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DRAFT
Browns Valley Subdivision Project
Initial Study/Mitigated Negative Declaration
City of Napa, Napa County, California

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Report Date: September 16, 2022

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ACRONYMS AND ABBREVIATIONS

°C	degrees Celsius (Centigrade)
°F	degrees Fahrenheit
µg/m^3	micrograms per cubic meter
AB	Assembly Bill
ABAG	Association of Bay Area Governments
ACTM	Airborne Toxic Control Measures
AERMOD	American Meteorological Society/EPA Regulatory Model
AMSL	above mean sea level
APN	Assessor's Parcel Number
AQP	Air Quality Plan
ARB	California Air Resources Board
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
BASMAA	Bay Area Stormwater Management Agencies Association
BERD	Built Environmental Research Directory
BFE	Base Flood Elevation
BMP	Best Management Practice
BRR	Biological Resources Report
C&D	construction and demolition
CAL FIRE	California Department of Forestry and Fire Protection
Cal/OSHA	California Occupational Safety and Health Administration
CalEEMod	California Emissions Estimator Model
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CARE	Community Air Risk Evaluation
CBC	California Building Standards Code
CDF	California Department of Finance
CDFW	California Department of Fish and Wildlife
CDNC	California Digital Newspaper Collection
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFC	California Fire Code
CGS	California Geological Survey
CHL	California Historic Landmarks
CNDDB	California Natural Diversity Database

CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO_2e	carbon dioxide equivalent
CPHI	California Points of Historical Interest
CRA	Cultural Resources Assessment
CREC	Controlled Recognized Environmental Condition
CRHR	California Register of Historical Resources
CWA	Clean Water Act
CWPP	Community Wildfire Protection Plan
dBA	A-weighted decibel
dbh	diameter at breast height
DOC	Department of Conservation
DPM	diesel particulate matter
DPR	California Department of Parks and Recreation
DPS	distinct population segment
DTSC	Department of Toxic Substances Control
DWR	California Department of Water Resources
EFH	Essential Fish Habitat
EIR	Environmental Impact Report
EPA	United States Environmental Protection Agency
EPR	Extended Producer Responsibility
EV	electric vehicle
EVSE	electric vehicle supply equipment
FCS	FirstCarbon Solutions
FEMA	Federal Emergency Management Agency
FHSZ	Fire Hazard Safety Zone
FIRM	Flood Insurance Rate Map
FMMP	Farmland Monitoring and Mapping Program
FTA	Federal Transit Administration
GHG	greenhouse gas
GIS	Geographic Information System
GWP	global warming potential
HARP2	Hotspots Analysis and Reporting Program
HI	hazard index
HRA	Health Risk Assessment
HREC	Historical Recognized Environmental Condition
HVAC	heating, ventilation, and air conditioning
ICC	International Code Council

IPCC	United Nations Intergovernmental Panel on Climate Change
IS/MND	Initial Study/Mitigated Negative Declaration
KCEC	KC Engineering Company
kWh	kilowatt-hour
LAFCo	Local Agency Formation Commission
L_{dn}	day/night average sound level
L_{eq}	equivalent sound level
LID	Low Impact Development
LRA	Local Responsibility Area
LUST	Leaking Underground Storage Tank
MBPA	Migratory Bird Protection Act
MBTA	Migratory Bird Treaty Act
MIR	Maximally Impacted Sensitive Receptor
MLD	Most Likely Descendant
MM	Mitigation Measure
MND	Mitigated Negative Declaration
mph	miles per hour
MRZ	Mineral Resource Zone
MT	metric tons
MTC	Metropolitan Transportation Commission
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NapaSan	Napa Sanitation District
NCRWS	Napa County Recycling and Waste Services
ND	Negative Declaration
NFD	Napa Fire Department
NFIP	National Flood Insurance Program
NFPA	National Fire Protection Association
NOI	Notice of Intent
NOP	Notice of Preparation
NO_X	nitrogen oxide
NPD	Napa Police Department
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NRWS	Napa Recycling and Waste Services
NVUSD	Napa Valley Unified School District
NWIC	Northwest Information Center
OEHHA	California Office of Environmental Health Hazard Assessment

OES	Office of Emergency Services
OPR	Governor's Office of Planning and Research
OSHA	Occupational Safety and Health Administration
PCB	polychlorinated biphenyl
PG&E	Pacific Gas and Electric Company
PM_{10}	particulate matter less than 2.5 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
PPV	peak particle velocity
PRC	Public Resources Code
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition
REL	Reference Exposure Level
RM 7	Single-Family Residential with a minimum lot size of 7,000 square feet
RM	Multi-Family Residential
ROG	Reactive Organic Gases
RPS	Renewable Portfolio Standard
RS 10	Single-Family Residential with a minimum lot size of 10,000 square feet
RS 40	Single-Family Residential with a minimum lot size of 40,000 square feet
RS 5	Single-Family Residential with a minimum lot size of 5,000 square feet
RS	Single-Family Residential
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SFHA	Special Flood Hazard Area
SFR	Single-Family Residential
SLCP	Short-lived Climate Pollutant
SOI	Sphere of Influence
SR	State Route
SRA	State Responsibility Area
State Water Board	California State Water Resources Control Board
SWIS	Solid Waste Information System
SWP	State Water Project
SWPPP	Storm Water Pollution Prevention Plan
SWREF	Soscol Water Recycling Facility
TAC	toxic air contaminant
TCR	Tribal Cultural Resource
UCMP	University of California Museum of Paleontology
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service

USGS	United States Geological Survey
UWMP	Urban Water Management Plan
VMT	Vehicle Miles Traveled
ZEV	Zero-Emission Vehicle

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SECTION 1: INTRODUCTION

1.1 - Purpose

The purpose of this Draft Initial Study/Mitigated Negative Declaration (Draft IS/MND) is to identify any potential environmental impacts that would result from implementation of the Browns Valley Subdivision Project (proposed project) in the City of Napa, California. Pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15367, the City of Napa has discretionary authority over the proposed project and is the Lead Agency in the preparation of this Draft IS/MND and any additional environmental documentation required for the proposed project. The intended use of this document is to determine the level of environmental analysis required to adequately analyze the proposed project pursuant to the requirements of CEQA and to provide the basis for input from public agencies, organizations, and interested members of the public.

The remainder of this section provides a brief description of the project location and the primary project characteristics. Section 2 includes an environmental checklist that provides an overview of the potential impacts that may result from project implementation, elaborates on the information contained in the environmental checklist, and provides justification for each checklist response, and Section 3 contains the List of Preparers.

1.2 - Project Location

The proposed project is located on a 3.77-acre site located at 3090 Browns Valley Road, which is within unincorporated Napa County adjacent to the City of Napa's western city limits (Exhibit 1). The project site corresponds to Assessor's Parcel Number (APN) 041-170-009. Regional access is provided by State Route (SR) 29.

The roughly rectangular project site is bounded by Browns Valley Road to the south, a single-family residential property to the west, Browns Valley Creek to the north, and a single-family residential property to the northeast (Exhibit 2). The project site has an elevation of 107 feet above mean sea level (AMSL). The project site is located on the *Napa, California* United States Geological Survey (USGS) 7.5-minute Topographic Quadrangle Map (Latitude 38° 18'15.19" N, Longitude 122° 19'08.48" W).

1.3 - Environmental Setting

1.3.1 - Existing Land Use and Site Conditions

The project site is currently developed with a residential structure, a barn, and various outbuildings. The residential structure is accessed from Browns Valley Road via a paved driveway. Aside from the structures, the project site has mature trees along Browns Valley Creek, which forms the northwesterly property boundary, as well as along the driveway and around the residence. Browns Valley Creek flows west to east and eventually flows into Napa Creek, a tributary to the Napa River. A mapped trace of the West Napa Fault traverses the northern portion of the site from east to west (Exhibit 3).

A barn was constructed around 1947, and two residences were constructed in 1951, with shed structures added in 1968 and 1982.

1.3.2 - Land Use and Zoning

The project site is located in one of several islands of unincorporated land within the City limits. The site is within the City's Sphere of Influence and would require annexation as part of the proposed project approvals. The project site has a current City of Napa General Plan land use designation of Single-Family Residential (SFR)-110, which allows for up to three units per acre.[1] , The proposed project would have a housing density of 3.2 units per acre.[2]

The City of Napa zoning for the project site is Single-Family Residential with a minimum lot size of 10,000 square feet (RS 10) (Exhibit 5).[3] The RS 10 zone implements the Single-Family Residential category of the General Plan and applies to areas intended to develop with a single-family detached land use pattern. RS zones typically include custom home subdivisions on hillsides or constrained sites, which usually have uniform platting patterns, setbacks and building types. This district provides opportunities for housing such as low density detached single-family homes, accessory dwelling units, clustered and planned developments, mobile homes, and manufactured housing.[4]

The proposed minimum lot size would be 7,098 square feet. The applicant requests approval for the use of Small Lot Development Standards to achieve the required density given the site constraints, which include the parcel shape and the need to observe required setbacks from the creek and fault trace. Setbacks would be consistent with Section 17.52.110 of the City of Napa Municipal Code (Napa Municipal Code), which pertains to creek setbacks, and with Section 17.52.470, which pertains to small lots (less than 10,000 square feet in size).

1.3.3 - Surrounding Land Uses

The project site is surrounded by the following land uses:

North: Browns Valley Creek, lands designated Low Density Residential and zoned RS 10.

South: Browns Valley Road, Westwood Hills Nature Park and Carolyn Purr Nature center, lands designated Open Space and Parks and High Density Residential and zoned Parks and Open Space, Single-Family Residential with a minimum lot size of 40,000 square feet (RS 40), and Multi-Family Residential (RM).

East: Single-family residential properties, lands designated Low Density Residential and zoned RS 10, Single-Family Residential with a minimum lot size of 5,000 square feet (RS 5), and Single-Family Residential with a minimum lot size of 7,000 square feet (RS 7).

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1 City of Napa Planning Division. General Plan 1998 Land Use Chapter. Website: https://www.cityofnapa.org/DocumentCenter/View/445/Chapter-1---Land-Use-PDF. Accessed May 25, 2022.
2 Land use density is calculated based on gross acreage.
3 City of Napa. Zoning Map. Website: https://cityofnapa.maps.arcgis.com/apps/webappviewer/index.html?id=85c06f646a1e4896a9099dc1076ea217&extent=-13645050.4719%2C4607164.0679%2C-13578359.1647%2C4638197.5014%2C102100. Accessed May 25, 2022.
4 City of Napa. 2017. Municipal Code 17.08.010 Specific purposes. Website: http://qcode.us/codes/napa/. Accessed May 16, 2022.

West: Single-family residential properties, lands designated Low Density Residential and Very Low Density Residential and zoned RS 10 and RS 40.

1.4 - Project Description

The project applicant, Edenbridge Homes, proposes to construct 11 new single-family homes with landscaping and a new public cul-de-sac street with driveways on a 3.77-acre residential infill site (Exhibit 6). All existing structures and pavement would be demolished in conjunction with the proposed project.

As shown in Table 1, the new residential lots would range in size from 7,098 to 28,092 square feet, with an average of 12,209 square feet. Building setbacks would include 20-foot front setbacks, 30-foot rear setbacks, and 10-foot side setbacks, consistent with zoning regulations, except for single-story homes on Lots 2 and 11, where a reduction to a 5-foot side yard setback would be requested in accordance with Small Lot Development Standards. Small Lot Development Standards also generally apply to Lots 1-3 and 9-11, which would be less than 10,000 square feet. Lot 6 is proposed as a flag lot, meaning that it lies at the end of a long driveway. The driveways to Lots 5 and 6 are both 14-feet-wide and less than 150 feet long, to comply with access requirements.

Table 1: Lot Size and Setback Details

Lot #	Lot Size (square feet)	Front Setback (feet)	Rear Setback (feet)	Side Setback (feet)	Small Lot Development Standards?
1	8,184	20	30	10	Yes
2	8,291	20	30	5	Yes
3	7,150	20	30	10	Yes
4	12,419	20	30	10	No
5	28,092	20	30	10	No
6	26,118	20	30	10	No
7	10,007	20	30	10	No
8	10,007	20	30	10	No
9	7,098	20	30	10	Yes
10	7,098	20	30	10	Yes
11	9,764	20	30	5	Yes

1.4.1 - Floor Plans

The proposed project would include three different floor plans (Exhibit 7). The homes would be between 2,770 and 3,576 square feet. Plan 1 is a 2,770-square-foot, single-story home with four bedrooms, 3.5 bathrooms, and a two-car attached garage. Plans 2 and 3 are 2-story homes with five bedrooms, 3.5 bathrooms, and three-car attached garages. Plan 2 would be 3,019 square feet, and

Plan 3 would be 3,576 square feet. All homes would have front doors oriented to the new cul-de-sac, with prominent front porch elements to diminish the appearance of garage doors. Each lot would also feature a full-length driveway providing off-street parking, as well as a garage.

1.4.2 - Architectural Design

New home exterior designs would include Craftsman, Farmhouse, Prairie, and Ranch styles (Exhibit 8). The Craftsman style is defined by hip and gable roof forms, stucco, and shingle siding for texture and color variation, wood window trim, tapered porch columns with stone veneer, and composition roof shingles. Farmhouse designs would have steeper-pitched gable roofs, stucco and board-and-batten siding, composition roof shingles, and simple wood window trim and porch post-columns typical of the early California farm. Prairie designs would have hip roofs, stucco and horizontal lap siding, built-up porch columns, and composition roof shingles to emphasize horizontal integration with the landscape. The Ranch style would reference Napa's agricultural history with gable and hip roofs, stucco and horizontal lap siding, wood post porch columns with top and bottom trim, brick veneer, and composition roof shingles.

All home designs would include a mix of high-quality exterior finishes intended to complement one another and the existing traditional home styles of the surrounding neighborhood.

1.4.3 - Site Access, Parking, and Circulation

The new single-family homes would be accessed from Browns Valley Road via a new public cul-de-sac street. The new street would include curbs and gutters, sidewalk, and street parking on both sides. The frontage along Browns Valley Road would be improved with a separated sidewalk and landscaped strip. A total of 75 parking spaces would be provided, which exceeds the 65 parking spaces required by the Municipal Code, Section 17.54.040. Of the 75 parking spaces, 31 would be garage spaces, 26 would be driveway spaces, and 18 would be on-street parking spaces.

1.4.4 - Landscaping and Open Space

Landscaping would include trees with moderate irrigation needs, such as red maple (*Acer rubrum*), trident maple (*Acer buergerianum*), and crape myrtle (*Lagerstroemia indica 'dynamite'*), and shrubs with low irrigation needs such as dwarf bottlebrush (*Callistemon v. 'Little John'*) and red buckwheat (*Eriogonum grande rubescens*) (Exhibit 9). Each lot would include its own irrigation system, which would consist of low volume, low flow bubblers for trees, and point source drip irrigation for shrubs and groundcovers. Irrigation design for the site would comply with water conservation mandates and current local water district regulations.

A bioretention area would be provided along the cul-de-sac. A second bioretention area would be provided along the northern end of the project site, adjacent to Lot 6 (Exhibit 9). The proposed project would be divided into four separate drainage management areas.

1.4.5 - Riparian and Faultline Setbacks

Consistent with the Municipal Code Section 17.52.110 Creeks and Other Watercourses, a riparian setback is incorporated along the northern border to meet the required structure setback of two times the depth of the creek bank plus 20 feet, as shown in Exhibit 10.

As discussed above, mapped trace of the West Napa Fault traverses the northern portion of the site from east to west. The proposed project would include a habitable structure setback of 25 feet (Exhibit 10).

1.4.6 - Utilities

The proposed project would include an all-electric design and Tier 2 electric vehicle (EV) charging . Utility connections would include tie-ins to existing water and sewer facilities in Browns Valley Road and construction of on-site bioretention basins and a new storm drain outfall at Browns Valley Creek (Exhibit 11). There is an existing 0.75-inch water service to the property that would be required to be abandoned as part of the proposed project. The parcel is required to annex into the City of Napa for the proposed project to be served by the City of Napa Water Division. The proposed project fronts a 24-inch transmission main, a 6-inch distribution main with an 8-inch tie-in to the transmission main. If existing well(s) are to be abandoned, they would be required to be abandoned per the Napa County Environmental Health requirements. The site is currently served by septic tank and the proposed project would be annexed to Napa Sanitation District (NapaSan). For solid waste/recycling, the current site would be served by Napa County Recycling and Waste Services (NCRWS), and by Napa Recycling and Waste Services (NRWS).

The following utility providers would provide service to the project site:

- Sewer: Napa Sanitation District
- Water: City of Napa Water Division
- Electricity: Pacific Gas and Electric Company (PG&E)
- Storm Drain: City of Napa
- Solid Waste/Recycling: Napa Recycling and Waste Services (NRWS)

1.4.7 - Construction Schedule

Construction of the proposed project is anticipated to begin in January 2023 and would last approximately 14-18 months. Construction activities would consist of demolition, grading, underground utilities and street construction (3-6 months), and building construction (11-12 months).

1.5 - Required Discretionary Approvals

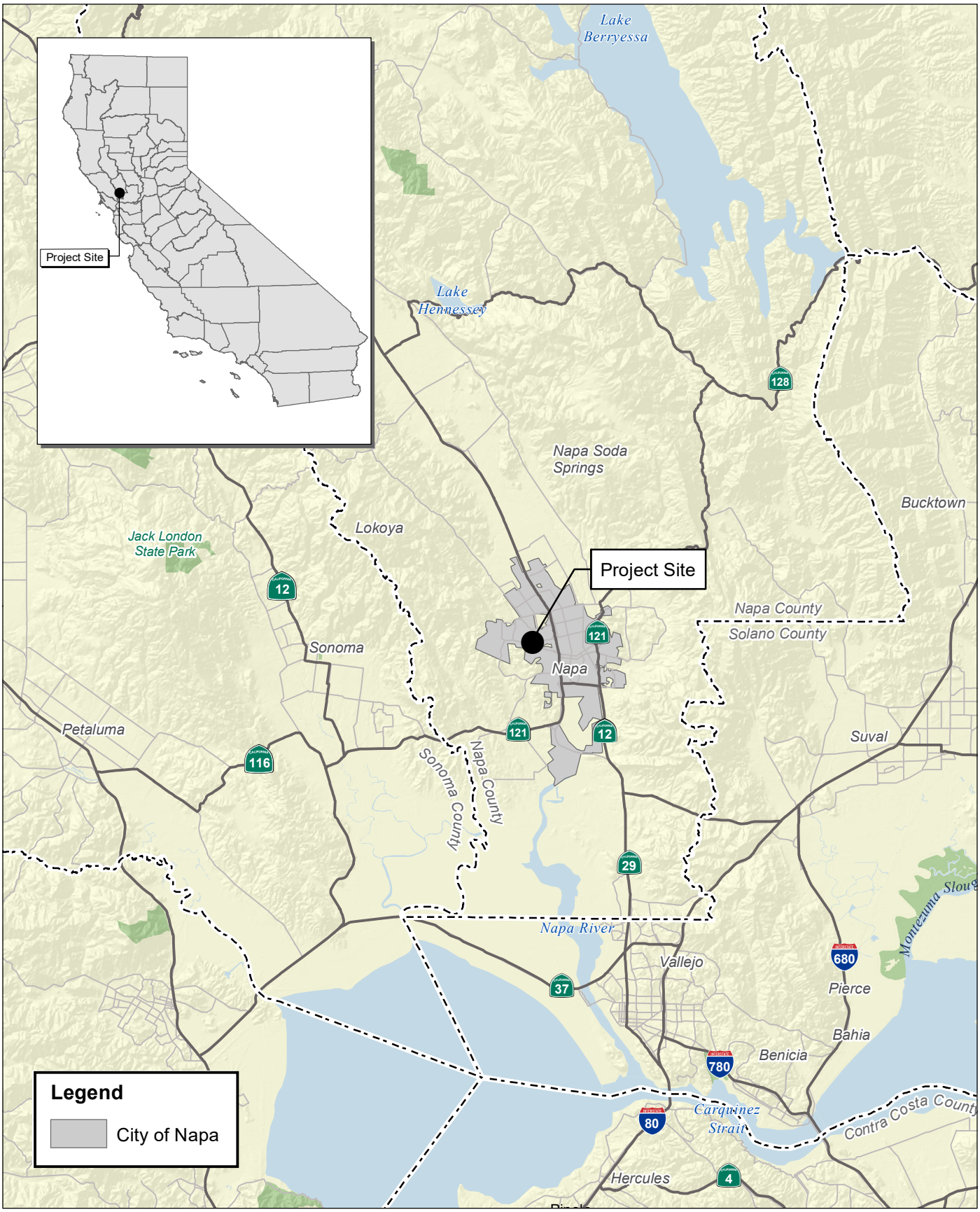
As mentioned previously, the City of Napa has discretionary authority over the proposed project and is the CEQA Lead Agency for the preparation of this Draft IS/MND. In order to implement the proposed project, the project applicant would need to secure the following permits/approvals:

- Annexation to City and Napa Sanitation District (City, NapaSan, and Local Agency Formation Commission [LAFCo] approval)
- Tentative Subdivision Map–Vesting
- Design Review Permit–Subdivision and Homes
- Use Permit–Small Lot Development
- Design Exception Request for the proposed attached sidewalk and cross slope of the new street
- California Department of Fish and Wildlife review or permitting approval of the proposed stormwater detention system within the edge of the project's riparian vegetation
- Regional Water Quality Control Board review or permitting approval of the proposed stormwater detention system within the edge of the project's riparian vegetation

1.6 - Intended Uses of this Document

This Draft IS/MND has been prepared to determine the appropriate scope and level of detail required in completing the environmental analysis for the proposed project. This document will also serve as a basis for soliciting comments and input from members of the public and public agencies regarding the proposed project. The Draft IS/MND will be circulated for a minimum of 30 days, during which comments concerning the analysis contained in the Draft IS/MND should be sent to:

Michael Allen, Senior Planner
City of Napa
1600 First Street
Napa, CA 94559
Phone: 707.257.9530
Email: mallen@cityofnapa.org



Source: Census 2000 Data, The California Spatial Information Library (CaSIL).

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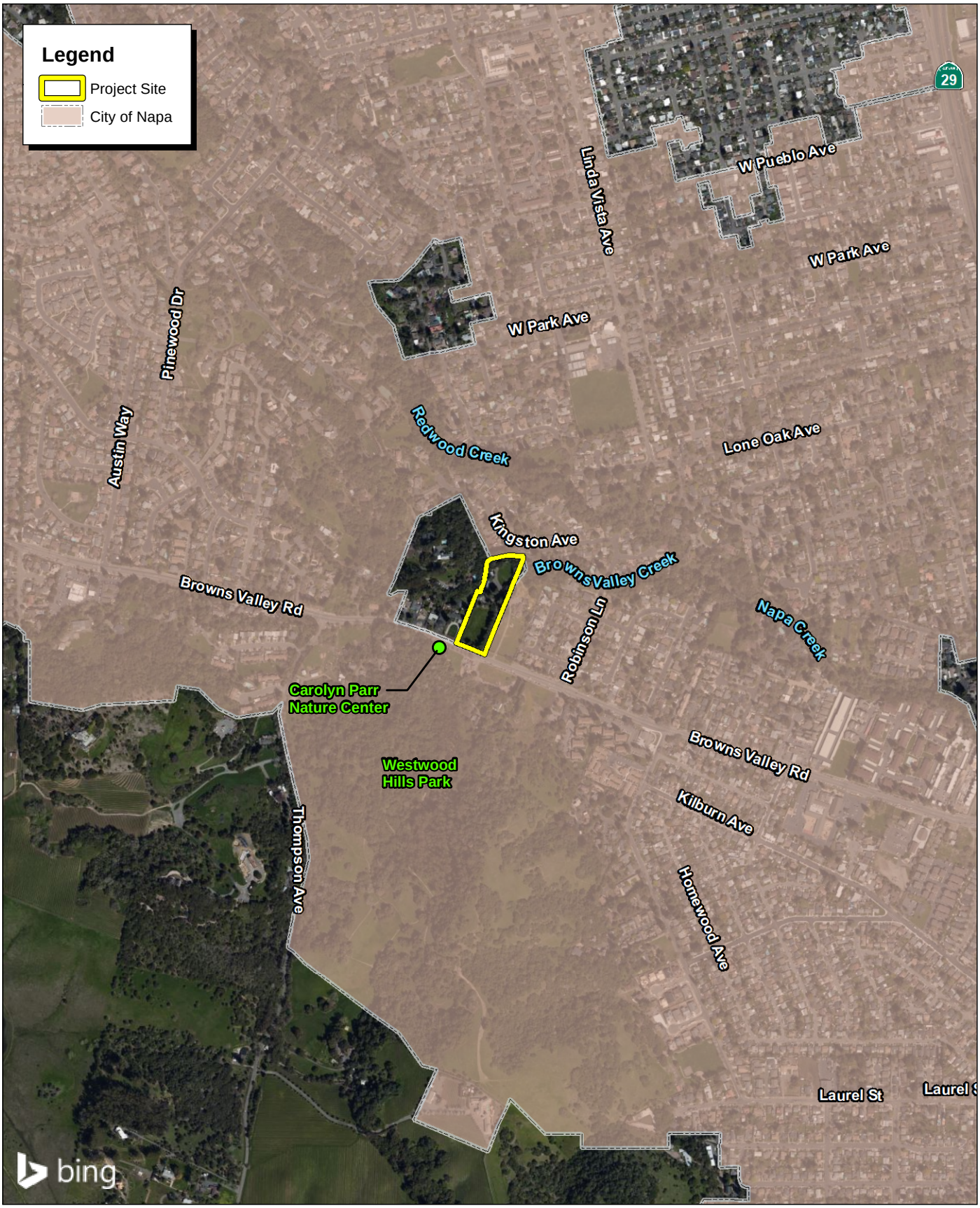
5 2.5 0 5 Miles

Exhibit 1
Regional Location Map

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CITY OF NAPA
BROWNS VALLEY SUBDIVISON PROJECT
INITAL STUDY/MITIGATED NEGATIVE DECLARATION

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Source: Bing Aerial Imagery. County of Napa, 06/09/2022.

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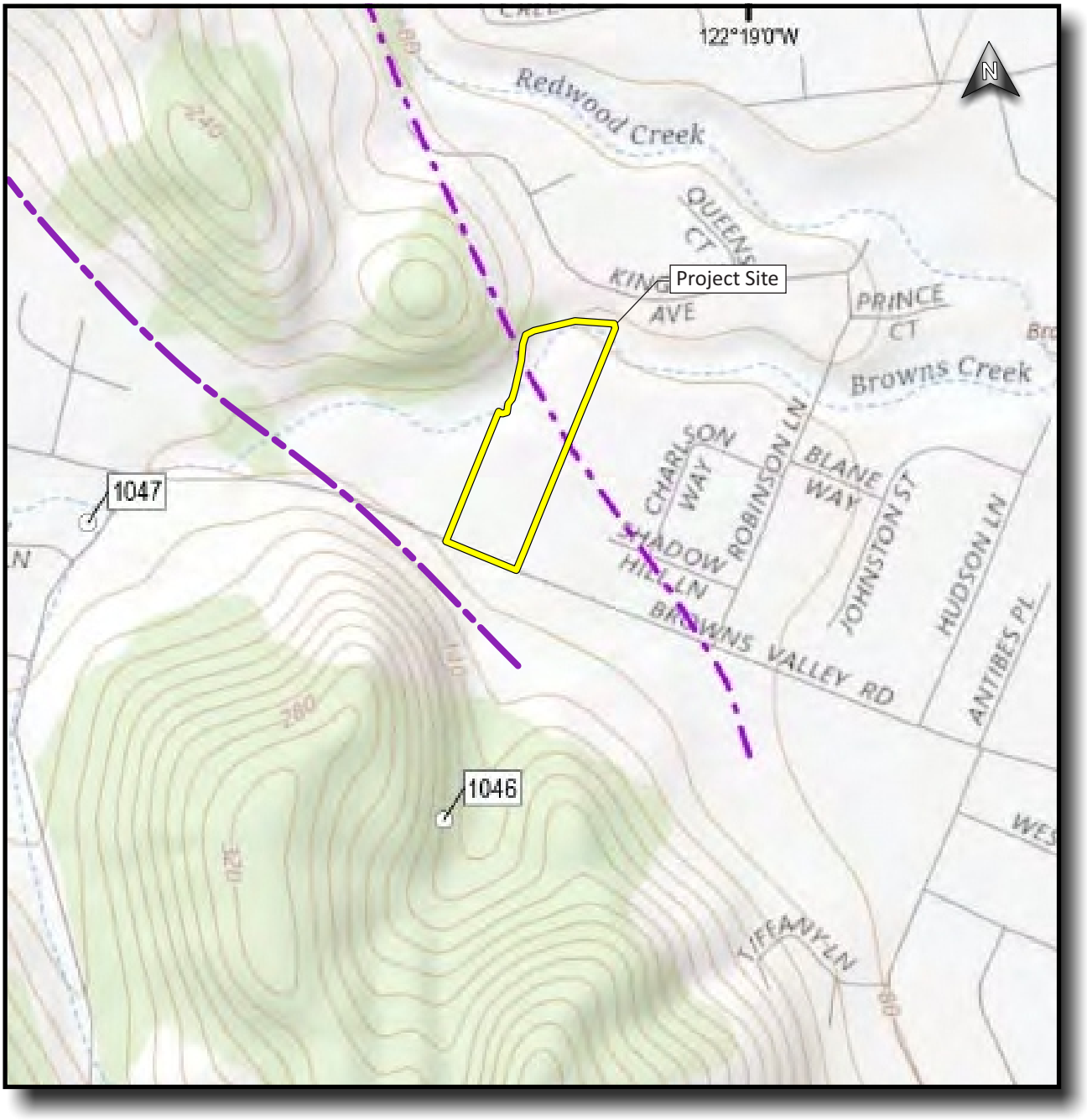
1,000 500 0 1,000 Feet

Exhibit 2
Local Vicinity Map

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CITY OF NAPA
BROWNS VALLEY SUBDIVISION PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

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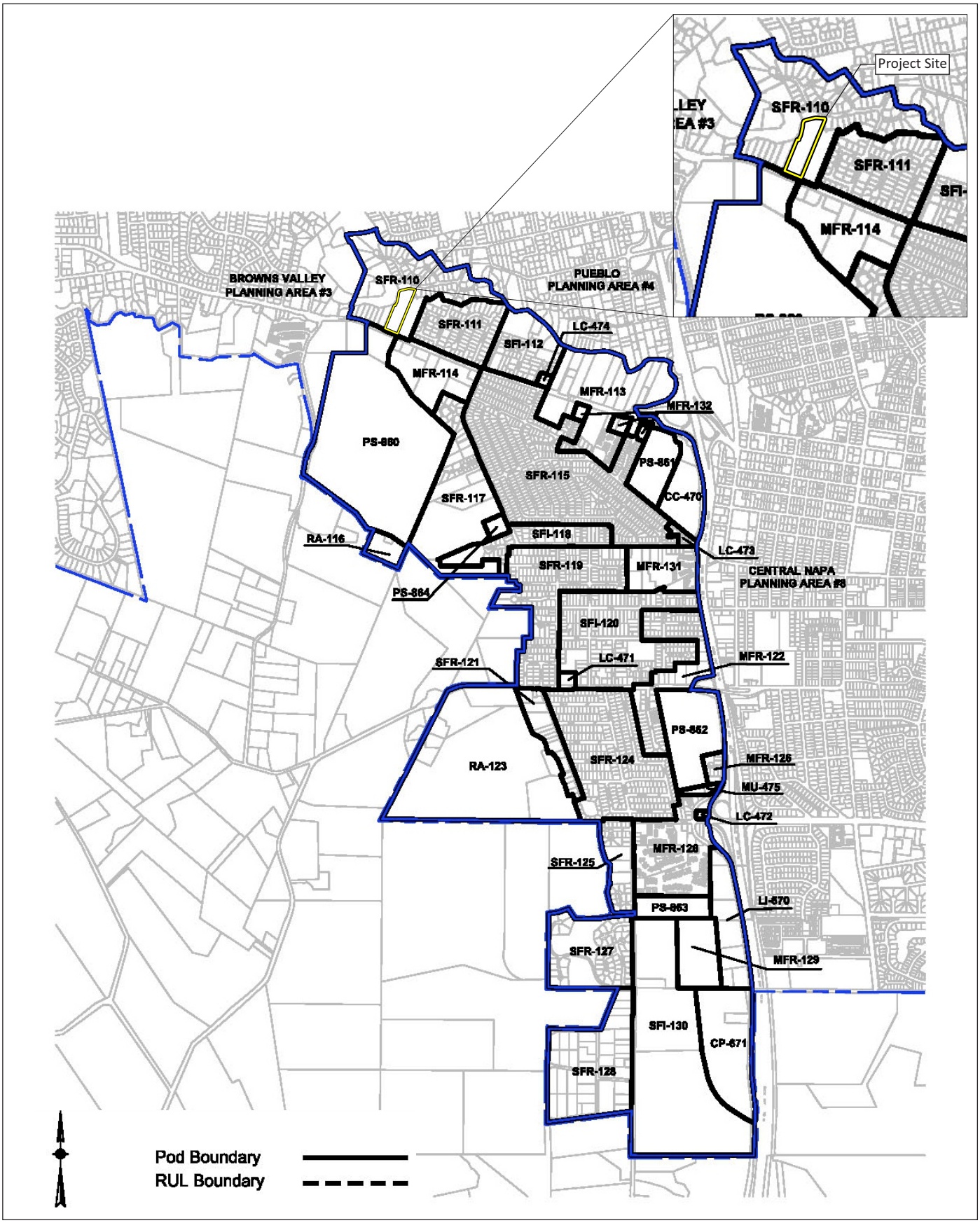


Source: Bajada Geosciences, Inc., 2019.

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Exhibit 3
West Napa Fault Trace on Site

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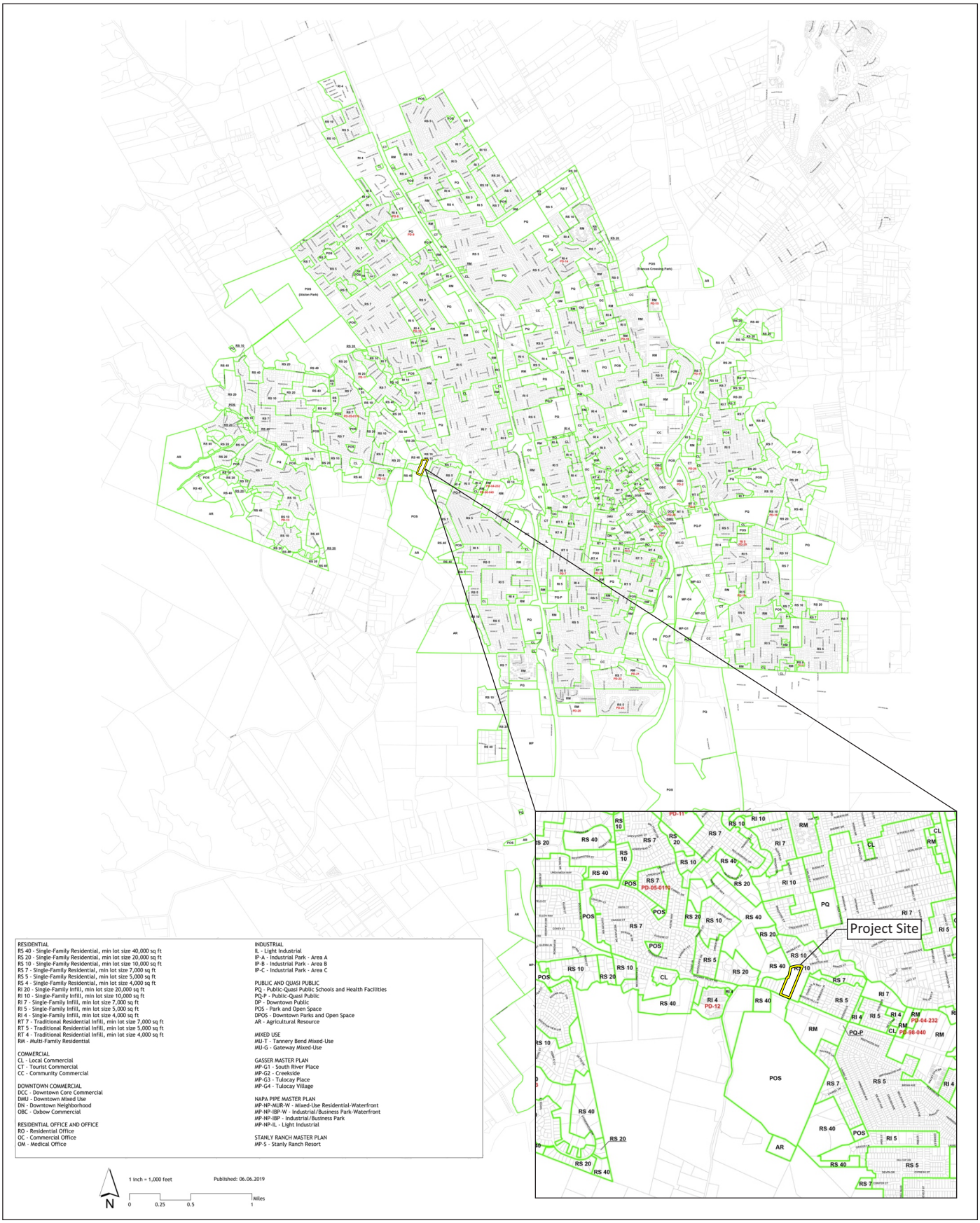


Source: City of Napa, Envision Napa 2020, Westwood Planning Area. City of Napa General Plan Updated 5/11.

