table ES-1, Total Projected Water Use (Potable and Non-Potable), AF

Water Quality Control Board, nor necessitate the expansion or construction of wastewater treatment facilities. The estimated wastewater generation of the proposed project falls within the capacity of the existing sanitary sewer lines and the City's wastewater treatment plant. The project does not include any activities that would generate wastewater requiring special treatment nor would it contain constituents exceeding applicable standards. The project would not exceed wastewater treatment requirements and adequate treatment capacity would be available to accommodate wastewater generated by the project. Therefore, the project would have less than significant impacts to wastewater treatment facilities.

6.19 (d, e) (Solid Waste Generation/Compliance with Solid Waste Management) Less Than Significant Impact: During site preparation, gravel surfaces, construction debris, concrete, and asphalt will be removed. Vegetation onsite and contaminated soils will be removed and treated to accommodate development. Two trees at the project's entrance at the intersection of East D Street and Copeland Street and 12 trees along the project's interior property line will be removed as part of the soil remediation process. Soil, vegetation, and woody debris will be off hauled during construction and disposed of at an appropriate facility. As described in Section 6.9 Hazards/hazardous materials, remediation activities will be conducted in accordance with the Clean Closure Plan and includes the proper handling and disposal of contaminated soils and compliance with federal, state, and local statutes and regulations.

Policy 4-P-21 requires waste reduction in compliance with the Countywide Integrated Waste Management Plan (ColWMP). Nonhazardous construction-related waste will be reduced, consistent with General Plan Policy 2-P-122, through the development of a construction waste management plan mandated by the California Green Building Standards Code. Accordingly, impacts associated with construction waste will be less than significant.

The proposed project, consisting of the development of 132 multi-family dwelling units, 6,000 square foot boathouse, 1,500 square foot covered public plaza, and 1,500 square feet of commercial space will contribute to the generation of solid waste. However, as a mixed-use project the amount of solid waste generated is consistent with the service needs anticipated by the Petaluma General Plan and evaluated in the General Plan EIR.

The City is under contract with Recology for solid waste disposal and recycling services. Recology provides canisters for garbage, green (plant waste) materials, and recycling. Solid waste is collected and transferred to the Sonoma County landfill sites. Solid waste disposal facilities are owned and operated by the Sonoma County Department of Transportation and Public Works and the City maintains a franchise solid waste hauling agreement requiring the franchise hauler as part of its contractual obligations to select properly permitted Approved Disposal Location(s) with adequate capacity to serve city service needs.

Recology has recommended a trash and recycling capacity of 1.5 cubic yards per 5 dwelling units. As a 132-unit development the project would generate a capacity of 39.6 cubic yards for waste management. Each home is responsible for collecting their waste and recycling. Individual cans will be stored within the garages of each unit. The trash and recycling cans will be staged in the ally(s) during collection days as needed to provide service once per week. Generation rates and storage varies for commercial uses by business type. Although the project would generate additional solid waste relative to existing conditions, it is not expected to exceed landfill capacity and is not expected to result in violations of federal, state, and local statutes and regulations related to solid waste. Therefore, the project will have a less than significant impact due to the generation and disposal of solid waste. Prior to issuance of occupancy the project will finalize a waste management plan with Recology.

Mitigation Measures: None Required.

6.20 WILDFIRE

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	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 downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

Sources: City of Petaluma General Plan 2025 and EIR; CalFire Fire Hazard Severity Zone Maps, Sonoma County, 2019; and Petaluma Fire Prevention Bureau, Fire Hazard Severity Zones.

Wildfire Setting

Petaluma is susceptible to wildland fires due to the steep topography, abundant fuel load, and climatic conditions, particularly along the edges of the City. The areas most susceptible to fire hazards are located near the wildland urban interface at the City margins. Lands surrounding the City of Petaluma that are within the State Responsibility Area are classified as moderate fire hazard severity zone to the west and south of the City and high and moderate to the east and north. The hills within the southern City limits are classified as Very High Fire Hazard Severity Zone (VHFHSZ) as part of the city's local responsibility areas determined by the Petaluma Fire Prevention Bureau.

In October 2017, the Tubbs Fire (Central LNU Complex) burned approximately 36,800 acres in Sonoma County and in 2019 the Kincade Fire burned approximately 77,000 acres in Sonoma County. Residents were exposed to direct effects of the wildfire, such as the loss of a structure, and to the secondary effects of the wildfire, such as smoke and air pollution. Smoke generated by wildfire consists of visible and invisible emissions that contain particulate matter (soot, tar, water vapor, and minerals) and gases (carbon monoxide, carbon dioxide, nitrogen oxides). Public health impacts associated with wildfire include difficulty in breathing, odor, and reduction in visibility.

Wildfires continue to increase in frequency and severity, posing increased risk from direct and indirect effects including loss of life, property, and habitat.

Wildfire Impact Analysis

6.20 (a-d) (Impair Emergency Plan, Expose Occupants to Wildfire Pollutants, Require Infrastructure, Pose Wildfire Related Risks) Less Than Significant Impact: The project site is categorized as a Non-VHFHZ by CAL FIRE and surrounded by urban uses and the Petaluma River. The project is not located in or adjacent to state responsibility areas of lands classified as very high fire hazard severity zones. The nearest state responsibility area is located approximately 0.75 miles to the southeast of the project site and the fire hazard severity of that area is moderate. The nearest high fire hazard severity area is located over 2.5 miles to the northeast on the other side of Old Adobe Road. The nearest very high fire hazard severity area is located 10.5 miles away near the community of Glen Ellen. The project would not substantially impair an adopted emergency response plan or emergency evacuation plan. There are no factors, such as steep slopes, prevailing winds, or the installation/maintenance of new infrastructure, that would exacerbate fire risk or expose project occupants to the uncontrolled spread of a wildfire, pollutant concentrations from a wildfire, post-fire slope instability, or post-fire flooding. Therefore, the project would have less than significant impacts related to wildfire risks.

Mitigation Measures: None Required.

