

Appendix A - NOP, NOP Distribution List, Public Comments Received

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**NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT
AND NOTICE OF SCOPING MEETING FOR THE CITY OF CLAYTON
6th CYCLE (2023-2031) HOUSING ELEMENT UPDATE AND ASSOCIATED LAND USE
ELEMENT AND ZONING CODE AMENDMENTS**

TO: Responsible Agencies, Trustee Agencies, and Interested Parties

DATE: March 1, 2022

The City of Clayton is the Lead Agency under the California Environmental Quality Act (CEQA) and will prepare an Environmental Impact Report (EIR) for a project involving a comprehensive update of the City of Clayton General Plan Housing Element, focused updates to the Land Use Element, and parallel amendments to the Zoning Code ("project").

The updated Housing Element will establish programs, policies and actions to further the goal of meeting existing and projected housing needs of all income levels and will identify how the City plans to accommodate the Regional Housing Needs Allocation (RHNA) of 570 units through the year 2031, as established by the Association of Bay Area Governments (ABAG). The City also proposes updates to the Land Use Element to correspond to the Housing Element's housing plan, as well as Zoning Code amendments necessary to implement the Housing and Land Use Elements, as amended. Details on the project are provided below, and other information about the Housing Element and the Housing Element process can be found on the City's website at <https://claytonca.gov/community-development/housing/housing-element/>.

The City is requesting identification of environmental issues, environmental impacts, and information that you or your organization believes need to be considered and analyzed in the EIR, including environmental impacts, mitigation measures, and alternatives.

NOTICE OF SCOPING MEETING

Pursuant to California Public Resources Code Section 21083.9 and California Code of Regulations, Title 14, Chapter 3 ("CEQA Guidelines") Section 15082(c)(1), the Lead Agency will conduct a public scoping meeting for the purpose of soliciting written comments from interested parties, responsible agencies, agencies with jurisdiction by law, trustee agencies, transportation agencies, and involved federal agencies as to the appropriate scope and content of the EIR.

The public scoping meeting will be held in an online format using the Zoom application and will be an opportunity for agencies and interested parties to provide spoken comments on the scope

of the EIR. City staff will be available during this meeting to provide clarification on the project and the environmental review process. Interested parties wishing to provide comments or public testimony can speak during the meeting or provide their comments in writing, as described under “Submittal of Written Comments” below. No decisions about the project will be made at the scoping meeting. A separate public hearing for the project will be scheduled after the completion of the EIR. The date, time, and virtual location of the public scoping meeting is as follows:

Date: March 8, 2022 at 7:00 p.m.

Location: Virtual Webinar

To protect residents, officials, and staff, and in accordance with California State Assembly Bill 361 and Government Code Section 54953(e), the scoping meeting will be conducted during a regular Planning Commission meeting held using teleconferencing. A physical location from which members of the public may observe or participate in the meeting in person will not be available. The following options are provided to view, listen to, or provide comments during the meeting:

Videoconference: To join the meeting on-line via smart phone or computer, click on the link <https://us02web.zoom.us/j/87901324143>; or, through the Zoom application, enter **Webinar ID: 879 0132 4143**. No registration or meeting password is required. To indicate your request to speak, use the ‘Raise Hand’ feature when the Planning Commission Chair invites public comments on the agenda item.

Phone-in: Dial toll free 877-853-5257. When prompted, enter the Webinar ID above. If joining the meeting by phone, press *9 to ‘Raise Hand’ to indicate your request to speak, then press *6 to unmute yourself when prompted by the Planning Commission Chair or staff.

RESPONSIBLE AND TRUSTEE AGENCIES

The City requests your agency’s views on the scope and content of the environmental information relevant to your agency’s statutory responsibilities in connection with the project, in accordance with the CEQA Guidelines, Section 15082(b). Your agency will need to use the EIR prepared by the City when considering any permits or other project approvals that your agency must issue. As such, your responses to this Notice of Preparation (NOP), at a minimum should identify: (1) the significant environmental issues and reasonable alternatives and mitigation measures that your agency will need to have explored in the EIR; and (2) whether your agency will be a responsible or trustee agency for this project.

REVIEW AND RESPONSE PERIOD

March 2, 2022 to April 4, 2022

Pursuant to CEQA Guidelines Section 15082(b), responses to this NOP must be provided during this response period.

SUBMITTAL OF WRITTEN COMMENTS

Please send your written comments to:

Dana Ayers, AICP,
Community Development Director
City of Clayton Community Development Department
6000 Heritage Trail
Clayton, California 94517

Email: danaa@claytonca.gov

Tel: (925) 673-7343

Fax: (925) 672-4917

Project Location

The City of Clayton is located in north-central Contra Costa County, approximately 20 miles east of downtown Oakland. The City is located at the base of the north slope of Mt. Diablo. For the purposes of this project, the area of interest includes all properties within the corporate City boundaries and the City's Sphere of Influence (SOI), as defined by the Contra Costa County Local Agency Formation Commission. This planning area is bounded to the south by Mt. Diablo State Park and to the northeast by Black Diamond Regional Preserve. The northern and western planning area boundaries are shared with the City of Concord. The regional context of Clayton is shown in Exhibit 1 (Regional Context Map). Exhibit 2 (Planning Area Map) provides a more detailed view of the planning area and illustrates the current General Plan land use diagram.

The planning area includes the entire City of Clayton, which is 3.84 square miles of land, as well as its SOI, which is an additional 0.98 square miles. The City also has a Planning Area which extends beyond the SOI that will not be impacted by this project. Freeways and highways that provide regional access include Interstate 680 (I-680) to the west, State Route 242 (SR 242) to the northwest, and Interstate 580 (I-580) to the south. Regional arterials directly serving Clayton are Ygnacio Valley/Kirker Pass Road and Clayton Road. Clayton Road carries traffic to downtown Clayton from SR 242. Marsh Creek Road connects Clayton to the east to Brentwood.

Project Description

The Housing Element is one of the mandated General Plan elements. All cities and counties in California are required to update their Housing Element every eight years to meet existing and future projected housing needs of all economic segments of the community. Clayton, as a part of the ABAG region, is preparing this 6th cycle Housing Element for the 2023-2031 planning period.

The Housing Element Update establishes programs, policies, and actions to further the goal of meeting the existing and projected housing needs of all income levels of the community; provides evidence of the City's ability to accommodate the RHNA through the year 2031, as established by ABAG; and identifies changes to the General Plan Land Use Element needed to support the required housing capacity. In addition, the Housing Element includes goals and strategies to maintain the quality of the existing housing stock, promote housing opportunities for special needs

households, incorporate energy conservation approaches that can contribute to reduced housing costs, and affirmatively further fair housing practices. The Housing Element must be adopted by January 2023.

The City has been assigned a RHNA of 570 units, distributed among the four income categories shown in the adjacent diagram. Achieving this RHNA will require that the City amend the Land Use Element to clearly define and possibly increase multi-family residential densities and change land use designations in the downtown. Parallel changes would need to be made to the Zoning Code and zoning map.

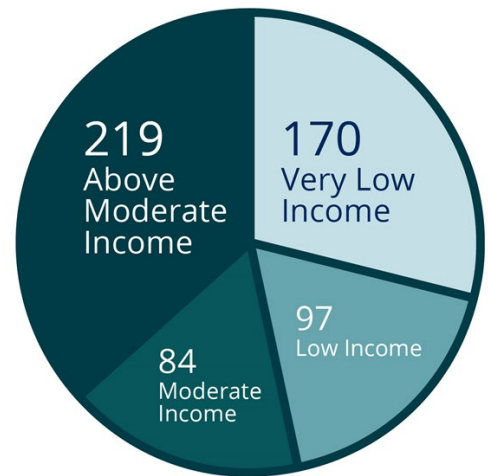


Exhibit 3 identifies existing land uses, and Exhibit 4 identifies the proposed land use changes associated with the Housing Element Update. These changes would affect the ultimate build-out reported in the General Plan Land Use Element. As shown in the table below, these proposed land use changes have the potential to result in increased capacity for as many as 883 new dwelling units, an increase of approximately 20,000 square feet of commercial space, and a reduction of approximately 7,000 square feet of public facilities/institutional space. Potential increases of approximately 2,397 residents and 100 jobs are projected for the 2031 horizon year.

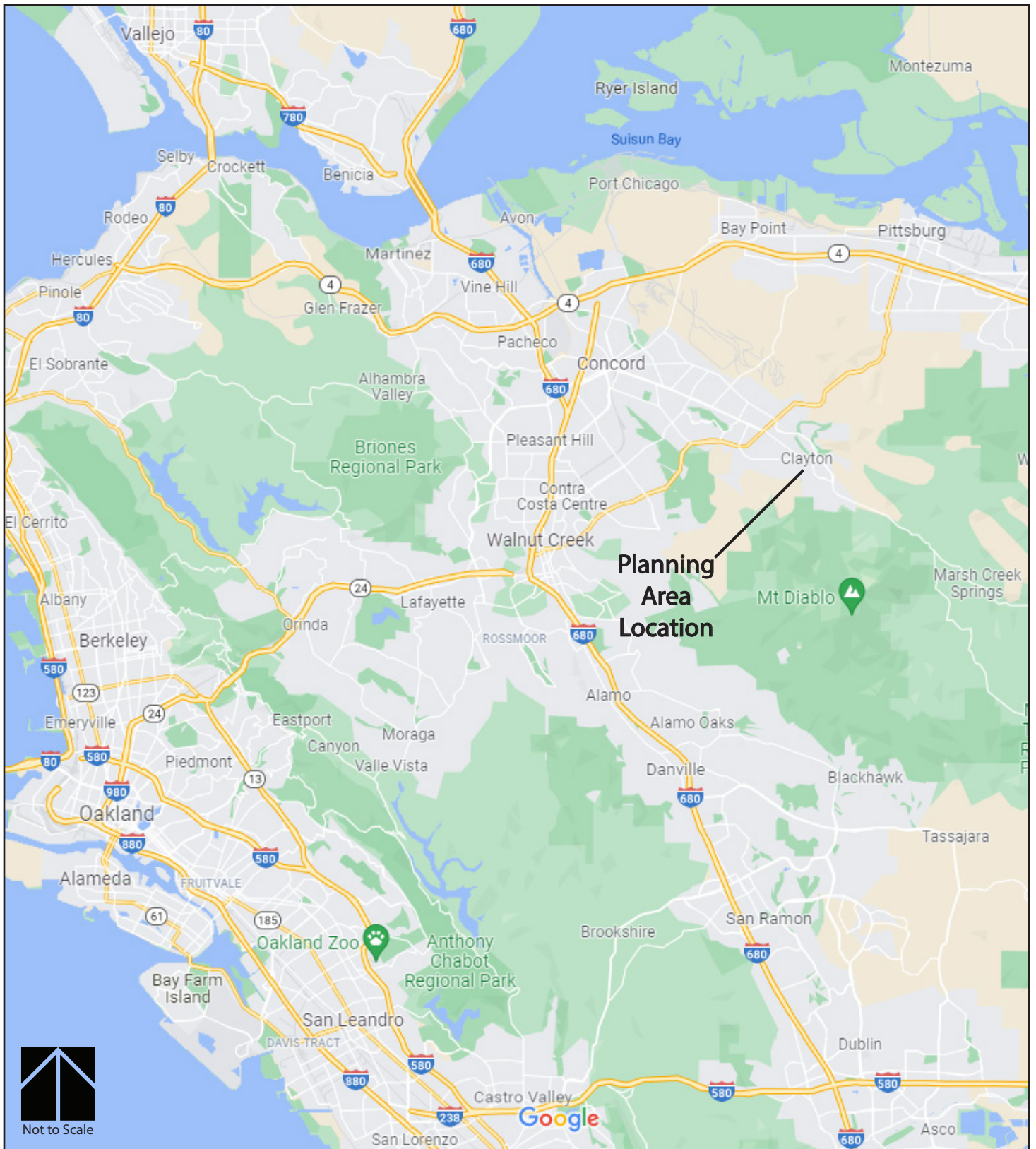
Land Use Data Table

Development Indicators	Existing Conditions (2021)	Future Buildout Conditions (2029)	Existing to Buildout Change (Numbers)	Existing to Buildout Change (Percentage)
Dwelling Units	4,120	5,003	+883	21.4%
Population	11,268	13,665	+2,397	21.3%
Employees	1,510	1,610	+100	6.6%
Non-Residential Building SF	357,140	307,140	+13,000	3.6%
<i>Commercial</i>	<i>173,490</i>	<i>193,490</i>	<i>+20,000</i>	<i>11.5%</i>
<i>Office</i>	<i>83,650</i>	<i>83,650</i>	<i>0</i>	<i>0.0%</i>
<i>Public Facilities/Institutional</i>	<i>100,000</i>	<i>93,000</i>	<i>-7,000</i>	<i>-7.0%</i>
Source: City of Clayton, 2021; MIG, Inc. 2022; UrbanFootprint, 2021; Department of Finance (DOF) Demographic and Research Unit, 2021; and Esri Business Summary, 2021.				
Notes: Vacancy Rate: 2.79%; Persons Per Household: 2.81 (DOF, 2021)				

Programmatic EIR

The City of Clayton has determined that the proposed project will require preparation of an EIR pursuant to CEQA. The City is the Lead Agency for preparation of a Program EIR for the proposed Housing Element update and associated changes to the Land Use Element and Zoning Code. The Program EIR will evaluate the environmental impacts resulting from implementation of the proposed project and will recommend mitigation measures to avoid or reduce significant impacts, where applicable. The Program EIR also is intended to help the City review future project proposals pursuant to section 15168 (Program EIR) of the CEQA Guidelines. The following environmental topics will be evaluated in the EIR:

- Aesthetics
- Agriculture and Forestry
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Tribal Cultural Resources
- Transportation and Circulation
- Utilities and Service Systems
- Wildfire
- Cumulative Impacts
- Alternatives



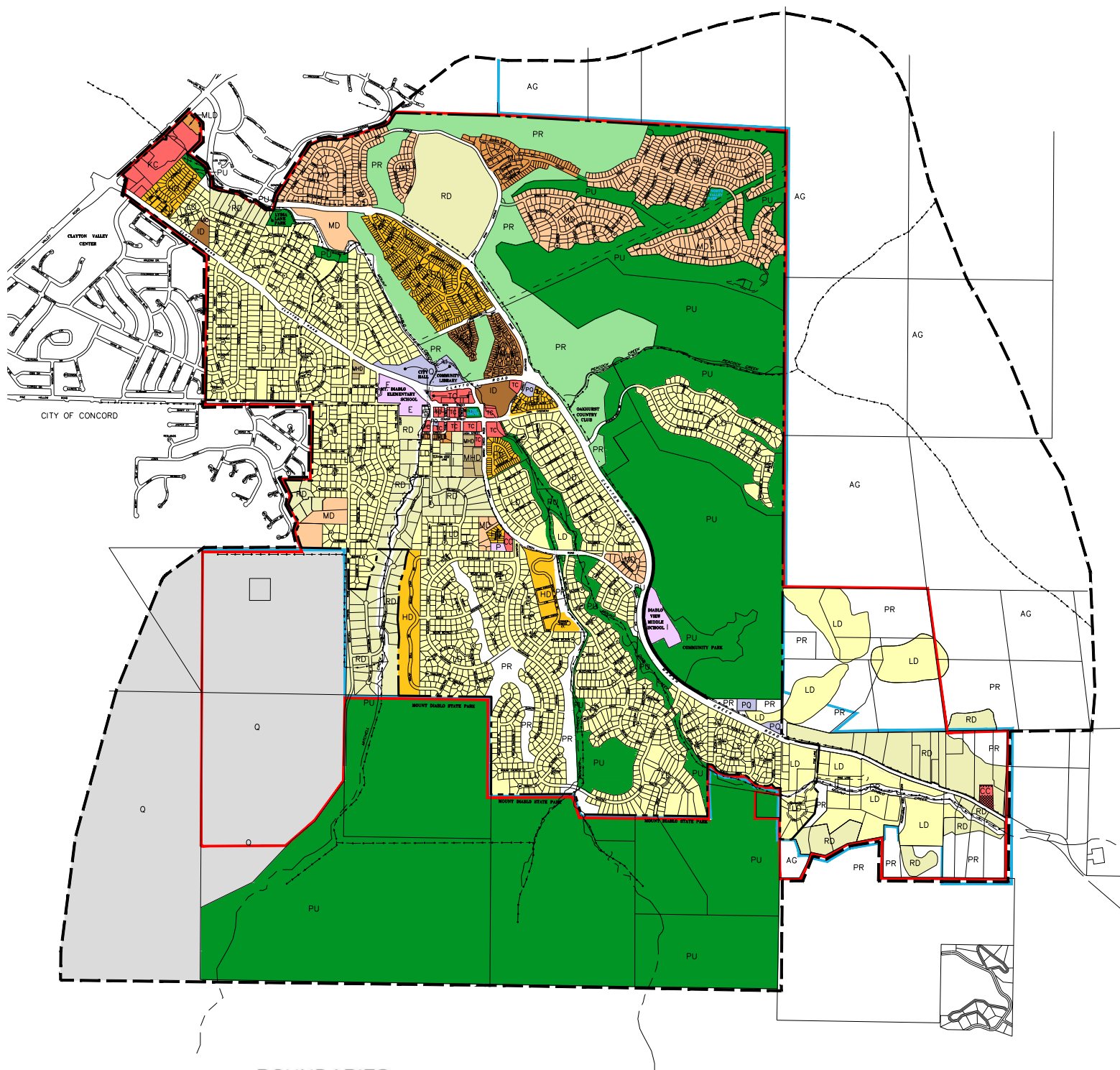
Source: Google

<http://www.mig.com> • 951-787-9222



Exhibit 1 Regional Context Map

City of Clayton 6th Cycle (2023-2031) Housing Element Update
Clayton, California



BOUNDARIES

- CITY LIMITS
- SPHERE OF INFLUENCE
- URBAN LIMIT LINE
- PLANNING AREA

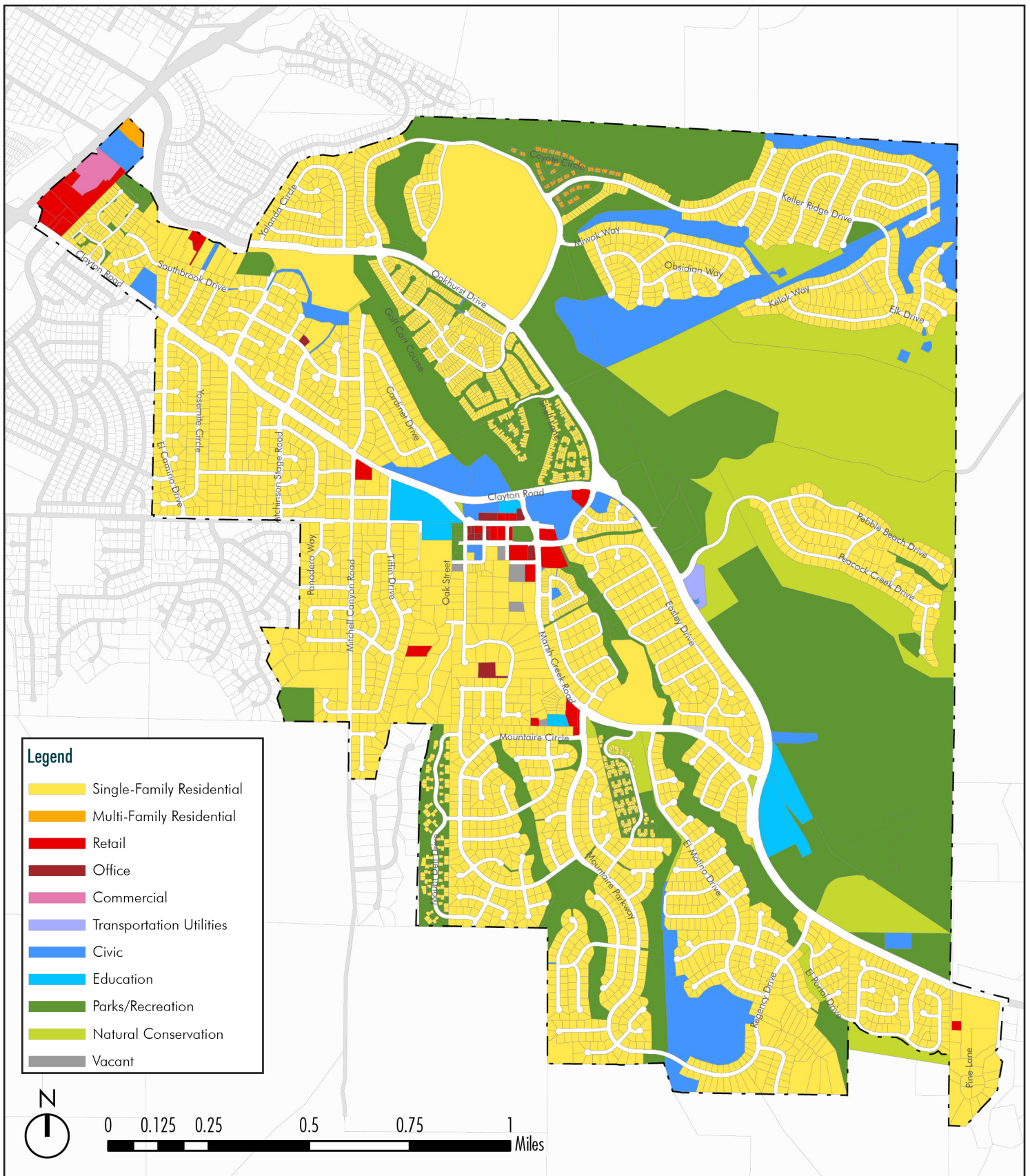


Source: Clayton General
<http://www.migcom.com> • 951-787-9222

Exhibit 2 Planning Area Map

City of Clayton 6th Cycle (2023-2031) Housing Element Update
 Clayton, California



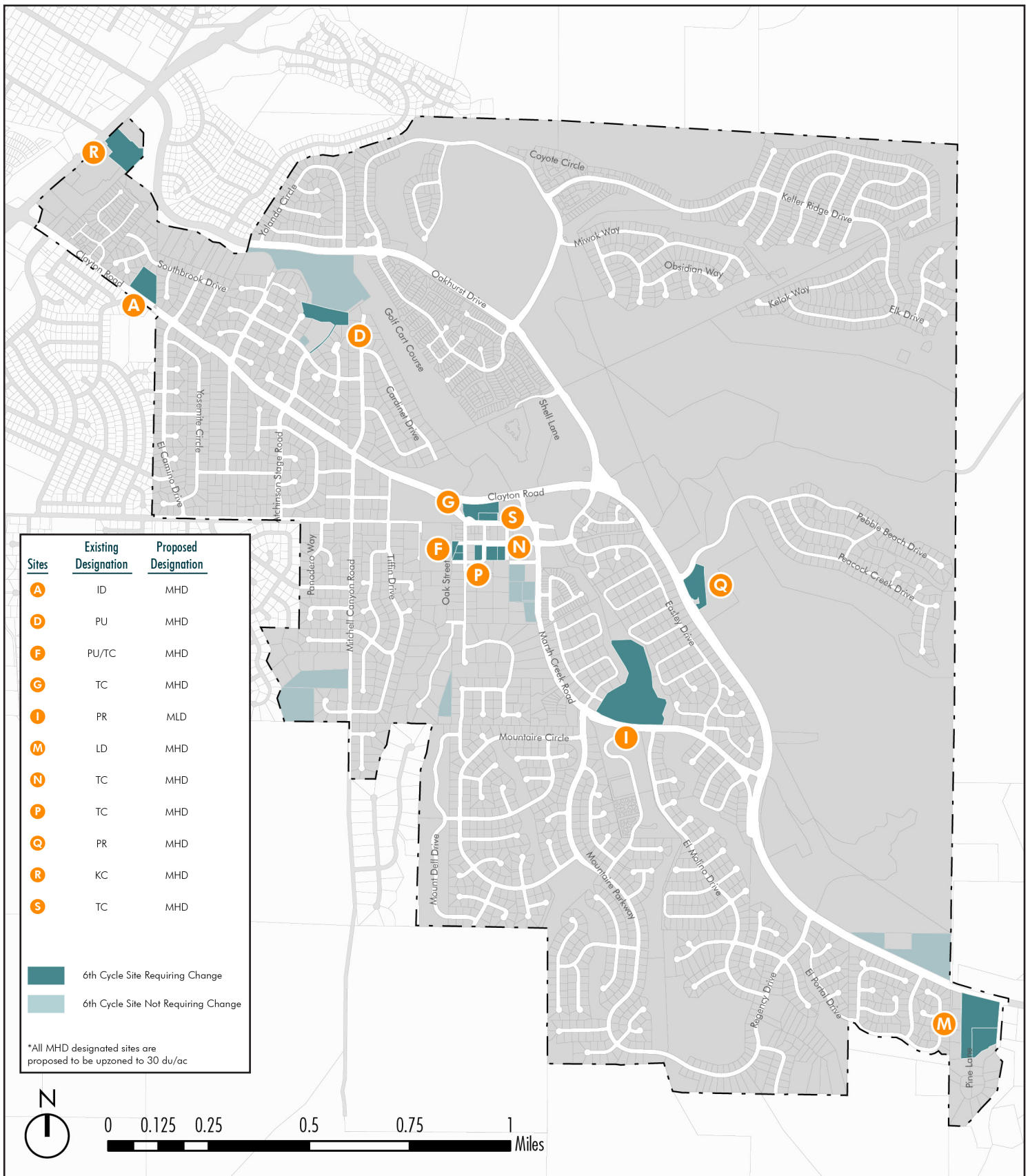


Source: Clayton General Plan
<http://www.migcom.com> • 951-787-9222

Exhibit 3 Existing Land Use Map

City of Clayton 6th Cycle (2023-2031) Housing Element Update
 Clayton, California





Source: MIG, Inc.