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Exhibit 4
Land Use Map

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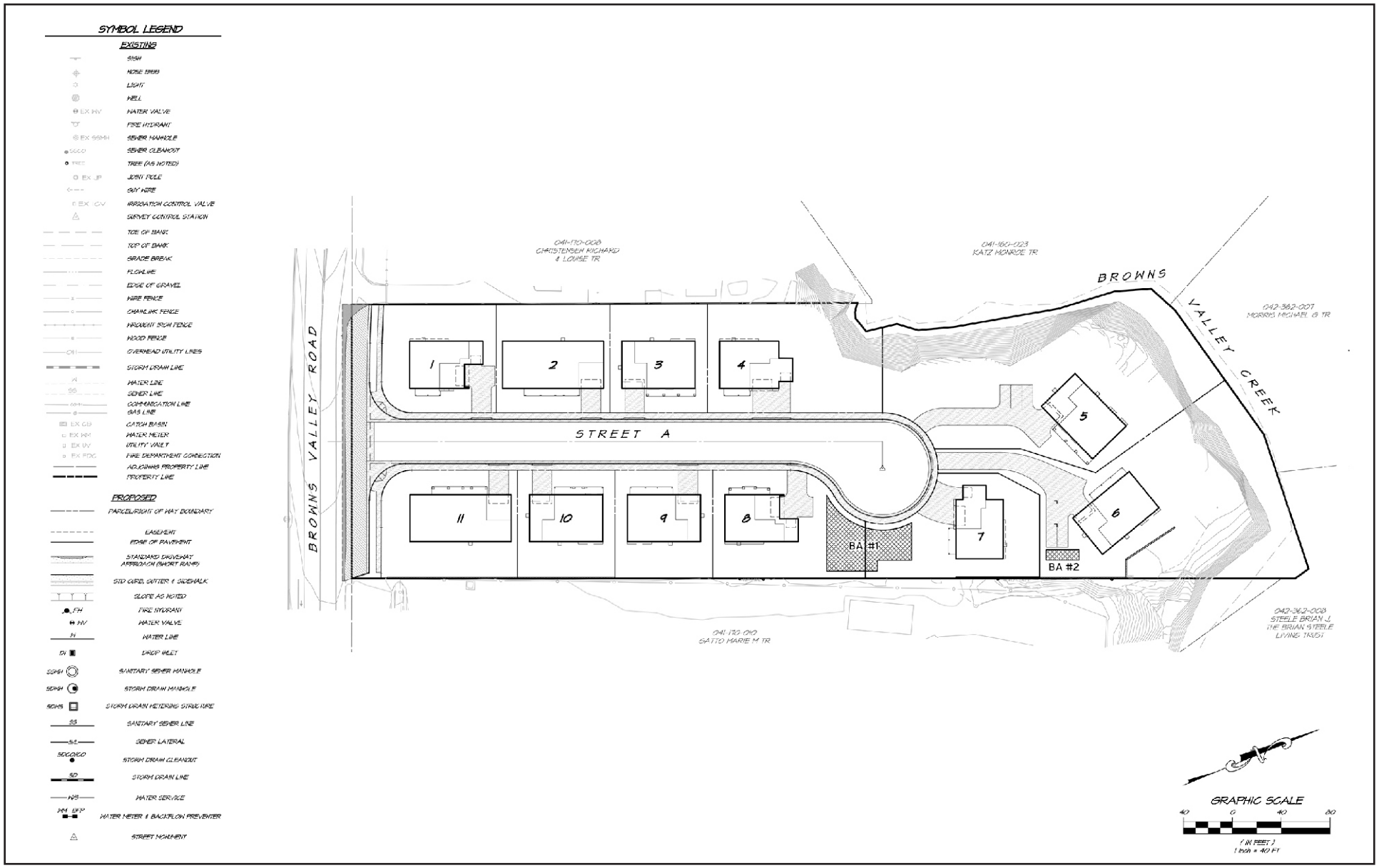


Source: City of Napa, 06/06/2019.

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Exhibit 5
Zoning Map

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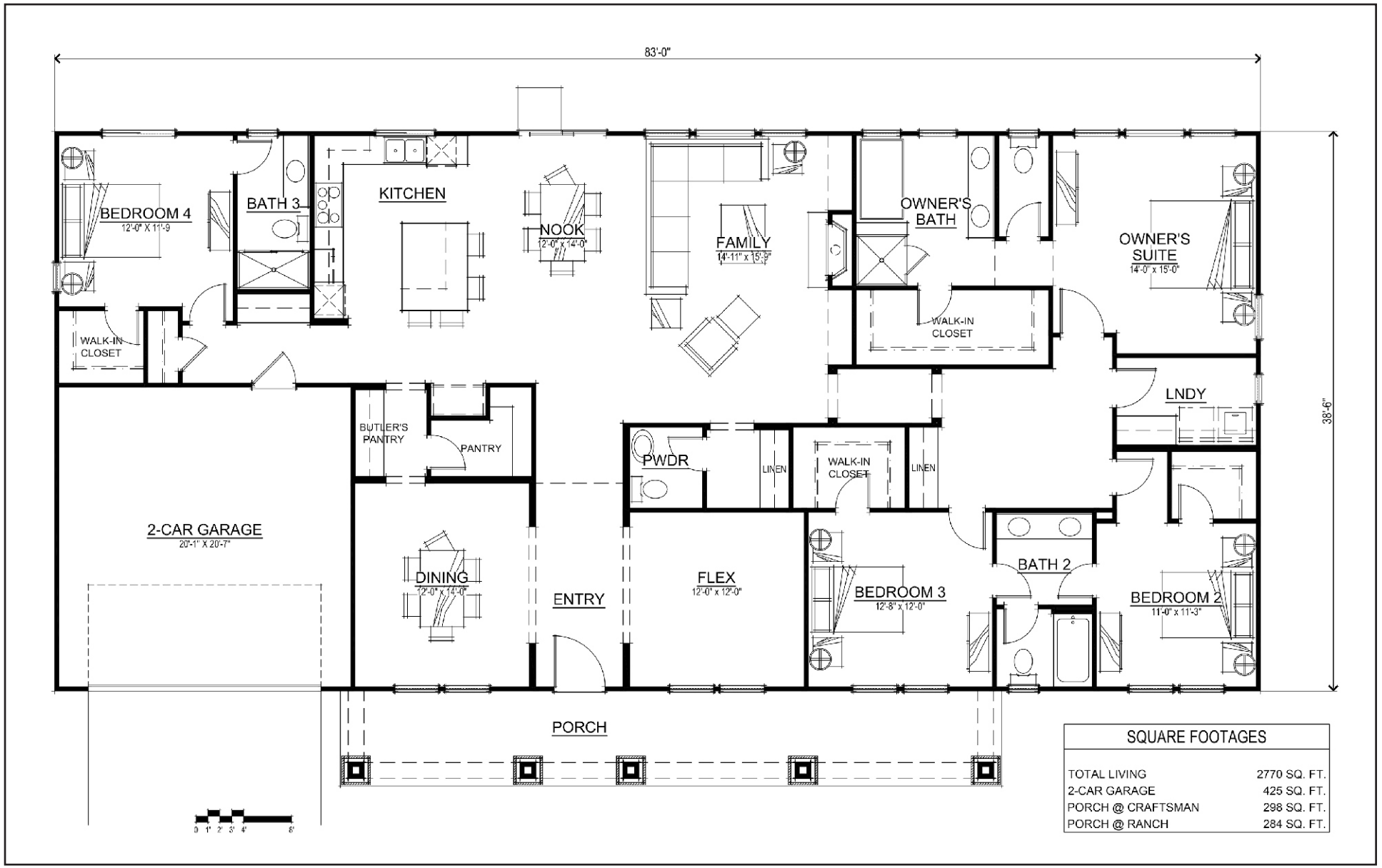


Source: RSA Consulting Civil Engineers + Surveyors, December 22, 2021.

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Exhibit 6
Site Plan

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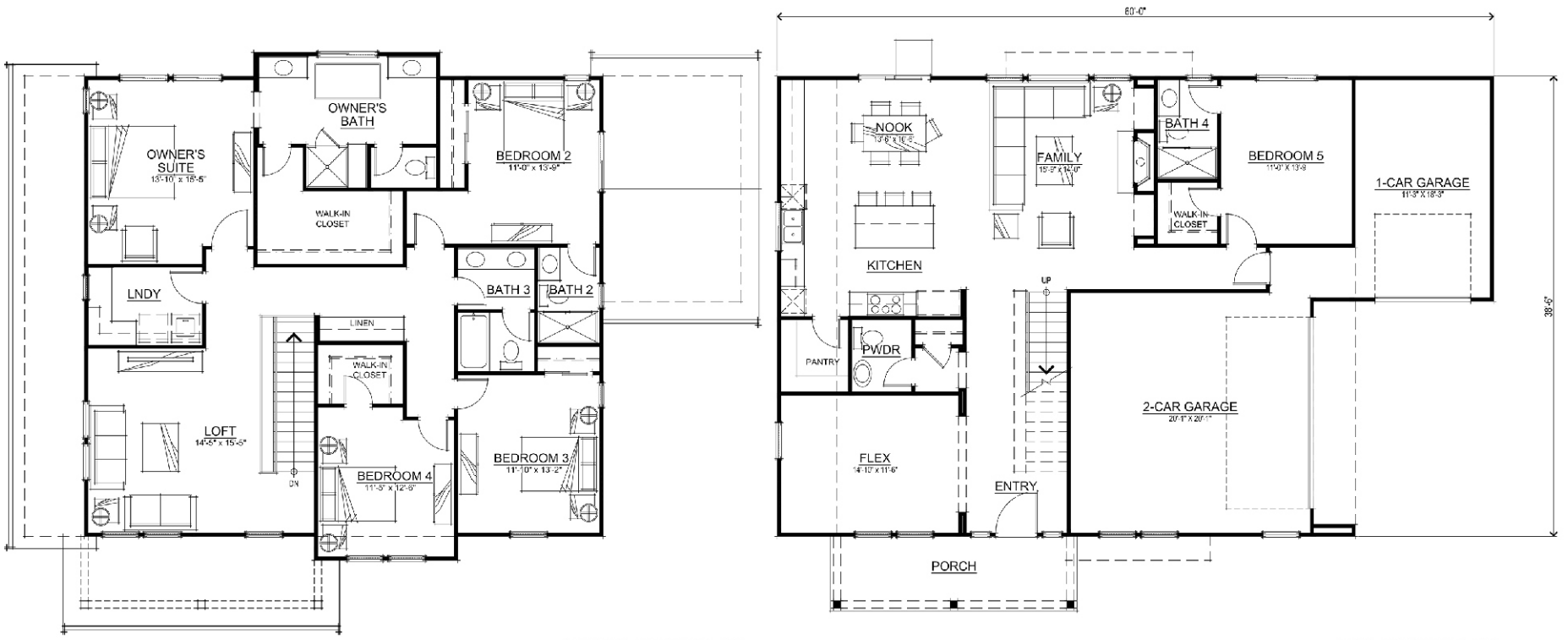
SQUARE FOOTAGES	
TOTAL LIVING	2770 SQ. FT.
2-CAR GARAGE	425 SQ. FT.
PORCH @ CRAFTSMAN	298 SQ. FT.
PORCH @ RANCH	284 SQ. FT.

Source: SDG Architects Inc.

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Exhibit 7a
Floor Plan 1

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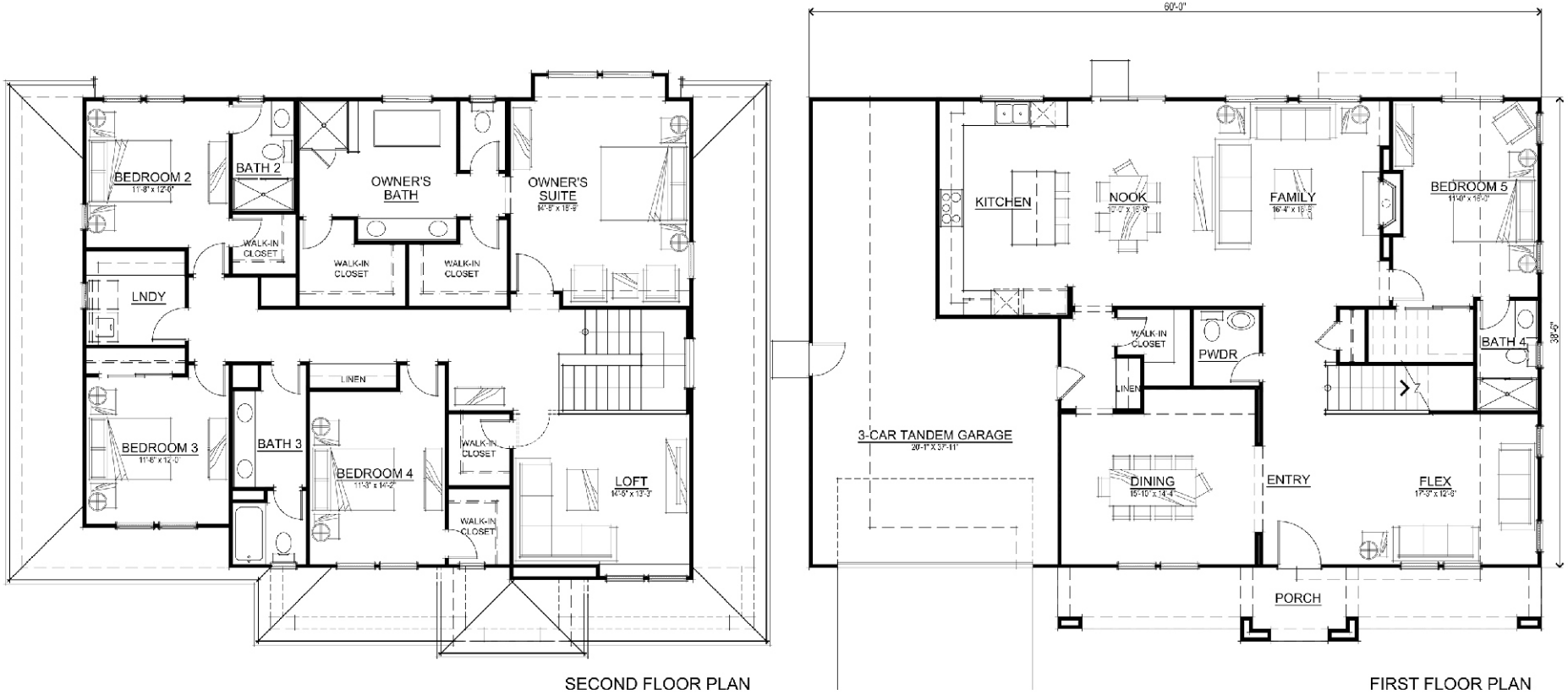
SQUARE FOOTAGES	
FIRST FLOOR	1350 SQ. FT.
SECOND FLOOR	1669 SQ. FT.
TOTAL LIVING	3019 SQ. FT.
3-CAR GARAGE	663 SQ. FT.
3-CAR GARAGE @ PRAIRIE	732 SQ. FT.
PORCH @ CRAFTSMAN	198 SQ. FT.
PORCH @ FARMHOUSE	129 SQ. FT.
PORCH @ PRAIRIE	158 SQ. FT.

Source: SDG Architects Inc.

FIRSTCARBON SOLUTIONS™

Exhibit 7b
Floor Plan 2

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SQUARE FOOTAGES	
FIRST FLOOR	1707 SQ. FT.
SECOND FLOOR	1869 SQ. FT.
TOTAL LIVING	3576 SQ. FT.
3-CAR TANDEM GARAGE	603 SQ. FT.
PORCH @ CRAFTSMAN	266 SQ. FT.
PORCH @ FARMHOUSE	251 SQ. FT.
PORCH @ PRAIRIE	208 SQ. FT.

Source: RSA Consulting Civil Engineers + Surveyors, December 22, 2021.

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Exhibit 7c
Floor Plan 3

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PLAN 1 - CRAFTSMAN

PLAN 2 - FARMHOUSE

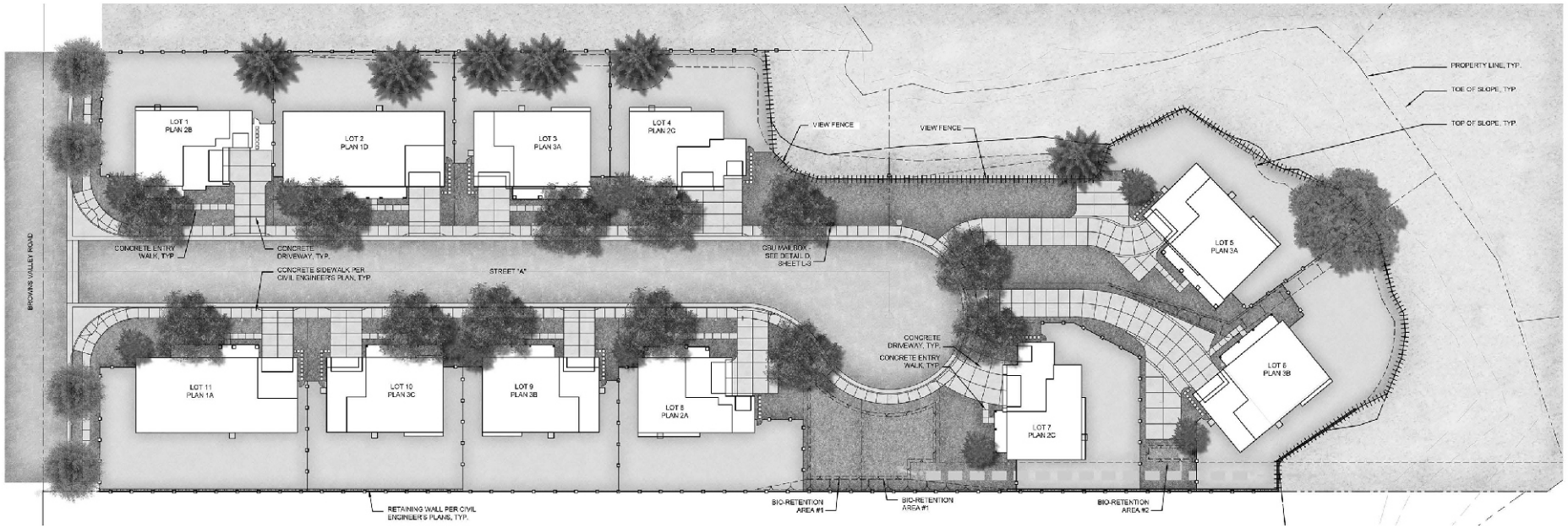
PLAN 3 - PRAIRIE

Source: SDG Architects Inc.

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Exhibit 8
Architectural Styles

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IRRIGATION NOTES

1. THE IRRIGATION DESIGN FOR THE SITE SHALL COMPLY WITH THE GOVERNOR'S WATER CONSERVATION MANDATE AND CURRENT LOCAL WATER DISTRICT REGULATIONS (MWELO).
2. THE IRRIGATION SYSTEM WILL BE AUTOMATICALLY CONTROLLED BY AN ET IRRIGATION CONTROLLER CAPABLE OF MULTIPLE PROGRAMMING AND INDEPENDENT TIMING OF INDIVIDUAL IRRIGATION SYSTEMS. THE CONTROLLER WILL HAVE A 24-HOUR CLOCK TO ALLOW FOR MULTIPLE START TIMES AND REPEAT CYCLES TO ADJUST FOR SOIL PERCOLATION RATES.
3. THE IRRIGATION SYSTEM WILL CONSIST OF LOW VOLUME, LOW FLOW BUBBLERS FOR TREES, AND POINT SOURCE DRIP IRRIGATION FOR SHRUBS AND GROUNDCOVERS.
4. PLANTS WILL BE GROUPED ONTO SEPERATE VALVES ACCORDING TO SUN EXPOSURE AND WATER USE TO ALLOW FOR IRRIGATION APPLICATION BY HYDROZONE. THE IRRIGATION SCHEDULING WILL REFLECT THE REGIONAL EVAPO-TRANSPIRATION RATES.
5. ALL MWELO DOCUMENTAION INCLUDING IRRIGATION PLANS AND WATER USE CALCULATIONS SHALL BE INCLUDED WITH THE LANDSCAPE CONSTRUCTION DOCUMENTS FOR REVIEW AND APPROVAL.

FENCE LEGEND

- 6' GOOD NEIGHBOR FENCE SEE DETAIL A / SHEET L-3
- 6' GOOD NEIGHBOR FENCE ON RETAINING WALL - SEE DETAIL C / SHEET L-3
- 6' GOOD NEIGHBOR FENCE WITH GATE SEE DETAIL B / SHEET L-3
- VIEW FENCE - SEE DETAIL E / SHEET L-3

PLANTING NOTES

1. FINAL TREE LOCATIONS TO BE DETERMINED WHEN FINAL UTILITY LOCATIONS ARE APPROVED.
2. PROPOSED TREE CANOPIES ARE SHOWN AT 75% MATURE GROWTH DIAMETER IN ORDER TO ENSURE THERE IS SUFFICIENT ROOM FOR TREE GROWTH AND HEALTH.
3. ALL ABOVE GRADE UTILITIES WILL BE SCREENED WITH EVERGREEN SHRUBS AS PER CITY REQUIREMENTS.

0 30' 60' 120'

SCALE: 1"=30'-0"

Source: Studio 1515 Landscape Architecture, December 23, 2021.

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Exhibit 9
Landscaping Plan

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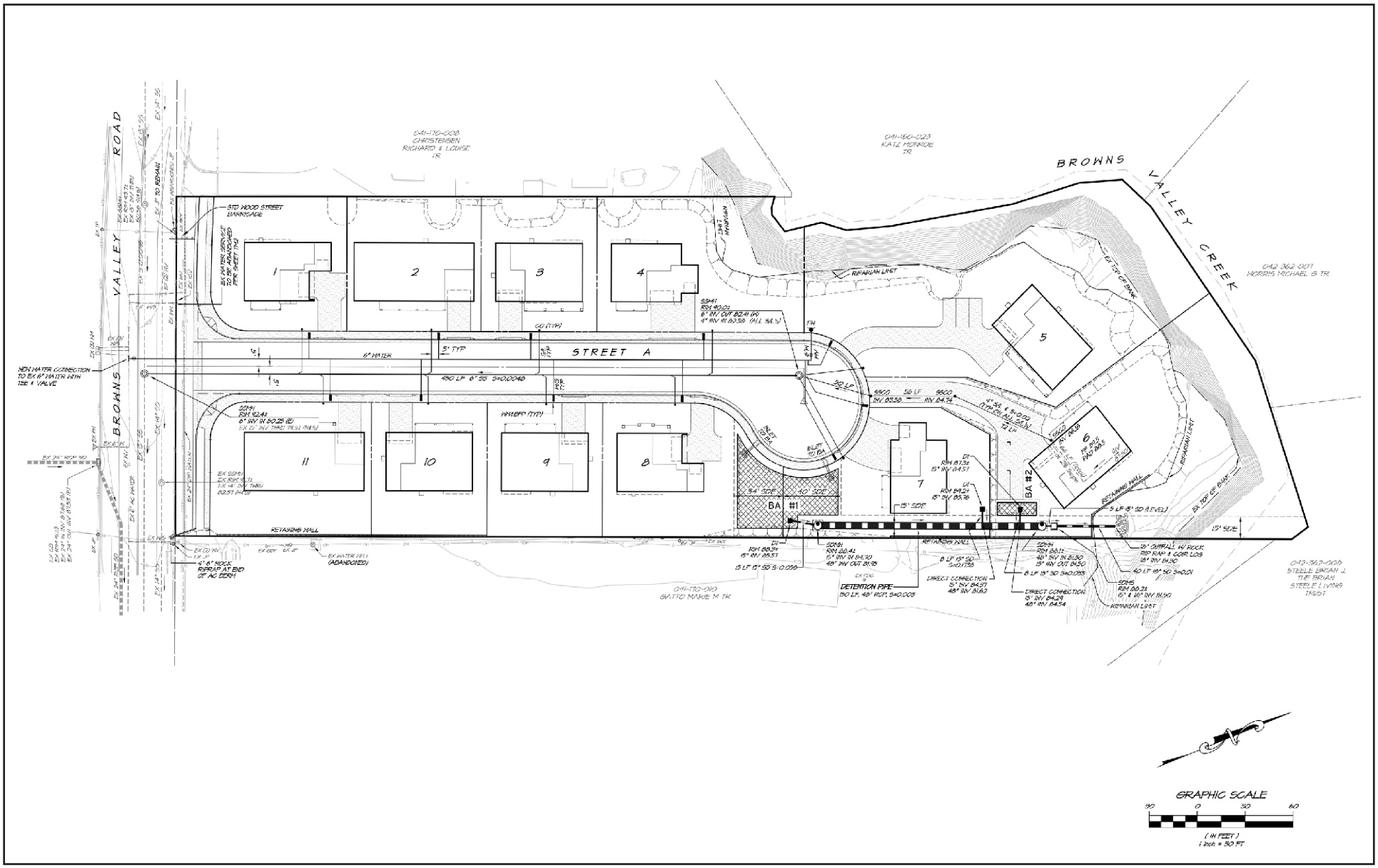
Source: Bing Aerial Imagery. RSA Consulting Civil Engineers + Surveyors, May 2022.

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120 60 0 120 Feet

Exhibit 10
Riparian and Fault Trace Setbacks

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Source: RSA Consulting Civil Engineers + Surveyors, December 22, 2021.

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Exhibit 11
Utilities Plan

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SECTION 2: ENVIRONMENTAL CHECKLIST AND ENVIRONMENTAL EVALUATION

Environmental Factors Potentially Affected

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

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

Environmental Determination

On the basis of this initial evaluation:

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

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions 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 measure 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.

Date: 9/15/2022 Signed: _____

CITY OF NAPA SENIOR PLANNER

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

Environmental Evaluation

Setting

Scenic Highways and Corridors

The California Scenic Highway Program was established in 1963 by the State Legislature with the responsibility of protecting and enhancing California's natural scenic beauty by identifying those portions of the State Highway System which, together with adjacent scenic corridors, require special conservation treatment. Scenic corridors consist of land that is visible from, adjacent to, and outside the highway right-of-way, and is comprised primarily of scenic and natural features.[5] The City of Napa does not contain any officially designated State Scenic Highways. The nearest State Scenic Highway is a segment of SR-12 that is located approximately 9.31 miles west of the project site on the west side of the Mayacama Mountains. The segment of SR-29 that is eligible for designation as a State Scenic Highway is approximately 1.21 miles northeast of the proposed project site.[6] Because of distance and intervening topography and structures, the project site is not visible from either SR-12 or SR-29.

The General Plan Goal LU-1.6 designates SR-29, SR-121, and SR-221 as scenic corridors.[7] The project site is approximately 4,073 feet west of SR-29, 2.23 miles west of SR-121, and 2.95 miles northwest

[5] California Department of Transportation (Caltrans). 2018. State Scenic Highway System Map. Website: https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways. Accessed Jun 23, 2022.
[6] Ibid.
[7] City of Napa. 1998. General Plan Chapter 1 – Land Use. Website: https://www.cityofnapa.org/DocumentCenter/View/445/Chapter-1---Land-Use-PDF. Accessed June 23, 2022.

of SR-221. Because of distance and intervening topography and structures, the project site is not visible from any of these highways.

Scenic Resources

Significant views available from public vantage points, such as from SR-29 or from the Napa River area, are of rolling hills and mountain ridges to the east and west that serve as a backdrop to the scenic valley floor. In addition, the texture, pattern, and color of the vineyards outside of the City are dominant visual features. Riparian corridors are another important visual resource in the Napa area. Riparian corridors occur along the Napa River and its primary, secondary, and tertiary tributaries. These wooded areas extend inland from the riverbanks and function as linear oases among the residential subdivisions. In many areas throughout the City, however, the Napa River and its tributaries are mostly hidden from view, and public access along the banks is discontinuous and unimproved.[8]

City of Napa Policy Resolution No. 27

The City adopted Policy Resolution No. 27 originally in August 1992 and has most recently amended the Resolution in December 2002. The Resolution includes the City's standard mitigation measures that are imposed on all development projects, unless otherwise authorized by the City.[9] Any or all of the mitigation measures listed in the Resolution may be imposed as conditions of project approval. The mitigation measures are periodically updated, as needed. The following aesthetics measures listed in Resolution No. 27 are applicable to the proposed project:

- All new lighting on private property shall be designed to eliminate direct light spilling onto adjacent residential properties.
- Low-level lighting shall be utilized in any parking area(s) opposed to elevated high-intensity light standards.
- All new utilities shall be placed underground.
- The Developer shall comply with the following:
  - The Plans submitted for the project improvements or building permit, whichever comes first, shall include a final landscape and irrigation plan designed and signed by a licensed landscape architect or landscape contractor. The final landscape plans shall specify that (1) all plant materials be certified by the Napa County Agricultural Commissioner inspection program for freedom from glassy winged sharpshooter or other pests identified by the Agricultural Commissioner and (2) the Agricultural Commissioner's Office shall be notified of all impending deliveries of live plants with points of origin outside of Napa County so that inspection can be arranged. No improvement plans shall be approved or building permit issued until the Planning Department approves the landscape and irrigation plan. Prior to occupancy, the licensed professional who signed the final landscape and irrigation plan shall certify in writing to the Planning Director that he/she has inspected and approved the

[8] City of Napa. 2022. City of Napa General Plan Update Draft Environmental Impact Report. March. Website: https://www.dropbox.com/s/ggaqbzvite5tg3v/Napa_GPU_PublicDEIR_030722.pdf?dl=0. Accessed August 2, 2022.

[9] City of Napa. 1992. Policy Resolution No. 27. Website: https://portal.laserfiche.com/Portal/DocView.aspx?id=139289&repo=r-33d8ae42. Accessed June 23, 2022.

installation of landscaping and irrigation and has found them to be consistent with the approved plans including, but not limited to, the certifications and inspections by the Agricultural Commissioner as well as that the systems are in working order. A substitution of an alternate licensed professional may be allowed by the Planning Director up on a showing of good cause.

- Prior to occupancy, Developer shall execute and record the City's Landscape Maintenance Agreement.

- The Developer shall secure separate architectural review approval for any signage for the project.

Would the project:

a) Have a substantial adverse effect on a scenic vista?

Less than significant impact. A scenic vista is a viewpoint that provides a distant view of highly valued natural or man-made landscape features for the benefit of the general public. Typical scenic vistas are locations where views of rivers, hillsides, and open space areas can be obtained as well as locations where valued urban landscape features can be viewed in the distance. As noted in the setting section, the General Plan identifies rolling hills, mountain ridges, and vineyards as scenic resources; however, based on distance and intervening topography and structures, none of these resources is visible from the project site. Browns Valley Creek is located adjacent to the project site and would be preserved by the proposed project (see Section 2.4, Biological Resources, for more information). Impacts would be less than significant.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a State Scenic Highway?

No impact. As discussed previously, the project site is not visible from any official designated or eligible State Scenic Highways or City-designated scenic corridors. Therefore, the proposed project would have no impact on the scenic resources located within view of a State Scenic Highway.

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

Less than significant impact. The proposed project is located in an urbanized area within the City of Napa. The proposed project is consistent with the land use and zoning designations of the site. With the approval of the Small Lot Development Standards, given on-site constraints such as the Browns Valley Creek and fault setbacks, the proposed project would be consistent with the required density for the RS-10 zone district. The proposed project would be required to comply with design and landscaping requirements of Napa Policy Resolution No. 27 and the architectural requirements of the Napa Residential Design Guidelines and the General Plan,[10] and therefore would not conflict

[10] City of Napa Planning Department. 2004. Residential Design Guidelines. Website: http://www.cityofnapa.org/DocumentCenter/View/402/Residential-PDF?bidId=. Accessed June 23, 2022.

with applicable zoning or other regulations governing scenic quality. Impact would be less than significant.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less than significant impact. Excessive or inappropriately directed lighting can adversely affect nighttime views by reducing the ability to see the night sky and stars. Glare can be derived from unshielded or misdirected lighting sources. Reflective surfaces (i.e., polished metal) can also cause glare. Impacts associated with glare can range from simple nuisance to potentially dangerous situations (i.e., if glare is directed into the eyes of motorists). Light-sensitive land uses in the area may include the residential neighborhoods to the east and west of the project site.

The project site currently contains one single-family residence, a barn and several outbuildings. Mature trees line along Browns Valley Creek at the northern portion of the site and along the project boundary. The proposed project consists of removing the existing structures on the project site and constructing 11 single-family residences, which has the potential to create new sources of light and glare additional to the light from surrounding homes and from car headlights on Browns Valley Road. However, the proposed project would be subject to Section 17.08.040 of the Municipal Code which specifies that in residential districts, exterior lighting shall be directed or shielded so as to prevent glare onto public streets and abutting residential properties.[11] Therefore, impact would be less than significant.

Mitigation Measures

None required.

[11] City of Napa. 2022. City of Napa Municipal Code. Website: https://library.qcode.us/lib/napa_ca/pub/municipal_code/item/city_of_napa_municipal_code-title_17-chapter_17_08-17_08_040. Accessed June 24, 2022.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
2.2 Agriculture and Forestry Resources *In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:*				
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 nonagricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Environmental Evaluation

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the ARB.

Setting

The California Department of Conservation (DOC) Farmland Mapping and Monitoring Program (FMMP) produces maps that display farmland within the State. The DOC Inventory Map confirms that the project site is classified as Urban and Built-Up Land.[12] The FMMP classifies Urban and Built-Up Land as lands used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.[13] There are no designated agricultural lands or forested areas within the immediate project vicinity.

Would the project:

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 nonagricultural use?

No impact. The DOC FMMP mapping for the City of Napa designates the project site as Urban and Built-Up Land.[14] As such, the project site does not contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, and, therefore, would not result in conversion of such land to nonagricultural use. There would be no impact.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No impact. The site is zoned RS-10 which is intended to provide areas with detached, single-family units.[15] Thus, the project site is not zoned for agricultural use and is not encumbered by a Williamson Act contract. Therefore, the proposed project would not conflict with existing agricultural zoning or with a Williamson Act contract. There would be no impact.

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

No impact. As previously mentioned, the site is zoned RS-10 , which is intended for development of single-family units. The project site is not zoned as forest land or timberland. Therefore, the proposed project would not conflict with existing zoning or cause rezoning of forest land or timberland. No impact would occur.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No impact. According to the California Public Resources Code, "forest land" is land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that

[12] California Department of Conservation. 2016. California Important Farmland Finder. Website: https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed June 9, 2022.
[13] Ibid.
[14] California Department of Conservation. 2016. California Important Farmland Finder. Website: https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed June 9, 2022.
[15] City of Napa Planning Division. 1998. General Plan - Land Use Chapter. Website: https://www.cityofnapa.org/DocumentCenter/View/445/Chapter-1---Land-Use-PDF. Accessed June 10, 2022.

allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.[16] The project site is zoned RS-10 and is not zoned for forest use, precluding the possibility of a conflict with a forest zoning designation. Furthermore, the project site does not contain nor is adjacent to any forested land. Therefore, the proposed project would not cause a loss of forest land or conversion of forest land to non-forest use. No impact would occur.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forest land to non-forest use?

No impact. The proposed project would not result in impacts to mapped farmland or forested land. The proposed project would not result in changes that could cause the conversion of farmland or forested lands to nonagricultural or non-forested lands, respectively, as neither exists on the project site as well as on the adjacent project sites. No impact would occur.

Mitigation Measures

None required.

[16] Thomson Reuters Westlaw. 2019. California Code, Public Resources Code 12220.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
2.3 Air Quality *Where available, the significance criteria established by the applicable Air Quality Management District or Air Pollution Control District may be relied upon to make the following determinations.* *Would the project:*				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard?	☐	☒	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
d) Result in other emissions (such as those leading to odors or) adversely affecting a substantial number of people?	☐	☐	☒	☐

Environmental Evaluation

Where available, the significance criteria established by the applicable Air Quality Management District or Air Pollution Control District may be relied upon to make the following determinations.

Setting

The proposed project is located in the City of Napa in Napa County. It is within the San Francisco Bay Area Air Basin (Air Basin), where the Bay Area Air Quality Management District (BAAQMD) regulates air quality. The United States Environmental Protection Agency (EPA) is responsible for identifying nonattainment and attainment areas for each criteria pollutant within the Air Basin. The Air Basin is designated nonattainment for State standards for 1-hour and 8-hour ozone, 24-hour respirable particulate matter less than 10 microns in diameter (PM_{10}), annual PM_{10}, and annual fine particulate matter less than 2.5 microns in diameter ($PM_{2.5}$).[17]

The BAAQMD has adopted several air quality policies and plans to address regional air quality standards, the most recent of which is the 2017 Clean Air Plan. The 2017 Clean Air Plan was adopted in April of 2017 and serves as the regional Air Quality Plan (AQP) for the Air Basin for attaining National Ambient Air Quality Standards (NAAQS). The primary goals of the 2017 Clean Air Plan are to protect public health and protect the climate. The 2017 Clean Air Plan acknowledges that the BAAQMD's two stated goals of protection are closely related. As such, the 2017 Clean Air Plan identifies a wide range of control measures intended to decrease both criteria pollutants and greenhouse gas (GHG) emissions. The EPA has established NAAQS for six of some of the most

[17] Bay Area Air Quality Management District (BAAQMD). 2017. California Environmental Quality Act. Air Quality Guidelines.

common air pollutants – carbon monoxide (CO), lead, ground-level ozone, particulate matter, nitrogen dioxide, and sulfur dioxide – known as "criteria" air pollutants. GHGs are gaseous compounds in the atmosphere that are capable of absorbing infrared radiation, thereby trapping and holding heat in the atmosphere. By increasing the heat in the atmosphere, GHGs are responsible for the greenhouse effect, which ultimately leads to global warming. The 2017 Clean Air Plan also accounts for projections of population growth provided by the Associated of Bay Area Governments (ABAG) and Vehicle Miles Traveled (VMT) provided by the Metropolitan Transportation Commission (MTC) and identifies strategies to bring regional emissions into compliance with federal and State air quality standards. A project would be judged to conflict with or obstruct implementation of the 2017 Clean Air Plan if it would result in substantial new regional emissions not foreseen in the air quality planning process. This section will discuss air quality impacts resulting from the proposed project.

Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less than significant impact with mitigation incorporated. The BAAQMD does not provide a numerical threshold of significance for project-level consistency analysis with AQPs. Therefore, the following criteria will be used for determining a project's consistency with the AQP.

- Criterion 1: Does the project support the primary goals of the AQP?
- Criterion 2: Does the project include applicable control measures from the AQP?
- Criterion 3: Does the project disrupt or hinder the implementation of any AQP control measures?

Criterion 1

The primary goals of the 2017 Clean Air Plan, the current AQP to date, are to:

- Attain air quality standards.
- Reduce population exposure to unhealthy air and protect public health in the Bay Area.
- Reduce GHG emissions and protect the climate.

A measure for determining whether the proposed project supports the primary goals of the AQP is if the proposed project would not result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the air quality plans. This measure is determined by evaluating whether the proposed project was reasonably accounted for the in the AQP.

The City's General Plan Housing Element was updated in 2015,[18] which was prior to the BAAQMD's adoption of the latest 2017 AQP. The proposed project site is designated SFR by the General Plan.

[18] City of Napa. 2015. Housing Element 2015-2023.

According to the General Plan, the proposed project site is designated SFR 110 in the City's Westwood Planning Area. The current General Plan land use designation for this location allows up to three dwelling units per acre. As the proposed project would involve the construction of 11 single-family homes on a 3.77-acre site, the proposed project would result in an average of 2.9 dwelling units per acre and be consistent with its land use designation. As the BAAQMD's latest AQP utilizes growth projections from Plan Bay Area 2040, which itself relies on growth projections and land use patterns from local general plans and was adopted after the adoption of the City's General Plan, development of the project site has been reasonably accounted for in the BAAQMD's latest AQP.

An additional consideration is the fact that the proposed project would comply with the air quality-related mitigation measures that the City has adopted pursuant to its 2015 Housing Element, specifically the Environmental Impact Report (EIR) that was prepared for that document. The EIR's Mitigation Measure (MM) AIR-2a would require the proposed project to manage its fugitive dust (PM_{10}) emissions by implementing various Best Management Practices (BMPs) for control of fugitive dust emissions as recommended by the BAAQMD. To account for these practices, the proposed project would be required to implement MM AIR-1, which incorporates the BMPs that are outlined in the EIR's MM AIR-2a. The EIR's MM AIR-2b would require the proposed project to reduce its exhaust emissions from off-road construction equipment by implementing additional management practices that have been recommended by the BAAQMD. To account for these practices, the proposed project would be required to implement MM AIR-2.

Furthermore, as discussed in Impact 2.3(b), implementation of the proposed project would not exceed the BAAQMD operational or construction thresholds for criteria pollutants. For these reasons, the proposed project would be consistent with the first criterion.

Criterion 2

The 2017 Clean Air Plan contains control measures to reduce air pollutants and GHGs at the local, regional, and global levels. Along with the traditional stationary, area, mobile source, and transportation control measures, the 2017 Clean Air Plan contains many control measures designed to protect the climate and promote mixed use, compact development to reduce vehicle emissions and exposure to pollutants from stationary mobile sources. The 2017 Clean Air Plan also includes an account of the implementation status of control measures identified in the prior 2010 Clean Air Plan.

Table 2 lists the Clean Air Plan policies relevant to the proposed project and evaluates the consistency with the policies. As shown below, the proposed project would be consistent with applicable measures.

Table 2: Project Consistency with Applicable Clean Air Plan Control Measures

Control Measure	Project Consistency
Buildings Control Measures	
BL1: Green Buildings	**Consistent.** The proposed project would not conflict with implementation of this measure. The proposed project would comply with the latest energy efficiency standards

Control Measure	Project Consistency
	and incorporate applicable energy efficiency features designed to reduce project energy consumption.
BL4: Urban Heat Island Mitigation	**Consistent.** The proposed project would include over 2.5 acres of landscaped and bioretention area, which would serve to reduce storm runoff and would include the planting of shade trees. This area would be over 65 percent of the proposed project's total acreage (3.77 acres). Hence, the proposed project would be designed to reduce the urban heat island effect.
Energy Control Measures	
EN1: Decarbonize Electricity Generation	**Consistent.** The project applicant would, at a minimum, be required to conform to the energy efficiency requirements of the California Building Standards Code, also known as Title 24. The 2019 Title 24 Standards are the current State building regulations, which went into effect on January 1, 2020. Proposed buildings that would receive building permits after January 1, 2020, would be subject to the 2019 Title 24 Standards, including the proposed project. For example, the proposed project would install solar photovoltaic systems capable of generating approximately 30,000 kilowatt-hours (kWh) of electricity per year as well as low flow plumbing fixtures and irrigation heads compliant with Title 24 Standards.
EN2: Decrease Electricity Demand	
Natural and Working Lands Control Measures	
NW2: Urban Tree Planting	**Consistent.** As discussed, the proposed project would include over 2.5 acres of landscaped and bioretention area (over 65 percent of the proposed project's total acreage). Plantings would include trees, shrubs, and groundcover.
WA3: Green Waste Diversion	**Consistent.** The waste service provider for the proposed project will be required to meet the Assembly Bill (AB) 341 and Senate Bill (SB) 939 and SB 1374 requirements that require waste service providers to divert green waste. In addition, AB 1383 went into effect on January 1, 2022, which aims to reduce organic waste disposal by 75 percent by 2025 and to secure 20 percent of surplus edible food for the food insecure by 2025.[19]
WA4: Recycling and Waste Reduction	**Consistent:** The waste service provider for the proposed project will be required to meet the AB 341, SB 939 and SB 1374 requirements that require recyclable waste to be recycled and remove 75 percent from the landfill waste stream by 2020.
Stationary Control Measures	

[19] RecycleMore. 2022. New Recycling Law Starts January 1, 2022. November 8. Website: https://recyclemore.com/new-recycling-law-starts-january-1-2022/. Accessed April 12, 2022.

Control Measure	Project Consistency
SS36: Particulate Matter from Trackout	**Consistent with mitigation.** BAAQMD's recommended mitigation measures for construction fugitive dust control would be implemented to reduce fugitive dust and trackout during project construction. In addition, mud and dirt that may be tracked out onto the nearby public roads during construction activities shall be removed promptly by the contractor based on BAAQMD's requirements. Therefore, the proposed project would be consistent with this measure after implementation of MM AIR-1.
SS37: Particulate Matter from Asphalt Operations	**Consistent.** Asphalt used during the construction of the proposed project would be subject to BAAQMD Regulation 8, Rule 15-Emulsified and Liquid Asphalts. Although this rule does not directly apply to the proposed project, it does limit the reactive organic gas (ROG) content of asphalt available for use during construction through regulating the sale and use of asphalt. By using asphalt from facilities that meet BAAQMD regulations, the proposed project would be consistent with this Clean Air Plan measure.
Transportation Control Measures	
TR9: Bicycle and Pedestrian Access and Facilities.	**Consistent.** The proposed project site currently does not contain any sidewalk facilities along Browns Valley Road or in any other location. Implementation of the proposed project would include the construction of sidewalk facilities along Browns Valley Road, which would help in expanding the City of Napa's sidewalk facilities and connectivity in the Westwood and Browns Valley Planning Areas. This would contribute to the BAAQMD's efforts to encourage planning for pedestrian and other active transportation facilities.
Source: Bay Area Air Quality Management District (BAAQMD). 2017. Final 2017 Clean Air Plan.	

In summary, the proposed project would not conflict with any applicable measures under the 2017 Clean Air Plan after the implementation of identified mitigation; therefore, the proposed project would be consistent with Criterion 2 after incorporation of mitigation.

Criterion 3

The proposed project would develop and operate 11 single-family residences and would not include any feature or design which could create conditions which prevent the extension of adjacent transit, pedestrian, or bicycle facilities. Therefore, the proposed project would not preclude the extension of a transit line or bike path, propose excessive parking beyond parking requirements, or otherwise create an impediment or disruption to implementation of any AQP control measures. As shown in Table 2 above, the proposed project would incorporate several AQP control measures as project design features such as complying with energy efficiency standards contained in the 2019 California Building Code and maintaining landscaping and bioretention areas across the project site.

Considering this information, the proposed project would not disrupt or hinder implementation of any AQP control measures. The proposed project is therefore consistent with Criterion 3.

Summary

As addressed above, the proposed project would be consistent with all three criteria after the incorporation of MM AIR-1 and MM AIR-2. Thus, the proposed project would not conflict with the 2017 Clean Air Plan. Therefore, impacts associated with conflicting with or obstructing implementation of the 2017 Clean Air Plan would be less than significant with mitigation.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard?

Less than significant impact with mitigation incorporated. This impact is related to the cumulative effect of a project's regional criteria pollutant emissions. By its nature, air pollution is largely a cumulative impact resulting from emissions generated over a large geographic region. The nonattainment status of regional pollutants is a result of past and present development within the Air Basin, and this regional impact is a cumulative impact. Therefore, new development projects (such as the proposed project) within the Air Basin would contribute to this impact only on a cumulative basis. No single project would be sufficient in size, by itself, to result in nonattainment of regional air quality standards. Instead, a project's emissions may be individually limited, but cumulatively considerable when evaluated in combination with past, present, and future development projects.

Potential localized and regional impacts would result in exceedances of State or federal standards for nitrogen oxide (NO_X), particulate matter (PM_{10} and $PM_{2.5}$), or CO. NO_X emissions are of concern because of potential health impacts from exposure to NO_X emissions during both construction and operation and as a precursor in the formation of airborne ozone. PM_{10} and $PM_{2.5}$ are of particular concern during construction because of the potential to emit exhaust emissions from the operation of off-road construction equipment and fugitive dust during earth-disturbing activities (construction fugitive dust). CO emissions are of particular concern during project operation because operational CO hotspots are related to increases in on-road vehicle congestion.

Reactive organic gases (ROG) emissions are also important because of their participation in the formation of ground-level ozone. Ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and that can cause substantial damage to vegetation and other materials. Elevated ozone concentrations result in reduced lung function, particularly during vigorous physical activity. This health problem is particularly acute in sensitive receptors such as the sick, elderly, and young children.

The cumulative analysis focuses on whether a specific project would result in cumulatively considerable emissions. According to Section 15064(h)(4) of the CEQA Guidelines, the existence of significant cumulative impacts caused by other projects alone does not constitute substantial evidence that the proposed project's incremental effects would be cumulatively considerable. Rather, the determination of cumulative air quality impacts for construction and operational emissions is based on whether the proposed project would result in regional emissions that exceed

the BAAQMD regional thresholds of significance for construction and operations on a project level. The thresholds of significance represent the allowable amount of emissions each project can generate without generating a cumulatively considerable contribution to regional air quality impacts. Therefore, a project that would not exceed the BAAQMD thresholds of significance on the project level also would not be considered to result in a cumulatively considerable contribution to these regional air quality impacts. Construction and operational emissions are discussed separately below.

Construction Fugitive Dust

As previously mentioned, fugitive dust (PM_{10} and $PM_{2.5}$) would be generated during earthmoving activities but would largely remain localized near the project site.

The BAAQMD does not recommend a numerical threshold for fugitive dust particulate matter emissions. Instead, the BAAQMD bases the determination of significance for fugitive dust on considering the control measures to be implemented. If all appropriate emissions control measures are implemented for a project as recommended by the BAAQMD, then fugitive dust emissions during construction are not considered significant. As the proposed project would involve the disturbance of greater than 1 acre, it is expected to be required to develop and implement a Storm Water Pollution Prevention Plan (SWPPP) during construction activities, which would ensure the implementation of various dust control measures which are most appropriate for the project site. These measures may include, but would not be limited to, watering or seeding disturbed areas, covering stockpiles of dirt or aggregate, or other soil stabilization practices.

Because it cannot be guaranteed that the proposed project would implement dust control measures through a SWPPP, the BAAQMD recommends that a series of mitigation measures be implemented for all construction projects which include various dust control measures such as watering disturbed areas daily and reducing vehicle speeds on unpaved roads. These construction dust control measures are incorporated within MM AIR-1 to ensure that adequate dust control measures are implemented at the project site, in addition to the dust control measures contained in the City's General Plan Housing Element Update MM AIR-2a. With the incorporation of MM AIR-1, short-term construction impacts associated with violating an air quality standard or contributing substantially to an existing or projected air quality violation would be less than significant for fugitive dust.

Construction Air Pollutant Emissions: ROG, NO_X, PM_{10}, and $PM_{2.5}$

The California Emissions Estimator Model (CalEEMod), Version 2020.4.0, was used to estimate the proposed project's construction emissions. CalEEMod provides a consistent platform for estimating construction and operational emissions from a wide variety of land use projects and is the model recommended by the BAAQMD for estimating project emissions. Estimated construction emissions are compared with the applicable thresholds of significance established by the BAAQMD to assess ROG, NO_X, exhaust PM_{10}, and exhaust $PM_{2.5}$ construction emissions to determine significance for this criterion.

While the proposed project is anticipated to be constructed in 14 to 18 months (as described in Section 1.4, Project Description), project construction was previously anticipated to occur over a 13-month period at the time this air quality analysis was prepared. The applicant has extended the construction schedule from the original 13-month duration to 14 to 18 months to account for potential (but reasonably foreseeable) lost construction days from labor shortages and weather

events. As such, while construction is now anticipated to occur over up to 18 months, the 13-month construction schedule utilized in the modeling supporting this air quality analysis remains representative of project construction activities. Because no construction activity would occur due to weather or labor shortages on the additional days, there would be no increase in construction equipment operations and any subsequent emissions. Construction of the proposed project is expected to require the same number of workdays (264 days) whether any weather delays or labor shortages occur or not. The modification of the construction schedule has no effect on the total emissions that would be generated by the proposed project's construction, nor does it have any effect regarding the calculation of average emissions per day or per year (as determined pursuant to BAAQMD methodology). In addition, should the construction schedule move to later years, construction emissions would likely decrease because of improvements in technology and more stringent regulatory requirements that would affect future construction equipment.

As shown in Table 3, it has been assumed that the proposed project would be constructed in a total of 264 workdays. After sitewide demolition, site preparation, grading, and paving activities, the 11 proposed homes would be constructed in two sequential phases. It is anticipated that six homes would be constructed within the first phase. After completion of these homes, they would be move-in ready (i.e., operational), and the remaining five homes would be constructed. This is the expected sequence of buildout for the proposed project. Any minor modifications to this construction sequencing would have a nominal effect on construction-related emissions projections, because, as explained earlier, the proposed project would ultimately require the same construction activities to be performed over the same number of workdays, no matter how construction activities are sequenced. The construction emissions modeling assessed the proposed project in three phases. The first phase consists of sitewide demolition, site preparation, grading, and paving activities. The second phase consists of vertical construction and architectural coatings for the initial six homes. The third phase consists of vertical construction for the final five homes. For a more detailed description of the construction parameters used in estimating air pollutant emissions modeling, please refer to Appendix A.

Table 3: Preliminary Construction Schedule

Construction Activity	Start Date	End Date	Working Days per Week	Total Number of Working Days
Demolition (Sitewide)	1/2/2023	1/13/2023	5	10
Site Preparation (Sitewide)	1/16/2023	1/17/2023	5	2
Grading (Sitewide)	1/18/2023	1/27/2023	5	8
Paving (Interior Roadway)	3/13/2023	3/14/2023	5	2
Building Construction (6 of 11 homes)	3/20/2023	9/8/2023	5	125
Architectural Coating (6 of 11 homes)	9/11/2023	9/19/2023	5	7
Building Construction (5 remaining homes)	9/20/2023	2/13/2024	5	105
Architectural Coating (5 remaining homes)	2/14/2024	2/20/2024	5	5

Construction Activity	Start Date	End Date	Working Days per Week	Total Number of Working Days
Source: CalEEMod Output Files, Appendix A.				

The calculations of pollutant emissions from the construction equipment account for the type of equipment, horsepower, and load factors of the equipment, along with the duration of use. Refer to Appendix A for more details on project construction modeling. Average daily construction emissions are compared with the BAAQMD's significance thresholds in Table 4.

Table 4: Construction Emissions

	Air Pollutants[1] (tons/year)			
Construction Activity	ROG	NO_X	PM_{10} (Exhaust)	$PM_{2.5}$ (Exhaust)
Demolition (Sitewide)	<0.01	0.03	<0.01	<0.01
Site Preparation (Sitewide)	<0.01	0.01	<0.01	<0.01
Grading (Sitewide)	0.01	0.07	<0.01	<0.01
Paving (Interior Roadway)	<0.01	<0.01	<0.01	<0.01
2023 Building Construction (6 of 11 Homes)	0.01	0.02	<0.01	<0.01
2023 Architectural Coating (6 of 11 Homes)	0.20	<0.01	<0.01	<0.01
2023 Building Construction (Remaining 5 Homes)	0.01	0.01	<0.01	<0.01
2024 Building Construction (Remaining 5 Homes)	<0.01	0.01	<0.01	<0.01
2024 Architectural Coating (Remaining 5 Homes)	0.16	<0.01	<0.01	<0.01
Total Emissions (tons)	**0.38**	**0.16**	**0.01**	**<0.01**
Daily Average				
Total Emissions (lbs)	750.0	323.7	10.0	9.3
Average Daily Emissions (lbs/day)[2]	2.05	1.23	0.04	0.04
Significance Threshold (lbs/day)	**54**	**54**	**82**	**54**
Exceeds Significance Threshold?	**No**	**No**	**No**	**No**

Construction Activity	Air Pollutants[1] (tons/year)			
	ROG	NO_X	PM_{10} (Exhaust)	$PM_{2.5}$ (Exhaust)

Notes:
lbs = pounds
NO_X = oxides of nitrogen
PM_{10} = particulate matter 10 microns in diameter
$PM_{2.5}$ = particulate matter 2.5 microns in diameter
ROG = reactive organic gases
[1] Totals may not add up due to rounding. Calculations use unrounded totals.
[2] Calculated by dividing the total lbs of emissions by the total number working days of construction (264 workdays).
Source: CalEEMod Output (see Appendix A).

As shown in Table 4, the construction emissions from all construction activities are below the recommended thresholds of significance; therefore, project construction would have less than significant impact related to emissions of ROG, NO_X, exhaust PM_{10}, and exhaust $PM_{2.5}$. As previously discussed, the proposed project would implement MM AIR-1, consistent with the City's General Plan Housing Element EIR MM AIR-2a, for dust control to reduce potential impacts related to fugitive dust emissions during project construction. In addition, the proposed project would be required to implement MM AIR-2, consistent with the City's General Plan Housing Element EIR MM AIR-2b, to reduce potential exhaust emissions generated during project construction. The emission estimates contained in Table 4 do not account for the potential emissions reductions achieved by implementation of MMs AIR-1 and AIR-2. As such, the construction emissions estimates contained herein represent a conservative analysis of air quality impacts resulting from project construction. Therefore, project construction would have a less than significant impact with mitigation.

Operational Emissions

Operational Air Pollutant Emissions: ROG, NO_X, PM_{10}, and $PM_{2.5}$

Operational emissions would include area, energy, and mobile sources. Area sources include emissions from architectural coatings, consumer products, and landscape equipment, while energy sources include emissions from the combustion of natural gas for water and space heating. Mobile sources include exhaust and road dust emissions from the vehicles that would travel to and from the project site. Pollutants of concern include ROG, NO_X, PM_{10}, and $PM_{2.5}$.

Estimated operations emissions reflect the full buildout of the proposed project during 2024. The major sources for proposed operational emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ include motor vehicle traffic, use of natural gas, and the occasional repainting of buildings. Because of the proposed project's modest proposal of 11 single-family residences, it would meet the BAAQMD's screening criteria for single-family residences, which is a 325-dwelling unit screening size. Nonetheless, operational emissions generated by the proposed project were estimated and are contained in Table 5 for informational purposes.

The average daily and annual emissions are presented in Table 5. Operational emissions of the respective pollutants were calculated using CalEEMod, Version 2020.4.0. For detailed assumptions used to estimate emissions, see Appendix A.

Table 5: Operational Emissions (Unmitigated)

Emissions Source	Criteria Pollutants			
	ROG	NO_X	PM_{10} (Total)	$PM_{2.5}$ (Total)
Annual Emissions Summary (tons/year)				
Area	0.24	<0.01	<0.01	<0.01
Energy	<0.01	0.01	<0.01	<0.01
Mobile (Motor Vehicles)	0.05	0.08	0.1	0.03
Total Annual Project Emissions	**0.29**	**0.09**	**0.1**	**0.03**
Thresholds of Significance	**10**	**10**	**15**	**10**
Exceeds Significance Threshold?	**No**	**No**	**No**	**No**
Average Daily Emissions Summary (lbs/day)				
Project Emissions (lbs/year)	575.76	184.08	202.68	57.68
Average Daily Project Emissions (lbs/day)[1]	**1.58**	**0.50**	**0.56**	**0.16**
Thresholds of Significance	**54**	**54**	**82**	**54**
Exceeds Significance Threshold?	**No**	**No**	**No**	**No**

Notes:
ROG = reactive organic gases NO_X = nitrous oxides.
PM_{10} = particulate matter 10 microns or less in diameter
$PM_{2.5}$ = particulate matter 2.5 microns or less in diameter
[1] For average daily emissions, the proposed project is assumed to operate 365 days per year. Therefore, the annual tonnage of emissions is multiplied by 2,000 pounds per ton to identify total pounds of emissions and divided by 365 days per year to identify average daily emissions.
Source: CalEEMod Output (see Appendix A).

As shown in Table 5, the proposed project would not exceed the BAAQMD's thresholds of significance during operation, indicating that ongoing project operations would not be considered to have the potential to generate a significant quantity of air pollutants. Therefore, long-term operational impacts associated with criteria pollutant emissions generated by the proposed project would be less than significant.

Operational Carbon Monoxide Hotspot

The CO emissions from traffic generated by the proposed project are a concern at the local level. Congested intersections can result in the potential for high, localized concentrations of CO, known as a CO hotspot.

The BAAQMD recommends a screening analysis to determine whether a project has the potential to contribute to a CO hotspot. The screening criteria identify when site-specific CO dispersion modeling is necessary. The proposed project would result in a less than significant impact to air quality for local CO if all the following screening criteria are met:

1. The project is consistent with an applicable Congestion Management Program established by the County congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans; and
2. The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; and
3. The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

According to a Transportation Study prepared by Kimley-Horn, the proposed project is estimated to generate just 94 net daily vehicle trips.[20] Napa Valley Transportation Agency does not have a congestion management program, therefore the first criteria does not apply to the proposed project. And reasonably, the proposed project would not cause or materially contribute to the second and third screening criteria listed above, which involve intersections with tens of thousands of vehicles per hour. In fact, there are no intersections in the region with traffic counts that exceed the criterion two and criterion three traffic volumes. Additionally, a review of adjacent roadways that would receive new vehicle trips generated by the proposed project do not include transportation facilities where vertical or horizontal mixing is substantially limited. Given these considerations, the proposed project would not meet the second or third criteria either. Therefore, the proposed project would not exceed the CO screening criteria and it would have a less than significant impact related to CO.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than significant impact. The proposed project could expose sensitive receptors to elevated pollutant concentrations if it causes or contributes significantly to elevated pollutant concentration levels. The ARB defines sensitive receptors as children, elderly, asmatics, and others who are at a heightened risk of negative health outcomes due to exposure to air polution.[21] The locations where these sensitive receptors congregate are considered sensitive receptor locations and may include residences, hospitals, schools, and day care centers. The closest sensitive receptors include single-family residences adjacent to the project site to the west, north, and east, as well as the West Park Elementary School approximately 1,000 feet north of the project site. As the proposed project would constitute earthmoving activities and the use of diesel-fueled equipment near existing sensitive

[20] Kimley-Horn. 2022. 3090 Browns Valley Road Subdivision – Transportation Study. May

[21] California Air Resources Board (ARB). 2022. Sensitive Receptor Assessment. Website: https://ww2.arb.ca.gov/capp-resource-center/community-assessment/sensitive-receptor-assessment#:~:text=Sensitive%20receptors%20are%20children%2C%20elderly,are%20considered%20sensitive%20receptor%20locations. Accessed July 6, 2022.

receptors during construction of the proposed 11 single-family residences, a construction Health Risk Assessment (HRA) was prepared for the proposed project.

The proposed project would result in a potentially significant impact on sensitive receptors if any of the following two criteria are met:

- **Criterion 1:** Construction of the proposed project would exceed the BAAQMD health risk significance thresholds.
- **Criterion 2:** Operation of the proposed project would exceed the BAAQMD health risk significance thresholds.

Criterion 1: Project Construction Toxic Air Pollutants

An HRA was prepared to identify the potential health impacts on surrounding sensitive receptors resulting from toxic air contaminants (TAC) emissions during project construction. The HRA is provided below, while Appendix A provides the detailed modeling results.

Diesel particulate matter (DPM) has been identified by the ARB as a carcinogenic substance. Major sources of DPM include off-road construction equipment and heavy-duty delivery and vendor trucks and worker activities. For purposes of this analysis, DPM is represented as $PM_{2.5}$ exhaust emissions.

Estimation of Construction DPM Emissions

Construction DPM emissions were estimated using CalEEMod, Version 2020.4.0, as described in the Construction Air Pollutant Emissions Section above. Construction was assumed to begin in January 2023 and conclude in February 2024. While the proposed project is anticipated to be constructed in 14 to 18 months, as described in Section 1.4, Project Description, project construction was anticipated to occur over a 13-month period at the time this air quality analysis was prepared. The applicant has extended the construction schedule from the original 13-month duration to 14 to 18 months to account for lost construction days from labor shortages and weather events. As such, while construction is anticipated to occur over up to 18 months, the 13-month construction schedule utilized in the modeling supporting this air quality analysis remains representative of project construction activities should construction occur sequentially with no delays.

As described in the CalEEMod Notes provided in Appendix A, the proposed project was modeled in three phases. Phase 1 would include sitewide demolition, site preparation, grading, and paving activities. Phase 2 would follow Phase 1 with vertical construction of six of the 11 proposed residences. Phase 3 would include the vertical construction of the remaining five residences while residences constructed during Phase 2 are potentially occupied. Phase 1 and 2 construction emissions were assumed to be distributed over the project site and Phase 3 construction emissions were assumed to be distributed over the northern half of the project site, according to applicant-provided information. All construction phases were modeled with an assumed working schedule of 8 hours per day, 5 days per week. Table 6 summarizes the emission rates of DPM emissions during construction of Phases 1 and 2 of the proposed project and DPM emissions during construction of Phase 3 of the proposed project.

Table 6: Project DPM Construction Emissions

Scenario	On-site DPM (tons/year)	Off-site DPM (tons/year)	Total DPM Emissions (tons/year)
Phases 1 and 2 Construction (Before On-site Receptors)	0.00373	0.00029	0.00402
Phase 3 Construction (After On-site Receptors)	0.00054	0.00009	0.00063

Notes:
DPM = diesel particulate matter
Source: CalEEMod Output and Construction Health Risk Assessment Calculations; see Appendix A.

To assess impacts to off-site sensitive receptors during full project construction and on-site sensitive receptors during Phase 3 construction, the American Meteorological Society/EPA Regulatory Model (AERMOD) air dispersion model was used to estimate the DPM emission concentrations at nearby sensitive receptors within 1,000 feet of the project site.

Estimation of Cancer Risks

The BAAQMD has developed a set of guidelines for estimating cancer risks resulting from exposure to TACs.[22,23] These guidelines recommend the use of Hotspots Analysis and Reporting Program (HARP2) software to identify the cancer risk associated with DPM generated during construction activities. The HARP2 risk scenario inputs used to calculate cancer risk during project construction are as follows:

- Analysis Type: Cancer Risk
- Receptor Type: Individual Resident
- Phases 1 and 2 Exposure Duration: User Defined (Tier 2)–0.6 Year, 3rd Trimester Start Age
- Phase 3 Exposure Duration: User Defined (Tier 2)–0.5 Year, 3rd Trimester Start Age
- Intake Rate Percentile: 95th (High End)
- Pathways to Evaluate: Inhalation Only
- Selected: "Use Tier 2 breathing rates (L/kg-day)" factor

Estimation of Non-Cancer Chronic Hazards

An evaluation of the potential non-cancer effects of chronic chemical exposures was also conducted. Adverse health effects are evaluated by comparing the annual receptor concentration of each chemical compound with the appropriate reference exposure limit. Available reference exposure limits promulgated by the California Office of Environmental Health Hazard Assessment (OEHHA) were considered in the assessment.

Risk characterization for non-cancer health hazards from TACs is expressed as a hazard index (HI). The HI is a ratio of the predicted concentration of the proposed project's emissions to a

[22] Bay Area Air Quality Management District (BAAQMD). 2016. BAAQMD Air Toxics New Source Review Program Health Risk Assessment Guidelines.
[23] Bay Area Air Quality Management District (BAAQMD). 2020. BAAQMD Health Risk Assessment Modeling Protocol.

concentration considered acceptable to public health professionals, termed the reference exposure limit. The HI assumes that chronic sub-threshold exposures adversely affect a specific organ or organ system (toxicological endpoint). For each discrete chemical exposure, target organs presented in regulatory guidance were used. Each chemical concentration or dose is divided by the appropriate toxicity reference exposure level to calculate the HI. For compounds affecting the same toxicological endpoint, this ratio is summed. Where the total equals or exceeds 1, a health hazard is presumed to exist. For purposes of this assessment, the TAC of concern is DPM for which the OEHHA has defined a reference exposure limit for DPM of 5 micrograms per cubic meter ($\mu g/m^3$). The principal toxicological endpoint assumed in this assessment was through inhalation.

Cancer Risk and Non-Cancer Chronic Hazard Summary

Table 7 summarizes the cancer risk and HI results for unmitigated project construction at the Maximally Impacted Sensitive Receptor (MIR), a single-family residence approximately 210 feet east of the project site. As shown in Table 7, $PM_{2.5}$ exhaust emissions generated during unmitigated project construction would result in an incremental cancer risk of approximately 1.41 individuals per one million, which is below the BAAQMD's significance threshold of 10 individuals per one million.

Table 7: Estimated Cancer Risks and Chronic Non-Cancer Hazards (Unmitigated)

Impact Scenario	Cancer Risk (risk per million)	Chronic Non-Cancer Hazard Index[1]	TAC Concentration ($\mu g/m^3$)
Off-Site Residential MIR (During Phases 1, 2, and 3)	1.41	<0.01	0.01
On-Site Residential MIR (During Phase 3)	0.03	<0.01	<0.01
Daycare MIR	0.60	<0.01	<0.01
Elementary School MIR	0.04	<0.01	<0.01
Maximum MIR	**1.41**	**<0.01**	**0.01**
Thresholds of Significance	**10**	**1**	**0.3**
Exceeds Individual Source Threshold?	**No**	**No**	**No**

Notes:
DPM = diesel particulate matter
MIR = Maximally Impacted Sensitive Receptor
$PM_{2.5}$ = particulate matter, including dust, 2.5 micrometers or less in diameter
REL = reference exposure level
TAC = toxic air contaminants
$\mu g/m^3$ = micrograms per cubic meter
[1] Chronic non-cancer hazard index was estimated by dividing the annual DPM concentration (as $PM_{2.5}$ exhaust) by the DPM REL of 5 $\mu g/m^3$.
Emissions Source: Appendix A.
Thresholds Source: Bay Area Air Quality Management District (BAAQMD). 2017. California Environmental Quality Act Air Quality Guidelines.

As shown in Table 7 above, the proposed project's construction emissions would not exceed any applicable BAAQMD significance threshold. Therefore, project construction would not result in significant health impacts to nearby sensitive receptors.

Cumulative Health Risk Assessment

The BAAQMD recommends assessing the potential cumulative impacts from sources of TACs within 1,000 feet of a project. As a result, a cumulative HRA was performed that examined the cumulative impacts of the proposed project's construction emissions and sources of TAC emissions within 1,000 feet of the project site. As previously discussed, the MIR was determined to be a residence approximately 210 feet east of the project site boundary.

- **Health Risks for Local Roadways.** The BAAQMD pre-calculated concentrations and the associated potential cancer risks and $PM_{2.5}$ concentration increases for each county within their jurisdiction for roadways that carry at least 30,000 average daily trips. For certain areas, the BAAQMD also includes local roadways that meet BAAQMD's "major roadway" criteria of 10,000 vehicles or 1,000 trucks per day. The latest available screening tool is in the form of a Geographic Information System (GIS) raster file. The proposed project is not located within a BAAQMD designated Community Air Risk Evaluation (CARE) Program area; therefore, the nearest major local roadway within 1,000 feet, such as Browns Valley Road, was identified to determine whether it experiences greater than 10,000 vehicles per day. According to the City's Annual Traffic Count Data, Browns Valley Road experiences an estimated 12,111 vehicles daily.[24] As such, the BAAQMD's Roadway Screening Calculator was used to determine the cancer risk at the MIR associated with traffic along Browns Valley Road.
- **Freeway Screening Analysis Tool**. The BAAQMD prepared a GIS tool that contains pre-estimated cancer risk and $PM_{2.5}$ concentration increases for highways within the Bay Area. The closest highway to the project site is Highway 29, approximately 4,300 feet to the east.
- **Stationary Source Risk and Hazard Screening Tools**. The BAAQMD prepared a web-based tool with the location of permitted stationary sources. For each emissions source, the BAAQMD provides conservative estimates of cancer risk and $PM_{2.5}$ concentrations. Based on information from the GIS tool, no BAAQMD-permitted stationary sources exist within 1,000 feet of the project site.[25]
- **Rail Screening Tools.** The BAAQMD prepared GIS tools that contains estimated cancer risks and $PM_{2.5}$ concentrations from railroad operations at any point within the Air Basin. No rail lines are located within 1,000 feet. The closest rail line to the project site is approximately 1.83 miles to the east.

[24] City of Napa. 2019. Annual Traffic Count Data. April.

[25] Bay Area Air Quality Management District (BAAQMD). 2022. Permitted Stationary Sources Risk and Hazards. Permitted Stationary Sources Risk and Hazards. Website: https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=2387ae674013413f987b1071715daa65. Accessed July 13, 2022.

The cumulative HRA results are summarized during project construction in Table 8. Cumulative health risk results shown therein are representative of the health risks to the off-site residential MIR, which would experience the highest concentration of pollutants and associated cancer risks.

Table 8: Summary of the Cumulative Health Impacts at the MIR during Construction

Source	Source Type	Distance from MIR[1] (feet)	Cancer Risk (per million)	Chronic HI	$PM_{2.5}$ Concentration ($\mu g/m^3$)
Project					
Project Construction	Diesel Construction Equipment	210	1.41	<0.01	<0.01
Roadways					
Existing Local Roadway Network		–	0.04	ND	<0.01
Browns Valley Road		10	12.08	ND	0.24
Rail					
Existing Rail Lines		>1,000	0.56	ND	<0.01
Freeways					
Existing Freeways		>1,000	1.67	ND	0.04
Cumulative Health Risks					
Cumulative Maximum with Project DPM Emissions			**15.76**	**0.03**	**0.28**
BAAQMD's Cumulative Thresholds of Significance			**100**	**10**	**0.8**
Threshold Exceedance?			**No**	**No**	**No**

Notes:
BAAQMD = Bay Area Air Quality Management District
DPM = diesel particulate matter
HI = health index
MIR = Maximally Impacted Sensitive Receptor
ND = No Data
$PM_{2.5}$ = particulate matter, including dust, 2.5 micrometers or less in diameter
$\mu g/m^3$ = micrograms per cubic meter
[1] The residential MIR was identified as a residence approximately 210 feet east of the project site.
[2] Assumes emissions remain constant with time. Values represent the greatest identified among all MIRs presented in this analysis, including nearby residences, Nature's Way Montessori Daycare, and West Park Elementary School.
Source: Appendix A.

As noted in Table 8 above, the cumulative impacts from project construction and existing sources of TACs would be less than the BAAQMD cumulative thresholds of significance. Therefore, the proposed project would not be cumulatively considerable or result in a significant cumulative health risk impact.

Criterion 2: Project-Specific Operational Toxic Air Pollutants

The proposed project would be a single-family home residential development. As shown in Table 5, operational emissions would primarily be attributed to gasoline powered passenger vehicles, and

overall operational emissions generated by the proposed project would be well below the BAAQMD's significance thresholds. Additionally, the vehicle trip generation analysis prepared by Kimley-Horn shows that the new development would result in an average of 9.43 vehicle trips per day per dwelling unit.[26] As the proposed project would involve the development of 11 residences, the proposed project is anticipated to generate an estimated 104 vehicles daily. Moreover, as discussed under Air Quality Impact(b), the proposed project would not cause an exceedance of the CO hotspot screening criteria and would have a less than significant impact from CO emissions.

As previously discussed, the proposed project would additionally be required to implement the City's General Plan Housing Element Update MM AIR-2b to reduce exhaust emissions from off-road construction equipment by implementing additional management practices recommended by the BAAQMD. To account for these practices, the proposed project would be required to implement MM AIR-2. Therefore, the proposed project would not constitute a major source of TACs, and health risk impacts experienced during project operation would be less than significant with mitigation.

d) Result in other emission (such as those leading to odors) adversely affecting a substantial number of people?