6.21 MANDATORY FINDINGS OF SIGNIFICANCE (CAL. PUB. RES. CODE §15065)

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	☐	☒	☐	☐
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)?	☐	☐	☒	☐
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Mandatory Findings Discussion

6.21 (a) (Degrade the Environment) Less Than Significant Impact with Mitigation: The project is located within the City of Petaluma's UGB. The proposed General Plan Amendment, rezoning, and corresponding development on the project site generally complies with the goals, policies, and programs outlined in the General Plan and the provision of the SmartCode and zoning code, with approval of the requested warrants.

As presented throughout this analysis the project has the potential to result in temporary and permanent impacts to environmental resources. However, with standard conditions of approval and implementation of mitigation measures identified herein, potential impacts of the project will be reduced to less than significant levels. As described above in the Biological Resources discussion, impacts to special-status plants, wildlife species, or sensitive habitat communities will be avoided or substantially reduced, or offset through mitigation measure and compliance with state and federal permits. The project's potential impacts due to possible presence of special-status species and sensitive habitats will be reduced to less than significant levels.

The Hazards/Hazardous Materials, Hydrology and Water Quality and the Geology discussions identify measures to avoid and minimize potential environmental impacts associated with water quality, flooding, and soil stability. Site cleanup and remediation activities, once complete will improve conditions by removing contaminants from onsite soils and precluding further spread of contamination into the Petaluma River. Stormwater and LID improvements introduced by the project ensure that all runoff is treated through bioretention areas prior to being discharged. Therefore, development of the project site will not degrade the quality of environment due to runoff sediment loads or contamination.

The Cultural Resources discussion identifies measures to ensure that potential impact to buried cultural resources if present are avoided. No other impacts associated with environmental degradation, plant or animal communities, species population and ranges, or California history or pre-history have been identified. As such, with implementation of mitigation measures described herein, the project will not degrade the quality of the environment, reduce habitat, or affect cultural resources. Therefore, with mitigation the project's impacts due to degradation of the environment will be reduced to less than significant levels.

6.21 (b) (Cumulatively Affect the Environment) Less Than Significant Impact: The project will contribute to cumulative impacts identified in the City's General Plan EIR but not to a level that is considered cumulatively considerable. As described above, the project will contribute to incremental growth in the City resulting in increased demands for public services and utilities, additional trips on city and regional roadways, and contributions to air quality and GHG emissions. Given that the project is a mixed use development comprised of approximately 132 units and approximately 6,000 sf. of commercial space with associated support facilities that are consistent with the density anticipated by the General Plan, cumulative impacts will be less than significant.

The project is consistent with the land use immediately to the west and implements the intent of the UGB through the development of an underutilized parcel (General Plan Policy 1-P-2). Public utility and service providers will be capable of serving the project with existing or planned facilities. Potential environmental impacts are expected to remain at, or be mitigated to levels below significance, and long-term environmental goals are not expected to be adversely impacted by the project. Therefore, the project's cumulative impacts will be less than significant.

6.21 (c) (Substantial Adverse Effect on Humans) Less Than Significant Impact With Mitigation: The project has the potential to result in adverse impacts to humans due to air quality, biological resources, geology and soils, noise, hazardous materials, and hydrology and water quality. With mitigation measures set forth above, environmental effects that would directly or indirectly impact human beings onsite or in the project vicinity will be reduced to less than significant levels. Therefore, with implementation of mitigation measures the project's impacts due to substantial adverse effects on human beings will be reduced to less than significant levels.

Mitigation Measures: None Required.

7 REFERENCE DOCUMENTS

7.1 TECHNICAL APPENDICES

A. Air Quality Assessment, prepared by Kimley-Horn & Associates, Inc., May 2022.

B. Biological Resources Technical Report, prepared by WRA Environmental Consultants, March 2022.
   B-1. Rare Plant Survey Results Letter, prepared by WRA Environmental Consultants, July 2022.
   B-2. Arborist Report, prepared by WRA Environmental Consultants, June 2022.

C. Archaeological Survey Report, prepared by Pacific Legacy, Inc., May 2022. (Confidential)
   C-1. Historic Cultural Resources Evaluation Report, prepared by Pacific Legacy, Inc., May 2022. (Confidential)

D. Due Diligence Geotechnical Investigation, prepared by Berlogar, Stevens, & Associates, December 19, 2018.
   D-1. Limited Geotechnical Exploration, prepared by ENGEO Inc., July 19, 2021.
   D-2. Sea Level Rise Assessment, prepared by CBG Civil Engineers, dated June 15, 2022.

E. Greenhouse Gas Emissions Assessment, prepared by Kimley-Horn & Associates, Inc., May 2022

F. Phase I Environmental Site Assessment, prepared by ENGEO Inc., November 20, 2018.
   F-1. Phase II Environmental Summary Letter, prepared by ENGEO, Inc., September 2, 2022.
   F-2. Site Remediation Plan, prepared by ENGEO, Inc., November 1, 2022.

G. Acoustical Assessment, prepared by Kimley-Horn & Associates, Inc., May 2022.

H. Transportation Impact Study, prepared by Kimley-Horn & Associates, Inc., May 2022.

7.2 OTHER DOCUMENTS REFERENCED

1. 2007 Final Adopted State Alternative Fuels Plan, prepared by the California Energy Commission, https://ww2.energy.ca.gov/2007publications/CEC-600-2007-011/CEC-600-2007-011-CMF.PDF, Accessed July 9, 2019.

2. 2019 California Green Building Standards Code (CalGreen), Effective January 1, 2020.

3. BAAQMD 2017 Bay Area Clean Air Plan, prepared by the Bay Area Air Quality Management District, April 2017.

4. BASMAA Post Construction Manual Design Guidance for Stormwater Treatment and Control for Projects in Marin, Sonoma, Napa, and Solano Counties, January 2019.

5. California Environmental Quality Act Air Quality Guidelines, prepared by the Bay Area Air Quality Management District, May 2017.

6. California Scenic Highway Mapping System, Scenic Highway System Lists, 2019. http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm, accessed February 2023.

