ENVIRONMENTAL CHECKLIST AND INITIAL STUDY

BRODY RANCH SUBDIVISION

MITIGATED NEGATIVE DECLARATION

Prepared By:

City of Petaluma
11 English Street
Petaluma, CA 94952

September 20, 2016
### Project Title:
Brody Ranch Subdivision

### Lead Agency:
City of Petaluma  
11 English Street  
Petaluma, CA 94952

### Contact Person:
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### Project Location:
360 Corona Road, Petaluma, CA

### Project Sponsor:
DeNova Homes, LLC  
1500 Willow Pass Road  
Concord, CA 94950

### Property Owners:
Allan J. Brody, Beverly Ann Brody and Sharon L. Moore

### General Plan Designation:
Split General Plan Land Use Designation:  
7.48 acres - Medium Density Residential  
8.44 acres - High Density Residential

### Zoning:
Existing Zoning:  
7.48 acres – Residential 4  
8.44 acres – Residential 5  

Proposed Zoning:  
7.48 acres – PUD  
8.445 acres – PUD

### Description of project:
Zoning change from R4 and R5 to Planned Unit Development (PUD) to allow reduced lot sizes and setbacks for the single-family component of the project, Tentative Subdivision Map, tree removal permit and Site Plan and Architectural Review (SPAR) for the subdivision of a 15.92-acre site for development of 199 units including 59 single-family homes, a duplex and 138 multi-family units. Project amenities include open space and conservation easement, landscape buffers, pedestrian and bicycle trails, neighborhood park/picnic area, resident and guest parking and public parking for nine cars.

All existing structures on the project site and 32 trees are to be removed and 311 trees are proposed to be planted.

### Surrounding land uses and setting; briefly describe the project's surroundings:
Land uses surrounding the site are as follows:  
West- Corona Road and low density rural residential (located outside City of Petaluma and outside the Urban Growth Boundary);  
North - Single family residential in the R1 zone and Planned Unit District;  
East – A 2.72-acre neighborhood park (Turnbridge Park) and Corona Creek in the Open Space-Park District (OSP). Single-family residences in a Planned Unit District are located east of the park and Corona Creek.  
South –The rail line for the Sonoma Marin Area Rail Transit (SMART) abut the project's southerly property line and the future site of the North Petaluma SMART station is on the south side of the tracks. Currently, the future station site is used for truck storage and is zoned Mixed Use - 1B (MU1B).

### Other public agencies whose approval is required (e.g. permits, financial approval, or participation agreements):
Army Corp of Engineers  
CA Department of Fish and Wildlife  
US Fish and Wildlife Service  
Regional Water Quality Control Board  
Sonoma County Water Agency
# Brody Ranch Subdivision

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1. OVERVIEW AND BACKGROUND

**General Plan:** 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:** Because California Environmental Quality Act (CEQA) discourages “repetitive discussions of the same issues” (CEQA Guidelines section 15152b) and allows limiting discussion of a later project that is consistent with a prior plan to impacts which were not examined as significant effects in a prior EIR or to significant effects which could be reduced by revisions in the later project (CEQA Guidelines section 15152d), no additional benefit to the environment or public purpose would be served by preparing an EIR merely to restate the analysis and the significant and unavoidable effects found to remain after adoption of all General Plan policies/mitigation measures. All General Plan policies adopted as mitigation apply to the subject Project.

The EIR reviewed all potentially significant environmental impacts 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 balances the merits of approving the project despite the potential environmental impacts. The impacts identified as significant and unavoidable in the General Plan 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 buildout, 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 buildout to population levels that could conflict with the Bay Area 2005 Ozone Strategy. (This regional air quality plan has since been replaced by the 2010 Clean Air Plan, which is further discussed in Sections 3.3 Air Quality and 3.7 Greenhouse Gases.)
- A possible cumulatively considerable incremental contribution from General Plan development to the significant impact of global climate change.

This environmental document tiers off of the General Plan EIR (SCH NO.: 2004082065), which was certified on April 7, 2008, to examine site- and project-specific impacts of the proposed subdivision project as described below. 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 [http://cityofpetaluma.net/cdd/plan-general-plan.html](http://cityofpetaluma.net/cdd/plan-general-plan.html).
Corona Ely Specific Plan

In 1989 the City of Petaluma adopted the Corona-Ely Specific Plan (CESP) to facilitate the annexation of approximately 675 acres of what were then principally agricultural lands. The CESP provides land uses and densities, transportation, neighborhood design, and public amenities in the City’s northeast quadrant, extending to Sonoma Mountain Parkway from E. Washington and north to Corona Road. The Corona-Ely Annexation No. 1 occurred in 1989 and implemented the Specific Plan. Development of the CESP area occurred over the past 27 years such that today very few vacant/underdeveloped parcels remain. The Northern Tier of the CESP encompasses approximately 160 acres and is characterized as, “…being north of the central 285 acres beyond Corona Creek and consisting of a band of urban residential development which drops off to rural density along Corona Road, but climbs to urban high densities to the west toward McDowell Boulevard.”

The proposed Brody Ranch Subdivision project site is located within the Corona- Ely Specific Plan (CESP) on of the few remaining undeveloped parcels.

Station Area Master Plan

The City adopted the Station Area Master Plan in April 2012 in an effort to promote transit oriented development by capitalizing on existing employment centers, commercial activities, and facilitating the complementary development of housing and job generating uses in close proximity to commuter rail services. The Station Area Master Plan endeavors to promote walkable and livable environments adjacent to the Downtown Station Area and Corona Road Station Area, and encourage an integrated development strategy that incorporates the Sonoma-Marin Area Rail Transit (SMART) rail system.

The proposed Brody Ranch Subdivision project site is located immediately north of the SMART corridor and the planned Corona Road SMART Rail station.

1.1. ENVIRONMENTAL SETTING

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 snakes 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 site is located within the UGB and has been used for residential, agricultural, and light industrial uses. The project’s location within the City of Petaluma and surrounding environs is shown at Figure 1 (Project Location in Petaluma) below.
Neighborhood Setting

The project site is in the northwestern portion of Petaluma adjacent to the municipal boundary. It is in the Corona Road Station Area and the site is identified in the Petaluma Station Area Master Plan as a “Opportunity Site” that is intended to be redeveloped with transit oriented development. The site is bound by Corona Road to the west, Sonoma Mountain Parkway to the north, Wellington Place and a segment of Corona Creek to the east and the Sonoma Marin Area Rail Transit (SMART) rail line to the south. The segment of Corona Road fronting the project site forms the municipal boundary between the City of Petaluma and County of Sonoma and the Urban Growth Boundary.

The area transitions from rural farming and ad hoc industrial uses located west of the site to urbanized residential development to the north and east and commercial, industrial and mobile home uses to the south and southwest. Corona Creek, a blue line intermittent creek, and Turnbridge Park, a 2.72-acre public neighborhood park are located immediately to the east. Figure 2 is the General Plan Land Use Map of the project site and its surrounding and Figure 3 provides an aerial photograph of the project site that shows the project site features and the surrounding land uses.

Figure 4 below shows the existing zoning onsite as R4 and R5 and Figure 5 shows the proposed zoning amendment to change the zoning to PUD.
Figure 4: Brody Ranch Existing Zoning

Figure 5: Brody Ranch Proposed Zoning
Project Site

The 15.92-acre site is generally flat with an approximately 1% grade sloping to the southeast toward Corona Creek. It is elevated 33 to 43 feet above sea level and most areas of the site below elevation 35 are within the 100-year flood plain and contain wetlands. There are several isolated wetlands ranging in size from 29 square feet to 2,471 square feet scattered throughout the undeveloped portions of the site. Vegetation consists primarily of open ruderal grassland and a mix of 82 native and non-native trees, most of which are near the two existing residences on the west side of the site.

The two residences on the project site front Corona Road. One is located near the project site’s southwesterly corner and the other is near the traffic circle at the intersection of Corona Road and Sonoma Mountain Parkway. Driveways to these existing residences are accessed from Corona Road. Industrial and agricultural structures and uses occupy the central portion of the property and consist of an approximately 4,000 square foot shop, three barns, livestock pens and open lumber and landscape material storage. The easterly portion of the site is used for grazing.

The eastern limit of the project site is bounded by Wellington Place and Corona Creek. Wellington place is an existing public roadway that provides connectivity into the neighborhood on the east side of Corona Creek. At the southern eastern property line is Corona Creek and the existing pedestrian path located on the western top of bank of Corona Creek and stubbed out at its southern limit to the project site.

Existing Public Access and Utility Easements

A 25-foot wide easement to Sonoma County Flood Control and Water Conservation District runs the length of the south property boundary adjacent to the SMART corridor.

1.2. PROJECT DESCRIPTION

The following requested approvals from the City of Petaluma are required for the proposed project: (1) Amendment of the zoning from R4 and R5 to PUD to allow a decrease in the minimum parcel size and reduced front and rear setbacks for the single family parcels so the minimum density standards may be met while preserving the majority of wetlands on the site; (2) A vesting tentative subdivision map to subdivide the site into 59 single-family lots, one duplex and two multi-family lots for the development of 138 multi-family units in nine three story buildings; (3) Site Plan and Architectural Review for the for the site, building and landscaping details; and (4) removal of 32 trees, six of which are protected by the Implementing Zoning Ordinance.

The proposed density is presented in Table 1 below as follows:

Table 1: Brody Ranch Density

<table>
<thead>
<tr>
<th>General Plan Use (Zoning)</th>
<th>MDR (R4)</th>
<th>HDR (R5)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Acres</td>
<td>7.482</td>
<td>8.44</td>
<td>15.92</td>
</tr>
<tr>
<td>Open Space and Wetlands</td>
<td>2.599</td>
<td>1.181</td>
<td>3.78</td>
</tr>
<tr>
<td>Roads</td>
<td>1.14</td>
<td>1.537</td>
<td>2.677</td>
</tr>
<tr>
<td>Net Acres</td>
<td>3.743</td>
<td>5.718</td>
<td>9.461</td>
</tr>
<tr>
<td>Units Proposed</td>
<td>40</td>
<td>159</td>
<td>199</td>
</tr>
<tr>
<td>Density Range (Units/Acre)</td>
<td>10.7</td>
<td>27.8</td>
<td>21.0</td>
</tr>
</tbody>
</table>

Source: Density Land Use Plan Brody Ranch Subdivision TM-4.
Features of the project include a private street system, a play/picnic area, a network of bicycle and pedestrian paths, wetlands and open space areas.

Inclusionary Housing
Affordable housing will be provided on-site and under the terms of a Memorandum of Understanding between the Land Trust of Sonoma County and the project proponent. The project proponent will develop 25 affordable housing units including 21 condominiums consisting of a mix of one, two and three bedroom units, as needed, dispersed throughout the nine buildings; a duplex; and two single family homes. The affordable units shall be restricted to households with low- to moderate- income earners (80% to 120% of Area Median Income). Resale of all affordable units will be restricted to lower income households at affordable prices via a 99-year renewable ground lease.

Site Access and Circulation
Primary vehicular access to the site is proposed from Sonoma Mountain Parkway directly across from Mauro Pietro Drive which is approximately 300 feet east of the traffic circle at the “T” intersection of Corona Road and Sonoma Mountain Parkway. A second vehicular access point is provided from Wellington Place just north of the existing bridge over Corona Creek. Internal circulation to the single-family homes is provided along private streets that have an overall right-of-way width of 45 feet (56 feet wide at the project entrance) and a curb-to-curb roadway width of 36 feet. Four and one half-foot sidewalks are provided on both sides of the private streets. Private driveways serving the condominium buildings are 24 feet wide. All driveway access for single family homes (Lots 1-55) will be taken internally from new private roadways within the subdivision with the exception of the six lots that front onto Wellington Place, those lots will be accessed via driveways off of Wellington Place (Lots 56 – 61). A row of through-lots (Lots 18 to 25) back up to Sonoma Mountain parkway and have driveway access and front a new internal roadway (“Street C”). These lots are setback an average of 39 feet from the face of curb of Sonoma Mountain Parkway right-of-way and are separated by an open split rail fence at the back of the sidewalk, a 15 -foot wide landscape buffer, a 6-foot wooden fence topped by a two-foot privacy screen with gated pedestrian access to the rear yard of each home, and the rear yards.

An approximately 160-foot long left turn lane is proposed from the westerly direction of Sonoma Mountain Parkway into the project. To accommodate the new left turn lane, changes to pavement stripping and a center median are proposed including elimination of a portion of the existing median and one of the two eastbound lanes and widening of the existing westbound bicycle lane, right-turn lane and travel lane. These changes are proposed along the length of the new left turn lane.

Pedestrian and bicycle access to the site is provided at both vehicular access points. In addition, pedestrians and cyclist may access the site from Corona Road at the southwesterly corner of the site and from the existing trail and Class I bicycle path along Corona Creek at the southeastern corner of the site. Gated resident-only pedestrian access to the multi-family portion of the site is provided at two locations along Corona Road, at one location at the traffic circle at the intersection of Corona Road and Sonoma Mountain Parkway and at two locations from the Class I path along the south property line near Corona Road and between building Numbers 6 and 7. The pedestrian access gates are designed to include a 13-foot tall covered entry structure with wood siding and wire mesh walls under a corrugated steel roof topped by a decorative cupola designed to match features of the existing barn on the project site.

Within the development, four and one half-foot wide sidewalks are provided along the private streets, a Class I bicycle trail and pedestrian path is proposed between Corona Road and Corona Creek along the southerly side of the project site just north of the wetlands to be preserved.

A public sidewalk and a Class II bicycle path is also proposed along the project side of Corona Road and will be stubbed out to the SMART crossing to allow for future extension of the sidewalk. Consistent with the Corona Ely Specific Plan the project proposes a continuous sidewalk with a planter strip along the length of the Corona Road frontage. In order to preserve the existing redwood trees while accommodating a 4-foot wide sidewalk and planter strip, a specialized reinforced concrete sidewalk is proposed that would allow for at-grade placement of the sidewalk closer to the existing trees without causing damage.
Existing sidewalks along both sides of Sonoma Mountain Parkway will remain and a new sidewalk will be added to the project side of Wellington Place along with three street parking spaces set in between the proposed driveways. Painted ladder crosswalks will be added across both vehicular access roads to the subdivision and across Sonoma Mountain Parkway on either side of the main access road into the subdivision. The Sonoma Mountain Parkway/ Mauro Pietro crosswalks will also have Rectangular Rapid Flashing Beacons. Internal crosswalks made of a stamped concrete will be provided at all street intersections and at the play/picnic area.

As an offsite improvement, the project will construct a bus stop on eastbound Sonoma Mountain Parkway, just east of Wellington Place at the Turnbridge Park frontage. The bus stop will include a bus turn out, accommodating one municipal bus; a 5 x 15 foot bus shelter; and a bench. The existing sidewalk will be reconstructed behind the proposed bus turn out.

Utilities

Sanitary sewer, water and joint trench connections to existing utilities are proposed at both vehicular access points to the project. These utilities would be carried through the project site within right of way of new internal roadways. The subdivision lots will be served via lateral connections from new utilities within internal roadways, with the exception of those lots that front onto Wellington Place. Lots 56 – 61 front Wellington Place and will be served via lateral utility extensions from existing utilities in the Wellington Place right-of-way.

Stormwater runoff will be collected from impervious surfaces in the development and allowed to percolate into the soils on site for treatment before release. The stormdrain system incorporates a series of bioretention features including on-lot drainage, roadside bioretention, drainage swales, bioretention ditch, and rolled curb and gutter with pervious concrete. Stormwater runoff will be collected and conveyed through these bioretention swales prior to release into the wetlands area and eventually into Corona Creek.

In addition to the stormwater treatment facilities proposed, a stormwater detention basin is included at the southerly corner of the site. The detention basin occupies 0.26 acres (11,300 square feet), with a depth of 0.75 feet. The water storage capacity of the detention basin is 9,025 cubic feet. The detention basin is sized to accommodate the post development run-off increase impacting Corona Creek. The basin increases the existing flood plain capacity located in the undeveloped portion of the project. Floodwaters originate from Corona Creek. When Corona Creek waters rise the detention basin begins to accept stormwater from the creek through a new storm drain line connecting the basin to the creek. The additional capacity created by the basin mitigates the downstream impacts from the development. A catch basin at the bottom of the basin connecting the storm drain to Corona Creek drains the basin when the storm subsides and the creek hydraulic grade line drops. A berm around the detention basin prevents small storm on-site flows from entering into the depression. The berm elevation is set below the base flood elevation so as not to impact the existing flood plain.

Buildings

Nine condominium buildings are proposed on the western side of the project site. Three buildings contain 12 units and six buildings contain 17 units. All of the condominium structures are three stories; have a mix of one, two and three bedrooms and have garages along the alley side. Resident parking is provided in 99 alley-loaded garages and 38 designated open spaces in a centrally located parking lot. Additional uncovered guest parking is provided in the parking lot and alongside the private roadways in the development.

Three architectural styles are proposed for the condominium buildings: Craftsman, Mediterranean and Farmhouse. Four buildings (Nos. 3, 4, 5 and 6) are oriented perpendicular and adjacent to Corona Road with access driveways that terminate in eight-foot tall wooden fences. The remaining condominium buildings are parallel to Corona Road and are located toward the interior of the site between the proposed main vehicular entrance to the project and the four buildings abutting Corona Road. Figure 6 is a partial site plan of the multi-family area of the project (building numbers 1, 2 and 7 are 12-plex and buildings 3, 4, 5, 6, 8 and 9 are 17-plex units).
Figure 6: Multi-Family Plan Area

Figure 7: Single-Family and Duplex Plan Area
Fifty-nine single-family homes and a duplex are proposed on the easterly side of the project’s main entry roadway (see Figure 7 above). The single-family homes range in size from 1,909 square feet to 2,347 square feet on lots ranging in size from 3,307 square feet to 7,095 square feet with a median lot size of 3,431 square feet. The duplex units are each 1,611 square feet. Three architectural styles are proposed: Cottage, Farmhouse and Craftsman. Each single-family home design includes a two-car garage plus two on-site open parking spaces. The two parking spaces in the duplex garages are in tandem and one open parking space is provided in the driveway for each unit in the duplex. Six-foot wooden privacy fences are proposed along the side property lines starting behind the front corners of the homes and along rear property lines. Gated fence returns connect the side yard fences to the side of the houses.

Landscaped focal points providing pedestrian access from within the subdivision to the ten-foot wide multiuse path are located at the “T” intersection termini of the main entry road (Street “A”) and Street “D.” These focal points are improved with low planter seating walls and enhanced paving in the roadway intersections.

Planned Unit Development (PUD)

The project proposes a Planned Unit District (PUD) zoning in accordance with Chapter 19 of the City’s Municipal Code. The purpose of the PUD is to provide specific standards and design guidelines for the development of the Brody Ranch Subdivision. The overall objective is to provide specific standards and guidelines for the development of the site that is sensitive to abutting wetlands, surrounding neighborhoods, and Sonoma Mountain Parkway recognizing the project’s location adjacent to the future site of a SMART Station and its function as the southwesterly gateway to Corona-Ely Specific Plan area while providing residential ownership opportunities, including on-site affordable housing.

The Planned Unit District (PUD) provides a more community- and pedestrian-oriented design and form of ownership than that provided by the existing R4 and R5 zoning. Figure 4 and Figure 5 above show the existing zoning and proposed amendment from R4/R5 to PUD. Quantitative development standards of the PUD largely follow those of the existing zoning except for the minimum parcel size and parcel depth criteria of the R-4 zoning district and the Sonoma Mountain Parkway setback required by the Corona-Ely Specific Plan.

Site Preparation and Construction

Development of the Brody Ranch Subdivision is presumed to occur over an approximately 18-month construction period and will initiate with site preparation and grading. Site preparation will initiate with the demolition of the existing structures, buildings and facilities onsite. The two residences will be demolished and removed in order to accommodate the proposed development. Demolition debris will be sorted and off hauled for disposal. A number of mature trees scattered across the project site will also be removed during the site preparation and grubbing stage. All existing utilities onsite will be removed.

Grading will occur over the proposed development area only and will avoid the wetland area in the southern portion of the site. Site grading will result in the distribution of soil across the site to achieve level topography for building pads, roadways and infrastructure. No import or export of soil will be necessary as excess cut will be reused onsite. Construction equipment expected to be utilized during grading includes tractors, backhoes, haul trucks, graders, pavers and water trucks. Staging of construction equipment and materials will occur within the footprint of the project area towards Corona Road and at least 100 feet from the wetlands to be preserved.

Following completion of grading activities, infrastructure improvements and building foundations will be constructed. 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, power, and gas services in place within the Sonoma Mountain Parkway and Wellington Place. Frontage improvements along Corona Road, Sonoma Mountain Parkway and Wellington Place will be installed including new or reconstructed sidewalks, restriping, landscaping and signage.
Single and Multi-Family buildings are presumed to be constructed concurrently. A post tension slab foundation will be developed for residential buildings using wood frame construction and in accordance with the CalGreen California Building Code.

2. 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 Unless Mitigation is Incorporated" as indicated by the checklist on the following pages.

1. Aesthetics
2. Ag / Forest
3. Air Quality
4. Biological Resources
5. Cultural Resources
6. Geology / Soils
7. GHG Emissions
8. Hazards
9. Hydrology
10. Land Use
11. Mineral Resources
12. Noise
13. Population / Housing
14. Public Services
15. Recreation
16. Transportation / Traffic
17. Utilities
18. Mandatory Findings

DETERMINATION (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- I find that the proposed project **CANNOT** 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.

**Signature:**

**Date:**
Applicant Signature: Trent Sanson for DeNova Homes, Inc.

Date: 9-20-16
3. EVALUATION OF ENVIRONMENTAL IMPACTS

The following discussion addresses the potential level of impact relating to each aspect of the environment.

3.1. AESTHETICS

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Have a substantial adverse effect on a scenic vista?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>c) Substantially degrade the existing visual character or quality of the site and its surroundings?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
</tbody>
</table>

Sources: Sources: 2025 GP And EIR; Corona- Ely Specific Plan, 1987; Phase 1 ESA prepared by AEI Consultants, April 29, 2014; Project Plans; Brody Ranch Subdivision- Landscape Project Narrative, November 24, 2015; Architectural Plans, June 22, 2016.

Setting:

The natural features that characterize Petaluma and its surroundings provide for a visually rich setting. The City of Petaluma is located 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 views of rolling hills and agricultural landscapes. Petaluma is also traversed by the Petaluma River and tributaries, which further 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 and provides for a distinct visual character.

The project site lies within the North East Planning Subarea and borders the North McDowell Subarea, which is located directly to the southwest. The Northeast Planning Subarea is characterized by relatively low-density suburban residential development. The area is generally defined by the “neighborhood unit concept” with common uses at intersections of arterials, schools at the center of neighborhoods, and dwelling uses interspersed throughout. The Northeast Planning Subarea is unique in that it features measurably more parks than any other subarea and walking and bike trails are common throughout. The subarea is well established and features little vacant and underdeveloped land.

The Project is also located within the boundaries of the Corona-Ely Specific Plan, which consists of a 675-acre area located in Northwest Petaluma. In 1989 the City of Petaluma adopted the Corona-Ely Specific Plan (CESP) thereby facilitating the annexation of approximately 675 acres of what were then principally agricultural lands. The Corona-Ely Annexation No. 1 occurred later that year and implemented the Specific Plan. Development of the CESP area occurred over the intervening 27 years such that today only a very few vacant and underdeveloped parcels remain including that of the project site at 360 Corona Road.
The project site is located on one of the few remaining developable parcels and at the far north end of theCESP. The site is comprised of 15.9 acres of land and presently supports rural residential and commercial land uses. While historically agricultural, the project site has been developed since the 1900’s and today features two dwellings, a single story welding shop, several barns, and ancillary structures. A large portion of the site is devoted to open grassland. The site is bounded on the north by Sonoma Mountain Parkway beyond which is residential development. To the south are railroad tracks and a trucking yard and to the east is Wellington Place beyond which are park and residential land uses. Corona Road, which serves as the municipal boundary and urban growth boundary, is to the west beyond which is land developed with low density rural residential uses. Aesthetic and visual resources present in the project area include intermittent views of open space, rolling hillocks, and the Sonoma Mountains to the northeast.

The project proposes 199 dwelling units consisting of 59 single family homes, a duplex and 138 multi-family units (condominiums) that will be distributed on a split lot exhibiting a medium and high density land use designation, respectively. The developed area will consist of approximately 12.14 acres with the remaining acreage (3.78 acres) devoted to preserved wetlands and open space.

The architecture of the proposed subdivision includes neo-traditional styles that consist of modern interpretations of Craftsman, Cottage, Vernacular farmhouse, and Mediterranean styles. The building forms vary little with the primary distinguishing elements being the siding materials, fenestration and rooflines. The single family residences and duplex are two story and the multi-family dwelling units are three stories in height and feature massed plans capped with gabled or hipped roofs and exhibit strong articulation of spaces and varied wall and roof planes.