<http://www.migcom.com> • 951-787-9222



Exhibit 4 Proposed Land Use Changes

City of Clayton 6th Cycle (2023-2031) Housing Element Update
Clayton, California

NOP Distribution List

Agency	Street Address 1	Street Address 2	City, State ZIP
OPR / State Clearinghouse	CEQASubmit		
Contra Costa County Clerk	Hand Deliver to 555 Escobar St, Martinez		
State Dept of Housing & Community Development	C/O Land Use & Planning Unit	2020 West El Camino Avenue, Suite 500	Sacramento, CA 95833
State Dept of Fish & Wildlife	Bay Delta Region 3	2825 Cordilia Road, Suite 100	Fairfield, CA 94534
California Dept of Transportation	District 4 Local Assistance	P.O. Box 23660	Oakland, CA 94623-0660
CA Department of Conservation	State Mining and Geology Board	715 P Street, MS 1909	Sacramento, CA 95814
CA Department of Toxic Substances Control		700 Heinz Avenue, Suite 200	Berkeley, CA 94710-2721
Office of Historic Preservation		1725 23rd Street, Suite 100	Sacramento, CA 95816
Bay Area Air Quality Management District		375 Beale Street, Suite 600	San Francisco, CA 94105
SF Regional Water Quality Control Board		1515 Clay Street, Suite 1400	Oakland, CA 94612
Wilton Rancheria		9728 Kent Street	Elk Grove, CA 95624
Amah Mutsun Tribal Band of Mission San Juan Bautista	Raymond Hitchcock, Chairperson	789 Canada Road	Woodside, CA 94062
Indian Canyon Mutsun Band of Costanoan	Irene Zwierlein, Chairperson	P.O. Box 28	Hollister, CA 95024
Muwekma Ohlone Indian Tribe of the SF Bay Area	Ann Marie Sayers, Chairperson	20885 Redwood Road, Suite 232	Castro Valley, CA 94546
North Valley Yokuts Tribe	Charlene Nijmeh, Chairperson	P.O. Box 717	Linden, CA 95236
The Ohlone Indian Tribe	Katherin Erolinda Perez, Chairperson	P.O. Box 3152	Fremont, CA 94539
	Andrew Galvan		
Contra Costa County	Dept of Conservation & Development	30 Muir Road	Martinez, CA 94553
City of Concord	Community Development Department	1950 Parkside Drive, Building D	Concord, CA 94519
City of Walnut Creek	Community Development Department	1666 North Main Street, 2nd Floor	Walnut Creek, CA 94596
Contra Costa LAFCO		40 Muir Road, 1st Floor	Martinez, CA 94553
Contra Costa Water District		1331 Concord Avenue	Concord, CA 94520
City of Concord	Public Works Department	1950 Parkside Drive	Concord, CA 94519
Central Contra Costa Sanitary District		5019 Imhoff Place	Martinez, CA 94553
Contra Costa County Fire Protection District	Administrative Offices	4005 Port Chicago Highway, Suite 250	Concord, CA 94520
East Bay Regional Parks District		P.O. Box 5381	Oakland, CA 94605-0381
Association of Bay Area Governments		375 Beale Street, Suite 800	San Francisco, CA 94105-2066
Mt. Diablo Unified School District	Attn: Dr. Lisa Gonzales, Chief Business Official	1936 Carlotta Drive	Concord, CA 94519
Contra Costa Transportation Authority	Attn: John Hoang, Director of Planning	2999 Oak Road, Suite 100	Walnut Creek, CA 94597
TRANSPAC	Attn: Matt Todd, Managing Director	1211 Newell Avenue, Suite 200	Walnut Creek, CA 94596
Pacific Gas & Electric		1850 Gateway Blvd, 8th Floor	Concord, CA 94520
Republic Services		441 North Buchanan Circle	Pacheco, CA 94553
CA Native American Heritage Commission		1550 Harbor Blvd, Suite 100	West Sacramento, CA 95691

online or hand delivery
certified mail
first class mail



COMMUNITY DEVELOPMENT DEPARTMENT

6000 Heritage Trail, Clayton, CA 94517
PHONE: 925-673-7300 – FAX: 925-5672-4917

March 1, 2022

Raymond Hitchcock, Chairperson
Wilton Rancheria
9728 Kent Street
Elk Grove, CA 95624

Subject: Invitation for Tribal Consultation – City of Clayton, Housing Element Update

Dear Mr. Hitchcock:

The City of Clayton is the lead agency for the for a project involving a comprehensive update of the City of Clayton General Plan Housing Element, focused updates to the Land Use Element, and parallel amendments to the Zoning Code (“project”). This notification is being forwarded to Native American tribes that are understood to be traditionally and culturally affiliated with the project area pursuant to the statutory requirements of Senate Bill (SB) 18 (Chapter 905, Statutes of 2004) and Assembly Bill (AB) 52 (Chapter 532, Statutes of 2014). The City is in the process of determining the appropriate scope and content of the environmental analysis to be prepared for the proposed project in accordance with the California Environmental Quality Act (CEQA). Pursuant to Public Resources Code Section 21080.3.1(b), under AB 52, tribes have 30 days to request consultation. Tribes have 90 days to request consultation with the City under SB 18 (Government Code §65352.3 *et seq*).

The updated Housing Element will establish programs, policies and actions to further the goal of meeting existing and projected housing needs of all income levels and will identify how the City plans to accommodate the Regional Housing Needs Allocation of 570 units through the year 2031, as established by the Association of Bay Area Governments. The City also proposes updates to the Land Use Element to correspond to the Housing Element’s housing plan, as well as Zoning Code amendments necessary to implement the Housing and Land Use Elements, as amended. Information about the Housing Element and the Housing Element process can be found on the City’s website at <https://claytonca.gov/community-development/housing/housing-element/>.

If the Wilton Rancheria would like to consult on the proposed project, please submit a request for consultation to me by email to danaa@claytonca.gov or by first class mail to at the following address:

City of Clayton
Community Development Department
Attn: Dana Ayers, Director
6000 Heritage Trail
Clayton, CA 94517

Please contact me within 90 days from receipt of this notice if you desire a formal consultation, or if you have any questions about this project or our planning process. In addition to the email address above, I can be reached by telephone at 925-673-7343.

Thank you for your time and attention to this matter.

Sincerely,

Dana Ayers, AICP
Community Development Director
City of Clayton



COMMUNITY DEVELOPMENT DEPARTMENT

6000 Heritage Trail, Clayton, CA 94517
PHONE: 925-673-7300 – FAX: 925-5672-4917

March 1, 2022

Irene Zwierlein, Chairperson
Amah Mutsun Tribal Band of Mission San Juan Bautista
789 Canada Road
Woodside, CA 94062

Subject: Invitation for Tribal Consultation – City of Clayton, Housing Element Update

Dear Ms. Zwierlein,

The City of Clayton is the lead agency for the for a project involving a comprehensive update of the City of Clayton General Plan Housing Element, focused updates to the Land Use Element, and parallel amendments to the Zoning Code (“project”). This notification is being forwarded to Native American tribes that are understood to be traditionally and culturally affiliated with the project area pursuant to the statutory requirements of Senate Bill (SB) 18 (Chapter 905, Statutes of 2004) and Assembly Bill (AB) 52 (Chapter 532, Statutes of 2014). The City is in the process of determining the appropriate scope and content of the environmental analysis to be prepared for the proposed project in accordance with the California Environmental Quality Act (CEQA). Pursuant to Public Resources Code Section 21080.3.1(b), under AB 52, tribes have 30 days to request consultation. Tribes have 90 days to request consultation with the City under SB 18 (Government Code §65352.3 *et seq*).

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If the Amah Mutsun Tribal Band of Mission San Juan Bautista would like to consult on the proposed project, please submit a request for consultation to me by email to danaa@claytonca.gov or by first class mail at the following address:

City of Clayton
Community Development Department
Attn: Dana Ayers, Director
6000 Heritage Trail
Clayton, CA 94517

Please contact me within 90 days from receipt of this notice if you desire a formal consultation, or if you have any questions about this project or our planning process. In addition to the email address above, I can be reached by telephone at 925-673-7343.

Thank you for your time and attention to this matter.

Sincerely,

Dana Ayers, AICP
Community Development Director
City of Clayton



COMMUNITY DEVELOPMENT DEPARTMENT

6000 Heritage Trail, Clayton, CA 94517
PHONE: 925-673-7300 – FAX: 925-5672-4917

March 1, 2022

Ann Marie Sayers, Chairperson
Indian Canyon Mutsun Band of Costanoan
P.O. Box 28
Hollister, CA 95024

Subject: Invitation for Tribal Consultation – City of Clayton, Housing Element Update

Dear Ms. Sayers:

The City of Clayton is the lead agency for the for a project involving a comprehensive update of the City of Clayton General Plan Housing Element, focused updates to the Land Use Element, and parallel amendments to the Zoning Code (“project”). This notification is being forwarded to Native American tribes that are understood to be traditionally and culturally affiliated with the project area pursuant to the statutory requirements of Senate Bill (SB) 18 (Chapter 905, Statutes of 2004) and Assembly Bill (AB) 52 (Chapter 532, Statutes of 2014). The City is in the process of determining the appropriate scope and content of the environmental analysis to be prepared for the proposed project in accordance with the California Environmental Quality Act (CEQA). Pursuant to Public Resources Code Section 21080.3.1(b), under AB 52, tribes have 30 days to request consultation. Tribes have 90 days to request consultation with the City under SB 18 (Government Code §65352.3 *et seq*).

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If the Indian Canyon Mutsun Band of Costanoan would like to consult on the proposed project, please submit a request for consultation to me by email to danaa@claytonca.gov or by first class mail to at the following address:

City of Clayton
Community Development Department
Attn: Dana Ayers, Director
6000 Heritage Trail
Clayton, CA 94517

Please contact me within 90 days from receipt of this notice if you desire a formal consultation, or if you have any questions about this project or our planning process. In addition to the email address above, I can be reached by telephone at 925-673-7343.

Thank you for your time and attention to this matter.

Sincerely,

Dana Ayers, AICP
Community Development Director
City of Clayton



COMMUNITY DEVELOPMENT DEPARTMENT

6000 Heritage Trail, Clayton, CA 94517
PHONE: 925-673-7300 – FAX: 925-5672-4917

March 1, 2022

Charlene Nijmeh, Chairperson
Muwekma Ohlone Indian Tribe of the SF Bay Area
20885 Redwood Road, Suite 232
Castro Valley, CA 94546

Subject: Invitation for Tribal Consultation – City of Clayton, Housing Element Update

Dear Ms. Nijmeh:

The City of Clayton is the lead agency for the for a project involving a comprehensive update of the City of Clayton General Plan Housing Element, focused updates to the Land Use Element, and parallel amendments to the Zoning Code (“project”). This notification is being forwarded to Native American tribes that are understood to be traditionally and culturally affiliated with the project area pursuant to the statutory requirements of Senate Bill (SB) 18 (Chapter 905, Statutes of 2004) and Assembly Bill (AB) 52 (Chapter 532, Statutes of 2014). The City is in the process of determining the appropriate scope and content of the environmental analysis to be prepared for the proposed project in accordance with the California Environmental Quality Act (CEQA). Pursuant to Public Resources Code Section 21080.3.1(b), under AB 52, tribes have 30 days to request consultation. Tribes have 90 days to request consultation with the City under SB 18 (Government Code §65352.3 *et seq*).

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If the Muwekma Ohlone Indian Tribe of the SF Bay Area would like to consult on the proposed project, please submit a request for consultation to me by email to danaa@claytonca.gov or by first class mail to at the following address:

City of Clayton
Community Development Department
Attn: Dana Ayers, Director
6000 Heritage Trail
Clayton, CA 94517

Please contact me within 90 days from receipt of this notice if you desire a formal consultation, or if you have any questions about this project or our planning process. In addition to the email address above, I can be reached by telephone at 925-673-7343.

Thank you for your time and attention to this matter.

Sincerely,

Dana Ayers, AICP
Community Development Director
City of Clayton



COMMUNITY DEVELOPMENT DEPARTMENT

6000 Heritage Trail, Clayton, CA 94517
PHONE: 925-673-7300 – FAX: 925-5672-4917

March 1, 2022

Katherine Erolinda Perez, Chairperson
North Valley Yokuts Tribe
P.O. Box 717
Linden, CA 95236

Subject: Invitation for Tribal Consultation – City of Clayton, Housing Element Update

Dear Ms. Perez:

The City of Clayton is the lead agency for the for a project involving a comprehensive update of the City of Clayton General Plan Housing Element, focused updates to the Land Use Element, and parallel amendments to the Zoning Code (“project”). This notification is being forwarded to Native American tribes that are understood to be traditionally and culturally affiliated with the project area pursuant to the statutory requirements of Senate Bill (SB) 18 (Chapter 905, Statutes of 2004) and Assembly Bill (AB) 52 (Chapter 532, Statutes of 2014). The City is in the process of determining the appropriate scope and content of the environmental analysis to be prepared for the proposed project in accordance with the California Environmental Quality Act (CEQA). Pursuant to Public Resources Code Section 21080.3.1(b), under AB 52, tribes have 30 days to request consultation. Tribes have 90 days to request consultation with the City under SB 18 (Government Code §65352.3 *et seq*).

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If the North Valley Yokuts Tribe would like to consult on the proposed project, please submit a request for consultation to me by email to danaa@claytonca.gov or by first class mail to at the following address:

City of Clayton
Community Development Department
Attn: Dana Ayers, Director
6000 Heritage Trail
Clayton, CA 94517

Please contact me within 90 days from receipt of this notice if you desire a formal consultation, or if you have any questions about this project or our planning process. In addition to the email address above, I can be reached by telephone at 925-673-7343.

Thank you for your time and attention to this matter.

Sincerely,

Dana Ayers, AICP
Community Development Director
City of Clayton



COMMUNITY DEVELOPMENT DEPARTMENT

6000 Heritage Trail, Clayton, CA 94517
PHONE: 925-673-7300 – FAX: 925-5672-4917

March 1, 2022

Andrew Galvan
The Ohlone Indian Tribe
P.O. Box 3152
Fremont, CA 94539

Subject: Invitation for Tribal Consultation – City of Clayton, Housing Element Update

Dear Mr. Galvan:

The City of Clayton is the lead agency for the for a project involving a comprehensive update of the City of Clayton General Plan Housing Element, focused updates to the Land Use Element, and parallel amendments to the Zoning Code (“project”). This notification is being forwarded to Native American tribes that are understood to be traditionally and culturally affiliated with the project area pursuant to the statutory requirements of Senate Bill (SB) 18 (Chapter 905, Statutes of 2004) and Assembly Bill (AB) 52 (Chapter 532, Statutes of 2014). The City is in the process of determining the appropriate scope and content of the environmental analysis to be prepared for the proposed project in accordance with the California Environmental Quality Act (CEQA). Pursuant to Public Resources Code Section 21080.3.1(b), under AB 52, tribes have 30 days to request consultation. Tribes have 90 days to request consultation with the City under SB 18 (Government Code §65352.3 *et seq*).

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If The Ohlone Indian Tribe would like to consult on the proposed project, please submit a request for consultation to me by email to danaa@claytonca.gov or by first class mail to at the following address:

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Thank you for your time and attention to this matter.

Sincerely,

Dana Ayers, AICP
Community Development Director
City of Clayton



NATIVE AMERICAN HERITAGE COMMISSION

RECEIVED

MAR - 9 2022

CITY OF CLAYTON
COMMUNITY DEVELOPMENT DEPT.

March 3, 2022

Dana Ayers
City of Clayton
6000 Heritage Trail
Clayton, CA 94517**Re: 2022030086, City of Clayton 6th Cycle Housing Element Update and Associated Land Use Element and Zoning Code Amendments Project, Contra Costa County**

Dear Ms. Ayers:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit. 14, § 15064.5 (b) (CEQA Guidelines § 15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd. (a)(1) (CEQA Guidelines § 15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

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AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project:

Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

- a. A brief description of the project.
- b. The lead agency contact information.
- c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
- d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report:

A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

- a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- a. Alternatives to the project.
- b. Recommended mitigation measures.
- c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

- a. Type of environmental review necessary.
- b. Significance of the tribal cultural resources.
- c. Significance of the project's impacts on tribal cultural resources.
- d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

- a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
- b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

- a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
- b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

- a. Avoidance and preservation of the resources in place, including, but not limited to:
 - i. Planning and construction to avoid the resources and protect the cultural and natural context.
 - ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
- b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - i. Protecting the cultural character and integrity of the resource.
 - ii. Protecting the traditional use of the resource.
 - iii. Protecting the confidentiality of the resource.
- c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
- d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).
- e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
- f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

- a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
- b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
- c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. **Tribal Consultation:** If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. **No Statutory Time Limit on SB 18 Tribal Consultation.** There is no statutory time limit on SB 18 tribal consultation.
3. **Confidentiality:** Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. **Conclusion of SB 18 Tribal Consultation:** Consultation should be concluded at the point in which:
 - a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
 - b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: <http://nahc.ca.gov/resources/forms/>.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
 - a. If part or all of the APE has been previously surveyed for cultural resources.
 - b. If any known cultural resources have already been recorded on or adjacent to the APE.
 - c. If the probability is low, moderate, or high that cultural resources are located in the APE.
 - d. If a survey is required to determine whether previously unrecorded cultural resources are present.
2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
 - a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.

- b.** The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.
- 3.** Contact the NAHC for:
- a.** A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
 - b.** A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.
- 4.** Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
- a.** Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, § 15064.5(f) (CEQA Guidelines § 15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
 - b.** Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
 - c.** Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code § 7050.5, Public Resources Code § 5097.98; and Cal. Code Regs., tit. 14, § 15064.5, subdivisions (d) and (e) (CEQA Guidelines § 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address:
Cody.Campagne@nahc.ca.gov.

Sincerely,

Cody Campagne

Cody Campagne
Cultural Resources Analyst

cc: State Clearinghouse

**Minutes
City of Clayton Planning Commission
Regular Meeting
Tuesday, March 8, 2022**

1. CALL TO ORDER

Chair Denslow called the meeting to order at 7:00 p.m.

2. PLEDGE OF ALLEGIANCE

Vice Chair Miller led the Pledge of Allegiance.

3. ROLL CALL

Present: Chair Terri Denslow
Vice Chair Ed Miller
Commissioner Justin Cesarin
Commissioner Amy Hines-Shaikh

Excused: Commissioner Frank Gavidia

4. PRESENTATIONS AND ANNOUNCEMENTS

There were no presentations or announcements.

5. ACCEPTANCE OF THE AGENDA

There were no changes to the agenda as submitted.

6. PUBLIC COMMENT

There were no public comments on non-agendized matters.

7. CONSENT CALENDAR

A. Minutes of Planning Commission Meeting of February 22, 2022.

Commissioner Hines-Shaikh clarified for the record that she had intended to inquire about the “acutely low-income” category at the February 22 meeting when she had mistakenly stated “extremely low-income” in her question to staff. She otherwise had no corrections to the minutes as submitted.

Commissioner Hines Shaikh moved to approve the minutes as submitted. Vice Chair Miller seconded the motion. The motion passed by vote of 4-0.

8. SCOPING SESSION

A. CEQA Scoping Session for the Environmental Impact Report for the City of Clayton 6th Cycle (2023-2031) Housing Element Update and Associated Land Use Element and Zoning Code Amendments.

This is a scoping session, held pursuant to the California Environmental Quality Act (CEQA), for the purpose of soliciting spoken comments from interested parties, individuals and other public agencies as to the scope and content of the environmental impact report (EIR) that will analyze the potential environmental effects of adoption and implementation of the City of Clayton 6th Cycle (2023-2031) Housing Element Update and Associated Land Use Element and Zoning Code Amendments ("project").

Community Development Director Dana Ayers introduced the item and the consultant, Cameron Hile from MIG, Inc., who was managing preparation of the EIR for the Housing Element Update. Mr. Hile presented a brief overview of CEQA and the purpose of tonight's public scoping session.

Speaking to greenhouse gas (GHG) emissions, Commissioner Hines-Shaikh asked if the EIR would only evaluate a scenario wherein GHG emissions would increase because of new development, or if consideration could be provided in the EIR regarding the consequences of building locations, and more specifically, the relationship between shortened distances from residences to jobs and reduction in GHG emissions from shorter vehicle commutes.

Mr. Hile explained that emissions from the project would be calculated and compared against a threshold to determine whether a significant impact might occur. He described that the model for evaluating GHG emissions was not so granular as to evaluate specific sites, though it could account for particular GHG reduction measures that could be applied to future development. Vehicle trip generation and vehicle miles traveled projected to be generated from all of the housing units in the plan would be used as inputs into the GHG model, which would estimate GHG emissions. Thresholds for certain air pollutants have been set by regional air quality agencies for the Bay Area basin, and if the air modeling showed that the project would result in exceedance of those thresholds, then mitigation should be introduced into the project. No mitigation would be required if projected emissions fell below the threshold.

Commissioner Hines-Shaikh said she understood that potential mitigation measures for GHG would be tangible things such as building materials. She

asked if human behavior was accounted for in the modeling; for example, if the construction of homes in certain areas closer to job centers would result in the model showing the residents in those areas driving shorter distances to work. Mr. Hile was not sure if that was accounted for in the air quality model but could follow up with his colleagues performing that modeling.

Chair Denslow understood the project area to be the city of Clayton. With that understanding, she asked if impacts would be evaluated within that project boundary and if impacts outside of that line, for example, within another city, would be outside the scope of the EIR. Director Ayers confirmed that the project area was the municipal boundary, but that environmental impacts would be evaluated based on their particular context and setting. For example, air emissions and vehicle trips are regional and/or global phenomena that necessitate regional or global evaluation of environmental impacts. Recreational or aesthetics impacts, by contrast, might be more local and limited to the use of city parks or impacts to views of and from properties within the city.

Chair Denslow then asked staff to clarify, if a job center was located in another city, would the environmental impacts of the Housing Element be greater because trips to that job center would be longer. Director Ayers advised that modeling was based on some level of assumptions about human behavior. If a census tract had housing, a school, a shopping center and an office building, the model would assume some level of interplay of trips between those uses within that census tract; for example, a parent driving to school to drop off a child and then driving to work in an office building. Mr. Hile explained that the modeling of vehicle trips and vehicle miles traveled would be conducted within the transportation model that would inform the GHG and air emissions model. He also explained that air quality and transportation modeling are performed on a regional basis.

Commissioner Cesarin asked if the EIR would include recommendations, such as adding a bus route, to County or State entities regarding transportation and GHGs based on housing siting assumptions. Mr. Hile explained that the EIR process did not include recommendations to agencies other than the City. Mitigation measures would be recommended to the City if they were necessary to reduce environmental impacts, but he was not sure at this time if any mitigation was necessary. Commissioner Cesarin then asked if other agencies had opportunity to comment on, appeal, or challenge the Housing Element or its EIR. Director Ayers and Mr. Hile advised that the City of Concord, Contra Costa County, and the City of Walnut Creek, the two former of which were jurisdictions that adjoined Clayton's municipal boundary, were sent copies of the Notice of Preparation (NOP) and invited to give feedback on the scope of the EIR. The NOP was also noticed to State agencies with jurisdiction in the area. Commissioner Cesarin also asked whether the EIR would address and

mitigate effects to wildlife, to which Mr. Hile advised that that analysis would be conducted under the Biological Resources section of the EIR.

Chair Denslow requested clarification on timing of the EIR. Understanding that the Housing Element had needed to be complete by January 2023, she asked if the schedule would accommodate multiple iterations of the analysis in the EIR, if necessary. Director Ayers confirmed the schedule and said that the timeline was tight, but that she had seen EIRs written in this amount of time, and the project was currently on track with the timeline in the scope of work that the City Council approved in May 2021.

Chair Denslow confirmed with Director Ayers that the “project” on which the EIR analysis would be based assumed a high intensity scenario wherein the majority of the sites in the draft Housing Element site inventory were rezoned to allow up to 30 units per acre. Chair Denslow then asked about a hypothetical scenario wherein some of the sites were rezoned to allow more than 30 units per acre, and if in that scenario, the EIR would have to be recirculated. Mr. Hile advised that a limited focus addendum to the EIR could possibly be prepared in that instance. That was a shorter process than preparation of an EIR; if no new impacts or mitigation measures were identified in the addendum and the conclusions of the EIR remained valid for the hypothetical higher-intensity project, then the EIR would not have to be recirculated as a subsequent EIR.

Chair Denslow asked if there was any reason why the analysis in the EIR could not start with the highest densities, if directed by decision-making bodies and to reduce the potential need for recirculation. Director Ayers advised that the adopted Housing Element might include some sites with more than 30 unit per acre densities, and some might have fewer than 30 unit per acre densities, such that the total averaged unit count might be consistent with the project unit count as described in the NOP. Director Ayers also suggested that, in addition to mitigation measures, comments on the scope could include comments about potential alternatives, and a more intense scenario could be suggested during the NOP process as an alternative to be considered in the EIR. Mr. Hile advised that, in evaluating that scenario as an alternative, that scenario’s impacts would be compared against the impacts of the project, and it would also be evaluated on how well it would meet the objectives of the Housing Element Update. Chair Denslow said that some comments made at previous Planning Commission and City Council meetings were in support of higher densities in certain locations, and she did not want to see time lost in recirculation if the EIR did not adequately consider that scenario.

Chair Denslow confirmed with staff that the scope of the Housing Element Update that was described in the NOP should not be perceived to be locked and not subject to future changes or input.

Chair Denslow asked Mr. Hile to clarify the analysis that will be in the Wildfire section of the EIR. Mr. Hile explained that Wildfire section was a new addition to the CEQA Checklist following recent years' increases in major incidents of wildfires and related impacts such as mudslides and loss of life. He explained that the EIR will need to evaluate whether the project would impair emergency response and evacuation plans; whether construction near slopes could weaken the slope or place structures in areas where they could cause fires; and whether development of infrastructure to support the project would exacerbate fire risk or if it would need to be put into place to mitigate fire risk. Flooding, landslides, increases in runoff, and soil instability post-fire would also need to be assessed. Mr. Hile noted that most of the sites suggested for rezoning would be in developed areas outside of high fire severity zones, but that the EIR might have to look at sites that are further from developed areas and assess wildfire threat to those sites. In response to Chair Denslow, Mr. Hile clarified that his mention of "infrastructure" was in reference to facilities such as fire truck access roads, fuel breaks, emergency water sources and power lines; fire response service would be discussed in the Public Services section of the EIR.