Less than significant impact. As stated in the BAAQMD 2017 Air Quality Guidelines, odors are generally regarded as an annoyance rather than a health hazard. The ability to detect odors varies considerably among the populations and is subjective. The BAAQMD does not have a recommended odor threshold for construction activities. However, the BAAQMD recommends operational screening criteria that are based on the distance between receptors and types of sources known to generate odors. For projects within the screening distances, the BAAQMD has the following threshold for project operations:

> An odor source with five or more confirmed complaints per year averaged over 3 years is considered to have a significant impact on receptors within the screening distance shown in Table 3-3 [of the BAAQMD's guidance].

Two circumstances have the potential to cause odor impacts:

4. A source of odors is proposed to be located near existing or planned sensitive receptors, or
5. A sensitive receptor land use is proposed near an existing or planned source of odor.

Projects that would site an odor source or a receptor farther than the applicable screening distance, shown in Table 9 below, would not likely result in a significant odor impact.

Table 9: Odor Screening Distances

Land Use/Type of Operation	Project Screening Distance
Wastewater Treatment Plant	2 miles
Wastewater Pumping Facilities	1 mile

[26] Kimley-Horn. 2022. 3090 Browns Valley Road Subdivision – Transportation Study – Napa, CA. May 25.

Land Use/Type of Operation	Project Screening Distance
Sanitary Landfill	2 miles
Transfer Station	1 mile
Composting Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plant	2 miles
Chemical Manufacturing	2 miles
Fiberglass Manufacturing	1 mile
Painting/Coating Operations	1 mile
Rendering Plant	2 miles
Coffee Roaster	1 mile
Food Processing Facility	1 mile
Confined Animal Facility/Feed Lot/Dairy	1 mile
Green Waste and Recycling Operations	1 mile
Source: Bay Area Air Quality Management District (BAAQMD). 2017. Final 2017 Clean Air Plan.	

Project Construction

Diesel exhaust and ROGs would be emitted during construction of the proposed project, which are objectionable to some; however, emissions would disperse rapidly from the project site and would be short-term and intermittent in duration and frequency. Therefore, project construction would not generate objectionable odors affecting a substantial number of people. As such, construction odor impacts would be less than significant.

Project Operation

Land uses typically associated with odors include wastewater treatment facilities, waste disposal facilities, agricultural operations, or other operations listed in Table 9. Using Google Maps, none of the listed land uses were identified within the associated screening distances to the project site. Therefore, the proposed project as a receptor during operation would not be expected to experience peculiar odor impacts from the listed types of land use sources.

The proposed project would construct 11 new single-family houses, whose operations could lead to odors from associated residential laundry cleaning, vehicle exhaust, outdoor cooking, and waste disposal. However, such odors generated by project operation would be small in quantity and duration and would not pose an objectionable odor impact to future and existing receptors.

To summarize, the proposed project as a source or receptor would not generate any peculiar emissions nor odors that adversely affect a substantial number of people. This impact would be less than significant.

Mitigation Measures

MM AIR-1 **Implement the City's 2015 Housing Element EIR's MM AIR-2a and BAAQMD Best Management Practices During Construction**

The following dust control measures as recommended by the Bay Area Air Quality Management District (BAAQMD) and incorporated within MM AIR-2a of the 2015 Housing Element EIR shall be included in the design of the proposed project and implemented during construction:

- All exposed non-paved surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and access roads) shall be watered at least two times per day and/or non-toxic soil stabilizers shall be applied to exposed non-paved surfaces. Additionally, active areas adjacent to residences should be kept damp at all times.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered and/or shall maintain at least 2 feet of freeboard.
- All visible mud or dirt tracked 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.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- 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. Hydroseed or non-toxic soil stabilizers shall be applied to inactive construction areas (i.e., previously graded areas that are inactive for 10 days or more).
- Exposed stockpiles shall be enclosed, covered, watered twice daily, or treated with non-toxic soil binders.
- Vegetation in disturbed areas shall be replanted as quickly as possible.
- Construction activities that cause visible dust plumes to extend beyond the construction site shall be suspended.
- 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 (ACTM) Title 13, Section 2485 of California Code of Regulations. Clear signage regarding idling restrictions shall be provided for construction workers at all access points.
- 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.
- The prime construction contractor shall post a publicly visible sign with the telephone number and person to contact regarding dust complaints. The City and the construction contractor shall take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

MM AIR-2 Implement the City's 2015 Housing Element EIR MM AIR-2b During Construction

To reduce exhaust emissions from off-road construction equipment, the following measures or measures recommended by BAAQMD at the time of construction shall be implemented, including but not limited to:

- The Developer or Contractor shall provide a plan for approval by the City or BAAQMD demonstrating that heavy-duty off-road vehicles to be used in the construction project, including owned, leased, and/or subcontractor vehicles, shall meet or exceed EPA Tier 3 off-road emissions standards when more than five pieces of off-road diesel equipment with a horsepower greater than 70 per piece of equipment would operate on one day. The plan shall include quantification of air pollutant emissions demonstrating that the proposed project would not exceed the BAAQMD's thresholds of significance for project construction.
- Clear signage at all construction sites will be posted indicating that diesel equipment standing idle for more than five minutes shall be turned off. This would include trucks waiting to deliver or receive soil, aggregate, or other bulk materials. Rotating drum concrete trucks can keep their engines running continuously as long as they are on-site or adjacent to the construction site.
- The contractor shall install temporary electrical service whenever possible to avoid the need for independently powered equipment (e.g., compressors).
- Properly tune and maintain equipment for low emissions.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
2.4 Biological Resources *Would the project:*				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State Habitat Conservation Plan?	☐	☐	☐	☒

Environmental Evaluation

Setting

The following environmental evaluation is based on 3090 Browns Valley Road. Napa, CA Biological Resources Report (BRR), prepared by MIG for the proposed project, dated July 19, 2022 (Appendix B).

A detailed description of the environmental setting as it relates to biological resources is included in Section 5 of the BRR. Most relevant in the context of this Draft IS/MND are Brown's Valley Creek,

which flows west to east along the northern border of the site and eventually flows into Napa Creek, a tributary to the Napa River; presence of a riparian corridor including woody and herbaceous riparian vegetation; coast live oak woodland (*Quercus agrifolia* Alliance); and presence of ornamental trees.

Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service?

Less than significant with mitigation incorporated.

Short-term Impacts

Per the BRR, Riffle sculpin (*Cottus gulosus*) and Central California roach (*Lavinia symmetricus symmetricus*), both California species of special concern, were observed in Browns Valley Creek on the project site and are presumed to be present. Other aquatic special-status species including California freshwater shrimp (*Syncaris pacifica*), steelhead Central California Coast distinct population segment (DPS) (*Oncorhynchus mykiss irideus*), and western pond turtle (*Actinemys marmorata*) have a moderate potential to occur in Browns Valley Creek within the parcel (see BRR Section 6.2.1 in Chapter 6 Special-Status Species and Sensitive Habitats). In addition, Ryan Olah of the United States Fish and Wildlife Service (USFWS) recommended that avoidance measures for California red-legged frog (*Rana draytonii*) be implemented, although its potential to occur on the parcel was confirmed by USFWS to be low based on the CNDDB records search, on-site habitat assessment, and day and nighttime amphibian surveys.

Therefore, the proposed project could result in direct impacts when crews and equipment are working near the creek bank during structure demolition. Project construction could also adversely impact aquatic species as a result of water quality impacts such as erosion and sedimentation or accidental release of construction fuels and fluids.

The proposed project would comply with Section 402 of the Clean Water Act (see BRR, Section 3.1.3 in Chapter 3 Regulatory Setting), including preparation of a SWPPP and implementation of BMPs for erosion control and water quality protection during and following construction. The BMPs included in the proposed project that would protect biological resources are listed at the end of this section and would be required by the City as Conditions of Approval. Special-status aquatic species could also be impacted by construction noise, lighting, trash, and mono-filament netting that is often used in erosion control materials, such as filament wrapped straw wattles.

Implementation of MM BIO-1 through MM BIO-9 and BMPs defined below to protect California red-legged frog and other aquatic species would prevent significant impacts to aquatic special-status species during project construction. The MMs are based on the relevant conservation measures in the Programmatic Biological Opinion for Issuance of Permits under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act, including Authorizations Under 22 Nationwide

Permits, for Projects that May Affect the Threatened California Red-Legged Frog in Nine San Francisco Bay Area Counties, California. Although geared toward California red-legged frog, the BRR states that the avoidance measures offer protection for all aquatic animals and have been modified to include the other special-status aquatic species that could occur on the parcel.

Long-term Impacts

Potential long-term impacts to water quality in Browns Valley Creek could occur due to runoff containing petroleum products from parking lots, fertilizers or herbicides used for landscaping, pet waste, or other urban pollutants. Water quality impacts could degrade aquatic species habitat.

Another potential long-term impact could include altered habitat such as reduced shade or overhanging vegetation on the creek if riparian habitat is impacted by the proposed project. Reduced shade could increase the water temperature, making it unsuitable for anadromous fish such as steelhead and potentially other aquatic special-status species.

The proposed project includes stormwater bioretention and detention, and a rock dissipator for stormwater flows, which would prevent significant impacts to water quality in Browns Valley Creek over the long term. BMPs incorporated into the proposed project to protect biological resources are listed in the BRR, Table 1 and Chapter 2.

A creek structural setback is incorporated in the proposed project consistent with the Napa Municipal Code, including Section 17.52.110 Creeks and other watercourses; the setback is shown in Figures 3 and 4 of the BRR and Exhibit 10 of this Draft IS/MND. Chapter 17.52, Section 110 requires a creek setback of two times the depth of the bank plus 20 feet where the average creek bank depth is over 8 feet (as it is on the project site) for structures.

The proposed project would also comply with Municipal Code Chapter 12.45 Trees on Private Property, which requires a permit and tree replacement if protected or significant trees are removed or damaged. Coast live oaks and California bay trees over 12 inches are protected by this ordinance, inside or outside of the riparian zone. The proposed project does not propose to remove riparian vegetation; however, as explained in Chapter 2 of the BRR, the proposed project would result in the removal of existing structures and paving in the creek structural setback, including structures in the riparian zone and near the top of bank. The removal of these potential sources of pollution or human disturbance would benefit aquatic species in Browns Valley Creek.

With the proposed creek structural setback and stormwater treatment measures, the proposed project would have less than significant long-term impacts to aquatic special-status species.

Impacts on Critical Habitat and Essential Fish Habitat

As described in BRR Section 6.3 of Chapter 6 Special-Status Species and Sensitive Habitats, Browns Valley Creek is designated as critical habitat for steelhead Central California Coast DPS for rearing and migration habitat. Browns Valley Creek and the project site are also within the Essential Fish Habitat (EFH) for Chinook salmon and coho salmon. Potential short-term and long-term impacts to critical habitat and EFH are the same as for aquatic special-status species; see BRR Section 7.1 above

for a detailed discussion of potential impacts, and compliance with applicable regulations to help avoid and minimize potential impacts. MMs BIO-1 through BIO-9, and BMPs defined below would further reduce potential impacts to critical habitat and EFH to less than significant levels.

Best Management Practices

- Construction or demolition in the riparian zone will be restricted to the dry season from April 15 to October 31, or as otherwise specified in the Lake and Streambed Alteration Agreement with CDFW.
- Construction and demolition will not occur in the riparian zone during or within 24 hours following rain events of 0.25-inch of rain or more, or when the 72-hour National Weather Service forecast is for 40 percent chance of rain or greater, or as otherwise specified in the SWPPP and the Lake and Streambed Alteration Agreement with California Department of Fish and Wildlife (CDFW).
- No trees or other vegetation will be removed in the riparian zone unless it poses a safety hazard as determined by an arborist (for trees).
- Travel and parking of vehicles and equipment will be limited to pavement, existing roads, and previously disturbed areas.
- Temporarily impacted areas will be restored to preexisting contours and revegetated.
- All potential pollutants, including solid wastes, petroleum products, chemicals, wastewater, sediment, and non-stormwater discharges will be controlled and will not be discharged to Browns Valley Creek or other waterways.
- Cleaning, fueling, or maintaining vehicles/equipment on property will be avoided except in designated areas in which runoff is contained and treated.
- Soils and other materials will be removed from the site promptly and stockpiling material will be avoided when rain is forecast. If rain threatens, stockpiles, soils, and other materials will be covered with a tarp or other material to minimize erosion.
- A hazardous spill plan will be developed prior to the start of construction. The plan will describe what actions will be taken in the event of a spill. The plan will incorporate preventive measures to be implemented, such as vehicle and equipment staging, cleaning, maintenance, and refueling; and contaminant (including fuel) management and storage. In the event of a contaminant spill, work at the site will immediately cease until the contractor has contained and mitigated the spill. The contractor will immediately prevent further contamination and notify appropriate authorities. Adequate spill containment materials, such as oil diapers and hydrocarbon cleanup kits will always be available on-site. Containers for storage, transportation, and disposal of contaminated absorbent materials will be provided on the project site.
- All materials and equipment will be removed from the work site immediately after completion of construction.

Impacts to Special-status and Nesting Birds

Per the BRR, white-tailed kite has a moderate potential to occur on the parcel, based on nearby CNDDB records, as well as the presence of some suitable habitat, and a tolerance for residential uses as long as there are areas to forage in the region (see BRR Section 6.2.2 in Chapter 6 Special-Status Species and Sensitive Habitats). In addition, trees and other vegetation on the parcel provide habitat for nesting birds. All native birds and their nests are protected by the federal Migratory Bird Treaty Act (MBTA), California Migratory Bird Protection Act (MBPA), and California Fish and Game Code (see BRR Chapter 3 Regulatory Setting).

Construction disturbance during the avian breeding season (February 1 through September 15, for most species) could impact special-status and common nesting birds. Construction disturbance could result in the incidental loss of eggs or nestlings, either directly through the destruction or disturbance of active nests or indirectly by causing the abandonment of nests. In addition, noise and increased construction activity could temporarily alter foraging behavior, potentially resulting in the abandonment of nest sites. MM BIO-10 would prevent significant impacts to special-status and common nesting birds by requiring pre-construction nesting bird surveys and bird nest protection buffers if active bird nests are found.

Potential long-term impacts to special-status and nesting birds include increased disturbance due to increased human activity at the site and altered or reduced habitat due to project-related removal of trees and other vegetation. The project site was used for a single-family residence and business in an urban area, and common birds in the area are assumed to be adapted to development and human disturbance. A creek structural setback from the riparian zone is incorporated in the project consistent with the Napa Municipal Code, including Chapter 17.52, Section 110 Creeks and other watercourses; the setback is shown in Exhibit 10. The proposed project would remove existing structures and paving within the riparian zone, creating space for riparian vegetation that provides nesting habitat to grow. In addition, the proposed project would comply with Napa Municipal Code Chapter 12.45 Trees on Private Property, which protects larger sized native trees (see BRR Section 7.1.2 and Section 3.3.1 of Chapter 3 Regulatory Setting for more information). The project includes landscape trees and shrubs that will provide habitat for nesting birds. With compliance with the creek structural setback, which will preserve the natural riparian zone, and the proposed installation of landscaping with a diverse structure and nectar sources, potential long-term impacts to special-status and nesting birds is less than significant.

Pallid bat has a moderate potential to occur on the parcel based on nearby CNDDB records and the presence of some suitable habitat (see BRR Section 6.2.3 in Chapter 6 Special-Status Species and Sensitive Habitats). In addition, trees and vacant buildings on the parcel could provide roosting habitat for common species of bats protected by the California Fish and Game Code. Bats of unknown species were observed on the parcel during the August 2021 nighttime amphibian survey.

Removal of trees or structures during project construction could impact pallid bat or other protected bat species if they are roosting in such trees or structures, particularly if maternity roosts are present. Disturbance-related impacts such as roost abandonment could also occur if construction occurs in close proximity to a special-status bat roost or a maternity colony. MM BIO-11, listed

below, would prevent significant impacts to pallid bat and other roosting bats during project construction by creating disturbance-free buffers and other minimization measures, as defined in MM BIO-11.

Potential long-term impacts to pallid bat and other roosting bats include increased disturbance due to increased human activity at the site and altered or reduced habitat due to project-related removal of trees and vacant structures. The project site is in an urban area, and bats in the area are likely already adapted to development and human disturbance. A creek structural setback is incorporated in the proposed project consistent with the Napa Municipal Code, including Section 17.52.110, 110 Creeks and other watercourses, which will preserve the riparian zone where roosting bats are most likely to occur on this parcel; the setback is shown in Exhibit 10. In addition, the proposed project would comply with Napa Municipal Code Chapter 12.45 Trees on Private Property, which protects larger sized native trees (see Section BRR 7.1.2 and Section 3.3.1 of Chapter 3 Regulatory Setting for more information). With protection of the creek and riparian zone proposed by the project, the potential long-term impacts to pallid bats and other roosting bats would be less than significant.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service?

Less than significant impact. Per the BRR, the portion of the coast live oak woodland in the riparian zone on the parcel may fall under the *Quercus agrifolia-Umbellularia californica* Association on CDFW's Vegetation Classification and Mapping Program Natural Communities List, which is listed as sensitive (G3/S3). All streams and associated riparian habitat, whether a sensitive vegetation alliance or association or not, is also considered sensitive by CDFW and is protected under Fish and Game Code Section 1600 et seq. .

The proposed project could impact sensitive riparian habitat directly if trees or other vegetation in the riparian zone are removed or damaged during demolition or construction. Indirect impacts could also occur due to pollutants entering runoff water that flows into the riparian zone during project construction or over the long term.

A creek structural setback is incorporated in the proposed project consistent with the Napa Municipal Code, including Section 17.52. 110 Creeks and other watercourses; the setback is shown in Exhibit 10. This setback protects the riparian zone. The proposed project would also comply with Napa Municipal Code Chapter 12.45 Trees on Private Property, which protects larger sized native trees (see BRR Section 7.1.2 above and Section 3.3.1 of Chapter 3 Regulatory Setting for more information). By complying with the creek structural setback requirement, the proposed project would protect sensitive riparian habitat.

The proposed project would remove existing structures and pavement from the riparian zone and the creek structural setback, as described in Chapter 2. MM BIO-9 requires protection of the creek with silt fencing or similar measure, and that a biological monitor be present during demolition to stop work if debris falls into the creek. The removal of structures and paving from the riparian zone

would benefit the sensitive habitat by reducing human activity, removing a potential source of pollution, and allowing space for riparian vegetation to expand.

The proposed project includes stormwater and erosion control measures, as described in BRR Chapter 2. These include a bioretention area for stormwater treatment, stormwater detention, and a stormwater energy dissipator before stormwater flows to the creek. These measures protect the riparian zone and the creek from stormwater pollution and erosion. The proposed project is also required to have a Stormwater Pollution Prevention Plan to protect water quality during construction. Best Management Practices that are included in the proposed project are listed in BRR Table 1 and Section 2.1 of Chapter 2 Project Description.

With the removal of existing structures from the riparian zone and compliance with the creek structural setback per local ordinance, the proposed project would have less than significant impacts to sensitive vegetation communities and riparian habitat.

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

Less than significant impact. As described in the BRR Section 6.3 of Chapter 6 Special-Status Species and Sensitive Habitats, approximately 0.119 acre and 511 linear feet of potentially United States Army Corps of Engineers (USACE) and Regional Water Quality Control Board (RWQCB) jurisdictional features below the ordinary high water mark were identified in the parcel. At a minimum, Section 401 waters of the State extend from the creek bed to the top of the southern bank of the creek for an additional 0.155 acre of riparian habitat (linear feet is the same at 511 feet). If the RWQCB were to take jurisdiction to the edge of riparian habitat, an additional 0.248 acre of Section 401 waters are present (for a total of 0.504 acre and 622 linear feet).

The proposed project includes a bioretention area and stormwater detention outside of the creek structural setback and the edge of the riparian zone. The stormwater detention empties onto a 15-foot by 6-foot (90 square feet) rock energy dissipater that is within the edge of riparian vegetation, but is set back from the top of bank by about 55 feet (see Chapter 2 Project Location and Description). The rock energy dissipator falls within the jurisdiction of the CDFW, and may be within the jurisdiction of the RWQCB.

The proposed project would remove existing structures and paving within the creek structural setback, including two structures that extend into the riparian zone totaling 989 square feet. Structures within the riparian area near the top of bank are within the jurisdiction of CDFW, and may be within the jurisdiction of the RWQCB.

The proposed project would be required to comply with Section 402 of the CWA (see BRR Section 3.1.3 in Chapter 3 Regulatory Setting), including preparation of a SWPPP and implementation of BMPs for erosion control and water quality protection during and following construction, and incorporation of Low Impact Development (LID) design features such as green roofs, pervious surfaces, tree planters, grassy swales, and bioretention and/or detention basins, among other

methods. Recommended BMPs for the SWPPP to protect biological resources are listed in BRR Section 2.1 of Chapter 2 Project Description. A creek structural setback is incorporated in the proposed project consistent with the Napa Municipal Code, including Section 17.52.110, Creeks and other watercourses; the setback is shown in BRR Figures 3 and 4. The proposed project would also comply with Napa Municipal Code Chapter 12.45 Trees on Private Property which protects larger sized native trees, which are mostly in the riparian zone (see BRR Section 7.1.2 above and Section 3.3.1 of Chapter 3 Regulatory Setting for more information).

With compliance with applicable regulations and agency requirements, the proposed project would have less than significant impacts to jurisdictional waters.

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 wildlife nursery sites?

Less than significant impact with mitigation incorporated. As described in BRR Section 6.4 of Chapter 6 Special-Status Species and Sensitive Habitats, there are movement opportunities for terrestrial wildlife in the project vicinity, mostly to the southwest of the project site, although roads and residential development in the area constitute some movement barriers for wildlife. Browns Valley Creek provides movement opportunities for aquatic wildlife, although this may sometimes be limited by low flow conditions and/or road culverts. Construction activities could temporarily restrict some wildlife species from moving between suitable habitat patches during project implementation. In addition, noise and disturbance associated with construction activities could cause a temporary reduction in habitat connectivity through the site for species that commonly use habitats in the project vicinity. However, due to the short duration of construction, construction-related impacts on wildlife movement would be less than significant.

Furthermore, because project construction would not occur at night, when many mammals, reptiles, and amphibians are active, use of the project site by dispersing nocturnal animals would not be diminished during construction. Compliance with applicable regulations and agency requirements to protect water quality, creeks and riparian habitat, and other biological resources would avoid and minimize impacts to wildlife movement during construction.

Over the longer term, human activity would increase on the parcel due to the new residences, leading to some reduction in wildlife movement opportunity, particularly for species sensitive to human disturbance. However, the proposed project does not include any substantial new barriers to wildlife movement such as roads or long walls or fences. A new fence would be constructed to protect the riparian zone, but it would be designed to allow wildlife to pass through or under it. In addition, human activity is normally diminished at night, when many mammals, reptiles, and amphibians are active, therefore use of the project site by dispersing nocturnal animals would not be significantly diminished over the long term.

With compliance with the creek structural setback, the creek and riparian habitat will be protected, allowing for continued movement along the riparian corridor, and the proposed project would have less than significant impacts on wildlife movement.

There are no known wildlife nursery sites on or near the parcel; therefore, potential impacts to wildlife nursery sites are not anticipated. Potential impacts to nesting birds or roosting bats would be avoided through the implementation of MM BIO-10 and MM BIO-11, respectively (see BRR Sections 7.2 and 7.3). Therefore, impacts would be less than significant with mitigation incorporated.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less than significant impact with mitigation incorporated. The proposed project could damage or remove trees protected by Napa Municipal Code, Chapter 12.45 Trees on Private Property. Coast live oaks and California bay trees 12 inches or more in diameter and coast redwoods 36 inches in diameter or more are protected by this ordinance. MM BIO-12, listed below, would require preparation of an arborist report and implementation of its recommendations to prevent significant impacts to protected trees. An arborist report (Appendix B) was prepared for the proposed project by Kielty Arborist Service LLC on November 23, 2021, to assess the health of on-site trees. The recommendations, including preparation of a tree protection plan, shall be implemented by the project applicant prior to tree removal.

As discussed in BRR Sections 7.1 to 7.6 above, short- and long-term impacts to special-status species, nesting birds, roosting bats, sensitive habitats, jurisdictional features, and wildlife movement would be reduced to less than significant levels through implementation of MMs BIO-1 through BIO-11, and/or compliance with applicable regulations and agency requirements. In addition, a creek structural setback is incorporated in the proposed project consistent with the Napa Municipal Code, including Section 17.52. 110 Creeks and other watercourses; the setback is shown in Exhibit 10. Therefore, the proposed project would not conflict with any other local policies or regulations protecting biological resources.

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?

No impact. The project site is not within an area covered by an adopted habitat conservation plan or natural community conservation plan. Therefore, the proposed project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State Habitat Conservation Plan.

Mitigation Measures

The following MMs were identified in the BRR to reduce any potential significant impacts on biological resources to a level considered less than significant:

MM BIO-1 **Pre-construction Survey.** No more than twenty-four (24) hours prior to the date of initial ground disturbance, a qualified biologist shall perform a pre-construction survey for the California freshwater shrimp, steelhead, California red-legged frog, and western pond turtle. The survey shall consist of walking the project boundary and within the project site to ascertain the possible presence of the species. The qualified biologist shall investigate all potential areas that could be used by aquatic

special-status species for feeding, breeding, sheltering, movement, and other essential behaviors. Results of the survey shall be documented. Comply with MM BIO-8 if species are detected.

MM BIO-2 **Worker Environmental Awareness Program.** All construction personnel shall participate in a worker environmental awareness program. These personnel shall be informed about the possible presence of all special-status species and habitats associated with the species identified to be potentially present in the project vicinity and that unlawful take of the animal or destruction of its habitat is a violation of federal and State laws. Prior to construction activities, the qualified biologist shall instruct all construction personnel about (1) the description and status of the species; (2) the importance of their associated habitats; and (3) a list of measures being taken to reduce impacts on these species during project construction and implementation. A fact sheet conveying this information shall be prepared for distribution to the construction crew and anyone else who enters the project site.

MM BIO-3 **Minimize Area of Disturbance.** Project activities shall be limited to the smallest area necessary for equipment staging, site access, construction equipment and personnel parking, debris storage, etc.

MM BIO -4 **Noise and Lighting Restrictions.** Construction noise shall be limited to daylight hours, and construction lighting shall be minimized and directed away from the riparian corridor.

MM BIO-5 **Food and Trash.** To eliminate an attraction for the predators of special-status species, all food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in solid, closed containers (trash cans) and removed from the construction site daily.

MM BIO-6 **Prohibition of Plastic Mono-filament Netting.** Plastic mono-filament netting (erosion control matting, wattles), rolled erosion control products or similar material shall not be used at the project site to prevent trapping California red-legged frogs, or other wildlife species.

MM BIO-7 **Construction Monitoring.** If an aquatic special-status species listed under the federal or State endangered species act(s) is confirmed to be present in or near the parcel, a qualified biologist shall be on-site during all construction activities, depending on the species. The qualified biologist shall be given the authority to freely communicate verbally, by telephone, electronic mail, or in writing at any time with construction personnel, any other person(s) at the project site, otherwise associated with the proposed project, CDFW and/or USFWS, or their designated agents. The qualified biologist shall have oversight over implementation of all the conservation measures and shall have the authority and responsibility to stop project activities if they determine any of the associated requirements are not being fulfilled.

MM BIO-8 **Relocation of Aquatic Special-Status Species.** If an aquatic special-status species is found during construction, all work shall cease in the area where the individual was found until the animal leaves the impact area on its own. If this is not possible, a qualified biologist shall contact CDFW/USFWS as appropriate to determine whether the animal can be moved to an appropriate relocation site. If moving the animal is approved, the project applicant shall ensure the qualified biologist is given sufficient time to complete the task. Only qualified biologists shall capture, handle, and move listed species. The qualified biologist shall monitor any relocated individual until it is determined that it is safe.

MM BIO-9 **Biological Monitor during Demolition in the Riparian Zone.** A biological monitor shall be present during the removal of structures within the riparian zone (Figure 4). The monitor shall ensure that silt fencing, snow fencing, or equivalent is installed to prevent debris from entering the creek during demolition activities. If debris falls into the creek, demolition shall stop and additional methods shall be employed to prevent debris from falling into the creek. The biological monitor shall have the authorization to stop demolition activities.

MM BIO-10 **Pre-construction Survey for Nesting Birds.** To avoid impacts to nesting birds and violation of State and federal laws pertaining to birds, all vegetation removal, use of heavy equipment, and ground disturbance should occur outside the avian nesting season (that is, prior to February 1 or after September 15). At a minimum, removal of trees and other woody vegetation outside of the nesting bird season is strongly recommended. If tree removal or ground disturbance occurs within the avian nesting season (from February 1 to September 15), all suitable habitats located within the project's area of disturbance including maintenance areas, staging and storage areas, and access routes plus a 250-foot (passerines) and 1,000-foot (raptor nests) buffer around these areas shall be thoroughly surveyed, as feasible, for the presence of active nests by a qualified biologist no more than five days before commencement of any site disturbance activities and equipment mobilization. If project activities are delayed by more than five days, an additional nesting bird survey shall be performed. Active nesting is present if a bird is building a nest, sitting in a nest, a nest has eggs or chicks in it, or adults are observed carrying food to the nest. The results of the surveys shall be documented.

If pre-construction nesting bird surveys result in the location of active nests, no vegetation removal or maintenance activities shall take place within 250 feet of non-raptor nests and 1,000 feet of raptor nests, or as determined by a qualified biologist in consultation with the CDFW, as appropriate, until the chicks have fledged. Monitoring shall be required to ensure compliance with relevant California Fish and Game Code requirements. Monitoring dates and findings shall be documented.

MM BIO-11 **Bat Protection Measures.** The following measures will prevent significant project impacts to bat species. No less than 30 days prior to construction activities on the project site, including removal of trees or structures, a roosting bat survey shall be

conducted within the impact area and a 50-foot buffer. The survey may be conducted at any time of year, but should be conducted in such a way as to allow sufficient time to determine whether special-status bat species or bat maternity colonies are present. The survey shall include observations of dusk emergence, a search for signs of bat activity, and the use of acoustic equipment to determine the types of bats present. Six trees and five buildings on-site have suitable roosting habitat for bats, all within the riparian zone. If possible, these buildings should not be removed during the bat torpor ("hibernation") period between November 1 and March 1. No trees in the riparian zone are proposed to be removed. If bats are detected, the proposed project shall follow the recommendations of a qualified (5 years minimum experience) biologist to minimize impacts to bat species. Measures will be determined at the time in response to the situation, but may include exclusion or deterrence measures such as installing one way exits or removing roost habitat features after bats emerge in the evening. If an active maternity colony is detected (5 or more bats), a disturbance-free buffer shall be implemented until after maternity season (April 15 – September 15).

MM BIO-12 **Arborist's Report.** An arborist's report shall be prepared by a qualified arborist documenting the species, diameter at breast height (dbh), and health of each tree on the project site. The report shall include recommendations to protect retained trees during construction, particularly trees protected by the City of Napa Municipal Code (Chapter 12.45 Trees on Private Property). Removed or damaged protected trees shall be replaced consistent with the requirements of the Municipal Code.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
2.5 Cultural Resources and Tribal Cultural Resources *Would the project:*				
a) Cause a substantial adverse change in the significance of a historical resource as pursuant to Section 15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
d) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	☒	☐	☐
e) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Environmental Evaluation

Setting

This section describes the existing cultural resources setting and potential effects from project implementation on the project site and its surrounding area. Descriptions and analysis in this section are based on the project-specific Phase I Cultural Resources Assessment (Phase I CRA), with information provided by the California Native American Heritage Commission (NAHC), Northwest Information Center (NWIC), National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), California Historic Landmarks list, California Points of Historical Interest list, Built Environmental Research Directory (BERD), and the California Historical Resources Inventory. The Phase I CRA is included as Appendix C of this Draft IS/MND. .

Applicable Plans, Policies, and Regulations

National Historic Preservation Act

The NRHP established under the National Historic Preservation Act, is a comprehensive inventory of known historic resources throughout the United States. The NRHP is administered by the National Park Service and includes buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological or cultural significance.

The NRHP significance criteria are listed below, and include districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and are:

a) Associated with events that have made a significant contribution to the broad patterns of our history; or

b) Associated with the lives of significant persons in our past; or

c) Embodiment of distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

d) Having yielded or may be likely to yield, information important in history or prehistory.

For a resource to be eligible for listing, it also must retain integrity of those features necessary to convey its significance in terms of: (1) location, (2) design, (3) setting, (4) materials, (5) workmanship, (6) feeling, and (7) association. CEQA requires evaluation of project effects on properties that are listed in or eligible for listing in the NRHP.

California Register of Historical Resources

The CRHR is a guide to cultural resources that must be considered when a government agency undertakes a discretionary action subject to CEQA. The CRHR aids government agencies in identifying, evaluating, and protecting California's historical resources, and indicates which properties are to be protected from substantial adverse change (Public Resources Code [PRC], § 5024.1[a]). The CRHR is administered through the California Office of Historic Preservation, which is part of the California State Parks system. A historic resource listed in, or formally determined to be eligible for listing in, the NRHP is, by definition, included in the CRHR (PRC § 5024.1[d][1]).

State Regulations Regarding Cultural Resources

Archaeological and historical sites are protected by several State policies and regulations under the California Public Resources Code, California Code of Regulations (Title 14 § 1427), and California Health and Safety Code. California Public Resources Code Sections 5097.9-5097.991 require notification of discoveries of Native American remains and provides for the treatment and disposition of human remains and associated grave goods. Both State law and City of Napa Policy Resolution 27 require that the County Coroner be notified if cultural remains are found on a site. If the Coroner determines the remains are those of Native Americans, the NAHC and a "most likely descendant" must also be notified.

Tribal Cultural Resources

A Tribal Cultural Resource (TCR) can be a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe. It also must be either on or eligible for the CRHR, a local historic register, or the lead agency, at its discretion, chooses to treat the resource as a TCR. The Public Resources Code requires lead agencies to participate in formal consultations with California Native American tribes during the CEQA process, if requested by any NAHC-listed tribe, to identify TCRs that may be subject to significant impacts by a project. Where a project may have a significant impact on a TCR, the lead agency's environmental document must discuss the impact and whether feasible alternatives or mitigation measures could avoid or substantially lessen the impact. Consultation is required until the parties agree to measures to mitigate or avoid a significant effect on a TCR or when it is concluded that agreement cannot be reached.

Assembly Bill 52

Assembly Bill (AB) 52 specifies that a project that may cause a substantial adverse change to defined TCRs may result in a significant effect on the environment. AB 52 requires tribes interested in development projects within a traditionally and culturally affiliated geographic area to notify a lead agency of such interest and to request notification of future projects subject to CEQA prior to determining whether a Negative Declaration (ND), Mitigated Negative Declaration (MND), or EIR is required for a project. The lead agency is then required to notify the tribe within 14 days of deeming a development application subject to CEQA complete to notify the requesting tribe as an invitation to consult on the proposed project. AB 52 identifies examples of mitigation measures that would avoid or minimize impacts to TCRs. AB 52 makes the above provisions applicable to projects that have a Notice of Preparation (NOP) or a Notice of Intent (NOI) to adopt an ND/MND circulated on or after July 1, 2015. AB 52 amends Public Resource Code Section 5097.94 and adds Public Resource Code Sections 21073, 21074, 2108.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3, relating to Native Americans.

Northwest Information Center

On May 24, 2022, a records search for the project site and a 0.5-mile search radius was conducted at the NWIC located at Sonoma State University in Rohnert Park, California. The current inventories of the NRHP, the CRHR, the California Historic Landmarks (CHL) list, the California Points of Historical Interest (CPHI) list, and the BERD for Napa County were also reviewed to determine the existence of previously documented local historical resources.

The results of the records search indicate that there are no recorded cultural resources within the project site. There is one prehistoric archaeological resource within a 0.5-mile search radius of the project site. In addition, three survey reports are on file with the NWIC for a 0.5-mile search radius beyond the project site. None of these reports address the project site itself, indicating that it has not been previously surveyed for cultural resources.

Native American Heritage Commission

On May 24, 2022, FirstCarbon Solutions (FCS) contacted the NAHC to determine whether any sacred sites were located within the site or project vicinity. A response was received on July 8, 2022,

indicating that the Sacred Lands File search produced a positive result for the presence of Native American cultural resources within the project vicinity. The NAHC included a list of 11 tribal representatives available for consultation. To ensure that all Native American knowledge and concerns over potential TCRs that may be affected by the proposed project are addressed, a letter containing project information was sent to each tribal representative on July 11, 2022. On July 22, 2022, a letter from the Yocha Dehe Wintun Nation was received requesting further information regarding the proposed project and an opportunity to conduct a pedestrian survey of the project site. No other responses have been received to date. NAHC correspondence and copies of the NAHC letters can be found in Appendix C.

Pedestrian Cultural Resources Survey

On May 25, 2022, FCS Senior Archaeologist Dr. Dana DePietro, RPA, and FCS Historian, Ti Ngo conducted a pedestrian survey for unrecorded cultural resources in the project site. The survey began in the southeast corner of the project site and moved north and west, using north–south transects spaced at 15-meter intervals. All areas of the project site were closely inspected for culturally modified soils or other indicators of potential historic or prehistoric resources. Because of landscaping elements and vegetation, visibility of native soils was less than 5 percent. Native soils were most clearly visible in eastern portion of the project site, where trenching had occurred in order to create a drainage canal. The sections where native soils were visible were closely inspected using a hand trowel. Visible soils were largely composed of dark brown (7.5YR 6/6) silty friable clay soil, interspersed with schist stones ranging from 3 to 5 centimeters. In the north and western portion of the project site near the creek, smooth river stones, basalt, granite, and quartz stones ranging from 2 to 5 centimeters.