Landscaping consisting primarily of drought tolerant plants and a mix of native and non-native species Landscaping will be introduced along Sonoma Mountain Parkway, in planter strips along segments of Corona Road and along Wellington Place, along the multi-use path, in the bio-swale and in the yards around the single-family homes, duplex and condominiums. Landscaping is designed to promote unification of the neighborhood, connectivity, privacy, shading and aesthetics. The plant palette consists of drought tolerant plants and a mix of native and non-native species, except in the bioswale and near the preserved wetlands were only California native species are proposed.

To address potential noise impacts generated by traffic along Sonoma Mountain Parkway, Corona Road and SMART, portions of the project site’s perimeter are to be screened by double sided wood fencing. Six-foot fencing setback 15 feet from the property line will attenuate street noise at the rear of the homes along Sonoma Mountain Parkway. Trees and shrubs will screen the fence from the roadway and an open 42-inch wire mesh fence is provided at the back of the sidewalk.

Landscaping along Corona Rd will consist of landscape parkway strips featuring a mix of perennials, shrubs and groundcovers. Vines may be incorporated along the proposed fences to deter graffiti. Fencing along this side of the project will include an eight-foot wood sound fence which will align with the sides of the buildings and be set back approximately 15 feet from the property line. A three-foot split rail fence will be incorporated at or near the property line and the landscape material will include existing mature redwood trees and a mix of native and non-native trees, shrubs, groundcover and vines.

A six-foot fence with gabion pillars will be threaded between the grove of trees along the multi-use path at the southern property boundary and then transition into a three-foot split rail wood fence across the site to the playground/picnic area at the east side of the site.

Impact Analysis:

3.1 (a). (Scenic Vista) No Impact: The 2025 General Plan EIR identifies vistas of Sonoma Mountain and the Petaluma Valley as significant visual resources with notable viewpoints seen from Washington Street Overpass, McNear Peninsula and Rocky Memorial Dog Park. The proposed Brody Subdivision is not located in the immediate vicinity of any of the notable viewpoints and would neither obstruct nor diminish any existing viewsheds. The project is proposed on an underdeveloped parcel located within the bounds of the UGB.
Since the site is surrounded on at least three sides by existing “urban” development the project is considered infill. The GP EIR (Page 3.11-5) states that within the built city, infill development would not have a significant effect on the visual quality of the city, because new development will be similar in scale and character to that of existing development and be subject to Site Plan and Architectural Review. The proposed subdivision, constructed pursuant to the applicable zoning standards will be similar in scale and character to existing/adjacent development. Accordingly, the project is not expected to have an impact to any identified scenic vistas.

Mitigation Measures: None required.

3.1 (b). (Resources viewed from a State Designated Scenic Highway) No Impact: In 1963 the California legislature established the California Scenic Highway Program with the purpose of preserving the character of scenic highways and protecting them from changes that may diminish the aesthetic value of adjacent lands. Sonoma County includes two state designated scenic highways located along stretches of Highway 116 and Highway 12; however, Petaluma does not currently feature any state designated highways.

While not state or locally designated, the portion of Corona Road located east of the intersection with Sonoma Mountain Parkway, is identified in the Corona Ely Specific Plan (1987) as a being “locally valued for its picturesque, country qualities.” The road is further appreciated because it “provides a scenic transition between country and town.” As the project site is located directly south of that intersection there is little expectation that the proposed project would affect the scenic character of the identified stretch of Corona Corridor and/or scenic resources viewed from the Corona corridor. Accordingly, the project is not expected to have any impact to a designated State Scenic Highway or locally valued Scenic Corridor.

Mitigation Measures: None required.

3.1 (c). (Visual Character and Quality) Less than Significant Impact: Impact 3.11-3 of the General Plan EIR concludes that infill development (such as the Brody Subdivision) may potentially degrade the existing visual quality of the city if is substantially departs from the character of surrounding areas and existing development therein in terms of density, scale, and/or design principles.

As shown in Figure 3 above, the project is surrounded generally by urban development (commercial and residential land uses) and major arterials (e.g., Corona Road and Sonoma Mountain Parkway) and, across from Corona Road, rural residential uses. The project is located within the city's UGB at a site designated by the General Plan as medium and high density residential. The Zoning Map designates the project site as R-4 and R-5, respectively. The project’s scale, as proposed, is similar to that of the residential subdivisions located to the north and east of the project site and is consistent with the density envisioned in the General Plan.

The Corona-Ely Specific Plan (1987), within which the project site is located, does address the likelihood that future development consistent with the respective land use designations would displace former rural/agricultural land and replace those former uses with more residential/commercial type uses giving the area a decidedly more “urban” character. The necessity of accommodating development was considered more important than retaining the character of the Specific Plan area in its entirety, and therefore, the EIR prepared for the Corona-Ely Specific Plan identified the impact as significant and unavoidable and adopted a statement of overriding considerations. Accordingly, the displacement of more rural-like uses and open grazing land with suburban development is not expected to result in a significant impact beyond that already analyzed in the CESP EIR.

The design and spatial organization of the single-family component of the project are generally similar to, or an enhancement of, the surrounding residential development. While the scale, massing and structure size relative to parcel size of the proposed homes are greater than the existing homes in nearby subdivisions, the homes are well designed with a variety of roof forms, building articulation and will be adequately screened with trees and shrubs. The proposed architecture does not depart significantly in density, scale or design principles such that it would degrade the existing visual environment. In addition, the project is not expected to have a significant effect on the city's rural visual character since it is surrounded on three sides by
residential and industrial development and thus it will not introduce a new modern development into an otherwise rural area, but rather provide continuity of the existing development trends. The multi-family component of the project is proposed on the portion of the site designated High Density Residential and identified for Transit Oriented Development in the Station Area Master Plan. Its scale and mass is appropriate for the applicable zoning and land use designation.

Lastly, compliance with the Implementing Zoning Ordinance’s requirement in §24.010.G to obtain Site Plan & Architectural Review from the Planning Commission would further ensure compatibility with the established character. As proposed, the design is consistent with the guiding regulation and is complimentary to the existing neighborhood. Therefore the project’s potential to impact the established visual character and quality of the area would be less than significant.

**Mitigation Measures:** None required.

3.1 (d) (Light and Glare) Less Than Significant Impact: The project site is bounded on all sides by existing development including industrial, residential and rural residential uses, all of which currently contain lighting associated with buildings, landscaping and parking areas.

Exterior lights installed in conjunction with the proposed development will increase artificial light in the vicinity, as will headlights from vehicles accessing the project site. The potential exists for headlights from cars entering and exiting the proposed subdivision to increase new light and glare onsite and along project area roadways. However, the project access driveway along Sonoma Mountain Parkway and Wellington Place would be directed into the proposed subdivision and would not introduce substantial new turning movements that could result in headlight intrusion onto adjacent properties. Landscaping design, the perimeter fencing, and screening that utilizes a mixture of shrubs and trees will minimize light and glare onsite and projected onto adjacent properties from vehicle headlights. Accordingly, light and glare from new vehicles is expected to have a less than significant impact.

New lighting onsite associated with the parking areas, pathways, common areas, and on-building lighting will introduce new sources on light onsite and has the potential to result in light pollution associated with street lamps and exterior residential lighting that could affect nighttime view in the project area. Uniformly applied conditions of project approval require that all exterior lighting be directed onsite and shielded to prevent glare and intrusion onto adjacent properties. Only low-intensity light standards and/or wall-mounted lights will be used (no flood lights) and lights attached to buildings will provide a “soft wash” of light against the wall in order to avoid direct glare. The proposed Brody Subdivision project is required to conform with §21.040.D of the Petaluma Implementing Zoning Ordinance (IZO), which specifies lighting standards for all new exterior lighting such as the provision that the cone of direct illumination be 60 degrees if the luminary is greater than six feet above the ground.

While the project has the potential to result in new lighting associated with street lamps and exterior residential lighting that could affect nighttime view in the project area, mandatory compliance with the city’s conditions of approval and adherence to IZO §21.040.D would ensure the project’s potential light and glare impacts would be less than significant.

**Mitigation Measures:** None required.
3.2. AGRICULTURAL AND FORESTRY RESOURCES

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code §12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>d) Result in the loss of forest land or conversion of forest land to non-forest use?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
</tbody>
</table>

Sources: City of Petaluma General Plan Land Use and UGB; Petaluma General Plan DEIR (Figure 3-7-3); and California Department of Conservation, Important Farmland Finder, [http://maps.conservation.ca.gov/ciff/ciff.html](http://maps.conservation.ca.gov/ciff/ciff.html), Accessed August 19, 2016.

Setting:

Agricultural lands within the City’s UGB are limited to “Farmland of Local Importance”, “grazing land”, and “other 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 and focus encourage development to occur on undeveloped and underutilized lands within the UGB. No agricultural or forestland designations are present on the project site and the project site’s existing General Plan and Zoning designations anticipate residential development. The nearest land designated for agricultural use is located approximately half a mile to the northwest.
Impact Analysis:

3.2 (a-e) (Farmland Conversion, Williamson Act, Forestland/Timberland Conflict) No Impact: There are no forest lands, important farmlands, agricultural resources or agricultural preserves located within the project site. The project site is not classified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The 2014 Sonoma County Important Farmland map identifies the project site as “Urban and Built-Up Land” with approximately 11 acres defined as, “Farmland of local Importance.” The project site, however, does not exhibit an agricultural zoning designation and is not under Williamson Act contract. There are no forestlands, timberlands or such zoning on the subject site or vicinity. While the project is located in relatively close proximity to agricultural land as designated by the Sonoma County General Plan, no impacts to these lands are expected to occur as a result of development. The proposed project would have no impacts to forest uses and would not result in the conversion of such lands since none exist on-site or in the project vicinity. Therefore, the project would have no impact to agricultural and forestry resources.

Mitigation Measures: None required.
3.3. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

<table>
<thead>
<tr>
<th>Impact</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>Conflict with or obstruct implementation of the applicable air quality plan?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>b)</td>
<td>Violate any air quality standard or contribute substantially to an existing or projected air quality violation?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>c)</td>
<td>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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>d)</td>
<td>Exposure of sensitive receptors to substantial pollutant concentrations?</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>e)</td>
<td>Create objectionable odors affecting a substantial number of people?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
</tbody>
</table>

Sources: 2025 General Plan and EIR; 2010 BAAQMD Clean Air Plan; BAAQMD CEQA Guidelines; Brody Ranch Project Air Quality and Greenhouse Gas Emissions Assessment prepared by Illingworth and Rodkin, October 22, 2015.

Setting:

The City of Petaluma including the project site is located within the San Francisco Bay Area Air Basin (Air Basin), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). BAAQMD is charged with managing air quality for the region through the implementation of planning, regulation, enforcement, technical innovation and education. The intent of which is to achieve conformance with established air quality standards that are set by the U.S. Environmental Protection Agency for the Federal Clean Air Act and the California Air Resources Control Board for the California Clean Air Act.

Air quality within the Bay Area Air Basin is influenced 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 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 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. All other national ambient air quality standards within the Bay Area Air Basin are in attainment.

This Initial Study applies the BAAQMD’s California Environmental Quality Act – Air Quality Guidelines, May 2012, including the BAAQMD thresholds of significance adopted in June 2010. In March 2012, the Alameda County Superior Court ordered BAAQMD to set aside use of the significance thresholds within the BAAQMD CEQA Guidelines 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. Lead agencies may continue to rely on the BAAQMD CEQA Guidelines, “for assistance in calculating air pollution emissions, obtaining information regarding the health impacts of air pollutants, and identifying potential mitigation measures.” The BAAQMD CEQA Guidelines include the best available scientific data and most conservative thresholds available. Comparison of the project’s emissions against the BAAQMD thresholds provides a conservative assessment as the basis for a determination of significance. In the absence of other applicable thresholds, the City of Petaluma, as lead agency, has chosen to utilize the June 2010 BAAQMD thresholds and May 2011 Guidelines as a means to conservatively assess the project’s potential environmental effects. BAAQMD air quality thresholds are presented in Table 1, below.

Table 2. Air Quality Thresholds of Significance

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Construction Thresholds (lbs per day)</th>
<th>Operational Threshold (lbs per day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROG</td>
<td>54</td>
<td>54</td>
</tr>
<tr>
<td>NO\textsubscript{x}</td>
<td>54</td>
<td>54</td>
</tr>
<tr>
<td>PM\textsubscript{10}</td>
<td>82</td>
<td>82</td>
</tr>
<tr>
<td>PM\textsubscript{25}</td>
<td>54</td>
<td>54</td>
</tr>
<tr>
<td>CO</td>
<td>Not Applicable</td>
<td>9.0 ppm (8-hour avg.) or 20.0 ppm (1-hour avg.)</td>
</tr>
<tr>
<td>Fugitive Dust</td>
<td>Construction Dust Ordinance or other Best Management Practices</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

Source: BAAQMD’s CEQA Guidelines: May 2011

Petaluma General Plan

The City’s General Plan set forth policies and programs to maintain and enhance air quality. The following are applicable to the proposed project:

Policy 4-P-6: Improve air quality through required planting of trees along streets and within park and urban separators, and retaining tree and plant resources along the river and creek corridors.

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;
- 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;
- Encourage the use of battery-powered, electric, or other similar equipment that does not impact local air quality for nonresidential maintenance activities; and
- Provide natural gas hookups to fireplaces or require residential use of EPA-certified wood stoves, pellet stoves, or fireplace inserts.

Policy 4-P-16: To reduce combustion emissions during construction and demolition phases, the contractor of future individual projects shall encourage the inclusion in construction contracts of the following requirements or measures shown to be equally effective:
• Maintain construction equipment engines in good condition and in proper tune per manufacturer’s specification for the duration of construction;
• Minimize idling time of construction related equipment, including heavy-duty equipment, motor vehicles, and portable equipment;
• Use alternative fuel construction equipment (i.e., compressed natural gas, liquid petroleum gas, and unleaded gasoline);
• Use add-on control devices such as diesel oxidation catalysts or particulate filters;
• Use diesel equipment that meets the ARB’s 2000 or newer certification standard for off-road heavy-duty diesel engines;
• Phase construction of the project; and
• Limit the hours of operation of heavy duty equipment.

Impact Analysis:

3.3 (a) (Air Quality Plan) No Impact: The BAAQMD adopted the Bay Area 2010 Clean Air Plan (CAP) in September 2010 to comply with state air quality planning requirements set forth in the California Health & Safety Code. The 2010 CAP updates the 2005 Ozone Strategy and provides control strategies to address air quality pollutants including ozone (O₃), Particulate Matter (PM), toxic air contaminants (TACs), and greenhouse gases (GHGs). Control strategies apply to the topics of land use, energy and climate, and stationary, transportation, mobile sources. Examples of programmatic measures that implement the control strategies include the use of clean and efficient vehicles, Green Fleets, enhanced bicycle and pedestrian access, energy efficiency, and others.

The Bay Area 2010 CAP was based on land use and growth projections consistent with those used in the Petaluma General Plan. The project’s land use and development intensity is consistent with that assumed by the General Plan for the project site. There are no other control measures of the 2010 CAP that apply to the project. Therefore, the project will not conflict with or obstruct implementation of the Bay Area 2010 Clean Air Plan and no impacts are expected.

Mitigation Measures: None required.

3.3 (b-c) (Air Quality Standard, Criteria Pollutant) Less Than Significant Impact: Air quality emissions associated with the proposed project would result from short-term construction activities and ongoing operation. Consultants, Illingworth and Rodkin prepared a project specific Air Quality Assessment (October 2015) that quantifies air quality emissions anticipated to result from development and operation of the Brody Ranch Subdivision Project (see Appendix A).

Construction Emissions

The project’s construction emissions are compared to the BAAQMD thresholds of significance as set forth above in Table 1. Construction activities will generate air quality emissions caused by fugitive dust, operation of heavy-duty equipment, vehicle trips generated by workers and hauling, and off gassing from paving and the application of architectural coatings. The air quality assessment assumed a construction period of approximately 220 workdays over a period of 18 months. As shown, in Table 3 below, the project’s construction related emissions are not expected to exceed the BAAQMD thresholds.

Table 3. Construction Period Emissions

<table>
<thead>
<tr>
<th>Scenario</th>
<th>ROG</th>
<th>NOₓ</th>
<th>PM₁₀ Exhaust</th>
<th>PM₂·₅ Exhaust</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction emissions (tons)</td>
<td>2.08 tons</td>
<td>2.70 tons</td>
<td>0.16 tons</td>
<td>0.15 tons</td>
</tr>
<tr>
<td>Average daily emissions (pounds)</td>
<td>11.2 lbs.</td>
<td>14.6 lbs.</td>
<td>0.9 lbs.</td>
<td>0.8 lbs.</td>
</tr>
<tr>
<td>BAAQMD Thresholds (pounds per day)</td>
<td>54 lbs.</td>
<td>54 lbs.</td>
<td>82 lbs.</td>
<td>54 lbs.</td>
</tr>
<tr>
<td>Exceed Threshold?</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Source: Air Quality and Greenhouse Gas Emission Assessment, prepared by Illingworth and Rodkin, October 22, 2015.
While the project’s predicted construction emissions fall below the established thresholds, potential remains for the project to generate fugitive dust during site preparation and grading. Sources of fugitive dust may include disturbed soils at the construction site and haul trucks transporting. The amount of fugitive dust emissions generated depends on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. In order limit the potential for fugitive dust generation the City imposes a condition of approval consistent General Plan Policy 4-P-16 and in accordance with BAAQMD's Best Management Practices (BMP) as follows:

The applicant shall incorporate the Best Management Practices 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 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.

The City’s Public Works Inspector will perform visual inspections during grading to assure that these BMPs are executed. Based on the fact the project’s construction period air quality emissions are below BAAQMD thresholds of significant and that BMP will be implemented, construction related impacts associated with the project will have less than significant impacts to air quality.

**Operational Emissions**

The BAAQMD CEQA Guidelines also contain operational emission thresholds to determine whether a proposed project could result in potentially significant air quality impacts at operation (i.e., post-construction). As described in the Air Quality and GHG Emissions Assessment CalEEMod was used to predict emissions from operation assuming full buildout of the project. Air quality emission generated at project operation would result from the new 200 residential units that will be introduced onsite including vehicles, electricity and natural gas, water and wastewater conveyance and treatment and waste decomposition at landfills. Area source emission such as the use of consumer products, paints, solvents and landscaping equipment are also captured in the operational emissions projection. The operational emission estimates assume a build out date of 2018 as that is the earliest year the project would be expected to be fully operational. Table 2, below presents the annual emissions that are expected to be generated by the proposed use at operation.
Table 4. Operational Emissions

<table>
<thead>
<tr>
<th>Scenario</th>
<th>ROG</th>
<th>NO\textsubscript{x}</th>
<th>PM\textsubscript{10}</th>
<th>PM\textsubscript{2.5}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Project Operation Emissions (tons/year)</td>
<td>2.12</td>
<td>2.13</td>
<td>1.28</td>
<td>0.38</td>
</tr>
<tr>
<td>BAAQMD Thresholds (tons/year)</td>
<td>10</td>
<td>10</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Exceed Threshold?</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Average daily emissions (pounds per day)</td>
<td>11.6 lbs.</td>
<td>11.7 lbs.</td>
<td>7.0 lbs.</td>
<td>2.1 lbs.</td>
</tr>
<tr>
<td>BAAQMD Thresholds (pounds per day)</td>
<td>54 lbs.</td>
<td>54 lbs.</td>
<td>82 lbs.</td>
<td>54 lbs.</td>
</tr>
<tr>
<td>Exceed Threshold?</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Source: Air Quality and Greenhouse Gas Emission Assessment, prepared by Illingworth and Rodkin, October 22, 2015.

Given the results of Table 2, it can be concluded that the project would result in a less than significant impacts to air quality due to an exceedance of an established standard for criteria pollutants at operation. The Brody Ranch development is not expected to violate any air quality standard or result in a cumulatively considerable net increase of any criteria pollutant in non-attainment, namely \( \text{O}_3 \), \( \text{PM}_{10} \), and/or \( \text{PM}_{2.5} \). Therefore, air quality construction and operational air quality emissions generated by the proposed project will be less than significant.

Mitigation Measures: None required.

3.3 (d) (Sensitive Receptors) Less Than Significant Impact with Mitigation: The project has the potential to bring sensitive receptors (e.g., children, elderly persons) to an area with existing and future sources of toxic air contaminants (TACs) consisting, generally, of fine particulate matter from mobile sources (i.e. vehicles) and stationary source emissions. Examples of sensitive receptors include places where people live, play or convalesce and include schools, hospitals, residential areas and recreation facilities.

Sensitive receptors near the project include residences to the northeast, opposite Sonoma Mountain Parkway, to the southeast along Hogwarts Circle and Liverpool Way and to the northwest opposite Corona Road. Construction activity would generate dust and equipment exhaust on a temporary basis and operation of the project would not generate TAC emissions onsite, although vehicle trip will contribute to level generated along project area roadways.

Health Risk Screening – Construction

Project-related construction activities will result in short term air quality emissions that have the potential to affect nearby sensitive receptors if not controlled. 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 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.

Emissions from construction activity were estimated and a dispersion model was used to predict the off-site DPM concentrations at sensitive receptors near to the site so that lifetime cancer risks could be predicted.

Results of this assessment indicate that for project construction the incremental residential lifetime cancer risk, assuming infant exposure, at the maximally exposed individual (MEI) receptor would be 14.6 in one million and the incremental lifetime cancer risk, assuming adult exposure) would be 0.8 in one million. These increased cancer risks for infant exposure would be above the BAAQMD significance threshold of 10 in one million or greater for single sources. In order to reduce on-site diesel exhaust emissions, Mitigation Measure AQ-1 shall be implemented and requires the use of Tier 2 construction equipment for all diesel-powered equipment greater than 50 hp. The use of Tier 2 equipment achieves a 50% reduction in exhaust emission relative to traditional equipment. With implementation of AQ-1 the residential child cancer risk would be
reduced from 14.6 to approximately 6.8 in one million, which is below the BAAQMD threshold of 10 per one million. Therefore, the project’s potential health risk impacts to nearby sensitive receptors generated by construction activities would be reduced to less than significant level with mitigation.

Health Risk Screening - Operational

At operation, the project will not generate stationary source emissions that could affect sensitive receptors. However, the project’s new residents have the potential to be exposed to toxic air contaminants released by vehicles traveling on nearby roads, trains along the SMART corridor, as well as from stationary sources permitted by BAAQMD in the vicinity. In accordance with BAAQMD recommended methodology the following emission sources were evaluated by Illingworth & Rodkin as set forth in the Air Quality and GHG Emission Assessment.

Local Roadways

BAAQMD’s Roadway Screening Calculator was used to identify the screening community risk levels from both N. McDowell Boulevard and Corona Road. N. McDowell Blvd impacts were identified for a north-south roadway with average daily traffic of 22,000 vehicles and a receptor at 300 feet south. Impacts from Corona Road were based on an east-west roadway at 50 feet south and an average daily traffic volume of 15,000 vehicles.

The project’s air quality study identifies a maximum increased cancer risk of 4.5 in one million and 4.4 in one million for N. McDowell Blvd and Corona Road respectively. This maximum was calculated at a receptor location representative of the residential units closest to each location and therefore represents the worst-case scenario; cancer risks at all other residents onsite would be lower than the maximums. None of the roadways in the project vicinity support a sufficient volume of traffic to expose new residents onsite to elevated health risk levels. As such, health risks impacts to new residents onsite will be less than significant.

Stationary Sources

The only operational stationary source that would have a measureable impact upon the site within 1,000 feet is a diesel generator at 1031 N. McDowell Boulevard, approximately 900 feet from the site. When adjusted for distance, the project’s air quality study determines that risk levels are below significance thresholds and, therefore, impacts from this source would be less than significant.

SMART Rail Line

The SMART corridor is located at the southern property line of the Brody Ranch Subdivision and about 150 feet away from the nearest new residence that will be introduced onsite. At present, the rail line experiences infrequent freight activity, but it is anticipated that freight activity will become increasingly regular, along with commuter services expected to begin in 2017. For the purposes of the project’s air quality study, maximum risk levels were predicted assuming a position 30 feet from the rail line. The predicted levels where further increased by a factor of 1.7 in order to account for age sensitivity for infants and children. The air quality study’s analysis determined that cancer risk, annual PM$_{2.5}$, concentrations and non-cancer hazards at 30 feet from tracks are below the BAAQMD significance thresholds and therefore, impacts from SMART this source would be less than significant.