In response to Chair Denslow, Mr. Hile explained that coordination with the City was important to keep the EIR on schedule. His team had worked on several Housing Element environmental documents recently and had an efficient process for their preparation.

Chair Denslow invited attendees to speak on the item.

Max Davis shared his observations that CEQA seemed dated in its focus on localized impacts. He referenced studies out of the University of California, Berkeley, and stated that there are regional and global environmental benefits of density with respect to increasing housing affordability and reducing vehicle miles and air emissions from vehicles. He suggested that providing affordability and protecting property values can be perceived to be at odds with each other. He encouraged facilitating development of more units than cities' regional housing needs allocations as a means to get out of the housing and climate crisis.

Nathan Burkhardt confirmed with Mr. Hile that the EIR will include analysis of potential housing impacts on schools. Mr. Burkhardt referenced page 61 of the Mt. Diablo Unified School District report on student demographics, 10-year projections, prepared by Davis Demographics, where it was noted that Clayton's elementary school was projected to reach capacity based on historic development data. He noted that only past development data through 2014 was factored into that report.

Vice Chair Miller shared that he was anecdotally aware of the school capacity comment Mr. Burkhardt referenced, stating that his new neighbors had been told there was not a guarantee that their children could enroll in Mt. Diablo Elementary School because it was impacted. He was interested in seeing whether the data was consistent with those observations.

There was no one else present who wished to speak on this item. Chair Denslow confirmed with staff that the Commission did not need to take any action at this time.

9. PUBLIC HEARING

A. Flourishing Learners, UP-01-2022.

Stephanie Jones, the applicant, requests approval of a Use Permit (UP-01-2022) to allow the operation of a business providing tutoring services (personal improvement service) in an existing ground-floor tenant space located in the Town Center. The tutoring services are proposed to be located at 6160 Center Street, Suite D (Assessor's Parcel No. 119-018-006) and would be conducted daily from 8:00 a.m. to 7:00 p.m. This project is categorically exempt from the California Environmental Quality Act (CEQA) pursuant to CEQA Guidelines Section 15301 – Existing Facilities.

Assistant Planner Milan Sikela presented the item and explained that staff recommended approval of the use permit request.

Commissioner Hines-Shaikh complimented the thoroughness of staff's analysis. She asked if the tutoring facility would be subject to the additional safety, exiting and seismic requirements that would be expected of a school. Assistant Planner Sikela said that had spoken about the project with representatives of the Contra Costa Fire Protection District and Contra Costa County Building Department. He said that staff likened the proposed tutoring business to a one-one-one personal service such as music instruction that was differentiated from a classroom-type group setting. Director Ayers added that the conversations held with Fire and Building representatives were in response to staff's concerns about occupancy ratings of the tenant space and the ability for students to exit the building in the event of an emergency. She also explained that public and compulsory education schools fall under the regulatory authority of the State Architect for compliance with standards for exiting, ventilation and recreational space. Because the proposed tutoring center was a private business and not a public compulsory education program, it did not need to abide by the regulations of the State Architect, though it still needed to comply with Building Code.

Commissioner Cesarin asked how long the tenant space had been vacant. Assistant Planner Sikela suggested that the applicant might be able to provide a response. Director Ayers said that she did not know precisely how long the tenant space had been vacant but that the applicant had made inquiries to the City about occupying the space for her business since late last year. Neither Director Ayers nor Assistant Planner Sikela had received any other inquiries from potential tenants of the space, with exception of a single inquiry to use the space to temporarily store supplies for the upcoming Art and Wine Festival in April 2022.

Vice Chair Miller said he previously volunteered as an elementary school math tutor and said he was curious about whether the tenant space would have student cubicles, walls or other mechanisms to reduce sound between student work spaces.

Chair Denslow asked if the applicant had already leased the space and was now asking the Planning Commission for approval of her business. Director Ayers said that staff would not require an applicant to have a signed lease before bringing a use permit application forward to the Planning Commission, as long as there was assurance that the property's owner was aware of the filing of the use permit request. She said she has seen applicants choose to wait to sign a lease until after a decision has been made on the use permit, or to sign a lease with an exit clause that could be enacted if the use permit was denied. She was not sure if either of those situations applied to this applicant. In response to Chair Denslow, Director Ayers also advised that entitlements for the approved residential development on the opposite side of High Street remained valid. Chair Denslow suggested that that development might add activity to the High Street/Marsh Creek Road intersection. Director Ayers agreed that that was a possibility, but she added that staff's recommendation for approval of the use permit was also based on the tenant space's lack of storefront glass and the large setback of the tenant space from High Street due to the on-site parking lot, two elements that would make successful retail challenging.

Chair Denslow opened the public hearing.

The applicant, Stephanie Jones, was invited to speak to the Commission. Ms. Jones stated that she has owned Flourishing Learners for two years. She currently tutored children in 21 Clayton families and three non-Clayton families, and most of her students were elementary-aged, though she did tutor a few middle schoolers. Addressing Vice Chair Miller's question about noise, she said that the space would most often be occupied by one student with one tutor; other tutors that worked with her would continue to make house calls, and she would continue to make house calls on occasion, as well. She said that many parents enjoy the luxury of tutors coming to their homes to tutor, but that the commercial tenant space would give some

families the opportunity to study in a more structured educational setting outside of the home and with fewer distractions.

Chair Denslow asked why the applicant did not opt to locate in Flora Square, as that commercial building was closer to the elementary school. The applicant said that she and her agent had observed that a lot of students frequently walk through Town Center and The Grove. The tenant space she was requesting to use was a convenient distance from the school and from The Grove, was in a central Town Center location for Clayton families, and did not have a lot of foot traffic from passersby that could pose a distraction to students.

In response to an earlier question posed by Commissioner Cesarin, Ms. Jones said that she believed that the tenant space had been vacant for about a year. Responding to an earlier question from Chair Denslow, Ms. Jones also reported that she had negotiated a lease that allowed her not to make lease payments until the City approved the use permit for her business.

Commissioner Cesarin asked Ms. Jones if she planned to incorporate a retail component into her business. Ms. Jones advised that she intended to offer classes in elective topics such as cooking or origami, to small classes of four to five students. She did not intend to sell computer software, though she did intend to sell merchandise, such as shirt-decorating activity kits with her business' bunny logo. Commissioner Cesarin inquired of staff whether adding a retail component to the business in the future would trigger another review of the use permit application. Director Ayers advised that addition of a retail component to the tutoring business would be ancillary to the tutoring business and would not effectively change how the tutoring business would operate, as students and tutors would still be coming to and going from the space for personal instruction as the primary use. Director Ayers added that the request for a use permit was triggered by the proposal to use the space for a non-retail use; otherwise, retail uses were permitted by right in the Town Center.

There was no one else present who wished to speak on this item. Chair Denslow closed the public hearing.

Commissioner Hines-Shaikh moved to approve Use Permit UP-01-2022 allowing the operation of a business providing tutoring services in the existing ground-floor tenant space located at 6160 Center Street, Suite D, in the Town Center. Commissioner Cesarin seconded the motion. The motion passed 4-0.

10. ACTION ITEMS

There were no action items.

11. COMMUNICATIONS

Commissioner Hines-Shaikh said it was wonderful to be a part of the volunteer effort to conduct outreach for the Housing Element Update and Balancing Act through the distribution of doorhangers to Clayton residences. She expressed gratitude to the City Council for coordinating the effort.

Chair Denslow shared Commissioner Hines-Shaikh's sentiments and said it was great to see Commissioner Cesarin, Commissioner Hines-Shaikh, Vice Chair Miller, as well as City Councilmember Wolfe, Vice Mayor Tillman and Mayor Cloven participating in the effort. Chair Denslow also wished everyone a happy International Women's Day.

11. ADJOURNMENT

The meeting was adjourned at 8:50 p.m. to the next regular meeting of the Planning Commission on March 22, 2022.

Respectfully submitted:



Dana Ayers, AICP, Secretary

Approved by the Clayton Planning Commission:



Terri Denslow, Chair

California Department of Transportation

DISTRICT 4
OFFICE OF TRANSIT AND COMMUNITY PLANNING
P.O. BOX 23660, MS-10D | OAKLAND, CA 94623-0660
www.dot.ca.gov



March 29, 2022

SCH #: 2022030086
GTS #: 04-CC-2022-00534
GTS ID: 25801
Co/Rt/Pm: CC/4/20.52

Dana Ayers, AICP, Director
City of Clayton
Community Development Department
6000 Heritage Trail
Clayton, CA 94517

Re: City of Clayton 6th Cycle Housing Element Update and Associated Land Use Element and Zoning Code Amendments Notice of Preparation (NOP)

Dear Dana Ayers, AICP:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the City of Clayton 6th Cycle Housing Element Update and Associated Land Use Element and Zoning Code Amendments (Project). We are committed to ensuring that impacts to the State's multimodal transportation system and to our natural environment are identified and mitigated to support a safe, sustainable, integrated and efficient transportation system. The following comments are based on our review of the March 2022 NOP.

Project Understanding

The project involves a comprehensive update of the City of Clayton's General Plan Housing Element for the 2023-2031 housing cycle. The updated Housing Element will establish programs, policies, and actions to further the goal of meeting existing and projected housing needs of all income levels and will identify how the City of Clayton (City) plans to accommodate its Regional Housing Needs Allocation of 570 units through the year 2031. The project includes focused updates to the Land Use Element and parallel amendments to the City's Zoning Code related to the Housing Element amendment. In addition, a Programmatic Environmental Impact Report (Program EIR) will be prepared to evaluate the environmental impacts resulting from implementation of the proposed project and will recommend mitigation measures to avoid or reduce significant impacts, where applicable. The project encompasses the entire City and is located roughly eight miles from the State Route (SR)-4/Railroad Avenue interchange.

Travel Demand Analysis

With the enactment of Senate Bill (SB) 743, Caltrans is focused on maximizing efficient development patterns, innovative travel demand reduction strategies, and multimodal improvements. For more information on how Caltrans assesses Transportation Impact Studies for projects impacting the State Transportation Network (STN), please refer to Caltrans' Transportation Impact Study Guide ([link](#)).

Additionally, Caltrans requests the following:

- Projects within the City of Clayton are consistent with California Government Code Section 65088-65089.10 Congestion Management; and
- The City gain a determination of conformity from the Contra Costa Transportation Authority to determine that the Project is consistent with and conforms to the Regional Transportation Plan Consistency Requirements of the County's Congestion Management Plan (CMP).

Transportation Impact Fees

We encourage a sufficient allocation of fair share contributions toward multimodal and regional transit improvements to fully mitigate cumulative impacts to regional transportation. We also strongly support measures to increase sustainable mode shares, thereby reducing VMT. Caltrans welcomes the opportunity to work with the City and local partners to secure the funding for needed mitigation. Traffic mitigation- or cooperative agreements are examples of such measures.

Thank you again for including Caltrans in the environmental review process. Should you have any questions regarding this letter, or for future notifications and requests for review of new projects, please email LDR-D4@dot.ca.gov.

Sincerely,



MARK LEONG
District Branch Chief
Local Development Review
c: State Clearinghouse



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Bay Delta Region
2825 Cordelia Road, Suite 100
Fairfield, CA 94534
(707) 428-2002
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



May 10, 2022

Dana Ayers
Community Development Director
City of Clayton
6000 Heritage Trail
Clayton, CA 94517
danaa@claytonca.gov



Subject: City of Clayton 6th Cycle Housing Element Update and Associate Land Use Element and Zoning Code Amendment, Notice of Preparation of Draft Environmental Impact Report, SCH No. 2022030086, City of Clayton, Contra Costa County

Dear Ms. Ayers:

The California Department of Fish and Wildlife (CDFW) has reviewed the Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for the City of Clayton (City) 6th Cycle Housing Element Update and Associate Land Use Element and Zoning Code Amendment (Project).

CDFW ROLE

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State. [Fish and Game Code, §§ 711.7, subd. (a) and 1802; Pub. Resources Code, § 21 070; California Environmental Quality Act (CEQA) Guidelines § 15386, subd. (a)]. CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (Id., § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on Projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a Responsible Agency under CEQA. (Pub. Resources Code, § 21 069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's Lake and Streambed Alteration regulatory authority. (Fish and Game Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act

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(CESA) (Fish and Game Code, § 2050 et seq.), related authorization as provided by the Fish and Game Code will be required.

Pursuant to our jurisdiction, CDFW has provided concerns, comments, and recommendations regarding the Project herein.

PROJECT DESCRIPTION

The City proposes to update the Housing Element, as well as the associated Land Use Element and Zoning Codes, of the City of Clayton's General Plan for the years 2023 through 2031.

The Housing Element Update establishes programs, policies, and actions to further the goal of meeting the existing and projected housing needs of all income levels of the community; identify how the City plans to accommodate its Regional Housing Needs Allocation (RHNA) of 570 units across approximately 2,460 acres through the year 2031; and identify changes to the General Plan Land Use Element needed to support the required housing capacity. The proposed Land Use changes have the potential to result in increased capacity for as many as 883 new dwelling units, an increase of approximately 20,000 square feet of commercial space, and a reduction of approximately 7,000 square feet of public facilities/institutional space. Potential increases of approximately 2,397 residents and 100 jobs are projected for the 2031 horizon year. Additionally, the City's Zoning Code is proposed to be amended in order to implement the proposed House and Land Use Elements.

PROJECT LOCATION

The City of Clayton is located in north-central Contra Costa County, at the base of the north slope of Mount Diablo. For the purposes of this Project, the planning area of interest includes all properties within the corporate City boundaries and the City's Sphere of Influence (SOI), as defined by the Contra Costa County Local Agency Formation Commission. This planning area is bounded to the south by Mt. Diablo State Park and to the northeast by Black Diamond Regional Preserve. The northern and western planning area boundaries are shared with the City of Concord. The planning area includes the entire City of Clayton (3.84 square miles of land), as well as its SOI (an additional 0.98 square miles).

COMMENTS AND RECOMMENDATIONS

CDFW offers the following comments and recommendations to assist the City of Clayton in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct, and indirect impacts on fish and wildlife (biological) resources.

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REGULATORY REQUIREMENTS

California Endangered Species Act and Native Plant Protection Act

Please be advised that a CESA Incidental Take Permit (ITP) must be obtained if the Project has the potential to result in take¹ of plants or animals listed under CESA, either during construction or over the life of the Project. Issuance of a CESA Permit is subject to CEQA documentation; the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the Project will impact CESA listed species, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required to obtain a CESA ITP.

Please note that CEQA requires a Mandatory Finding of Significance if a project is likely to substantially restrict the range or reduce the population of a threatened or endangered species (CEQA Guidelines § 15380, 15064, and 15065). Impacts must be avoided or mitigated to less-than-significant levels unless the CEQA Lead Agency makes and supports Findings of Overriding Consideration (FOC). The Lead Agency's FOC does not eliminate the project proponent's obligation to comply with CESA.

Lake and Streambed Alteration Agreement

Please be advised that CDFW requires a Notification for Lake and Streambed Alteration (LSA), pursuant to Fish and Game Code § 1600 et seq., for any Project-related activities potentially affecting rivers, lakes, or streams, and their associated riparian habitat. Notification is required for any activity that may substantially divert or obstruct the natural flow; change or use material from the bed, channel, or bank including associated riparian or wetland resources; or deposit or dispose of material where it may pass into a river, lake, or stream. Work within ephemeral streams, washes, watercourses with a subsurface flow, and floodplains are generally subject to notification requirements. CDFW, as a Responsible Agency, will consider the CEQA document for the Project and may issue an LSA Agreement. CDFW may not execute the final LSA Agreement until it has complied with CEQA as a Responsible Agency.

Migratory Birds and Raptors

Fish and Game Code, § 3503, 3503.5, and 3513 places protections on birds, their eggs, and nests. CDFW has authority over actions that may disturb or destroy active nest sites or take birds. Fully protected bird species, such as the golden eagle (*Aquila chrysaetos*) and white-tailed kite (*Elanus leucurus*), may not be taken or possessed at

¹ Take is defined in Fish and Game Code section 86 as hunt, pursue, catch, capture, or kill, or attempt any of those activities.

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any time (Fish and Game Code, § 3511). Additionally, migratory birds are also protected under the federal Migratory Bird Treaty Act.

California Environmental Quality Act

The CEQA Guidelines (Cal. Code Regs., tit. 14, § 15000 et seq.) require that the draft EIR incorporate a full Project description, including reasonably foreseeable future phases of the Project, that contains sufficient information to evaluate and review the Project's environmental impact (CEQA Guidelines, §§ 15124 & 15378). Please include a complete description of the following Project components in the Project description, as applicable:

- Footprints of permanent Project features and temporarily impacted areas, such as staging areas, access routes, and high fire risk zones targeted for vegetation treatment or removal.
- Land use changes that would reduce open space or agricultural land uses and increase residential or other land use involving increased development.
- Area and plans for any proposed buildings/structures, ground disturbing activities, fencing, paving, stationary machinery, landscaping, vegetation treatment for fuel reduction, floodwalls or levees, and stormwater systems.
- Operational features of the Project, including level of anticipated human presence (describe seasonal or daily peaks in activity, if relevant), artificial lighting/light reflection, noise, traffic generation, and other features.
- Construction schedule, activities, equipment, and crew sizes.

Based on the broad scope of the Project, it appears that the draft EIR may be a program EIR (CEQA Guidelines, § 15168). In this case, while program EIRs have a necessarily broad scope, CDFW recommends providing as much information related to anticipated future activities as possible. CDFW recognizes that, pursuant to CEQA Guidelines section 15152, subdivision (c), if a Lead Agency is using the tiering process in connection with an EIR or large-scale planning approval, the development of detailed, site-specific information may not be feasible and can be deferred, in many instances, until such time as the Lead Agency prepares a future environmental document. This future environmental document would cover a project of a more limited geographical scale and is appropriate if the deferred information does not prevent adequate identification of significant effects of the planning approval at hand. The CEQA Guidelines section 15168, subdivision (c)(4) states, "Where the later activities involve site-specific operations, the agency should use a written checklist or similar device to document the evaluation of the site and the activity to determine whether the

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environmental effects of the operation were within the scope of the program EIR.” Based on CEQA Guidelines section 15183.3 and associated *Appendix N Checklist*, and consistent with other program EIRs, CDFW recommends creating a procedure or checklist for evaluating subsequent project impacts on biological resources to determine if they are within the scope of the program EIR or if an additional environmental document is warranted. This checklist should be included as an attachment to the draft EIR. Future analysis should include all special-status species and sensitive natural communities including but not limited to species considered rare, threatened, or endangered pursuant to CEQA Guidelines, section 15380.

When used appropriately, the checklist should be accompanied by enough relevant information and reasonable inferences to support a “within the scope” of the EIR conclusion. For subsequent Project activities that may affect sensitive biological resources, a site-specific analysis should be prepared by a qualified biologist to provide the necessary supporting information. In addition, the checklist should cite the specific portions of the draft EIR, including page and section references, containing the analysis of the subsequent Project activities’ significant effects and indicate whether it incorporates all applicable mitigation measures from the draft EIR.

ENVIRONMENTAL SETTING

The draft EIR should provide sufficient information regarding the environmental setting (“baseline”) to understand the Project’s, and its alternatives (if applicable), potentially significant impacts on the environment (CEQA Guidelines, § 15125 and 15360).

CDFW recommends that the draft EIR provide baseline habitat assessments for special-status plant, fish, and wildlife species located and potentially located within the Project area and surrounding lands, including but not limited to all rare, threatened, or endangered species (CEQA Guidelines, § 15380). The draft EIR should also describe aquatic habitats, such as wetlands and/or waters of the U.S. or State, and any sensitive natural communities or riparian habitat occurring on or adjacent to the Project site. Sensitive natural communities can be found here: (<https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities#sensitive%20natural%20communities>).

Habitat descriptions and the potential for species occurrence should include information from multiple sources, such as aerial imagery; historical and recent survey data; field reconnaissance; scientific literature and reports; the U.S. Fish and Wildlife Service’s (USFWS) Information, Planning, and Consultation System (<https://ipac.ecosphere.fws.gov/>); findings from positive occurrence databases such as the California Natural Diversity Database (CNDDB; <https://www.wildlife.ca.gov/Data/BIOS>).

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SPECIAL-STATUS SPECIES AND NESTING BIRDS

CDFW is concerned regarding potential impacts to special-status species that may be present within the Project area, including, but not limited to, those listed below (CDFW 2022):

- California tiger salamander, central California Distinct Population Segment (*Ambystoma californiense* pop. 1) - State Threatened, Federal Threatened
- California red-legged frog (*Rana draytonii*) - State Species of Special Concern, Federal Threatened
- Foothill yellow-legged frog (*Rana boylei*) - State Endangered, proposed for listing as Threatened under FESA
- San Joaquin kit fox (*Vulpes macrotis mutica*) - State Threatened, Federal Endangered
- San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*) - State Species of Special Concern
- American badger (*Taxidea taxus*) - State Species of Special Concern
- Pallid bat (*Antrozous pallidus*) - State Species of Special Concern
- Townsend's big-eared bat (*Corynorhinus townsendii*) - State Species of Special Concern
- Golden eagle (*Aquila chrysaetos*) - State Fully Protected
- White-tailed kite (*Elanus leucurus*) - State Fully Protected
- Swainson's hawk (*Buteo swainsoni*) - State Threatened
- Western burrowing owl (*Athene cunicularia*) - State Species of Special Concern
- Loggerhead shrike (*Lanius ludovicianus*) - State Species of Special Concern
- Alameda whipsnake (*Masticophis lateralis euryxanthus*) - State Threatened, Federal Threatened
- Western pond turtle (*Emmys marmorata*) - State Species of Special Concern
- Coast horned lizard (*Phrynosoma blainvillii*) - State Species of Special Concern
- Antioch Dunes evening-primrose (*Oenothera deltoides* ssp. *Howellii*) - State Endangered, Federal Endangered
- Lime Ridge eriastrum (*Eriastrum ertterae*) - State Endangered Candidate

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Surveys should be conducted for special-status species with potential to occur, following recommended survey protocols. Survey and monitoring protocols and guidelines are available at: (<https://wildlife.ca.gov/Conservation/Survey-Protocols>).

Botanical surveys for special-status plant species, including those with a California Rare Plant Rank (<http://www.cnps.org/cnps/rareplants/inventory/>), must be conducted during the blooming period for all species potentially impacted by the Project within the Project area and adjacent habitats that may be indirectly impacted by, for example, changes to hydrology, and require the identification of reference populations. More than one year of surveys may be necessary given environmental conditions. Please refer to CDFW protocols for surveying and evaluating impacts to rare plants, and survey report requirements (<https://wildlife.ca.gov/Conservation/Plants>).

IMPACT ANALYSIS

Based on the data and information from the habitat assessment, the draft EIR should adequately assess which special-status species are likely to occur on or near the Project site, and whether they could be impacted by the Project. The draft EIR should also adequately analyze and discuss what measures are proposed to avoid, minimize, or mitigate for potential impacts. The draft EIR should include the reasonably foreseeable direct and indirect changes (temporary and permanent) that may occur with implementation of the Project (CEQA Guidelines, § 15126, 15126.2, and 15358). This includes, but is not limited to, evaluating and describing impacts such as:

- Encroachments into and alterations to riparian habitats, wetlands, or other sensitive areas and habitats.
- Potential impacts to special-status species or sensitive natural communities. This may include:
 - Inadvertent entrapment or impingement;
 - Permanent and temporary habitat disturbance, fragmentation, or loss; and
 - Loss or modification of breeding, nesting, dispersal and foraging habitat, including vegetation removal, alteration of soils and hydrology, and removal of habitat structural features (e.g., snags, rock outcrops, overhanging banks);
 - Loss of connectivity and/or obstruction of movement corridors, fish passage, or access to water sources and other core habitat features;
 - Decreased ability to reproduce or reduced reproductive/breeding success (loss or reduced health or vigor of eggs or young);
 - Interference with list-species recovery plan(s);

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- Permanent and temporary habitat disturbances associated with ground disturbance, noise, lighting, reflection, air pollution, traffic, or human presence resultant from the project.
 - Direct mortality.
- Indirect impacts from Project activities should also be considered. This might include, but is not limited to:
 - Impacts arising from the need for new infrastructure to support Project activities, such as installation of new roads, water systems, sewage treatment facilities, or other utilities.
 - Reduced groundwater infiltration due to increased impermeability from the installation of new structures, which has the potential to impact both surface and subsurface stream flows, which can deteriorate riparian habitats that can no longer access subsurface flows; create an influx of runoff during heavy rain events, which can contribute to streambank erosion; and contribute to surface water pollution, which poses a multitude of concerns for riparian health and biodiversity.

The draft EIR should also identify reasonably foreseeable future projects in the Project vicinity, disclose any cumulative impacts associated with these projects, determine the significance of each cumulative impact, and assess the significance of the project's contribution to the impact (CEQA Guidelines § 15355). Although a project's impacts may be less-than-significant individually, its contributions to a cumulative impact may be considerable; a contribution to a significant cumulative impact, e.g., reduction of habitat for a special-status species should be considered cumulatively considerable.

AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES

Based on the comprehensive analysis of the direct, indirect, and cumulative impacts of the Project, the CEQA Guidelines direct the Lead Agency to consider and describe all feasible measures to avoid potentially significant impacts in the draft EIR and mitigation of potentially significant impacts of the Project on the environment (CEQA Guidelines, § 15021, 15063, 15071, 15126.4, and 15370). This includes a discussion of impact avoidance and minimization measures for special-status species, which are recommended to be developed in early consultation with CDFW, USFWS, and the National Marine Fisheries Service (NMFS). These measures should be incorporated as enforceable Project conditions to reduce impacts to biological resources to less-than-significant levels. Fully protected species such as the Golden eagle and the White-tailed kite may not be taken or possessed at any time (Fish and Game Code, § 3511, 4700, 5050, and 5515). Therefore, the draft EIR should include measures to ensure complete avoidance of these species.