Survey conditions were documented using digital photographs and field notes. During the survey, Dr. DePietro and Mr. Ngo examined all areas of the exposed ground surface for prehistoric artifacts (e.g., fire-affected rock, milling tools, flaked stone tools, tool-making debris, ceramics), soil discoloration and depressions that might indicate the presence of a cultural midden, faunal and human osteological remains, and features indicative of the former presence of structures or buildings (e.g., postholes, standing exterior walls, foundations) or historic debris (e.g., glass, metal, ceramics). No indications of prehistoric archaeological resources were found over the course of the pedestrian survey.

Dr. DePietro and Mr. Ngo encountered six structures in the project site. This included a Ranch style home, a barn, a workshop, two sheds, and a guesthouse. Some of these structures appear to be over 45 years in age. These structures had not been previously evaluated. The following paragraphs provide a summary of their evaluation by a qualified architectural historian

Historic Building Survey and Evaluation

Architectural historians, Samantha Murray M.A., and Marlena Krcelich conducted a historic built environment assessment report for the six structures in the project site at 3090 Brown Valley Road. The historic significance of each building was evaluated on State of California Department of Parks and Recreation (DPR) Series 523 Forms (Appendix C). All six structures were evaluated relative to the four eligibility criteria under NRHP and CRHR:

A. Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States (Criterion 1).

B. Associated with the lives of persons important to local, California, or national history (Criterion 2).

C. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values (Criterion 3).

D. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation (Criterion 4).

The first structure constructed on the project site was a 2-story barn for use on the existing orchard in the early 1940s. By 1957, the orchard was removed, and a Ranch style home was built shifting the land use from agricultural to residential. The workshop, sheds, and guest house were all built after 1960. While the property, particularly the barn, is representative of the broader agricultural history of Napa County, by the 1940s, the property was one of hundreds of farms growing fruit. Furthermore, the barn itself has been heavily modified from its original construction and lacks a sense of historical integrity. The property does not meet Criterion 1: Event, as they are examples of many similar, small-scale barns built during this time in Napa Valley.

Research conducted at the Napa County assessor's office, local archives, and the California Digital Newspaper Collection (CDNC) reveals that the property has been associated with several owners over the years. The most significant owner was Henry Martin Wigger, who served as Napa County Supervisor from 1967 to 1974. However, his contributions to local politics occurred outside of his residence at the subject property. The property therefore does not meet the criteria for Criterion 2: Association with persons of historical significance.

The main residence is a Ranch style home built in the 1950s. The house "exhibits a lack of integrity and is a poor representation of the Ranch style" (Appendix C, DPR Form). It also is not representative of the work of an important architect. The guest house and car port, which connects to the main residence via corrugated metal, further undermines the sense of history of the structure by altering its original characteristics and style. The guest house has been significantly altered with one portion consisting of wood siding and a low-pitched hip roof with front gable. A modern entry door, sliding windows, and corrugated metal siding have been added to the structure, altering its historic integrity. The main barn is a vernacular style building. The two small additions built in front of the barn obscure its original façade. The workshop and two sheds are "utilitarian structures with no specific styles and do not represent a specific type, period region, or method of construction" (Appendix C, DPR Form). As such, none of the buildings appear eligible for listing on Criterion 3 of the CRHR.

Criterion 4: Information Potential, is most often used to evaluate archaeological sites or buildings that employ unusual building techniques. There is no evidence that any of the properties in question exhibits any unusual construction features or have the ability to contribute significant information to the overall history of the City of Napa or the greater Napa County area. In summary, the subject property does not appear to qualify as a historical resource for the CRHR, NRHP, or local historical registry (Appendix C, DPR Form).

Cultural Resources

Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as pursuant to Section 15064.5?

Less than significant impact with mitigation incorporated. Section 15064.5 of the State CEQA Guidelines defines a historical resource as (1) a resource listed in or determined to be eligible by the State Historical Resources Commission, for listing in the CRHR; (2) a resource listed in a local register of historical resources or identified as significant in a historical resource survey meeting certain State guidelines; or (3) an object, building, structure, site, area, place, record or manuscript that a lead agency determines to be significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, provided that the lead agency's determination is supported by substantial evidence in light of the whole record.

The results of the NWIC records search indicate that there are no recorded resources in the project site or a 0.5-mile radius of the project site. A pedestrian survey of the project site on May 25, 2022, encountered six structures that are over 45 years in age and may qualify as a historic resource under the CRHR or NRHP. A further evaluation of the buildings indicate that they do not qualify as a historical resource under the CRHR, NRHP, or local registry (Appendix C, DPR Form). However, consistent with Napa Municipal Code 15.52.080 the demolition of a building greater than 45 years old and not listed on the Historic Preservation Inventory shall require a historic clearance prior to issuance of a demolition permit.

While unlikely, subsurface construction activities always have the potential to destroy or damage previously undiscovered historical resources. Historic resources can include wood, stone, foundations, and other structural remains; debris-filled wells or privies; and deposits of wood, glass, ceramics, and other refuse. Implementation of MM CUL-1 would ensure that this potential impact is reduced to a less than significant level.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less than significant impact with mitigation incorporated. Section 15064.5 of the CEQA Guidelines defines significant archaeological resources as resources that meet the criteria for historical resources, as discussed above, or resources that constitute unique archaeological resources. A project-related significant adverse effect could occur if a project were to affect archaeological resources that fall under either of these categories.

Results from the NWIC indicated that there are no recorded archaeological resources within the project site. There is one recorded archaeological resource within a 0.5-mile radius of the project site. A field survey conducted by FCS Senior Archaeologist, Dr. Dana DePietro, and FCS Historian, Ti Ngo, on May 25, 2022, did not encounter or find indications of unrecorded archaeological resources on the project site.

In addition to the pedestrian survey, the potential for yet identified cultural resources in the project vicinity was reviewed against geologic and topographic GIS data for the general area and information from other nearby projects. The proposed project was evaluated against a set of criteria originally identified by a geoarchaeological overview that was prepared for the California Department of Transportation (Caltrans) Districts 6 and 9. This study mapped the "archaeological sensitivity," or potential to support the presence of buried prehistoric archaeological deposits, based on geology and environmental parameters including distance to water and landform slope. The methodology used in the study is applicable to other parts of California such as the Bay Area, and generally concluded that sites consisting of flat, Holocene-era deposits in close proximity to natural water resources had a moderate to high probability of containing subsurface archaeological deposits when compared to earlier Pleistocene deposits situated on slopes or further away from drainages, lakes, and rivers.

Most of the project site is flat and located on Holocene soil. Brown Valley Creek runs along the northern and western boundary of the project site. This combination of factors indicates a moderate buried site potential for encountering subsurface archaeological resources. Subsurface construction activities always have the potential to destroy or damage previously undiscovered archaeological resources. Archaeological resources can include but are not limited to stone, bone, wood, or shell artifacts or features, including hearths and structural elements. Damage or destruction of these resources would be a potentially significant impact. Implementation of MM CUL-1 would ensure that this potential impact is reduced to a less than significant level.

c) Disturb any human remains, including those interred outside of formal cemeteries?

Less than significant impact with mitigation incorporated. The results of the NWIC record search results indicate that there are no known historic or prehistoric resources in the project site. The barn in the project site was constructed prior to 1940 while the main residence was built sometime between 1942 and 1957. The shed and workshop were constructed between 1957 and 1965 (Appendix C). The main residence and guest house are the only area of human habitation in the project site. The project site is also not located near any known cemeteries.

Therefore, the potential for the disturbance of any human remains is considered low. While it is highly unlikely that human remains exist within or near the project site, there is always a possibility that subsurface construction activities associated with the proposed project, such as grading or trenching, could potentially damage or destroy previously undiscovered human remains. In the event of the accidental discovery or recognition of any human remains, CEQA Guidelines Section 15064.5, Health and Safety Code Section 7050.5, and Public Resources Code Sections 5097.94 and 5097.98 must be followed. MM CUL-2 and MM CUL-3 further specifies the procedures to follow in the event human remains are uncovered. Along with compliance with required guidelines and statutes, implementation of MM CUL-2 and MM CUL-3 would reduce potential impacts on human remains to a less than significant level.

Tribal Cultural Resources

Would the proposed project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural

landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

d) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or

Less than significant impact with mitigation incorporated. A review of the CRHR, local registers of historic resources, and the NWIC records search results failed to identify any previously listed TCRs that may be adversely affected by the proposed project. The NAHC Sacred Lands File search produced a positive result for the presence of Native American cultural resources within the project site. The NAHC included a list of 11 tribal representatives available for consultation. To ensure that all Native American knowledge and concerns over potential TCRs that may be affected by the proposed project are addressed, a letter containing project information was sent to each tribal representative on July 11, 2022. On July 22, 2022, a letter from the Yocha Dehe Wintun Nation was received requesting further information regarding the proposed project and an opportunity to conduct a pedestrian survey of the project site. No other responses have been received to date. Should any undiscovered TCRs be encountered during project construction, implementation of MM CUL-2 and MM CUL3 2, which address the inadvertent discovery of cultural resources and human remains, would reduce potential impacts on TCRs to a less than significant level.

e) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less than significant impact with mitigation incorporated. On April 22, 2022, the City of Napa sent out tribal consultation letters pursuant to AB 52 to identify additional significant TCRs meeting the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. Tribes have 30 days to respond and request consultation. On July 22, 2022, a letter from the Yocha Dehe Wintun Nation was received requesting a pedestrian survey of the project site and further information regarding the proposed project. No other responses have been received to date. AB52 consultation between the City of Napa and the Yocha Dehe Wintun Nation is ongoing. No additional responses have been received to date. Should any undiscovered TCRs be encountered during project construction, implementation of MM CUL-2 and MM CUL-3, which address the inadvertent discovery of cultural resources and human remains, would reduce potential impacts on TCRs to a less than significant level.

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Mitigation Measures

MM CUL-1 **Inadvertent Discovery of Cultural Resources.** An Archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for archaeology will be present on the project site to monitor initial clearing and grubbing as well as grading and trenching. In the event exposed soils indicate cultural materials may be

present, this may be followed by regular or periodic archaeological monitoring as determined by the Archaeologist. In the event that previously unidentified paleontological, archaeological or historical resources are uncovered during Site preparation, excavation or other construction activity, all such activity within 100 feet of the discovery shall cease until the resources have been evaluated by a qualified professional, and specific measures can be implemented to protect these resources in accordance with Sections 21083.2 and 21084.1 of the California Public Resources Code. An Archaeologist who meets the Secretary of Interior's Professional Qualification Standards for archaeology shall be consulted to determine whether the resource requires further study. The Lead Agency shall require the standard inadvertent discovery clause to be included on the grading plans to inform contractors of this requirement. Potentially significant cultural resources consist of but are not limited to stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites. The qualified Archaeologist shall make recommendations to the Lead Agency concerning appropriate measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with CEQA Guidelines, Section 15064.5. Any previously undiscovered resources found during construction within the project site should be recorded on appropriate California Department of Parks and Recreation (DPR) forms and evaluated for significance in terms of CEQA Guidelines.

MM CUL-2 In the event that human remains are uncovered during site preparation, excavation or other construction activity, all such activity within 100 feet of the discovery shall cease until the remains have been evaluated by the County Coroner, and appropriate action taken in coordination with the Native American Heritage Commission, in accordance with Section 7050.5 of the California Health and Safety Code or, if the remains are Native American, Section 5097.98 of the California Public Resources Code. If the Coroner recognizes the human remains to be those of a Native American or has reason to believe that they are those of a Native American, he or she shall contact the California Native American Heritage Commission (NAHC) by telephone within 24 hours. The NAHC shall immediately notify those persons it believes to be most likely descended from the deceased Native American (California Health and Safety Code Section 5097.98). The most likely descendant(s) shall work with the project supervisor to determine the most appropriate treatment of the remains. No ground-disturbing activities can resume within 50 feet of the find until the issue has been resolved to the satisfaction of the Commission and/or the most likely descendant(s).

MM CUL-3 In the event that Native American human remains are found during development of the Project, the following provisions shall apply. The Medical Examiner shall immediately be notified, ground disturbing activities in that location shall cease and the Tribe shall be allowed, pursuant to California Public Resources Code Section 5097.98(a), to (I) inspect the site of the discovery and (2) make determinations as to

how the human remains and grave goods should be treated and disposed of with appropriate dignity. The Tribe shall complete its inspection and make its MLD recommendation within 48 hours of getting access to the site. The Tribe shall have the final determination as to the disposition and treatment of human remains and grave goods. Said determination may include avoidance of the human remains, reburial on-site, or reburial on tribal or other lands that shall not be disturbed in the future. The Tribe may wish to rebury said human remains and grave goods or ceremonial and cultural items on or near the site of their discovery, in an area which shall not be subject to future disturbances over a prolonged period of time. Reburial of human remains shall be accomplished in compliance with the California Public Resources Code Sections 5097.98(a) and (b). The term "human remains" encompasses more than human bones because the Tribe's traditions call for the burial of associated cultural items with the deceased (funerary objects), and/or the ceremonial burning of Native American human remains, funerary objects, grave goods and animals. Ashes, soils and other remnants of these burning ceremonies, as well as associated funerary objects and unassociated funerary objects buried with or found near the Native American remains are to be treated in the same manner as bones or bone fragments that remain intact.

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

Environmental Evaluation

Setting

Energy Basics

Energy use, especially through fossil fuel consumption and combustion, relates directly to environmental quality since it can adversely affect air quality and generate GHG emissions that contribute to climate change. Electrical power is generated through a variety of sources, including fossil fuel combustion, hydropower, wind, solar, biofuels, and others. Natural gas is widely used to heat buildings, prepare food in restaurants and residences, and fuel vehicles, among other uses. Fuel use for transportation is related to the fuel efficiency of cars, trucks, and public transportation; choice of different travel modes such as auto, carpool, and public transit; and miles traveled by these modes, and generally based on petroleum-based fuels such as diesel and gasoline. Electric vehicles may not have any direct emissions but do have indirect emissions via the source of electricity generated to power the vehicle. Construction and routine operation and maintenance of transportation infrastructure also consume energy.

Regulatory Framework

City of Napa General Plan and Sustainability Plan

Adopted in 1998, the City of Napa General Plan contains a number of policies and measures pertaining to energy efficiency and conservation. These policies and measures generally have a limited applicability to the proposed project; instead, they recommend actions the City may implement in order to promote and encourage energy efficiency and conservation.[27] As an example, several energy-related policies from the General Plan's Natural Resources Element are shown below:

NR-5.2 The City shall encourage land use patterns and management practices that conserve air and energy resources, such as mixed use development and provisions for local-serving commercial uses adjacent to neighborhoods.

[27] City of Napa. General Plan. Website: https://www.cityofnapa.org/259/General-Plan. Accessed July 18, 2022.

NR-5.3 The City shall promote energy conservation/energy efficiency improvement programs, which reduce energy demand from power-generating facilities which contribute to background levels of regional air emissions.

NR-5.5 The City shall, during early consultation with project proponents, encourage project design that minimizes direct and indirect air emissions. Projects should consider the following air quality concerns:

a. Land use and design measures to encourage alternatives to the automobile and to conserve energy;
b. Land use and design measures to minimize exposure of sensitive receptors to odors, toxics, and criteria pollutants; and
c. Applicable Bay Area Air Quality Management District rules, regulations, and permit requirements.

In 2012, the City adopted its first Sustainability Plan.[28] The Sustainability Plan represents the City's attempt at compiling a list of voluntary actions that the City may encourage or advance in order to promote sustainability throughout the City. The Sustainability Plan has no applicability to private land use development projects such as the proposed project, but it does identify various City of Napa General Plan measures that the City considers to be relevant to sustainability and, therefore, energy conservation. For example, the Sustainability Plan identifies General Plan Goal LU-11 (land use), which involves encouraging new development projects to incorporate green building techniques and renewable energy systems.

City of Napa Municipal Code

Section 15.040.010 of the City's Municipal Code adopts by reference the 2019 edition of the California Building Standards Code.[29]

The following analysis evaluates the impacts of the proposed project related to energy:

Would the project:

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less than significant impact. A discussion of the proposed project's anticipated energy usage is presented below. Energy use consumed by the proposed project was estimated and includes natural gas, electricity, and fuel consumption for project construction and operation. Energy calculations are included as part of Appendix A.

Construction Impacts

The project construction schedule was assumed to begin in January 2023. It is anticipated that construction would require approximately 13 months of activities; however, after accounting for

[28] City of Napa. 2012. Sustainability Plan.
[29] City of Napa. Municipal Code, Section 15.040.010.

potential weather delays and weather shortages, the actual schedule may last 14 to 18 months, though this would not result in any additional workdays. If the construction schedule moves to later years, construction emissions would likely decrease because of improvements in technology and more stringent regulatory requirements as older, less efficient equipment is replaced by newer and cleaner equipment. The proposed project would require demolition, site preparation, grading, building construction, architectural coating, and paving. The construction phase would require energy for the manufacture and transportation of building materials, preparation of the site (e.g., demolition, site clearing, and grading), and the actual construction of the building. Petroleum-based fuels such as diesel fuel and gasoline would be the primary sources of energy for these tasks.

The types of on-site equipment used during construction of the proposed project could include gasoline- and diesel-powered construction and transportation equipment, including trucks, bulldozers, frontend loaders, forklifts, and cranes. Construction equipment is estimated to consume a total of 2,653 gallons of diesel fuel over the entire construction duration (Appendix A).

Fuel use associated with construction vehicle trips generated by the proposed project was also estimated; trips include construction worker trips, haul truck trips for material transport, and vendor trips for construction material deliveries. Fuel use from these vehicles traveling to the project site was based on (1) the projected number of trips the proposed project would generate during construction, (2) average trip distances by trip type, and (3) fuel efficiencies estimated in the ARB EMFAC mobile source emission model. The specific parameters used to estimate fuel usage are included in Appendix A. In total, the proposed project is estimated to generate 111,596 VMT and utilize a combined 3,902 gallons of gasoline and diesel for vehicle travel during construction.

Other equipment could include construction lighting, field services (office trailers), and electrically driven equipment such as pumps and other tools. Napa Municipal Code Section 8.08.025 defines permissible hours of construction as between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday.[30] As on-site construction activities would be restricted to these hours, it is anticipated that the use of construction lighting would be minimal. Singlewide mobile office trailers, which are commonly used in construction staging areas, generally range in size from 160 square feet to 720 square feet. A typical 720-square-foot office trailer would consume approximately 14,022 kWh during the construction phase (Appendix A).

The overall construction schedule and process is already designed to be efficient in order to avoid excess monetary costs. For example, equipment and fuel are not typically used wastefully due to the added expense associated with renting the equipment, maintaining it, and fueling it. Therefore, the opportunities for future efficiency gains during construction are limited. As such, it is anticipated that the construction phase of the proposed project would not result in wasteful, inefficient, and unnecessary consumption of energy. Construction-related energy impacts would be less than significant.

[30] City of Napa. Municipal Code, Section 8.08.025.

Operational Impacts

The proposed project would consume energy as part of building operations and transportation activities. Operation of the proposed project would consume an estimated 101,868 kWh of electricity on an annual basis. The proposed project's building would be designed and constructed in accordance with the City's latest adopted energy efficiency standards, which are based on the State's Building Energy Efficiency Standards. These are widely regarded as the most advanced building energy efficiency standards and compliance would ensure that building energy consumption would not be wasteful, inefficient, or unnecessary. Additionally, the proposed residential uses would be required under the 2019 California Building Code, Title 24, Part 6, Subchapter 8, to include rooftop solar panels at the time those uses are developed.[31]

The proposed project would include several sustainable design features, including utilization of an all-electric building design; therefore, the proposed project is assumed to not consume natural gas during operations. As previously discussed, the proposed project would be considered to result in a potentially significant impact if it would result in wasteful, inefficient, or unnecessary consumption of energy resources. Considering the guidance provided by Appendix F of the CEQA Guidelines and the Appellate Court decision in *League to Save Lake Tahoe Mountain etc. v. County of Placer* (2022) 75 Cal.App.5th 63, 164-168, the proposed project would be considered to result in wasteful, inefficient, or unnecessary consumption of energy resources if it would conflict with the following energy conservation goals:

- Decreasing overall per capita energy consumption;
- Decreasing reliance on fossil fuels such as coal, natural gas, or oil; and
- Increasing reliance on renewable energy sources.

Decreasing Overall Per Capita Energy Consumption

Project-related vehicle trips would consume fuel throughout the life of the proposed project due to project employee vehicles, delivery vehicles, and heavy-duty trucks. Project-related vehicle trips would consume an estimated 10,659 gallons of gasoline and diesel annually. Regional access to the project site is provided by SR-29, which is approximately 1 mile from the project site at its nearest location. As a result, the proposed project is located near regional and local roadways that would provide convenient access for future residents and employees. Thus, transportation fuel consumption would not be wasteful, inefficient, or unnecessary. Additionally, based on the Traffic Memorandum provided by Kimley-Horn, the proposed project would generate 94 daily vehicle trips, which is below the 110 daily trip threshold to qualify as a small project for the purposes of VMT screening criteria per Governor's Office of Planning and Research (OPR).[32] Therefore, this project is considered a small project and can be assumed to cause a less than significant VMT impact.

In addition, the proposed project's buildings would be designed and constructed in accordance with the CALGreen energy efficiency standards of Title 24. Title 24 standards include a broad set of energy conservation requirements that apply to the structural, mechanical, electrical, and plumbing systems

[31] International Code Council (ICC). 2022. 2019 California Building Code, Title 24, Part 6, Subchapter 8 Low-Rise Residential Building—Performance and Prescriptive Compliance Approaches.

[32] Kimley-Horn. 2022. 3090 Browns Valley Road Subdivision – Transportation Study – Napa, CA. May.

in a building. For example, the Title 24 Lighting Power Density requirements define the maximum wattage of lighting that can be used in a building based on its square footage. Title 24 standards, widely regarded as the most advanced energy efficiency standards, would help reduce the amount of energy required for lighting, water heating, and heating and air conditioning in buildings and promote energy conservation. Therefore, the proposed project would be consistent with this criterion.

Decreasing Reliance on Fossil Fuels

The proposed project would be considered to conflict with this criterion if it did not take steps to decrease the reliance on fossil fuels. The proposed project would include EV charging infrastructure meeting the Tier 2 requirements of the Residential Voluntary Measures of CALGreen. The inclusion of these features would contribute to an acceleration of EV adoption and facilitate an increase in EV and clean air and high occupancy vehicle use by residents, employees, and visitors of the proposed project, though they cannot guarantee a reduction in energy usage. Moreover, the proposed project would include an all-electric building design, decreasing the proposed project's reliance on natural gas for space and water heating. Therefore, the proposed project would be consistent with this criterion.

Increasing Reliance on Renewable Energy Sources

As previously discussed, the proposed project would utilize an all-electric building design, eliminating the use of natural gas and allowing the proposed project to utilize renewable energy sources as its energy supply. In addition, the proposed project would include EV charging infrastructure meeting the Tier 2 requirements of the Residential and Nonresidential Voluntary Measures of CALGreen, which would accelerate the region's and proposed project's adoption of EVs and allow the future transportation energy supply necessary for residents, employees, and visitors to be substituted with renewable energy sources. The proposed project would also include solar photovoltaic systems capable of generating approximately 30,000 kWh of electricity per year. As such, the proposed project would facilitate a greater dependence on renewable energy sources for building and transportation energy demands. Therefore, the proposed project would be consistent with this criterion.

Overall

As discussed above, the proposed project's energy consumption would not result in the wasteful, inefficient, or unnecessary consumption of energy resources, consistent with the guidance derived from Appendix F of the CEQA Guidelines and the Appellate Court decision in *League to Save Lake Tahoe Mountain etc. v. County of Placer* (2022) 75 Cal.App.5th 63, 164-168. The construction-related and operation-related impacts related to electricity, natural gas, and fuel consumption would be less than significant. Therefore, the proposed project would not introduce new significant environmental impacts or substantially increase the severity of previously analyzed significant effects under any scenario. No additional analysis is required, and impacts would remain less than significant.

b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

Less than significant impact. The following discusses project consistency with applicable plans adopted for the purpose of reducing energy consumption.

Construction

The proposed project would result in energy consumption through the combustion of fossil fuels. Limitations on idling of vehicles and equipment and requirements that equipment be properly maintained would result in fuel savings. California Code of Regulations Title 13 Sections 2449(d)(3) and 2485 limit idling from both on-road and off-road diesel-powered equipment and are enforced by the ARB. The proposed project would be required to comply with these regulations. There are no renewable energy standards that would apply to construction of the proposed project. As a result, construction would not conflict with or obstruct any regulations adopted for the purposes of increasing the use of renewable energy. Furthermore, it is anticipated that construction of the proposed project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing energy use or increasing the use of renewable energy. Therefore, the proposed project would result in less than significant impacts related to construction energy efficiency and use of fossil fuels or decreased use of renewable resources.

Operation

The proposed project would be served with electricity provided by PG&E. In 2020, PG&E obtained 31 percent of its electricity from renewable energy sources, while the remaining electricity was sourced from nuclear (43 percent), natural gas (16 percent), and large hydroelectric (10 percent).[33] While PG&E's 2020 Renewable Portfolio Standard (RPS) reporting showed that only 31 percent of electricity sales sourced from eligible renewable sources, the RPS requirements apply to a 3-year average of utility provider electricity sourcing to allow for fluctuations in market demand and supply availability. Nonetheless, the electricity provider is required to meet the State's 2020 objective of 33 percent and is making progress toward the State's 2024 RPS target of 44 percent. The electricity provider would also be required to meet the State's future objective of 60 percent electricity from renewable energy sources by 2030.

The buildings of the proposed project would be designed in accordance with California Code of Regulations Title 24, California's Energy Efficiency Standards for Residential Buildings as applicable. These standards include minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., heating, ventilation, and air conditioning [HVAC] and water heating systems), and indoor and outdoor lighting. For example, the proposed project would install solar photovoltaic systems capable of generating 30,000 kWh of electricity per year and low flow plumbing fixtures and irrigation heads that are compliant with Title 24 Standards.

In addition, the City's Sustainability Plan identifies various General Plan goals that promote energy efficiency and conservation through wastewater conservation and various green building practices. For example, the Sustainability Plan identifies General Plan Goal LU-11 (land use), which involves encouraging new development projects to incorporate green building techniques and renewable energy systems. The proposed project would be built in accordance with latest Title 24 Energy Efficiency and CALGreen standards, and it would include solar photovoltaic systems capable of generating approximately 30,000 kWh of electricity per year. Therefore, the proposed project would be consistent with General Plan Goal LU-11. The Sustainability Plan also identifies General Plan Goal

[33] California Energy Commission. 2022. Power Content Label. Website: https://www.energy.ca.gov/filebrowser/download/3882. Accessed July 18, 2022.

CS-10 (Community Services), which involves promoting water-conserving design and equipment in new construction. Title 24 and CALGreen standards also would ensure that the proposed project is built to the State's latest water conservation and efficiency standards. Therefore, the proposed project would be consistent with General Plan Goal CS-10. As the proposed project would be built to applicable Title 24 Energy Efficiency and CALGreen standards, the proposed project would be consistent with relevant energy efficiency-related General Plan goals identified in the City's Sustainability Plan. Therefore, the energy impacts of the proposed project would be less than significant.

Mitigation Measures

None required.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
2.7 Geology and Soils *Would the project:*				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Environmental Evaluation

The findings in the section are based on the Fault Evaluation Report prepared by Bajada Geosciences, Inc. on July 28, 2021, Geotechnical Exploration Report prepared by KC Engineering Company on September 21, 2021, and Paleontological Records Search prepared by Dr. Kenneth Finger on May 27, 2022 (all three report are included in Appendix D).

Setting

The project site is situated in the western portion of the City of Napa, lying between the Archer Taylor Preserve to the East and the Vaca Mountains to the West, located within the *Napa, California* 7.5-minute Topographic Quadrangle Map. The regional base rock consists primarily of alluvial fan sediment deposited by streams emanating from mountain drainages and consist of moderately to poorly sorted sand, gravel, silt, and clay, as well as tuffaceous and diatomaceous lacustrine sediments.[34] The project site base rock consists predominantly of alluvial fan sediment deposits, with higher instances of Holocene-era stream channel deposits, stream terrace deposits, and artificial fill in the northern portion abutting Browns Creek. The site is bisected by the West Napa Fault Zone.[35] This fault is further discussed under Impact 2.7(b) below.

Five exploratory borings were drilled as a part of the geotechnical field investigations to a maximum of 36.5 feet below the existing ground surface. Groundwater was not encountered in Borings 1-4; however, it was encountered at a depth of 20 feet in Boring 5. Groundwater may fluctuate with variations in seasonal rainfall, irrigation on the site, creek flows, and variations in subsurface stratification. According to the Geotechnical Exploration, the area is not considered susceptible to liquefaction or land sliding.[36]

Would the project:

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Less than significant impact. The City of Napa is located in a seismically active region and earthquake related ground shaking should be expected during the design life of the proposed structures. Surface rupture occurs when the ground moves and breaks during earthquake fault movement. These ruptures typically occur along fault lines and can cause adverse damage to buildings constructed within the rupture zone, delineated by the California Geological Survey (CGS) as Alquist-Priolo Earthquake Fault Zones. According to the Geotechnical Investigation (Appendix D), the project site is located within an Alquist-Priolo Earthquake fault zone and bisected by the West Napa Fault trace. As a result, the Geotechnical Evaluation Report recommends a 25-foot setback from the fault line to residential structures in order to minimize their risk from fault surface rupture. As shown in Exhibit 10, all residential structures are located outside of the 25-foot fault setback. In addition, construction and design would use standard engineering and seismic safety design techniques in accordance with the 2022 California Building Standards Code (CBC), which would

[34] Tuffaceous sediments contain light, porous rock formed by consolidation of volcanic ash; lacustrine refers to soils associated with lakes.
[35] KC Engineering Company. 2021. Geotechnical Exploration Report. September 21.
[36] Ibid.

reduce impacts in case of fault rupture. With the implementation of a setback and compliance with CBC design and construction standards, the impact would be reduced to a less than significant level.

ii) Strong seismic ground shaking?

Less than significant impact. While earthquakes can induce hazards such as surface rupture, ground shaking, and secondary hazards such as liquefaction, most structural damage is caused by strong seismic ground shaking due to ground motion waves. The magnitude of the ground shaking is determined by the magnitude of the earthquake, the distance to the epicenter, and the geology of the area between the epicenter and property.

According to the General Plan, the project site is categorized as susceptible to "strong shaking."[37] In addition to the West Napa Fault trace that traverses the site, the next nearest faults are the Green Valley Fault approximately 8.5 miles east of the site and the Hayward-Rogers Creek Fault located approximately 12.9 miles west of the site. Various other active faults in the Bay Area such as the San Andreas Fault can produce seismic shaking at the site as well.

The proposed project would be required to comply with the requirements of both the 2022 CBC and the City's Uniform Building Code pertaining to structural design and seismic design specifications, as well as the recommendations of the Geotechnical Investigation, which includes a recommended setback of 25 feet from the identified fault line and the implementation of uniformly thickened post-tension slab foundation systems in order to minimize differential movements and structural distress. Compliance with applicable codes and regulations, as well as the Standard Permit Condition listed above, would ensure the potential impacts remain less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less than significant impact. The project site is not located within a seismic hazard zone for susceptibility to liquefaction. Liquefaction occurs when saturated granular and non-plastic, fine-grained soils lose their physical strength or structure temporarily and behave as a liquid during seismic activity. This phenomenon occurs under the conditions of shallow groundwater, low-density non-plastic soils, and high-intensity ground motion. The intensity of ground motion depends partially on poorly consolidated materials and proximity to the causative fault.

According to the Geotechnical Analysis, the project site is not considered susceptible to liquefaction. This is confirmed by the CGS map of areas of potential liquefaction risk, which classifies the City as susceptible only to Earthquake Fault Zones.[38] The Geotechnical Investigation did identify some potentially liquefiable clayey sand soils at depths between 22 and 32 feet; however, their depths combined with overcapping dense clayey soils reduce the risk of surface manifestation. Therefore, the impact of liquefaction would be less than significant.

[37] City of Napa. 1998. General Plan – Health and Safety. Website: https://www.cityofnapa.org/DocumentCenter/View/452/Chapter-8---Health-and-Safety-PDF. Accessed June 17, 2022.

[38] California Geological Survey. 2015. CGS Information Warehouse: Regulatory Maps. Website: https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=regulatorymaps. Accessed June 17, 2022.

iv) Landslides?

Less than significant impact. According to the Geotechnical Investigation and the CGS, the project site is not currently mapped within a State of California Seismic Hazard Zone for seismically induced land sliding.[39] However, the Geotechnical Investigation notes that the creek bank bounding the northern edge of the project site has a very steep slope ranging from 1H:1V to near vertical, with evidence of past sloughing and erosion from high creek flows and seismic events. The Geotechnical Investigation recommends as setback of 2H:1V from the toe of the creek bank. This, combined with the project site's overall low risk for seismically induced land sliding, would ensure the impact remains less than significant.

b) Result in substantial soil erosion or the loss of topsoil?

Less than significant impact. Soil erosion occurs primarily when grading and other construction activities expose soil to rain, winds, and other storm events. Compliance with the State Water Resources Control Board (State Water Board) requirement for preparation of a Stormwater Pollution Prevention Plan for disturbance of sites greater than one acre, as well as the City's Policy Resolution No. 27, would ensure the proposed project would result in less than significant impacts related to erosion or loss of topsoil during construction. The Geotechnical Investigation provides several measures to maintain uniform moisture conditions, including measures to direct stormwater away from the structure foundations and the recommendation of conducting all grading during the summer months to avoid conflicts with winter rains. Therefore, through combining the stormwater management and grading timeline recommendations provided by the Geotechnical Investigation, the impact would be less than significant.

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

As previously discussed in sections 1-c) and 1-d), impacts related to lateral spreading and landslide are less than significant. The Geotechnical Investigation recognized the creek bank on the northern edge of the site as having potential for landslides following seismic activity and high creek flows, but compliance with the recommended setback from the toe of the creek would reduce this risk to less than significant. The Geotechnical Investigation also found evidence of clayey sand soils at depths between 22 and 32 feet; however, the depth of the soils and the density of the overcapping layer led to the conclusion that any settlement should be expected to be minimal. Additionally, the proposed project would be designed in accordance with the 2022 CBC guidelines and the Geotechnical Investigation's recommended measures to address the potential for seismic-induced settlement impacts related to unstable soils. As noted, the project site is not located in a liquefaction zone. Because the proposed project would be constructed in accordance with the requirements of the CBC and the recommendations of the Geotechnical Investigation, the potential impact related to seismic-related ground failure would be less than significant.

[39] California Geological Survey. 2015. Landslide Inventory (Beta). Website: https://maps.conservation.ca.gov/cgs/lsi/. Accessed June 17, 2022.

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

Less than significant impact. Expansive soils are characterized by the potential for shrinking and swelling as the moisture content of the soil decreases and increases, respectively. Shrink-swell potential is influenced by the amount and type of clay minerals present and can be measured by the percent change of the soil volume. The Geotechnical Investigation identified moderately to highly expansive silty and sandy clay in the upper 9 to 18 feet of the soil that must be carefully considered in the design and construction of the structures on the parcel. The Geotechnical Investigation provides design and construction recommendations that have been developed based on the noted project design conditions, including those for slab-on-grade construction. Compliance with the mandatory building code structural specifications, as well as adherence to the recommendations in the Geotechnical Investigation, would ensure that potential impacts related to expansive soils would be less than significant.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No impact. The proposed project would connect to existing sanitary sewer lines in Browns Valley Road. Following approval of annexation by LAFCo, the proposed project would be served by the City of Napa Water Division and NapaSan. The City's sanitary sewer system would transfer wastewater to existing treatment facilities of processing and disposal. The proposed project does not include new septic tanks or alternative wastewater disposal systems. Therefore, no impact would occur.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than significant impact with mitigation incorporated. Paleontological resources are the fossilized remains of organisms from prehistoric environments found in geologic strata. These resources are valued for the information they yield about the history of the earth and its past ecological settings. The potential for fossil occurrence depends on the rock type exposed at the surface in a given area. According to the site-specific Paleontological Records Search (Appendix D), the University of California Museum of Paleontology (UCMP) database search revealed no vertebrate or plant localities within 4 miles of the project site, and only one plant locality within the entirety of Napa County. Because the surface of the project site is disturbed and because of the distance from the nearest vertebrate locality, paleontological monitoring of construction was not recommended. However, to ensure that there are no direct or indirect impacts to any resources, MM GEO-1 requires ceasing construction activity within 100 feet of the discovery in the event that previously unidentified paleontological resources are discovered, until the resources have been evaluated by a qualified professional and protective measures have been implemented. With the implementation of MM GEO-1, impacts would be less than significant.

Mitigation Measures

MM GEO-1 In the event that previously unidentified paleontological, archaeological or historical resources are uncovered during site preparation, excavation or other construction

activity, all such activity within 100 feet of the discovery shall cease until the resources have been evaluated by a qualified professional, and specific measures can be implemented to protect these resources in accordance with Sections 21083.2 and 21084.1 of the California Public Resources Code.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
2.8 Greenhouse Gas Emissions *Would the project:*				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Environmental Evaluation

Setting

Gases that trap heat in the atmosphere are referred to as greenhouse gases. The effect is analogous to the way a greenhouse retains heat. Prominent GHGs that naturally occur in the Earth's atmosphere are water vapor, carbon dioxide (CO_2), methane (CH_4), oxides of nitrogen (NO_X), and ozone.[40] Anthropogenic (human-caused) GHG emissions include releases of these GHGs plus release of human-made gases with high global warming potential (GWP) (ozone-depleting substances such as chlorofluorocarbons [CFCs])[41] and aerosols, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6).