7. California Department of Conservation, Farmland Mapping and Monitoring Program, Sonoma County, 2023.

8. City of Petaluma 2020 Urban Water Management Plan, prepared June 2021.

9. City of Petaluma, General Plan 2025 and EIR.

10. City of Petaluma Municipal Code and Implementation Zoning Ordinance.

11. City of Petaluma SmartCode

12. Climate Action 2020 and Beyond, Sonoma County Regional Climate Action Plan, prepared by the Sonoma County Regional Climate Protection Authority, July 2016.

13. Petaluma Valley Groundwater Sustainability Agency, Groundwater Sustainability Plan, 2022.

14. Petaluma Fire Prevention Bureau, Very High Fire Hazard Severity Zones, June 2007.

15. Petaluma Valley Groundwater Sustainability Agency, Petaluma Valley Groundwater Sustainability Plan, January, 2022.

16. Petaluma Historical Habitats, Petaluma River Historical Ecology, San Francisco Estuary Institute, 2022.

17. Petaluma Housing Element 2015 – 2023, Attachment 1.

18. Permit Sonoma's Williamson Act Properties 2019.

19. Petaluma River Access and Enhancement Plan, adopted by the City of Petaluma 1996.

8 MITIGATION MONITORING AND REPORTING PROGRAM

City of Petaluma, California

Community Development Department
Planning Division
11 English Street, Petaluma, CA 94952

Project Name: Oyster Cove Mixed Use Neighborhood

File Number: PLPJ-2022-0005

Address/Location: 100 and 310 East D Street and 0 Copeland Street, City of Petaluma, California (APNs 007-700-003, -006, and -005)

MITIGATION MONITORING AND REPORTING PROGRAM

This Mitigation Monitoring and Reporting Program (MMRP) has been prepared in conformance with Section 21081.6 of the California Environmental Quality Act (CEQA) and Section 15097 of the CEQA Guidelines. This document has been developed to ensure implementation of mitigation measures and proper and adequate monitoring/reporting of such implementation. CEQA requires that this MMRP be adopted in conjunction with project approval, which relies upon a Mitigated Negative Declaration.

The purpose of this MMRP is to: (1) document implementation of required mitigation; (2) identify monitoring/reporting responsibility, be it the lead agency (City of Petaluma), other agency (responsible or trustee agency), or a private entity (applicant, contractor, or project manager); (3) establish the frequency and duration of monitoring/reporting; (4) provide a record of the monitoring/reporting; and (5) ensure compliance.

The following table lists each of the mitigation measures adopted by the City in conjunction with project approval, the implementation action, timeframe to which the measure applies, the monitoring/reporting responsibility, reporting requirements, and the status of compliance with the mitigation measure.

Implementation

The responsibilities of implementation include review and approval by City staff including the Engineering, Planning, and Building divisions. Responsibilities include the following:

1. The applicant shall obtain all required surveys and studies and provide a copy to the City prior to issuance of grading permits or approvals of improvements plans.
2. The applicant shall incorporate all applicable code provisions and required mitigation measures and conditions into the design and improvement plans and specifications for the project.
3. The applicant shall notify all employees, contractors, subcontractor, and agents involved in the project implementation of mitigation measures and conditions applicable to the project and shall ensure compliance with such measures and conditions.
4. The applicant shall provide for the cost of monitoring of any condition or mitigation measure that involves on-going operations on the site or long-range improvements.

5. The applicant shall designate a project manager with authority to implement all mitigation measures and conditions of approval and provide name, address, and phone numbers to the City prior to issuance of any grading permits and signed by the contractor responsible for construction.
6. Mitigation measures required during construction shall be listed as conditions on the building or grading permits and signed by the contractor responsible for construction.
7. All mitigation measures shall be incorporated as conditions of project approval.
8. The applicant shall arrange a pre-construction conference with the construction contractor, City staff and responsible agencies to review the mitigation measures and conditions of approval prior to the issuance of grading and building permits.

Monitoring and Reporting

The responsibilities of monitoring and reporting include the engineering, planning, and building divisions, as well as the fire department. Responsibilities include the following:

1. The Building, Planning, and Engineering Divisions and Fire Department shall review the improvement and construction plans for conformance with the approved project description and all applicable codes, conditions, mitigation measures, and permit requirements prior to approval of a site design review, improvement plans, grading plans, or building permits.
2. The Planning Division shall ensure that the applicant has obtained applicable required permits from all responsible agencies and that the plans and specifications conform to the permit requirements prior to the issuance of grading or building permits.
3. Prior to acceptance of improvements or issuance of a Certificate of Occupancy, all improvements shall be subject to inspection by City staff for compliance with the project description, permit conditions, and approved development or improvement plans.
4. City inspectors shall ensure that construction activities occur in a manner that is consistent with the approved plans and conditions of approval.

MMRP Checklist

The following table lists each of the mitigation measures adopted by the City in connection with project approval, the timeframe to which the measure applies, the person/agency/permit responsible for implementing the measure, and the status of compliance with the mitigation measure.

OYSTER COVE MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION MEASURE	IMPLEMENTATION	RESPONSIBLE PARTY	COMPLETION OF IMPLEMENTATION	
			ACTIVITY	DATE COMPLETED
AIR QUALITY				
AQ-1: The applicant shall incorporate the Best Management Practices (BMPs) for construction into the construction and improvement plans and clearly indicate these provisions in the specifications. In addition, an erosion control program shall be prepared and submitted to the City of Petaluma prior to any construction activity. BMPs shall include but not be limited to the BAAQMD Basic Construction Mitigation Measures as modified below: 1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. 2. All haul trucks transporting soil, sand, or other loose material shall be covered. 3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. 4. All vehicle speeds on unpaved roads shall be limited to 15 mph. 5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. 6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.	• Measures shall be included in project design and construction documents. • Periodic inspections during construction to ensure that measures are in place.	• Applicant • Planning Division • Building Division		