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CDFW recommends that the draft EIR include development of a robust mitigation plan that will reduce the impacts of the Project to a less-than-significant level and provide benefits to local or on-site resources and species.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. [Pub. Resources Code, § 21003, subd. (e)]. Accordingly, please report any special-status species and natural communities detected during Project surveys to the CNDDDB. The CNDDDB field survey form can be filled out and submitted online at the following link: <https://wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The types of information reported to CNDDDB can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

FILING FEES


The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of environmental document filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the environmental document filing fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & Game Code, § 711.4; Pub. Resources Code, § 21089).

CONCLUSION

CDFW appreciates the opportunity to comment on the NOP to assist the City of Clayton in identifying and mitigating Project impacts on biological resources.

Questions regarding this letter or further coordination should be directed to Sabrina Dunn, Environmental Scientist, at (707) 428-2069 or Sabrina.Dunn@wildlife.ca.gov; or Michelle Battaglia, Senior Environmental Scientist (Supervisory), at (707) 339-6052 or Michelle.Battaglia@wildlife.ca.gov.

Sincerely,

DocuSigned by:

Erin Chappell
Regional Manager
Bay Delta Region

cc: Office of Planning and Research, State Clearinghouse, Sacramento

Ms. Dana Ayers
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LITERATURE CITED

California Department of Fish and Wildlife (CDFW). 2022. Biogeographic Information and Observation System (BIOS). Accessed April 1, 2022



NATIVE AMERICAN HERITAGE COMMISSION

March 28, 2022

Dana Ayers
City of Clayton

Via Email to: danaa@claytonca.gov

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

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Miwok/Nisenan

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

Re: Native American Consultation, Pursuant to Senate Bill 18 (SB18), Government Codes §65352.3 and §65352.4, as well as Assembly Bill 52 (AB52), Public Resources Codes §21080.1, §21080.3.1 and §21080.3.2, City of Clayton 6th Cycle Housing Element Update Project, Contra Costa County

Dear Dana Ayers:

Attached is a consultation list of tribes with traditional lands or cultural places located within the boundaries of the above referenced counties or projects.

Government Codes §65352.3 and §65352.4 require local governments to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose of avoiding, protecting, and/or mitigating impacts to cultural places when creating or amending General Plans, Specific Plans and Community Plans.

Public Resources Codes §21080.3.1 and §21080.3.2 requires public agencies to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose of avoiding, protecting, and/or mitigating impacts to tribal cultural resources as defined, for California Environmental Quality Act (CEQA) projects.

The law does not preclude local governments and agencies from initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction. The NAHC believes that this is the best practice to ensure that tribes are consulted commensurate with the intent of the law.

Best practice for the AB52 process and in accordance with Public Resources Code §21080.3.1(d), is to do the following:

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

The NAHC also recommends, but does not require that lead agencies include in their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential affect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:
 - A listing of any and all known cultural resources have already been recorded on or adjacent to the APE, such as known archaeological sites;
 - Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
 - Whether the records search indicates a low, moderate or high probability that unrecorded cultural resources are located in the APE; and
 - If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.
2. The results of any archaeological inventory survey that was conducted, including:
 - Any report that may contain site forms, site significance, and suggested mitigation measures.

All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code Section 6254.10.
3. The result of the Sacred Lands File (SFL) check conducted through the Native American Heritage Commission. The request form can be found at <http://nahc.ca.gov/wp-content/uploads/2015/08/Local-Government-Tribal-Consultation-List-Request-Form-Update.pdf>.
4. Any ethnographic studies conducted for any area including all or part of the potential APE; and
5. Any geotechnical reports regarding all or part of the potential APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS is not exhaustive, and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event, that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address:

Cody.Campagne@nahc.ca.gov.

Sincerely,



Cody Campagne
Cultural Resources Analyst

Attachment

**Native American Heritage Commission
Tribal Consultation List
Contra Costa County
3/28/2022**

Amah Mutsun Tribal Band

Valentin Lopez, Chairperson
P.O. Box 5272
Galt, CA, 95632
Phone: (916) 743 - 5833
vlopez@amahmutsun.org

Costanoan
Northern Valley
Yokut

North Valley Yokuts Tribe

Timothy Perez,
P.O. Box 717
Linden, CA, 95236
Phone: (209) 662 - 2788
huskanam@gmail.com

Costanoan
Northern Valley
Yokut

***Amah Mutsun Tribal Band of
Mission San Juan Bautista***

Irene Zwierlein, Chairperson
3030 Soda Bay Road
Lakeport, CA, 95453
Phone: (650) 851 - 7489
Fax: (650) 332-1526
amahmutsuntribal@gmail.com

Costanoan

North Valley Yokuts Tribe

Katherine Perez, Chairperson
P.O. Box 717
Linden, CA, 95236
Phone: (209) 887 - 3415
canutes@verizon.net

Costanoan
Northern Valley
Yokut

***Indian Canyon Mutsun Band of
Costanoan***

Ann Marie Sayers, Chairperson
P.O. Box 28
Hollister, CA, 95024
Phone: (831) 637 - 4238
ams@indiancanyons.org

Costanoan

The Ohlone Indian Tribe

Andrew Galvan,
P.O. Box 3388
Fremont, CA, 94539
Phone: (510) 882 - 0527
Fax: (510) 687-9393
chochenyo@AOL.com

Bay Miwok
Ohlone
Patwin
Plains Miwok

***Indian Canyon Mutsun Band of
Costanoan***

Kanyon Sayers-Roods, MLD
Contact
1615 Pearson Court
San Jose, CA, 95122
Phone: (408) 673 - 0626
kanyon@kanyonconsulting.com

Costanoan

***Wuksache Indian Tribe/Eshom
Valley Band***

Kenneth Woodrow, Chairperson
1179 Rock Haven Ct.
Salinas, CA, 93906
Phone: (831) 443 - 9702
kwood8934@aol.com

Foothill Yokut
Mono

***Muwekma Ohlone Indian Tribe
of the SF Bay Area***

Charlene Nijmeh, Chairperson
20885 Redwood Road, Suite 232
Castro Valley, CA, 94546
Phone: (408) 464 - 2892
cnijmeh@muwekma.org

Costanoan

***The Confederated Villages of
Lisjan***

Corrina Gould, Chairperson
10926 Edes Avenue
Oakland, CA, 94603
Phone: (510) 575 - 8408
cvltribe@gmail.com

Bay Miwok
Ohlone
Delta Yokut

***Muwekma Ohlone Indian Tribe
of the SF Bay Area***

Monica Arellano, Vice
Chairwoman
20885 Redwood Road, Suite 232
Castro Valley, CA, 94546
Phone: (408) 205 - 9714
marellano@muwekma.org

Costanoan

This list is current only as of the date of this document and is based on the information available to the Commission on the date it was produced. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable only for consultation with Native American tribes under Government Code Sections 65352.3, 65352.4 et seq. and Public Resources Code Sections 21080.3.1 for the proposed City of Clayton 6th Cycle Housing Element Update Project, Contra Costa County.

From: [Dana Ayers](#)
To: nahe@nahe.ca.gov
Subject: Request for Tribal Consultation List
Date: Thursday, February 17, 2022 1:14:00 PM
Attachments: [Clayton Housing Element Local-Government-Tribal-Consultation-List-Request.pdf](#)

Good afternoon,

Please find attached a request for a current tribal consultation list pursuant to State CEQA and General Plan Guidelines, pertaining to a proposed amendment to the City of Clayton General Plan Housing Element for the 6th Cycle (2023-2031) and related Land Use Element and Zoning Ordinance changes.

Please contact me by email or phone with any questions on this request or the project described in the attachment. Thank you,

Dana Ayers, AICP
Community Development Director
City of Clayton
6000 Heritage Trail
Clayton, CA 94517
Tel: 925-673-7343
Fax: 925-672-4917
Website: www.claytonca.gov



Local Government Tribal Consultation List Request

Native American Heritage Commission

1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 – Fax
nahc@nahc.ca.gov

Type of List Requested

- ☐ CEQA Tribal Consultation List (AB 52) – *Per Public Resources Code § 21080.3.1, subs. (b), (d), (e) and 21080.3.2*
- ☐ General Plan (SB 18) - *Per Government Code § 65352.3.*

Local Action Type:

___ General Plan ___ General Plan Element ___ General Plan Amendment
___ Specific Plan ___ Specific Plan Amendment ___ Pre-planning Outreach Activity

Required Information

Project Title: _____

Local Government/Lead Agency: _____

Contact Person: _____

Street Address: _____

City: _____ Zip: _____

Phone: _____ Fax: _____

Email: _____

Specific Area Subject to Proposed Action

County: _____ City/Community: _____

Project Description:

Additional Request

- ☐ Sacred Lands File Search - *Required Information:*

USGS Quadrangle Name(s): _____

Township: _____ Range: _____ Section(s): _____



COMMUNITY DEVELOPMENT DEPARTMENT

6000 Heritage Trail, Clayton, CA 94517
PHONE: 925-673-7300 – FAX: 925-5672-4917

April 19, 2022

Amah Mutsun Tribal Band
Valentin Lopez, Chairperson
P.O. Box 5272
Galt, CA 95632

Email: vlopez@amahmutsun.org

Subject: Invitation for Tribal Consultation – City of Clayton, Housing Element Update

Dear Valentin Lopez:

The City of Clayton is the lead agency for the for a project involving a city-wide, comprehensive update of the City of Clayton General Plan Housing Element, focused updates to the Land Use Element, and parallel amendments to the Zoning Code (“project”). This notification is being forwarded to Native American tribes that are understood to be traditionally and culturally affiliated with the project area pursuant to the statutory requirements of Senate Bill (SB) 18 (Chapter 905, Statutes of 2004) and Assembly Bill (AB) 52 (Chapter 532, Statutes of 2014). Pursuant to Public Resources Code Section 21080.3.1(b), under AB 52, tribes have 30 days to request consultation. Tribes have 90 days to request consultation with the City under SB 18 (Government Code §65352.3 *et seq*).

The updated Housing Element will establish programs, policies and actions to further the goal of meeting existing and projected housing needs of all income levels and will identify how the City plans to accommodate the Regional Housing Needs Allocation of 570 units through the year 2031, as established by the Association of Bay Area Governments. The City also proposes updates to the Land Use Element to correspond to the Housing Element’s housing plan, as well as Zoning Code amendments necessary to implement the Housing and Land Use Elements, as amended. Information about the Housing Element and the Housing Element process can be found on the City’s website at <https://claytonca.gov/community-development/housing/housing-element/>.

If the Amah Mutsun Tribal Band would like to consult on the proposed project, please submit a request for consultation to me by email to danaa@claytonca.gov or by first class mail to at the following address:

City of Clayton
Community Development Department
Attn: Dana Ayers, Director
6000 Heritage Trail
Clayton, CA 94517

Please contact me within 90 days from receipt of this notice if you desire a formal consultation, or if you have any questions about this project or our planning process. In addition to the email address above, I can be reached by telephone at 925-673-7343.

Thank you for your time and attention to this matter.

Sincerely,

A handwritten signature in blue ink, appearing to read "D. Ayers".

Dana Ayers, AICP
Community Development Director
City of Clayton



COMMUNITY DEVELOPMENT DEPARTMENT

6000 Heritage Trail, Clayton, CA 94517
PHONE: 925-673-7300 – FAX: 925-5672-4917

April 19, 2022

Amah Mutsun Tribal Band of Mission San Juan Bautista
Irene Zwierlein, Chairperson
3030 Soda Bay Road
Lakeport, CA 95453

Email: amahmutsuntribal@gmail.com

Subject: Invitation for Tribal Consultation – City of Clayton, Housing Element Update

Dear Irene Zwierlein:

The City of Clayton is the lead agency for the for a project involving a city-wide, comprehensive update of the City of Clayton General Plan Housing Element, focused updates to the Land Use Element, and parallel amendments to the Zoning Code (“project”). This notification is being forwarded to Native American tribes that are understood to be traditionally and culturally affiliated with the project area pursuant to the statutory requirements of Senate Bill (SB) 18 (Chapter 905, Statutes of 2004) and Assembly Bill (AB) 52 (Chapter 532, Statutes of 2014). Pursuant to Public Resources Code Section 21080.3.1(b), under AB 52, tribes have 30 days to request consultation. Tribes have 90 days to request consultation with the City under SB 18 (Government Code §65352.3 *et seq*).

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If the Amah Mutsun Tribal Band of Mission San Juan Bautista would like to consult on the proposed project, please submit a request for consultation to me by email to danaa@claytonca.gov or by first class mail to at the following address:

City of Clayton
Community Development Department
Attn: Dana Ayers, Director
6000 Heritage Trail
Clayton, CA 94517

Please contact me within 90 days from receipt of this notice if you desire a formal consultation, or if you have any questions about this project or our planning process. In addition to the email address above, I can be reached by telephone at 925-673-7343.

Thank you for your time and attention to this matter.

Sincerely,

A handwritten signature in blue ink, appearing to read "D. Ayers".

Dana Ayers, AICP
Community Development Director
City of Clayton



COMMUNITY DEVELOPMENT DEPARTMENT

6000 Heritage Trail, Clayton, CA 94517
PHONE: 925-673-7300 – FAX: 925-5672-4917

April 19, 2022

Indian Canyon Mutsun Band of Costanoan
Ann Marie Sayers, Chairperson
P.O. Box 28
Hollister, CA 95024

Email: ams@indiancanyons.org

Subject: Invitation for Tribal Consultation – City of Clayton, Housing Element Update

Dear Ann Marie Sayers:

The City of Clayton is the lead agency for the for a project involving a city-wide, comprehensive update of the City of Clayton General Plan Housing Element, focused updates to the Land Use Element, and parallel amendments to the Zoning Code (“project”). This notification is being forwarded to Native American tribes that are understood to be traditionally and culturally affiliated with the project area pursuant to the statutory requirements of Senate Bill (SB) 18 (Chapter 905, Statutes of 2004) and Assembly Bill (AB) 52 (Chapter 532, Statutes of 2014). Pursuant to Public Resources Code Section 21080.3.1(b), under AB 52, tribes have 30 days to request consultation. Tribes have 90 days to request consultation with the City under SB 18 (Government Code §65352.3 *et seq*).

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If the Indian Canyon Mutsun Band of Costanoan would like to consult on the proposed project, please submit a request for consultation to me by email to danaa@claytonca.gov or by first class mail to at the following address:

City of Clayton
Community Development Department
Attn: Dana Ayers, Director
6000 Heritage Trail
Clayton, CA 94517

Please contact me within 90 days from receipt of this notice if you desire a formal consultation, or if you have any questions about this project or our planning process. In addition to the email address above, I can be reached by telephone at 925-673-7343.

Thank you for your time and attention to this matter.

Sincerely,

A handwritten signature in blue ink, appearing to read "D. Ayers".

Dana Ayers, AICP
Community Development Director
City of Clayton



COMMUNITY DEVELOPMENT DEPARTMENT

6000 Heritage Trail, Clayton, CA 94517
PHONE: 925-673-7300 – FAX: 925-5672-4917

April 19, 2022

India Canyon Mutsun Band of Costanoan
Kanyon Sayers-Roods, MLD
1615 Pearson Court
San Jose, CA 95122

Email: kanyon@kanyonkonsulting.com

Subject: Invitation for Tribal Consultation – City of Clayton, Housing Element Update

Dear Kanyon Sayers-Roods:

The City of Clayton is the lead agency for the for a project involving a city-wide, comprehensive update of the City of Clayton General Plan Housing Element, focused updates to the Land Use Element, and parallel amendments to the Zoning Code (“project”). This notification is being forwarded to Native American tribes that are understood to be traditionally and culturally affiliated with the project area pursuant to the statutory requirements of Senate Bill (SB) 18 (Chapter 905, Statutes of 2004) and Assembly Bill (AB) 52 (Chapter 532, Statutes of 2014). Pursuant to Public Resources Code Section 21080.3.1(b), under AB 52, tribes have 30 days to request consultation. Tribes have 90 days to request consultation with the City under SB 18 (Government Code §65352.3 *et seq*).

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If the India Canyon Mutsun Band of Costanoan would like to consult on the proposed project, please submit a request for consultation to me by email to danaa@claytonca.gov or by first class mail to at the following address:

City of Clayton
Community Development Department
Attn: Dana Ayers, Director
6000 Heritage Trail
Clayton, CA 94517

Please contact me within 90 days from receipt of this notice if you desire a formal consultation, or if you have any questions about this project or our planning process. In addition to the email address above, I can be reached by telephone at 925-673-7343.

Thank you for your time and attention to this matter.

Sincerely,

A handwritten signature in blue ink that reads "D. Ayers". The signature is written in a cursive, flowing style.

Dana Ayers, AICP
Community Development Director
City of Clayton



COMMUNITY DEVELOPMENT DEPARTMENT

6000 Heritage Trail, Clayton, CA 94517
PHONE: 925-673-7300 – FAX: 925-5672-4917

April 19, 2022

Muwekma Ohlone Indian Tribe of the SF Bay Area
Charlene Mijmeh, Chairperson
20885 Redwood Road, Suite 232
Castro Valley, CA 94546

Email: cnijmeh@muwekma.org

Subject: Invitation for Tribal Consultation – City of Clayton, Housing Element Update

Dear Charlene Mijmeh:

The City of Clayton is the lead agency for the for a project involving a city-wide, comprehensive update of the City of Clayton General Plan Housing Element, focused updates to the Land Use Element, and parallel amendments to the Zoning Code (“project”). This notification is being forwarded to Native American tribes that are understood to be traditionally and culturally affiliated with the project area pursuant to the statutory requirements of Senate Bill (SB) 18 (Chapter 905, Statutes of 2004) and Assembly Bill (AB) 52 (Chapter 532, Statutes of 2014). Pursuant to Public Resources Code Section 21080.3.1(b), under AB 52, tribes have 30 days to request consultation. Tribes have 90 days to request consultation with the City under SB 18 (Government Code §65352.3 *et seq*).

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If the Muwekma Ohlone Indian Tribe of the SF Bay Area would like to consult on the proposed project, please submit a request for consultation to me by email to danaa@claytonca.gov or by first class mail to at the following address:

City of Clayton
Community Development Department
Attn: Dana Ayers, Director
6000 Heritage Trail
Clayton, CA 94517

Please contact me within 90 days from receipt of this notice if you desire a formal consultation, or if you have any questions about this project or our planning process. In addition to the email address above, I can be reached by telephone at 925-673-7343.

Thank you for your time and attention to this matter.

Sincerely,

A handwritten signature in blue ink, appearing to read "D. Ayers".

Dana Ayers, AICP
Community Development Director
City of Clayton



COMMUNITY DEVELOPMENT DEPARTMENT

6000 Heritage Trail, Clayton, CA 94517
PHONE: 925-673-7300 – FAX: 925-5672-4917

April 19, 2022

Muwekma Ohlone Indian Tribe of the SF Bay Area
Monica Arellano, Vice Chair
20885 Redwood Road, Suite 232
Castro Valley, CA 94546

Email: marellano@muwekma.org

Subject: Invitation for Tribal Consultation – City of Clayton, Housing Element Update

Dear Monica Arellano:

The City of Clayton is the lead agency for the for a project involving a city-wide, comprehensive update of the City of Clayton General Plan Housing Element, focused updates to the Land Use Element, and parallel amendments to the Zoning Code (“project”). This notification is being forwarded to Native American tribes that are understood to be traditionally and culturally affiliated with the project area pursuant to the statutory requirements of Senate Bill (SB) 18 (Chapter 905, Statutes of 2004) and Assembly Bill (AB) 52 (Chapter 532, Statutes of 2014). Pursuant to Public Resources Code Section 21080.3.1(b), under AB 52, tribes have 30 days to request consultation. Tribes have 90 days to request consultation with the City under SB 18 (Government Code §65352.3 *et seq*).

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If the Muwekma Ohlone Indian Tribe of the SF Bay Area would like to consult on the proposed project, please submit a request for consultation to me by email to danaa@claytonca.gov or by first class mail to at the following address:

City of Clayton
Community Development Department
Attn: Dana Ayers, Director
6000 Heritage Trail
Clayton, CA 94517

Please contact me within 90 days from receipt of this notice if you desire a formal consultation, or if you have any questions about this project or our planning process. In addition to the email address above, I can be reached by telephone at 925-673-7343.

Thank you for your time and attention to this matter.

Sincerely,

A handwritten signature in blue ink, appearing to read "D. Ayers".

Dana Ayers, AICP
Community Development Director
City of Clayton



COMMUNITY DEVELOPMENT DEPARTMENT

6000 Heritage Trail, Clayton, CA 94517
PHONE: 925-673-7300 – FAX: 925-5672-4917

April 19, 2022

North Valley Yokuts Tribe
Timothy Perez
P.O. Box 717
Linden, CA 95236

Email: huskanam@gmail.com

Subject: Invitation for Tribal Consultation – City of Clayton, Housing Element Update

Dear Timothy Perez:

The City of Clayton is the lead agency for the for a project involving a city-wide, comprehensive update of the City of Clayton General Plan Housing Element, focused updates to the Land Use Element, and parallel amendments to the Zoning Code (“project”). This notification is being forwarded to Native American tribes that are understood to be traditionally and culturally affiliated with the project area pursuant to the statutory requirements of Senate Bill (SB) 18 (Chapter 905, Statutes of 2004) and Assembly Bill (AB) 52 (Chapter 532, Statutes of 2014). Pursuant to Public Resources Code Section 21080.3.1(b), under AB 52, tribes have 30 days to request consultation. Tribes have 90 days to request consultation with the City under SB 18 (Government Code §65352.3 *et seq*).

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If the North Valley Yokuts Tribe would like to consult on the proposed project, please submit a request for consultation to me by email to danaa@claytonca.gov or by first class mail to at the following address:

City of Clayton
Community Development Department
Attn: Dana Ayers, Director
6000 Heritage Trail
Clayton, CA 94517

Please contact me within 90 days from receipt of this notice if you desire a formal consultation, or if you have any questions about this project or our planning process. In addition to the email address above, I can be reached by telephone at 925-673-7343.

Thank you for your time and attention to this matter.

Sincerely,

A handwritten signature in blue ink, appearing to read "D. Ayers".

Dana Ayers, AICP
Community Development Director
City of Clayton



COMMUNITY DEVELOPMENT DEPARTMENT

6000 Heritage Trail, Clayton, CA 94517
PHONE: 925-673-7300 – FAX: 925-5672-4917

April 19, 2022

North Valley Yokuts Tribe
Katherine Perez, Chairperson
P.O. Box 717
Linden, CA 95236

Email: canutes@verizon.net

Subject: Invitation for Tribal Consultation – City of Clayton, Housing Element Update

Dear Katherine Perez:

The City of Clayton is the lead agency for the for a project involving a city-wide, comprehensive update of the City of Clayton General Plan Housing Element, focused updates to the Land Use Element, and parallel amendments to the Zoning Code (“project”). This notification is being forwarded to Native American tribes that are understood to be traditionally and culturally affiliated with the project area pursuant to the statutory requirements of Senate Bill (SB) 18 (Chapter 905, Statutes of 2004) and Assembly Bill (AB) 52 (Chapter 532, Statutes of 2014). Pursuant to Public Resources Code Section 21080.3.1(b), under AB 52, tribes have 30 days to request consultation. Tribes have 90 days to request consultation with the City under SB 18 (Government Code §65352.3 *et seq*).

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If the North Valley Yokuts Tribe would like to consult on the proposed project, please submit a request for consultation to me by email to danaa@claytonca.gov or by first class mail to at the following address:

City of Clayton
Community Development Department
Attn: Dana Ayers, Director
6000 Heritage Trail
Clayton, CA 94517

Please contact me within 90 days from receipt of this notice if you desire a formal consultation, or if you have any questions about this project or our planning process. In addition to the email address above, I can be reached by telephone at 925-673-7343.

Thank you for your time and attention to this matter.

Sincerely,

A handwritten signature in blue ink, appearing to read "D. Ayers".

Dana Ayers, AICP
Community Development Director
City of Clayton



COMMUNITY DEVELOPMENT DEPARTMENT

6000 Heritage Trail, Clayton, CA 94517
PHONE: 925-673-7300 – FAX: 925-5672-4917

April 19, 2022

The Ohlone Indian Tribe
Andrew Galvan
P.O. Box 3388
Fremont, CA 94539

Email: chochenyo@aol.com

Subject: Invitation for Tribal Consultation – City of Clayton, Housing Element Update

Dear Andrew Galvan:

The City of Clayton is the lead agency for the for a project involving a city-wide, comprehensive update of the City of Clayton General Plan Housing Element, focused updates to the Land Use Element, and parallel amendments to the Zoning Code (“project”). This notification is being forwarded to Native American tribes that are understood to be traditionally and culturally affiliated with the project area pursuant to the statutory requirements of Senate Bill (SB) 18 (Chapter 905, Statutes of 2004) and Assembly Bill (AB) 52 (Chapter 532, Statutes of 2014). Pursuant to Public Resources Code Section 21080.3.1(b), under AB 52, tribes have 30 days to request consultation. Tribes have 90 days to request consultation with the City under SB 18 (Government Code §65352.3 *et seq*).

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If the The Ohlone Indian Tribe would like to consult on the proposed project, please submit a request for consultation to me by email to danaa@claytonca.gov or by first class mail to at the following address:

City of Clayton
Community Development Department
Attn: Dana Ayers, Director
6000 Heritage Trail
Clayton, CA 94517

Please contact me within 90 days from receipt of this notice if you desire a formal consultation, or if you have any questions about this project or our planning process. In addition to the email address above, I can be reached by telephone at 925-673-7343.

Thank you for your time and attention to this matter.

Sincerely,

A handwritten signature in blue ink, appearing to read "D. Ayers".

Dana Ayers, AICP
Community Development Director
City of Clayton



COMMUNITY DEVELOPMENT DEPARTMENT

6000 Heritage Trail, Clayton, CA 94517
PHONE: 925-673-7300 – FAX: 925-5672-4917

April 19, 2022

Wuksache Indian Tribe/Eshom Valley Band
Kenneth Woodrow, Chairperson
1179 Rock Haven Court
Salinas, CA 93906

Email: kwood8934@aol.com

Subject: Invitation for Tribal Consultation – City of Clayton, Housing Element Update

Dear Kenneth Woodrow:

The City of Clayton is the lead agency for the for a project involving a city-wide, comprehensive update of the City of Clayton General Plan Housing Element, focused updates to the Land Use Element, and parallel amendments to the Zoning Code (“project”). This notification is being forwarded to Native American tribes that are understood to be traditionally and culturally affiliated with the project area pursuant to the statutory requirements of Senate Bill (SB) 18 (Chapter 905, Statutes of 2004) and Assembly Bill (AB) 52 (Chapter 532, Statutes of 2014). Pursuant to Public Resources Code Section 21080.3.1(b), under AB 52, tribes have 30 days to request consultation. Tribes have 90 days to request consultation with the City under SB 18 (Government Code §65352.3 *et seq*).