Global climate change is not confined to a particular project area and is generally accepted as the consequence of global industrialization over the last 200 years. A typical project, even a very large one, does not generate enough greenhouse gas emissions on its own to influence global climate change significantly; hence, the issue of global climate change is, by definition, a cumulative environmental impact. Therefore, this section discusses the proposed project's contribution to the cumulative GHG impact.

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than significant impact. Both construction and operational activities have the potential to generate GHG emissions. The proposed project would generate GHG emissions during temporary

[40] United Nations Intergovernmental Panel on Climate Change (IPCC). 2007. Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller [eds.]). Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA. Website: https://www.ipcc.ch/report/ar4/wg1/. Accessed January 27, 2022.

[41] U.S. Department of State. The Montreal Protocol on Substances that Deplete the Ozone Layer. Website: https://www.state.gov/key-topics-office-of-environmental-quality-and-transboundary-issues/the-montreal-protocol-on-substances-that-deplete-the-ozone-layer/. Accessed March 8, 2022.

(short-term) construction activities such as demolition and grading, running of construction equipment engines, movement of on-site heavy-duty construction vehicles, hauling materials to and from the project site, asphalt paving, and construction worker, vendor, and haul truck motor vehicle trips.

Long-term, operational GHG emissions most often result from project-generated vehicular traffic, on-site combustion of natural gas, operation of any landscaping equipment, off-site generation of electrical power over the life of the proposed project, the energy required to convey water to and wastewater from the project site, and the emissions associated with the hauling, and disposal of solid waste from the project site.

In April 2022, the BAAQMD adopted updated GHG thresholds of significance that represent what is required of new land use development projects to achieve California's long-term climate goal of carbon neutrality by 2045. The BAAQMD has found that new land use development projects being built today need to incorporate the following design element thresholds shown in Table 10 to do their "fair share" of implementing the goal of carbon neutrality by 2045:

Table 10: BAAQMD Climate Change Thresholds for Land Use Projects

Project Must Include A or B, as Outlined Below:
A. Projects must include, at a minimum, the following project design elements: **Buildings** The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development). The project will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines. **Transportation** Achieve a reduction in project-generated Vehicle Miles Traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA: • Residential projects: 15 percent below the existing VMT per capita • Office projects: 15 percent below the existing VMT per employee • Retail projects: no net increase in existing VMT • Achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.
B. Projects must be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b)
Source: Bay Area Air Quality Management District (BAAQMD). Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts From Land Use Projects and Plans. April 2022.

The proposed project would satisfy the Threshold A design elements. Regarding building design, the proposed project would not include natural gas appliances or natural gas plumbing. Further, as determined under Energy Impact(a), the proposed project would not result in any wasteful, inefficient, or unnecessary energy usage during construction or operations.

Regarding transportation, the vehicle trip analysis prepared by Kimley-Horn determines that the proposed project would be assumed to cause a less than significant VMT impact, pursuant to OPR screening thresholds. This means that the proposed project would not interfere with regional or locally adopted VMT reduction targets and is presumed to achieve at least a 15 percent reduction in per capita VMT from the regional average. Further, the proposed project would be built in accordance with CALGreen Tier 2 off-street EV requirements, meaning that each dwelling unit would include a raceway with a dedicated 208/240-volt branch circuit for EV chargers.

Given these considerations, the proposed project would be consistent with the building design and transportation elements of the BAAQMD's Threshold A. As such, the proposed project would contribute its portion of what the BAAQMD deems necessary to achieve California's long-term climate goals, and the proposed project would not result in a cumulatively considerable impact to global climate change. This impact would be less than significant.

For informational purposes, the following section provides quantitative estimates of the proposed project's GHG emissions from construction and operations.

Short-term Construction Impacts

The proposed project would emit GHG emissions during construction from the off-road equipment, worker vehicles, and any hauling that may occur. Total GHG emissions generated throughout construction were combined and are presented in Table 11.

While the proposed project is anticipated to be constructed in 14 to 18 months (as described in Section 1.4, Project Description), project construction was previously anticipated to occur over a 13-month period at the time this GHG analysis was prepared. The applicant has extended the construction schedule from the original 13-month duration to 14 to 18 months to account for potential (but reasonably foreseeable) lost construction days from labor shortages and weather events. As such, while construction is now anticipated to occur over up to 18 months, the 13-month construction schedule utilized in the modeling supporting this GHG analysis remains representative of project construction activities. Because no construction activity would occur due to weather or labor shortages on the additional days, there would be no increase in construction equipment operations and any subsequent GHG emissions. Construction of the proposed project is expected to require the same number of workdays (264) whether any weather delays or labor shortages are accounted for or not. The modification of the construction schedule has no effect on the total GHG emissions that would be generated by the proposed project's construction.

Table 11: Construction GHG Emissions

Construction Phase	MT CO_2e per year
Demolition (Sitewide)	11
Site Preparation (Sitewide)	2
Grading (Sitewide)	16
Paving (Interior Roadway)	1

Construction Phase	MT CO_2e per year
2023 Building Construction (6 of 11 Homes)	20
2023 Architectural Coating (6 of 11 Homes)	1
2023 Building Construction (Remaining 5 Homes)	12
2024 Building Construction (Remaining 5 Homes)	5
2024 Architectural Coating (Remaining 5 Homes)	1
Total Construction Emissions	**69**

Notes:
MT CO_2e = metric tons of carbon dioxide equivalent
Totals may not add up due to rounding.
Source: CalEEMod Output (Appendix A).

Long-term Operational Impacts

The proposed project would contribute to global climate change through direct and indirect emissions of GHG from mobile sources (e.g., passenger vehicles, trucks), energy (e.g., on-site natural gas consumption and purchased electricity), water use and wastewater generation, and solid waste generation. All modeling parameters utilized in the Air Quality analysis are also utilized for this GHG analysis, including but not limited to trip generation rates, trip distances, building sizes and operations, energy consumption, water consumption, and waste generation. Please refer to Appendix A for modeling results and detailed calculations

Operational GHG emissions by source, including amortized construction emissions, are shown in Table 12. As shown, operation of the proposed project at buildout is estimated to result in an annual GHG emissions inventory of approximately 122 MT CO_2e per year.

Table 12: Operational GHG Emissions

Emission Source	Year 2024 Total Emissions (MT CO_2e per year)
Area	<1
Energy	22
Mobile (Vehicles)	91
Waste	7
Water	1
Total Annual Project Emissions	**122**

As previously discussed, the proposed project would contribute its portion of what the BAAQMD deems necessary to achieve California's long-term climate goals, and the proposed project would not result in a cumulatively considerable impact to global climate change. This impact would be less than significant.

b) Conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less than significant impact. The following discusses project consistency with applicable plans adopted for the purpose of reducing GHG emissions, which include ARB's Scoping Plan, Metropolitan Transportation Commission/Association of Bay Area Governments (MTC/ABAG) Plan Bay Area 2050, and City of Napa's General Plan.

Senate Bill 32 2017 Scoping Plan Update

The principal State plan and policy for GHG emission reduction targets are set forth in Executive Order S-03-05, AB 32, and the subsequent SB 32. The quantitative goal of AB 32 was to reduce GHG emissions to 1990 levels by 2020. AB 32 required the ARB to develop a Scoping Plan that described California's approach to reduce GHGs to achieve the 2020 emission target. This target was ultimately achieved four years earlier than mandated. SB 32 then accelerated the GHG emission reduction goals of AB 32. The 2017 Scoping Plan Update, the most recent update to the ARB Scoping Plan, reflects the 2030 target of a 40 percent reduction below 1990 levels as set by Executive Order B-30-15 and codified by SB 32. It is applicable to State agencies but is not directly applicable to Cities/Counties and individual projects (i.e., the Scoping Plan does not require the City to adopt policies, programs, or regulations to reduce GHG emissions). However, new regulations adopted by the State agencies outlined in the Scoping Plan result in GHG emissions reductions at the local level. As a result, local jurisdictions benefit from reductions in transportation emissions rates, increases in water efficiency in the building and landscape codes, and other Statewide actions that affect a local jurisdiction's emissions inventory from the top down.

Table 13 provides an analysis of the proposed project's consistency with the 2017 Scoping Plan Update measures. As shown in Table 13, many of the measures are not applicable to the proposed project, and the proposed project is consistent with strategies that are applicable.

Table 13: Consistency with SB 32 2017 Scoping Plan Update

2017 Scoping Plan Update Reduction Measure	Project Consistency
SB 350: 50 Percent Renewable Mandate. Utilities subject to the legislation will be required to increase their renewable energy mix from 33 percent in 2020 to 50 percent in 2030.	**Not applicable.** This measure would apply to utilities and not to individual development projects. The proposed project would purchase electricity from PG&E subject to the SB 350 Renewable Mandate.
SB 350 Double Building Energy Efficiency by 2030. This is equivalent to a 20 percent reduction from 2014 building energy usage compared to current projected 2030 levels.	**Not applicable**. This measure applies to existing buildings. New structures are required to comply with Title 24 Energy Efficiency Standards that are expected to increase in stringency over time. The proposed project would comply with the applicable Title 24 Energy Efficiency Standards in effect at the time building permits are received.
Low Carbon Fuel Standard. This measure requires fuel providers to meet an 18 percent reduction in carbon content by 2030.	**Not applicable.** This is a Statewide measure that cannot be implemented by a project applicant or lead agency. However, vehicles used by future residents at the project site would benefit from the standards.

2017 Scoping Plan Update Reduction Measure	Project Consistency
Mobile Source Strategy (Cleaner Technology and Fuels Scenario). Vehicle manufacturers will be required to meet existing regulations mandated by the LEV III and Heavy-Duty Vehicle programs. The strategy includes a goal of having 4.2 million Zero Emission Vehicles (ZEVs) on the road by 2030 and increasing numbers of ZEV trucks and buses.	**Not applicable.** This measure is not applicable to the proposed project; however, vehicles accessing the project site would benefit from the increased availability of cleaner technology and fuels. In addition, as stipulated by the 2019 California Building Standards Code, Title 24, Part 11, Chapter 4, Section 4.106.4.1, new one-family dwellings, such as the proposed project, would be required to implement the applicable provisions of Title 24, Part 6, Section 4.106.4 of the 2019 California Building Standards Code to support future EV supply equipment (EVSE).
Sustainable Freight Action Plan. The plan's target is to improve freight system efficiency 25 percent by increasing the value of goods and services produced from the freight sector, relative to the amount of carbon that it produces by 2030. This would be achieved by deploying over 100,000 freight vehicles and equipment capable of zero emission operation and maximize near-zero emission freight vehicles and equipment powered by renewable energy by 2030.	**Not Applicable.** The proposed project is residential in nature and would not involve major freight vehicles.
Short-lived Climate Pollutant (SLCP) Reduction Strategy. The strategy requires the reduction of SLCPs by 40 percent from 2013 levels by 2030 and the reduction of black carbon by 50 percent from 2013 levels by 2030.	**Consistent.** Consistent with BAAQMD Regulation 6, Rule 3, no wood-burning devices are proposed as part of the proposed project. Therefore, the proposed project would not include major sources of black carbon.
SB 375 Sustainable Communities Strategies. Requires Regional Transportation Plans to include a Sustainable Communities Strategy for reduction of per capita VMT.	**Not applicable.** The proposed project does not include the development of a Regional Transportation Plan.
Post-2020 Cap-and-Trade Program. The Post 2020 Cap-and-Trade Program continues the existing program for another 10 years. The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers.	**Not applicable.** The proposed project is not one targeted by the cap-and-trade system regulations, and, therefore, this measure does not apply to the proposed project. However, the post-2020 Cap-and-Trade Program indirectly affects people and entities who use the products and services produced by the regulated industrial sources when increased cost of products or services (such as electricity and fuel) are transferred to the consumers.

2017 Scoping Plan Update Reduction Measure	Project Consistency
Natural and Working Lands Action Plan. The ARB is working in coordination with several other agencies at the federal, State, and local levels, stakeholders, and with the public, to develop measures as outlined in the Scoping Plan Update and the governor's Executive Order B-30-15 to reduce GHG emissions and to cultivate net carbon sequestration potential for California's natural and working land.	**Not applicable**. The proposed project is in a built-up urban area that would not be considered natural or working lands.
Source of ARB 2017 Scoping Plan Update Reduction Measures: California Air Resource Board (ARB). 2017. California's 2017 Climate Change Scoping Plan. November. Website: https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed July 15, 2022.	

As shown in Table 13, implementation of the proposed project would not conflict with the reduction measures proposed in SB 32.

Other Statewide Strategies

Transportation Sector

Statewide strategies to reduce GHG emissions from passenger vehicles and the transportation sector in general include the Low Carbon Fuel Standard and changes in the corporate average fuel economy standards (e.g., Pavley I and Pavley California Advanced Clean Cars program).[42] The proposed project would include wiring and conduits capable of supporting electric vehicle charging consistent with CALGreen Tier 2 EV requirements. As a result, the proposed project would not conflict with State goals for reducing GHG emissions from passenger vehicles.

Energy/Commercial-Residential Sectors

Energy use generated by the proposed project represents the second largest source of emissions after the transportation sector. New buildings under the proposed project would meet the current CALGreen and Building Energy Efficiency standards. The proposed project would include rooftop photovoltaic electricity generation panel arrays compliant with the California Building Code. Therefore, the proposed project would be consistent with the State's goals for reducing residential energy consumption.

Other Sources

Other sources of GHG emissions include solid waste disposal, which is associated with landfilling municipal solid waste. The amount of methane emitted to the atmosphere as a fraction of the total amount of methane generated from the decomposition of accumulated waste has gradually declined over time as more landfills install landfill gas collection and control systems and existing systems are

[42] California Air Resources Board (ARB). 2015. Low Carbon Fuel Standard Regulation. Website: http://www.arb.ca.gov/regact/2015/lcfs2015/lcfs2015.htm. Accessed July 15, 2022.

operated more efficiently as a result of ARB's Landfill Methane Control Measure.[43] Therefore, the proposed project would be consistent with the State's goals for the recycling and waste sector.

Metropolitan Transportation Commission Plan Bay Area

As part of the implementing framework for Plan Bay Area 2050, local governments have identified planned development areas to focus growth. The proposed project site is within the planning area of the City of Napa General Plan and consistent with applicable land use designations. Thus, the proposed project would be consistent with the overall goals of Plan Bay Area, which include reducing VMT and concentrating new investment in infill areas with existing urban and transportation infrastructure. Regarding VMT, the vehicle trip analysis prepared by Kimley-Horn determines that the proposed project would be assumed to cause a less than significant VMT impact, pursuant to OPR screening thresholds. This means that the proposed project would not interfere with regional or locally adopted VMT reduction targets. Additionally, the proposed project would contribute to residential density in what is current a low-intensity infill location. Given these considerations, the proposed project would not conflict with the land use concept plan in Plan Bay Area 2050.

City of Napa General Plan

The City of Napa has not adopted a Climate Action Plan. In 2012, the City adopted its first Sustainability Plan. The Sustainability Plan represents the City's attempt at compiling a list of voluntary actions that the City may encourage or advance in order to promote sustainability throughout the City. The Sustainability Plan has no applicability to private land use development projects such as the proposed project, but it does identify various City of Napa General Plan measures that the City considers to be relevant to sustainability and, therefore, climate change. These General Plan measures also have limited applicability to the proposed project, but they generally entail promoting wastewater conservation, green building practices, and energy efficiency. For example, the Sustainability Plan identifies General Plan Goal LU-11 (land use), which involves encouraging new development projects to incorporate green building techniques and renewable energy systems. The proposed project would be built in accordance with latest Title 24 Energy Efficiency and CALGreen standards, and it would include solar photovoltaic systems capable of generating approximately 30,000 kWh of electricity per year. Therefore, the proposed project would be consistent with General Plan Goal LU-11. The Sustainability Plan also identifies General Plan Goal CS-10 (Community Services), which involves promoting water-conserving design and equipment in new construction. Title 24 and CALGreen standards also would ensure that the proposed project is built to the State's latest water conservation and efficiency standards. Therefore, the proposed project would be consistent with General Plan Goal CS-10. As the proposed project would be built to applicable Title 24 Energy Efficiency and CALGreen standards, the proposed project would be consistent with sustainability-related General Plan measures identified in the City's Sustainability Plan.

[43] California Air Resources Board (ARB). 2022. Landfill Methane Regulation. Website: https://ww2.arb.ca.gov/our-work/programs/landfill-methane-regulation/about. Accessed July 15, 2022.

Summary

The proposed project is consistent with ARB's Scoping Plan, MTC/ABAG's Plan Bay Area 2050, and the City of Napa's General Plan measures relating to sustainability. Therefore, the proposed project does not conflict with any plans to reduce GHG emissions and the impact would be less than significant.

Mitigation Measures

None required.

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

Environmental Evaluation

The following discussion is based on the Phase I Environmental Site Assessment (Phase I ESA) Report prepared for the project site by KC Engineering Company (KCEC)[44] on June 2, 2021. The Phase I ESA is included in Appendix E.

[44] KC Engineering Company. 2021. Phase I Environmental Site Assessment of APN 041-170-009 3090 Browns Valley Road Napa, Napa County, California for Edenbridge Homes. June 2.

Setting

Environmental setting

The project site consists of a roughly rectangular, 3.77-acre parcel within unincorporated Napa County. The site is currently developed with a residential structure, a barn, and various outbuildings. The project site is bounded to the north by Browns Valley Creek, a tributary to the Napa River. The site is mostly flat, and no construction or grading activities have begun. Regional access is provided by SR-29.

Applicable Plans, Policies, and Regulations

A material is considered hazardous if it appears on the list of a hazardous materials prepared by a federal, State, or local agency or if it has characteristics defined as hazardous by such an agency. In Title 22, Section 66261.10 of the California Code of Regulations, a substance with physical, chemical, or infectious characteristics which may cause or contribute to mortality, illness, or may pose a threat to human health and/or the environment when mismanaged is considered a hazardous material. Physical and chemical properties considered hazardous include toxicity, ignitability, corrosivity, and reactivity.

The storage, use, generation, transport, and disposal or hazardous materials and waste are highly regulated under federal and State laws. Federal regulations and policies related to development include:

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) regulates hazardous waste from the time that the waste is generated through its management, storage, transport, and treatment until its final disposal. The EPA Authorizes the California Department of Toxic Substances Control (DTSC) to administer the RCRA in California. DTSC acts as the general agency for soil and groundwater cleanup projects and establishes cleanup and action levels for subsurface contamination that are equal to, or more restrictive than, federal levels.

Comprehensive Environmental Response, Compensation and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was designed to clean up abandoned hazardous waste sites that may endanger public health or the environment. The law authorizes the EPA to identify parties responsible for contamination of sites and compel the parties to clean up sites. Where responsible parties cannot be found, the EPA is authorized to perform the cleanup using a special trust fund. This law outlines the potential liability related to the cleanup of hazardous substances, available defenses to such liability, appropriate inquiry into site status under Superfund, and statutory definitions of hazardous substances and petroleum products.

The Cortese List

The Cortese List (Hazardous Waste and Substances Site List) is a document used by the State, local agencies, and developers to comply with CEQA requirements and consider Government Code Section 65962.5 in evaluating proposed development projects. The Government Code requires the

DTSC to compile and update a list of hazardous waste sites, handling facilities, disposal facilities, and abandoned sites.

California Department of Industrial Relations, Division of Occupational Safety and Health

Worker health and safety and public safety are paramount regarding handling hazardous materials. The California Occupational Safety and Health Administration (Cal/OSHA) enforces State worker health and safety regulations related to construction activities. Regulations include exposure limits, requirements for protective clothing, and training requirements to prevent exposure to hazardous materials. Cal/OSHA also enforces occupational health and safety regulations specific to lead and asbestos investigation and abatement.

San Francisco Bay Regional Water Quality Control Board

There are nine RWQCBs throughout the State. The San Francisco Bay RWQCB has jurisdiction over projects in the City of Napa. Individual RWQCBs function as the lead agencies responsible for identifying, monitoring, and cleaning up Leaking Underground Storage Tanks (LUSTs) storage of hazardous materials in underground storage tanks (USTs) and is regulated by the State Water Board, which oversees the nine RWQCBs.

Napa General Plan

Relevant Hazardous Materials Policies

Policy HS-7.1 The City shall continue to monitor, modify if necessary, and implement goals of the Household Hazardous Waste Element.

Policy HS-7.2 The City shall support the Countywide Integrated Solid Waste Management Plan.

Policy HS-7.3 The City shall support the County's role as Certified Program Agency for all County jurisdictions.

Policy HS-7.4 The City shall seek to further develop and support policies such as green chemistry and Extended Producer Responsibility (EPR) that will reduce the overall generation of hazardous wastes and/or provide more sustainable funding and collection opportunities for the local residents and businesses.

Napa County Operational Area Hazard Mitigation Plan (2013 Update)

The Napa County Office of Emergency Services (OES) provides information about emergency preparedness, response and recovery; maintains and updates County emergency plans as needed; and trains the community for disasters.[45]

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

[45] County of Napa, California. Website: https://www.countyofnapa.org/353/Emergency-Services. Accessed August 1, 2022.

Less than significant impact. Small quantities of hazardous materials could be used during construction and landscaping activities during project development, including materials such as oil, gas, paint, etc. during construction, as well as small quantities of cleaning and maintenance chemical for household use; however, no other hazardous chemicals would be used or stored on-site. These small quantities of construction, cleaning, and maintenance materials would not pose a threat to the environment, adjacent land uses, or public health. Demolition of existing structures that could contain asbestos or lead-based paint, as well as electrical transformers containing polychlorinated biphenyl (PCBs), would be disposed of in accordance with DTSC and OSHA regulations pertaining to the disposal of such hazardous materials. Therefore, development of the proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less than significant impact. The southern portion of the property previously contained an orchard from approximately 1947 to 1951, which may have involved the historical use of agricultural pesticides on the property; however, the expected quantities and concentrations, according to the Phase I ESA, are rarely discovered at levels requiring regulatory action. The Phase I ESA found no on-site Recognized Environmental Conditions (RECs), no Historical Recognized Environmental Conditions (HRECs), and no Controlled Recognized Environmental Conditions (CRECs). RECs are defined by the presence of any hazardous substances or petroleum products in or at the property. HRECs are defined as a past release of hazardous substances that occurred in connection with the property. CRECs are defined as a past release of hazardous substances or petroleum products that have been addressed to the satisfaction of the applicable regulatory authority. Furthermore, the Phase I ESA found no obvious conditions indicative of releases or threatened releases of hazardous substances, pollutants, contaminants, petroleum, and petroleum products on, at, in, or adjacent to the project site. Therefore, the proposed project would not 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 and would result in a less than significant impact.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less than significant impact. The nearest school to the project site, West Park Elementary, is approximately 1,000 feet northeast of the project site. Veritas Christian Academy is approximately 0.54 mile east of the project site, and Browns Valley Elementary is located approximately 1.1 miles west of the project site. As described above, the operation of the proposed project would not involve the use, transport, or disposal of hazardous or acutely hazardous materials, and any fuels, lubricants, or other potentially hazardous materials used during construction would be handled carefully in compliance with all applicable laws and regulations and would have little to no chance of affecting the school. Therefore, despite Nature's Way Montessori being located less than 0.25 mile from the project site, it is unlikely that the school would be affected by the use of routine chemical substances, or waste on the project site. Proper handling and disposal of all hazardous chemicals during operation as well as any asbestos-containing materials or lead-based paint would be disposed

of in compliance with all applicable federal, State, and local regulations. The impact would be less than significant.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less than significant impact. The historical land use of the project site has been vacant land with low density residential use with an orchard briefly present from 1947 to 1951. According to the Phase I ESA (Appendix E), the project site is not on the Cortese List. The nearest GeoTracker case (T0605500221) is located approximately 1000 feet southwest of the project site and involved soil contamination from a LUST.[46] This case was declared closed in 2003 by Napa County, meaning that contamination from the site would not pose a hazard to the public or to the environment. The nearest EnviroStor site is located 2.05 miles east of the project site.[47] The site was used as a coal gasification facility in 1867. Operations ceased in 1889 and the facility was demolished by 1891. Napa Mill Development Company acquired the site in 1986 and planned to expand the existing commercial building. Napa Mill Development Company entered in a Voluntary Clean Up Agreement with the DTSC which consists of a soil cap and a land use covenant to restrict the use of the site. The proposed project does not involve the site in question. Therefore, the impact would be less than significant.

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

No impact. The project site is located approximately 6.5 miles north of Napa County Airport, and is outside of the of the Airport Influence Area.[48] Therefore, the proposed project would not result in a safety hazard or excessive noise for people residing or working in the project vicinity to the proximity of an airport.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than significant impact. The proposed project would not alter or obstruct adjacent roadways. Temporary lane restrictions along Browns Valley Road may be required during construction. All such restrictions would require approval by the police and fire departments and would be temporary. Therefore, the implementation of the proposed project would not be expected to impair the function of emergency evacuation routes. Napa County OES coordinates emergency preparedness plans throughout the County, including the City of Napa. Development of the site under the proposed project would not physically interfere with an adopted emergency response or evacuation

[46] California State Water Resources Control Board. 2022. PRIVATE RESIDENCE (T0605500221). Website: https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0605500221. Accessed June 20, 2022.
[47] Department of Toxic Substances Control. 2022. EnviroStor. Website: https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=3090+browns+valley+rd. Accessed June 20, 2022.
[48] Napa County Airport Land Use Commission. 1999. Napa County Airport Land Use Compatibility Plan. Website: https://www.countyofnapa.org/DocumentCenter/View/1980. Accessed June 20, 2022.

plan. Lane restrictions during construction would consist of cones or temporary barricades that could easily be removed if evacuation of the area were required. Therefore, the impact would be less than significant.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less than significant impact. As discussed in Section 2.20, Wildfire, the project site is not located within a very high fire hazard zone. In addition, the project site is located on a relatively flat site within an urbanized and residential area of the City. The site is located in an area that is mostly surrounded by other residential development, which reduces wildfire risks. Additionally, the proposed project would result in the removal of vegetation across the mostly vacant project site, further reducing the risk of wildfires. Impacts would be less than significant.

Mitigation Measures

None required.

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

Environmental Evaluation

Setting

Environmental Setting

The proposed project involves the development of a 3.77-acre site located at 3090 Browns Valley Road. The northern portion of the site currently drains to Browns Valley Creek at the northern limit of the project site while the southern portion drains toward Browns Valley Road to a public storm drain system that outfalls to Brown Valley Creek along Robinson Lane. The proposed project would involve the subdivision of the site into 11 lots and the construction of 11 single-family homes with

landscaping, a new public cul-de-sac, and paved asphalt driveways extending from each home. There is currently one residence and several outbuildings on the site.

Regulatory Setting

Executive Order 11988–Floodplain Management

Executive Order 11988 requires federal agencies to avoid to the extent possible the long and short-term adverse impacts associated with the occupancy and modification of flood plains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. In accomplishing this objective, "each agency shall provide leadership and shall take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health, and welfare, and to restore and preserve the natural and beneficial values served by flood plains in carrying out its responsibilities" for the following actions: (1) acquiring, managing, and disposing of federal lands and facilities; (2) providing federally-undertaken, financed, or assisted construction and improvements; (3)conducting federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulation, and licensing activities.

Water Quality Overview

The federal Clean Water Act and California's Porter-Cologne Water Quality Control Act are the primary laws that regulate water quality. Regulations set forth by the EPA and the California State Water Resources Control Board (State Water Board) have been developed to fulfill the requirements of this legislation. EPA regulations include the National Pollutant Discharge Elimination System (NPDES) permit program, which controls sources that discharge pollutants into the waters of the United States (e.g., streams, lakes, bays, etc.). These regulations are implemented at the regional level by the RWQCB. The site is within the jurisdiction of the San Francisco Bay RWQCB.

Basin Plan

The San Francisco Bay RWQCB regulates water quality in accordance with the Water Quality Control Plan or "Basin Plan." The Basin Plan lists the beneficial uses that the RWQCB has identified for local aquifers, streams, marshes, rivers, and the San Francisco Bay, as well as the water quality objectives and criteria that must be met to protect these uses. The RWQCB implements the Basin Plan by issuing and enforcing waste discharge requirements, including permits for nonpoint sources such as the urban runoff discharged by a city's stormwater drainage system. The Basin Plan also describes watershed management programs and water quality attainment strategies.

Statewide Construction General Permit

The State Water Board has implemented a NPDES General Construction Permit for the State of California. For projects disturbing one acre or more of soil, an NOI and SWPPP must be prepared by a qualified professional prior to commencement of construction. The Construction General Permit includes requirements for training, inspections, record keeping, and for projects of certain risk levels, monitoring. The general purpose of the requirements are to minimize the discharge of pollutants and to protect beneficial uses and receiving waters from the adverse effects of construction-related stormwater discharges.

Phase II Small Municipal Separate Storm Sewer Systems General Permit

The State Water Board issued a General Permit for the Discharge of Storm Water from Small Municipal Separate Storm Sewer Systems (MS4s) (Order 2003-0005-DWQ) to provide permit coverage for smaller municipalities. The City of Napa is permitted under the State's Phase II Small MS4 General Permit. Under provisions of the NPDES Municipal Permit, redevelopment projects that disturb more than 10,000 square feet are required to design and construct stormwater treatment controls to treat post-construction stormwater runoff. The permit requires regulated projects to include LID practices, such as pollutant source control measures and stormwater treatment features aimed to maintain or restore the site's natural hydrologic functions. The permit also requires that stormwater treatment measures are properly installed, operated and maintained. In addition to water quality controls, the permit requires all new and redevelopment projects that create or replace one acre or more of impervious surface to manage development-related increases in peak runoff flow, volume, and duration, where such hydromodification is likely to cause increased erosion, silt pollutant generation or other impacts to beneficial uses of local rivers, streams, and creeks. Projects may be deemed exempt from the permit requirements if they do not meet the size threshold, drain into tidally influenced areas or directly into the Bay, drain into hardened channels, or are infill projects in subwatersheds or catchment areas that are greater than or equal to 65 percent impervious.

National Flood Insurance Program

The Federal Emergency Management Agency (FEMA) established the National Flood Insurance Program (NFIP) in order to reduce impacts of flooding on private and public properties. The program provides subsidized flood insurance to communities that comply with FEMA regulations protecting development in floodplains. As part of the program, FEMA publishes Flood Insurance Rate Maps (FIRM) that identify Special Flood Hazard Areas (SFHA). An SFHA is an area that would be inundated by the 1 percent annual chance flood, which is also referred to as the base flood or 100- year flood. Dam Safety Dam failure is the uncontrolled release of impounded water behind a dam. Flooding, earthquakes, blockages, landslides, lack of maintenance, improper operation, poor construction, vandalism, and terrorism can all cause a dam to fail.50 Because dam failure that results in downstream flooding may affect life and property, dam safety is regulated at both the federal and State level. In accordance with the State Dam Safety Act, dams are inspected regularly and detailed evacuation procedures have been prepared for each dam. The City's dams are located at Lake Hennessey (Conn Creek Dam), Milliken and Eastside Reservoirs; another dam is located at the State-owned Rector Reservoir. As part of its comprehensive dam safety program, the Napa County Flood Control and Water Conservation District routinely monitors and studies the condition of each of its four dams.

Envision Napa 2020

The City's General Plan policies related to hydrology and water quality materials and are applicable to the proposed project include the following:

NR-1.4 The City shall review all future waterway improvement projects (e.g., flood control, dredging, private development), as well as all projects that are within 100 feet of the waterway, to ensure that they protect and minimize effects on the riparian and

aquatic habitats. The City shall also encourage native plantings along the river and creek banks to stabilize the banks, reduce sedimentation, reduce stormwater runoff volumes, and enhance aquatic habitats.[49]

NR-4.7 Encourage design of projects to avoid covering creeks and drainageways whenever possible.

HS-2.1 The City shall seek to minimize grading and impermeable surfaces in high-erosion areas. If grading or impermeable surfaces are necessary, they shall be properly engineered and drained to reduce runoff and erosion.

HS-3.2 The City shall continue to apply flood plain management regulations for development in the floodplain and floodway.

City of Napa Policy Resolution No. 27

The City of Napa adopted Policy Resolution 27 originally in August 1992 and most recently amended the Resolution in December 2002. The Resolution includes the City's standard mitigation measures that are imposed on all development projects, unless otherwise authorized by the City. Any or all of the mitigation measures listed in Resolution 27 may be imposed as conditions of project approval. The mitigation measures are periodically updated, as needed. The following hydrology and water quality measures listed in Resolution No. 27 are applicable to the proposed project:

- To ensure adequate drainage control, the Developer of any project which introduces new impervious surfaces (roof, driveways, patios) which will change the rate of absorption of drainage or surface runoff shall submit a drainage and grading plan designed in accordance with Policy Resolution No. 17 and the City of Napa Public Works Department Standard Specifications to the Public Works Department for its approval.
- If the project is in the Flood Hazard or Floodway Areas of the Napa River or its tributaries, Developer shall submit Certifications of Compliance by a registered architect or civil engineer required by Napa Municipal Code Chapter 17.38 to the Public Works Department at the times set forth in Chapter 17.38.
- Side yards of each lot shall have of a minimum unobstructed width of five (5) feet. No building encroachments, door landings or mechanical equipment shall be placed in this unobstructed area without the review and approval of the Public Works Director in order to assure adequate drainage.
- For any construction activity that results in the disturbance of five (5) acres or greater total land area, or is part of a larger common plan of development that disturbs five (5) acres or greater total land area, Developer shall file a Notice of Intent with the State Water Board prior to any grading or construction activity. In the event construction activity for the project occurs after the State Water Board has changed its General Permit for construction activity to cover disturbance(s) of one (1) acre or more, this measure shall apply to any construction activity for this project which results in the disturbance of one (1) acre or greater total land area, or is part of a larger common plan of development that disturbs one (1) acre or greater total land area.

[49] State of California. 2013. 2013 State Hazards Mitigation Plan.

- The Developer shall ensure that no construction materials (e.g., cleaning fresh concrete from equipment) are conveyed into the storm drain system. The Developer shall pay for any required cleanup, testing and City administrative costs resulting from consequence of construction materials into the stormwater drainage system.
- All materials that could cause water pollution (i.e., motor oil, fuels, paints, etc.) shall be stored and used in a manner that will not cause any pollution. All discarded material and any accidental spills shall be removed and disposed of at an approved disposal site.
- The Developer of an industrial facility shall file a Notice of Intent in accordance with the State General Permit with the State Water Resources Control Board prior to establishment of the use.
- All construction activities shall be performed in a manner that minimizes, to the maximum extent practicable, any pollutants entering directly or indirectly the stormwater system or ground water. The Developer shall pay for any required cleanup, testing and City administrative costs resulting from consequence of construction materials into the stormwater drainage system.
- Unless otherwise provided, all measures included in project approval pursuant to Napa Municipal Code Chapter 17.38 (Floodplain Management Overlay District) shall be installed or carried out prior to final clearance of the building permit or concurrently with the installation of site improvements in the case of a subdivision map.
- Developer shall meet the requirements of discharging to a public storm drainage system as required to ensure compliance by the City with all State and federal laws and regulations related to stormwater as stipulated in the Clean Water Act. Developer shall meet the requirements of the National Pollutant Discharge Elimination System ("NPDES") permit in effect prior to completion of project construction for stormwater discharges from the municipal stormwater system operated by the City of Napa. Developer shall comply with the Storm Water Pollution Mitigation Plan ("SWPMP") submitted by Developer as part of its application as (modified and) approved by the Director of Public Works.
- Developer shall mark all new storm drain inlets with permanent markings, which state "No Dumping-Flows to River." This work shall be shown on improvement plans.
- Developer shall record a plan for long-term private maintenance acceptable to the Director of Public Works and the City Attorney for any structural stormwater pollution removal devices or treatment control BMP incorporated as part of the project. The plan shall comply with City and State Water Board requirements including, but not limited to, a detailed description of responsible parties, inspections, maintenance procedures for the detention system, including monitoring and documentation of annual report to the Public Works Department and procedures for enforcement. Appropriate easements or other arrangements satisfactory to the Public Works Director and City Attorney necessary or convenient to ensure the feasibility of the scheme and fulfillment of maintenance responsibilities shall be secured and recorded prior to approval of the final/parcel map or issuance of a building permit, whichever comes first.

Would the project:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less than significant impact. The proposed project would involve excavation and grading activities on-site. Ground-disturbing activities related to construction would temporarily increase the amount of debris on-site. Grading activities may increase erosion and sedimentation that could be carried by runoff into local waterways. The proposed project would be required to adhere to Standard Permit Conditions listed below, which includes the development and implementation of a SWPPP. The SWPPP would include BMPs and measures to reduce the effects of erosion or sedimentation that meet or exceed the requirements of the NPDES Construction General Permit. The proposed project, for example, would suspend earthmoving or dust-producing activities during periods of high winds, water all exposed or disturbed soil surfaces, and vegetate disturbed areas as quickly as possible. The proposed project would also be required to obtain a permit prior to any grading activities, per the City's Grading Ordinance. The grading permit would require, among other things, drainage and erosion control measures and reporting. Therefore, construction-related activities would have a less than significant impact on water quality.

The proposed project would additionally include the use of LID techniques to provide sustainable management of stormwater runoff and discharge. These LIDs include the uses of appropriate setbacks, the use of natural drainage features, the minimization of impervious surfaces, and the use of bioretention facilities. These bioretention facilities would be installed to treat stormwater runoff prior to discharge from the site. Runoff would be conveyed to the bioretention facilities from roof downspouts and surface flows from the streets and treated in coordination with the pollutant retention capabilities of the plants in the facilities before being piped to a detention facility. As described in the Stormwater Control Plan, the post-development flow discharge from the development would be maintained at or below pre-developed levels that would outfall to Browns Valley Creek.[50] Therefore, operational impacts to water quality and hydrology would be less than significant.