Cumulative

The combined community risk levels were computed by the project’s air quality study by adding the maximum TAC impacts together. The computation indicated a combined cancer risk of less than 15.8 per million, combined PM$_{2.5}$ of 0.23µg/m$^3$ and the non-cancer Health Index would be less than 0.2. Table 4 below presents the Community Risk Impact to Brody Ranch residents. As none of the BAAQMD threshold are projected to be exceeded at occupancy impacts to new residents would be less than significant including from single sources and cumulative sources.
### Table 5. Community Risk Impact to Brody Ranch Residents

<table>
<thead>
<tr>
<th>Source</th>
<th>Maximum Cancer Risk (per million)</th>
<th>Maximum Hazard Index</th>
<th>Maximum Annual PM$_{2.5}$ Concentration ($\mu$g/m$^3$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Sensitive Receptors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N. McDowell Blvd. (~300 feet)</td>
<td>4.5</td>
<td>&lt;0.01</td>
<td>0.11</td>
</tr>
<tr>
<td>Corona Rd. (~50 feet)</td>
<td>4.4</td>
<td>&lt;0.01</td>
<td>0.11</td>
</tr>
<tr>
<td>Diesel Generator (~900 feet)</td>
<td>0.3</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>SMART Corridor (~100 feet)</td>
<td>&lt;6.6</td>
<td>0.0</td>
<td>0.01</td>
</tr>
<tr>
<td>Cumulative Sum</td>
<td>&lt;15.8</td>
<td>&lt;0.2</td>
<td>0.23</td>
</tr>
<tr>
<td><em>BAAQMD Threshold – Single Source</em></td>
<td>&gt;10.0</td>
<td>&gt;1.0</td>
<td>&gt;0.3</td>
</tr>
<tr>
<td><em>BAAQMD Threshold – Cumulative Sources</em></td>
<td>&gt;100</td>
<td>&gt;10.0</td>
<td>&gt;0.8</td>
</tr>
<tr>
<td><strong>Significant</strong></td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Source: Table 4: Air Quality and Greenhouse Gas Emission Assessment, prepared by Illingworth and Rodkin, October 22, 2015.

**Mitigation Measures:**

AQ-1: All diesel-powered off-road equipment larger than 50 horsepower and operating on site for more than two days continuously shall, at a minimum, meet U.S. EPA particulate matter emissions standards for Tier 2 engines or equivalent.

3.3 (e) (Odors) **Less Than Significant Impact:** As a residential development, the project will not create objectionable odors affecting a substantial number of people. Although there may be occasional odors during construction associated with street paving and architectural coating, these are short term in duration, will cease once construction is complete, and not likely to adversely affect people off site. Therefore, the project will have less than significant impacts to air quality due to objectionable odors.

**Mitigation Measures:** None required.
### 3.4. BIOLOGICAL RESOURCES

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>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?</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>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?</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
</tr>
<tr>
<td>e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
</tr>
</tbody>
</table>

Sources: 2025 General Plan and EIR Figure 3.8-1: Habitat Areas and Special Status Species; and Open Space Lands Map of the Petaluma General Plan: Figure 6-1; Biological Resource Analysis Brody Ranch Subdivision, prepared by Monk & Associates, Inc., October 2015; Brody Ranch Subdivision Arborist’s Report & Tree Inventory, prepared by Becky Duckles, October 2015; Wetlands Runoff Report Brody Ranch Subdivision, prepared by Steven J. Lafranchi & Associates, Civil Engineers, October 2015; and Preliminary Stormwater Mitigation Report Brody Ranch Subdivision, prepared by Steven J. Lafranchi & Associates, Civil Engineers, October 2015.
**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 that are identified in the California Natural Diversity Database (CNDDB) due to rarity and threats, and are considered sensitive resources.

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. The Petaluma River Access and Enhancement Plan, prepared in 1996, contains policies and guidelines to protect these important biological resources.

The Brody Ranch project site totals approximately 16 acres, situated north of the SMART corridor, east of Corona Road, west of Corona Creek and south of Sonoma Mountain Parkway. Within the central portion of the project site is an industrial area that currently contains a lumberyard and storage of landscaping materials. Livestock paddocks, pipe stalls and a small barn also exist on the site. Two residences are situated on the project site with associated landscaping, with one residence on the southwestern corner and one in the northwestern corner. The central portion of the site is dominated by weedy, ruderal vegetation. The southern portion of the site contains a large wetland and there are small isolated wetlands in the central and northern portions. The area adjacent to Corona Creek, east of the project site, contains a narrow riparian corridor.

A Biological Resources Analysis was conducted by Monk & Associates (M&A) in October 2015 and is used to inform the following discussion. M&A conducted background research, field reconnaissance, a preliminary wetland delineation, and a special-status plant surveys as part of the biological resources investigation. Additionally M&A referenced biological databases including the California Department of Fish and Wildlife's (CDFW's) Natural Diversity Database, RareFind 3.2 application and the California Native Plant Society's Inventory of Rare and Endangered Plants for any records of special-status plant or animal species known to occur on the project site or vicinity.

The biological resources analysis identified habitats onsite and recorded all plant and wildlife species present. Habitat requirements of local or regionally known special-status species where reviewed. Special-status plant surveys were conducted in spring 2015 during the months when special-status species from the region are known to be evident. During surveying, areas within the project site were examined by crossing transects through potential habitat, and by examining microhabitats for their potential to support special-status species.

Three plant communities occur on the site: anthropogenic/landsaped areas, ruderal herbaceous habitat, and seasonal wetlands. A number of mature trees are scattered across the site including native oaks and redwoods, which are protected trees under Chapter 17 of the Implementing Zoning Ordinance (IZO). Chapter 17 provides regulations for the protection, preservation, and maintenance of trees within Petaluma’s jurisdiction. The purpose of these regulations is to prevent the loss of tree canopy and perpetuate the urban forest through the replacement of trees as a result of new development.

The preliminary wetland delineation for the project site occurred in October 2014. The wetland delineation used information on vegetation, hydrology, and soils from 13 data points. Data from the wetland delineation indicates that uplands and seasonal wetlands are present onsite, with a majority of the wetlands occurring in the southern portion of the project site. Wetlands are present on 59,364 square feet or 1.36 acres of the project site. Of these wetlands, many are small and shallowly inundated. However, there is a large topographic low area in the southeastern portion of the project site that receives water from direct precipitation and surface sheet flows. The depression likely holds 10 inches of standing water and satisfies the wetland hydrology criteria, despite the lack of hydrophilic vegetation. The Army Corps of Engineers conducted a site verification visit in April 2015. **Figure 5: Wetlands Delineation** shows the occurrence of wetlands on the project site.
Corona Creek, an intermittent blue line stream, is located along the project site’s southeastern boundary. The wetlands on the site have indirect hydraulic connectivity to Corona Creek. The project includes the construction of two storm water outfall structures into Corona Creek. The Storm Water Management Plan prepared for the project will provide pre-treatment of storm water prior to release into Corona Creek.

**Impact Analysis:**

3.4 (a-b) (Special Status Species/ Riparian Habitat) Less than Significant Impact with Mitigation: The Biological Resources Analysis identified the potential presence of seven special status wildlife species within three miles of the project site. Twenty special-status plant species are known to occur in the vicinity of the project site, however no special-status plant species were found on the project site during site-specific surveys. The Biological Resources Analysis (Appendix B) summarizes the potential for occurrence of special status species and found that due to the disturbed nature of the site, surrounding urban environment, and fragmentation, special status species either have very low or no potential to occur onsite.

**Sensitive Plant Species**

No special-status plants have been mapped on or adjacent the project site. Plant surveys were conducted in March, April and May of 2015 and did not indicate the presence of any special-status plant species. The site contains no specialized habitats such as marshes, swamps, chaparral or meadows that would support special-status plant communities. Queries on the California Native Plant Society's (CNPS) *Inventory of Rare and Endangered Plants of California* (CNPS 2010) were conducted for records of special-status plants known to occur in the vicinity of the project site. Because no rare plant species or special plant species are expected to be present within the study area, and none where identified through site specific reconnaissance, there would be no impacts to special-status plants from the development of the project.

**Sensitive Animal Species**

*Wildlife species*

While no special-status wildlife records have ever been mapped on the project site, recordings of seven special-status wildlife species occurring within three miles of the project site were found. Of those seven species, one special status species was identified as having a moderate potential to occur onsite. The Townsend’s big-eared bat (*Corynorhinus pallidus*), which is a CDFW Species of Special Concern, could roost within onsite structures and mature trees. This bat species is extremely sensitive to disturbance of roosting site and demolition could adversely impact this species if present. Although no evidence of this bat was observed onsite, the existing old buildings and vegetation present potential habitat for this species and could become occupied by Townsend bat prior to construction. In order to avoid impact to this bat species preconstruction surveys as forth in **Mitigation Measure BIO-1** shall be implemented. Therefore, with implementation of mitigation measure BIO-1, potential impacts would be reduced to levels below significance.

It should be noted that there is no potential for the occurrence of the California Tiger Salamander (*Ambystoma californiense*). The project site is located outside of the mapped critical habitat area for this species. Additionally, the project site is isolated from current records of California Tiger Salamander (CTS) by urban development, heavily trafficked roads, and separation from the Santa Rosa Plain where CTS occurs.

Nor is there the potential for the occurrence of the California Red-legged Frog (*Rana draytonii*) onsite, which is listed as Federally Threatened and a CDFW Species of Special Concern. While there are occurrences of California Red-legged Frog (CRLF) within three miles of the site, there is no suitable breeding or estivation habitat present on the site and the site is located outside of the Critical Habitat for the CRLF, as defined by the U.S. Fish and Wildlife Service. Therefore the proposed project development, including the installation of outfall structures in Corona Creek adjacent to the project site would not impact CRLF, because the creek does not provide suitable habitat for this species.

Additionally, there is no potential for the impact to the Western Pond Turtle (*Actinemys marmorata*) as neither the project site nor Corona Creek provide suitable aquatic habitat for this species. Corona Creek, at the location proximate to the project site, is shallow and lacks adequate plunge pools necessary for western pond
turtles. There are no other special status wildlife species that would be potentially affected by the proposed project.

Fish Species
The project site does not provide fisheries habitat, nor does Corona Creek support sensitive fish species. The segment of Corona Creek adjacent to the project site is an engineered channel and does not support listed fish species. Therefore, no impacts to federally listed fish species resulting from the project are expected.

Avian Species
As an underutilized site, the project area may provide suitable nesting habitat for raptors and other bird species protected under the Migratory Bird Treatment Act (MBTA). The project site also provides nesting opportunities for common songbirds such as the California towhee, northern mocking bird, and California scrub jay. Additionally, waterfowl commonly nest in open fields near areas of standing water, such as the wetland area in the southern portion of the project site. As such, the project has the potential to impact nesting birds if present onsite.

In order to avoid impacts to nesting birds, Mitigation Measure BIO-2 shall be implemented. BIO-2 requires that a nesting bird survey for raptors be conducted prior to tree removal within the bird-nesting season. In the event that nesting birds are discovered, a buffer around the nesting site shall be established and no construction activity shall occur until the young have left the nest.

The Corona Creek riparian corridor located adjacent to the project site may offer nesting opportunities to raptors, passerine birds, waterfowl and other avian species protected under the MBTA. This area is located in close proximity to the project site and may be affected by construction activities and noise. Mitigation measures BIO-2 requires surveys within 200 feet of activities, which includes the riparian corridor. Therefore, with implementation of BIO-2 impacts to nesting birds within the riparian corridor adjacent to the project site will be reduced to less than significant levels.

Additionally, Mitigation Measure BIO-3 requires that construction activities including tree removal and grubbing occur outside of the bird-nesting season. In order to protect bird nests from construction activities, should construction occur during the nesting season, BIO-3 stipulates that preconstruction surveys shall be conducted. To comply with the MBTA all active nest sites shall be avoided while birds are nesting. Suitable non-disturbance buffers shall be established around the nest sites until the nesting cycle is complete. Upon completion of nesting, as verified by a qualified biologist, project construction activities may proceed. With implementation of mitigation measures BIO-2 and BIO-3, potential impacts to nesting birds protected under the MBTA would be avoided. Accordingly, impacts to birds protected under the MBTA will be reduced to less than significant levels.

Conclusion
Policy 4-P-1-D of the City’s General Plan “create[s] setbacks for all tributaries to the Petaluma River extending a minimum of 50 feet outward from the top of each bank, with extended buffers where significant habitat areas, vernal pools or wetlands exist.” The landscaping plan includes the planting of native species proximate to the wetland area in the southern portion of the site and adjacent to Corona Creek. The use of native species will ensure that the riparian corridor is preserved and enhanced.

Preconstruction surveys per mitigation measures BIO-1, BIO-2 and BIO-3 shall be conducted in order to avoid and/or reduce any potential impacts to sensitive species. With the implementation of these measures, the proposed project will not have a substantial adverse effect, either directly or indirectly, on any species identified by the California Department of Fish and Wildlife. Therefore, impacts to special status species would be reduced to less than significant levels.

Mitigation Measure:

BIO-1. In order to avoid impacts to bat maternity and/or bat hibernation periods and ensure protection of any bat species potentially present within onsite structures, a biologist shall conduct a preconstruction survey of trees and structures that would be removed or demolished by the project 15 days prior to commencement of ground work to determine if there is evidence of bat use (guano accumulation,
acoustic or visual detections). The survey shall be conducted by a qualified biologist with experience conducting surveys for bats. If no evidence of bat use is found, then there would be no further regard for special-status bat species. If bat use is found, the biologist shall determine if young are present. If young are found in any tree or structure that will be impacted by the project, such activities shall be avoided until the young are flying and feeding on their own. A non-disturbance buffer zone shall be determined by a biologist at the same time of the survey. If mature bats are found roosting in a tree or structure without the presence of young, the adult bats shall be flushed out using a one-way eviction placed over the tree cavity or structural opening for a 48-hour period prior to the time the tree or structure would be removed or demolished.

BIO-2. To avoid impacts to nesting raptors and birds protected under the MBTA, a nesting survey shall be conducted prior to the commencement of any tree removal if this work occurs between February 1st and August 31st. The nesting survey shall include the examination of all trees within 200 feet of the project site, including those not identified for removal. If construction work occurs after August 31st and before February 1st, a nesting bird survey would not be needed.

In the event that nesting birds are discovered, an adequate buffer shall be established by a qualified ornithologist around the nesting site(s) until the completion of the nesting cycle. The buffer area shall be marked with construction fencing. No construction activity shall occur within the buffer area until a qualified ornithologist has determined that the young have left the nest, typically around mid-July or as otherwise determined by the ornithologist.

BIO-3. If construction work occurs between March 1st and August 31st a nesting survey shall be conducted not more than 15 days prior to the commencement of work in order to avoid impacts to passerine birds or nesting waterfowl. The nesting survey shall be conducted on the project site and within a zone of influence where waterfowl could be disturbed by vibrations or noise generated by construction activities. If passerine birds or waterfowl are discovered nesting on or adjacent to the project site, a non-disturbance buffer of 75 feet shall be established by a qualified ornithologist. The buffer area shall be marked with construction fencing. Nesting buffers should be maintained until September 1st, or until a qualified ornithologist determines that the young have fledged. If buffers are removed prior to September 1st, the biologist shall prepare a report providing details of the nesting outcome and their decision to remove the buffers. This report shall be submitted to the City of Petaluma’s Community Development Department prior to the removal of these buffers.

3.4 (c) (Wetlands) Less than Significant Impact with Mitigation: A Wetland Delineation of the project site was conducted in accordance with the United States Army Corps of Engineers’ (USACOE) 1987 Wetlands Delineation Manual in conjunction with the regional supplement for the Arid West Region. Vegetation, hydrology, and soils information were taken at 13 data points to confirm the boundaries of USACOE jurisdiction and to characterize the remaining portions of the project site. The USACOE conducted a site verification visit on April 15, 2015.

The wetland delineation identified 1.36 acres of seasonal wetlands and 0.005 acres of other waters, which are subject to Section 404 of the Clean Water Act (CWA). The project will retain and protect approximately 1.177 acres of wetlands located in the southern portion of the site. The Biological Resources Analysis prepared by Monk & Associates found that the proposed project will result in impacts to approximately 8,091 square feet (0.185 acre), of seasonal wetlands on the project site. Impacts to wetlands include those associated with the proposed development footprint (residential unit, internal road, and sidewalks), the pedestrian trail, detention basin, and the outfall structure on the bank of Corona Creek.

As proposed the project will introduce a meandering pedestrian trail in the southern portion of the project site that roughly follows along the northern portion of the large wetland area to be preserved. The trail includes a 526 square foot footbridge that would cross over a narrow portion of the wetland and tie into the existing pedestrian trail along Corona Creek.

As the proposed project and pedestrian trail will introduce people to the wetlands area, there is a potential that wetlands could be impacted from trampling, trash, and domestic pets. In order to ensure that impacts to the 1.177 acres of wetlands to be preserved onsite are avoided Mitigation Measure BIO-4 shall be
implemented. BIO-4 below requires appropriate signage, design treatments and barriers to preclude access into the wetlands and to alert residents and visitors of the sensitive habitat. The installation of signage, railing or fencing at key locations and requiring that pets be on leashes will provide protection to the 1.177 acres of wetlands that will be preserved.

A detention area, for the storage and release of stormwater, is proposed in the southeastern portion of the project site, between the wetland area to be retained and Corona Creek. The detention basin would result in fill to a 1,171 square foot wetland.

The two outfall structures will be installed on the banks of Corona Creek during a time when water levels are low and dewatering will not be required. A Storm Water Management Plan prepared for this project will be implemented in order to provide pre-treatment of stormwater prior to the release into Corona Creek. One outfall structure will result in the introduction of 82 square feet of riprap to the area above the high water mark, while the other outfall will utilize existing riprap along the bank. Since any impacts associated with the bed, bank or channel of Corona Creek are regulated by the CDFW, a Streambed Alteration Agreement (SBAA) under the Fish and Game Code Section 1600 may be required.

Jurisdictional wetlands are regulated under Section 404 of the Clean Water Act. Prior to project construction the applicant must obtain a Section 404 permit from the U.S. Army Corps of Engineers for fill to 0.185 acres (expected to qualify for a nationwide permit) and a Section 401 water quality certificate from the Regional Water Quality Control Board. Since the proposed project will result in impacts to less than 0.5 acre of waters of the U.S. and less than 300 linear feet of tributary, the proposed project would qualify to use Nationwide Permit 39 (Residential Development). Fill to wetlands requires offsets to ensure no net loss.

In order to offset the loss of wetlands, the project applicant shall secure wetland mitigation bank credits, per Mitigation Measure BIO-5 at a ratio of 2:1 or as otherwise required by resource agencies. With implementation of Mitigation Measure BIO-5, the project's impacts to waters of the U.S. and areas protected under the Clean Water Act will be reduced to less than significant levels.

Mitigation Measure:

BIO-4. In order to avoid impacts to the wetland to be preserved onsite, the pedestrian trail and footbridge shall be designed in a manner that restricts direct access to the wetland area. Signage, fencing, and paving treatments shall be utilized to discourage access into the sensitive wetland area.

BIO-5. To offset impacts to the 0.185 acres of US waters, credits shall be purchased from an approved mitigation bank at a ratio of two acre for every one acre impacted, or as otherwise directed by regulatory agencies, in addition to the preservation of the remaining wetlands onsite within the project’s open space area. The ratio of 2:1 is proposed or as otherwise required by resource agencies given the low-quality habitat of the onsite seasonal wetlands. The applicant shall provide proof of purchase of credits and notification to the City and regulatory agencies.

BIO-6. The applicant shall install temporary orange exclusion fencing (or staking) between the wetland area to be preserved and the limits of grading for the duration of site preparation and construction activities in order to prevent inadvertent disturbance during project related activities. Following completion of construction activities, the exclusionary fencing shall be removed.

3.4 (d) (Wildlife/Fish Movement & Nursery) Less Than Significant Impact: There is no evidence of migratory wildlife corridors or nursery sites on the project site or in the project vicinity. The Biological Resources Analysis concluded that the surrounding roadways to the north, south, east and west effectively isolate the project site from wildlife movements, eliminating the possibility of the site functioning as a movement corridor. The project is an urban infill development, and will not substantially interfere with the movement of fish or other wildlife species including migrating species. Therefore, the project will have less than significant impacts to wildlife corridors and species movements.

Mitigation Measures:
3.4 (e) (Tree Preservation) Less than Significant Impact with Mitigation: Chapter 17 of Petaluma’s Implementing Zoning Ordinance (IZO) addresses tree preservation requirements for development projects. Section 17.040 defines which tree species are subject to review. When “protected trees” are potentially affected by a development project, an arborist report is required. Prior to the removal of any protected tree, a Tree Removal Permit must first be obtained under Section 17.060 and mitigated in accordance with Section 17.065. An Arborist’s Report and Tree Inventory was prepared by Becky Duckles, an ISA Certified Arborist, in October 2015 (see Appendix C).

Four Coast Redwood trees (*Sequoia sempervirens*), one Valley Oak tree (*Quercus lobata*), and one Coast Live Oak (*Quercus agrifolia*) are proposed for removal as part of the subject development. Replacement trees totaling 17 inches in diameter are required to mitigate the removal of the Valley Oak tree. Replacement trees totaling 6 inches in diameter are required to mitigate the removal of the Coast Live Oak tree. Additionally, replacement trees totaling 121 inches in diameter are required to mitigate the removal of the four Coast Redwood trees. In sum, replacement trees totaling 144 inches in diameter shall be planted to mitigate the six protected trees to be removed.

According to the City’s tree replacement schedule, tree mitigation may be through in-kind replacement or in-lieu replacement. Replacement trees shall be at least 24-inch box size. The City may accept payment of in-lieu fees by the applicant, which shall also be based on a minimum 24-inch box size.

Both native oaks and redwoods trees are present on the project site. While many of these protected trees will be preserved under the current development plan, six protected trees will be removed. Petaluma defines any native oak species with a Diameter at Breast Height (DBH) of 4 inches or greater and coast redwoods with an 18-inch diameter or greater as protected. Pursuant to the IZO, Section 17.065 (Tree Mitigation and Replacement) trees identified with general health and structural integrity of good to excellent condition are required to be replaced at a one to one ratio. In order to offset the removal of protected trees on the site, Mitigation Measure BIO-7, in accordance with IZO section 17.065 A.3.c.3, requires one to one trunk diameter replacement. Mitigation Measure BIO-6 requires replacement trees with a total of 144 inches in diameter at breast height (DBH). Therefore, with mitigation measure BIO-6, the removal of protected trees will be offset and the project’s impacts due to a conflict with the tree preservation ordinance would be reduced to levels below significance.

Mitigation Measures:

BIO-7. Replacement trees totaling 144 inches or as otherwise specified by the City’s Tree Preservation Ordinance shall be introduced onsite to offset the removal of the 6 protected trees. Tree mitigation may be through in-kind replacement or in-lieu replacement. Replacement trees shall be at least 24-inch box size. The City may accept payment of in-lieu fees by the applicant, which shall also be based on a minimum 24-inch box size.

3.4 (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, which would regulate the proposed development on this parcel. Development of the project will not conflict with any adopted biological resource plan. Therefore, the project will have no impacts to biological resource management plans, conservation plan, or their implementation.

Mitigation Measures: None required.
3.5. CULTURAL RESOURCES

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?</td>
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<tr>
<td>b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?</td>
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<tr>
<td>c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?</td>
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<tr>
<td>d) Disturb any human remains, including those interred outside of formal cemeteries?</td>
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</table>

Sources: 2025 General Plan and EIR; A Cultural Resources Study for the Brody Subdivision Project, Petaluma, Sonoma County, California, prepared by Julianne Mercer, B.A. and Eileen Barrow, M.A./R.P.A of Tom Origer and Associates, October 2015; and Phase 1 Environmental Site Assessment prepared by AEI consultants, April 29, 2014.

Setting:

The City of Petaluma features a rich variety of historic and cultural resources that contribute to Petaluma’s character and identifiable sense of place. The City and adjacent areas contain resources that date to the inhabitation of the Coastal Miwok Tribe and a number of resources that visibly chronicle the evolution of the City from early settlement through present day. Such resources include artifacts, buildings, structures, landscapes, sites, objects, and districts.

Within the UGB there exist 14 Native American Resources that have been identified, 19 historic sites and 3 historic districts: Oakhill-Brewster, A-Street and the Downtown Historic District which is listed on the National Register of Historic Places. In addition to those properties already designated there are upwards of 300 properties that have been identified as potentially eligible for listing on a local, state, or national register of historic places. In order to perpetuate the unique character found in Petaluma, the City has adopted policies and programs that serve to compliment and reinforce the sense of place. The City has implemented policies to regularly update and/or expand surveys of local historic resources and pursue incentives and programs that will aid in preservation efforts. Existing policies and regulations governing historic preservation within the City can be found in Chapter 3 of the 2025 Petaluma General Plan and Chapter 15 of the Implementing Zoning Ordinance.