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If the Wuksache Indian Tribe/Eshom Valley Band would like to consult on the proposed project, please submit a request for consultation to me by email to danaa@claytonca.gov or by first class mail to at the following address:

City of Clayton
Community Development Department
Attn: Dana Ayers, Director
6000 Heritage Trail
Clayton, CA 94517

Please contact me within 90 days from receipt of this notice if you desire a formal consultation, or if you have any questions about this project or our planning process. In addition to the email address above, I can be reached by telephone at 925-673-7343.

Thank you for your time and attention to this matter.

Sincerely,

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Dana Ayers, AICP
Community Development Director
City of Clayton



COMMUNITY DEVELOPMENT DEPARTMENT

6000 Heritage Trail, Clayton, CA 94517
PHONE: 925-673-7300 – FAX: 925-5672-4917

April 19, 2022

The Confederated Villages of Lisjan
Corrina Gould, Chairperson
10926 Edes Avenue
Oakland, CA 94603

Email: cvltribe@gmail.com

Subject: Invitation for Tribal Consultation – City of Clayton, Housing Element Update

Dear Corrina Gould:

The City of Clayton is the lead agency for the for a project involving a city-wide, comprehensive update of the City of Clayton General Plan Housing Element, focused updates to the Land Use Element, and parallel amendments to the Zoning Code (“project”). This notification is being forwarded to Native American tribes that are understood to be traditionally and culturally affiliated with the project area pursuant to the statutory requirements of Senate Bill (SB) 18 (Chapter 905, Statutes of 2004) and Assembly Bill (AB) 52 (Chapter 532, Statutes of 2014). Pursuant to Public Resources Code Section 21080.3.1(b), under AB 52, tribes have 30 days to request consultation. Tribes have 90 days to request consultation with the City under SB 18 (Government Code §65352.3 *et seq*).

The updated Housing Element will establish programs, policies and actions to further the goal of meeting existing and projected housing needs of all income levels and will identify how the City plans to accommodate the Regional Housing Needs Allocation of 570 units through the year 2031, as established by the Association of Bay Area Governments. The City also proposes updates to the Land Use Element to correspond to the Housing Element’s housing plan, as well as Zoning Code amendments necessary to implement the Housing and Land Use Elements, as amended. Information about the Housing Element and the Housing Element process can be found on the City’s website at <https://claytonca.gov/community-development/housing/housing-element/>.

If the The Confederated Villages of Lisjan would like to consult on the proposed project, please submit a request for consultation to me by email to danaa@claytonca.gov or by first class mail to at the following address:

City of Clayton
Community Development Department
Attn: Dana Ayers, Director
6000 Heritage Trail
Clayton, CA 94517

Please contact me within 90 days from receipt of this notice if you desire a formal consultation, or if you have any questions about this project or our planning process. In addition to the email address above, I can be reached by telephone at 925-673-7343.

Thank you for your time and attention to this matter.

Sincerely,

A handwritten signature in blue ink, appearing to read "D. Ayers".

Dana Ayers, AICP
Community Development Director
City of Clayton

From: [Dana Ayers](#)
To: [Corrina Gould](#)
Subject: RE: Invitation for Tribal Consultation – City of Clayton Housing Element Update
Date: Wednesday, June 22, 2022 2:08:00 PM

Corrina,

The current draft of the Housing Element is available online:

<https://claytonca.gov/fc/agendas/council/062322smweb.pdf>

The link will take you to the agenda for a City Council meeting scheduled for June 23. We are sharing the draft document with our City Council tomorrow ahead of submitting it to HCD at the beginning of next month. The transmittal staff report starts on page 4 of the PDF file, and the current draft Housing Element starts on page 7 of the PDF.

Please let me know if I can provide any other information to assist in your review.

Thank you,

Dana Ayers, AICP
Community Development Director
City of Clayton
6000 Heritage Trail
Clayton, CA 94517
Tel: 925-673-7343
Fax: 925-672-4917
Website: www.claytonca.gov



From: Corrina Gould <cvltribe@gmail.com>
Sent: Wednesday, June 22, 2022 1:29 PM
To: Dana Ayers <danaa@claytonca.gov>
Subject: Re: Invitation for Tribal Consultation – City of Clayton Housing Element Update

Hello Dana,

Instead of having our scheduled zoom meeting, The Tribe is requesting the documentation you have set for the new General Plan Housing Element for The City of Clayton. The Tribe would like to make it clear we are in support of housing and development of communities. Once we receive the documents and any other information you would like to provide, we may move forward with a zoom if necessary.

'Uni (Respectfully),

Corrina Gould, Tribal Chair
Confederated Villages of Lisjan Nation

On Wed, May 18, 2022 at 11:47 AM Corrina Gould <cvltribe@gmail.com> wrote:

Hello Dana,

Thank you for your email. The tribe would like to consult for this project. You can check our Calendly link below to schedule a consultation at your earliest convenience. Please make sure to include the project name and any other additional notes in the notes section when scheduling the consultation. Thank you.

Access our Calendly here:

<https://calendly.com/cvltribe/consultation>

'Uni (Respectfully),

Corrina Gould, Tribal Chair
Confederated Villages of Lisjan Nation

On Wed, Apr 20, 2022 at 2:53 PM Dana Ayers <danaa@claytonca.gov> wrote:

Good afternoon,

Please find attached an invitation for Tribal consultation pursuant to Senate Bill 18 (2004) and Assembly Bill 52 (2014) for the City of Clayton General Plan Housing Element Update.

Dana Ayers, AICP
Community Development Director
City of Clayton
6000 Heritage Trail
Clayton, CA 94517
Tel: [925-673-7343](tel:925-673-7343)

Fax: [925-672-4917](tel:925-672-4917)

Website: www.claytonca.gov



Appendix B - Housing Element Update Goals and Policies

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Clayton 6th Cycle Housing Element Update Goals and Policies

The Housing Element Update's goals and policies have been established to address housing issues in Clayton and to meet state law housing requirements. The Housing Element Update identifies long-term housing goals and shorter-term policies and programs to address identified housing needs, constraints to development, and resources available to address housing needs. To make adequate provision for the housing needs for people of all income levels, the Housing Element Update includes the following goals and policies:

Goal 1. ***Maintain and enhance long-established housing and neighborhoods while accommodating moderate growth.***

Policy 1.1 **Neighborhood Preservation.** Preserve the architectural and design quality of established residential neighborhoods.

Policy 1.2 **Impacts of New Housing.** Consider and mitigate the impacts of new housing on the City's infrastructure, open space, natural resources, and public services.

Policy 1.3 **Targeted Growth.** Target new housing development to areas in Clayton near major travel corridors and commercial centers.

Policy 1.4 **Code Enforcement.** Continue to utilize the City's code enforcement program to improve overall housing conditions, and promote increased awareness among property owners and residents of the importance of property maintenance.

Policy 1.5 **Facilitate Reinvestment.** Make it easy for homeowners to reinvest in their properties by having staff-level review processes for the home renovations and additions that meet minimum development standards.

Goal 2. ***Encourage a variety of housing types, densities, and affordability levels to meet the diverse needs of the community, including a mix of ownership and rental.***

Policy 2.1 **Adequate Housing Sites.** Maintain and implement land use policies and zoning regulations that accommodate a range of residential housing types that can fulfill local housing needs and accommodate the City's Regional Housing Needs Allocation of at least 570 units.

Policy 2.2 **Variety of Densities and Housing Types.** Implement land use policies and standards that allow for a range of residential densities and housing types that will enable households of all types and income levels opportunities to find suitable ownership and rental housing in the City.

Policy 2.3 **Accessory Dwelling Units.** Promote construction of accessory dwelling units as a way to increase the housing stock, particularly for lower-income households, seniors, young adults and persons with disabilities, recognizing that ADUs also promote investment in existing properties and reduce ongoing housing costs for property owners.

Policy 2.4 **Urban Lot Splits.** Recognize urban lot splits, as defined and allowed by State law, as a viable means to create new housing.

- Policy 2.5** **Mixed-use Development.** Promote mixed-use development in Downtown Clayton that includes residential uses above ground-floor commercial and office uses, with ground-floor residential allowed under limited circumstances, such as alongside streets or behind street-facing commercial uses on Central and Main Streets.
- Policy 2.6** **Housing on Religious Institution Lands.** Create land use regulations that encourage the development of housing, particularly below market-rate housing, on properties owned by religious institutions.
- Goal 3.** ***Provide opportunities for housing that respond to the needs of special needs households.***
- Policy 3.1** **Persons with Living with Disabilities.** Ensure zoning regulations accommodate development approaches that support special consideration for persons living with disabilities of all types.
- Policy 3.2** **Assistance and Incentives.** Facilitate the development of lower- and moderate-income housing by offering developers incentives such as density bonuses, streamlined entitlement and permitting processes, City participation in on- and off-site public improvements, and flexible development standards.
- Policy 3.3** **Seniors, Large Families, Single-parent Households, Foster Youth.** Encourage development of housing that meets the specific needs of seniors, large families, single-parent households, and youth transitioning out of the foster care system.
- Policy 3.4** **Supportive and Transitional Housing.** Ensure that zoning regulations respond to evolving laws regarding supportive and transitional housing.
- Policy 3.5** **Unhoused Persons and Families.** Support regional programs focused on finding safe housing for persons and families who are temporarily or chronically without a place to live.
- Goal 4.** ***Remove governmental constraints and obstacles to the production of housing for all income groups.***
- Policy 4.1** **General Plan Land Use Policy.** Ensure that General Plan land use policies permit higher density housing development within a range that can support and encourage affordable housing.
- Policy 4.2** **Residential Development Standards.** Review and adjust residential development standards, regulations, ordinances, departmental processing procedures, and residential fees related to rehabilitation and construction that are determined to constrain housing development.
- Policy 4.3** **Policy Assessments.** Identify, assess, and, when appropriate, amend ordinances and policies that adversely affect housing cost.
- Goal 5.** ***Ensure equal housing opportunities for all persons in Clayton regardless of age, race, religion, sex, marital status, national origin, color, disability, or other barriers that prevent choice in housing.***

- Policy 5.1 Anti-Discrimination.** Promote equity and prohibit discrimination in the sale, rental, or financing of housing based on race, color, ancestry, religion, national origin, sex, sexual orientation, gender identity, age, disability/medical condition, familial status, marital status, source of income, or any other arbitrary factor.
- Policy 5.2 Fair Housing.** Assist in the enforcement of fair housing laws by providing references for residents to organizations that can receive and investigate fair housing allegations, monitor compliance with fair housing laws, and refer possible violations to enforcing agencies.
- Policy 5.3 Housing Distribution.** Distribute affordable housing throughout all Clayton neighborhoods.
- Policy 5.4 Quality Living Environments.** Avoid concentrating low-income housing in areas with high pollution loads and low levels of public services.
- Policy 5.5 Inclusion.** Facilitate increased participation in civic conversations and decision-making by residents who have traditionally been underrepresented or hesitant to engage.
- Policy 5.6 Education.** Support continuing education for landlords regarding their fair housing legal responsibilities and tenants regarding their fair housing rights.
- Goal 6. *Incorporate sustainability practices into housing production and operations.***
- Policy 6.1 New Subdivisions.** Require developers to incorporate sustainable practices into the design of subdivisions.
- Policy 6.2 Appliances.** Promote the use of clean, energy-efficient appliances in new homes.
- Policy 6.3 Energy Efficient Retrofits.** Promote home retrofits that reduce consumption of water and energy resources.
- Policy 6.4 High Standards.** Establish high sustainability standards for new multi-family housing and mixed-use developments.

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Clayton HEU Existing 2020 Conditions Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Clayton HEU Existing 2020 Conditions
Lead Agency	—
Land Use Scale	Plan/community
Analysis Level for Defaults	County
Windspeed (m/s)	3.60
Precipitation (days)	13.8
Location	Clayton, CA, USA
County	Contra Costa
City	Clayton
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1341
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Single Family Housing	3,913	Dwelling Unit	1,082	7,630,350	45,832,409	0.00	10,453	—
Apartments Low Rise	155	Dwelling Unit	4.15	164,300	0.00	0.00	3,913	—
Regional Shopping Center	173	1000sqft	29.8	173,490	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unmit.	933	492,052	492,985	122	18.2	2,100	503,554
Daily, Winter (Max)	—	—	—	—	—	—	—
Unmit.	933	463,472	464,405	125	20.3	110	473,686
Average Daily (Max)	—	—	—	—	—	—	—
Unmit.	933	449,007	449,940	123	19.4	939	459,734
Annual (Max)	—	—	—	—	—	—	—
Unmit.	154	74,338	74,493	20.4	3.21	155	76,114

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Mobile	—	396,566	396,566	19.5	16.9	2,043	404,149
Area	0.00	19,068	19,068	0.37	0.04	—	19,090
Energy	—	73,992	73,992	7.62	0.40	—	74,302
Water	308	2,426	2,734	32.0	0.80	—	3,772
Waste	625	0.00	625	62.4	0.00	—	2,185

Refrig.	—	—	—	—	—	56.8	56.8
Total	933	492,052	492,985	122	18.2	2,100	503,554
Daily, Winter (Max)	—	—	—	—	—	—	—
Mobile	—	368,633	368,633	22.6	19.1	53.0	374,931
Area	0.00	18,420	18,420	0.35	0.03	—	18,439
Energy	—	73,992	73,992	7.62	0.40	—	74,302
Water	308	2,426	2,734	32.0	0.80	—	3,772
Waste	625	0.00	625	62.4	0.00	—	2,185
Refrig.	—	—	—	—	—	56.8	56.8
Total	933	463,472	464,405	125	20.3	110	473,686
Average Daily	—	—	—	—	—	—	—
Mobile	—	371,816	371,816	21.2	18.2	882	378,643
Area	0.00	774	774	0.02	< 0.005	—	775
Energy	—	73,992	73,992	7.62	0.40	—	74,302
Water	308	2,426	2,734	32.0	0.80	—	3,772
Waste	625	0.00	625	62.4	0.00	—	2,185
Refrig.	—	—	—	—	—	56.8	56.8
Total	933	449,007	449,940	123	19.4	939	459,734
Annual	—	—	—	—	—	—	—
Mobile	—	61,558	61,558	3.51	3.01	146	62,689
Area	0.00	128	128	< 0.005	< 0.005	—	128
Energy	—	12,250	12,250	1.26	0.07	—	12,302
Water	51.0	402	453	5.30	0.13	—	625
Waste	103	0.00	103	10.3	0.00	—	362
Refrig.	—	—	—	—	—	9.41	9.41
Total	154	74,338	74,493	20.4	3.21	155	76,114

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Single Family Housing	—	352,649	352,649	16.4	14.7	1,822	359,258
Apartments Low Rise	—	19,439	19,439	0.72	0.74	101	19,778
Regional Shopping Center	—	24,478	24,478	2.40	1.53	119	25,112
Total	—	396,566	396,566	19.5	16.9	2,043	404,149
Daily, Winter (Max)	—	—	—	—	—	—	—
Single Family Housing	—	327,695	327,695	18.8	16.5	47.2	333,128
Apartments Low Rise	—	18,042	18,042	0.79	0.83	2.63	18,310
Regional Shopping Center	—	22,897	22,897	3.04	1.73	3.10	23,492
Total	—	368,633	368,633	22.6	19.1	53.0	374,931
Annual	—	—	—	—	—	—	—
Single Family Housing	—	54,727	54,727	2.93	2.61	130	55,707
Apartments Low Rise	—	3,014	3,014	0.12	0.13	7.25	3,063
Regional Shopping Center	—	3,818	3,818	0.46	0.27	8.54	3,919
Total	—	61,558	61,558	3.51	3.01	146	62,689

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Single Family Housing	—	13,525	13,525	2.19	0.27	—	13,659
Apartments Low Rise	—	325	325	0.05	0.01	—	328
Regional Shopping Center	—	828	828	0.13	0.02	—	837
Total	—	14,678	14,678	2.37	0.29	—	14,824
Daily, Winter (Max)	—	—	—	—	—	—	—
Single Family Housing	—	13,525	13,525	2.19	0.27	—	13,659
Apartments Low Rise	—	325	325	0.05	0.01	—	328
Regional Shopping Center	—	828	828	0.13	0.02	—	837
Total	—	14,678	14,678	2.37	0.29	—	14,824
Annual	—	—	—	—	—	—	—
Single Family Housing	—	2,239	2,239	0.36	0.04	—	2,261
Apartments Low Rise	—	53.8	53.8	0.01	< 0.005	—	54.3
Regional Shopping Center	—	137	137	0.02	< 0.005	—	139

Total	—	2,430	2,430	0.39	0.05	—	2,454
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4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Single Family Housing	—	57,965	57,965	5.13	0.11	—	58,126
Apartments Low Rise	—	991	991	0.09	< 0.005	—	994
Regional Shopping Center	—	357	357	0.03	< 0.005	—	358
Total	—	59,314	59,314	5.25	0.11	—	59,478
Daily, Winter (Max)	—	—	—	—	—	—	—
Single Family Housing	—	57,965	57,965	5.13	0.11	—	58,126
Apartments Low Rise	—	991	991	0.09	< 0.005	—	994
Regional Shopping Center	—	357	357	0.03	< 0.005	—	358
Total	—	59,314	59,314	5.25	0.11	—	59,478
Annual	—	—	—	—	—	—	—
Single Family Housing	—	9,597	9,597	0.85	0.02	—	9,623
Apartments Low Rise	—	164	164	0.01	< 0.005	—	165
Regional Shopping Center	—	59.2	59.2	0.01	< 0.005	—	59.3
Total	—	9,820	9,820	0.87	0.02	—	9,847

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Hearths	0.00	18,420	18,420	0.35	0.03	—	18,439
Consumer Products	—	—	—	—	—	—	—
Architectural Coatings	—	—	—	—	—	—	—
Landscape Equipment	—	648	648	0.03	0.01	—	650
Total	0.00	19,068	19,068	0.37	0.04	—	19,090
Daily, Winter (Max)	—	—	—	—	—	—	—
Hearths	0.00	18,420	18,420	0.35	0.03	—	18,439
Consumer Products	—	—	—	—	—	—	—
Architectural Coatings	—	—	—	—	—	—	—
Total	0.00	18,420	18,420	0.35	0.03	—	18,439
Annual	—	—	—	—	—	—	—
Hearths	0.00	75.2	75.2	< 0.005	< 0.005	—	75.3
Consumer Products	—	—	—	—	—	—	—
Architectural Coatings	—	—	—	—	—	—	—
Landscape Equipment	—	52.9	52.9	< 0.005	< 0.005	—	53.1
Total	0.00	128	128	< 0.005	< 0.005	—	128

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Single Family Housing	273	2,359	2,632	28.4	0.71	—	3,553
Apartments Low Rise	10.8	20.4	31.2	1.11	0.03	—	67.0
Regional Shopping Center	24.6	46.5	71.1	2.53	0.06	—	153
Total	308	2,426	2,734	32.0	0.80	—	3,772
Daily, Winter (Max)	—	—	—	—	—	—	—
Single Family Housing	273	2,359	2,632	28.4	0.71	—	3,553
Apartments Low Rise	10.8	20.4	31.2	1.11	0.03	—	67.0
Regional Shopping Center	24.6	46.5	71.1	2.53	0.06	—	153
Total	308	2,426	2,734	32.0	0.80	—	3,772
Annual	—	—	—	—	—	—	—
Single Family Housing	45.2	391	436	4.70	0.12	—	588
Apartments Low Rise	1.79	3.38	5.17	0.18	< 0.005	—	11.1
Regional Shopping Center	4.08	7.70	11.8	0.42	0.01	—	25.3
Total	51.0	402	453	5.30	0.13	—	625

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Single Family Housing	505	0.00	505	50.5	0.00	—	1,767
Apartments Low Rise	21.4	0.00	21.4	2.13	0.00	—	74.7
Regional Shopping Center	98.2	0.00	98.2	9.81	0.00	—	343
Total	625	0.00	625	62.4	0.00	—	2,185
Daily, Winter (Max)	—	—	—	—	—	—	—
Single Family Housing	505	0.00	505	50.5	0.00	—	1,767
Apartments Low Rise	21.4	0.00	21.4	2.13	0.00	—	74.7
Regional Shopping Center	98.2	0.00	98.2	9.81	0.00	—	343
Total	625	0.00	625	62.4	0.00	—	2,185
Annual	—	—	—	—	—	—	—
Single Family Housing	83.6	0.00	83.6	8.36	0.00	—	293
Apartments Low Rise	3.54	0.00	3.54	0.35	0.00	—	12.4
Regional Shopping Center	16.3	0.00	16.3	1.62	0.00	—	56.9
Total	103	0.00	103	10.3	0.00	—	362

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	54.6	54.6
Apartments Low Rise	—	—	—	—	—	1.18	1.18
Regional Shopping Center	—	—	—	—	—	0.98	0.98
Total	—	—	—	—	—	56.8	56.8
Daily, Winter (Max)	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	54.6	54.6
Apartments Low Rise	—	—	—	—	—	1.18	1.18
Regional Shopping Center	—	—	—	—	—	0.98	0.98
Total	—	—	—	—	—	56.8	56.8
Annual	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	9.05	9.05
Apartments Low Rise	—	—	—	—	—	0.19	0.19
Regional Shopping Center	—	—	—	—	—	0.16	0.16
Total	—	—	—	—	—	9.41	9.41

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VM/Weekday	VM/Saturday	VM/Sunday	VM/Year
Single Family Housing	36,900	36,900	36,900	13,468,350	391,988	391,988	391,988	143,075,498
Apartments Low Rise	1,045	1,045	1,045	381,316	21,825	21,825	21,825	7,966,123

Regional Shopping Center	9,447	9,447	9,447	3,447,984	25,695	25,695	25,695	9,378,515
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5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	783
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	3130
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	79
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	76
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
15784166.25	5,261,389	260,235	86,745	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Single Family Housing	24,201,345	204	0.0330	0.0040	180,866,380
Apartments Low Rise	581,326	204	0.0330	0.0040	3,093,693
Regional Shopping Center	1,482,467	204	0.0330	0.0040	1,114,795

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	142,403,168	668,575,701
Apartments Low Rise	5,640,810	0.00
Regional Shopping Center	12,850,842	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	937	0.00
Apartments Low Rise	39.6	0.00
Regional Shopping Center	182	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0

Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Regional Shopping Center	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Regional Shopping Center	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	18.2	annual days of extreme heat
Extreme Precipitation	3.80	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	30.0	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A

Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure. The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt. The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure. The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt. The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	26.8
AQ-PM	17.4
AQ-DPM	0.82
Drinking Water	12.4
Lead Risk Housing	21.4
Pesticides	0.00
Toxic Releases	53.4
Traffic	25.0
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	36.8
Haz Waste Facilities/Generators	44.7
Impaired Water Bodies	43.8
Solid Waste	11.6
Sensitive Population	—
Asthma	34.0
Cardio-vascular	30.0
Low Birth Weights	33.1
Socioeconomic Factor Indicators	—
Education	13.1
Housing	16.9
Linguistic	0.00
Poverty	4.27
Unemployment	7.77

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	99.43539074
Employed	68.38188118
Education	—
Bachelor's or higher	84.84537405
High school enrollment	18.45245733
Preschool enrollment	95.7141024
Transportation	—
Auto Access	90.86359553
Active commuting	72.02617734
Social	—
2-parent households	95.81675863

Voting	95.86808674
Neighborhood	—
Alcohol availability	90.50429873
Park access	39.63813679
Retail density	7.108943924
Supermarket access	15.0904658
Tree canopy	89.90119338
Housing	—
Homeownership	97.12562556
Housing habitability	89.1056076
Low-inc homeowner severe housing cost burden	79.5072501
Low-inc renter severe housing cost burden	59.77158989
Uncrowded housing	96.93314513
Health Outcomes	—
Insured adults	97.11279353
Arthritis	40.2
Asthma ER Admissions	76.8
High Blood Pressure	46.3
Cancer (excluding skin)	22.7
Asthma	72.9
Coronary Heart Disease	69.4
Chronic Obstructive Pulmonary Disease	79.3
Diagnosed Diabetes	85.5
Life Expectancy at Birth	78.2
Cognitively Disabled	94.6
Physically Disabled	80.2
Heart Attack ER Admissions	68.5
Mental Health Not Good	85.8
Chronic Kidney Disease	79.8
Obesity	57.4
Pedestrian Injuries	19.6
Physical Health Not Good	85.2
Stroke	84.7
Health Risk Behaviors	—
Binge Drinking	36.9
Current Smoker	90.3
No Leisure Time for Physical Activity	89.3
Climate Change Exposures	—
Wildfire Risk	0.7
SLR Inundation Area	0.0
Children	84.9
Elderly	16.2
English Speaking	95.2
Foreign-born	3.7
Outdoor Workers	62.2
Climate Change Adaptive Capacity	—
Impervious Surface Cover	80.8
Traffic Density	12.3
Traffic Access	23.0
Other Indices	—
Hardship	6.5
Other Decision Support	—
2016 Voting	82.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	4.00
Healthy Places Index Score for Project Location (b)	97.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Healthy Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

8. User Changes to Default Data

Screen	Justification
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Land Use	Size, acreage, and population adjusted from CalEEMod defaults to project values.
Operations: Vehicle Data	Trip rate and vmt data from traffic report