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

Less than significant impact. The main water purveyor for the project site is the Water Division of the City Utilities Department (Water Division), which is responsible for the operation, maintenance, and improvement of the municipal drinking water system owned by the City.[51] The Water Division works with the California Department of Water Resources (DWR) to draw its water from the State Water Project (SWP) and local sources in Lake Hennessy and the Milliken Reservoir.

According to the Napa Valley Urban Water Management Plan (UWMP), the City does not pump groundwater or utilize stormwater for municipal supply. The UWMP does list several potential future

[50] RSA+. 2021. Browns Valley Road Subdivision Stormwater Control Plan. December.

[51] City of Napa. 2020. Urban Water Management Plan. Website: https://www.cityofnapa.org/DocumentCenter/View/9266/2020-UWMP-PDF?bidId=. Accessed July 12, 2022.

uses and projects involving the use of groundwater as storage or for emergency supply; however, groundwater is not currently considered part of the City's water supply portfolio.[52] Therefore, with the implementation of the SWPPP BMPs and LIDs to ensure the safe and sustainable drainage of runoff, the proposed project would not have an effect on the supply or management of groundwater in the basin. Impacts would be less than significant.

c) Substantially alter the existing drainage pattern of area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

(i) result in substantial erosion or siltation on- or off-site;

Less than significant impact with mitigation incorporated. The proposed project would not result in a significant change to the existing drainage pattern on the project site. As described in the Preliminary Detention Calculations narrative,[53] the project site currently drains either to Browns Valley Creek or to a storm drain on Robinson Lane approximately 600 feet to the east. The proposed structures would be set back from the creek and would not alter the course of a stream or a river. The drainage pattern of the proposed project would be similar to the project site's existing drainage patterns. Compliance with the Construction General Permit during construction activities would ensure that the proposed project would not result in substantial erosion or siltation during construction in accordance with the BMPs and LIDs outlined in the SWPPP. During operation of the proposed project, the site would consist of buildings, paved surfaces, landscaped areas, and maintained yards. There would be no exposed soil surfaces susceptible to erosion.

Furthermore, the proposed project would also comply with MM GEO-1, which requires the applicant to implement the recommendations related to site preparation and grading contained with the Geotechnical Exploration Report, which would further minimize soil erosion. With the implementation of MM GEO-1, the impact would be less than significant.

(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

Less than significant impact. As discussed in Impact 2.10(c)(i), the proposed project would not substantially alter the existing site drainage pattern on the site or in the surrounding area. According to the Preliminary Retention Calculations report, the proposed condition 10-year post-development flow discharge rate and drainage patterns would be the same as the pre-development rate and patterns. Although the proposed project would create new impervious surfaces, the proposed project incorporates bioretention features and would be required to maintain or reduce drainage flows from the project site compared to current conditions. It is not anticipated that the additional runoff generated by the proposed project would result in flooding on or off-site. Therefore, the proposed project would not substantially increase the rate or amount of surface runoff or result in flooding on or off-site. Impacts would be less than significant.

[52] City of Napa. 2020. Urban Water Management Plan. Website: https://www.cityofnapa.org/DocumentCenter/View/9266/2020-UWMP-PDF?bidId=. Accessed July 12, 2022

[53] RSA+. 2021. Preliminary Detention Calculations. December.

(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;

Less than significant impact. As discussed in Impact 2.10(c)(i)(ii), although the proposed project would increase the area of impervious surfaces compared to existing conditions, the management of stormwater using BMPs, LIDs, and bioretention systems would result in stormwater runoff mirroring the existing stormwater drainage patterns and reducing the flow of stormwater drainage from current conditions. According to the Preliminary Detention Narrative, the bioretention systems would provide 1,885 square feet of detention volume, which would accommodate the full detention volume required.[54]

Compliance with the Construction General Permit, the City's Policy Resolution No. 27, and the proposed project's SWPPP would ensure that the proposed project does not 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. Impacts would be less than significant.

(iv) impede or redirect flood flows?

Less than significant impact. Based on FEMA FIRM rate map Number 06055C0512E, revised September 26, 2008, the project site is partially located in Flood Zone AE.[55] Flood Zone AE classifies SFHA with Base Flood Elevation (BFE) or Depth. While the site plans show that only one portion of the site is within in Zone AE and the rest is within Zone X (indicating an area of minimal flood risk), all structures would be constructed in accordance with Municipal Code Section 17.38.060, which outlines floodplain management requirements. No alterations to the existing creek would occur, and stormwater would be retained on-site to the maximum extent feasible. As described in the Stormwater Control Plan, the post-development flow discharge from the development would be maintained at or below pre-developed levels that would outfall to Browns Valley Creek. The proposed project would not impede or redirect flood flows, and the impact would be less than significant.

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

No impact. Based on the proposed project site's location, elevation, and tsunami hazard mapping from the California Geologic Survey (CGS), the project site is not located in a tsunami inundation hazard zone.[56] Additionally, oscillatory waves (seiches) are considered unlikely due to the absence of large, confined bodies or water in the project vicinity.

Tsunamis are sea waves that are generated in response to large-magnitude earthquakes. When these waves reach shorelines, they sometimes produce coastal flooding. Seiches are the oscillation of large bodies of standing water, such as lakes, that can occur in response to ground shaking. The

[54] RSA+. 2021. Browns Valley Road Subdivision Stormwater Control Plan. December

[55] Federal Emergency Management Agency (FEMA). 2020. National Flood Hazard Layer FIRMette. Website: https://msc.fema.gov/arcgis/rest/directories/arcgisjobs/nfhl_print/mscprintb_gpserver/j8afc7a4c1c6a4033b47b2992ebf1b594/scratch/FIRMETTE_422e6554-6c20-4da1-853f-3f31d127d3ac.pdf. Accessed July 12, 2022.

[56] California Department of Conservation. 2009. California Tsunami Maps and Data. Website: https://www.conservation.ca.gov/cgs/tsunami/maps. Accessed July 12, 2022.

project site is approximately 34 miles northeast of the Pacific Ocean and there are no nearby bodies of standing water.

The project applicant proposes a residential development that would involve only limited use of materials associated with routine property maintenance, such as janitorial supplies for cleaning purposes and/or herbicides and pesticides for landscaping. The project site is not in a flood hazard, tsunami, or seiche zone, and would not risk the release of pollutants. Therefore, no impact would occur.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than significant impact. The City's main source of water is imported water via the SWP and surface water from Lake Hennessey and Milliken Reservoir. The proposed project would not impact water quality during construction and operation. The proposed project would be served by the Water Division and would not substantially deplete groundwater resources or conflict with the UWMP. Therefore, impacts would be less than significant.

Mitigation Measures

None required.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
2.11 Land Use and Planning *Would the project:*				
a) Physically divide an established community?	☐	☐	☒	☐
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

Environmental Evaluation

Setting

The project site is within an established urban and residential area. The proposed project would develop 11 residential lots on the approximately 3.77-acre project site.

As described in Section 1.3.2, Land Use and Zoning, the General Plan designates the project site as SFR-110. According to the Napa 2020 General Plan, the project site's Land Use designation is Single Family Residential (SFR-110), which is intended for single-family residential development with densities ranging from zero to three units per acre. The proposed project would have a housing density of 3.2 units per acre and includes a use permit to apply Small Lot Development Standards to achieve the required density.

Would the project:

a) Physically divide an established community?

Less than significant impact. The physical division of an established community typically refers to the construction of a physical feature, such as an interstate highway or railroad tracks, or removal of a means of access, such as a local road or bridge that would impair mobility within an existing community or between a community and outlying area. The project site is in an urbanized and residential area. Surrounding land uses include single-family residential properties and lands designated Low Density Residential and Very Low Residential to the east and west; Browns Valley Creek and lands designated for Low Density Residential use to the north; and Browns Valley Road, Westwood Nature Park, and lands designated Open Space and Parks and High Density Residential, and areas zoned Parks and Open Space, Single-Family Residential, and Multi-Family Residential.

Development of the proposed project would not disrupt the surrounding land uses or divide the physical arrangement of the established communities to the north, south, east, and west of the project site. The proposed project would have a similar use to adjacent land. Additional access would be added to the site via internal sidewalks and connection to existing sidewalks on Browns Valley

Road. Therefore, the proposed project would not physically divide an established community and would improve connectivity within the community. Impacts would be less than significant.

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

Less than significant impact. As described in Section 1.3.2, Land Use and Zoning, project site's land use designation is Single-Family Residential (SFR)-110, which allows for up to three units per acre and, under the 2020 General Plan, would be Low Density Residential, which is intended for single-family residential development with densities ranging from three to eight units per net acre. The proposed project would construct 11 units on 3.77 acres of land, which would result in a density of approximately 3.2 units per acre, compliant with the current and future land use designation. The driveways to Lots 5 and 6 are both 14 feet wide and less than 150 feet long to comply with access requirements. Building setbacks would include 20-foot front setbacks, 30-foot rear setbacks, and 10-foot side setbacks, consistent with zoning regulations, expect for single-story homes on Lots 2 and 11, where a reduction to 5-foot side setbacks would be requested in accordance with Small Lot Development Standards.

The project applicant requests approval of a use permit for the use of Small Lot Development Standards to achieve the required net density given the site constraints, including the required setbacks from the creek and fault trace. Section 17.52.470 of the Municipal Code authorizes Small Lot Development Standards to be used for smaller lots sizes and frontages where the development is compatible with the neighborhood, dwellings are proportionate to the lot size, and meet the City's residential design guidelines.[57] Small Lot Development Standards also generally apply to Lots 1-3 and 9-11, which would be less than 10,000 square feet. Lot 6 is proposed as a flag lot, meaning that it lies at the end of a long driveway. With the approval of a use permit for the application of Small Lot Development Standards, the proposed project would be consistent with the land use and zoning of the project site. The proposed project would not conflict with any land use plan, policy, or regulation adopted for the purpose of mitigating an environmental effect. (For a discussion of the characteristics of noise and further information regarding the applicable noise regulatory framework, refer to the Noise impact discussion in Section 2.13 of this document.) As such, impacts would be less than significant.

Mitigation Measures

None required.

[57] City of Napa. 2022. Municipal Code – Zoning. Website: https://library.qcode.us/lib/napa_ca/pub/municipal_code/item/city_of_napa_municipal_code-title_17-chapter_17_52-17_52_470. Accessed June 24, 2022.

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

Environmental Evaluation

Setting

There are four classifications of Mineral Resource Zones (MRZ) to classify existing or potential mineral resource sites within areas of the State and they are described as follows:

- **MRZ-1:** Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that there is little likelihood exists for their presence. This zone shall be applied where the likelihood for occurrence of significant mineral deposits is nil or slight.
- **MRZ-2:** Areas where adequate information indicates that significant mineral deposits are present or where it is judged that there is a high likelihood for their presence exists. This zone shall be applied to known mineral deposits or where the likelihood for occurrence of significant mineral deposits is high.
- **MRZ-3:** Areas containing mineral deposits the significance of which cannot be evaluated from available data.
- **MRZ-4:** Areas where available information is inadequate for assignment to any other MRZ zone.

According to the DOC, the City contains areas designated as MRZ-1, MRZ-2, and MRZ-3.[58] MRZ-2 area is the Napa Quarry that is mined by Syar Industries, located 3.5 miles to the southeast of the site.[59] The majority of the City is mapped as MRZ-3 areas, with rural areas on the western edge of the City between CA-29 and Thompson Avenue being mapped as MRZ-1. As with the majority of the City, the project site is located within an MRZ-3 area.

[58] Miller, R.V. and Busch, LL. 2013. Special Report 205. Website: https://www.countyofnapa.org/DocumentCenter/View/2332/CA-Geological-Survey-Special-Report-205-PDF?bidId=. Accessed June 10, 2022.
[59] Ibid.

Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?

No impact. The State Board of Mining and Geology have adopted regulations to protect lands classified as MRZ-2 (lands where information indicates that significant stone, sand, and/or gravel deposits are present, or where a high likelihood of their presence exists). The only area classified as MRZ-2 by the CGS within the City is the Napa Quarry located approximately 3.5 miles from the project site. The project site lies in an area mapped as MRZ-3 that cannot be evaluated from available data. Therefore, the proposed project would not result in a loss of known mineral resources, and no impact would occur.

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?

No impact. The project site is not currently known to support any mineral extraction activites and is is not identified as a locally important mineral resource recovery site by the General Plan. Therefore, the implementation of the proposed project would not result in the loss of locally availability of a locally important mineral recovery site delineated in a local general plan, specific plan, or other land use plan. No impact would occur.

Mitigation Measures

None required.

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

Environmental Evaluation

Based on the 2022 CEQA Guidelines Appendix G Checklist questions, the noise land use compatibility discussion is now contained within the Land Use and Planning discussion (Section 2.11) of this document.

Setting

The analysis is based on noise modeling prepared by FCS technicians and the traffic report prepared for the proposed project. Existing noise sources at the proposed project site are generally limited to traffic noise along nearby Browns Valley Road. According to the Health and Safety Element of the City of Napa General Plan, the proposed project site may be exposed to existing noise levels up to approximately 66 A-weighted decibel (dBA) Community Noise Equivalent Level (CNEL), depending on the distance from Browns Valley Road.[60]

The proposed project is surrounded by single-family residences to the west, north, and east. South of the proposed project is Browns Valley Road, and across that roadway is Westwood Hills Park. The proposed project site and surrounding residences are designated “Single Family Residential” by the Napa General Plan.

Regulatory Framework

The City of Napa addresses noise in the Health and Safety Element of its General Plan and in the Napa Municipal Code. Temporary and long-term noise impacts resultant from the proposed project

[60] City of Napa. 1998. Envision Napa 2020 General Plan.

would be regulated or otherwise evaluated by City of Napa standards designed to protect public well-being and health.

General Plan

The City of Napa General Plan Health and Safety Element contains a variety of goals, policies, and other guidance pertaining to the control of noise. The following is a list of the City's noise-related goals and policies. Certain goals and policies have been omitted, as they are not relevant to the proposed project (i.e., policies instructing the City to enforce State muffler and exhaust laws, to support State and federal motor vehicle noise legislation, etc.).

Goal HS-9 To Protect Napa's residents, workers and visitors from the deleterious effects of noise.

Policies

1) The City shall require new development to meet the exterior noise level standards set out in Table 8-1 [as reproduced below in Table 5]. For residential areas, these exterior noise guidelines apply to backyards; exceptions may be allowed for front yards where overriding design concerns are identified.

2) The City shall use CEQA and the development review process to ensure that new development does not exceed City standards.

3) The City shall use traffic management techniques to reduce the level of noise in residential neighborhoods to "normally acceptable," as shown in Table 8-1 [Table 5 of this document].

6) The City shall use the development and building permit review processes to site new construction in ways that reduce noise levels.

7) The City shall encourage the clustering, where appropriate, of residential development in order to provide open space that can be used to distance residences from noise sources.

9) When feasible and appropriate, the City shall limit construction activities to that portion of the day when the number of persons occupying a potential noise impact area is lowest.

10) The City shall encourage new development to maintain the ambient sound environment as much as possible. The City shall require new transportation-related noise sources that cause the ambient sound levels to exceed the compatibility standards in Table 8-1 [Table 5 of this document] to incorporate conditions or design modifications to reduce the potential increase in the noise environment.

11) The City shall regulate construction in a manner that allows for efficient construction mobilization and activities, while also protecting noise-sensitive land uses.

13) The City shall require new residential projects to provide for an interior CNEL of 45 db or less due to exterior noise sources. To accomplish this, the City shall review all residential and other noise-sensitive land uses within the 60 dB contours defined in the Table 8-2 and Figure 8-11 to ensure that adequate noise attenuation has been incorporated into the design of the project, or that other measures are implemented to protect future sensitive receptors.

In support of these policies, the Health and Safety Element also contains the following "Implementation Programs."

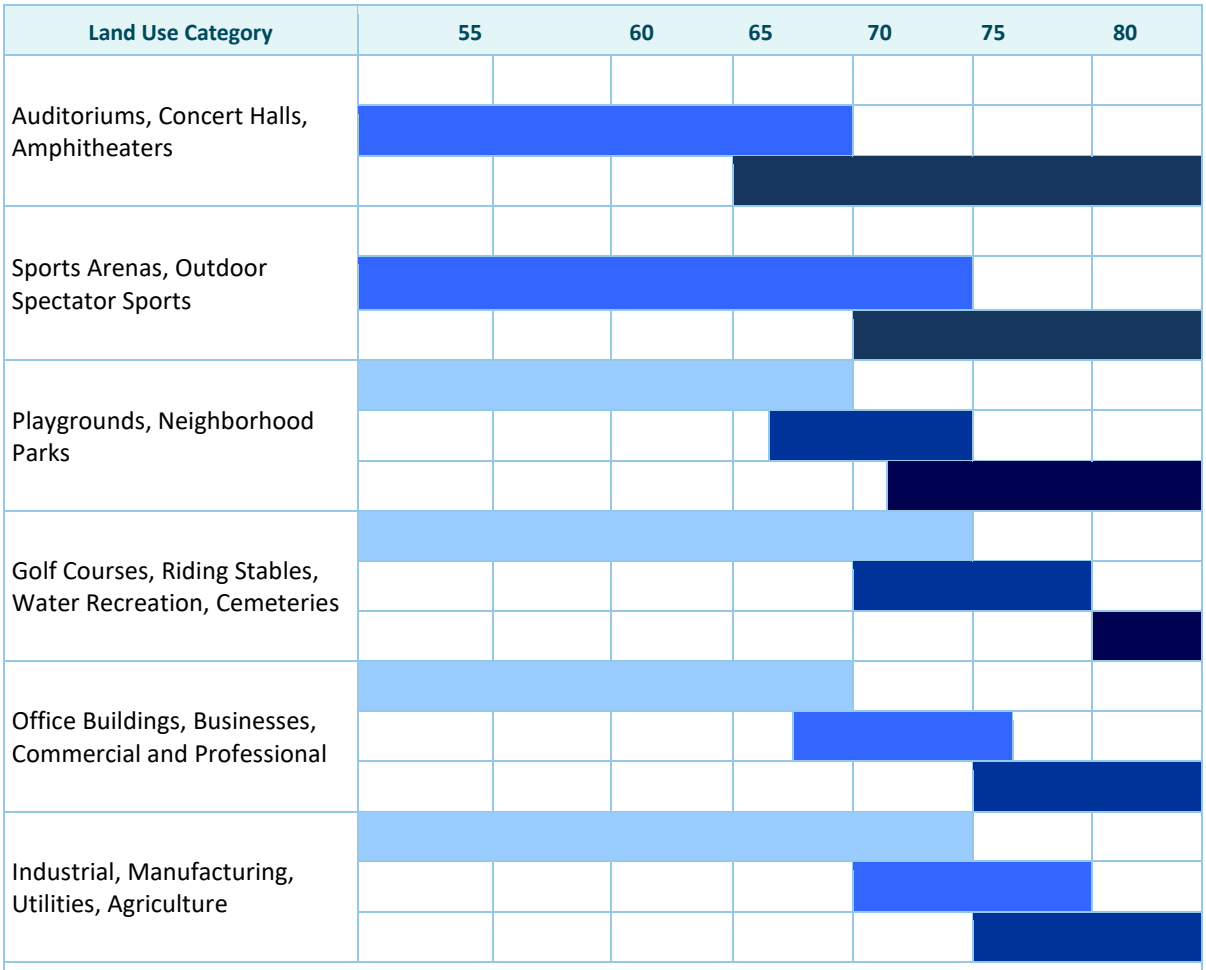
HS-9.A The City shall require an acoustical analysis prior to approval of proposed development of new residential or other noise-sensitive land uses in a noise impacted area (greater than 60 dB CNEL), or a new use that could generate noise levels in excess of the normally acceptable range for adjacent noise-sensitive land uses. The acoustical analysis should be performed during the environmental review process so that noise mitigation may be an integral part of the project design.

HS-9.B The City shall continue to enforce Title 24 of the *California Administrative Code* noise insulation requirements for new or significantly remodeled structures.

As referenced in the above policies, the Health and Safety Element also contains the City's exterior noise and land use compatibility standards, which are based on the State's recommended considerations for various land use categories. These standards are shown in Table 14. As per Policy 1 (HS-9.1), the City instructs that for residential areas, the exterior noise standards apply to backyards. As per Policy 13 (HS-9.13), the City's interior noise standard for new residential projects is 45 dBA CNEL.

Table 14: Land Use Compatibility for Community Noise Exposure (dBA CNEL or L_{dn})

Land Use Category	55	60	65	70	75	80
Residential—Low-Density Single-Family, Duplex, and Mobile Homes						
Residential—Multi-Family						
Transient Lodging—Hotels, Motels						
Schools, Libraries, Churches, Hospitals, Nursing Homes						



Source: City of Napa. 1998. Envision Napa 2020 General Plan Health and Safety Element.

	Normally Acceptable: Specified land use is satisfactory based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
	Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning features included in the design.
	Normally Unacceptable: New construction and development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made with needed noise insulation features included in the design.
	Clearly Unacceptable: New construction or development should generally not be undertaken.

Municipal Code

The Napa Municipal Code contains a limited set of regulations that would apply to the proposed project's noise impacts, specifically those from construction activities.

Section 8.08.025 outlines various construction-related regulations. Subdivision (A) would limit the proposed project's construction hours to between 7:00 a.m. and 7:00 p.m., Monday through Friday,

and between 8:00 a.m. and 4:00 p.m on weekends and legal holidays. Deliveries would be prohibited from occurring prior to 7:30 a.m. or past 5:00 p.m, Monday through Friday. Subdivision (B) requires the use of properly maintained muffler systems on construction equipment. Subdivision (C) requires that construction equipment shall not be placed adjacent to "developed areas" unless the equipment is provided with "acoustical shielding." Section 8.08.025 does not contain any quantitative noise limits or incremental thresholds for construction activities.

Would the project result in:

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

Less than significant impact.

Construction Noise Impacts

The City has not adopted construction-related noise thresholds of significance for CEQA consideration. Section 8.08.025 of the Napa Municipal Code outlines allowable hours for construction activities, but it does not establish a quantitative noise limit or incremental threshold. Therefore, Section 8.08.025 cannot be utilized to assess the proposed project's construction-related noise impacts.

The General Plan Health and Safety Element includes policies related to construction, but neither establishes quantitative noise limits or incremental thresholds. The Health and Safety Element does include noise standards for various land use categories, but there is no evidence that the City intends these standards to apply to temporary construction noise sources.

Given these factors, the following analysis adopts the Federal Transit Administration's (FTA) "Detailed Analysis Construction Noise Criteria" as thresholds of significance to assess the effect of the proposed project's construction-related noise impacts at nearby sensitive receptors. For residential uses, which are the nearest noise-sensitive land use types in the project vicinity, the FTA's criteria are an 80 dBA Leq-(8 hour) daytime limit, a 70 dBA nighttime limit, and a 75 dBA day/night average sound level (Ldn) 30-day average.[61]

Construction of the proposed project would generate noise during the estimated 14 to 18 months of demolition, site preparation, grading, paving, building construction, and other construction phases. Construction activities would occur during regular construction hours, which are generally between 7:00 a.m. and 5:00 p.m. on weekdays. Construction would also utilize a standard five-day work week. Therefore, the proposed project's construction would be consistent with the allowable construction hours set forth by the Napa Municipal Code Section 8.08.025. Construction would also be consistent with Health and Safety Element Policy 11 (HS-9.11), which instructs the City to regulate construction in a manner that strikes a balance between allowing construction activities while also protecting noise-sensitive land uses.

[61] Federal Transit Administration (FTA). 2018. Transit Noise and Vibration Impact Assessment Manual.

Noise from grading activities is typically the foremost concern when evaluating a project's construction noise impact, as grading activities often require extensive use of heavy-duty, diesel-powered earthmoving equipment. For the proposed project, grading (including grading required for site preparation) would have the greatest – and noisiest – construction vehicle requirements, as a fleet of grading vehicles would be required to grade the 3.77-acre proposed project site. Other construction phases would have reduced vehicle requirements. For example, the only large construction vehicles required by the proposed project's building construction phases would be a forklift. Forklifts are much less powerful than the types of heavy-duty excavators, scrapers, graders, and compactors that would be required to grade the proposed project site. Given this consideration, the following analysis assesses noise impacts that may result from the proposed project's grading activities.

Grading for the proposed project is estimated to last approximately two weeks. First, during site preparation, a scraper, excavator, and loader would be required to remove and strip vegetation from the proposed project site. This is anticipated to require two workdays. Next, a grader, excavator, and a compactor would work to rough grade for the proposed project. This is anticipated to require eight workdays. The grader would be utilized to level the site and establish proper slopes and drainages. A compactor would also assist with these tasks. An excavator may assist in balancing cut and fill for the site, as well as trenching for utilities. Ultimately, these vehicles would operate across the 3.77-acre site from hour to hour and day to day. As this occurs, construction noise levels at nearby residential uses would fluctuate depending on these vehicles' distances from them. Noise levels would be greater when these vehicles are in proximity of residential uses and lower when they are positioned farther away. Notwithstanding this fact, the noise impact associated with the proposed project's grading has been modeled by assuming that a grader and a compactor – the two noisiest grading vehicles – would spend an entire workday operating at a distance of 100 feet from the nearest noise-sensitive residential uses. Given that both graders and compactors are mobile vehicles that operate by moving across a construction site, this assumption is reasonably conservative: the vast majority of these vehicles' daily operations would occur at distances beyond 100 feet from even the nearest noise-sensitive residential uses. Only a fraction of time would be spent operating within 100 feet of the nearby noise-sensitive residential uses. To demonstrate what construction noise levels could be at more distant noise-sensitive residential uses, noise impacts have also been estimated for distances of 150 feet, 200 feet, and 250 feet. Besides residential land uses, there are no other noise-sensitive receptors located within 500 feet of the proposed project.

Table 15 shows the proposed project's estimated grading-related noise impacts at various distances. As shown, noise impacts would not exceed the 80 dBA Leq-(8 hour) threshold of significance for daytime construction activities at any nearby noise-sensitive residential uses or receptors. Impacts to more distant receptors would be lower than the impacts shown in Table 6 and also not in excess of thresholds of significance. Concerning the FTA's 70 dBA nighttime criteria, the proposed project would not require nighttime construction. Therefore, the proposed project would have no potential to result in exceedances of this criteria. The proposed project would also have no potential to exceed the FTA's criteria that is a 75 dBA Ldn 30-day average. At the nearest receptor distance–noise-sensitive residential uses within 100 feet of the proposed project–construction-related noise levels would not exceed 76 dBA Leq during work hours. 24-hour Ldn impacts (i.e., the effect of the

proposed project's construction noise as averaged over a 24-hour period) would be lower–73 dBA Ldn–because the proposed project would not generate construction noise before 7:00 a.m. or after 5:00 p.m. And given that construction noise levels at the nearby noise-sensitive residential uses would not exceed 73 dBA Ldn on a reasonably conservative construction day scenario, there would be no potential for 30-day average noise levels at these residential uses to exceed the FTA's 75 dBA Ldn criteria.

As the proposed project's grading-related noise impacts would be below FTA criteria, and because the noise impacts of other construction phases would be less than grading-related noise impacts, the proposed project's noise impacts from on-site construction activities would be less than significant. Further, it is worth noting that Section 8.08.025 (c) of the Napa Municipal Code would require the implementation of sound barriers or other acoustical shielding when construction equipment operates adjacent to nearby residential areas. This would serve to reduce the proposed project's construction noise levels to below the estimates shown in Table 6, which do not reflect the implementation of sound barriers or acoustical shielding pursuant to Section 8.08.025 (c) requirements. The implementation of sound barriers would be expected to reduce noise levels at the nearest noise-sensitive residential uses by at least 5 dBA.

It should also be noted that after the proposed project's demolition, grading, and paving phases, which are estimated to require no more than 24 workdays, the on-site use of heavy-duty construction vehicles would decrease dramatically. The subsequent building construction and architectural coatings phases, which would require over 240 workdays, would only require intermittent use of a forklift to assist with transporting construction materials. No other heavy-duty off-road construction vehicles would be required.

Table 15: Construction Noise Impacts–Grading

Sensitive Receptors	Construction Noise Level (dBA $L_{eq\ (8\ hour)}$)	Daytime Threshold of Significance (dBA $L_{eq\ (8\ hour)}$)	Significant?
Residential Land Uses–within 100 feet	76	80	No
Residential Land Uses–150 feet	73	80	No
Residential Land Uses–200 feet	70	80	No
Residential land Uses–250 feet	68	80	No

Notes:
The modeling results do not account for mitigating features such as topography, vegetative screening, fencing, building design, or structure screening. Rather, they assume a worst-case condition of having direct line of sight on flat terrain.
Source: FirstCarbon Solutions (FCS), 2022.

Trucks and other construction-related vehicles would access the proposed project over the course of all construction phases. During the proposed project's 10-day demolition phase, an average of approximately six haul trucks per day would be required to remove demolition debris from the proposed project site. If the proposed project site cannot be made to balance, then up to 64 haul

truck trips may be required to export cut soils from the site during the grading phase. These trips would be spread over two days. Noise associated with these construction-related vehicle trips would be far less than the less than significant noise impacts associated with sitewide grading.

Mobile Source Operational Noise Impacts

The City has not adopted operations-related noise thresholds of significance for CEQA consideration. The General Plan's Health and Safety Element institutes a maximum 70 dBA L_{dn} or CNEL noise level for the types of single-family residential uses that surround the proposed project site. Policy 10 (HS-9.10) of this Element instructs that new development shall maintain the ambient sound environment of its surrounding as much as possible. According to a Transportation Study prepared by Kimley-Horn for the proposed project, the proposed project is estimated to generate just 94 net daily vehicle trips.[62] Reasonably, this traffic generation would not be capable of causing or materially contributing to noise levels in excess of 70 dBA L_{dn} or CNEL in the surrounding neighborhood. This noise level is typically associated with highways or high-use arterial roadways.

Stationary Source Operational Noise Impacts

The proposed project proposes a modest development of 11 single-family homes in an infill location within an existing neighborhood that is composed of similar single-family residential subdivisions with similar on-site noise sources (e.g., mechanical ventilation units, residential garages, waste collection, etc.). The proposed project would thus be consistent with nearby land use types; it would not alter the noise environment of its surroundings by a substantial degree, nor would it introduce new sources of noise to the area. Reasonably, the proposed project would not be capable of causing or materially contributing to noise levels in excess of 70 dBA L_{dn} or CNEL in the surrounding neighborhood. The proposed project's development of a single-family residential subdivision would maintain the ambient sound environment of its surroundings, which predominantly consists of other single-family residential subdivisions. Thus, the proposed project would be consistent with Policy 10 (HS-9.10) of the City's Health and Safety Element, and no significant impact would occur.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less than significant impact. There are no federal, State, or City standards that would regulate the proposed project's vibration impacts from temporary construction activities or long-term operations. Therefore, in order to assess the effect of project-related groundborne vibration, the following analysis adopts the FTA's vibration impact criteria as thresholds of significance for building/structural damage. The FTA construction vibration damage criteria are as follows:

- 0.5-inch per second peak particle velocity (PPV) for "reinforced-concrete, steel or timber" buildings.
- 0.3-inch per second PPV for "engineered concrete and masonry" buildings.
- 0.2-inch per second PPV for "non-engineered timber and masonry" buildings.
- 0.12-inch per second PPV for "buildings extremely susceptible to vibration damage."[63]

[62] Kimley Horn. 2022. 3090 Browns Valley Road Subdivision – Transportation Memorandum.
[63] Federal Transit Administration. 2018. Transit Noise and Vibration Impact Assessment Manual.

Based on a review of surrounding structures, there are no "buildings extremely susceptible to vibration damage" in the vicinity of the proposed project site. However, some nearby structures may meet the FTA criteria for "non-engineered timber and masonry buildings." As such, the following analysis assess the proposed project's potential to expose surrounding structures to groundborne vibration levels in excess of 0.2-inch per second PPV, which is the FTA's vibration impact criteria for these types of structures.

Groundborne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. Vibrating objects in contact with the ground can radiate vibration waves through various soil and rock strata to the foundations of nearby buildings. In extreme cases, excessive groundborne vibration has the potential to cause structural damage to buildings. Common sources of groundborne vibration include trains, construction activities, and certain industrial operations. Vibration from traffic on smooth roadways is rarely perceptible, even from larger vehicles such as buses or trucks. The proposed project's construction and operational groundborne vibration impacts are analyzed separately below.

Short-term Construction Vibration Impacts

Construction of the proposed project would require a variety of large, steel-tracked earthmoving vehicles. Vehicles such as large bulldozers and other earthmoving equipment can generate groundborne vibration levels up to 0.089-inch per second PPV at a reference distance of 25 feet.[64] For the proposed project, scrapers, graders, excavators, loaders, and compactors would be required to assist in demolition, site preparation, and grading work. Groundborne vibration levels up to 0.2-inch per second PPV may be generated within approximately 12 feet of their activities. However, there are no adjacent structures that would be located within a 12-foot radius of these vehicles' operations; therefore, there are no adjacent structures that would be exposed to groundborne vibration levels in excess of the FTA's 0.2-inch per second PPV impact criteria for "non-engineered timber and masonry buildings." As a result, the proposed project's potential to generate excessive construction-related groundborne vibration levels would be less than significant.

Operational Vibration Impacts

During project operations, there would be no significant stationary sources of groundborne vibration, such as heavy equipment or industrial operations. The proposed project's related vehicle travel would not be considered a significant source of vibration, as vehicle travel rarely generates perceptible groundborne vibration. As a result, the proposed project's potential to generate excessive operations-related groundborne vibration levels would be less than significant.

[64] Federal Transit Administration. 2018. Transit Noise and Vibration Impact Assessment Manual.

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

Less than significant impact. A significant impact would occur if the proposed project would expose people residing or working in the project vicinity to excessive noise levels for a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport.

The nearest public airport to the project site is the Napa County Airport, which is located nearly 6 miles to the southeast. Because of this distance, the proposed project site is located well outside of this facility's 65 dBA CNEL airport noise contours. The proposed project site is also not located within the vicinity of a private airstrip. While aircraft noise is occasionally audible on the site from aircraft flyovers, aircraft noise associated with nearby airport activity would not expose people residing or working near the site to excessive noise levels. Therefore, implementation of the proposed project would not expose persons residing or working in the project vicinity to noise levels from airport activity that would be in excess of normally acceptable standards for single-family residential land use development. Impacts associated with airport noise would be less than significant.

Mitigation Measures

None required.

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

Environmental Evaluation

Setting

According to the California Department of Finance (CDF), the City of Napa's estimated population as of January 1, 2022, was approximately 77,480. This was a .98 percent decrease from the estimated population the year prior, which was 78,246.[65]

Would the project:

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

Less than significant. According to the United State Census Bureau, the average household size in the City of Napa is 2.74.[66] Given that the proposed project would construct 11 new units, it can be assumed that the proposed project would generate 31 new residents.[67] This represents a nominal amount (0.04 percent) of the total City population.[68] Additionally, according to the City's Housing Element, the City's population is expected to increase to 90,288 by 2040.[69] The proposed project is also consistent with the General Plan's land use designation of the project site, so the population growth of 31 new residents is considered planned growth. Therefore, the proposed project would not induce substantial unplanned population growth in the City, either through new housing or

[65] California Department of Finance (CDF). 2022. E-4 Population Estimates for Cities, Counties, and the State, 2021-2022 with 2020 Benchmark. Website: https://dof.ca.gov/forecasting/demographics/estimates/e-4-population-estimates-for-cities-counties-and-the-state-2021-2022-with-2020-census-benchmark/. Accessed June 10, 2022.

[66] United States Census Bureau. n.d. Napa City, California. Website: https://www.census.gov/quickfacts/fact/table/napacitycalifornia/PST045221. Accessed June 10, 2022.

[67] 2.74 persons per residential unit * 11 residential units = 31 persons.

[68] 31 new residents/77,480 existing population = 0.0004, or 0.04 percent

[69] The City of Napa. 2015. Housing Element. Website: https://www.cityofnapa.org/DocumentCenter/View/506/Certified-Housing-Element-PDF. Accessed June 10, 2022.

proposing new businesses or indirectly through extension of roads or other infrastructure. Therefore, a less than significant impact would occur.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The project site currently contains a single residence structure, a barn, and various outbuildings. Development of the proposed project would involve the removal of some of the existing trees, vegetation, and all existing structures on the site to develop 11 single-family residences. Considering the average household size in Napa in 2022, approximately 2.74 people would be displaced through the removal of the one residence currently on the proposed site. Considering there are approximately 1,709 vacant housing units in the City,[70,71] this would not represent a substantial number of people or housing that would be displaced. The proposed project would provide enough housing for approximately 31 people, so it would offset the number of people displaced. Therefore, the impacts would be less than significant.

Mitigation Measures

None required.