OYSTER COVE MITIGATION MONITORING AND REPORTING PROGRAM				
MITIGATION MEASURE	**IMPLEMENTATION**	**RESPONSIBLE PARTY**	**COMPLETION OF IMPLEMENTATION**	
			ACTIVITY	**DATE COMPLETED**
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper working condition prior to operation. 8. A publicly visible sign shall be posted with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.				
BIOLOGICAL RESOURCES				
BIO-1: Prior to issuance of grading permit, the project applicant shall provide documentation to the City of Petaluma that the required permits for installation of culvert outfalls from regulatory agencies have been obtained. The permit authorization process shall include, if needed and at the discretion of the regulatory agencies involved, consultation with National Marine Fisheries Service (NMFS), U.S. Fish and Wildlife Service (USFWS), and/or California Department of Fish and Wildlife (CDFW) to determine if avoidance, minimization, and mitigation measures beyond those described below are necessary. At a minimum, the following measures shall be implemented: • Project work shall be conducted, as much as practicable, during the dry season (May through October) to reduce runoff. If rainfall is in the forecast predicted to be greater than one-half inch over a 24-hour period, standard erosion control measures (e.g., straw waddles, bales, silt fencing) shall be deployed and grading shall be suspended. • Erosion control measures shall be utilized throughout all phases of the project where sediment runoff from construction may	• Measures shall be included in project design and construction documents. • Inspection by a qualified biologist shall be conducted prior to commencement of earthwork activities and verified periodically. • Qualified biologist shall conduct training. • Contractor shall maintain records to	• Applicant • Planning Division • Qualified Biologist • NMFS • USFWS • CDFW • CORPS		

OYSTER COVE MITIGATION MONITORING AND REPORTING PROGRAM				
MITIGATION MEASURE	**IMPLEMENTATION**	**RESPONSIBLE PARTY**	**COMPLETION OF IMPLEMENTATION**	
			ACTIVITY	**DATE COMPLETED**
potentially enter waters. Erosion control structures shall be monitored for effectiveness and will be repaired or replaced as needed. Appropriate erosion control measures shall be installed around any stockpiles of soil or other materials which could be mobilized by rainfall or runoff. Erosion control structures shall not include plastic monofilament or other components that may entrap wildlife. Following completion of ground disturbance, silt wattles or other erosion control methods shall be installed along the stream bank, above the mean high tide water level. Silt wattles shall be made of jute and not plastic. • All equipment shall be staged above the top of bank and spill kits shall be located within working equipment. Equipment fuels and lubricants shall be prevented from reaching the river by locating fueling/maintenance areas an appropriate distance away from the river or drainage ways to the river and construction contractors shall have a spill prevention kit and plan on location. • Uncured concrete shall not be exposed to water flowing to the river or within the river itself and all excess uncured concrete shall be properly disposed of at an offsite location. • Areas of vegetation removal shall be limited to the smallest area feasible. Any areas of bare ground shall be re-seeded immediately following completion of all ground disturbance work. Additional erosion control measures (jute, hay) as feasible will be installed prior to rainy season. Areas of exposed stream bank above the mean high water shall be planted with native species appropriate for area and habitat. • An environmental awareness training program shall be given to all crew members working on the outfall replacement part of the project. The training will be given by a qualified biologist and shall include education on sensitive resources such as protected fish	document compliance. • Applicant shall obtain and provide to the City all regulatory approval.			

OYSTER COVE MITIGATION MONITORING AND REPORTING PROGRAM				
MITIGATION MEASURE	**IMPLEMENTATION**	**RESPONSIBLE PARTY**	**COMPLETION OF IMPLEMENTATION**	
			ACTIVITY	**DATE COMPLETED**
and wildlife with the potential to occur within the Study Area, water quality, and environmental protection measures. • Equipment shall be thoroughly cleaned prior to being moved onsite and prior to being removed such that it will not pose a potential to introduce or spread invasive plant or animal species. • Prior to construction, an Accidental Spill Prevention and Cleanup Plan shall be prepared. This plan shall include required spill control absorbent material, for use beneath stationary equipment, to be present on-site and available at all times. • No fueling, cleaning, or maintenance of vehicles or equipment shall take place within any areas where an accidental discharge may cause hazardous materials to enter waterways. • Any equipment or vehicles used for the project will be checked and maintained daily to prevent leaks of fluids that could be deleterious to aquatic habitats. • Construction disturbance or removal of vegetation shall be restricted to the minimum footprint necessary to complete the work. The work area shall be delineated by the project biologist where necessary to minimize impacts to vegetated habitats beyond the work limit, and to protected vegetation within the work area. • Staging and storage areas for equipment, materials, fuels, lubricants and solvents, shall be located outside of the floodplain and set back as far as feasible from channel banks and seasonal wetlands. • Stationary equipment such as motors, pumps, and generators, located adjacent to aquatic features shall be positioned over secondary containment sufficient to arrest a catastrophic failure.				

OYSTER COVE MITIGATION MONITORING AND REPORTING PROGRAM				
MITIGATION MEASURE	**IMPLEMENTATION**	**RESPONSIBLE PARTY**	**COMPLETION OF IMPLEMENTATION**	
			ACTIVITY	**DATE COMPLETED**
• All activities performed near aquatic features shall have absorbent materials designated for spill containment and cleanup activities on-site for use in an accidental spill. • Stockpiles of excavated soil or other shall be covered when not in active use (i.e. will not be used, or moved for 72 hours). All trucks hauling soil, sand, and other loose materials will be covered. • No construction debris of any type will be allowed to enter or be placed where they may be washed into any aquatic features. • At the end of the project construction activities all temporary flagging, fencing, or other materials shall be removed from the project site and vicinity of the channel. • No equipment shall be washed down where runoff could enter waterways. Avoidance and Minimization Measures for NMFS Species and resources (including critical habitat and essential fish habitat) that shall be implemented during project construction activities are outlined below. • Any work below the top of bank shall be completed during the dry season, between June 15 and October 15. • No work requiring heavy machinery to enter the wetted channel of the Petaluma River shall be conducted. To the greatest extent feasible, any work below the top of bank of the Petaluma River and McNear Canal shall be conducted using an excavator or other similar equipment capable of reaching the work area from above top of bank. • Work shall be conducted during the lowest tidal periods of the day to minimize disturbance to aquatic habitat and preclude need for using a coffer dam. • Prior to beginning work below the high tide line, a qualified biologist shall place exclusion nets to prevent fish from temporarily occupying waters that may be accidentally impacted				