ClaytonHEU_2040NP Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	ClaytonHEU_2040NP
Lead Agency	—
Land Use Scale	Plan/community
Analysis Level for Defaults	County
Windspeed (m/s)	3.60
Precipitation (days)	13.8
Location	Clayton, CA, USA
County	Contra Costa
City	Clayton
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1341
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Single Family Housing	3,905	Dwelling Unit	1,082	7,614,750	45,738,707	0.00	10,708	—
Apartments Low Rise	321	Dwelling Unit	4.15	340,260	0.00	0.00	596	—
Regional Shopping Center	173	1000sqft	29.8	173,490	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unmit.	965	401,675	402,640	115	11.5	222	409,150
Daily, Winter (Max)	—	—	—	—	—	—	—
Unmit.	965	379,601	380,567	116	12.6	62.1	387,263
Average Daily (Max)	—	—	—	—	—	—	—
Unmit.	965	362,481	363,446	115	12.1	129	370,041
Annual (Max)	—	—	—	—	—	—	—
Unmit.	160	60,013	60,173	19.0	2.00	21.3	61,265

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Mobile	—	302,841	302,841	8.88	10.2	164	306,266
Area	0.00	21,138	21,138	0.41	0.04	—	21,162
Energy	—	75,253	75,253	7.76	0.41	—	75,568
Water	319	2,443	2,762	33.1	0.83	—	3,836
Waste	646	0.00	646	64.6	0.00	—	2,261

Refrig.	—	—	—	—	—	57.8	57.8
Total	965	401,675	402,640	115	11.5	222	409,150
Daily, Winter (Max)	—	—	—	—	—	—	—
Mobile	—	281,440	281,440	9.84	11.3	4.25	285,053
Area	0.00	20,466	20,466	0.39	0.04	—	20,487
Energy	—	75,253	75,253	7.76	0.41	—	75,568
Water	319	2,443	2,762	33.1	0.83	—	3,836
Waste	646	0.00	646	64.6	0.00	—	2,261
Refrig.	—	—	—	—	—	57.8	57.8
Total	965	379,601	380,567	116	12.6	62.1	387,263
Average Daily	—	—	—	—	—	—	—
Mobile	—	283,949	283,949	9.41	10.8	70.8	287,481
Area	0.00	836	836	0.02	< 0.005	—	838
Energy	—	75,253	75,253	7.76	0.41	—	75,568
Water	319	2,443	2,762	33.1	0.83	—	3,836
Waste	646	0.00	646	64.6	0.00	—	2,261
Refrig.	—	—	—	—	—	57.8	57.8
Total	965	362,481	363,446	115	12.1	129	370,041
Annual	—	—	—	—	—	—	—
Mobile	—	47,011	47,011	1.56	1.79	11.7	47,596
Area	0.00	138	138	< 0.005	< 0.005	—	139
Energy	—	12,459	12,459	1.28	0.07	—	12,511
Water	52.9	404	457	5.49	0.14	—	635
Waste	107	0.00	107	10.7	0.00	—	374
Refrig.	—	—	—	—	—	9.57	9.57
Total	160	60,013	60,173	19.0	2.00	21.3	61,265

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Single Family Housing	—	263,736	263,736	7.33	8.61	143	266,629
Apartments Low Rise	—	21,574	21,574	0.54	0.66	11.8	21,796
Regional Shopping Center	—	17,532	17,532	1.01	0.92	8.97	17,841
Total	—	302,841	302,841	8.88	10.2	164	306,266
Daily, Winter (Max)	—	—	—	—	—	—	—
Single Family Housing	—	245,023	245,023	8.04	9.52	3.71	248,063
Apartments Low Rise	—	20,031	20,031	0.57	0.73	0.31	20,263
Regional Shopping Center	—	16,386	16,386	1.23	1.04	0.23	16,727
Total	—	281,440	281,440	9.84	11.3	4.25	285,053
Annual	—	—	—	—	—	—	—
Single Family Housing	—	40,931	40,931	1.28	1.51	10.2	41,424
Apartments Low Rise	—	3,347	3,347	0.09	0.12	0.84	3,384
Regional Shopping Center	—	2,734	2,734	0.19	0.16	0.64	2,788
Total	—	47,011	47,011	1.56	1.79	11.7	47,596

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Single Family Housing	—	13,497	13,497	2.18	0.26	—	13,631
Apartments Low Rise	—	673	673	0.11	0.01	—	679
Regional Shopping Center	—	826	826	0.13	0.02	—	834
Total	—	14,996	14,996	2.43	0.29	—	15,145
Daily, Winter (Max)	—	—	—	—	—	—	—
Single Family Housing	—	13,497	13,497	2.18	0.26	—	13,631
Apartments Low Rise	—	673	673	0.11	0.01	—	679
Regional Shopping Center	—	826	826	0.13	0.02	—	834
Total	—	14,996	14,996	2.43	0.29	—	15,145
Annual	—	—	—	—	—	—	—
Single Family Housing	—	2,235	2,235	0.36	0.04	—	2,257
Apartments Low Rise	—	111	111	0.02	< 0.005	—	112
Regional Shopping Center	—	137	137	0.02	< 0.005	—	138

Total	—	2,483	2,483	0.40	0.05	—	2,507
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4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Single Family Housing	—	57,847	57,847	5.12	0.11	—	58,007
Apartments Low Rise	—	2,053	2,053	0.18	< 0.005	—	2,059
Regional Shopping Center	—	356	356	0.03	< 0.005	—	357
Total	—	60,256	60,256	5.33	0.11	—	60,423
Daily, Winter (Max)	—	—	—	—	—	—	—
Single Family Housing	—	57,847	57,847	5.12	0.11	—	58,007
Apartments Low Rise	—	2,053	2,053	0.18	< 0.005	—	2,059
Regional Shopping Center	—	356	356	0.03	< 0.005	—	357
Total	—	60,256	60,256	5.33	0.11	—	60,423
Annual	—	—	—	—	—	—	—
Single Family Housing	—	9,577	9,577	0.85	0.02	—	9,604
Apartments Low Rise	—	340	340	0.03	< 0.005	—	341
Regional Shopping Center	—	59.0	59.0	0.01	< 0.005	—	59.1
Total	—	9,976	9,976	0.88	0.02	—	10,004

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Hearths	0.00	20,466	20,466	0.39	0.04	—	20,487
Consumer Products	—	—	—	—	—	—	—
Architectural Coatings	—	—	—	—	—	—	—
Landscape Equipment	—	672	672	0.03	0.01	—	674
Total	0.00	21,138	21,138	0.41	0.04	—	21,162
Daily, Winter (Max)	—	—	—	—	—	—	—
Hearths	0.00	20,466	20,466	0.39	0.04	—	20,487
Consumer Products	—	—	—	—	—	—	—
Architectural Coatings	—	—	—	—	—	—	—
Total	0.00	20,466	20,466	0.39	0.04	—	20,487
Annual	—	—	—	—	—	—	—
Hearths	0.00	83.5	83.5	< 0.005	< 0.005	—	83.6
Consumer Products	—	—	—	—	—	—	—
Architectural Coatings	—	—	—	—	—	—	—
Landscape Equipment	—	54.9	54.9	< 0.005	< 0.005	—	55.1
Total	0.00	138	138	< 0.005	< 0.005	—	139

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Single Family Housing	272	2,354	2,626	28.3	0.71	—	3,545
Apartments Low Rise	22.4	42.3	64.7	2.30	0.06	—	139
Regional Shopping Center	24.6	46.4	70.9	2.53	0.06	—	152
Total	319	2,443	2,762	33.1	0.83	—	3,836
Daily, Winter (Max)	—	—	—	—	—	—	—
Single Family Housing	272	2,354	2,626	28.3	0.71	—	3,545
Apartments Low Rise	22.4	42.3	64.7	2.30	0.06	—	139
Regional Shopping Center	24.6	46.4	70.9	2.53	0.06	—	152
Total	319	2,443	2,762	33.1	0.83	—	3,836
Annual	—	—	—	—	—	—	—
Single Family Housing	45.1	390	435	4.69	0.12	—	587
Apartments Low Rise	3.71	7.00	10.7	0.38	0.01	—	23.0
Regional Shopping Center	4.07	7.68	11.7	0.42	0.01	—	25.2
Total	52.9	404	457	5.49	0.14	—	635

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Single Family Housing	504	0.00	504	50.4	0.00	—	1,763
Apartments Low Rise	44.2	0.00	44.2	4.42	0.00	—	155
Regional Shopping Center	97.9	0.00	97.9	9.78	0.00	—	343
Total	646	0.00	646	64.6	0.00	—	2,261
Daily, Winter (Max)	—	—	—	—	—	—	—
Single Family Housing	504	0.00	504	50.4	0.00	—	1,763
Apartments Low Rise	44.2	0.00	44.2	4.42	0.00	—	155
Regional Shopping Center	97.9	0.00	97.9	9.78	0.00	—	343
Total	646	0.00	646	64.6	0.00	—	2,261
Annual	—	—	—	—	—	—	—
Single Family Housing	83.4	0.00	83.4	8.34	0.00	—	292
Apartments Low Rise	7.32	0.00	7.32	0.73	0.00	—	25.6
Regional Shopping Center	16.2	0.00	16.2	1.62	0.00	—	56.7
Total	107	0.00	107	10.7	0.00	—	374

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	54.5	54.5
Apartments Low Rise	—	—	—	—	—	2.44	2.44
Regional Shopping Center	—	—	—	—	—	0.83	0.83
Total	—	—	—	—	—	57.8	57.8
Daily, Winter (Max)	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	54.5	54.5
Apartments Low Rise	—	—	—	—	—	2.44	2.44
Regional Shopping Center	—	—	—	—	—	0.83	0.83
Total	—	—	—	—	—	57.8	57.8
Annual	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	9.03	9.03
Apartments Low Rise	—	—	—	—	—	0.40	0.40
Regional Shopping Center	—	—	—	—	—	0.14	0.14
Total	—	—	—	—	—	9.57	9.57

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Single Family Housing	36,824	36,824	36,824	13,440,815	409,369	409,369	409,369	149,419,656
Apartments Low Rise	2,164	2,164	2,164	789,692	33,680	33,680	33,680	12,293,311

Regional Shopping Center	9,420	9,420	9,420	3,438,245	25,622	25,622	25,622	9,352,027
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5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	781
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	3124
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	164
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	157
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
16108895.25	5,369,632	260,235	86,745	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBtu/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBtu/yr)
Single Family Housing	24,151,866	204	0.0330	0.0040	180,496,605
Apartments Low Rise	1,203,907	204	0.0330	0.0040	6,406,938
Regional Shopping Center	1,478,280	204	0.0330	0.0040	1,111,646

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	142,112,029	667,208,833
Apartments Low Rise	11,681,936	0.00
Regional Shopping Center	12,814,546	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	935	0.00
Apartments Low Rise	82.1	0.00
Regional Shopping Center	182	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0

Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Regional Shopping Center	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Regional Shopping Center	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	18.2	annual days of extreme heat
Extreme Precipitation	3.80	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	30.0	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A

Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure. The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt. The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure. The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt. The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	26.8
AQ-PM	17.4
AQ-DPM	0.82
Drinking Water	12.4
Lead Risk Housing	21.4
Pesticides	0.00
Toxic Releases	53.4
Traffic	25.0
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	36.8
Haz Waste Facilities/Generators	44.7
Impaired Water Bodies	43.8
Solid Waste	11.6
Sensitive Population	—
Asthma	34.0
Cardio-vascular	30.0
Low Birth Weights	33.1
Socioeconomic Factor Indicators	—
Education	13.1
Housing	16.9
Linguistic	0.00
Poverty	4.27
Unemployment	7.77

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	99.43539074
Employed	68.38188118
Education	—
Bachelor's or higher	84.84537405
High school enrollment	18.45245733
Preschool enrollment	95.7141024
Transportation	—
Auto Access	90.86359553
Active commuting	72.02617734
Social	—
2-parent households	95.81675863
Voting	95.86808674
Neighborhood	—

Alcohol availability	90.50429873
Park access	39.63813679
Retail density	7.108943924
Supermarket access	15.0904658
Tree canopy	89.90119338
Housing	—
Homeownership	97.12562556
Housing habitability	89.1056076
Low-inc homeowner severe housing cost burden	79.5072501
Low-inc renter severe housing cost burden	59.77158989
Uncrowded housing	96.93314513
Health Outcomes	—
Insured adults	97.11279353
Arthritis	40.2
Asthma ER Admissions	76.8
High Blood Pressure	46.3
Cancer (excluding skin)	22.7
Asthma	72.9
Coronary Heart Disease	69.4
Chronic Obstructive Pulmonary Disease	79.3
Diagnosed Diabetes	85.5
Life Expectancy at Birth	78.2
Cognitively Disabled	94.6
Physically Disabled	80.2
Heart Attack ER Admissions	68.5
Mental Health Not Good	85.8
Chronic Kidney Disease	79.8
Obesity	57.4
Pedestrian Injuries	19.6
Physical Health Not Good	85.2
Stroke	84.7
Health Risk Behaviors	—
Binge Drinking	36.9
Current Smoker	90.3
No Leisure Time for Physical Activity	89.3
Climate Change Exposures	—
Wildfire Risk	0.7
SLR Inundation Area	0.0
Children	84.9
Elderly	16.2
English Speaking	95.2
Foreign-born	3.7
Outdoor Workers	62.2
Climate Change Adaptive Capacity	—
Impervious Surface Cover	80.8
Traffic Density	12.3
Traffic Access	23.0
Other Indices	—
Hardship	6.5
Other Decision Support	—
2016 Voting	82.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	4.00
Healthy Places Index Score for Project Location (b)	97.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

8. User Changes to Default Data

Screen	Justification
Land Use	Size, acreage, and population adjusted from CalEEMod defaults to project values.
Operations: Vehicle Data	Trip rate and vmt data adjusted to reflect conditions from traffic report

Clayton HEU 2040 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Clayton HEU 2040
Lead Agency	—
Land Use Scale	Plan/community
Analysis Level for Defaults	County
Windspeed (m/s)	3.60
Precipitation (days)	13.8
Location	Clayton, CA, USA
County	Contra Costa
City	Clayton
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1341
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Single Family Housing	4,106	Dwelling Unit	1,085	8,006,700	48,092,991	0.00	10,974	—
Apartments Low Rise	830	Dwelling Unit	29.0	879,800	0.00	0.00	2,425	—
Regional Shopping Center	193	1000sqft	29.8	193,490	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unmit.	1,125	460,360	461,485	133	13.1	252	468,968
Daily, Winter (Max)	—	—	—	—	—	—	—
Unmit.	1,125	435,128	436,254	134	14.3	69.6	443,948
Average Daily (Max)	—	—	—	—	—	—	—
Unmit.	1,125	411,375	412,501	133	13.8	146	420,076
Annual (Max)	—	—	—	—	—	—	—
Unmit.	186	68,108	68,294	22.1	2.28	24.1	69,548

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Mobile	—	345,863	345,863	10.1	11.6	187	349,766
Area	0.00	28,473	28,473	0.55	0.06	—	28,504
Energy	—	83,388	83,388	8.61	0.46	—	83,739
Water	372	2,636	3,008	38.5	0.96	—	4,257
Waste	754	0.00	754	75.3	0.00	—	2,637

Refrig.	—	—	—	—	—	64.7	64.7
Total	1,125	460,360	461,485	133	13.1	252	468,968
Daily, Winter (Max)	—	—	—	—	—	—	—
Mobile	—	321,415	321,415	11.2	12.9	4.86	325,532
Area	0.00	27,690	27,690	0.52	0.05	—	27,718
Energy	—	83,388	83,388	8.61	0.46	—	83,739
Water	372	2,636	3,008	38.5	0.96	—	4,257
Waste	754	0.00	754	75.3	0.00	—	2,637
Refrig.	—	—	—	—	—	64.7	64.7
Total	1,125	435,128	436,254	134	14.3	69.6	443,948
Average Daily	—	—	—	—	—	—	—
Mobile	—	324,282	324,282	10.7	12.3	80.9	328,307
Area	0.00	1,069	1,069	0.03	< 0.005	—	1,071
Energy	—	83,388	83,388	8.61	0.46	—	83,739
Water	372	2,636	3,008	38.5	0.96	—	4,257
Waste	754	0.00	754	75.3	0.00	—	2,637
Refrig.	—	—	—	—	—	64.7	64.7
Total	1,125	411,375	412,501	133	13.8	146	420,076
Annual	—	—	—	—	—	—	—
Mobile	—	53,689	53,689	1.77	2.04	13.4	54,355
Area	0.00	177	177	< 0.005	< 0.005	—	177
Energy	—	13,806	13,806	1.43	0.08	—	13,864
Water	61.5	436	498	6.38	0.16	—	705
Waste	125	0.00	125	12.5	0.00	—	437
Refrig.	—	—	—	—	—	10.7	10.7
Total	186	68,108	68,294	22.1	2.28	24.1	69,548

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Single Family Housing	—	267,448	267,448	7.54	8.80	145	270,405
Apartments Low Rise	—	58,673	58,673	1.44	1.78	32.1	59,273
Regional Shopping Center	—	19,741	19,741	1.13	1.04	10.1	20,088
Total	—	345,863	345,863	10.1	11.6	187	349,766
Daily, Winter (Max)	—	—	—	—	—	—	—
Single Family Housing	—	248,491	248,491	8.29	9.73	3.76	251,602
Apartments Low Rise	—	54,474	54,474	1.53	1.97	0.83	55,098
Regional Shopping Center	—	18,450	18,450	1.38	1.16	0.26	18,832
Total	—	321,415	321,415	11.2	12.9	4.86	325,532
Annual	—	—	—	—	—	—	—
Single Family Housing	—	41,509	41,509	1.32	1.55	10.4	42,013
Apartments Low Rise	—	9,101	9,101	0.25	0.31	2.29	9,203
Regional Shopping Center	—	3,078	3,078	0.21	0.18	0.72	3,139
Total	—	53,689	53,689	1.77	2.04	13.4	54,355

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Single Family Housing	—	14,192	14,192	2.30	0.28	—	14,333
Apartments Low Rise	—	1,740	1,740	0.28	0.03	—	1,757
Regional Shopping Center	—	924	924	0.15	0.02	—	933
Total	—	16,856	16,856	2.73	0.33	—	17,023
Daily, Winter (Max)	—	—	—	—	—	—	—
Single Family Housing	—	14,192	14,192	2.30	0.28	—	14,333
Apartments Low Rise	—	1,740	1,740	0.28	0.03	—	1,757
Regional Shopping Center	—	924	924	0.15	0.02	—	933
Total	—	16,856	16,856	2.73	0.33	—	17,023
Annual	—	—	—	—	—	—	—
Single Family Housing	—	2,350	2,350	0.38	0.05	—	2,373
Apartments Low Rise	—	288	288	0.05	0.01	—	291
Regional Shopping Center	—	153	153	0.02	< 0.005	—	154

Total	—	2,791	2,791	0.45	0.05	—	2,818
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4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Single Family Housing	—	60,824	60,824	5.38	0.11	—	60,993
Apartments Low Rise	—	5,309	5,309	0.47	0.01	—	5,324
Regional Shopping Center	—	398	398	0.04	< 0.005	—	400
Total	—	66,532	66,532	5.89	0.13	—	66,716
Daily, Winter (Max)	—	—	—	—	—	—	—
Single Family Housing	—	60,824	60,824	5.38	0.11	—	60,993
Apartments Low Rise	—	5,309	5,309	0.47	0.01	—	5,324
Regional Shopping Center	—	398	398	0.04	< 0.005	—	400
Total	—	66,532	66,532	5.89	0.13	—	66,716
Annual	—	—	—	—	—	—	—
Single Family Housing	—	10,070	10,070	0.89	0.02	—	10,098
Apartments Low Rise	—	879	879	0.08	< 0.005	—	881
Regional Shopping Center	—	66.0	66.0	0.01	< 0.005	—	66.2
Total	—	11,015	11,015	0.97	0.02	—	11,046

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Hearths	0.00	27,690	27,690	0.52	0.05	—	27,718
Consumer Products	—	—	—	—	—	—	—
Architectural Coatings	—	—	—	—	—	—	—
Landscape Equipment	—	783	783	0.03	0.01	—	786
Total	0.00	28,473	28,473	0.55	0.06	—	28,504
Daily, Winter (Max)	—	—	—	—	—	—	—
Hearths	0.00	27,690	27,690	0.52	0.05	—	27,718
Consumer Products	—	—	—	—	—	—	—
Architectural Coatings	—	—	—	—	—	—	—
Total	0.00	27,690	27,690	0.52	0.05	—	27,718
Annual	—	—	—	—	—	—	—
Hearths	0.00	113	113	< 0.005	< 0.005	—	113
Consumer Products	—	—	—	—	—	—	—
Architectural Coatings	—	—	—	—	—	—	—
Landscape Equipment	—	64.0	64.0	< 0.005	< 0.005	—	64.2
Total	0.00	177	177	< 0.005	< 0.005	—	177

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Single Family Housing	286	2,475	2,762	29.8	0.75	—	3,728
Apartments Low Rise	57.9	109	167	5.95	0.14	—	359
Regional Shopping Center	27.5	51.9	79.3	2.82	0.07	—	170
Total	372	2,636	3,008	38.5	0.96	—	4,257
Daily, Winter (Max)	—	—	—	—	—	—	—
Single Family Housing	286	2,475	2,762	29.8	0.75	—	3,728
Apartments Low Rise	57.9	109	167	5.95	0.14	—	359
Regional Shopping Center	27.5	51.9	79.3	2.82	0.07	—	170
Total	372	2,636	3,008	38.5	0.96	—	4,257
Annual	—	—	—	—	—	—	—
Single Family Housing	47.4	410	457	4.93	0.12	—	617
Apartments Low Rise	9.58	18.1	27.7	0.99	0.02	—	59.4
Regional Shopping Center	4.55	8.59	13.1	0.47	0.01	—	28.2
Total	61.5	436	498	6.38	0.16	—	705

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Single Family Housing	530	0.00	530	53.0	0.00	—	1,854
Apartments Low Rise	114	0.00	114	11.4	0.00	—	400
Regional Shopping Center	109	0.00	109	10.9	0.00	—	383
Total	754	0.00	754	75.3	0.00	—	2,637
Daily, Winter (Max)	—	—	—	—	—	—	—
Single Family Housing	530	0.00	530	53.0	0.00	—	1,854
Apartments Low Rise	114	0.00	114	11.4	0.00	—	400
Regional Shopping Center	109	0.00	109	10.9	0.00	—	383
Total	754	0.00	754	75.3	0.00	—	2,637
Annual	—	—	—	—	—	—	—
Single Family Housing	87.7	0.00	87.7	8.77	0.00	—	307
Apartments Low Rise	18.9	0.00	18.9	1.89	0.00	—	66.2
Regional Shopping Center	18.1	0.00	18.1	1.81	0.00	—	63.4
Total	125	0.00	125	12.5	0.00	—	437

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	57.3	57.3
Apartments Low Rise	—	—	—	—	—	6.30	6.30
Regional Shopping Center	—	—	—	—	—	1.10	1.10
Total	—	—	—	—	—	64.7	64.7
Daily, Winter (Max)	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	57.3	57.3
Apartments Low Rise	—	—	—	—	—	6.30	6.30
Regional Shopping Center	—	—	—	—	—	1.10	1.10
Total	—	—	—	—	—	64.7	64.7
Annual	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	9.49	9.49
Apartments Low Rise	—	—	—	—	—	1.04	1.04
Regional Shopping Center	—	—	—	—	—	0.18	0.18
Total	—	—	—	—	—	10.7	10.7

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Single Family Housing	38,720	38,720	38,720	14,132,647	414,817	414,817	414,817	151,408,273
Apartments Low Rise	5,594	5,594	5,594	2,041,883	91,665	91,665	91,665	33,457,723

Regional Shopping Center	10,536	10,536	10,536	3,845,469	28,867	28,867	28,867	10,536,584
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5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	821
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	3285
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	423
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	407
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
17995162.5	5,998,388	290,235	96,745	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBtu/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBtu/yr)
Single Family Housing	25,395,023	204	0.0330	0.0040	189,787,211
Apartments Low Rise	3,112,905	204	0.0330	0.0040	16,566,226
Regional Shopping Center	1,653,367	204	0.0330	0.0040	1,243,309

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	149,426,886	701,551,716
Apartments Low Rise	30,205,630	0.00
Regional Shopping Center	14,332,292	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	983	0.00
Apartments Low Rise	212	0.00
Regional Shopping Center	203	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0

Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Regional Shopping Center	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Regional Shopping Center	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
----------------	-----------	-------------	----------------	---------------	------------	-------------

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	18.2	annual days of extreme heat
Extreme Precipitation	3.80	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	30.0	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A

Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure. The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt. The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure. The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt. The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	26.8
AQ-PM	17.4
AQ-DPM	0.82
Drinking Water	12.4
Lead Risk Housing	21.4
Pesticides	0.00
Toxic Releases	53.4
Traffic	25.0
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	36.8
Haz Waste Facilities/Generators	44.7
Impaired Water Bodies	43.8
Solid Waste	11.6
Sensitive Population	—
Asthma	34.0
Cardio-vascular	30.0
Low Birth Weights	33.1
Socioeconomic Factor Indicators	—
Education	13.1
Housing	16.9
Linguistic	0.00
Poverty	4.27
Unemployment	7.77

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	99.43539074
Employed	68.38188118
Education	—
Bachelor's or higher	84.84537405
High school enrollment	18.45245733
Preschool enrollment	95.7141024
Transportation	—
Auto Access	90.86359553
Active commuting	72.02617734
Social	—
2-parent households	95.81675863