The proposed project site consists of approximately 16 acres of relatively flat land that contains several buildings associated with an early twentieth century poultry farm. In order to assess the potential historic and/or archeological significance of the site a Cultural Resource Study was prepared by Origer and Associates in October 2015 (see Appendix D). Extant historic-era buildings on the site include two houses, a cabin, and several outbuildings, with the oldest building/structure dating to the early 1900s. All extant buildings were evaluated against the eligibility criteria prescribed by the California Register of Historic Resources (CRHR) and none were found eligible for listing based on any of the four criterion. In addition, a review of available archeological records and a field survey were conducted.
Impact Analysis:

3.5 (a) (Historical Resource) No Impact: The Cultural Resource Study identified the presence of two houses, a cabin and several outbuildings on the subject property, with the oldest on-site building/structure dating to the early twentieth century. The property was evaluated against the criteria prescribed by the California Register of Historic Resources (CRHR) and recorded on a DPR 523 form. The evaluation concluded that while the property could have been eligible for listing based on its association with the theme of poultry production in Sonoma County, it did not retain sufficient integrity and/or intact poultry farm components (e.g. most features that define a poultry farm operation, the poultry houses, yards, ponds, and processing buildings have been removed) to convey historic significance. Accordingly, the property and buildings/structures do not appear eligible for listing on the CRHR and therefore are not considered “historic resources” for the purposes of CEQA. As such, there is no expectation that the project may result in an adverse effect to the significance of a historic resource and no impacts are anticipated from demolition of onsite buildings/structures and development of the proposed Brody Ranch Subdivision.

Mitigation Measures: None required.

3.5 (b) (Archaeological Resources) Less Than Significant Impact with Mitigation: At the time of European settlement, the study area was within territory controlled by the Coast Miwok. The Coast Miwok settled in large, permanent villages comprised of distributed seasonal camps and task-specific sites. Primary village sites were occupied throughout the year and other sites were visited in order to procure particular resources that were especially abundant or available only during certain seasons. In the City of Petaluma undisturbed (or mildly disturbed) lands within the Urban Growth Boundary, particularly lands in the vicinity of ridgetops, midslope terraces, alluvial flats, ecotones, and sources of water tend have a greater possibility of containing a prehistoric archaeological resources.

The study area lies within the Rancho Petaluma granted to Mariano Vallejo in 1834. The Rancho was largely devoted to hay and grain cultivation and cattle ranching. Beginning in 1851, General Vallejo parceled out the Rancho to accommodate new settlers, which resulted in widely scattered ranches and farmsteads surrounded by open lands. Examination of historic-era maps indicate presence of a house in the northwest corner of the property in 1867, possibly two houses on the parcel in 1916, and four houses and three outbuildings in 1954. In addition, documentation performed for the Historic American Buildings Survey in 1934 indicates the presence of a Mexican-era adobe structure (c.1800) in the northwest vicinity of the site; however, the Adobe structure is no longer present onsite.

While no archaeological records were identified onsite, archival research and field observations indicate evidence of an early-1800s adobe and an 1860s dwelling on the property; scattered historic-period items were observed in the vicinity of the adobe location. As such, there remains a possibility that intact historic-era archaeological deposits and/or structural features could be encountered if earth-disturbing activities occur in the northwestern part of the property. Potentially significant archeological resources include, but are not limited to concentrations of artifacts or culturally modified soil deposits, modified stone, shell, bone, or other cultural materials such as charcoal, ash, and burned rock indicative of food procurement or processing activities, or prehistoric domestic features including hearths, fire pits, or house floor depressions or other such historic artifacts (potentially including trash pits and all by-products of human land use greater than 50 years of age).

In order to avoid inadvertently causing a substantial adverse change in the significance of an archaeological resource, the applicant shall be required to retain the services of a professional archeologist who meets the Secretary of the Interior’s Professional Standards for Archeology to monitor earth-disturbing work in the northwestern portion of the site in accordance with the recommendations provided by the Cultural Study and set forth in Mitigation Measure CUL-1 below. 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 archeological resources would be reduced to less than significant levels.
In the event that potential archeological resources are unearthed on other portions of the site, the contractor/applicant shall proceed pursuant to Mitigation Measure CUL-2, which requires construction activity to halt close proximity to the find until a qualified profession can evaluate the potential significance of the resource. Should any features be identified during construction, the condition requires compliance with CEQA §21083.2 and CEQA Guidelines §15064.5. With implementation of Mitigation Measures, the project's potential impacts to archeological resources will be reduced to less than significant levels.

**Mitigation Measures:**

**CUL-1.** The applicant shall retain the services of a professional archeologist who meets the Secretary of the Interior's Standards Professional Qualifications for Archeology to monitor ground disturbing activities located in the northwestern portion of the site in the vicinity of the former adobe structure. If a potentially significant archeological resource is encountered the archeologist shall be provided sufficient time to evaluate the resource and make treatment recommendations in accordance with CEQA Guidelines §15064.5.

**CUL-2.** If during the course of ground disturbing activities, including, but not limited to excavation, grading and construction, a potentially significant prehistoric or historic resource is encountered, all work within a 100 foot radius of the find shall be suspended for a time deemed sufficient for a qualified and city-approved cultural resource specialist to adequately evaluate and determine significance of the discovered resource and provide treatment recommendations. Should a significant archeological resource be identified a qualified archaeologist shall prepare a resource mitigation plan and monitoring program to be carried out during all construction activities.

### 3.5 (c) (Unique Paleontological Resource) Less Than Significant Impact:

The Petaluma General Plan does not identify the presence of any paleontological or unique geological resources within the boundaries of the UGB. Limited expectation exists for paleontological resources to be present on the project site. Nevertheless, potential remains for the discovery of buried paleontological resources. Accordingly, 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 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.

**Mitigation Measures:** None required.

### 3.5 (d) (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 during ground disturbing activities, human remains are discovered to be present, all requirements of state law pursuant to California Health and Safety Code Section (CA HSC) 7050.5 shall be duly complied with, including the immediate cessation of ground disturbing activities near or in any area potentially overlying adjacent human remains and contacting the Sonoma County Coroner upon the discovery of any human remains. If it is determined by the Coroner that the discovered remains are of Native American descent the Native American Heritage Commission shall be contacted immediately. If required, the project sponsor shall retain a City-qualified archeologist to provide adequate inspection, recommendations and retrieval. Compliance with CA HSC Section 7050.5 and performance of actions therein will ensure that in the event of accidental discovery of historically significant remains all impacts will remain at levels below significance.

**Mitigation Measures:** None required.
### 3.18. GEOLOGY AND SOILS

Would the project:

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less than Significant Impact</th>
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<tbody>
<tr>
<td>a) Expose people or structures to potential substantial adverse effects, including</td>
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<td>the risk of loss, injury, or death involving:</td>
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<tr>
<td>i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-</td>
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<tr>
<td>Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or</td>
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<td>based on other substantial evidence of a known fault? Refer to Division of Mines</td>
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<td>and Geology Publication 42.</td>
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<td>ii. Strong Seismic ground shaking?</td>
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<td>iii. Seismic-related ground failure, including liquefaction?</td>
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<td>iv. Landslides?</td>
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<td>b) Result in substantial soil erosion or the loss of topsoil?</td>
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<td>c) Be located on a geologic unit or soil that is unstable, or that would become</td>
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<td>unstable as a result of the project, and potentially result in on or off-site</td>
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<tr>
<td>landslide, lateral spreading, subsidence, liquefaction or collapse?</td>
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<tr>
<td>d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform</td>
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<td>Building Code (1994), creating substantial risks to life or property?</td>
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<td>e) Have soils incapable of adequately supporting the use of septic tanks or</td>
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<td>alternative waste water disposal systems where sewers are not available for the</td>
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<tr>
<td>disposal of waste water?</td>
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</tbody>
</table>

Sources: Petaluma General Plan 2025: Chapter 10.1 Natural Hazards, Petaluma General Plan DEIR Figures 3.7-2 (Local Geology), 3.7-4 (Ground Shaking Intensity), 3.7-5 (Geological Hazards); and Geotechnical Investigation for Brody Ranch Subdivision, prepared By Stevens, Ferrone, & Bailey Engineering Company, Inc., October 16, 2015.

**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. Principal 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 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 present a potential geologic hazard. Without proper geotechnical considerations, buildings, utilities and roads can be damaged by expansive soils due to the gradual cracking, settling, and weakening that can occur. These effects create safety concerns and risk of financial loss. To reduce the risks associated with expansive soils, the City's Building Code, Chapter 18, requires that each construction site, intended for human occupancy, that is suspected of containing expansive soils be investigated and the soils be treated to eliminate the hazard.

A site-specific geotechnical engineering study was prepared by Stevens, Ferrone, & Bailey Engineering Company, Inc. on October 16, 2015 (see Appendix E). The purpose of the investigation was to identify any geotechnical constraints associated with the proposed Brody Ranch Subdivision Project. Subsurface exploration was performed at the site on March 12, 2015 and included five exploratory borings to a maximum depth of approximately 40 feet. Subsurface conditions were found to consist of clayey or sandy fill material. Fill material was identified in some areas to a depth of about 2 to 2-1/2 feet. According to the results of laboratory testing, the near-surface soils have a very high plasticity and critical expansion potential. Groundwater was encountered at depths between 9.5 and 14.5 feet below.

**Geology and Soils Impact Discussion:**

3.6 (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. 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.

**Mitigation Measures:** None required.

3.6 (a.ii) (Ground-Shaking) Less Than Significant Impact: 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 IX-Violent 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.

Conformance with Title 24 (California Building Code Standards) and the Seismic Hazards Mapping Act as required by the 2013 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.

Based on the geotechnical engineering study prepared for the project, the CBC parameters for a Site Class D apply, and will translate to specifications for foundation types, appropriate structural systems, and ground stabilization strategies. The geotechnical engineering study advances preliminary recommendations for compliance with Site Class D requirements.

With utilization of Site Class D specifications and mandatory compliance with all other related building code standards as well as conformance with the recommendations set forth in the geotechnical report for construction purposes, the project would not expose a substantial number of people or structures to adverse effects, including the risk of loss, injury, or death resulting from strong seismic ground shaking. Therefore, the project will have a less than significant impact resulting from strong seismic ground shaking.

**Mitigation Measure:** None required.
3.6 (a.iii) (Ground Failure) Less Than Significant Impact: 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.

Based on the subsurface exploration, lab testing, and engineering analyses, the liquefaction potential for the project site is determined to be low since the liquefiable soil lenses are limited on the project site. The geotechnical report concludes an estimated liquefiable induced ground surface settlements of about a ½ inch with a differential settlement of about a ¼ inch across residential structures. These are within tolerable limits for liquefaction. Similarly, the Geotechnical Investigation concluded that the site’s potential for lateral spreading was also low and did not pose a substantial risk. Compliance with CBC standard will ensure that liquefaction, lateral spreading and ground failure do not pose substantial risks. Therefore, impacts related to ground failure is considered a less than significant impact.

Mitigation Measures: None required.

3.6 (a.iv) (Landslide) No Impact: Landslides typically occur on slopes steeper than 15% and in areas underlain by geologic units that have demonstrated stability problems. 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. No landslides have been identified as having occurred onsite or within the project vicinity. Based on the site’s flat topography and setback from Corona Creek, there would be no impacts associated with landslides.

Mitigation Measures: None required.

3.6 (b) (Erosion) Less Than Significant Impact: Development of the project will require site preparation including grubbing (removal of vegetation) and grading to achieve a uniform distribution of soil across the project site.

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. It is expected that site development will necessitate excavation to a depth of approximately 36 inches in order to remove fill materials which is encountered a depth up to 2 ½ feet.

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 (Chapter 17.31 of the Petaluma Municipal Code). The erosion control plan is required to identify techniques such as site watering, sediment capture, equipment staging and laydown pad, and other erosion control measures to be implemented during construction activity on the project site. Similarly, construction 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). Compliance with these mandatory requirements would prevent substantial soil erosion and loss of topsoil. Therefore, the project will result in a less than significant impact under this topic.

Mitigation Measures: None required.

3.6 (c) (Unstable Geologic Unit) Less Than Significant Impact: 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. Therefore, as part of the geotechnical report conducted by Stevens, Ferrone, and Bailey Engineering Co, lateral spreading potential of the southeastern adjacent creek bank was evaluated. Based on the available literature, field exploration results, and liquefaction analysis, the report concluded that risk of lurching, ground cracking and lateral spreading is low.
The Geotechnical Investigation considered the project relative to the adjacent Corona Creek and recommended at minimum setback of 10 feet. The City requires a minimum setback of 50 feet for all hardscape improvements excluding trails, detention basins and other approved non-habitable improvements. Based on site plans the project complies with the City’s minimum set back requirements from Corona creek. The project plans do not place habitable structures within the setback area, although a detention basin is proposed in the southeastern most portion of the project site. The detention basin will include a storm drain pipe that extends to an existing riprap outfall within Corona Creek. The detention basin and outfall are not expected to affect slope integrity or otherwise compromise the creek embankment. Therefore, impacts relating to unstable geologic units will be less than significant.

Mitigation Measures: None required.

3.6 (d) (Expansive Soils) Less Than Significant with Mitigation: The project’s geotechnical investigation indicates that the onsite near-surface clay soils exhibit a very high plasticity and critical expansion potential. Critically expansive surface soil materials will be subjected to volume changes during fluctuations in moisture content. Changes in soil moisture content can result from seasonal variations in precipitation, perched groundwater, landscape practices, broken or leaking irrigation, utility lines or poor site drainage. Changes in soil moisture content can incite differential movements (settlement or heave) of building foundations, slabs-on-grade, or flatwork supported on expansive soils, which could result in potentially significant impact if not properly treated and controlled.

To reduce the potential for post-construction distress to the proposed improvements as a result of the highly expansive soils onsite, adherence to recommendations set forth in the Geotechnical Investigation shall be implemented as well as all other measures derived through mandatory compliance with Title 24 (California Building Code Standards). Mitigation Measure GEO-1 as set forth below shall be implemented. GEO-1 requires that construction techniques adhere to the recommendations set forth in the Geotechnical Investigation including that site preparation remove potentially weak and compressible fills and re-compaction prior to re-use onsite, adhere to compaction recommendations for structural fill and pavements, and focused attention to exterior flatwork such as reinforcement with steel bars rather than wire mesh. Further, it is recommended that foundations be designed to account for at least some expansive soil movement. Adherence to those recommendations outlined in the project’s geotechnical investigation and in accordance with Mitigation Measure GEO-2 will ensure that potential impacts from expansive soils are reduced to less than significant levels.

Mitigation Measures:

GEO-1. As determined by the City Engineer and/or Chief Building Official, all recommendations outlined in the Geotechnical Investigations dated October 16, 2015 prepared for the subject property by Stevens, Ferrone, and Bailey Engineering Co., Inc., including but not limited to, site preparation and grading, excavation, seismic design, and foundations system design are herein incorporated by reference and shall be adhered to in order to ensure that appropriate construction measures are incorporated into the design of the project. Nothing in this mitigation measure shall preclude the City Engineer and/or Chief Building Official from requiring additional information to determine compliance with applicable standards. The 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.

3.6 (e) (Septic Tanks) No Impact: The proposed project would connect to the existing sanitary sewer system that would convey effluent to the City’s wastewater treatment facility. There are no onsite septic tanks or alternative wastewater treatment facilities proposed as part of the Project. Therefore, there would be no impacts due to the disposal of wastewater where sewer are not available.

Mitigation Measures: None required.
3.7. GREENHOUSE GAS EMISSIONS

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>


**GHG Setting:**

Greenhouse gases (GHGs) trap heat in the atmosphere, which in turn heats up the surface of the Earth. GHGs are generated both from natural geological and biological processes and through human activities including the combustion of fossil fuels and industrial and agricultural processes. Other than water vapor, the GHGs contributing to global climate change include carbon dioxide, nitrous oxide, methane, chlorofluorocarbons, hydrofluorocarbons and perfluorocarbons. In the United States, carbon dioxide emissions account for about 85 percent of anthropogenic GHG emissions.

To address GHG’s at the State level, the California legislature passed Assembly Bill 32 in 2006, requiring that statewide GHG emissions be reduced to 1990 levels by 2020. Further, Senate Bill 375, adopted 2008, endeavors to curb GHGs through a reduction in urban sprawl and vehicle miles traveled.

The City of Petaluma has also taken steps to address GHG emissions within its city limits. The City adopted Resolutions 2002-117 and 2005-118, which call for the City’s participation in the Cities for Climate Project effort and established GHG emission reduction targets of 25% below 1990 level by 2015 for community emissions and 20% below 2000 levels by 2010 for municipal operations. In addition, the City is currently preparing a Climate Action Plan in partnership with the County and other local jurisdictions. This effort will implement General Plan Policy 4-P-27.

In 2013, the City adopted an update to the California Building Standards Code, which contains the mandatory California Green Building Standards Code (CalGreen). All new development within the City of Petaluma must comply with these standards, which generally achieve energy efficiency approximately 15% beyond Title 24. As such, new development is expected to be more energy efficient, use less resources and emit fewer GHGs.

The City is also working with regional agencies to implement the Sonoma Marin Area Rail Transit (SMART) Plan, which will provide 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 greenhouse gases, which contribute to global warming, by at least 124,000 pounds per day. It is anticipated that commuter rail service will begin in 2017. The Brody Ranch Subdivision is located in the immediate vicinity of the Corona Road SMART station, which will provide future residents with an opportunity to utilize close and convenient commuter rail service once the station is operational.
In 2007, the City prepared a revised Air Quality section for the General Plan EIR to address greenhouse gas emissions. Appendix A of the 2007 Revised EIR includes all of the applicable policies from the General Plan that reduce Greenhouse Gas Emissions. However, the General Plan is not considered a “qualified” GHG reduction strategy by the BAAQMD. As such, BAAQMD's screening threshold of 1,100 metric tons (MT) of carbon dioxide equivalents per year (CO2e/yr) or service population of 4.6 MT/service population/year is used to evaluate the proposed project.

Impact Analysis:

3.7 (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. The BAAQMD has not established thresholds of significance for GHG emissions resulting from construction activities. Nonetheless, the project’s Air Quality and GHG Assessment calculated emission levels generated by project construction and evaluated impacts relative to the operational thresholds established by BAAQMD (1,100 MT CO2e/year). Based on the Air Quality and GHG Assessment prepared by Illingworth and Rodkin (see Appendix A) construction of the Brody Ranch Subdivision will emit an estimated 415 MT of CO2e over the entire construction period. As such, construction period GHG emission generated by the project will result in less than significant impacts. Additionally, BAAQMD encourages the incorporation of best management practices to reduce GHG emissions during construction. As stated under the air quality discussion above, best management practices will be imposed on the project as a condition of approval and will further limit emission of GHGs. Accordingly, GHG emissions generated from the project’s construction activities will result in less than significant impacts.

The project’s GHG emissions were estimated at operational including the following sources: (1) emissions associated with energy use and area sources, including electricity and natural gas, consumer products, hearths and landscaping equipment; (2) emissions from vehicle use; (3) emissions associated with conveyance and treatment of potable water and wastewater; and (4) emissions associated with solid waste disposal. The total operational GHG emissions are calculated in tons per year and tons per capita. Per capita emissions are computed by dividing the annual GHG emissions by the number of new residences or service population. The project’s population was calculated by applying the number of new residences (199 units) to a rate of 2.7 persons per household1, which is based on the latest census data for the City of Petaluma. The project is expected to add approximately 537 new residents.

As shown in Table 6, operation of the project would generate 1,888 metric tons of CO2e per year. The project per capita emissions of 3.5 MT of CO2e per year would not exceed the per capita significance threshold of 4.6 MT of CO2e/yr/capita.

Table 6. Annual Project GHG Emissions

<table>
<thead>
<tr>
<th>Source Category</th>
<th>Project Emissions CO2e (Metric Tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area</td>
<td>11</td>
</tr>
<tr>
<td>Energy Consumption</td>
<td>457</td>
</tr>
<tr>
<td>Mobile</td>
<td>1,325</td>
</tr>
<tr>
<td>Solid Waste Generation</td>
<td>60</td>
</tr>
<tr>
<td>Water Usage</td>
<td>35</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,888</strong></td>
</tr>
<tr>
<td><strong>Per Capita Efficiency Rate</strong></td>
<td><strong>3.5 MT CO2e/year/capita</strong></td>
</tr>
<tr>
<td><strong>BAAQMD Threshold</strong></td>
<td><strong>4.6 MT CO2e/year/capita</strong></td>
</tr>
<tr>
<td><strong>Significant?</strong></td>
<td><strong>No</strong></td>
</tr>
</tbody>
</table>


1 Based on the latest US Census data for the City of Petaluma, 2012
GHG emissions generated by the project are below the BAAQMD-recommended “Per-Capita” emissions threshold. As a result, the project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. Therefore, impacts due to GHG emissions at operation would be less than significant.

**Mitigation Measures:** None required.

3.7 (b) **(GHG Plan Conflict) Less Than Significant with Mitigation:** 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, and conservation and provide for educational programs. Most of these policies and programs do not relate directly to development projects. However, General Plan Policy 4-P-9 does apply to the project and states, “Require a percentage of parking spaces in large parking lots be equipped to provide electric vehicle charging facilities.” In order to comply with this General Plan policy and ensure a less than significant impact for this criterion, **Mitigation Measure GHG-1**, requiring the installation of electric charging facilities within onsite parking stalls, shall be implemented. Charging stations will only be required at the multi-family parking area of the project and will not be required for the single-family component. Additionally, the project will comply with Title 24 Part 6 (Building Energy Efficiency Standards), Cal Green Modified Tier 1 Standards, which will help to minimize GHG emissions. No other element of the proposed project is expected to conflict or otherwise inhibit an adopted plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Therefore, potential impacts will be reduced to less than significant levels.

**Mitigation Measures:**

GHG-1: In accordance with Section A4.106.8.2 of the 2013 California Green Building Standards Code, the project shall provide at least 3% of the total condo parking spaces as capable of supporting future electric vehicle supply equipment. Of the spaces and equipment requirements of the California Green Building Standards Code and as required by City of Petaluma General Plan Policy 4-P-9, the project shall be constructed to include electrical vehicle charging stations at a ratio of least 1% of the total parking spaces.
3.8. HAZARDS/HAZARDOUS MATERIALS

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>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?</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>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 for people residing or working in the project area?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
</tbody>
</table>

Sources: 2025 General Plan and EIR; Sonoma County 2020 General Plan and EIR; Phase I Environmental Site Assessment conducted by AEI Consultants dated April 29, 2014; Limited Phase II Subsurface Investigation conducted by AEI Consultants dated July 15, 2014; and Sonoma County General Plan 2020 Public Safety Element.
Setting:

Regulatory Setting

Hazardous materials and waste management is implemented by a number of governmental agencies that have established regulations regarding the proper transportation, handling, management, use, storage, and disposal of hazardous materials for specific operations and activities. Pursuant to the Planning and Zoning Law, the Department of Toxic Substances Control (DTSC) maintains a hazardous waste and substances sites list (e.g., Cortese List).

Existing hazardous materials and/or waste within Petaluma include underground storage tanks, Polychlorinated Biphenyls (PCBs), asbestos, and pesticides. There are approximately sixty (60) open Leaking Underground Storage Tank (LUST) sites dispersed throughout the city. There are no identified “brownfield” properties in the city. Reuse and intensified use of former industrial and commercial areas, particularly in Central Petaluma, has the potential to expose one or more hazardous materials during demolition and/or excavation. Remediation of these hazards is necessary before rehabilitation or construction can begin.

Hazardous waste management in Petaluma is administered by the Sonoma County Waste Management Agency (SCWMA) through the Countywide Integrated Waste Management Plan (CoIWMP). As required by State law, the General Plan includes the Source Reduction and Recycling Element (SRRE), Household Hazardous Waste Element (HHWE), Non-Disposal Facility Element (NDFE), as well as the Siting Element.

State law requires that communities form a Consolidated Unified Protection Agency (CUPA) to manage the acquisition, maintenance, and control of hazardous waste by industrial and commercial business. In Petaluma, the Fire Marshall’s Office administers the CUPA programs.

Existing Conditions

There are no hazardous waste disposal sites in the city. The Sonoma County Waste Management Agency (SCWMA), through the Countywide Integrated Waste Management Plan, conducts hazardous waste management programs. A new Households Toxics Facility recently opened at the Central Landfill (500 Mecham Road, Petaluma), where households and businesses within Sonoma County can drop off hazardous materials. In addition, community toxics collections are conducted in a different city each week by the SCWMA. These services are available to households and businesses that qualify as small quantity generators (i.e., generate a maximum of 100 kilograms (27 gallons or 220 pounds) or less of hazardous waste per month). Residential pick-up service is available by appointment.