[70] California Department of Finance (CDF). 2022. E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020-2022. Website: https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2022/. Accessed August 2, 2022

[71] The CDF City/County Population and Housing Estimates shows that there are 31,071 total housing units within the City of Napa and the City has a vacancy rate of 5.5 percent. Thus, there are approximately 1,709 vacant housing units within the City.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
2.15 Public Services *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?	☐	☐	☒	☐

Environmental Evaluation

Setting

Applicable Plans, Policies, and Regulations

City of Napa Policy Resolution No. 27

The City of Napa adopted Policy Resolution 27 originally in August 1992 and has most recently amended the Resolution in December 2002. The Resolution includes the City's standard mitigation measures that are imposed on all development projects, unless otherwise authorized by the City. Any or all of the mitigation measures listed in Resolution 27 may be imposed as conditions of project approval. The mitigation measures are periodically updated, as needed. The following public services measures listed in Resolution No. 27 are applicable to the proposed project:

- Developer shall comply with all applicable requirements of the Uniform Fire Code the Fire Department and PWD Standard Specification and the Fire Department "Standard Requirements for Commercial/Residential Project," including, without limitation, the requirements for access, new construction, smoke detectors, fire extinguishers, fire hydrants, etc. Existing fire hydrants may be used to meet hydrant location requirements only if they meet or are change to meet current hydrant specifications.
- Properties having common ownership shall provide Fire Department with a notarized copy of the recorded conditions, covenants, and restrictions agreement in a form satisfactory to the City Attorney ensuring that all components of fire protection system(s), and fire access roads will be maintained by a maintenance district, owner's association, or similar legally responsible entity.
- All newly constructed buildings must have automatic sprinkler systems conforming to NFPA and City Standard Specifications, for which installation permit must be obtained from Fire Prevention. In multi-building complexes, or in building with three (3) or more stories, special

monitoring conditions will be required. Existing habitable buildings, which are retained, shell be retrofitted.

- The Developer of any project proposing a change in occupancy use classification (as defined in the Uniform Building Code Table 5A) in a building protected by automatic fire sprinklers shall have the sprinkler system evaluated by a licensed fire sprinkler contractor or fire protection engineer for compliance with National Fire Protection Association Installation Standards. A written report of the inspection findings shall be submitted to the Fire Department prior to final occupancy clearance. A permit is required from Fire Prevention for sprinkler system alterations.

  Examples of these types of occupancies are: Storage of flammable, combustible, explosive, or toxic materials, manufacturing processes involving the above, woodworking shops, fire rebuilding or storage, automotive repair, auto body repair and/or painting, factories where loose combustible fibers are present, semiconductor fabrication facilities, bulk paint storage, etc.

- Developer shall pay the required fire and paramedic fees for new development in accordance with Napa Municipal Code Chapter 15.78. Such fees shall be payable at the rate in effect at the time of payment for the unit involved. The findings set forth in the ordinance and Resolution 94-106 are incorporated herein. The City further finds that calculation of the fee pursuant to the formula set forth therein demonstrates that there is a reasonable relationship between the fees imposed and the cost of improvements attributable to this project.

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?

The City of Napa Fire Department (NFD) is a multi-hazard, all risk response agency that provides emergency service to the citizens and visitors of the community, seeking to protect life, property, and the environment. The department is divided into three divisions: Administration, Operations, and Prevention. NFD identifies a service goal of having 90 percent of calls responded to within 7 minutes and achieved an 85 percent efficiency level in CY2020.[72] The project site is served by the NFD Station 5, located at 3001 Browns Valley Road, which is approximately 1540 feet from the project site.

The proposed project would not substantially increase demand for fire protection services or require new government facilities to be built or expanded. The proposed project is consistent with the City's General Plan land use designation, and as noted in Section 2.14, the proposed project would add fewer residents than were lost between 2021 and 2022, allowing NFD to maintain all applicable

[72] City of Napa. 2021. Operating and Capital Budget Fiscal Year 2021/2022. Website: https://www.cityofnapa.org/Archive.aspx?ADID=188. Accessed 21 June 2022.

service goals. The close proximity of Station 5 would allow NFD to maintain its response time goal, and emergency access would be available using the public cul-de-sac included in the site plans. Therefore, the impact would be less than significant.

b) Police protection?

Police protection services are provided to the project site by Napa Police Department (NPD). The Napa Police Department consists of approximately 76 sworn personnel and 71 professional staff. The department is divided into two main divisions: Operations and Administration/Support Services.[73] Officers are dispatched from police headquarters located at 1539 First Street, approximately 1.6 miles from the project site. During CY2020, NPD's average response time from the event created to arrival time for Priority 1-Priority 4 calls was 1 minute 24 seconds, 21 seconds faster than the target response time.[74]

The proposed project would not substantially increase demand for police protection services, require the generation of new sworn officers, or require new government facilities to be built or expanded. The proposed project is consistent with the City's General Plan land use designation, and, as noted in 2.14, the proposed project would add fewer residents to the City's population than were lost between 2020 and 2021. The proximity to NPD dispatch and ease of access using the public cul-de-sac would not inhibit emergency response time, service ratios, or performance objectives. Therefore, impact would be less than significant.[75]

c) Schools?

The Napa Valley Unified School District (NVUSD) is the primary provider of kindergarten through twelfth grade, with more than 17,000 students enrolled in over 30 schools. Browns Valley Elementary School is the closest public school to the project site, located approximately 1.1 miles west of the site.

The proposed project would not substantially increase demand for school services, require the generation of new teachers and educators, or require new schools be built or expanded. The proposed project is consistent with the City's General Plan land use designation and lies within preexisting boundaries for primary and secondary school districts. Additionally, as noted in Section 2.14, the proposed project would add fewer residents than were lost between 2020 and 2021, allowing for more students to be potentially added without disrupting the service objectives and student-teacher ratio goals set out by NVUSD. Therefore, the impact would be less than significant.

[73] City of Napa. 2022. Police Department. Website: https://www.cityofnapa.org/323/Police-Department#:~:text=The%20Napa%20Police%20Department%20was,week%2C%20365%20days%20a%20year. Accessed June 21, 2022.

[74] City of Napa. 2021. Operating and Capital Budget Fiscal Year 2021/2022. Website: https://www.cityofnapa.org/Archive.aspx?ADID=188. Accessed 21 June 2022.

[75] California Department of Finance (CDF). 2022. E-4 Population Estimates for Cities, Counties, and the State, 2021-2022 with 2020 Benchmark. Website: https://dof.ca.gov/forecasting/demographics/estimates/e-4-population-estimates-for-cities-counties-and-the-state-2021-2022-with-2020-census-benchmark/. Accessed June 21, 2022.

d) Parks?

The City has four community parks, 22 neighborhood parks, 11 mini-parks/play areas, and four civic areas, totaling over 800 acres of parkland within the City.[76] According to the General Plan, the Parks and Recreation element contains a target standard for provision of between 1.2 and 1.5 acres of parks per 1,000 residents.[77] The closest recreational facility to the proposed project is Westwood Hills Park, located approximately 140 feet south of the site.

The proposed project would not substantially increase demand for parks and recreational facilities. The 800 acres of parkland in the City are capable of supporting a population of 533,333 residents while still adhering to the General Plan's parkland-population ratio goal.[78] The City's current population of 77,480, as well as the projected increase to 77,511 as a result of the proposed project, still falls well below the maximum population for the City of Napa Department of Parks and Recreation Services to maintain this goal. Therefore, the impact would be less than significant.

e) Other public facilities?

There are several public facilities within the City, such as several library branches, sports facilities, and community centers. As noted above and in Section 2.14, the proposed project would not create a substantial increase in demand or require construction of new facilities. The proposed project is consistent with the City's General Plan, and the proposed project would add fewer residents to the City than were lost over the past year. Therefore, the impact would be less than significant.

Mitigation Measures

None required.

[76] The City of Napa. 1998. General Plan – Parks and Recreation. Website: https://www.cityofnapa.org/DocumentCenter/View/449/Chapter-5---Parks-and-Recreation-PDF. Accessed June 10, 2022.
[77] The City of Napa. 1998. General Plan – Parks and Recreation. Website: https://www.cityofnapa.org/DocumentCenter/View/449/Chapter-5---Parks-and-Recreation-PDF. Accessed June 10, 2022.
[78] (800/1.5)x(1,000) = 533,333

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

Environmental Evaluation

Setting

The City has four community parks, 22 neighborhood parks, 11 mini-parks/play areas, and four civic areas.[79] According to the General Plan, the Parks and Recreation element contains a minimum standard for maintaining between 1.2 and 1.5 acres of both community parks and neighborhood parks per 1,000 residents.[80]

The closest recreational facilities to the proposed project include the following:

- Westwood Hills Park is located approximately 140 feet South of the site.
- Valley Park is located approximately 0.7 mile west of the site.
- Sutherland Park is located approximately 1.7 miles north of the site.
- Laurel Hill Park is located approximately 0.7 mile southeast of the site.

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?

Less than significant impact. The proposed project would result in the addition of 31 new residents to the City, which would increase the demand on existing neighborhood parks. Although the proposed project would not develop additional parks on-site, similar to all new development projects in the City, the project applicant would be required to dedicate land or pay fees, pursuant to Chapter 15.68 of the Napa Municipal Code, prior to the issuance of building permits. Thus, any resulting increase in the need for additional facilities would be offset by the required payment of

[79] The City of Napa. 1998. General Plan – Parks and Recreation. Website: https://www.cityofnapa.org/DocumentCenter/View/449/Chapter-5---Parks-and-Recreation-PDF. Accessed June 10, 2022.
[80] The City of Napa. 1998. General Plan – Parks and Recreation. Website: https://www.cityofnapa.org/DocumentCenter/View/449/Chapter-5---Parks-and-Recreation-PDF. Accessed June 10, 2022.

these development fees.[81] With payment of the required fees or dedication of land, impacts would be less than significant.

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?

Less than significant impact. As discussed above, the proposed project does not propose the construction or expansion of public recreational facilities. The proposed project would result in the addition of 31 new residents, which is already anticipated in the City's General Plan because the proposed project would be consistent with existing zoning and General Plan land use designation. As described above, the proposed project would be subject to pay in lieu fees to the City for park dedication. Therefore, the proposed project would not result in adverse physical impacts associated with such facilities and the impact would be less than significant.

Mitigation Measures

None required.

[81] City of Napa. 2022. Park Development Fees. Website: https://library.qcode.us/lib/napa_ca/pub/municipal_code/item/city_of_napa_municipal_code-title_15-chapter_15_68. Accessed June 10, 2022.

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

This analysis in this section is based, in part, on a transportation memorandum prepared by Kimley-Horn, dated May 25, 2022 (Appendix H).

Environmental Evaluation

Would the project:

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less than significant impact. The proposed project consists of the construction of 11 single-family detached homes with access through a new public cul-de-sac off Browns Valley Road. The City of Napa does not require a Traffic Impact Study for single-family development that are fewer than 50 dwelling units. Therefore, a traffic impact analysis is not required for the proposed project.

Pedestrian facilities, including sidewalks and crosswalks are available in the project vicinity. Bicycle lanes are available on Browns Valley Road, and the proposed project would also be located near various alternative transportation modes and routes, including transit stops. The proposed project does not include any modification to the roadway, transit, bicycle, or pedestrian system, and therefore would not have any significant impacts related to conflicts with a program plan, ordinance, or policy addressing the circulation system. Therefore, impacts would be less than significant.

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

Less than significant impact. CEQA Guidelines, Section 15064.3 subdivision (b) discusses the potential impacts of projects for which land uses may increase VMT as a direct result of the implementation of the proposed project. VMT refers to the amount and distance of automobile

travel attributed to a project. Other relevant considerations may include the effects of the proposed project on transit and non-motorized travel. Section 15064.3(b) of the CEQA Guidelines assesses criteria for analyzing transportation impacts such as land use projects, transportation projects, qualitative analysis, and methodology. Section 15064.3(b)(1) states that projects within 0.5 mile of either an existing major transit stop or a stop along an existing high quality transit corridor should be presumed to cause a less than significant transportation impact.

The City adopted significant thresholds for VMT's on May 4, 2021. These thresholds are consistent with OPR's recommendations in the Technical Advisory on Evaluating Transportation Impacts in CEQA. For VMT screening requirements, the City follows the criteria set by the OPR in the *Technical Advisory on Evaluating Transportation Impacts in CEQA.*[82] The proposed project would generate an increase of 10 single-family residences on the site, and thus, according to the OPR average of 9.43 daily vehicle trips per dwelling unit, the proposed project would generate 94 net new daily vehicle trips. This rate falls below the OPR threshold of 110 daily trips and thus qualifies the proposed project as a small project for the purposed of VMT screening. Thus, per the OPR guidelines, the proposed project is assumed to cause a less than significant impact.

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

Less than significant impact. Access to the proposed project would be provided via a new entry from Browns Valley Road, which would provide access to the private driveways of all proposed residences on the site. Per the site plans, the entrance to Browns Valley would include a 50-foot vision triangle to both sides of the proposed entrance in accordance with the City Standard S-25 to avoid any visual obstruction.[83] The final site plans would be reviewed and conditionally approved by the City of Napa Development Engineering Division of the Public Works Department to ensure the access to the project site would comply with all City design standards, which preclude the potential for dangerous conditions. Thus, impacts would be less than significant.

d) Result in inadequate emergency access?

Less than significant impact. Emergency vehicles would continue to have access to roadways in the area during construction and after completion of the proposed project. The proposed project would not impede emergency access or response. The NFD and NPD have reviewed and conditionally approved the project site plans to ensure that adequate emergency vehicle access is provided. Compliance with NFD and NPD requirements would ensure impacts remain less than significant.

Mitigation Measures

None required.

[82] Governor's Office of Planning and Research. 2018. Technical Advisory on Evaluating Transportation Impacts in CEQA. December.

[83] City of Napa. 2018. Vision Triangle and Fencing Requirements. Website: https://www.cityofnapa.org/DocumentCenter/View/868/S-25-Vision-Triangle-and-Fencing-Requirements. Accessed July 18, 2022.

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

Setting

National Pollutant Discharge Elimination System

Pursuant to Section 402 of the CWA and the Porter-Cologne Water Quality Control Act, municipal stormwater discharges are regulated under the San Francisco Bay Region Municipal Regional Stormwater NPDES Permit, Municipal Separate Storm Sewer Systems (MS4) Order No. 2013-001 (General Permit). In 1987, Congress amended the CWA to mandate controls on discharges from MS4s. Acting under the federal mandate and the California Water Code, the State Water Board require cities, towns, and counties to regulate activities that can result in pollutants entering their storm drains. All municipalities prohibit non-stormwater discharges to storm drains and require residents and businesses to use BMPs to minimize the amount of pollutants in runoff. The RWQCB oversees the NPDES. In 2013, the State Water Board reissued the Phase II Stormwater NPDES Permit for small MS4s. Provision E.12, "Post-Construction Stormwater Management Program," mandates municipalities to require specified features and facilities—to control pollutant sources, runoff volumes, rates, and durations, and to treat runoff before discharge from the site—in development plans of projects that create or replace 5,000 square feet or more of impervious surface as

conditions of approval. The new requirements continue a progression of increasingly stringent requirements since 1989.

In 2014, the Bay Area Stormwater Management Agencies Association (BASMAA), through the BASMAA Phase II Committee, created the BASMAA Manual to assist applicants for development approvals to prepare submittals that demonstrate their project complies with the NPDES permit requirements. Applicants who seek development approvals for applicable projects should follow the manual when preparing their submittals. The manual is designed to ensure compliance with the requirements and promote integrated LID design.

Section E.12.c of the General Permit pertains to LID and how it relates to hydromodification management. This General Permit provision requires that stormwater discharges not cause an increase in the erosion potential of the receiving stream over the existing condition. Increases in runoff flow and volume must be managed so that the post-project runoff does not exceed estimated pre-project rates and durations, where such increased flow and/or volume is likely to cause increased potential for erosion of creek beds and banks, silt pollutant generation, or other adverse impacts on beneficial uses due to increased erosive force.

California Urban Water Management Planning Act

The Urban Water Management Planning Act (California Water Code §§ 10610-10656) requires that all urban water suppliers prepare UWMPs and update them every 5 years. The City published an update to its UWMP in 2020.

California Integrated Waste Management Act (Assembly Bill 939)

To minimize the amount of solid waste that must be disposed of by transformation and land disposal, the State Legislature passed AB 939, the California Integrated Waste Management Act of 1989, effective January 1990. The legislation required each local jurisdiction in the State to set diversion requirements of 25 percent by 1995 and 50 percent by 2000; established a comprehensive Statewide system of permitting, inspections, enforcement, and maintenance for solid waste facilities; and authorized local jurisdictions to impose fees based on the types or amounts of solid waste generated. In 2007, the requirements were amended to introduce a new per capita disposal and goal measurement system that moves the emphasis from an estimated diversion measurement number to using an actual disposal measurement number as a per capita disposal rate factor. As such, the new disposal-based indicator (pounds per person per year) uses only two factors: (1) a jurisdiction's population (or in some cases employment) and (2) its disposal as reported by disposal facilities.

Assembly Bill 341

AB 341 sets forth the requirements of the Statewide mandatory commercial recycling program for businesses that generate four or more cubic yards of commercial solid waste per week and multi-family dwellings with five or more units in California. AB 341 sets a Statewide goal for 75 percent disposal reduction by the year 2020.

Assembly Bill 1826

AB 1826 sets forth the requirements of the Statewide mandatory commercial organics recycling program for businesses and multi-family dwellings with five or more units that generate two or more cubic yards of commercial solid waste per week. AB 1826 sets a Statewide goal for 50 percent reduction in organic waste disposal by the year 2020.

California Green Building Standards Code Compliance for Construction, Waste Reduction, Disposal and Recycling

California adopted CALGreen in January 2020, which sets mandates for green building standards for all buildings in California and covers five categories: (1) planning and design, (2) energy efficiency, (3) water efficiency and conservation, (4) material conservation and resources efficiency, and (5) indoor environmental quality. The following mandatory set of measures are included in the standards which also includes more rigorous voluntary guidelines for new construction projects:

- Reducing indoor water use by 20 percent.
- Reducing wastewater by 20 percent.
- Recycling and/or salvaging 65 percent of nonhazardous construction and demolition (C&D) debris, or meeting the local C&D waste management ordinance, whichever is more stringent.
- Providing readily accessible areas for recycling by occupants.

The City requires further waste reductions and requires 75 percent diversion of nonhazardous C&D for projects that qualify under CALGreen.

Senate Bill 1383

SB 1383 sets targets to achieve a 50 percent reduction in the level of Statewide disposal of organic waste from the 2014 level by 2020 and a 75 percent reduction by 2025. The regulations went into effect on January 1, 2022, and provides the California Department of Resources Recycling and Recovery (CalRecycle) the regulatory authority necessary to achieve the organic waste disposal reduction targets and establishes an additional target that at least 20 percent of edible food that is currently disposed is recovered for human consumption by 2025.

City of Napa General Plan Envision Napa 2020

Chapter 4 of the General Plan, Community Services, includes the following policies for the purpose of reducing or avoiding impacts associated with utilities and service systems.

Policy CS-10.1 The City shall promote reduced wastewater system demand through efficient water use by:

- Requiring water-conserving design and equipment in new construction
- Encouraging retrofitting with water-conserving devices

Policy CS-10.3 The City shall coordinate development review with the Napa Sanitation District (NapaSan) to ensure that adequate wastewater collection, treatment, and disposal

facilities can be provided by the District by requiring that all new applicants for development secure a "will-serve" letter from the NSD if the District notifies the City that a critical capacity situation exists.

Where a critical capacity situation does exist, the City shall not issue, in the absence of a will-serve letter from the NSD, any building permits or similar ministerial entitlements for proposed structures that would increase net demand on NSD treatment capacity. In addition, when conducting environmental review for proposed development projects requiring General Plan amendments, specific plans, use permits, tentative subdivision maps, or similar discretionary approvals, the City shall include within the environmental document, information assessing whether NSD is likely to have sufficient capacity to serve the proposed development.

In approving any such discretionary project, the City shall require, as a mitigation measure and condition of approval, that the applicant(s) shall obtain the necessary will-serve letters from NSD prior to receiving approval of a final subdivision map, or in the absence of a need for a final subdivision map, prior to receiving approval of any required building permits or similar ministerial approvals.

City of Napa Policy Resolution No. 27

The City of Napa adopted Policy Resolution 27 originally in August 1992 and has most recently amended the Resolution in December 2002. The Resolution includes the City's standard mitigation measures that are imposed on all development projects, unless otherwise authorized by the City. Any or all of the mitigation measures listed in Resolution 27 may be imposed as conditions of project approval. The mitigation measures are periodically updated, as needed. The following utilities measures listed in Resolution No. 27 are applicable to the proposed project:

- Prior to trenching within existing roadway areas, the Developer's engineer shall ascertain the location of all underground utility systems and shall design any proposed subsurface utility extensions to avoid disrupting the services of such systems.
- Water and energy conservation measures shall be incorporated into project design and construction in accordance with applicable codes and ordinances.
- The project shall be connected to the Napa Sanitation District for sanitary sewer service. If the subject property is presently served by individual sewage disposal systems, the septic systems, setbacks, and reserve areas must be protected and maintained during cleaning, grading, construction, and after connection to the District, the existing septic tank(s) shall be properly destroyed.
- The project shall be connected to the City of Napa water system. Any existing well must be properly protected from potential contamination. If an existing well is to be destroyed, a well-destruction permit must be obtained from the Napa County Department of Environmental Management by a licensed well driller. If an existing well is not destroyed, it must be properly protected and an approved backflow prevention device installed according to the Water District's specifications.

- The project shall be designed and built in accordance with the PWD Standard Specification regarding the adequate conveyance of storm waters.
- All faucets in sinks and lavatories shall be equipped with faucet aerators designed to limit the maximum flow to two and two tenths (2.2) gallons per minute.
- All showerheads shall be of a design to limit the maximum flow to two and one-half (2.5) gallons per minute.
- The Developer shall completely offset the water requirements of this project by complying with the retrofit requirements of Napa Municipal Code Chapter 13.09.During the construction/demolition/renovation period of the project, Developer shall use the franchised garbage hauler for the service area in which the project is located to remove all wastes generated during project development, unless Developer transports project waste. If the Developer transports the project's waste, Developer must use the appropriate landfill for the service area in which the project is located.
- Developer shall provide for the source separation of wood waste for recycling. Developer shall use the franchised garbage hauler for the service area in which located for collection of such wood waste, unless the Developer transports such wood waste to a location where wood waste is recycled.
- The Developer of a commercial, industrial or multi-family project with common waste disposal facilities shall submit to and receive approval from the Public Works Director of a source reduction plan which meets the City's Source Reduction and Recycling Element and implementing guidelines.
- A recycling/solid waste enclosure shall be provided in accordance with Chapter 17.52.390, et seq. of the Napa Municipal Code for all commercial, industrial and multi-family projects with common solid waste facilities.

Environmental Evaluation

Would the project:

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less than significant impact.

Water

The proposed project's water needs would be met by the City. The proposed project would connect to the existing distribution main on Browns Valley Road and would include a new distribution pipeline within the project site. The proposed project would not require additional water infrastructure to be built or expanded. Furthermore, as described previously in Impact 2.14(a), the proposed project is estimated to result in approximately 31 new residents. Using UWMP methodology, the proposed project is expected to generate a water demand of 4,092 GPD, or 4.76

AFY.[84] According to the UWMP, the total water supply for the City is 14,092 AFY.[85] The proposed projects additional demand constitutes approximately 0.033 percent of the total water demand. Therefore, the proposed project does not require and would not result in the construction of new water facilities or expansion of existing facilities. Impacts would be less than significant.

Wastewater

NapaSan is responsible for wastewater collection, treatment, and disposal in the City. The proposed project would annex to NapaSan, connect to existing 15-inch sanitary sewer lines in Browns Valley Road and would not require additional wastewater infrastructure to be built or expanded. Wastewater from the proposed project would flow to the Soscol Water Recycling Facility (SWRF). The SWRF has a treatment capacity of 15.4 million gallons per day and currently treats an average of 12 million gallons per day. Thus, the SWRF has the capacity to treat the additional wastewater generated by the proposed project.[86] The proposed project is in accordance with the land use and zoning in the General Plan and would thus constitute planned growth for the City. Therefore, the proposed project would not require the construction or relocation of new or expanded wastewater facilities. Impacts would be less than significant.

Stormwater

The proposed project would include the installation of stormwater management systems on-site. As discussed in Section 2.7, Geology and Soils, and Section 2.10, Hydrology and Water Quality, the proposed project would prepare and implement a SWPPP and BMPs, which would ensure that impacts related to stormwater would be less than significant. Therefore, the proposed project would not substantially increase stormwater drainage such that new or expanded facilities or relocation would be required. Impacts would be less than significant.

Electric Power and Telecommunications Facilities

There are telecommunications companies who operate and maintain transmission and distribution infrastructure in the project vicinity and currently serve the existing uses on the project site. The proposed project would be all-electric, and no natural gas would serve the project site. Impacts associated with the proposed project's electricity demand are discussed in Section 2.6, Energy.

The site is currently served by telecommunications infrastructure, and the proposed project would connect to the existing infrastructure. Therefore, the proposed project would not require the installation or development of new or improved telecommunications facilities such that environmental impacts would occur. Impacts would be less than significant.

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

Less than significant impact. As discussed previously, the City relies on a combination of imported water, local surface water, and a small amount of recycled water to meet its water needs. The City

[84] 31 residents x 132 gal/pp/day = 4,092
[85] City of Napa. 2020. 2020 Urban Water Management Plan. January. Accessed July 12, 2022.
[86] Napa Sanitation District. N.d. Soscol Water Recycling Facility. Website: https://www.napasan.com/178/Soscol-Water-Recycling-Facility. Accessed July 12, 2022.

works together with SWP to ensure a safe and reliable water supply that would continue to serve the community in periods of drought and shortage. The City's receives 35 percent of its annual supply (5,170 AFY) from its rights to Lake Hennessey, 61 percent (8,922 AFY) from the SWP, and 4 percent (568 AFY) of recycled water from NapaSan.[87]

Table 16: City of Napa Water Supply and Demand Assessment

Supply and Demand Assessment		2025	2030	2035	2040	2045
Normal Year Supply and Demand Comparison						
Supply totals		31,737	31,997	28,907	28,907	28,907
Demand totals		15,065	15,750	16,100	16,425	16,650
Difference		16,672	16,247	12,807	12,482	12,257
Single Dry Year Supply and Demand Comparison						
Supply totals		17,702	17,962	16,275	16,275	16,275
Demand totals		15,065	15,750	16,100	16,425	16,650
Difference		2,637	2,212	175	**-150**	**-375**
Multiple Dry Year Supply and Demand Comparison						
First Year	Supply totals	20,941	21,201	19,191	19,191	19,191
	Demand totals	15,065	15,750	16,100	16,425	16,650
	Difference	5,876	5,451	3,091	2,766	2,541
Second Year	Supply totals	15,065	16,326	14,803	14,803	14,803
	Demand totals	15,065	15,750	16,100	16,425	16,650
	Difference	1,001	576	**-1,297**	**-1,622**	**-1,847**
Third Year	Supply totals	16,066	16,326	14,803	14,803	14,803
	Demand totals	15,065	15,750	16,100	16,425	16,650
	Difference	1,001	576	**-1,297**	**-1,622**	**-1,847**
Fourth Year	Supply totals	16,066	16,326	14,803	14,803	14,803
	Demand totals	15,065	15,750	16,100	16,425	16,650
	Difference	1,001	576	**-1,297**	**-1,622**	**-1,847**
Fifth Year	Supply totals	16,066	16,326	14,803	14,803	14,803
	Demand totals	15,065	15,750	16,100	16,425	16,650
	Difference	1,001	576	**-1,297**	**-1,622**	**-1,847**

Source: City of Napa UWMP, 2020.

Based on a conservative estimate that does not account for the current water demand of the project site, the proposed project would generate a water demand of 4,092 GPD, or approximately 4.76 AFY,

[87] City of Napa. 2020. 2020 Urban Water Management Plan. January. Accessed July 12, 2022.

which is approximately 0.033 percent of the total demand. Furthermore, the proposed project is consistent with the site's existing zoning and land use designation; therefore, the demand was already evaluated in the General Plan EIR, and is accounted for in the current UWMP. Thus, there is water supply available for the City, and the water supply demanded by the proposed project can be accommodated by the existing supply.

The UWMP describes the City's plans to meet full service demands under all foreseeable hydrologic conditions, meeting single dry year and multiple dry year reliability. Table 15 shows the comparison between the supply and demand for projected years between 2025 and 2045 for different hydrologic scenarios. City demands are projected to be met with groundwater, imported water, and recycled water supplies with available SWP surplus supplies. As the proposed project is consistent with the site's existing zoning and land use designation, the proposed project's water demand would be accommodated in multiple dry year scenarios. Therefore, impacts would be less than significant.

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

Less than significant impact. NapaSan maintains and operates the wastewater collection and treatment system of the City, including the project site. As previously discussed, the proposed project would annex to NapaSan and connect to the existing 15-inch sanitary sewer line in Browns Valley Road. The SWRF has a permitted dry weather treatment capacity of 15.4 million gallons per day and treats approximately 12 million gallons of wastewater per day.[88] The proposed project includes the development of 11 new single-family residential houses and would result in an incremental increase in wastewater generation as compared to current conditions. However, the development of the proposed project is consistent with the land use anticipated in the General Plan, and wastewater generated by the proposed project is consistent with the service needs anticipated by the General Plan and would not require the expansion of treatment facilities or the construction of new facilities. Therefore, the proposed project would not exceed wastewater treatment requirements. Impacts would be less than significant.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less than significant impact. Solid waste collection and recycling services for the City are provided by Napa Recycling and Waste Services (NRWS). NRWS collects solid waste for the City of Napa and southern unincorporated Napa County. Solid waste is taken to the Delvin Road Recycling and Transfer Facility, where it is loaded into trucks and sent to the Potrero Hill Landfill.[89]

CalRecycle provides a solid waste generation factor to estimate the amount of solid waste generated by residential projects. Using the generation rate of 12.23 pounds (lbs) per household per day for residential development, the proposed project would generate approximately 379.13 lbs per day of

[88] Napa Sanitation District. N.d. Soscol Water Recycling Facility. Website: https://www.napasan.com/178/Soscol-Water-Recycling-Facility. Accessed July 12, 2022.

[89] Napa Recycling and Waste Services. 2022. Delvin Road Recycling & Transfer Facility. Website: https://naparecycling.com/residents/devlin-road-facility/. Accessed July 13, 2022.

solid waste, representing a nominal amount of the Potrero Landfill's daily capacity of 4,330 tons, shown in Table 17. Therefore, the existing landfills have sufficient capacity to serve the proposed project and solid waste generated during construction and operation would represent a negligible increase compared to the daily permitted tonnage at landfills. Additionally, the proposed project would also include recycling programs to reduce solid waste and comply with all applicable regulations for solid waste. Thus, impacts would be less than significant, and no mitigation is required.

Table 17: Napa County Landfill Availability

Landfill	Landfill Address	Closure Date	Maximum Daily Permitted Throughput (tons per day)	Maximum Permitted Capacity (cubic yards)	Remaining Capacity (cubic yards)
Potrero Hills Landfill	3675 Potrero Hills Lane, Suisun City, CA 94585	2/14/2048	4,330	83,100,000	13,872,000
Source: California Department of Resources Recycling and Recovery (CalRecycle) Solid Waste Information System (SWIS) Facility Search, 2022.					

e) Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?

Less than significant impact. The proposed project would generate additional solid waste as compared to existing conditions. The proposed development would be required to comply with applicable federal, State, and local regulations related to solid waste such as Napa Municipal Code Chapters 5.60 (Municipal Solid Waste, Recyclable Materials and compost collection and disposal) and 5.61 (Mandatory Municipal Solid Waste, Recyclable Material and Compostables Disposal Reduction); Resolution R2012 100, the City's disposal reduction policy and Policy Resolution No. 27 which require submittal of a source reduction plan consistent with the Source Reduction and Recycling Element of the City's General Plan. Therefore, a portion of solid waste would be diverted from landfill through recycling, composting, and other methods in compliance with federal, State, and local management and reduction statutes. Therefore, the proposed project would not violate applicable federal, State, and local statutes and regulations related to solid waste, and impacts would be less than significant.

Mitigation Measures

None required.

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

Environmental Evaluation

Setting

According to the California Department of Forestry and Fire Protection (CAL FIRE) Fire Hazard Severity Zone (FHSZ) map for Napa County, the project site is not classified as a very high fire hazard severity zone.[90] The nearest very high fire hazard safety zone is located approximately 4.83 miles feet northeast of the project site in unincorporated Napa County.

Would the project:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less than significant impact. The project site is flat and is not considered a high severity zone for wildfire. The City's basic firefighting regulations are the adopted California Fire Code (CFC). The CFC regulations are required for protection of life and property from wildland fires in wildland urban interface areas in the City.[91] The City does not currently have designated evacuation routes, but the

[90] California Department of Forestry and Fire Protection. 2022. California Fire Hazard Severity Zone. Website: https://gis.data.ca.gov/datasets/789d5286736248f69c4515c04f58f414. Accessed June 16, 2022.

[91] City of Napa. 1998. General Plan – Health and Safety. Website: https://www.cityofnapa.org/DocumentCenter/View/452/Chapter-8---Health-and-Safety-PDF. Accessed June 16, 2022.

proposed project is approximately 0.92 from Highway 29, which is one of City's crucial corridors for circulation in the event of an emergency, according to the City's current General Plan.[92]

The proposed project would not impair the implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan, and would therefore have a less than significant impact.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Less than significant impact. The project site is located in a LRA and is not located in a high fire hazard severity zone according to the FHSZ map. The project sites are located in a flat surface area with no steep hills or slopes. The nearest air monitoring station that measures meteorological data is the Napa County Airport Station, located approximately 6.48 miles southeast of the project site. According to the ARB, this station, this station has a daily average wind speed of 17.0 mph.[93] While winds can reach speeds that could potentially spread wildfires, the project site and surrounding areas do not embody conditions that would exacerbate a wildfire. Therefore, the proposed project would not exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. The impact would be less than significant.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No impact. The proposed project is not located within the SRA for fire service and is not within a Very High FHSZ. Therefore, the proposed project would not require the installation or maintenance of associated infrastructure. No impact would occur.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less than significant impact. The project site is flat and not located within an SRA for fire service or a Very High FHSZ. Impacts related to landslides and flooding were discussed in Section 2.7, Geology and Soils. The proposed project would be required to implement the suggested project designs from the Geotechnical Exploration to address site-specific conditions, and would also be required to implement the BMPs from the SWPPP as well as a bioretention system to address impacts related to flooding during construction and operation, respectively. Therefore, the proposed project would not

[92] City of Napa. 1998. Envision Napa 2020 General Plan.

[93] California Air Resources Board (ARB). 2022. Annual Resultant Wind Summary Data. Website: https://www.arb.ca.gov/aqmis2/display.php?param=WINSPD_mph&year=2022&mon=7&day=21&hours=all&county_name=--COUNTY--&basin=--AIR+BASIN--&latitude=C-Central&report=ASRPT&order=state%2Cbasin%2Ccounty_name%2Cname&network%5B%5D=ALL&submit=Retrieve+Data&ptype=met. Accessed July 22, 2022.

expose people or structures to post-fire slope instability or drainage and runoff change. The impact would be less than significant.

Mitigation Measures

None required.

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

Environmental Evaluation

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

Less than significant with mitigation incorporated. Short- and long-term impacts to special-status species, nesting birds, roosting bats, sensitive habitats, jurisdictional features, and wildlife movement would be reduced to less than significant levels through implementation of MMs BIO-1 through BIO-11, and/or compliance with applicable regulations and agency requirements. In addition, a creek structural setback is incorporated in the proposed project consistent with the City of Napa Municipal Code, including Section 17.52.110 Creeks and other watercourses; the setback is shown in Exhibit 10. Therefore, the proposed project would not conflict with any other local policies or regulations protecting biological resources.

Subsurface construction activities have the potential to destroy or damage previously undiscovered historical or archaeological resources, as well as human remains. Historic resources can include wood, stone, foundations, and other structural remains; debris-filled wells or privies; and deposits of wood, glass, ceramics, and other refuse. Archaeological resources can include but are not limited to

stone, bone, wood, or shell artifacts or features, including hearths and structural elements. Damage or destruction of these resources would be a potentially significant impact. Implementation of MM CUL-1 would ensure that this potential impact is reduced to a less than significant level.

In the event of the accidental discovery or recognition of any human remains, CEQA Guidelines Section 15064.5, Health and Safety Code Section 7050.5, and Public Resources Code Sections 5097.94 and 5097.98 must be followed. MM CUL-2 and MM CUL-3 further specify the procedures to follow in the event human remains are uncovered. Along with compliance with required guidelines and statutes, implementation of MM CUL-2 and MM CUL-3 would reduce potential impacts on human remains to a less than significant level.

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)?

Less than significant impact with mitigation incorporated. The proposed project would result in potentially significant project-level impacts related to air quality, biological resources, cultural resources, and geology and soils. MM AIR-1, MM AIR-2, MM BIO-1 through 11, MM CUL-1, MM CUL-2, MM CUL-3, and MM GEO-1 would be implemented as part of the proposed project. The mitigation measures will, among other things, reduce air pollutants, damage to cultural resources, and risks to wildlife. The mitigation measures will reduce each impact to a level of less than significant.

All other impacts of the proposed project were determined either to have no impact or to be less than significant without the need for mitigation. Cumulatively, the proposed project would not result in any significant impacts that would substantially combine with impacts of other current or probable future impacts. Therefore, the proposed project, in conjunction with other future development projects, would not result in any cumulatively considerable impacts.

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

Less than significant with mitigation incorporated. The previous sections of this Draft IS/MND reviewed the proposed project's potential impacts related to air quality, biological resources, cultural resources, and geology, among other environmental issue areas. As concluded in these previous discussions, the proposed project would result in less than significant impacts with implementation of MM AIR-1, MM AIR-2, MM BIO-1 through 11, MM CUL-1, MM CUL-2, MM CUL-3, and MM GEO-1. Therefore, with implementation of the specified mitigation and standard BMPs and conditions of approval, the proposed project would cause less than significant adverse effects on human beings.

Mitigation Measures

Implement MM AIR-1, MM AIR-2, MM BIO-1 through MM BIO-11, MM CUL-1, MM CUL-2, MM CUL-3, and MM GEO-1.

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