Voting	95.86808674
Neighborhood	—
Alcohol availability	90.50429873
Park access	39.63813679
Retail density	7.108943924
Supermarket access	15.0904658
Tree canopy	89.90119338
Housing	—
Homeownership	97.12562556
Housing habitability	89.1056076
Low-inc homeowner severe housing cost burden	79.5072501
Low-inc renter severe housing cost burden	59.77158989
Uncrowded housing	96.93314513
Health Outcomes	—
Insured adults	97.11279353
Arthritis	40.2
Asthma ER Admissions	76.8
High Blood Pressure	46.3
Cancer (excluding skin)	22.7
Asthma	72.9
Coronary Heart Disease	69.4
Chronic Obstructive Pulmonary Disease	79.3
Diagnosed Diabetes	85.5
Life Expectancy at Birth	78.2
Cognitively Disabled	94.6
Physically Disabled	80.2
Heart Attack ER Admissions	68.5
Mental Health Not Good	85.8
Chronic Kidney Disease	79.8
Obesity	57.4
Pedestrian Injuries	19.6
Physical Health Not Good	85.2
Stroke	84.7
Health Risk Behaviors	—
Binge Drinking	36.9
Current Smoker	90.3
No Leisure Time for Physical Activity	89.3
Climate Change Exposures	—
Wildfire Risk	0.7
SLR Inundation Area	0.0
Children	84.9
Elderly	16.2
English Speaking	95.2
Foreign-born	3.7
Outdoor Workers	62.2
Climate Change Adaptive Capacity	—
Impervious Surface Cover	80.8
Traffic Density	12.3
Traffic Access	23.0
Other Indices	—
Hardship	6.5
Other Decision Support	—
2016 Voting	82.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	4.00
Healthy Places Index Score for Project Location (b)	97.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Healthy Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

8. User Changes to Default Data

Screen	Justification
--------	---------------

Land Use	Size and population adjusted from CalEEMod defaults to project values.
Operations: Vehicle Data	Trip rate and VMT data from traffic report

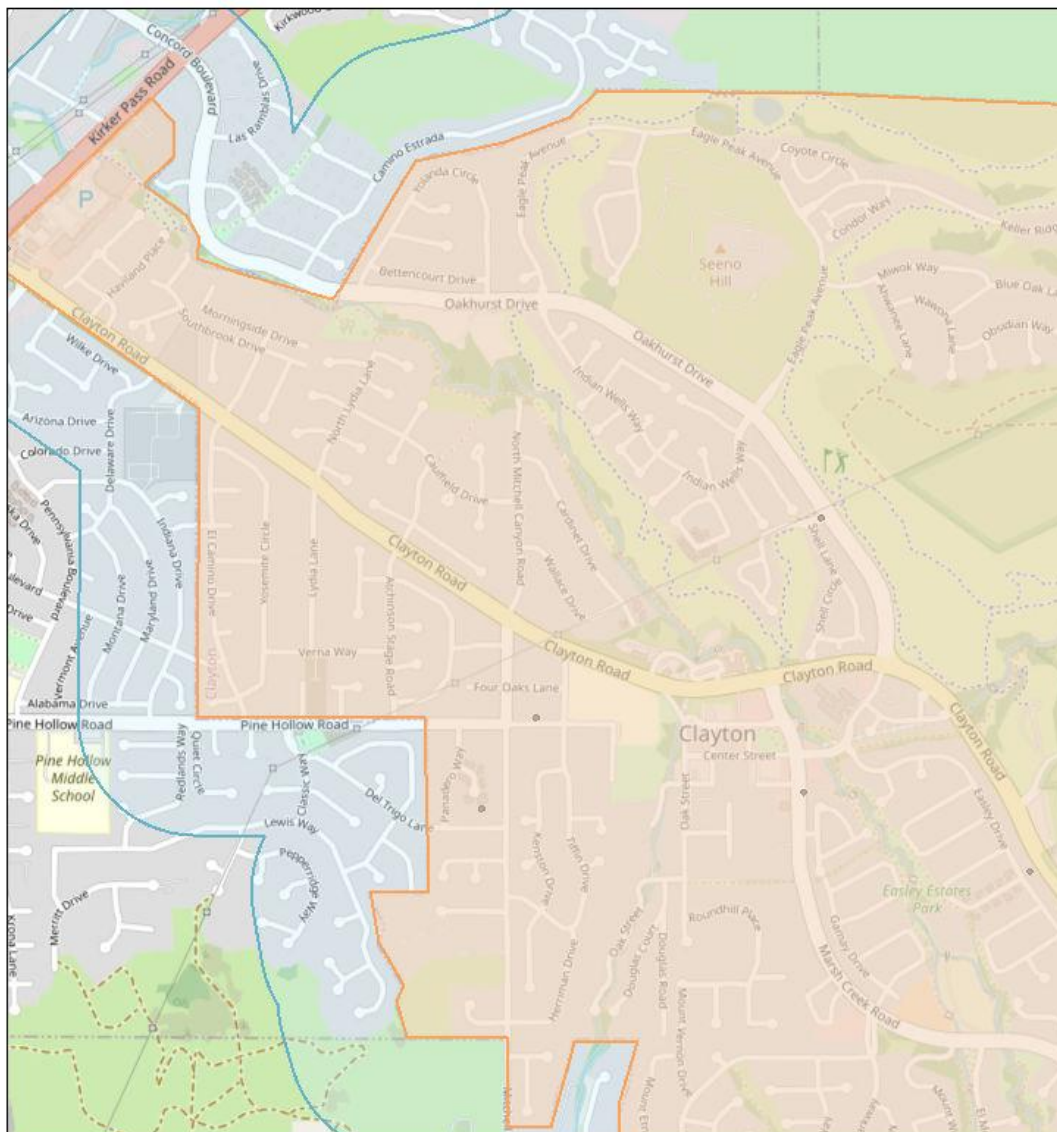


Screening Report

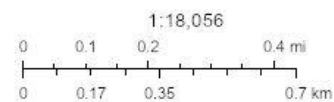
Area of Interest (AOI) Information

Area : 161,788,744.35 ft²

Jul 4 2022 13:12:08 Pacific Daylight Time



- Permitted Stationary Sources



Map data © OpenStreetMap contributors, CC-BY-SA

Summary

Name	Count	Area(ft²)	Length(ft)
Permitted Stationary Sources	11	N/A	N/A

Permitted Stationary Sources

#	FacID	FacName	Address	City	Street
1	13456	Pacific Bell	6191 High Street	Clayton	CA
2	828	CEMEX Construction Materials Pacific, LLC	515 Mitchell Canyon Rd	Clayton	CA
3	896	Hanson Aggregates	Pine Hollow Road	Clayton	CA
4	14041	Contra Costa Water District	Peacock Creek Drive	Clayton	CA
5	20147	Contra Costa Water District	Marsh Crk Rd, Seminary Pump Statio	Clayton	CA
6	17047	Verizon Wireless (Marsh Creeks)	Seminry Wtr Tnks	Clayton	CA
7	24666	Outdoor Supply Hardware	5424 Ygnacio Valley Rd	Concord	CA
8	111172_1	Oakhurst C C	2500 Indianhead Way	Clayton	CA
9	111574_1	Clayton Valley Shell	1500 Kirker Pass Rd	Concord	CA
10	111889_1	Double AA Corporation dba Clayton Valero	5399 Clayton Rd	Concord	CA
11	828_19	CEMEX Construction Materials Pacific, LLC	515 Mitchell Canyon Rd	Clayton	CA

#	Zip	County	Latitude	Longitude	Details
1	94,517.00	Contra Costa	37.94	-121.93	Generator
2	94,517.00	Contra Costa	37.94	-121.94	No Data
3	94,517.00	Contra Costa	37.94	-121.94	No Data
4	94,517.00	Contra Costa	37.94	-121.93	Generator
5	94,517.00	Contra Costa	37.93	-121.91	Generator
6	94,517.00	Contra Costa	37.93	-121.92	Generator
7	94,521.00	Contra Costa	37.95	-121.96	Generator
8	94,517.00	Contra Costa	37.95	-121.93	Gas Dispensing Facility
9	94,521.00	Contra Costa	37.95	-121.96	Gas Dispensing Facility
10	94,521.00	Contra Costa	37.95	-121.96	Gas Dispensing Facility
11	94,517.00	Contra Costa	37.94	-121.94	Gas Dispensing Facility

#	NAICS	Sector	Sub_Sector	Industry	ChronicHI
1	517,110.00	Information	Telecommunications	Wired Telecommunications Carriers	0.0163959
2	212,312.00	Mining, Quarrying, and Oil and Gas Extraction	Mining (except Oil and Gas)	Crushed and Broken Limestone Mining and Quarrying	0.0000000
3	212,319.00	Mining, Quarrying, and Oil and Gas Extraction	Mining (except Oil and Gas)	Other Crushed and Broken Stone Mining and Quarrying	0.0000000
4	221,310.00	Utilities	Utilities	Water Supply and Irrigation Systems	0.0004502
5	221,310.00	Utilities	Utilities	Water Supply and Irrigation Systems	0.0053174
6	517,210.00	Information	Telecommunications	Wireless Telecommunications Carriers (except Satellite)	0.0022420
7	444,110.00	Retail Trade	Building Material and Garden Equipment and Supplies Dealers	Home Centers	0.0000250
8	447,110.00	Retail Trade	Gasoline Stations	Gasoline Stations with Convenience Stores	0.0028298
9	447,110.00	Retail Trade	Gasoline Stations	Gasoline Stations with Convenience Stores	0.1008684
10	447,110.00	Retail Trade	Gasoline Stations	Gasoline Stations with Convenience Stores	0.0566049
11	212,312.00	Mining, Quarrying, and Oil and Gas Extraction	Mining (except Oil and Gas)	Crushed and Broken Limestone Mining and Quarrying	0.0028663

#	PM2_5	Cancer Risk {expression/expr0}	Chronic Hazard Index {expression/expr1}	PM2.5 {expression/expr2}	Count
1	0.0135131	10.596	0.016	0.014	1
2	10.1171592	No Data	No Data	10.117	1
3	20.7313537	No Data	No Data	20.731	1
4	0.0021093	1.675	0	0.002	1
5	0.0026402	2.084	0.005	0.003	1
6	0.0027763	2.153	0.002	0.003	1
7	0.0002428	0.004	0	0	1
8	0.0000000	0.591	0.003	No Data	1
9	0.0000000	21.061	0.101	No Data	1
10	0.0000000	11.819	0.057	No Data	1
11	0.0000000	0.578	0.003	No Data	1

NOTE: A larger buffer than 1000 feet may be warranted depending on proximity to significant sources.

Clayton Housing Element Update

City of Clayton, California

Appendix C: Energy Consumption Information

Prepared by: MIG, Inc.

August 2022

Appendix Contents

[Sheet 1](#) Energy Consumption Comparison Tables

[Sheet 2](#) EMFAC2021 Contra Costa County Fuel Efficiency Estimates for 2020 and 2040

Clayton Housing Element Update
City of Clayton, California
Appendix C: Energy Consumption Information

Sheet 1: Energy Consumption Comparison Tables

Table 1: Estimated Operational Change in Vehicle Fuel Consumption (2020 vs. 2040)					
Metric	VMT and Vehicle Fuel Consumption			Fuel Consumption Comparison	
	2020	2040 NP	2040 HEU	Change 2020 and 2040 HEU	Change 2040 NP and 2040 HEU
Total Diesel VMT	28,340	20,122	23,099	-5,241	2,977
Total Gasoline VMT	440,201	425,860	488,868	48,667	63,008
Total Electric VMT	10,198	56,394	64,738	54,539	8,344
Total VMT (miles/day)	478,740	502,376	576,705	97,965	74,329
Diesel Fuel Efficiency (miles/gal)	8.16	9.29	9.29	1.13	0
Gasoline Fuel Efficiency (miles/gal)	23.04	31.34	31.34	8.30	0
Electric Fuel Efficiency (miles per kWh)	2.72	2.05	2.05	-0.67	0
Total Diesel Consumption (Gallons/day)	3,474	2,167	2,487	-987	321
Total Gasoline Consumption (Gallons/day)	19,106	13,589	15,600	-3,507	2,011
Total Electricity Consumption (kWh/day)	3,750	27,572	31,651	27,902	4,079
Total Electricity Consumption (kWh/year)	1,368,577	10,063,806	11,552,795	10,184,218	1,488,990
Total Petroleum Consumption (Gallons/day)	22,580	15,756	18,087	-4,493	2,331
Service Population (SP)	11,954	12,233	14,397	2,443	2,164
Fuel Consumption Efficiency (Gallons/day/SP)	1.89	1.29	1.26	-0.63	-0.03

Clayton Housing Element Update
City of Clayton, California
Appendix C: Energy Consumption Information

Sheet 2: Average Fuel Efficiency - Contra Costa County
EMFAC2021 Contra Costa County Fuel Efficiency Estimates for 2020 and 2040

Vehicle Class	Population	Vehicle Miles Travelled Per Day	Gallons Per Day	Miles Per Gallon
HHDT	2.09	41.87	14.28	2.93
LDA	355,539.99	11,041,384.46	395,231.70	27.94
LDT1	37,481.50	1,095,459.20	46,216.81	23.70
LDT2	150,225.46	5,028,480.29	226,024.05	22.25
LHDT1	13,115.25	401,476.06	44,969.99	8.93
LHDT2	1,492.32	45,180.52	5,654.55	7.99
MCY	18,432.85	89,825.47	2,264.90	39.66
MDV	102,509.84	3,187,211.01	174,814.45	18.23
MH	2,148.02	16,290.69	3,691.25	4.41
MHDT	805.58	30,859.56	6,931.58	4.45
OBUS	289.36	11,907.99	2,595.20	4.59
SBUS	63.70	2,848.09	287.98	9.89
UBUS	101.20	5,523.01	895.87	6.17
TOTAL	682,207.16	20,956,488.23	909,592.61	23.04

Vehicle Class	Population	Vehicle Miles Travelled Per Day	Gallons Per Day	Miles Per Gallon
HHDT	4690.28	574168.20	102195.83	5.62
LDA	1736.22	46613.98	1110.89	41.96
LDT1	25.87	299.75	12.33	24.30
LDT2	577.08	21063.36	694.52	30.33
LHDT1	8595.89	273879.05	17529.60	15.62
LHDT2	3062.23	102763.49	8070.94	12.73
MCY	0.00	0.00	0.00	0.00
MDV	1606.66	57380.29	2446.50	23.45
MH	772.26	6456.30	685.80	9.41
MHDT	5537.72	224095.55	26895.85	8.33
OBUS	130.96	8958.54	1300.96	6.89
SBUS	418.66	10051.39	1224.00	8.21
UBUS	227.39	23446.33	3213.30	7.30
TOTAL	27381.21	1349176.24	165380.53	8.16

Vehicle Class	Population	Vehicle Miles Travelled Per Day	Gallons Per Day	Miles Per Gallon
HHDT	0.73	98.22	21.01	4.67
LDA	359,502.62	13,745,152.44	371,832.60	36.97
LDT1	23,417.89	873,516.81	27,722.37	31.51
LDT2	182,731.93	7,284,273.61	237,277.82	30.70
LHDT1	9,422.03	339,967.74	30,820.97	11.03
LHDT2	1,064.97	38,152.26	3,876.93	9.84
MCY	18,316.29	104,684.21	2,425.25	43.16
MDV	108,224.54	4,109,458.88	163,459.33	25.14
MH	1,081.59	11,862.55	2,682.10	4.42
MHDT	539.17	28,796.84	5,318.81	5.41
OBUS	151.43	5,364.18	994.21	5.40
SBUS	93.51	5,198.25	479.30	10.85
UBUS	63.44	2,864.01	284.08	10.08
TOTAL	704,610.14	26,549,390.01	847,194.77	31.34

Vehicle Class	Population	Vehicle Miles Travelled Per Day	Gallons Per Day	Miles Per Gallon
HHDT	5674.01	648980.18	90319.27	7.19
LDA	297.18	9062.52	168.96	53.64
LDT1	0.28	10.09	0.35	28.79
LDT2	682.96	27689.02	694.05	39.90
LHDT1	6291.94	222881.27	13487.61	16.52
LHDT2	2958.94	102410.08	7258.78	14.11
MCY	0.00	0.00	0.00	0.00
MDV	1244.06	46402.16	1545.26	30.03
MH	721.83	6887.36	736.72	9.35
MHDT	4445.70	168297.18	18218.43	9.24
OBUS	168.94	10153.70	1290.43	7.87
SBUS	359.04	7097.79	826.58	8.59
UBUS	37.76	4568.80	519.96	0.00
TOTAL	22882.65	1254440.17	135066.40	9.29

Appendix C: Energy Consumption Information

Sheet 2: Average Fuel Efficiency - Contra Costa County

EMFAC2021 Contra Costa County Fuel Efficiency Estimates for 2020 and 2040

Table 5: 2020 Contra Costa County Average Vehicle Fuel Efficiency (Electricity)				
Vehicle Class	Population	Vehicle Miles Travelled Per Day	Energy Consumption (kWh/day)	Miles Per kWh
HHDT	0.00	0.00	0.00	0.00
LDA	16,175.70	469,365.41	172,804.41	2.72
LDT1	57.54	1,621.70	622.95	2.60
LDT2	308.35	6,747.27	2,135.74	3.16
LHDT1	0.00	0.00	0.00	0.00
LHDT2	0.00	0.00	0.00	0.00
MCY	0.00	0.00	0.00	0.00
MDV	366.36	7,444.57	2,353.24	3.16
MH	0.00	0.00	0.00	0.00
MHDT	0.00	0.00	0.00	0.00
OBUS	0.00	0.00	0.00	0.00
SBUS	0.00	0.00	0.00	0.00
UBUS	12.11	336.06	585.84	0.57
TOTAL	16,920.06	485,515.01	178,502.17	2.72

Table 6: 2040 Contra Costa County Average Vehicle Fuel Efficiency (Electricity)				
Vehicle Class	Population	Vehicle Miles Travelled Per Day	Energy Consumption (kWh/day)	Miles Per kWh
HHDT	1,388.67	121,970.54	225,353.62	0.54
LDA	60,807.50	2,282,512.87	849,456.52	2.69
LDT1	926.10	33,913.50	12,200.77	2.78
LDT2	10,469.66	296,361.52	105,161.96	2.82
LHDT1	6,072.99	306,575.89	200,885.65	1.53
LHDT2	1,509.22	73,582.68	47,448.15	1.55
MCY	0.00	0.00	0.00	0.00
MDV	8,382.00	236,812.64	85,829.14	2.76
MH	0.00	0.00	0.00	0.00
MHDT	2,721.19	133,539.52	145,379.90	0.92
OBUS	55.59	4,318.52	4,784.26	0.90
SBUS	144.64	4,668.67	4,918.24	0.95
UBUS	243.03	21,515.04	37,505.97	0.57
TOTAL	92,720.60	3,515,771.42	1,718,924.17	2.05

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to **Dana Ayers, AICP, Clayton Community Development Director**
from **Elizabeth Kempton (MIG)**
re **Clayton Housing Element Update Planning Level Biological Constraints Analysis**
date **July 7, 2022**

Introduction and Purpose

As requested by the City of Clayton, MIG has conducted a planning-level biological constraints analysis for 18 candidate sites to include in the updated General Plan Housing Element. The sites evaluated in this analysis are identified in Table 1 immediately below, and in Figure 1.

The purpose of this planning level biological constraints analysis is to identify the sensitive biological resources that could potentially be impacted by development of the sites. Impacts to sensitive biological resources triggers CEQA mitigation measures and could require permits from state and federal regulatory agencies under the Clean Water Act, the Porter Cologne Water Protection Act, and/or the state and federal endangered species acts. Permit conditions could potentially constrain future development by dictating the location of building envelopes, and possibly reducing the total number of units that can be developed on a particular site. The permit process also prolongs the timeline for project approval and increases costs.

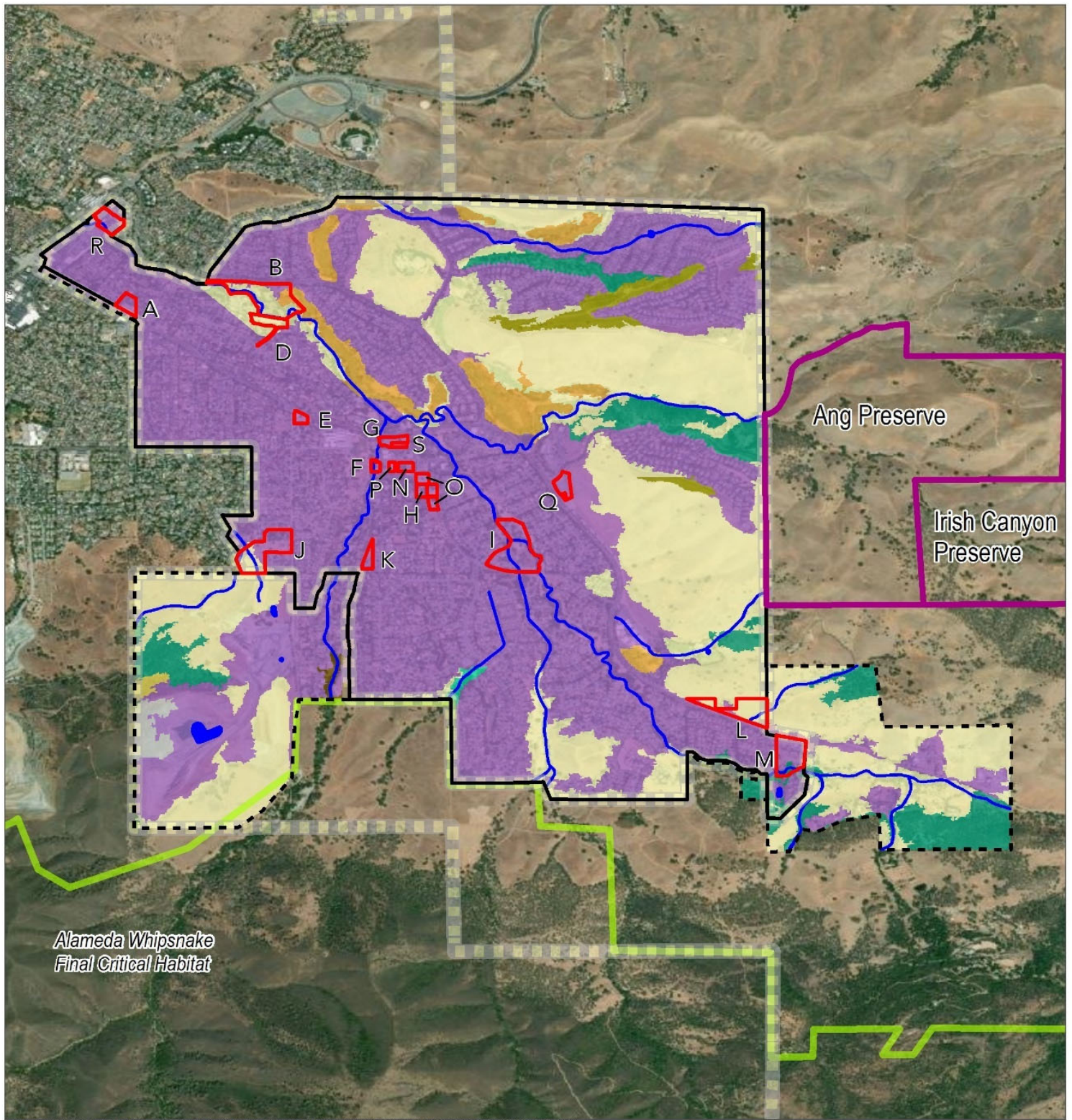
The following biological resources were considered as part of this planning-level biological constraints analysis:

- Species listed as threatened or endangered under the Federal Endangered Species Act
- Species listed as threatened or endangered under the California Endangered Species Act
- California species of special concern or species listed on the California Native Plant Society statewide inventory of rare plants
- Aquatic resources potentially subject to state and federal jurisdiction under the federal Clean Water Act (Sections 404 and 401), the state Porter Cologne Act, and/or California Fish and Game Code (Section 1600).

This report provides a summary of the potential biological constraints on development of the 18 properties of interest in the context of CEQA, and other applicable laws and regulations. This analysis is preliminary in nature. A field visit would be necessary to fully evaluate resources on the ground and to put the planning-level biological constraints analysis into context. As such, the results of this analysis are not final or exhaustive and should only be used for very basic planning purposes. The following sections explain the methods used, the results, and recommendations.

Table 1
Proposed Housing Element Sites

Site	Parcel Numbers (Acres)	Address, Intersection, or General Location Description
A	118-101-025 (2.38)	5555 Clayton Rd
B	118-020-029 (13.91)	5701 Clayton Rd
D	118-230-002 (2.86)	Diablo Creek Pl near its intersection with Caulfield Dr
E	120-015-011 (1.08)	Clayton Rd at Mitchell Canyon Rd
F	119-050-034 (0.29) 119-050-009 (0.22) 119-050-008 (0.28)	1005 Oak St
G	118-560-010 (1.66)	6005 Main St
H	119-021-054 (1.16)	6470 Marsh Creek Rd
I	119-080-009 (13.23)	6955 Marsh Creek Rd
J	121-090-016 (4.51) 121-090-011 (4.1) 121-090-012 (2.36)	Mitchell Canyon Rd near its intersection with Mitchell Canyon Ct
K	119-560-012 (1.47)	500 Douglas Rd
L	119-070-008 (8.04)	Marsh Creek Rd
M	078-020-006 (5.86) 078-020-007 (2.21)	1080 Pine Ln
N	119-017-003 (0.43) 119-017-004 (0.63)	Center St At Diablo St
O	119-021-013 (0.87) 119-021-063 (1.11) 119-021-055 (0.95)	6490 Marsh Creek Rd
P	119-016-009 (0.46)	1015 Diablo St
Q	118-370-073 (2.55)	Clayton Rd At Peacock Creek Dr
R	118-031-054 (3.68)	1578 Kirker Pass Rd
S	119-011-003 (0.58)	6055 Main St



Source: ESRI 2022, Conservation Lands Network 2019, City of Clayton 2022, USFWS 2022, ECCC NCCP/HCP 2006-2022, MIG, 2022

- Legend**
- Proposed Housing Element Sites
 - Clayton Sphere of Influence
 - Clayton City Boundary
 - NWI Wetlands
 - Alameda Whipsnake - Final Critical Habitat
 - East Contra Costa County NCCP/HCP
 - HCP Preserve System

General Vegetation Types:

- | | |
|--|---|
| Barren | Gray Pine |
| Blue Oak | Non-Native/Ornamental Grass |
| Chamise | Riparian Mixed Hardwood |
| Coast Live Oak | Urban/Developed (General) |
| Coyote Brush | Warm Grasslands |

Figure 4.4-1. Biological Resources Constraints Map
Clayton Housing Element

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Methods

MIG biologist Elizabeth Kempton, PhD, conducted a planning level biological constraints analysis by reviewing database information about the sensitive biological resources potentially present within or near the 18 candidate housing sites. The following sources of information were reviewed and are hereby incorporated by reference:

- California Natural Diversity Database (CNDDDB) record search for the five U.S. Geological Survey (USGS) 7.5-minute quadrangle for *Clayton* (where the study area occurs) and the surrounding 8 quadrangles including *Tassajara*, *Diablo*, *Antioch South*, *Antioch North*, *Walnut Creek*, *Honker Bay*, *Vine Hill*, and *Las Trampas Ridge* (CNDDDB 2022)
- CNPS Rare Plant Program Inventory of Rare and Endangered Plants of California for the 7-5-minute quadrangles listed above (CNPS 2022) for Ranks 1-4 (rareplants.cnps.org)
- Species list information for the vicinity from the website of the U.S. Fish and Wildlife Service (USFWS) (<https://ecos.fws.gov/ipac/>)
- Aerial photographs obtained from Google Earth Pro (Google, Inc. 2022)
- U.S. Fish and Wildlife Service National Wetlands Inventory for any existing aquatic features, including wetlands, streams, and sloughs (USFWS 2022)
- Calflora: Information on California plants for education, research, and conservation. [<https://www.calflora.org/entry/help/layer-help.html>].
- Conservation Lands Network CLN 2.0 Vegetation Map in *CLN Explorer 2.0* [<https://www.bayarealands.org/explorer-tool/>]
- East Contra Costa County Habitat Conservation Plan / Natural Community Conservation Plan (ECCC HCP/NCCP, Contra Costa County 2006)

A habitat evaluation for the potential of sensitive species to occur within the Planning Area and/or areas planned for proposed zoning changes (RHNA Sites) is provided in the last column of Table 2. Some of these species have low potential to occur or are not expected to occur due to the marginal suitable habitat available or lack of habitat within the Planning Area/Sites and are indicated with the heading "Not Expected." However, some species, which are indicated with the heading "May be Present" have some potential to occur due to remnant natural habitats or the ability of the species to thrive in developed urban areas. A succinct justification for each determination is also provided in Table 2.