In 2005 the Association of Bay Area Governments (ABAG) released “Taming Natural Disasters”, which acts as a multi-jurisdictional local hazard mitigation plan for the San Francisco Bay Area. The intent of the plan is to enhance disaster resilience throughout the region, pursuant to the Disaster Mitigation Act of 2000. The Plan was subsequently updated in 2010 and has since been approved by the Federal Emergency Management Agency (FEMA) and formally adopted by ABAG. The City of Petaluma’s “2010 Local Hazard Mitigation Plan Annex,” prepared August 24, 2011, complies with the Federal Disaster Mitigation Act of 2000 by demonstrating a commitment to increasing disaster resilience within the City’s jurisdiction. As required by the Disaster Mitigation Act, the City of Petaluma has pledged to update this Plan Annex at least once every five years and is monitored on an on-going basis by the Capital Improvement Monitor for the City. An update to the City’s Annex Plan is anticipated to occur in 2016.

Phase I Environmental Site Assessment

A Phase I Environmental Site Assessment (ESA) was conducted by AEI Consultants (AEI) on April 29, 2014 to evaluate the potential to encounter hazardous substances on the project site (see Appendix F).
The Phase I identified the following Recognized Environmental Conditions associated with the project site:

- Based on a review of aerial photographs and interviews with the subject property owner, the subject property was historically used for agricultural purposes. There is a potential that agricultural chemicals, such as pesticides, herbicides and fertilizers, were used on site, and that the subject property has been impacted by the use of such agricultural chemicals.

According to the Phase I ESA, no Controlled Recognized Environmental Conditions were identified for the project site.

The Phase I identified the following Historical Recognized Environmental Condition for the project site:

- According to information obtained from the Sonoma County Public Health Department, the subject property was formerly equipped with one approximately 500-gallon underground storage tank (UST), associated with the current tenant identified as Beauchamp’s Welding. The tank was reportedly removed in 1987 and one soil sample was collected. The sample was analyzed for total petroleum hydrocarbons as gasoline (TPHg). The number of samples and analyses taken were below current standards, however, TPHg was not detected in the sample taken. One additional document indicates the presence of two more underground storage tanks; however, according to an inspection report from 1987, the inspector indicated the presence of two aboveground 500-gallon tanks and one underground tank.

The Phase I identified the following environmental issues for the project site:

- Due to the historic use of the subject property, there is a potential that additional fuel tanks or subgrade features may have been present on-site.

The Phase I identified the following Non-ASTM Considerations for the project site:

- Due to the age of the subject property buildings, there is a potential that asbestos containing materials (ACMs) are present. All observed suspect ACMs were in good condition and are not expected to pose a health and safety concern to the occupants of the subject property at this time.
- Due to the age of the subject property buildings, there is a potential that lead-based paint (LBP) is present. All painted surfaces were observed in good condition and are not expected to pose a health and safety concern to the occupants of the subject property at this time.

The property adjacent to and south of the project site, located at 320 Corona Road, was identified in the regulatory database as a Resource Conservation and Recovery Act Non-Generator (RCRA NonGen) site. According to the database, the adjacent site to the south did not generate hazardous waste in 1988, however, the site was identified as a transporter of hazardous wastes. No violations were reported.

Limited Phase II Subsurface Investigation

AEI conducted a Limited Phase II Subsurface Investigation (Phase II) on July 15, 2014 (see Appendix G). The investigation included the collection of soil and groundwater samples in the location of the documented former UST and collection of shallow soil samples from the area historically under agricultural production.

The Phase II soil samples collected and analyzed for the UST investigation concluded the following:

- TPHg and total petroleum hydrocarbons as diesel (TPHd) were not detected in the sample above the laboratory detection limits.
- Xylene-volatile aromatic compounds (BTEXM) and lead were not detected in the sample above the laboratory detection limits.

The Phase II soil samples collected and analyzed for the agricultural land survey concluded the following:
• Dieldrin was detected in two composite samples at concentrations of 0.0038 milligrams per kilogram (mg/kg) and 0.0043 mg/kg, which exceeds the Environmental Screening Levels (ESLs) from the San Francisco Bay Regional Water Quality Control Board for residential land use for leaching to groundwater. However, it does not exceed the ESL for direct exposure in residential land use.

• Dichlorodiphenyldichloroethene (DDE) was detected in one composite sample at a concentration which does not exceed the applicable ESL value.

• Arsenic was detected in six composite samples at concentrations which exceed the applicable ESL value. However, these concentrations are consistent with naturally occurring concentrations throughout soil of the area and the findings do not indicate anthropogenic source of arsenic.

• Lead and chromium were detected in six composite samples at concentrations which do not exceed the applicable ESL values and which are also consistent with naturally occurring conditions.

The Phase II groundwater sample and analysis concluded the following:

• TPHg and TPHd were not detected in the groundwater sample above the laboratory detection limits.

• Benzene, toluene, ethylbenzene, xylenes, and methyl tert-butyl ether (BTEXM) and lead were not detected in the groundwater sample above the laboratory detection limits.

Impact Analysis:

3.8 (a) (Routine Transport) Less Than Significant Impact: The proposed project will involve the demolition of existing structures followed by the construction of residential units, parking, and other improvements. Demolition, site preparation, and construction activities may 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 there may be potentially hazardous materials onsite during construction, the applicant will comply with all existing federal, state and local safety regulations, as overseen by the City of Petaluma's CUPA, governing the transportation, use, handling, storage and disposal of potentially hazardous materials. In the event that construction activities involve the on-site storage of potentially hazardous materials, a declaration form shall be filed with the Fire Marshall's office and a hazardous materials storage permit must be obtained. While the project site is expected to house hazardous materials on both a temporary and permanent basis, strict adherence to Best Management Practices (BMPs) in accordance with the NPDES Permit requirements and compliance with all applicable regulations will ensure that potential impacts remain at levels below significance.

Mitigation Measures: None required.

3.8 (b) (Upset and Accident Involving Release) Less Than Significant With Mitigation: The project site is currently occupied by several buildings of considerable age. Asbestos containing materials (ACMs) and lead-based paints (LBPs) may be present on site and could be disturbed during demolition activities. Pursuant to the recommendations set forth in the Phase I ESA, Mitigation Measure HAZ-1 shall be implemented, requiring an asbestos survey adhering to sampling protocols outlined by the Asbestos Hazard Emergency Response Act (AHERA) and material sampling to determine lead presence of the on-site buildings to occur prior to any demolition activities. In the event that such substances are found, the applicant will adhere to all requirements put forth by the Occupational Health and Safety Administration (OSHA) and other relevant agencies regarding the treatment and handling of these materials.

Due to the historic use of the project site, there is a potential that unidentified fuel tanks or subgrade features may be present on-site, and could be encountered during construction. Therefore, as recommended in the Phase I ESA, Mitigation Measure HAZ-2 shall be implemented, which would require the preparation and implementation of a Site Management Plan (SMP) to monitor for and appropriately manage localized impacts of buried hazardous features encountered during construction activities.
According to the Limited Phase II, in the area of the UST, TPHg, TPHd, BTEXM, and lead were not detected in soil or groundwater samples above laboratory detection limits. Shallow soil samples did not identify arsenic, lead or chromium at concentrations of concern. The pesticides dieldrin and DDE were also detected in the shallow soil, however, at concentrations below the residential direct contact ESL. Based on these results, there does not appear to have been a release from the former 500-gallon UST. Additionally, the site has not been significantly impacted by the historic use of agricultural chemicals. Therefore, impacts are considered less than significant.

With implementation of mitigation measures HAZ-1 and HAZ-2 potential impacts due to accident upset or release of hazards or potentially hazardous materials will be reduced to less than significant levels.

Mitigation Measures:

HAZ-1. Prior to any activities involving the demolition or alteration of the existing buildings on site, an asbestos survey adhering to sampling protocols outlined by the Asbestos Hazard Emergency Response Act and material sampling to determine lead presence will occur. Construction activities that disturb materials or paints containing any amount of lead and/or asbestos may be subject to certain requirements of the Occupational Safety and Health Administration (OSHA) lead standard contained in 29 CFR 1910.1025 and 1926.62, AHERA requirement, and any other local, state, or federal regulations. In the event that such substances are found, the applicant will adhere to all requirements put forth by OSHA and other agencies regarding the treatment, handling, and disposal of these materials.

HAZ-2. Prior to any subsurface construction activities, a Site Management Plan (SMP) shall be prepared and implemented to monitor for and appropriately manage any hazardous features unearthed during construction activities. The Site Management Plan shall at a minimum provide detail on the protocol to be followed in the event that an underground storage tank is encountered and proper procedures for excavation, remedial action and noticing to the appropriate regulatory agency (Sonoma County Department of Health Services).

3.8 (c) (Emit of Handle within ¼ Mile of School) No Impact: The project site is not located within a quarter mile of a school. The nearest school, Meadow Elementary School, is located approximately 0.35 miles east of the project site. Corona Creek Elementary School is located approximately 0.5 miles northeast of the project site. As a residential land use, the project would not emit or handle hazardous materials capable of impacting the school. Therefore, no impacts related to the emission or handling of hazardous, or acutely hazardous materials, within one-quarter mile of an existing or proposed school are expected.

Mitigation Measures: None required.

3.8 (d) (Government Code §65962.5 Site) Less Than Significant: As previously discussed, the Phase I ESA identified one historical Recognized Environmental Condition for the project site, an approximately 500-gallon UST. As stated in 3.8 (b) above, there does not appear to have been a release from the former 500-gallon UST. The property adjacent to and south of the project site, located at 320 Corona Road, was identified in the regulatory database as a Resource Conservation and Recovery Act Non-Generator (RCRA NonGen) site. According to the database, the adjacent site to the south did not generate hazardous waste in 1988, however, the site was identified as a transporter of hazardous wastes. No violations were reported. Based on this information and the lack of a documented release, this adjacent site is not expected to represent a significant environmental concern. Therefore, impacts are considered less than significant.

Mitigation Measures: None required.

3.8 (e-f) (Public and Private 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, which located approximately 2.2 miles east of the project site. The project site is not subject to any safety restrictions from an adopted Airport Land Use Compatibility Plan. Therefore, no impacts associated with airport-related hazards are expected.
Mitigation Measures: None required.

3.8 (g) (Impair Emergency Response Plan) No 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 plans include ingress and egress access that accommodate emergency vehicles and provide connectivity to the existing circulation and street system. California has developed an emergency response plan to coordinate emergency services by federal, state, and local government, including responding to hazardous materials incidents. The State Office of Emergency Services (OES) employs a Hazardous Materials (Haz Mat) Division which enforces multiple programs that address hazardous materials. There are no aspects of the proposed project that will interfere with an adopted emergency or evacuation plan and no impacts are anticipated.

Mitigation Measures: None required.

3.8 (h) (Wildland Fire) Less Than Significant Impact: The project site is bounded by existing residential development to the north and east and mixed use south as dictated by Land Use from the Petaluma General Plan 2025. According to the Land Use Element of the Sonoma County General Plan 2020, land abutting Corona Road to the western edge of the project site is designated as Rural Residential. The Public Safety Element of the Sonoma County General Plan 2020 has classified this area as a Moderate Fire Hazard Severity Zone. While the project site is near an area known to be a moderate fire hazard, the Petaluma General Plan Policy 7-P-17, 7-P-19, and 7-P-27 aim to address the effects a wildland fire may have on the project area by providing adequate fire suppression personnel, maintaining a 6-minute response time for emergencies, and executing preventative tasks aimed at reducing the impacts of wildland fires. Mitigation Measure 4.9-10 of the Sonoma County General Plan EIR also requires all new residential areas to be equipped with sprinkler systems in order to reduce the risk of loss, injury, or death. Furthermore, the project site is located across the North McDowell Boulevard / Corona Road intersection from Station 2 of the Petaluma Fire Department, ensuring prompt response times in the event of a wildland fire. The adjacent rural residential land will also act as an arterial buffer against potential damage caused by wildland fires. Therefore, impacts associated with wildland fires are expected to be less than significant.

Mitigation Measures: None required.
### 3.9. HYDROLOGY AND WATER QUALITY

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Violate any water quality standards or waste discharge requirements?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>c) Substantially alter the existing drainage pattern on the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
</tr>
<tr>
<td>d) Substantially alter the existing drainage pattern on the site or area, including through the alteration of the course of a stream or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
</tr>
<tr>
<td>e) Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
</tr>
<tr>
<td>f) Otherwise substantially degrade water quality?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>j) Inundation by seiche, tsunami, or mudflow?</td>
<td>☐</td>
<td>☐</td>
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<td>☒</td>
</tr>
</tbody>
</table>

Setting:

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 long-standing river-dependent industrial operations.

The Brody Ranch site is located adjacent to Corona Creek immediately to the southeast and approximately 0.5 miles northeast of the Petaluma River. The site varies between 33 feet and 43 feet above sea level, and drains to a depression at the southern portion of the site adjacent to the railroad tracks along. Several isolated seasonal wetlands have formed in depressions throughout the undeveloped portions in the project site and are small, shallowly inundated and lack sensitive wetland species (as described above under the Biological Resources discussion). The onsite wetlands have indirect hydrologic connectivity to Corona Creek, which is located to the southeast of the project site. In total 1.365 acres of seasonal wetlands (1.36 acres) and other waters (0.005 acres) are present on-site. As proposed, the project would result in fill to 0.185 acres of seasonal wetland and would retain 1.18 acres.

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 (i.e. the project site) are subject to NPDES permitting requirements including, the preparation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP identifies stormwater collection and discharge points, drainage patterns across the site, and best management practices that dischargers will use to reduce the pollutants in stormwater runoff. The NPDES General Permit requirements also address post-construction conditions resulting from development including, but not limited to, through 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 impervious surfaces onsite.

The southeastern most portion of the project site is subject to inundation under flood Zone AE as mapped by the Federal Emergency Management Agency’s Flood Insurance Rate Map (panel number 06097 C 0894 F revised February 19, 2014). Based on review of the site plans relative to the limits of the 100-year flood inundation area, the project will not introduce habitable structures within this area. Rather, the 100-year flood zone largely coincides with the wetland area in the southern portion of the site that will be persevered.

Figure 9: FIRM Flood Zone
Impact Analysis:

3.9 (a,f) (Water Quality Standards and Degrade Water Quality) Less Than Significant: The mandatory requirements of the NPDES General Permit address and apply to the project 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), Order No. 99–08–DWQ, NPDES General Permit No. CAS000002 for Discharges of Storm Water Runoff Associated with Construction Activity (General Permit). Mandatory requirements cover construction activities including, but not limited to, clearing, grading, excavation, stockpiling, and reconstruction of existing facilities involving removal and replacement. 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 contains 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 SWPPP must also identify Best Management Practices (BMPs) to protect storm water runoff.

The NPDES General Permit also includes performance standards for post-construction that are consistent with State Water Board Resolution No. 2005-0006, "Resolution Adopting the Concept of Sustainability as a Core Value for State Water Board Programs and Directing Its Incorporation," and 2008-0030, "Requiring Sustainable Water Resources Management." Standards require all construction sites to match pre-project hydrology to help ensure that the physical and biological integrity of aquatic ecosystems are sustained. This "runoff reduction" approach is analogous in principle to Low Impact Development (LID) and serves to protect related watersheds and water bodies from both hydrologic-based and pollution impacts associated with post-construction conditions.

The proposed project will result in impacts to areas that are within the Corps’ jurisdiction pursuant to Section 404 of the Clean Water Act and the RWQCB’s jurisdiction pursuant to Section 401 of the Clean Water Act. The proposed project will impact 8,091 square feet (0.185 acre) of waters of the U.S., including small isolated seasonal wetlands and other waters within the development footprint. As set forth above under the Biological Resources discussion, the project has the potential to result in direct impact wetlands from introducing fill, as such Mitigation Measure BIO-5 shall be implemented in order to mitigate potential impacts. Additionally, the applicant will obtain a Section 404 permit from the Corps and a Section 401 permit from the RWQCB prior to project construction and will implement any additional mitigation measures identified by the Corps or RWQCB as part of these permits.

No other water quality degradations are expected to occur from the project development. Implementation of the required Stormwater Pollution Prevention Plan (SWPPP) will ensure that there are no other impacts to water quality due to the subject project. Therefore, impacts are expected to be less than significant to water quality.

Mitigation Measures: None required.

3.9 (b) (Groundwater Supply and Recharge) Less Than Significant Impact: The City has adequate water supply resources to accommodate development of the subdivision without depleting, degrading or altering groundwater supplies or interfering substantially with groundwater recharge. The subject 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 Urban Water Management Plan (UWMP), which found sufficient water supplies are available to meet existing and planned future development within the UGB. 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 the Sonoma County Water Agency. 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, potential impacts to groundwater will be less than significant.

Mitigation Measures: None required.
3.9 (c-e) (Drainage Pattern or Runoff, Stormwater Drainage System Capacity) Less Than Significant Impact: The proposed project will not alter the course of a stream or river and the post development flow regime will largely mimic predevelopment conditions. Runoff currently flows towards the southern portion of the site where it accumulates into a topographically low area. The project’s preliminary stormwater mitigation report addresses post-construction treatment through the introduction of over 300 trees, bio-retention areas (including those on individual lots, roadside sidewalks and shared pathway, and the detention basin), and soil treatment.

Pollutants will be removed and runoff reduced through implementing Post-Construction Low Impact Design (LID) measures and through the use of Bio-Retention Basins on each proposed lot and along roadsides. Sidewalks and other impervious surfaces will be sloped or otherwise designed to direct stormwater into bio-retention area, and will not directly connect into the storm drain system until after they have had the opportunity to settle out and percolate. In addition to filtering and reducing the volume of water discharges from the introduction of impervious surfaces onsite, bio-retention areas are also designed to increase percolation and remove sediment from surface flows.

With the proposed post construction LID measures, the introduction of new impervious surfaces onsite would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site. The proposed detention basin in the southeastern portion of the site will provide additional flood control capacity by retaining additional surface flow contributions of the project outside of Corona Creek. The proposed storm drain system onsite and offsite connections will accommodate new surface flows resulting from the project.

A distribution trench with a concrete lip set at a constant elevation has been designed to evenly disperse stormwater emanating from the developed portion of the project across a wide area. This discharge will occur upstream of the wetland area to be preserved after passing through bio-retention catch basins and swales. The proposed detention basin in the southeastern portion of the site in conjunction with the wetland area to be preserved will provide sufficient capacity to accommodate increased surface water runoff and retain the floodplain function in the southern portion of the site.

Onsite drainage, consisting of appropriately sized pipes, is proposed to provide stormwater protection during storm events. The general direction and pattern of drainage proposed will match pre-development conditions. Existing storm drain facilities currently in the project vicinity and proposed as part of the project would effectively capture and evacuate the 10-year and 100 year flood event from the site. New storm drain systems onsite will not contribute runoff water that exceeds the capacity of the existing storm drain system. Accordingly, existing hydrology and drainage patterns will generally be retained. The project will not result in a drainage pattern that causes substantial erosion or siltation on- or off-site; nor will it result in flooding on- or off-site. Therefore, impacts to the storm drain system would be less than significant.

Mitigation Measures: None required.

3.9 (g-h). (Flood Hazard) Less Than Significant: Based on the Federal Emergency Management Agency’s Flood Insurance Rate Map (FIRM) Panel # 06097C0894F (see Figure 9 above), revised and effective February 19, 2014, a portion of the project site is located within the 100-year flood plain. The 100-year floodplain, identified as Zone AE, encompasses the topographically low area that consists of the wetland along the southern portion of the site. Zone AE is subject to inundation by the 1-percent-annual-chance flood event and has a mapped base flood elevation of 35 feet. Zone X, or non-special flood hazard zones, encompasses the balance of the project site.

Setback from the wetland area to be preserved and will place the nearest residential structures about 30 linear feet away from Zone AE and about 2-3 feet above the base flood elevation of Zone AE. The proposed project will not introduce a substantial flood hazard and will not impede or redirect flood flows. The project will not place housing or structures in a flood hazard area and, as a result, will not expose people or structures to risks related to flooding. As such, flooding due to the 100-year flood plain would result in a less than significant impact.
Mitigation Measures: None required.

3.9 (i-j). (Seiche, Tsunami, Mudflow) No Impact: The site is not located within an inundation area of a levee or dam, nor is the site expected to be impacted by inundation by seiche, tsunami or mudflow. The Petaluma River and Corona Creek would not cause inundation due to seiche, tsunami or mudflow. Therefore, there will be no impact.

Mitigation Measures: None required.
3.10. LAND USE AND PLANNING

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Physically divide an established community?</td>
<td></td>
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<td></td>
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<tr>
<td>b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?</td>
<td></td>
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<tr>
<td>c) Conflict with any applicable habitat conservation plan or natural community conservation plan?</td>
<td></td>
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</tbody>
</table>

Sources: Petaluma General Plan 2025; Petaluma SMART Rail Station Master Plan (April 2012); Corona-Ely Specific Plan (May 1998); and Brody Ranch Vesting Tentative Subdivision Map.

**Land Use and Planning Setting:** The City’s land uses within the Urban Growth Boundary include residential, commercial, industrial, agricultural, open space and public lands. Approximately 44% of the UGB lands are designated for residential development with 40% of the existing residential development consisting of single family residential. The project site is located within the North East Planning Subarea, which consists primarily of residential uses.

The Project is further located within the boundaries of the Corona-Ely Specific Plan which consists of a 675 acre area located in Northeast Petaluma. In 1989 the City of Petaluma adopted the Corona-Ely Specific Plan thereby facilitating the annexation of approximately 675 acres of what were then principally agricultural lands. The Corona-Ely Annexation No. 1 occurred later that year and implemented the Specific Plan. Development of the CESP area occurred over the intervening 27 years such that today very few vacant/underdeveloped parcels remain including that of the project site at 360 Corona Road.

The subject site is located within what is delineated as the “Northern Tier” of the CESP comprising approximately 160 acres. This area is described as being north of the central 285 acres beyond Corona Creek and consisting of a band of urban standard residential development which drops off to rural density along Corona Road, but climbs to urban high densities to the west toward McDowell Boulevard.

The Brody Subdivision project is subject to Land use policies outlined in the Petaluma General Plan and in the Corona-Ely Specific Plan, which have been adopted for the purpose of avoiding or mitigating an environmental effect. Applicable policies are outlined below:

**Petaluma’s General Plan 2025**

The following policies from the General Plan are particularly applicable to the subject project:

1-P-2: Use land efficiently by promoting infill development at equal or higher density and intensity than surrounding uses.
As depicted on the land use map, allow for urban development at defined densities and intensities to prevent the need to extend outward beyond the Urban Growth Boundary (UGB).

For development adjacent to the UGB, the intent of the designated land use is to feather or reduce densities to provide a transition from urban to rural.

Strengthen the visual and aesthetic character of major arterial corridors through:

- Intensification via infilling;
- Orientation towards street; and
- Prohibiting use of soundwalls facing street.

The parcel at the corner of Sonoma Mountain Parkway and Corona Road with a split designation of medium density and high density residential shall reflect the intent of providing a mixture of unit types both consistent with the surrounding neighborhoods and the desire for high density housing in proximity to the proposed rail station. Distribution of a mixture of medium and high-density unit types across the property may be permitted.

All new and redesigned streets shall be bicycle and pedestrian friendly in design.

Discourage use of soundwalls anywhere except along Highway 101 Corridor and or along NWRA Corridor without findings that such walls will not be detrimental to the community character. When sound walls are deemed necessary, integrate them into the streetscape.

Continue to require the planting of street and parking lot trees as part of residential projects to provide cooling during the summer months.

Corona Ely Specific Plan
The following policies from the CESP are particularly applicable to the subject project:

**Major Design Policies:**

**Policy 29** Conventional, fully exposed noise barriers are to be avoided along the (Sonoma Mountain) Parkway.

**Building Design along SMP**

**Policy 25** Design review shall be mandatory for all development proposals involving properties contiguous to the Sonoma Mountain Parkway Right of Way.

**Policy 34** Development Plans for both the Commercial Center and the adjacent “Urban High” residential component shall reflect a high standard of design quality and shall be made harmonious with the local parkway setting by incorporating the Central design parameters.

**Street Planting**

**Policy 90** All Corona/Ely residential streets shall have a 4 to 5 foot planting strips within the right of way on both sides of the street between the curb and sidewalk, rather than having the sidewalk adjacent to the street.