OYSTER COVE MITIGATION MONITORING AND REPORTING PROGRAM				
MITIGATION MEASURE	**IMPLEMENTATION**	**RESPONSIBLE PARTY**	**COMPLETION OF IMPLEMENTATION**	
			ACTIVITY	**DATE COMPLETED**
by landslides or similar failures. The exclusion nets shall be of sufficient height to span the water column and small enough in size (1/8 inch or less) to exclude juvenile fish from areas that may be subject to disturbance during excavation. • To prevent the spread of turbidity that might be caused by liberation of sediment, a turbidity curtain shall be installed within the exclusion zone created by block nets whenever equipment makes contact with substrate below the high tide line and when rip-rap is installed. • Native vegetation removed shall be limited to the minimum necessary in order to complete outfall culvert installation and shall be replanted within the work area where appropriate. (For mitigation of loss of wetland habitat, see MM BIO-4).				
BIO-2: Tree and building removal shall be performed from September 1 through March 1, outside of the general bat maternity season. If tree or building removal during this period is not feasible, a bat roost survey shall be performed by a qualified biologist no more than 60 days prior to demo/removal to determine if bats are present in the trees or structures. During this survey, the qualified bat biologist shall determine if an active roost is present and if colonization by bats is likely. If bats are present, a bat exclusion plan shall be developed and implemented. If bats are absent, but potential for colonization is determined to be likely, the biologist shall make recommendations to prevent colonization. Within 14 days of commencement of construction, the biologist shall resurvey the structures and trees to determine if any bats are present. If no roosting bats are detected, then no further action is warranted. If bat maternity roosts are detected, then roost trees and structures shall be avoided until the end of the maternity roosting season. Irrespective of time of year, all felled	• Conduct surveys in accordance with this measure. • Conduct construction in conformance with measures herein. • Notify Planning Division and CDFW in the event of discovery.	• Qualified biologist • Applicant • Planning Division • CDFW		

OYSTER COVE MITIGATION MONITORING AND REPORTING PROGRAM				
MITIGATION MEASURE	**IMPLEMENTATION**	**RESPONSIBLE PARTY**	**COMPLETION OF IMPLEMENTATION**	
			ACTIVITY	**DATE COMPLETED**
trees and demolished buildings shall remain on the ground for at least 24 hours prior to chipping, off-site removal, or other processing to allow any bats present to escape. If more than 7 days lapse between the end of the survey and start of construction, the survey shall be repeated.				
BIO-3: Vegetation removal (including trees) and initial ground disturbance shall occur from September 1 to January 31 which is outside of the general bird nesting season. If tree/vegetation removal during this time is not feasible, a pre-construction nesting bird survey shall be performed by a qualified biologist no more than 7 days prior to the initiation of tree removal or ground disturbance, paying special attention to areas of more dense vegetation cover. The survey shall include the Project Area and surrounding areas within 500 feet. Survey results shall be provided to the City of Petaluma Planning Director or director's designee. If active bird nests are found during the survey, an appropriate no-disturbance buffer specific to the bird species shall be established by the qualified biologist. Once it is determined that the young have fledged (left the nest) or the nest otherwise becomes inactive (e.g., due to predation), the buffer restriction shall be removed and work may be initiated within the buffer. If more than 7 days lapse between the end of the survey and start of construction, the survey shall be repeated.	• Conduct surveys in accordance with this measure. • Conduct construction in conformance with measures herein. • Notify Planning Division and CDFW in the event of discovery.	• Qualified biologist • Applicant • Planning Division • CDFW		
BIO-4: Prior to issuance of grading permit the applicant shall provide proof of authorization to the City of Petaluma that temporary or permanent impacts to coastal salt marsh fringe wetland related to outfall replacement upgrade have been authorized by the appropriate regulatory agencies. Permits which may be necessary include a Section 10 Rivers and Harbors Act and/or a Section 404 CWA permit from the Corps, a Section 401 Water Quality Certification from RWQCB, and a 1602 Lake and Streambed Alteration Agreement (LSAA) from CDFW.	• Conduct surveys in accordance with this measure. • Conduct construction in conformance with measures herein.	• Qualified biologist • Applicant • Planning Division • CDFW • RWQCB • CORPS		

OYSTER COVE MITIGATION MONITORING AND REPORTING PROGRAM				
MITIGATION MEASURE	**IMPLEMENTATION**	**RESPONSIBLE PARTY**	**COMPLETION OF IMPLEMENTATION**	
			ACTIVITY	**DATE COMPLETED**
As part of the CORPS/RWQCB permit application packages, the applicant shall demonstrate that impacts to approximately 0.004 acres (171 square feet) of tidal wetlands will be replaced at a minimum 1:1 ratio on a functions and values basis, or as otherwise determined by the regulatory agencies. Preference shall be given to on-site mitigation, but ~~Mitigation~~ may include purchase of created wetlands credits from an approved mitigation bank or proponent created wetlands at an on- or off-site location, as deemed most appropriate by the regulatory agencies. The appropriate permits shall be obtained from regulatory agencies prior to initial grading/construction which shall include approval of a wetlands mitigation plan.	• Notify Planning Division and CDFW in the event of discovery.			
BIO-5: Prior to any tree removal or alteration, the applicant shall obtain approval from the City of Petaluma to implement a plan for tree preservation and replacement in accordance with the City's Tree Preservation Ordinance. Replacement of the protected trees onsite shall be replaced at a one-to-one trunk diameter basis. Replacement trees shall be consistent with the preliminary landscape plan, except that additional trees or larger size box trees (e.g. 36-inch) shall be included, if feasible, as recommended in the Arborist Report prepared by WRA Environmental Consultants, dated June 2022. ~~be at the minimum 24-inch box size~~. Acceptable replacement for the removal of 326.6 dbh of protected trees shall be determined in replacement planting plan provided to the City of Petaluma Planning Director, or director's designee for review and approval. Replacement trees shall be planted onsite in the same generally vicinity as the removed tree. In the event that replacement onsite is infeasible, the applicant shall pay a tree in-lieu fee. The replacement tree costs for the purposes of satisfying in-lieu fees shall be based on the typical northern California wholesale tree cost plus average installation cost for a minimum 24-inch box tree. If payment of an in-lieu fee is proposed, an arborist-	• Applicant to submit a plan for tree preservation to Planning for review and approval. • Applicant to document tree replacement onsite or pay in lieu fee. • City to verify replacement following construction.	• Qualified Arborist • Applicant • Planning Division		