Land Use and Planning Impact Discussion:

3.10(a) **(Divide An Established Community) Less Than Significant Impact:** The project proposes the development of a medium to high density residential subdivision on an underutilized lot within the northern tier of the CESP and within the Northeast Planning Subarea. The project is considered infill development in that it is surrounded by existing urban (rural residential, residential and industrial) land uses on all sides and is generally similar in scale and density to the surrounding development within the UGB.
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 introduction of a sound wall can also contribute to the division of an established community in that it introduces a potentially obtrusive visual and physical division, which reduces cohesiveness and promotes the introversion of development. 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 is considered infill; is consistent with the established character of the surrounding area; has multiple points of access for automobiles, pedestrians and cyclists and connections to surrounding development. Although the project includes noise barriers to provide noise attenuation they have been designed and located in a manner that is sensitive to the goals and policies of the General Plan and Specific Plan. Noise barriers are set back from roadway rights of way, are softened by landscaping, heights of not more than 6 feet, and by use of wood fencing materials. As such, the project is not expected to divide an established community nor create a walled off character. Rather the proposed Brody Ranch subdivision will act as an extension of and reinforce the already established character and spatial organization that defines the subarea/ CESP and its components. Therefore impacts from the project due to division of an established community will be less than significant.

**Mitigation Measures:** None required.

**3.10(b) (Land Use Plan, Policy, Regulation Conflict) Less Than Significant Impact:** As proposed the Project site will be developed in accordance with the established high and medium density land use designations. The proposed Planned Unit Development (PUD) maintains the overall densities of the existing zoning, while allowing for clustering of development away from the southern portion of the site where 3.78 acres of open space and wetlands will be protected. The project will feature a density of 10.7 du/acre on the 7.48 acres with the Medium Density Residential land use designation and a density of 27.8 units per acre on the 8.44 acres with the High Density Residential designation. It is consistent with the General Plan land use designations and existing zoning. Although the project proposes a zoning amendment to change the zoning from R4 and R5 to PUD, the proposed project density is consistent with what is currently allowed and what has been envisioned by the City’s long range planning document.

As proposed the project achieves the overall intent of the General Plan, Corona Ely Specific Plan and the SMART Station Master Plan. The 1989 CESP sets forth the vision for development within the area at that time. The 2008 General Plan provides more up to date guidelines for development within the UGB. The 2012 SMART Station Master Plan incorporates principals of transit-oriented development (TOD). Some of the policies and programs of the CESP, General Plan and SMART Station Master Plan present competing objectives such as maintaining the rural character of the CESP while promoting TOD development proximate to SMART facilities. The Brody Ranch project aims to balance the competing policies of these regulatory documents and achieves consistency with the overall intent.

Additionally, the project proposes residential development that is consistent with surrounding development and features a design and architecture that is consistent with the established character of the surrounding area. The project does not conflict with the City’s land use plan, policies or programs of the General Plan, CESP, and the SMART Station Area Master Plan or other regulatory documents. Therefore, impacts will be less than significant.

**Mitigation Measures:** None required.

**3.10(c). (Habitat Conservation Plan) No Impact:** The project is not subject to a habitat conservation plan or a natural community conservation plan. There are no conservation plans that apply to the UGB. Therefore, the project will have no impact on any conservation plan or natural community plan.

**Mitigation Measures:** None required.
### 3.11. MINERAL RESOURCES

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>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?</td>
<td>☐</td>
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</tbody>
</table>

Sources: 2025 General Plan and EIR.

**Mineral Resources Impact Discussion:**

**3.11 (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 resources, 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.
3.12. NOISE

<table>
<thead>
<tr>
<th>Would the project result in:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
</tbody>
</table>

Sources: 2025 General Plan and EIR; and Environmental Noise Assessment Brody Ranch Subdivision, prepared by Illingworth & Rodkin, September 2016.

Setting:

Noise is generally characterized as "unwanted sound." Noise sources within the City's Urban Growth Boundary (UGB) include vehicular traffic along roadways and Highway 101, trains and industrial activities such as mechanical equipment and refrigeration units. Freight train service through Petaluma is currently irregular, and thus does not constitute a significant noise source. For the project site, vehicular traffic on nearby roadways (e.g., Corona Road, Sonoma Mountain Parkway) is currently considered to be a potentially significant noise source. The SMART rail line south of the project opposite of McDowell Blvd is not currently operating, but will produce potentially significant noise in the future.

Implementing Zoning Ordinance (IZO) §21.040(A)(3)(a) limits noise generating construction activities to the hours of 7:00 a.m. to 10:00 p.m. on weekdays and 9:00 a.m. to 10:00 p.m. on weekends and holidays. For daily operational noise, both the General Plan and IZO provides guidelines and standards for acceptable levels. IZO §21.040(4)(A) establishes an hourly average level of 60 dBA as the maximum that may be generated on one land use that would be affecting another land use. Allowable levels are adjusted to account for existing ambient noise levels though the maximum allowed noise level may not exceed 75 dBA after adjustments are made.
The General Plan applies an exterior noise level standard of 65 dB Community Noise Equivalent Level (CNEL) at outdoor activity areas of new residential land uses exposed to transportation noise sources (i.e., traffic). The intent of this standard is to provide an acceptable exterior noise environment for outdoor activities. These limits are normally applied at the common outdoor activity areas. The common outdoor activity areas of this project would be the open space picnic area at the northwest and east portions of the project. The General Plan applies an interior noise level standard of 45 dB CNEL or less within dwellings. The intent of this interior noise limit is to provide a suitable environment for indoor communication and sleep.

Existing Noise Conditions

The proposed project is located southeast of the intersection of Corona Road and Sonoma Mountain Parkway, and northeast of the SMART rail line. The project site is bordered by residential buildings to the east across a creek greenway (Corona Creek). The existing noise environment at the project site results primarily from vehicular traffic on Corona Road and Sonoma Mountain Parkway. Other sources of noise in the area include residential and park uses to the east, South McDowell Blvd traffic and industrial activities to the south of the SMART rail line and overhead noise from general aviation aircraft using the Petaluma Airport.

In order to quantify the existing noise environment and project future noise levels, a noise monitoring survey including three long-term noise measurements was conducted by Illingworth & Rodkin (see Appendix H). The noise measurement locations are illustrated in Figure 10 below. The purpose of the noise level survey was to determine existing traffic noise exposure on the project site in terms of the Community Noise Equivalent Level (CNEL). The long-term noise measurements were taken near the western (LT-1), eastern (LT-2), and southern (LT-3) extent of the project site and recorded CNELs over the 48-hour measurement period as 73 dBA, 63 dBA, and 60 dBA, respectively.

Figure 10: Noise Measurement Locations

Impact Analysis:

3.12 (a) (Noise Standards) Less Than Significant with Mitigation:

Exterior Noise Levels
The proposed project would introduce new residents to a site with existing ambient noise levels that are within the conditionally acceptable range as identified by the City’s General Plan.

The future exterior noise levels at the rear yards of single-family homes backing onto Sonoma Mountain Parkway are projected to be exposed to a CNEL of 66 dBA, and the side yards of the single-family homes on the southernmost portion of the site are projected to be exposed to a CNEL of 59 to 63 dBA. Outdoor use areas at the multi-family residential uses adjacent to Corona Road and the SMART rail line are projected to be exposed to a CNEL of 73 dBA, and the open space multifamily residential areas adjacent to Sonoma Mountain Parkway are projected to be exposed to a CNEL of 66 to 67 dBA. Residences exposed to dBA’s below 70 are considered “conditionally acceptable” by the City’s General Plan. With this designation, residential uses are generally permitted following a detailed analysis of the noise reduction requirements and the identified noise insulation features included in the building design. The multi-family residential uses adjacent to Corona Road and the SMART rail line are considered “normally unacceptable” by the City’s General Plan.

As the ambient noise environment would expose new residents to exterior noise levels that exceed the normally acceptable range, a detailed acoustical analysis was prepared by Illingworth and Rodkin and includes site-specific noise insulation recommendations. In order to reduce potential impacts due to exceedance of an established noise standard the project shall implement Mitigation Measure NOI-1, which requires that double sided wood fencing, gabion wall barrier or other acceptable noise attenuation barrier be utilized in order to reduce exterior noise to acceptable levels (e.g. 60 dBA for single-family homes and 65 dBA for multi-family). Although the proposed project has the potential to introduce new residents onsite to conditionally acceptable noise level, implementation of mitigation measure NOI-1 will ensure that potential impacts are reduced to acceptable exterior noise levels. Therefore, with measure NOI-1 impacts due to noise exposure will be reduced to less than significant levels.

Interior Noise Levels

The project has the potential to expose the interiors of residences on portions of the project site to noise levels that exceed the City required interior noise standard of 45 dBA, which would be considered a potentially significant impact if not properly mitigated. The lower floor of new residences would be protected by exterior noise mitigation (NOI-1), which requires noise barriers to achieve outdoor noise levels of 60 dBA and 65 dBA for single-family and multi-family areas respectively. The outdoor to indoor noise attenuation of standard construction reduces noise levels by 15 dBA with windows open and up to 25 dBA with windows closed. Areas where exterior noise barrier are provided would adequately attenuate outdoor to indoor noise level to acceptable standards. However, upper stories and locations where exterior noise barriers are not provided could potentially be exposed to elevated interior noise levels if not mitigated.

Upper floors of two story single-family homes and the multi-family residences with views of Sonoma Mountain Parkway would be exposed to levels of up to 67 dBA CNEL. The upper floors of two story single family homes with a view of the SMART rail line would be exposed to levels of up to 63 dBA CNEL, and multi-family residences with views of SMART rail line and/or Corona Road would be exposed to levels of up to 73 dBA CNEL. Since portions of the façade would be exposed to noise levels in excess of 65 dBA, there is a potential that indoor noise level will not achieve the standard of 45 dBA, which would be considered a potentially significant impact.

In order to reduce interior noise levels to acceptable standards, the project shall implement Mitigation Measure NOI-2, which requires the incorporation of forced air mechanical ventilation systems, sound rated windows and doors, and exterior wall assemblies on units facing noise sources (e.g. Sonoma Mountains Parkway, Corona Road, and the SMART Corridor). Based on preliminary calculations a standard insulated stud wall with wood exterior and sheetrock interior (STC 39) is expected to be satisfactory. However, interior noise levels vary depending on the construction materials, technique and final building envelope. In order to ensure that the City’s interior noise standards are achieved NOI-2 also requires design level analysis demonstrating interior level of 45-dBA or less. Minimum sound transmission class (STC) rating of 28 and STC 30-32 are recommended in the preliminary noise report on a unit by unit basis. The minimum STC sound rated windows and doors as recommended would be effective in reducing noise levels below established standard. With implementation of mitigation measure NOI-2 below, interior noise levels can be reduced to below 45 dBA. Therefore, impacts due to exposure to excessive noise level would be mitigated and impacts
would be less than significant. Although implementation of NOI-2 will reduce interior noise levels from traffic along project area roadways, noise generated by freight and commuter rail service along the SMART rail corridor has the potential to exceed interior noise standard without enhanced noise attenuation measures. The project site is bounded on the south by the SMART rail corridor, which currently supports freight service and is planned to introduce commuter rail service by 2017. Railway noise is generated by train engines and by train horns, which are required to be sounded when approaching an at-grade crossing. The SMART tracks cross at grade over Corona Road near the project site. Although, the City and SMART are working towards implementing a Quiet Zone within City limits, which would preclude sounding horns when approaching at-grade crossing, it is unknown at this time when and if Quite Zones will be developed at the Corona Road at grade crossing. In order to ensure that noise generated by activity along the SMART corridor does not result in an exceedance of an interior noise standard Mitigation Measure NOI-3 shall be implemented. NOI-3 sets forth requirements both with and without implementation of Quiet Zones and includes the use of enhanced exterior window glazing and acoustical exterior wall upgrades as specified below. With implementation of NOI-3, as well as NOI-1 and NOI-2 as described herein, potential impacts due to exposure of new residents to excess noise levels will be reduced to levels below significance.

Mitigation Measure:

NOI-1. To reduce noise levels noise levels in the rear yards of single-family homes to a CNEL of 60 dBA the following noise barriers shall be incorporated into the project design as specified below:

1. A noise barrier with a minimum top of wall elevation of six (6) feet above yard grade level on the rear and side yard property lines of the single-family residential lots 18 to 25 and 61 along Sonoma Mountain Parkway and on the side yard property lines of single-family residential lots 1, 9, and 47.

To reduce noise levels in the outdoor activity and open space areas designated for the multi-family homes to a CNEL of 65 dBA the following shall be incorporated into the project design as specified below:

2. A noise barrier with a minimum elevation of eight (8) feet above residential grade level on the property lines of the multi-family residential areas along the SMART rail line and Corona Road.

3. A noise barrier with a minimum elevation of six (6) feet above residential grade level on the property lines of the multi-family residential areas along Sonoma Mountain Parkway.

Noises barriers shall be constructed without cracks or gaps in the face or base, or where they adjoin structures. To be effective, noise barriers shall have a minimum surface weight of 3.0 pounds per square foot. Small, dispersed gaps for landscape irrigation or drainage are acceptable so long as they do not exceed more than 0.5% of the total barrier face. Acceptable noise barriers include double sided wood fencing, Gabion Walls or other means with demonstrated noise attenuation. Double sided wood fencing shall be comprised of 1 x 8 redwood boards butted to each other and staggered on both sides of the fence and limited to 6 feet in height along Sonoma Mountain Parkway and at lots 1, 9, and 47. Along Corona Road, 8 foot high wood fencing shall be provided between buildings. The Gabion wall, located in the southwestern portion of the site shall be comprised of steel columns supporting gabion baskets filled with stones and limited to 8 feet in height.

For expanded detail on the characteristics of these barrier walls and figures of where they will be placed, refer to the technical report prepared by Illingworth and Rodkin².

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² Environmental Noise Assessment Prepared By Illingworth & Rodkin, September 2016.
NOI-2. In order to achieve interior noise standard of 45 dBA CNEL the following shall be implemented:

1. Some form of forced air mechanical ventilation, satisfactory to the local building official, shall be required in all residences with partial or full line of sight to the SMART rail line, Corona Road traffic, and/or Sonoma Mountain Parkway traffic.

2. Given the anticipated exterior noise levels along Sonoma Mountain Parkway, Corona Road, and the SMART rail line, sound-rated windows and doors at single family homes on lots 1, 9, 10, 18 through 25, 47 through 51, and 61 and at the multi-family residences facing or perpendicular to Sonoma Mountain Parkway, Corona Road, and the SMART rail line to maintain interior noise levels at or below 45 dBA CNEL. The degree of sound mitigation needed to achieve an interior CNEL of 45 dBA or less would vary depending on the final design of the building (relative window area to wall area) and the design of the exterior wall assemblies. However, based on the future exterior noise levels and typical residential construction, we would expect that windows and doors facing or with a view of Sonoma Mountain Parkway, Corona Road, and the SMART rail line may require STC ratings of between 28 and 32.

3. The specific determination of exterior wall assemblies and window/door STC ratings shall be conducted on a unit-by-unit basis during the project design. The results of the analysis, including the description of the necessary noise control treatments, shall be submitted to the City along with the building plans and approved prior to issuance of a building permit.

NOI-3. In order to achieve an interior noise standard of 45 dBA CNEL and/or the recommended sleep disturbance/annoyance criteria of 55 dBA Lmax the following shall be implemented:

1. With Quite Zone Implementation: To reduce interior maximum levels due to train engine noise to the recommended 55 Lmax levels, windows with STC ratings of between 30 and 32 shall be provided in the single-family residences with views of the SMART corridor and windows with STC rating of between 32 and 34 shall be provided in the multi-family residences with view of SMART corridor and adjacent to Corona Road at grade crossing.

2. Without Quite Zone Implementation: To reduce interior maximum levels due to train horn and engine noise to the recommended 55 Lmax levels, the exterior walls of the exposed residences shall provide for acoustical upgrades to allow for 50 to 55 STC ratings (as appropriate). With upgraded exterior walls, windows with STC ratings of between 36 and 38 shall be provided in the single-family residences with views of the SMART corridor and windows with STC rating of 40 shall be provided in the multi-family residences with views of the SMART corridor and adjacent to Corona Road at grade crossing.

3.12 (b) (Groundbourne Vibration and Noise) Less Than Significant Impact: Construction activities would include site preparation work such as grading and the 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 at this project. Construction activities would generally occur at distances of 200 feet or more from the nearest residential units, but activities near the eastern and northern project perimeter could occur at distances of as close as 100 to 130 feet from existing residential units. Construction activities at these distances are not expected to generate vibration levels exceeding 0.05 in/sec peak particle velocity (PPV), which is well below the 0.50 in/sec PPV vibration limit set by the California Department of Transportation.

In areas where vibration would not be expected to cause structural damage, vibration levels may still be perceptible. However, as with any type of construction, this would be anticipated and it would not be considered significant given the intermittent and short duration of the phases that have the highest potential of producing vibration (jackhammers and vibratory rollers). By use of administrative controls such as notifying adjacent land uses of scheduled construction activities and scheduling construction activities with the highest potential to produce perceptible vibration to hours with the lowest potential to affect nearby residences, perceptible vibration can be kept to a minimum and as such would not result in a significant impact with
respect to perception.

Information provided in the Draft EIR for the SMART project indicates that at distances between 20 and 100 feet from the tracks, vibration levels may be perceptible; however, they are expected to produce a RMS vibration velocity of less than 0.01 inches per second, which equates to a level of 68 VdB level, which is less than the applicable Federal Transit Administration impact significance criteria for residential uses. Therefore impacts due to groundborn vibration or noise would be less than significant.

**Mitigation Measure:** None required.

### 3.12 (c) (Ambient Noise Levels) Less Than Significant Impact:

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. In order to cause a 4 dBA increase in noise along area roadways, the project would have to generate enough traffic to more than double current roadway volumes. Given the size of the proposed project, limited to 199 residential units, traffic volumes will not increase substantially on project area roadways. Traffic noise levels from new residents will not be elevated by 4 dBA and impacts due to an increase in ambient noise levels would be less than significant.

**Mitigation Measure:** None required.

### 3.12 (d) (Temporary or Periodic Noise Increase) Less Than Significant Impact with Mitigation:

The noise report prepared by Illingworth and Rodkin determined that construction of the project would generate noise and would temporarily increase noise levels at adjacent residential receivers. Noise impacts resulting from construction depend on the noise generated by various pieces of construction equipment operating on site, the timing and duration of noise generating activities, and the distance between construction noise sources and noise sensitive receptors. Construction of the project would involve site improvements, such as the removal of existing structures and pavement, establishment of utilities, excavation of fuel tanks and foundations, building erection, paving, and landscaping. The hauling of excavated material and construction materials would also generate truck trips on local roadways. Construction activities are typically carried out in stages. Construction noise levels would vary by stage and vary within stages based on the amount of equipment in operation and location where 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. The nearest noise sensitive uses will be between 100 and 130 feet from the closest project construction activities. Average noise levels at this distance would range from 79 to 81 dBA during busy construction periods. In order to ensure that construction related noise is reduced to the greatest extent practicable Mitigation Measure NOI-4, as set for below shall be implemented.

With the implementation of NOI-4, and the limited duration of the noise generating construction period, the temporary increase in ambient noise levels associated with construction activities would be reduced to less than significant levels.

**Mitigation Measure:**

NOI-4. Construction activities shall comply with the following measures and all shall be noted on construction documents:

1. Pursuant to the Municipal Code, restrict noise-generating activities at the construction site or in areas adjacent to the construction site to the hours between 7:00 a.m. and 10:00 p.m., Monday through Friday and 9:00 a.m. to 10:00 p.m. on Saturday, Sunday and State, Federal or Local Holidays.

2. Equip all internal combustion engine driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
3. Locate stationary noise generating equipment (e.g., compressors) as far as possible from adjacent residential receivers.

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

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

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

7. Generators: No generators shall be utilized during nighttime hours (i.e., sunrise to sunset) to power equipment (e.g., security surveillance) when normal construction activities have ceased for the day. All such equipment should be powered through temporary electrical service lines.

8. Designate a "disturbance coordinator" 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.

3.12 (e-f) (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 residing or 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.

Mitigation Measure: None required.
### 3.13. POPULATION AND HOUSING:

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Induce substantial 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)?</td>
<td>☐</td>
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<td>☑</td>
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<tr>
<td>b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?</td>
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<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
</tbody>
</table>

Sources: 2025 General Plan and EIR; City of Petaluma 2015-2023 Housing Element; and Memorandum of Understanding Brody Ranch Subdivision Inclusionary Zoning Units, August 5, 2016.

### Setting:

The City of Petaluma General Plan 2025 proposes 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 City of Petaluma 2015-2023 Housing Element identifies the Brody Ranch Subdivision project site as an underutilized Residential Land Inventory Opportunity Site (Site #2). Per the Housing Element, the site exhibits an estimated housing potential of 300 units, as outlined in Table 6: Vacant and Underutilized Sites. As such, the Brody Ranch project site is identified as a key development opportunity site to enhance the City's housing stock including accommodation of low- and moderate-income housing.

The project proposed to construct 199 dwelling units on the site, including 138 multi-family condominium units 59 single-family homes and a duplex. The project proponent will develop 25 affordable housing units including 21 condominiums consisting of a mix of one, two and three bedroom units, as needed, dispersed throughout the nine buildings; a duplex; and two single family homes. The affordable units shall be restricted to households with low- to moderate- income earners (80% to 120% of Area Median Income). Resale of all affordable units will be restricted to lower income households at affordable prices via a 99-year renewable ground lease.

### Impact Analysis:

3.13 (a) (Substantial Growth) Less Than Significant Impact: The project site is located within the UGB and will not directly or indirectly induce substantial growth beyond what has already been anticipated in the General Plan and EIR. The Housing Element states that within Petaluma, the average household size is 2.70 persons. As a project that would introduce 199 new residential units and based on the average household size, it is expected that approximately 537 persons would reside on the site at buildout, which does not necessarily constitute the addition of 537 new persons to the City's population, as some may relocate from nearby areas within the City. The projected population does not constitute a substantial increase and remains sufficiently below the General Plan 2025 population projections. The project site is surrounded by existing development and serves as one of the few remaining housing opportunity sites identified in the Housing Element. 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. Development of the proposed Brody Ranch Subdivision is consistent with the General Plan, EIR, and Housing Element and the density evaluated therein.
Therefore, the project will have less than significant impacts related to growth inducement.

Mitigation Measures: None required.

3.13 (b-c) (Housing or Person Displacement) Less Than Significant Impact: At present the project site contains two existing residences, a welding shop, several barns, and auxiliary buildings. While the Project would result in the demolition of these existing residences and structures onsite, it is not considered a significant displacement of people or houses. Furthermore, the proposed project will introduce 199 new residential units with various housing stock options that would otherwise be unavailable. Given the City’s need for housing units, and project’s proposal to introduce 199 new units including affordable units, the removal of the 2 existing residences is not considered a potentially significant impact and will not necessitate the construction of replacement housing elsewhere. The project implements the City’s Housing Element by contributing 199 new residential units to the existing housing stock within the City of Petaluma. Therefore, the project will result in a less than significant impact due to displacing a substantial number of people or existing housing units.

Mitigation Measures: None required.

3.14. PUBLIC SERVICES:

<table>
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<tr>
<th></th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Implemented</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
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<tr>
<td>Setting:</td>
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<tr>
<td>Sources:</td>
<td>2025 General Plan and EIR.</td>
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</table>

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? ☐ ☐ ☒ ☐
- e) Other public facilities? ☐ ☐ ☐ ☒

Sources: 2025 General Plan and EIR.

Setting:

The City of Petaluma charges one-time impact fees on new private development in order 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, expansion or maintenance of fire and police protection services, open space, parkland, schools and other public services. Development impact fees are necessary in order to finance required public facilities and service improvements and to pay for new development’s fair share of the costs of the required public facilities and service improvements.
Impact Analysis:

3.14 (a-b) (Fire & Police Protection) Less Than Significant: The project site is located in the North East Planning Subarea of the General Plan, in an already developed area that is well served by public services. The increase in residents resulting from the proposed Brody Ranch Subdivision project will result in elevated demands for onsite police and fire service protection. However, increased demands on fire and police service have been anticipated as part of General Plan buildout and are accounted for with the Fire Suppression Facilities impact fee and Law Enforcement Facilities 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 a six-minute response time for emergencies within the city. The project site is located less than 1,000 feet to the northeast of existing Fire Station 2, which is located at 1001 N. McDowell Boulevard at Corona Road. As such, the project is well within the response radii (see General Plan EIR Figure 3.4-2) and travel time to the site is achievable within the targeted 4 minutes. The project is consistent with the General Plan 2025 because of the redundancy of approach access, 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. The addition of project trips to the adjacent 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 services. As a standard condition of project approval, the applicant shall pay all development impact fees applicable to a residential development project, including fire suppression facilities and law enforcement facilities. 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.

Mitigation Measures: None required.

3.14 (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 Waugh Elementary School District and about equidistant between Corona Elementary School to the north and Meadow Elementary School to the east. The General Plan projects that the Waugh Elementary School District will experience a substantial decrease in enrollment by buildout, and that overall projected enrollment would not exceed the existing capacity of the public elementary schools located within the city limits. At General Plan buildout, which anticipated the Brody Ranch Subdivision, the projected enrollment for public elementary schools would decline and would utilize 93.9 percent of school enrollment capacity. As such, sufficient school facilities are in place to accommodate any increase in enrollment associated with development of the proposed Brody Ranch Subdivision. Additionally, 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.