OYSTER COVE MITIGATION MONITORING AND REPORTING PROGRAM				
MITIGATION MEASURE	**IMPLEMENTATION**	**RESPONSIBLE PARTY**	**COMPLETION OF IMPLEMENTATION**	
			ACTIVITY	**DATE COMPLETED**
prepared in-lieu replacement value for the remaining tree mitigation shall be required.				
CULTURAL RESOURCES				
CUL-1: To ensure the Project does not result in impacts to buried archaeological resources onsite, if present, the following shall be implemented: 1. **Training.** Prior to commencement of ground-disturbing activities, a professional archaeologist shall conduct a preconstruction training for construction personnel. The training shall familiarize individuals with the potential to encounter prehistoric artifacts or historic-era archaeological deposits, the types of archaeological material that could be encountered within the Project Area, and the requirement for a monitor to be present during initial ground-disturbing activities. 2. **Monitoring.** During initial ground disturbing activities, a Secretary of the Interior-qualified archeologist and Federated Indians of Graton Rancheria-approved monitor shall be onsite to monitor activities. The monitor shall have the authority to temporarily halt work to inspect areas as needed for potential cultural materials or deposits. Daily monitoring logs shall be completed by the monitor. 3. **Post-review Discoveries.** In the event that cultural resources are exposed during construction, all earth work occurring within 100 feet of the find shall be immediately stopped until a Secretary of Interior-qualified Archaeologist inspects the material(s), assess historical significance. The monitoring archaeologist shall consult with the Federated Indians of Graton Rancheria-approved monitor, may consult with other stakeholders, and as needed provide recommendations for the treatment of the discovery.	• Conduct construction in conformance with measures herein. • Notify Professional Archaeologist and Planning Division in the event of potentially significant archaeological resource discovery. • Include measure on project construction and improvement plans.	• Applicant • Qualified archaeologist and/or FIGR representative • Planning Division		

OYSTER COVE MITIGATION MONITORING AND REPORTING PROGRAM				
MITIGATION MEASURE	**IMPLEMENTATION**	**RESPONSIBLE PARTY**	**COMPLETION OF IMPLEMENTATION**	
			ACTIVITY	**DATE COMPLETED**
4. **Archaeological Monitoring Report.** Within 60 days following completion of construction work, an archeological monitoring report shall be submitted to the City. The report shall include the results of the monitoring program (even if negative), a summary of any findings or evaluation/data recovery efforts, and supporting documentation (e.g., daily monitoring logs).				
CUL-2: In the event that human remains are encountered within the Project Area during Project-related, ground-disturbing activities, all work must stop, and the County Coroner immediately notified of the discovery. If the County coroner determined that remains are, or are believed to be Native American, then the Native American Heritage Commission must be contacted by the Coroner so that a "Most Likely Descendant" (MLD) can be designated to provide further recommendations regarding treatment of the remains. A Secretary of Interior-qualified Archaeologist should also evaluate the historical significance of the discovery, the potential for additional human remains to be present, and to provide further recommendations for treatment of the resource in accordance with the MLD recommendations. Federal regulations require that Native American human remains, funerary objects, and object of cultural patrimony are handed consistent with the requirement of the Native American Graves Protection and Repatriation Act.	• Incorporate into project design and print on construction documents • On-site observation	• Applicant • Qualified archaeologist and/or FIGR representative • Planning Division • NAHC • MLD • County Coroner		
GEOLOGY AND SOILS				
GEO-1: The project Applicants shall submit for City's approval a preconstruction design-level geotechnical report for the Oyster Cove Project. The report shall include all applicable geologic report standards, reconnaissance and subsurface exploration data, laboratory test results, and conclusions and recommendations, including, but not limited to, those pertaining to: 1) site preparation, excavation, fill placement and compaction, temporary and permanent cut and fill slope inclinations	• Upon submittal of plans for building permit, submit a design-level geotechnical report. • Incorporate geotechnical	• Applicant/ Contractor/ Geotechnical Engineer • Public Works and Utilities		

OYSTER COVE MITIGATION MONITORING AND REPORTING PROGRAM				
MITIGATION MEASURE	**IMPLEMENTATION**	**RESPONSIBLE PARTY**	**COMPLETION OF IMPLEMENTATION**	
			ACTIVITY	**DATE COMPLETED**
(including whether slopes steeper than 3:1 can be used at the site), slope stability, slope erosion mitigation, and landslide movement mitigation; 2) surface and subsurface drainage systems, including drainage associated with grading for landslide movement mitigation and new cut and fill slopes; 3) foundations and floors for planned residential structures; 4) foundations for planned site improvements, including, but not limited to restrooms, barn, pedestrian bridges, and other structures; 5) settlement and swell estimates for planned residential structures and site improvements, including those bearing of engineered fill; 6) foundations, back-drains, and lateral earth pressures for site retaining walls; 7) seismic design parameters for the planned residential structures, site improvements, and site retaining walls; 8) pavement design for driveways, parking lots, pathways and trails, where applicable; 9) utility trench backfill, including check dams and trench drainage, if appropriate; 10) geologic/geotechnical construction monitoring, testing, and certification requirements; and 11) trail construction and long-term maintenance requirements, including criteria for inspecting and maintaining culverts and pathway surfaces, as appropriate. The geotechnical report shall include measures, as necessary, to reduce the potential for static and earthquake-induced slope movements that may adversely impact the Oyster Cove Project. Engineering analyses shall estimate the factors of safety against slope movements in the development area. As determined by the City Engineer and/or Chief Building Official, all recommendations outlined in the preconstruction design-level geotechnical report for the Oyster Cove project are herein incorporated by reference and shall be adhered to in order to ensure that appropriate measures are incorporated into the design and construction of the project. Nothing in this mitigation measure shall preclude the City	recommendations into project construction and improvement plans. • The project geotechnical engineer shall inspect the construction work and shall certify to the City, prior to issuance of a certificate of occupancy that the improvements have been constructed in accordance with the geotechnical specifications.	• Building Division		