Mitigation Measures: None required

3.14 (d) (Parks) Less Than Significant Impact: The City has adopted a citywide parks standard of 5 acres of parkland per 1,000 residents. Turnbridge Neighborhood Park is adjacent to the eastern extent of the project area; McDowell Meadows, Meadow View, and Maria & Sonoma Mountain Parkway parks are each within one mile of the project site; and Lucchesi Community Park is located approximately 1.5 miles southeast of the project site. These existing neighborhood and community parks provide recreation opportunities to future residences. Additionally, there is an existing pedestrian path along the Corona Creek which will connect to existing sidewalk and paths proposed as part of the Brody Ranch Project.

The project proposes the construction of 200 residential units comprised of both multi-family units and single-family homes. Additionally, the project includes onsite passive and recreational amenities consisting of walking paths along the wetland area to be preserved as open space and an area that would accommodate a
These proposed amenities are identified along the southern and eastern portion of the proposed development footprint, would be open to the public and would provide connectivity to the existing path along Corona Creek. The Petaluma General Plan 2025 anticipates that, at buildout, population increases would not substantially impact the parkland ratio or adversely impact recreational amenities. As the Brody Ranch Subdivision was anticipated by the General Plan its development would not constitute a substantial growth in population. Existing and proposed park facilities 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 project implementation will be less than significant.

Mitigation Measures: None required.

3.14 (e) (Other Public Facilities) No Impact: The Project will not result in substantial adverse impacts associated with any other public facilities. The proposed project site is surrounded by established residential land uses, and is already 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 beyond what has been anticipated by buildout of the General Plan. Therefore, no impacts related to other public facilities will occur as a result of the proposed Brody Ranch Subdivision.

Mitigation Measures: None required.
### 3.15. RECREATION

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>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?</td>
<td>☐</td>
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<td>☐</td>
<td>☐</td>
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</tbody>
</table>

Sources: 2025 General Plan: Figure 6-1 Parks and Open Space; General Plan EIR; and Landscaping Plan for Brody Ranch Subdivision L-1 through L-3.

#### Setting:

The City of Petaluma contains approximately 1,400 acres of parks and open spaces, which represents approximately 17% of the acreage within the UGB. The public parks and recreational opportunities within the UGB accommodate a wide range of uses and activities that include both active and passive recreation. Parkland development and open space acquisition impact fees are required and offset any cumulative impacts of new development on recreational resources.

#### Impact Analysis:

**3.15 (a) (Park Deterioration) Less Than Significant Impact:** The proposed project may result in a minimal increase in the use of nearby parks which include Turnbridge Neighborhood Park, McDowell Meadows, Meadow View, Maria & Sonoma Mountain Parkway, and designated open space areas; all of which are located within approximately one mile of the project site. The nearby parks have sufficient capacity to accommodate additional use by new residents. Increased patronage to these parks and open space areas, and/or other parks within the UGB, would not result in substantial physical deterioration of facilities nor would deterioration be accelerated. The project is not expected to substantially increase the use of existing parks or recreational facilities therefore impacts would be less than significant.

**Mitigation Measures:** None required.

**3.15 (b) (Recreation Facilities) Less than Significant Impact with Mitigation:** The project proposes the construction of on-site recreational facilities, including a redwood grove, common open space area, and a possible picnic area, tot lot or other open space amenity (the specific design of these areas will be developed through a subsequent Site Plan and Architectural Review stage, however preliminary design identifies their location and conceptual design). Additionally, the project proposes several open space areas, seating areas, and a 10-foot wide shared pathway that will meander around the large wetland area to be preserved as open space. The Brody Ranch Subdivision improvements will result in the fill to approximately 0.185 acres of wetlands as described above in the Biological Resources discussion. The meandering trail along the wetland is designed to provide a 10-foot landscape setback from the edge of the wetland where no landscaping will be permitted. Additionally, the project provides a 25-foot landscape setback from the wetland within which non-
native planting are prohibited, rather all plantings within this buffer zone must be California natives. Project plans further specify that irrigation within the 25-foot setback will be provided by drip irrigation at surface grade and no trenched irrigation will be permitted.

The project does not include the construction of any off-site recreational facilities that may adversely affect the environment. The new path would connect with an existing path running along the northwestern bank of Corona Creek. The construction of this pathway does have the potential to expose existing wetlands, considered an environmentally sensitive habitat, to increased pedestrian traffic. As such, Measures BIO-4 and BIO-5 as described in Section 3.4 above, are required in order to mitigate potential impacts to onsite wetlands as a result of the project. Based on the above and with implementation of Mitigation Measures, potential physical effects on the environment as a result of any new recreational facility will be reduced to less than significant levels.

**Mitigation Measures:** Other than BIO-4 and BIO-5 above, no additional Mitigation Measures are required.
### 3.16. TRANSPORTATION AND CIRCULATION

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?</td>
<td>☐</td>
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<tr>
<td>b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?</td>
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<td>☐</td>
<td>☒</td>
<td>☒</td>
</tr>
<tr>
<td>c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
</tr>
<tr>
<td>d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
</tr>
<tr>
<td>e) Result in inadequate emergency access?</td>
<td>☐</td>
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<td>☒</td>
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<tr>
<td>f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
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</tbody>
</table>

Sources: 2025 General Plan and EIR; GP Figure 5-1; Brody Ranch Subdivision Traffic Impact Study, Prepared by W-Trans, May 26, 2016.

### 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 circulation system within the City of Petaluma consists of approximately 140 miles of streets including, arterials, collectors, connectors, and local streets.

The Petaluma General Plan 2025 provides the following policies with regard to mobility:
Policy 5-P-8  The priority of mobility is the movement of people within the community including the preservation of quality of life and community character.

A. Develop formal transportation impact analysis guidelines that consider multi-modal impacts of new developments.

B. Develop and adopt multi-modal level of service standards that examine all modes and vary the standards by facility type to imply a preference to selected modes based upon the context (including street type and location).

C. LOS analysis data shall utilize the peak hour (60 minutes) rather than the peak period (15 minutes) for determining intersection LOS.

Policy 5-P-10  Maintain an intersection level of service (LOS) standard for motor vehicle circulation that ensures efficient traffic flow and supports multi-modal mobility goals. LOS should be maintained at Level D or better for motor vehicles due to traffic from any development project.

A. A lower Level of Service may be deemed acceptable, by the City, in instances where the City finds that potential vehicular traffic mitigations (such as adding additional lanes or modifying signal timing) would conflict with the Guiding Principles of the General Plan, particularly with regard to:

- Guiding Principle #2. Preserve and enhance Petaluma’s historic character.
- Guiding Principle #6. Provide a range of attractive and viable transportation alternatives, such as bicycle, pedestrian, rail and transit.
- Guiding Principle #7. Enhance Downtown by preserving its historic character, increasing accessibility, and ensuring a broad range of business and activities and increasing residential activities.

The above does not relieve any need to mitigate development related impacts, which may include multi-modal improvements to reduce identified impacts.

Because the City of Petaluma has not implemented General Plan Policy 5-P-8, this Initial Study addressed LOS with respect to passenger vehicles only. When assessing the LOS of passenger vehicles, this Initial Study applies the following thresholds of significance of the General Plan EIR:

City Roadway and Intersection Impact Criteria

Traffic impacts are identified as significant if the project would cause:

1. Operations (LOS) at a signalized intersection to deteriorate from an acceptable level (LOS C or better) under conditions without the project to an unacceptable level (LOS D, E, or F);

2. For signalized intersections that operate at an LOS D or E under conditions without the project, the LOS to deteriorate to the next lowest level;

3. For signalized intersections operating at LOS F without the project, any additional vehicle trips to the intersection;

4. For unsignalized intersections operating acceptably (LOS C or better) under conditions without the project, the LOS to deteriorate to unacceptable (LOS D, E, or F) conditions AND the traffic volumes at the intersection would satisfy the Caltrans peak-hour volume warrant criteria for traffic signal installation; or
5. For unsignalized intersections operating at unacceptable levels (LOS D, E, or F) under conditions without the project, average delay to increase by five or more seconds AND the traffic volumes at the intersection would satisfy the Caltrans peak-hour volume warrant criteria for traffic signal installation.

_U.S. 101 Impact Criteria_

Significant traffic impacts on freeway segments are identified as when a project causes:

1. The volume on the freeway segment to exceed its capacity (Cause LOS E or better to deteriorate to LOS F); or

2. An increase in the amount of traffic on a freeway segment already exceeding its capacity by more than one percent of the freeway segment’s design capacity.

_Existing Conditions_

_Passenger Vehicles_

The project site is located northeast of U.S. 101 and is bound by Corona Road to the west, Sonoma Mountain Parkway to the north, and Wellington Place to the east. The Traffic Impact Study (TIS) prepared by W-Trans (see Appendix K) for the project addresses LOS at the following eight study intersections:

1. Old Redwood Highway/North McDowell Boulevard
2. Petaluma Boulevard North/Skillman Lane-Corona Road
3. North McDowell Boulevard/Corona Road
4. Sonoma Mountain Parkway/Corona Road
5. Sonoma Mountain Parkway/Wellington Place
8. East Washington Street/McDowell Boulevard

The location of these study intersection in relation to the project is shown at Figure 11 below. The existing LOS for each study intersection without the project is shown at Table 7 below.
Figure 11: Study Area Intersections

Table 7. Existing Peak Hour Intersection Levels of Service

<table>
<thead>
<tr>
<th>Study Intersection</th>
<th>AM Peak</th>
<th></th>
<th>PM Peak</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Delay</td>
<td>LOS</td>
<td>Delay</td>
<td>LOS</td>
</tr>
<tr>
<td>1. Old Redwood Hwy/N McDowell Blvd</td>
<td>21.9</td>
<td>C</td>
<td>25.2</td>
<td>C</td>
</tr>
<tr>
<td>2. Petaluma Blvd N/Skillman Ln-Corona Rd</td>
<td>39.4</td>
<td>D</td>
<td>37.6</td>
<td>D</td>
</tr>
<tr>
<td>3. N McDowell Blvd/Corona Rd</td>
<td>31.8</td>
<td>C</td>
<td>41.4</td>
<td>D</td>
</tr>
<tr>
<td>4. Sonoma Mountain Pkwy/Corona Rd</td>
<td>7.6</td>
<td>A</td>
<td>7.7</td>
<td>A</td>
</tr>
<tr>
<td>5. Sonoma Mountain Pkwy/Wellington Pkwy Eastbound Approach</td>
<td>0.5</td>
<td>A</td>
<td>0.3</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>13.3</td>
<td>B</td>
<td>14.6</td>
<td>B</td>
</tr>
<tr>
<td>6. E Washington St/US 101 SB Ramps</td>
<td>26.3</td>
<td>C</td>
<td>30.3</td>
<td>C</td>
</tr>
<tr>
<td>7. E Washington St/US 101 NB Ramps</td>
<td>6.9</td>
<td>A</td>
<td>17.4</td>
<td>B</td>
</tr>
<tr>
<td>8. E Washington St/McDowell Blvd</td>
<td>30.9</td>
<td>C</td>
<td>38.7</td>
<td>D</td>
</tr>
</tbody>
</table>

Baseline Conditions

As part of the analysis provided by the TIS, Baseline Conditions were assessed to represent operation with the addition of traffic added by other known projects that will become operational and add trips to the study area over the next two or three years. Expected traffic expected to be generated from these projects were then added to existing volumes in order to determine Baseline volumes. As shown in Table 8 below, the intersection at East Washington Street/McDowell Boulevard is expected to operate unacceptably at LOS E during the p.m. peak period.

Table 8. Baseline Peak Hour Intersection Levels of Service

<table>
<thead>
<tr>
<th>Study Intersection</th>
<th>AM Peak</th>
<th></th>
<th>PM Peak</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Delay</td>
<td>LOS</td>
<td>Delay</td>
<td>LOS</td>
</tr>
<tr>
<td>1. Old Redwood Hwy/N McDowell Blvd</td>
<td>22.7</td>
<td>C</td>
<td>25.9</td>
<td>C</td>
</tr>
<tr>
<td>2. Petaluma Blvd N/Skillman Ln-Corona Rd</td>
<td>40.0</td>
<td>D</td>
<td>39.0</td>
<td>D</td>
</tr>
<tr>
<td>3. N McDowell Blvd/Corona Rd</td>
<td>32.6</td>
<td>C</td>
<td>44.3</td>
<td>D</td>
</tr>
<tr>
<td>4. Sonoma Mountain Pkwy/Corona Rd</td>
<td>8.3</td>
<td>A</td>
<td>8.5</td>
<td>A</td>
</tr>
<tr>
<td>5. Sonoma Mountain Pkwy/Wellington Pl Eastbound Approach</td>
<td>0.7</td>
<td>A</td>
<td>0.4</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>13.4</td>
<td>B</td>
<td>14.6</td>
<td>B</td>
</tr>
<tr>
<td>6. E Washington St/US 101 SB Ramps</td>
<td>29.9</td>
<td>C</td>
<td>53.4</td>
<td>D</td>
</tr>
<tr>
<td>7. E Washington St/US 101 NB Ramps</td>
<td>6.0</td>
<td>A</td>
<td>11.6</td>
<td>B</td>
</tr>
<tr>
<td>8. E Washington St/McDowell Blvd</td>
<td>39.6</td>
<td>D</td>
<td>70.6</td>
<td>E</td>
</tr>
</tbody>
</table>


Future Conditions

The project’s TIS presents a Future Condition for circulation as envisioned at buildout of the City’s General Plan. The General Plan was developed with a horizon year of 2025. However, due to changes in economic conditions since the General Plan was completed in 2008, it is expected that build-out of the General Plan land uses would occur after 2025. For this reason, the horizon year for future projections is considered to be at least 2035.

As seen in Table 9 below, study area intersections are expected to operate acceptably at LOS D or better during the two peak hour periods. While the intersection of East Washington Street/McDowell Boulevard is expected to operate unacceptably under Baseline Conditions, it is projected to operate acceptably in the future after completion of the planned Rainer Interchange, which will provide an east-west crossing of US 101 along with a mid-city connection to US 101.
### Table 9. Future Peak Hour Intersection Levels of Service

<table>
<thead>
<tr>
<th>Study Intersection</th>
<th>AM Peak</th>
<th>PM Peak</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Delay</td>
<td>LOS</td>
<td>Delay</td>
<td>LOS</td>
</tr>
<tr>
<td>1. Old Redwood Hwy/N McDowell Blvd</td>
<td>9.2</td>
<td>A</td>
<td>6.3</td>
<td>A</td>
</tr>
<tr>
<td>2. Petaluma Blvd N/Skillman Ln-Corona Rd</td>
<td>51.1</td>
<td>D</td>
<td>47.7</td>
<td>D</td>
</tr>
<tr>
<td>3. N McDowell Blvd/Corona Rd</td>
<td>40.3</td>
<td>D</td>
<td>38.5</td>
<td>D</td>
</tr>
<tr>
<td>4. Sonoma Mountain Pkwy/Corona Rd</td>
<td>8.4</td>
<td>A</td>
<td>8.3</td>
<td>A</td>
</tr>
<tr>
<td>5. Sonoma Mountain Pkwy/Wellington Pl</td>
<td>0.5</td>
<td>A</td>
<td>0.3</td>
<td>A</td>
</tr>
<tr>
<td>Eastbound Approach</td>
<td>14.0</td>
<td>B</td>
<td>15.4</td>
<td>C</td>
</tr>
<tr>
<td>6. E Washington St/US 101 SB Ramps</td>
<td>28.0</td>
<td>C</td>
<td>29.0</td>
<td>C</td>
</tr>
<tr>
<td>7. E Washington St/US 101 NB Ramps</td>
<td>10.6</td>
<td>B</td>
<td>16.8</td>
<td>B</td>
</tr>
<tr>
<td>8. E Washington St/McDowell Blvd</td>
<td>34.5</td>
<td>C</td>
<td>44.3</td>
<td>D</td>
</tr>
</tbody>
</table>


**Impact Analysis:**

**3.16 (a) (Plan, Policy, Ordinance: Circulation System) Less Than Significant Impact:** As mentioned in the setting section above, the project’s TIS evaluates effects on LOS at eight study intersections for three scenarios: Existing Conditions, Baseline Conditions, and Future Conditions. The project is expected to generate an average of 1,489 trips per day, including 115 trips during the a.m. peak hour and 146 during the p.m. peak hour. The following narrative summarizes the outcome of the LOS analysis.

**Existing Conditions/Existing Plus Project**

Upon the addition of project-related traffic to the Existing volumes, study intersections are expected to continue operating at the same levels of service as without the project during the a.m. and p.m. peak hours. The results from the TIA analysis are shown in **Table 10** below.
Table 10. Existing and Existing Plus Project Peak Hour Intersection Levels of Service

| Study Intersection | Existing Conditions | | | Existing plus Project | | | AM Peak | PM Peak | AM Peak | PM Peak |
|--------------------|---------------------|--|--|------------------------|--|--|--------|--|--|--------|--|--|
|                    | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS |
| 1. Old Redwood Hwy/N McDowell Blvd | 21.9 | C | 25.2 | C | 22.2 | C | 25.2 | C |
| 2. Petaluma Blvd N/Skillman Ln-Corona | 39.4 | D | 37.6 | D | 40.6 | D | 38.2 | D |
| 3. N McDowell Blvd/Corona Rd | 31.8 | C | 41.4 | D | 33.8 | C | 43.6 | D |
| 4. Sonoma Mountain Pkwy/Corona Rd | 7.6 | A | 7.7 | A | 8.5 | A | 8.6 | A |
| 5. Sonoma Mountain Pkwy/Wellington Pl *Eastbound Approach* | 0.5 | A | 0.3 | A | 0.7 | A | 0.4 | A |
| | 13.3 | B | 14.6 | B | 13.6 | B | 14.9 | B |
| 6. E Washington St/US 101 SB Ramps | 26.3 | C | 30.3 | C | 27.2 | C | 30.7 | C |
| 7. E Washington St/US 101 NB Ramps | 6.9 | A | 17.4 | B | 7.1 | A | 18.6 | B |
| 8. E Washington St/McDowell Blvd | 30.9 | C | 38.7 | D | 31.2 | C | 39.1 | D |


Baseline Conditions/ Baseline plus Project Conditions

With project-related traffic added to Baseline volumes, the study intersections are expected to operate acceptably at the same levels of service as without the project, except East Washington Street/McDowell Boulevard, which is expected to continue operating unacceptably at LOS E during the p.m. peak hour as shown below in Table 11.

Baseline Conditions without inclusion of the project are expected to contribute to the intersection at East Washington Street and McDowell Boulevard operating at unacceptable LOS E, but will be relieved back to acceptable levels (LOS D) as planned infrastructure improvements are completed under future conditions. While the project itself does contribute towards the unacceptable level of service E under baseline conditions, it does not create an new exceedance of unacceptable standards and impacts would be considered less than significant under the City’s significance criteria. Nonetheless, the project will be required to pay traffic impact fees, which will contribute, to infrastructure improvements including those to reduce congestion at the intersection of East Washington Street and McDowell Boulevard. Therefore, the project impacts under baseline conditions would be less than significant.
### Table 11. Baseline and Baseline Plus Project Peak Hour Intersection Levels of Service

<table>
<thead>
<tr>
<th>Study Intersection</th>
<th>Existing Conditions</th>
<th></th>
<th>Existing plus Project</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AM Peak</td>
<td>PM Peak</td>
<td>AM Peak</td>
<td>PM Peak</td>
</tr>
<tr>
<td></td>
<td>Delay</td>
<td>LOS</td>
<td>Delay</td>
<td>LOS</td>
</tr>
<tr>
<td>1. Old Redwood Hwy/N McDowell Blvd</td>
<td>22.7</td>
<td>C</td>
<td>25.9</td>
<td>C</td>
</tr>
<tr>
<td>2. Petaluma Blvd N/Skillman Ln-Corona</td>
<td>40.0</td>
<td>D</td>
<td>39.0</td>
<td>D</td>
</tr>
<tr>
<td>3. N McDowell Blvd/Corona Rd</td>
<td>32.6</td>
<td>C</td>
<td>44.3</td>
<td>D</td>
</tr>
<tr>
<td>4. Sonoma Mountain Pkwy/Corona Rd</td>
<td>8.3</td>
<td>A</td>
<td>8.5</td>
<td>A</td>
</tr>
<tr>
<td>5. Sonoma Mountain Pkwy/Wellington Pl</td>
<td>0.7</td>
<td>A</td>
<td>0.4</td>
<td>A</td>
</tr>
<tr>
<td>Eastbound Approach</td>
<td>13.4</td>
<td>B</td>
<td>14.6</td>
<td>B</td>
</tr>
<tr>
<td>6. E Washington St/US 101 SB Ramps</td>
<td>29.9</td>
<td>C</td>
<td>53.4</td>
<td>D</td>
</tr>
<tr>
<td>7. E Washington St/US 101 NB Ramps</td>
<td>6.0</td>
<td>A</td>
<td>11.6</td>
<td>B</td>
</tr>
<tr>
<td>8. E Washington St/McDowell Blvd</td>
<td>39.6</td>
<td>D</td>
<td>70.6</td>
<td>E</td>
</tr>
</tbody>
</table>


### Future Conditions/Future plus Project Conditions

As shown below in Table 12, study area intersections will continue operating acceptably with project traffic added to the roadway network. LOS for each intersection is expected to operate at the same LOS under the future condition without the project as with the project.

Level of service for the deficient intersection will be relieved as a result of planned infrastructure improvements under Future Conditions at Buildout of the General Plan. As shown at below, all study area intersection would operate acceptably at LOS D or better. Therefore, the project would result in a less than significant impact with regard to LOS under future year conditions.
Table 12. Future and Future Plus Project Peak Hour Intersection Levels of Service

<table>
<thead>
<tr>
<th>Study Intersection</th>
<th>Existing Conditions</th>
<th>Existing plus Project</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AM Peak</td>
<td>PM Peak</td>
</tr>
<tr>
<td></td>
<td>Delay</td>
<td>LOS</td>
</tr>
<tr>
<td>1. Old Redwood Hwy/N McDowell Blvd</td>
<td>9.2</td>
<td>A</td>
</tr>
<tr>
<td>2. Petaluma Blvd N/Skillman Ln-Corona</td>
<td>51.1</td>
<td>D</td>
</tr>
<tr>
<td>3. N McDowell Blvd/Corona Rd</td>
<td>40.3</td>
<td>D</td>
</tr>
<tr>
<td>4. Sonoma Mountain Pkwy/Corona Rd</td>
<td>8.4</td>
<td>A</td>
</tr>
<tr>
<td>5. Sonoma Mountain Pkwy/Wellington Pl</td>
<td>0.5</td>
<td>A</td>
</tr>
<tr>
<td>Eastbound Approach</td>
<td>14.0</td>
<td>B</td>
</tr>
<tr>
<td>6. E Washington St/US 101 SB Ramps</td>
<td>28.0</td>
<td>C</td>
</tr>
<tr>
<td>7. E Washington St/US 101 NB Ramps</td>
<td>10.6</td>
<td>B</td>
</tr>
<tr>
<td>8. E Washington St/McDowell Blvd</td>
<td>34.5</td>
<td>C</td>
</tr>
</tbody>
</table>


Mitigation Measures: None required.

3.16 (b) (Congestion Management Plan) No Impact: Sonoma County opted out of performing Congestion Management Plans in 1997. Thus, the proposed project would not exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways. No further analysis of this issue is required.

Mitigation Measures: None required.

3.16 (c) (Air Traffic Patterns) No Impact: The project will have no impact on air traffic patterns, given the nature and location of the residential development, which is well outside of the established airport flight pattern.

Mitigation Measures: None required.
3.16 (d) (Design Feature Hazard) Less Than Significant Impact: Access to the project site would be provided by a street connection on Wellington Place and another to Sonoma Mountain Parkway. Additionally, the project proposed modifications to these roadways at the project site in order to accommodate vehicles and ensure that safe site access is provide. The project includes installation of a left-turn pocket from Sonoma Mountain Parkway to the new access roadway across from Mauro Pietro Drive. This adjustment to roadway geometry will be accommodated by removing the existing right turn striping from Sonoma Mountain Parkway onto Mauro Pietro Drive and re-stripping to include a left-turn pocket, a through/right-turn lane and a bike lane. The current right-turn lane that would be eliminated was created at the time the roundabout was installed at Corona Road/ Sonoma Mountain Parkway as a means of dropping one lane of traffic and is not needed for capacity purposes. Additionally, right turn movement may proceed unencumbered and do not result in queuing within travel lanes.

Wellington Place will also be modified to ensure sufficient travel width. Currently, parking is allowed on both sides of Wellington Place, which restricts travel lane width. The project proposed to remove on-street parking on the west side of Wellington Place in order to maximize travel lane width. A series of bulb in parking stalls will provide for a few public parking stalls along the project side of Wellington Place.

W-Trans reviewed the project site in order to determine if sight distances from Wellington Place and Sonoma Mountain Parkway intersection were adequate. Based on site design speed of 25 mph for Wellington Place the minimum stopping sight distance would be 150 feet. Review of the field conditions verified that sight distances from Wellington Place are more than adequate. Based on site design speed of 40 mph for Sonoma Mountain Parkway the minimum stopping sight distance would be 300 feet. Review of the field conditions identified a potential conflict due to the close proximity of the roundabout. However, it was noted that traffic speeds leaving the roundabout are not expected to exceed 25 mph and these speeds sight distances are visible for the required 275 feet. In order to ensure that site distance and visibility is maintained with the introduction of the Brody Ranch Subdivision a condition of approval has been added that requires landscaping to be maintained with tree canopies at least seven feet above the ground and low lying vegetation no greater than 3 feet above the ground. Additionally, monument signage will be placed in a manner that does not interfere with site distances. Therefore impacts due to an introduction of a design feature hazard will be less than significant.

Mitigation Measures: None required.

3.16 (e) (Emergency Access) Less Than Significant Impact: The project’s internal circulation plan has been reviewed and meets all conditions imposed by the Petaluma Public Works and Fire Departments. Site circulation was determined to be adequate, including sufficient drive aisle widths to allow for fire truck turn around and access. Therefore, emergency vehicle access is adequate and potential impacts due to a conflict with emergency access will be less than significant.

Mitigation Measures: None required.

3.16 (f) (Transit, Bicycle, Pedestrian Facilities) Less Than Significant Impact with Mitigation: Public transit, bicycle, and pedestrian facilities in the project vicinity will not be substantially impacted by the proposed development. Sidewalks currently exist along both sides of Sonoma Mountain Parkway, but only along the south side of Wellington Place. There exists a Class I multi-use path west of the project site (along Corona Creek) that connects to Wellington Place. The project proposed frontage improvement along Corona Road including a median and a sidewalk that would extend from the SMART crossing north to Sonoma Mountain Parkway and tie into the existing sidewalk at that location. Pedestrian connectivity would also be provided along the southern portion of the project site via a new proposed 10-foot wide meandering path located north of the wetlands to be preserved as open space. The path would connect through the project site to the existing Class I path along Corona Creek. Additionally, a sidewalk would be installed on the west side of Wellington Place along the project frontage (a sidewalk with landscaping currently exists along the east side of Wellington Place). Crosswalks are planned across the project access roadways at Sonoma Mountain Parkway and Wellington Place.
Existing Class II bike lanes on Sonoma Mountain Parkway and shared use on Wellington Place would provide access for bicyclists. Per the City's Bicycle and Pedestrian Master Plan, a Class II bike lane is planned on Corona Road. An eastbound Class II bike lane would be constructed along the project frontage on Corona Road, with a bike ramp accessing the Class I path that runs along the perimeter of the roundabout at Sonoma Mountain Parkway/Corona Road.

Existing transit routes are capable of accommodating project-generated transit trips within the area. Three separate transit agencies provide regular service to the City of Petaluma: Petaluma Transit, Sonoma County Transit, and Golden Gate Transit. The project proposed an offsite improvement consisting of the installation of a bus turnout near the intersection of Willington Place and Sonoma Mountain Parkway. The bus turn out would provide for loading and loading fully outside of the travel lane and contain a bus shelter and a bench. Additionally, a Sonoma-Marin Area Rail Transit (SMART) station is proposed near the project site. Sidewalks along Corona Road are proposed at the project site frontage and would extend to the limits of the project site. In the future when the planned SMART station site is developed, sidewalk connectivity will be provided and will connect to the stub out sidewalk at the limit of the Brody Ranch Project site.

The project includes plans to appropriately accommodate pedestrian and bicycle use including connecting sidewalks and paths along Wellington Place, Corona Road, and internally, and installing a Class II bike lane along project site’s frontage on Corona Road. Existing paths, sidewalks, and bike lanes currently serving the project site will provide sufficient access to future residents and current residents of the surrounding residential areas. As a condition of approval the project will be required to install a minimum of 39 bicycle parking spaces pursuant to Petaluma Zoning Code (Standard 11.090).

Given the proximity of other residences, park space, schools, and the proposed SMART station to the site, it is reasonable to assume that some project residents will walk, bicycle, and/or ultimately utilize commuter rail transit once available. Therefore sufficient pedestrian, bicycle and public transit facilities will be available and impacts would be less than significant.

**Mitigation Measures:** None required.
### 3.17. UTILITIES AND SERVICE SYSTEMS

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>e) 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?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>f) Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>g) Comply with federal, state, and local statutes and regulations related to solid waste?</td>
<td>☐</td>
<td>☐</td>
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</table>

Sources: 2025 General Plan and EIR; City of Petaluma 2015 Urban Water Management Plan; Sonoma County Water Agency 2010 UWMP; and http://www.scwa.ca.gov/current-water-supply-levels/.

**Settings:**

The City charges one-time impact fees on new private development in order to offset the cost of improving or expanding City facilities to accommodate the project. Impact fees are used to help fund the construction or expansion of needed capital improvements due to new development. Petaluma collects impact fees for wastewater, water capacity, storm drain, and other public utilities and services. As a project located within a developed area of the UGB, the project site is well served by existing public utilities and will not necessitate the expansion or enhancement of existing facilities.
Water Service System

The Petaluma Department of Public Works and Utilities is the water purveyor for the City of Petaluma. The City purchases potable water wholesale from the Sonoma County Water Agency (SCWA). The primary source of water is supplied by the Russian River and supplemented with groundwater from the Santa Rosa Plain via the Petaluma Aqueduct. The City of Petaluma also extracts groundwater from the Petaluma Valley Basin. Groundwater serves as an emergency water supply in the event that SCWA water deliveries are curtailed.

The City’s 2010 Urban Water Management Plan (UWMP) updates information from General Plan 2025 background and environmental documents and extended the term of water demand analysis through 2035. The 2010 UWMP was determined to be consistent with the General Plan 2025. The UWMP includes a water supply/demand analysis based on population trends and land uses set forth in the 2025 General Plan, the City's existing water supply contract with the Sonoma County Water Agency (SCWA), and planned City water recycling and water conservation programs.

In 2015, the City updated its UWMP including a baseline demand analysis in compliance with the interim 2015 Urban Water Use target, an Urban Water Use target analysis for 2020, projected urban Water Use through the year 2040, 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. Based on regional water supply availability, the SCWA expects to be able to increase annual water deliveries to Petaluma from approximately 7,200 acre-feet (AC-FT) in 2010 to 11,400 AC-FT by 2035.

Based on the evaluation of future Russian River supply including, minimum in-stream flow requirements, SCWA expects to obtain water rights approvals necessary to increase its total diversions above 75,000 acre-feet per year (AC-FT/YR) by 2027 and to 80,000 AC-FT/YR by 2035. This assumption is based on the most likely outcome of decisions by regulatory agencies and implementation of the Restructured Agreement (executed in 2006) and proposed improvements to the water delivery system.

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 (see Policy 8-P-4).

Severe Drought Conditions

California has experienced several consecutive dry years and on January 17, 2014, Governor Brown proclaimed a state of emergency to exist through the State of California due to severe drought conditions. On April 25, 2014, Governor Brown issued a follow-up proclamation declaring a continued state of emergency throughout the State of California due to the ongoing drought. On April 1, 2015, Governor Brown issued Executive Order B-29-15 imposing a mandatory 25 percent reduction for the State’s 400 local water supply agencies and requiring that local water agencies save water, increase enforcement to prevent wasteful water use, streamline the state’s drought response, and invest in new technologies that will make California more drought-resilient.

On March 17, 2014, the State Water Resources Control Board (SWRCB) adopted emergency regulations for water conservation. Those regulations were subsequently updated in response to Executive Order B-29-15 and, as approved by the SWRCB, are intended to increase water conservation in urban settings by 25% statewide. For the City of Petaluma, the SWRCB established a 16% reduction in annual per capita water use. Based on monthly water use reports provided to the SWRCB, the City of Petaluma has exceeded that mandate; i.e., between June 2014 and May 2015, water by residential customers decreased by 33.56%.

3 State Water Resources Control Board: Decision No. 1610 (http://www.waterboards.ca.gov/waterrights)
4 Office of Administrative Law File No. 2015-0320-01 EE.
On June 1, 2015, the Petaluma City Council adopted a resolution pursuant to the SWRCB directive and which implements a Stage 2 Water Shortage Contingency Plan. In addition to furthering mandates of the SWRCB, the City of Petaluma is also pursuing a host of other measures to increase water conservation (e.g., public outreach, rebates and incentives) and will soon consider amendments to Municipal Code Chapter 15.17 (Water Conservation Regulations).

The City of Petaluma has developed a Water Shortage Contingency Plan, which outlines four stages of water shortage and implements water use reduction measures according to severity of the drought. The four stages are as follows: Stage 1 (minimal); Stage 2 (Moderate); Stage 3 (Severe); and Stage 4 (Critical). In March of 2014 the City of Petaluma imposed voluntary measures in accordance with Stage 1 of the Water Contingency Plan to reduce water usage by twenty percent. Although the City of Petaluma implemented Stage 2 mandates to conserve water in 2015, as of August 16, 2016, the City was officially relieved of their state mandatory water-saving target of 16 percent.

According to the City’s Water Supply Self-Certification 2016, the City of Petaluma no longer has a mandatory conservation target but encourages water customers to voluntarily reduce demand by 10 percent, which can be met by limiting outdoor irrigation and participating in the City’s Water Conservation Programs. Also, effective February 4, 2016, the City of Petaluma adopted an ordinance for new water conservation regulations.

Wastewater Treatment

Wastewater Treatment

Ellis Creek Water Recycling Facility treats all wastewater generated by the City of Petaluma and unincorporated Sonoma County community of Penngrove. The collection system is comprised of more than 190 miles of underground piping and nine (9) pump stations. The Facility’s treatment capacity is about 6.7 million gallons per day (average dry weather flow). The facility treats approximately 5 million gallons per day, leaving approximately 1.7 million gallons in available treatment capacity. During the summer, recycled water is introduced to the City’s recycled water system and is used for irrigation of 800 acres of agricultural lands, two golf courses, and a vineyard. In the winter, secondary treated wastewater is conveyed to the Petaluma River.

Stormwater

Stormwater

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. This water 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, establish 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, as well as the policies set forth in the General Plan including:

8-P-30C:  On-site and off-site improvements, deemed necessary by the City to reduce the surface water impacts associated with a specific development proposal shall be designed, constructed, and maintained in perpetuity at the cost of the development associated with said impacts.

8-P-33A:  Any project within an area subject to inundation in a 1% (100-year) storm event shall include site specific analysis of impacts and identification of mitigations.

8-P-37J:  Projects may construct detention/retention facilities as mitigation for surface water impacts, so long as the improvements result in an improvement to the pre-project conditions by way of a net reduction in storm water elevations and downstream flows.

As described in the hydrology and water quality section above, a portion of the project site is located within a flood hazard area (Zone AE) and underwent review in accordance with General Plan Policy 8-P-33A. The proposed subdivision precludes habitable development within the flood hazard area and lot base elevations are sufficiently elevated above the base flood elevation of 35 feet. The lowest lot elevations are proposed at
37 feet, which is 2 feet above the base flood elevation.

Policies 8-P-30C and 8-P-37J are implemented through the Stormwater Management and Pollution Control Ordinance, which locally codifies the requirements of the NPDES permit issued by the State Water Resources Control Board. The project also includes an onsite stormdrain system as well as a detention basin at the southern extent of the site in order to accommodate stormwater and generally retain pre-development runoff conditions.

Solid Waste
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. The multi-family condominiums on-site will be served by trash enclosure containing trash and recycling bins. The proposed single-family homes and duplex will be served by once a week curbside pick up of trash, recycling and compost.

Impact Analysis:

3.17 (a, b, e) (Exceed Wastewater Treatment Requirements, New On-Site Water or Wastewater Treatment Facilities, Wastewater Treatment Capacity) Less Than Significant Impact: The project is not expected to exceed wastewater treatment requirements set forth by the Regional Water Quality Control Board (RWQCB), 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 Ellis Creek’s wastewater treatment plant. The project does not propose any industrial uses that would generate wastewater requiring special treatment or would contain constituents exceeding applicable standards. Therefore, the project would not exceed wastewater treatment requirements and impacts would be less than significant.

The existing water supplies, facilities, and infrastructure are sufficient to meet the demands of the project without the need for expansion or new construction of water supply facilities, and service needs have been anticipated by the Petaluma General Plan 2025. Wastewater will connect to an existing 12-inch sanitary sewer line under Wellington Place in the eastern extent of the project area and another at Sonoma Mountain Parkway to the north. Water will be connected to the existing 8” water pipeline within Wellington Place and the existing 12” pipeline within Sonoma Mountain Parkway.

City Water and Wastewater Capacity fees will be collected from the applicant in order to fund the applicant’s share for use of existing facilities, planned improvements and ongoing maintenance of public utilities. Development of the proposed Brody Ranch project site was considered in the General Plan and EIR and water and wastewater treatment, conveyance and demand have been anticipated by existing City Planning documents. The project is a residential development of the type and density anticipated in the General Plan and EIR. The project’s contribution to wastewater flows and municipal water demands were anticipated in the General Plan and have been considered for operating capacity of the water and wastewater treatment facilities. The introduction of the proposed project including 199 new residential units is well within the capacity analyzed as part of the General Plan build out. The proposed project will not generate wastewater that exceeds the capacity of the City’s wastewater treatment plant, when added to existing and projected commitments through General Plan buildout. There are no new or more substantial impacts that would result from the proposed project. Therefore, the project will have less than significant impacts due to new water or wastewater treatment facilities or expansion of existing facilities.

Mitigation Measures: None required.

3.17 (c) (Require New Stormwater Facilities) Less Than Significant Impact: The proposed Brody Ranch Subdivision project will increase the amount of impervious surfaces onsite relative to existing conditions. Onsite drainage improvements will be installed during construction and designed to capture stormwater runoff and convey flows either in an easterly direction towards Corona Creek or south to the existing wetlands and proposed detention basin. The project has been designed with the integration of Low Impact Design (LID)
standards as discussed in Section 3.9 above. Proposed LID measures include a series of tree plantings, soil treatment, and bioretention basins and swales that will capture stormwater runoff during precipitation events and provide for treatment and filtration of stormwater runoff onsite prior to release. A rolled curb with a pervious concrete gutter will serve to disperse stormwater flows across the wetland area and ensure that pre development hydrology is mimicked post development. With the proposed LID measures and compliance C.3 stormwater requirements, the project will not significantly increase runoff relative to the existing condition and no new stormwater facilities are anticipated. Therefore, the project is expected to result in less than significant impacts due to the expansion of existing storm water drainage facilities or construction of new facilities.

Mitigation Measures: None required.

3.17 (d) (Sufficient Water Supplies) Less Than Significant Impact: The project will utilize water obtained from the City’s municipal water system to meet on-site water demands. Water mainlines under Wellington Place and Sonoma Mountain Parkway will provide connection to new residences by extending water service to the project site. The increase in on-site water demand resulting from the proposed project is consistent with what has been anticipated in the 2015 UWMP as the City’s service area population is based on the General Plan buildout projection, which anticipate that the Brody Ranch project site will support residential uses at densities reflective of the R4 and R5 zoning district.

Based on the 2015 UWMP the demand for potable water supplies in 2015 was 6,744 acre feet for all uses including single and multi-family residential, commercial, industrial, institutional/governmental, and landscaping. By 2040 the water demand for buildout of the General Plan is projected to be 9,623 acre-feet per year for potable water supplies and 1,424 acre-feet per year for recycled water supplies. The UWMP establishes a 2015 baseline daily per capita water use of 111 gallons based on a gross water use of 7,678 acre-feet per year. For year 2015, the UWMP concludes that the City is in compliance with the 2020 water use target, which aims to achieve a 5% reduction in the per capita use relative to the 5-year baseline.

Surface water supplies are provided to the City of Petaluma pursuant to the Restructured Agreement, which states that the Sonoma County Water Agency is not obligated to provide more than 13,400 acre-feet per year and 21.8 million gallons per day on average during any given month. The City supplements surface water supplies with local groundwater extraction and the use of recycled water. In 2015 375 acre-feet of groundwater was extracted from the Petaluma Valley Groundwater Basin. In 2015 a total of 846 acre-feet of recycled water was used within the City’s service area. The total actual water supply for the City of Petaluma was 8,524 acre-feet in 2015. The projected water supply for 2040 at buildout of the General Plan and service area is expected to be 14,824 acre feet per year. Based on water supply availability and projected water demands, the City of Petaluma has sufficient water supplies to accommodate buildout of the General Plan.

The UWMP establishes Demand Management Measures and a Water Shortage Contingency Plan (2016 Updated), 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 proposed Brody Ranch Subdivision project is consistent with the population projections anticipated by the General Plan and water demands are captured in the 2015 UWMP for future year conditions. Additionally the Brody Ranch Subdivision 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 demands of the project without need for expansion or new construction.

Mitigation Measures: None required.

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5 2015 UWMP Table 4-3, Total Water Demands.
3.17 (f-g) (Landfill Capacity, Solid Waste Statutes) Less Than Significant Impact: The Brody Ranch project is expected to generate solid waste that is typical of residential uses. The applicant will be required to adhere to all regulations governing the disposal of solid waste. Solid waste disposal facilities are owned and operated by the Sonoma County Department of Transportation and Public Works. As mentioned previously, the City maintains a hauling agreements with contractual obligations requiring hauling to Approved Disposal Locations with adequate capacity to serve the City’s needs. At present, the City is under contract with Petaluma Refuse and Recycling for solid waste disposal and recycling services, and they will be serving the project by transferring waste to Sonoma County landfill sites with remaining capacity. Pursuant to General Plan Policy 2-P-122, the project will also include a Construction Waste Management Plan (CWMP), which typically includes various waste reduction and recycling strategies such as reuse measures, on-site material specific debris boxes, waste inventorying, standard material design, and accurate material ordering.\(^6\)

While the project will generate solid waste during construction and operation, it is not expected to exceed landfill capacity and is not expected to result in violation of federal, state, or local statutes and regulations relating to solid waste. Therefore, disposal of solid waste generated by the project construction and operation will have less than significant impacts.

**Mitigation Measures:** None required.

\(^6\) California Department of Housing and Community Development Construction Waste Management Plan, Revised 7/1/12.
### 3.18. MANDATORY FINDINGS OF SIGNIFICANCE (CAL. PUB. RES. CODE §15065)

A focused or full environmental impact report for a project may be required where the project has a significant effect on the environment in any of the following conditions:

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<thead>
<tr>
<th>Would the project:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
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<tr>
<td>a) Does the project have the potential to 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, 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?</td>
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<td>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)?</td>
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<td>c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?</td>
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**Mandatory Findings Discussion:**

**3.18 (a) Less Than Significant Impact:** The project is located along the northern extent of the City of Petaluma’s UGB and potential impacts associated with its development have been anticipated and analyzed in the Corona Ely Specific Plan EIR and the General Plan’s EIR. The proposed Brody Ranch Subdivision is consistent with the designated General Plan Land Use and supports the goals, policies, and programs outlined in the General Plan. 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 with implementation of mitigation measures. Mitigation measures set forth in the Biological Resources discussion ensure that potential impacts due to possible presence of special-status bats, nesting raptors, nesting passerine birds or waterfowl, and fill to wetlands will be reduced to less than significant levels. Additionally, the Cultural Resources discussion identifies measures to ensure that potential impact to cultural resources are avoided. No other impacts associated with environmental degradation, plant or animal communities, species population and ranges, or California history or prehistory have been identified. As such, the project will not degrade the quality of the environment, reduce habitat, or affect cultural resources. Therefore, the project will have less than significant impacts due to degradation of the environment.
3.18 (b) Less Than Significant: The proposed project is consistent with the City's General Plan, zoning requirements and long range plan for future development. The project will not promote further development beyond what is called for by the City's General Plan.

The project will contribute to cumulative impacts identified in the City's GP EIR but not to a level that is considered cumulatively considerable. As described in the analysis above, when the project contributes to a cumulative impact identified in the General Plan, its contribution is incremental or the project includes design features or mitigation measures that reduce cumulative impacts to levels below significance.

The project has the potential to incrementally contribute in the following cumulative impacts identified and analyzed in the General Plan EIR:

- **Intersection LOS (Impact 3.2-1):** The project would contribute vehicle trips to intersections identified in the General Plan EIR as operating at an unacceptable LOS at build-out. However, as described in the analysis above, the affected intersections have either already been determined to acceptably operate at an LOS E or LOS F due to overriding considerations and conflicts with other General Plan policies or the project's contribution to those intersections are below the threshold established by the General Plan EIR (i.e., cause the LOS to deteriorate to the next lowest level).

- **Water Demand (Impact 3.5-1, Impact 8-P-20):** The project will increase water demand during a period of extreme drought. However, with implementation of mandatory water conservation measures (e.g., through SWRCB and California Green Building Standards Code) and information about current and projected water supplies, the project's incremental increase in demand is not considered cumulatively considerable.

- **Noise (Impact 3.9-1, Impact 3.9-2):** The project will increase vehicle trips on local roadways and, in doing so, incrementally contribute to noise levels determined by the General Plan to be significant at build-out. However, the project excludes new stationary noise sources and its incremental contribution through vehicular trips will not result in a perceptible change in noise level along roadways. Therefore, the project will not result in cumulatively considerable impacts due to noise.

The project is consistent with the surrounding land uses and implements the intent of the UGB through the development of an underutilized parcel in the existing urbanized area at an elevated density (per Table 6 of the 2015-2023 Housing Element). 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. The Project does not increase the severity of any of the impacts from the levels identified and analyzed in the General Plan, and development of the Project site is proposed at densities consistent with those set forth in the General Plan EIR and the zoning code.

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. When the project contributes to a cumulative impact identified in the General Plan, its contribution is incremental or the project includes design features or mitigation measures that reduce cumulative impacts to levels below significance. Therefore the project’s cumulative impacts will be less than significant.

3.18 (c) Less Than Significant Impact: The project has the potential to result in adverse impacts to humans due to air quality, biological resources, geology and soils, noise, hazard and hazardous materials, hydrology and water quality, and circulation/transportation. With those mitigation measures set forth above, environmental effect that would directly or indirectly impact human beings onsite or in the project vicinity will be reduced to less than significant levels. Therefore the project will have less than significant impacts due to substantial adverse effects on human beings.
4. REFERENCE DOCUMENTS:

<table>
<thead>
<tr>
<th>General Plan and Zoning Ordinance</th>
<th>Other Sources of Information</th>
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<tbody>
<tr>
<td>General Plan Chapter 1. Land Use, Growth Management, &amp; the Built Environment</td>
<td>General Plan Chapter 7. Community Facilities, Services &amp; Education</td>
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<td>General Plan Chapter 2. Community Design, Character, &amp; Green Building</td>
<td>General Plan Chapter 8. Water Resources</td>
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<td>General Plan Chapter 3. Historic Preservation</td>
<td>General Plan Chapter 9. Economic Health &amp; Sustainability</td>
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<tr>
<td>General Plan Chapter 4. The Natural Environment</td>
<td>General Plan Chapter 10. Health &amp; Safety</td>
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<td>General Plan Chapter 5. Mobility</td>
<td>General Plan Chapter 11. Housing</td>
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<tr>
<td>General Plan Chapter 6. Recreation, Music, Parks, &amp; the Arts</td>
<td>Implementing Zoning Ordinance/Maps</td>
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<tr>
<td>Petaluma UWMP</td>
<td>Published geological maps</td>
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<tr>
<td>SCWA UWMP</td>
<td>General Plan 2025 EIR</td>
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<tr>
<td>FEMA Flood Insurance Rate Maps</td>
<td>SMART Station Master Plan</td>
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<tr>
<td>BAAQMD CAP</td>
<td>BAAQMD CEQA Guidelines</td>
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<tr>
<td>Ely Corona Specific Plan</td>
<td>National Research Council</td>
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**Technical Appendices:** The following resources were prepared in order to further identify project specific parameters. Copies of these technical documents are incorporated herein by reference are available for review during normal business hours at the City of Petaluma, 11 English Street, in the Community Development Department.


C. Brody Ranch Subdivision Arborist’s Report & Tree Inventory, prepared by Becky Duckles, October 2015.

D. A Cultural Resources Study for the Brody Subdivision Project, prepared by Tom Origer & Associates, October 2015.

F. Phase I Environmental Site Assessment Brody, prepared by AEI Consultants, April 29, 2014.