OYSTER COVE MITIGATION MONITORING AND REPORTING PROGRAM				
MITIGATION MEASURE	**IMPLEMENTATION**	**RESPONSIBLE PARTY**	**COMPLETION OF IMPLEMENTATION**	
			ACTIVITY	**DATE COMPLETED**
Engineer and/or Chief Building Official from requiring additional information be provided to determine compliance with applicable standards. The project geotechnical engineer shall review the project plans and specifications and submit a letter certifying to the City that the project plans and specifications have been prepared in accordance with the geotechnical recommendations for the project. The project geotechnical engineer or personnel under their direct supervision shall inspect the construction of geotechnical and/or geologic aspects of the project and shall submit a letter certifying to the City that prior to issuance of a certificate of occupancy, the geotechnical and geologic aspects of the project plans and specifications have been appropriately constructed at the site and are acceptable to the project geotechnical engineer.				
GEO-2: Prior to issuance of a grading permit, an erosion control plan along with grading and drainage plans shall be submitted to the City Engineer for review. All earthwork, grading, trenching, backfilling, and compaction operations shall be conducted in accordance with the City of Petaluma's Grading and Erosion Control Ordinance #1576, Title 17, Chapter 17.31 of the Petaluma Municipal Code. Plans shall detail erosion control measures such as site watering, sediment capture, equipment staging and laydown pad, and other erosion control measures to be implemented during all construction activity.	• Compliance with approved erosion control plan.	• Applicant/ Contractor/ Geotechnical Engineer • Public Works and Utilities • Building Division		
HAZARDS AND HAZARDOUS MATERIALS				
HAZ-1: Prior to issuance of a grading permit, ~~approval of the Site Remediation Plan by the RWQCB shall be submitted to the City of Petaluma,~~ the applicant shall seek regulatory oversight for the proposed site remediation by the State, either the DTSC or RWQCB, pursuant to the 2005 Memorandum of Agreement between DTSC, the State Water Resources Control Board, Regional Water Quality Control Boards, and the California EPA for the Oversight of Investigation and Cleanup	• Provide copy of Site Remediation Plan to the City with construction documents for review and approval.	• Project Applicant/ Contractor • Environmental Professional/Health and Safety Officer		

OYSTER COVE MITIGATION MONITORING AND REPORTING PROGRAM				
MITIGATION MEASURE	**IMPLEMENTATION**	**RESPONSIBLE PARTY**	**COMPLETION OF IMPLEMENTATION**	
			ACTIVITY	**DATE COMPLETED**
Activities at Brownfield Sites. If regulatory oversight is required, r~~R~~emediation activities onsite shall be conducted in accordance with the Final Site Remediation Plan (Draft prepared by ENGEO, dated November 1, 2022), unless otherwise directed by the regulatory oversight. All impacted soils and vegetation shall be removed and remediated, in compliance with ~~oversight by~~ the DTSC or RWQCB, and disposed of at a facility licensed to accept contaminated materials. Prior to issuance of a certificate of occupancy, the applicant shall provide documentation to the City of Petaluma demonstrating that remediation has effectively reduced pollutant concentrations onsite and all contaminants fall below ESLs for residential uses. Remediation activities shall be conducted in accordance with the Site-Specific Health and Safety Plan.	• Retain copy of the approved plan on-site during construction.	• RWQCB. • Fire Department • Building Division • Planning Division		
HYDROLOGY AND WATER QUALITY				
HYDRO-1: In accordance with the National Pollution Discharge Elimination System (NPDES) regulation, the applicant shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) prior to construction. The SWPPP shall address erosion and sediment controls, proper storage of fuels, identification of BMPs, and use and cleanup of hazardous materials. A Notice of Intent, fees, and other required documentation shall be filed with the Regional Water Quality Control Board. During construction a monitoring report shall be conducted weekly during dry conditions and three times a day during storms that produce more than 1/2" of precipitation.	• Incorporate into project design and print on construction documents (building and landscape plans). • On-site observation	• Project Applicant/ Contractor • Public Works and Utilities • Building Division • Planning Division		
HYDRO-2: Should construction dewatering be required, the applicant shall either reuse the water on-site for dust control, compaction, or irrigation, retain the water on-site in a grassy or porous area to allow infiltration/evaporation, or obtain a permit to discharge construction	• Incorporate into project design and print on construction	• Project Applicant/ Contractor		

OYSTER COVE MITIGATION MONITORING AND REPORTING PROGRAM				
MITIGATION MEASURE	**IMPLEMENTATION**	**RESPONSIBLE PARTY**	**COMPLETION OF IMPLEMENTATION**	
			ACTIVITY	**DATE COMPLETED**
water to a sanitary sewer or storm drain. Discharges to the sanitary sewer system shall require a one-time discharge permit from the City of Petaluma. Measures may include characterizing the discharge and ensuring filtering methods and monitoring to verify that the discharge is compliant with the City's local wastewater discharge requirements. Discharges to a storm drain shall be conducted in a manner that complies with the Regional Water Quality Control Board Waste Discharge Requirements for Low Threat Discharges to Surface Waters in the North Coast Region. In the event that groundwater is discharged to the storm drain system, the Applicant shall submit permit registration documents and develop a Best Management Practices/Pollution Prevention Plan to characterize the discharge and to identify specific BMPs, such as sediment and flow controls sufficient to prevent erosion and flooding downstream.	documents (building and landscape plans). • On-site observation	• Public Works and Utilities • Building Division • Planning Division		
HYDRO-3: The project shall implement appropriate post-construction stormwater treatment measures to reduce water quality and hydromodification impacts to downstream reaches, as required by the current post construction controls regulations of the Small MS4 General Permit. Upon completion of the final project design, the Applicant shall provide a final stormwater control plan (SWCP) to the City of Petaluma and shall include stormwater management measures that comply with the Small MS4 General Permit. The report shall delineate individual drainage management areas (DMAs) within the project site and provide analysis to show compliance with the volumetric or flow-based treatment criteria as described in the Small MS4 General Permit and outlined in the BASMAA (2019) Post-Construction Manual. The report shall also include design calculations that show post-project runoff for the 24-hour, 2, 5, 10, 25, and 100 year storm event does not exceed pre-project flow for each DMA, and that each DMA has appropriate	• Incorporate into project design and print on construction documents (building and landscape plans). • On-site observation • Upon submittal of grading plan provide approval letter from Sonoma Water	• Project Applicant/ Contractor • Public Works and Utilities • Building Division • Planning Division • Sonoma Water		

OYSTER COVE MITIGATION MONITORING AND REPORTING PROGRAM				
MITIGATION MEASURE	**IMPLEMENTATION**	**RESPONSIBLE PARTY**	**COMPLETION OF IMPLEMENTATION**	
			ACTIVITY	**DATE COMPLETED**
stormwater quality treatment based on flow- or volumetric-based calculation, as outlined in the Small MS4 General Permit and in compliance with the BASMAA Manual. The final SWCP documentation shall be submitted to the City and Sonoma Water for review and an approval letter from Sonoma Water prior to the issuance of a grading permit shall be required.				
HYDRO-4: Following construction of the residential buildings within the FP-C (Flood Plain – Combining District), and prior to occupancy, the elevation of the lowest floor, including basement, shall be certified by a registered professional engineer or surveyor, to be properly elevated. Such certification or verification shall be provided to the Floodplain Administrator. The Floodplain Administrator shall require standards in accordance with the City's FP-C, such as the following: 1. All new improvements shall be anchored to prevent flotation, collapse, or lateral movement. 2. All new improvements shall be constructed with materials and utility equipment resistant to flood damage and using methods and practices to minimize flood damage. 3. All electrical, heating, air conditioning, ventilation, and plumbing shall be designed and located to prevent water from entering or accumulating within components during flooding. 4. All new construction and improvements shall insure that fully enclosed areas below the lowest floor that are subject to flooding be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of flood waters. A minimum of two opening not less than one square inch for every square foot of enclosed area shall be provided.	• Incorporate into project design and construction documents. • Conduct construction in conformance with measures herein.	• Applicant • Building Division • Planning Division • Public Works and Utilities		

OYSTER COVE MITIGATION MONITORING AND REPORTING PROGRAM				
MITIGATION MEASURE	**IMPLEMENTATION**	**RESPONSIBLE PARTY**	**COMPLETION OF IMPLEMENTATION**	
			ACTIVITY	**DATE COMPLETED**
NOISE				
NOI-1: The following Best Construction Management Practices shall be implemented to reduce construction noise levels emanating from the site, limit construction hours, and minimize disruption and annoyance: 1. Limit construction hours to between 7:00 a.m. and 7:00 p.m., Monday through Friday and between 9:00 a.m. and 7:00 p.m. on Saturday. Construction activities shall be prohibited on Sunday and State, Federal and Local Holidays. 2. Delivery of materials and equipment to the site and truck traffic coming to and from the site is restricted to the same construction hours specified above. 3. Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment. 4. Unnecessary idling of internal combustion engines shall be strictly prohibited. 5. Locate stationary noise-generating equipment such as air compressors or portable power generators as far as possible from sensitive receptors. If they must be located near receptors, adequate muffling (with enclosures where feasible and appropriate) shall be used to reduce noise levels at the adjacent sensitive receptors. Any enclosure openings or venting shall face away from sensitive receptors. 6. Acoustically shield stationary equipment located near residential receivers with temporary noise barriers. 7. Utilize "quiet" air compressors and other stationary noise sources where technology exists.	• Conduct construction in conformance with measures herein. • Incorporate into project design and construction documents. • Maintain delivery, hauling and construction in accordance with measure. • Provide notice to surrounding properties in accordance with measure. • Applicant shall provide for periodic inspection during construction to ensure that measures are in place.	• Applicant • Building Division • Planning Division		

OYSTER COVE MITIGATION MONITORING AND REPORTING PROGRAM				
MITIGATION MEASURE	**IMPLEMENTATION**	**RESPONSIBLE PARTY**	**COMPLETION OF IMPLEMENTATION**	
			ACTIVITY	**DATE COMPLETED**
8. Construction staging areas shall be established at locations that will create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction activities. 9. Locate material stockpiles, as well as maintenance/equipment staging and parking areas, as far as feasible from existing residences. 10. Control noise from construction workers' radios to a point where they are not audible at the existing Parks bordering the project site. 11. The contractor shall prepare a detailed construction schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination with the owner/occupant of nearby residential land uses so that construction activities can be scheduled to minimize noise disturbance. 12. Notify all residences by assessor parcel number (within 1,000 feet of the project site) of the construction schedule, in writing, and provide a written schedule of "noisy" construction activities to the adjacent land uses as well as contact information, including phone number of the disturbance coordinator. 13. Designate a "disturbance coordinator" who would be responsible for responding to any complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., bad muffler, etc.) and will require that reasonable measures be implemented to correct the problem. Conspicuously post a telephone number for the disturbance coordinator at the				

OYSTER COVE MITIGATION MONITORING AND REPORTING PROGRAM				
MITIGATION MEASURE	**IMPLEMENTATION**	**RESPONSIBLE PARTY**	**COMPLETION OF IMPLEMENTATION**	
			ACTIVITY	**DATE COMPLETED**
construction site and include in it the notice sent to neighbors regarding the construction schedule.				
TRIBAL CULTURAL RESOURCES				
Implement Measure CUL-1 and CUL-2.	See CUL-1, CUL-2	See CUL-1, CUL-2		