Results

The Planning Area is located on the Clayton 7.5-minute series United States Geological Survey (USGS) topographic quadrangle map. The topography of the Planning Area ranges from approximately 300 to 1,300 feet above mean sea level (AMSL), sloping roughly north to the south, with higher elevations southern areas of the Planning Area at the foothills of Mount Diablo. Most of the city of Clayton is developed, and most undeveloped areas are located within the Sphere of Influence for the city. Undeveloped areas within the city largely consist of areas earthen waterways (Peacock Creek, Mount Diablo Creek, Donner Creek, etc.) and natural parks/open space. Most of the larger undeveloped portions are situated in the periphery of the southern and eastern portions of the Planning Area. The project is located within the East Contra Costa County Habitat Conservation Plan / Natural Community Conservation Plan (ECCC HCP/NCCP) which provides a framework for development within the city. The Mount Diablo area just south of Clayton is known to support a wide range of biodiversity; however, most of this is not located with urban and developed areas of the city of Clayton.

Wildlife and Sensitive Species

Wildlife known to occur within the Planning Area consists of avian, reptile, and mammal species that may occupy urban and/or natural areas. The vast majority of wildlife species diversity occurs just outside in the Planning Area within Mount Diablo State Park and Lime Ridge Open Space; however, some disjunction populations of some rare species may occur within undeveloped portions of the city of Clayton (such as Peacock Creek, Mount Diablo Creek, Donner Creek, Mitchell Creek, other waterways, and natural parks) as well as within urbanized areas. Historical occurrences of species previously found in the vicinity of Clayton area shown in Table 4.4-1 and consists of approximately 97 sensitive/special-status species and 4 sensitive Natural Communities. The "sensitive" or "special" label denotes a species as a State or Federally listed threatened or endangered species and/or a potential candidate for threatened or endangered listing. The United States Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), California Native Plant Society (CNPS), California Natural Diversity Database (CNDDB) recorded the following species in Table 4.4-1 as historically occurring within a 9-quad radius of the Planning Area.

A habitat evaluation for the potential of sensitive species to occur within the Planning Area and/or areas planned for proposed zoning changes (RHNA Sites) is provided in the last column of Table 4.4-1. Some of these species have low potential to occur or are not expected to occur due to the marginal suitable habitat available or lack of habitat within the Planning Area/RHNA Sites and are indicated with the heading "Not Expected." However, some species, which are indicated with the heading "May be Present" have some potential to occur due to remnant natural habitats or the ability of the species to thrive in developed urban areas. A succinct justification for each determination is also provided in Table 4.4-1.

Sensitive Biological Resources Potentially Present on Project Sites

Special-Status Species. Based on a review of databases and a desktop habitat assessment approximately 33 special status species were determined to "May be Present" within the Planning Area, with potential to occur on at least some of the RHNA Sites. Most of the RHNA Sites are located within or adjacent to streams, riparian woodlands, and/or other suitable habitats that could potentially support these sensitive species, including the following RHNA Sites: B, D, F, G, I, J, L, M, Q and R. While field surveys are required to confirm for compliance with the ECCC HCP/NCCP, RHNA Sites located in urban and well-developed areas are significantly less likely to support most of these species include the following RHNA Sites: A, E, H, K, N, O, P, S.

Jurisdictional Wetlands. Multiple wetlands are mapped within the Planning Area by the United States Fish and Wildlife Service National Wetlands Inventory (NWI, see Figure 1). Although a field delineation would be needed to confirm this, it is highly likely that wetlands under federal and State jurisdiction are assumed present on some of the RHNA Sites, including on the following RHNA Sites: B, D, F, G, I, J, L, M, and R. The United States Army Corps of Engineers uses the 1987 *Corps of Engineers Wetlands Delineation Manual* and regional supplements to define wetlands under Section 404 of the federal Clean Water Act using three criteria: hydrophytic (water-loving) vegetation, hydric soils, and hydrology. An area that meets all three criteria is considered a wetland under federal and State jurisdiction.

Table 2
Federal- and State-Listed Species and other Special Status Species

Type	Scientific Name	Common Name	Federal, State, or Other Status	General Habitat	Probability to occur within the Planning Area and/or RHNA Sites
Amphibians	<i>Ambystoma californiense</i> pop. 1	California tiger salamander - central California DPS	FT, ST, WL	Cismontane woodland, Meadow & seep, Riparian woodland, Valley & foothill grassland, Vernal pool, Wetland	May be Present. Riparian woodlands and similar habitats are known to occur within the Planning Area that could support this species.
	<i>Rana boylei</i>	foothill yellow-legged frog	SE, SSC	Aquatic, Chaparral, Cismontane woodland, Coastal scrub, Klamath/North coast flowing waters, Lower montane coniferous forest, Meadow & seep, Riparian Forest, Riparian woodland, Sacramento/San Joaquin flowing waters	May be Present. Riparian woodlands and similar habitats are known to occur within the Planning Area that could support this species.
	<i>Rana draytonii</i>	California red-legged frog	FT, SSC	Aquatic, Artificial flowing waters, Artificial standing waters, Freshwater marsh, Marsh & swamp, Riparian Forest, Riparian scrub, Riparian woodland, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, South coast flowing waters, South coast standing waters, Wetland	May be Present. Riparian woodlands and similar habitats are known to occur within the Planning Area that could support this species.
Birds	<i>Agelaius tricolor</i>	tricolored blackbird	ST, SSC	Freshwater marsh, Marsh & swamp, Swamp, Wetland	May be Present. Wetlands and similar habitats are known to occur within the Planning Area that could support this species.
	<i>Aquila chrysaetos</i>	golden eagle	FP, WL	Broadleaved upland forest, Cismontane woodland, Coastal prairie, Great Basin grassland, Great Basin scrub, Lower montane coniferous forest, Pinon & juniper woodlands, Upper montane coniferous forest, Valley & foothill grassland	May be Present. Woodlands, grasslands, and similar habitats are known to occur within the Planning Area that could support this species.
	<i>Asio flammeus</i>	short-eared owl	SSC	Great Basin grassland, Marsh & swamp, Meadow & seep, Valley & foothill grassland, Wetland	May be Present. Wetlands, grasslands, and similar habitats are known to occur within the Planning Area that could support this species.
	<i>Athene cunicularia</i>	burrowing owl	SSC	Coastal prairie, Coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran Desert scrub, Valley & foothill grassland	May be Present. Disturbed areas, scrublands, grasslands, and similar habitats are known to occur within the Planning Area that could support this species.
	<i>Buteo regalis</i>	ferruginous hawk	WL	Great Basin grassland, Great Basin scrub, Pinon & juniper woodlands, Valley & foothill grassland	May be Present. Scrublands, grasslands, and similar habitats are known to occur within the Planning Area that could support this species.
	<i>Buteo swainsoni</i>	Swainson's hawk	ST	Great Basin grassland, Riparian Forest, Riparian woodland, Valley & foothill grassland	May be Present. Riparian woodlands, grasslands, and similar habitats are known to occur within the Planning Area that could support this species.

Clayton Housing Element Update
Biological Constraints Analysis

Type	Scientific Name	Common Name	Federal, State, or Other Status	General Habitat	Probability to occur within the Planning Area and/or RHNA Sites
	<i>Circus hudsonius</i>	northern harrier	SSC	Coastal scrub, Great Basin grassland, Marsh & swamp, Riparian scrub, Valley & foothill grassland, Wetland	May be Present. Scrublands, grasslands, and similar habitats are known to occur within the Planning Area that could support this species.
	<i>Coturnicops noveboracensis</i>	yellow rail	SSC	Freshwater marsh, Meadow & seep	May be Present. Wetlands and similar habitats are known to occur within the Planning Area that could support this species.
	<i>Elanus leucurus</i>	white-tailed kite	FP	Cismontane woodland, Marsh & swamp, Riparian woodland, Valley & foothill grassland, Wetland	May be Present. Wetlands, grasslands, and similar habitats are known to occur within the Planning Area that could support this species.
	<i>Eremophila alpestris actia</i>	California horned lark	WL	Marine intertidal & splash zone communities, Meadow & seep	May be Present. Wetlands and similar habitats are known to occur within the Planning Area that could support this species.
	<i>Falco mexicanus</i>	prairie falcon	WL	Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran Desert scrub, Valley & foothill grassland	May be Present. Scrublands, grasslands, and similar habitats are known to occur within the Planning Area that could support this species.
	<i>Falco peregrinus anatum</i>	American peregrine falcon	FD, SD, FP	Various; including developed areas	May be Present. Disturbed areas, scrublands, grasslands, and similar habitats are known to occur within the Planning Area that could support this species.
	<i>Geothlypis trichas sinuosa</i>	saltmarsh common yellowthroat	SSC	Marsh & swamp, tidally influenced waters (e.g., bays)	Not Expected. This species is known to occur within tidal waters, and the Planning Area is out of range for this species.
	<i>Laterallus jamaicensis coturniculus</i>	California black rail	ST, FP	Brackish marsh, Freshwater marsh, Marsh & swamp, Salt marsh, Wetland	May be Present. Wetlands and similar habitats are known to occur within the Planning Area that could support this species.
	<i>Melospiza melodia maxillaris</i>	Suisun song sparrow	SSC	Marsh & swamp, Wetland	May be Present. Wetlands and similar habitats are known to occur within the Planning Area that could support this species.
	<i>Melospiza melodia</i> pop. 1	song sparrow ("Modesto" population)	SSC	Artificial flowing waters, Freshwater marsh, Riparian forest, Riparian scrub, Riparian woodland, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters	May be Present. Riparian woodlands and similar habitats are known to occur within the Planning Area that could support this species.
	<i>Nannopterum auritum</i>	double-crested cormorant	WL	Riparian forest, Riparian scrub, Riparian woodland	Not Expected. This species primarily occupies larger waters in the Bay area, and no occurrences are known within smaller waters like those in the Planning Area.
	<i>Rallus obsoletus obsoletus</i>	California Ridgway's rail	FE, SE, FP	Brackish marsh, Marsh & swamp, Salt marsh, Wetland	Not Expected. This species primarily occupies larger waters in the Bay area, and no occurrences are known within smaller waters like those in the Planning Area.
	<i>Sternula antillarum browni</i>	California least tern	FE, SE, FP	Alkali playa, Wetland	Not Expected. This species primarily occupies larger waters in the Bay area, and no occurrences

Clayton Housing Element Update
Biological Constraints Analysis

Type	Scientific Name	Common Name	Federal, State, or Other Status	General Habitat	Probability to occur within the Planning Area and/or RHNA Sites
					are known within smaller waters like those in the Planning Area.
Fish	<i>Archoplites interruptus</i>	Sacramento perch	SSC	Aquatic, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters	Not Expected. Waters within the Planning Area are seasonally or intermittently flooded, and do not likely contain sufficient water flows that could support this fish species.
	<i>Hypomesus transpacificus</i>	Delta smelt	FT, SE	Aquatic, Estuary	Not Expected. Waters within the Planning Area are seasonally or intermittently flooded, and do not likely contain sufficient water flows that could support this fish species.
	<i>Oncorhynchus mykiss irideus</i> pop. 11	steelhead - Central Valley DPS	FT	Aquatic, Sacramento/San Joaquin flowing waters	Not Expected. Waters within the Planning Area are seasonally or intermittently flooded, and do not likely contain sufficient water flows that could support this fish species.
	<i>Pogonichthys macrolepidotus</i>	Sacramento splittail	SSC	Aquatic, Estuary, Freshwater marsh, Sacramento/San Joaquin flowing waters	Not Expected. Waters within the Planning Area are seasonally or intermittently flooded, and do not likely contain sufficient water flows that could support this fish species.
	<i>Spirinchus thaleichthys</i>	longfin smelt	FCE, ST	Aquatic, Estuary	Not Expected. Waters within the Planning Area are seasonally or intermittently flooded, and do not likely contain sufficient water flows that could support this fish species.
Invertebrates	<i>Apodemia mormo langei</i>	Lange's metalmark butterfly	FE	Interior dunes	Not Expected. Interior dune habitats are not known to occur within the Planning Area.
	<i>Branchinecta conservatio</i>	Conservancy fairy shrimp	FE	Valley & foothill grassland, Vernal pool, Wetland	Not Expected. Vernal pools or similar habitats that could support this species are not likely present at any of the RHNA Sites.
	<i>Branchinecta lynchi</i>	vernal pool fairy shrimp	FT	Valley & foothill grassland, Vernal pool, Wetland	Not Expected. Vernal pools or similar habitats that could support this species are not likely present at any of the RHNA Sites.
	<i>Danaus plexippus</i>	Monarch Butterfly	FC	Various	May be Present. Disturbed areas, scrublands, grasslands, and similar habitats are known to occur within the Planning Area that could support this species.
	<i>Lepidurus packardii</i>	vernal pool tadpole shrimp	FE	Valley & foothill grassland, Vernal pool, Wetland	Not Expected. Vernal pools or similar habitats that could support this species are not likely present at any of the RHNA Sites.
Mammals	<i>Antrozous pallidus</i>	pallid bat	SSC	Chaparral, Coastal scrub, Desert wash, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Riparian woodland, Sonoran Desert scrub, Upper montane coniferous forest, Valley & foothill grassland	May be Present. Riparian woodlands and similar habitats are known to occur within the Planning Area that may support this species.

Clayton Housing Element Update
Biological Constraints Analysis

Type	Scientific Name	Common Name	Federal, State, or Other Status	General Habitat	Probability to occur within the Planning Area and/or RHNA Sites
	<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	SSC	Broadleaved upland forest, Chaparral, Chenopod scrub, Great Basin grassland, Great Basin scrub, Joshua tree woodland, Lower montane coniferous forest, Meadow & seep, Mojavean desert scrub, Riparian Forest, Riparian woodland, Sonoran Desert scrub, Sonoran thorn woodland, Upper montane coniferous forest, Valley & foothill grassland	May be Present. Riparian woodlands and similar habitats are known to occur within the Planning Area that may support this species.
	<i>Lasiurus blossevillii</i>	western red bat	SSC	Cismontane woodland, Lower montane coniferous forest, Riparian Forest, Riparian woodland	May be Present. Riparian woodlands and similar habitats are known to occur within the Planning Area that may support this species.
	<i>Neotoma fuscipes annectens</i>	San Francisco dusky-footed woodrat	SSC	Chaparral, Redwood	May be Present. Chaparral and similar habitats are known to occur within the Planning Area that may support this species.
	<i>Nyctinomops macrotis</i>	big free-tailed bat	SSC	Valley & foothill grassland, rocky outcrops, cliffs	May be Present. Grasslands and similar habitats are known to occur within the Planning Area that may support this species.
	<i>Reithrodontomys raviventris</i>	salt-marsh harvest mouse	FE, SE, FP	Marsh & swamp, Wetland	Not Expected. This species is known only from the San Francisco Bay and its tributaries.
	<i>Taxidea taxus</i>	American badger	SSC	Alkali marsh, Alkali playa, Alpine, Alpine dwarf scrub, Bog & fen, Brackish marsh, Broadleaved upland forest, Chaparral, Chenopod scrub, Cismontane woodland, Closed-cone coniferous forest, Coastal bluff scrub, Coastal dunes, Coastal prairie, Coastal scrub, Desert dunes, Desert wash, Freshwater marsh, Great Basin grassland, Great Basin scrub, Interior dunes, Ione formation, Joshua tree woodland, Limestone, Lower montane coniferous forest, Marsh & swamp, Meadow & seep, Mojavean desert scrub, Montane dwarf scrub, North coast coniferous forest, Old-growth, Pavement plain, Redwood, Riparian forest, Riparian scrub, Riparian woodland, Salt marsh, Sonoran desert scrub, Sonoran thorn woodland, Ultramafic, Upper montane coniferous forest, Upper Sonoran scrub, Valley & foothill grassland	May be Present. Multiple habitat types that could support this species are known to occur within the Planning Area.
	<i>Vulpes macrotis mutica</i>	San Joaquin kit fox	FE, ST	Chenopod scrub, Valley & foothill grassland	May be Present. Grasslands and similar habitats are known to occur within the Planning Area that may support this species.

Clayton Housing Element Update
Biological Constraints Analysis

Type	Scientific Name	Common Name	Federal, State, or Other Status	General Habitat	Probability to occur within the Planning Area and/or RHNA Sites
Campanula exigua Reptiles	<i>Anniella pulchra</i>	Northern California legless lizard	SSC	Chaparral, Coastal dunes, Coastal scrub	May be Present. Chaparral, scrublands, and similar habitats are known to occur within the Planning Area that may support this species.
	<i>Arizona elegans occidentalis</i>	California glossy snake	SSC	Chaparral, Desert scrub, Great Basin scrub, Desert wash, Pinon & juniper woodlands, Valley & foothill grassland	May be Present. Chaparral, scrublands, grasslands and similar habitats are known to occur within the Planning Area that may support this species.
	<i>Emys marmorata</i>	western pond turtle	SSC	Aquatic, Artificial flowing waters, Klamath/North coast flowing waters, Klamath/North coast standing waters, Marsh & swamp, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, South coast flowing waters, South coast standing waters, Wetland	May be Present. Wetlands and other waters are known to occur within the Planning Area that may support this species.
	<i>Masticophis lateralis euryxanthus</i>	Alameda whipsnake	FT, ST	Chaparral, Cismontane woodland, Coastal scrub, Valley & foothill grassland	May be Present. Chaparral, woodlands, scrublands, grasslands, and similar habitats are known to occur within the Planning Area that may support this species.
	<i>Phrynosoma blainvillii</i>	coast horned lizard	SSC	Chaparral, Cismontane woodland, Coastal bluff scrub, Coastal scrub, Desert wash, Pinon & juniper woodlands, Riparian scrub, Riparian woodland, Valley & foothill grassland	May be Present. Chaparral, woodlands, scrublands, grasslands and similar habitats are known to occur within the Planning Area that may support this species.
	<i>Thamnophis gigas</i>	giant gartersnake	FT, ST	Marsh & swamp, Riparian scrub, Wetland	May be Present. Riparian woodlands, wetlands and similar habitats are known to occur within the Planning Area that may support this species.
Plants (Dicots)	<i>Amsinckia grandiflora</i>	large-flowered fiddleneck	FE, SE, CRPR 1B.1	Cismontane woodland, Valley & foothill grassland	Not Expected. The RHNA Sites are not at elevations or within geographic range that is known to support this species; this species occurs largely east of the Planning Area.
	<i>Amsinckia lunaris</i>	bent-flowered fiddleneck	CRPR 1B.2	Cismontane woodland, Coastal bluff scrub, Valley & foothill grassland,	Not Expected. The Planning Area is well out of the known geographic range for this species; this species occurs largely west of the Planning area within more coastally influenced areas.
	<i>Androsace elongata</i> ssp. <i>acuta</i>	California androsace	CRPR 4.2	Chaparral, Cismontane woodland, Coastal scrub, Meadows and seeps, Pinyon and juniper woodland, Valley and foothill grassland	May be Present. Chaparral, woodlands, scrublands, grasslands, and similar habitats are known to occur within the Planning Area that may support this species.
	<i>Arabis blepharophylla</i>	coast rockcress	CRPR 4.3	Broadleafed upland forest, Coastal bluff scrub, Coastal prairie, Coastal scrub; rocky areas	Not Expected. The Planning Area is well out of the known geographic range for this species, with the nearest location being found at the summit of Mt. Diablo.

Clayton Housing Element Update
Biological Constraints Analysis

Type	Scientific Name	Common Name	Federal, State, or Other Status	General Habitat	Probability to occur within the Planning Area and/or RHNA Sites
	<i>Arctostaphylos auriculata</i>	Mt. Diablo manzanita	CRPR 1B.3	Chaparral, Cismontane woodland	Not Expected. The RHNA Sites are located largely within rural to urban sites that do not possess habitats that could support this species.
	<i>Arctostaphylos manzanita</i> ssp. <i>laevigata</i>	Contra Costa manzanita	CRPR 1B.2	Chaparral	Not Expected. The RHNA Sites are located largely within rural to urban sites that do not possess habitats that could support this species.
	<i>Astragalus tener</i> var. <i>tener</i>	alkali milk-vetch	CRPR 1B.2	Alkali playa, Valley & foothill grassland, Vernal pool, Wetland	Not Expected. The RHNA Sites are not known to possess alkaline soils that could support this species.
	<i>Atriplex coronata</i> var. <i>coronata</i>	crownscale	CRPR 4.2	Chenopod scrub, Valley and foothill grassland, Vernal pools; alkaline	Not Expected. The RHNA Sites are not known to possess alkaline soils that could support this species.
	<i>Atriplex depressa</i>	brittlescale	CRPR 1B.2	Alkali playa, Chenopod scrub, Meadow & seep, Valley & foothill grassland, Vernal pool, Wetland; alkaline	Not Expected. The RHNA Sites are not known to possess alkaline soils that could support this species.
	<i>Blepharizonia plumosa</i>	big tarplant	CRPR 1B.1	Valley & foothill grassland; clay	Not Expected. The RHNA Sites are not known to possess clay soils that could support this species.
	<i>Calandrinia breweri</i>	Brewer's calandrinia	CRPR 4.2	Chaparral, Coastal scrub; post-burn	Not Expected. The RHNA Sites are located largely within rural to urban sites that do not possess habitats that could support this species; this species is typically found in post-burn to disturbed hillside habitats.
	<i>Campanula exigua</i>	chaparral harebell	CRPR 1B.2	Chaparral, Ultramafic	Not Expected. The RHNA Sites are not known to possess ultramafic soils that could support this species.
	<i>Castilleja ambigua</i> var. <i>ambigua</i>	johnny-nip	CRPR 4.2	Coastal bluff scrub, Coastal prairie, Coastal scrub, Marshes and swamps, Valley and foothill grassland, Vernal pools	Not Expected. The Planning Area is well out of the known geographic range for this species; this species occurs largely west of the Planning area within more coastally influenced areas.
	<i>Centromadia parryi</i> ssp. <i>congdonii</i>	Congdon's tarplant	CRPR 1B.1	Valley & foothill grassland; alkaline	Not Expected. The RHNA Sites are not known to possess alkaline soils that could support this species.
	<i>Chloropyron molle</i> ssp. <i>molle</i>	soft salty bird's-beak	FE, SR, CRPR 1B.2	Marsh & swamp, Salt marsh, Wetland	Not Expected. The RHNA Sites are located largely within rural to urban sites that do not possess habitats that could support this species.
	<i>Cicuta maculata</i> var. <i>bolanderi</i>	Bolander's water-hemlock	CRPR 2B.1	Marsh & swamp, Salt marsh, Wetland	Not Expected. The RHNA Sites are located largely within rural to urban sites that do not possess habitats that could support this species.
	<i>Collomia diversifolia</i>	serpentine collomia	CRPR 4.3	Chaparral, Cismontane woodland; serpentine or rocky/gravelly substrates	Not Expected. The RHNA Sites are not known to possess serpentine or rocky/gravelly soils that could support this species.
	<i>Convolvulus simulans</i>	small-flowered morning-glory	CRPR 4.2	Chaparral, Coastal scrub, Valley and foothill grassland, clay, seeps, or serpentinite	Not Expected. The RHNA Sites are not known to possess clay, seeps, or serpentinite substrates that could support this species.

Clayton Housing Element Update
Biological Constraints Analysis

Type	Scientific Name	Common Name	Federal, State, or Other Status	General Habitat	Probability to occur within the Planning Area and/or RHNA Sites
	<i>Cordylanthus nidularius</i>	Mt. Diablo bird's-beak	SR, CRPR 1B.1	Chaparral, Ultramafic	Not Expected. The RHNA Sites are well outside the known range of this species; this species is only known from the Mt. Diablo ranges.
	<i>Cryptantha hooveri</i>	Hoover's cryptantha	CRPR 1A	Interior dunes, Valley & foothill grassland (sandy)	Not Expected. The RHNA Sites are not known to possess dune or sufficiently sandy soils that could support this species.
	<i>Delphinium californicum</i> ssp. <i>interius</i>	Hospital Canyon larkspur	CRPR 1B.2	Chaparral, Cismontane woodland, Coastal scrub, Meadow & seep	Not Expected. The RHNA Sites are not located within the suitable elevation range for this species, the nearest localities are within the Mt. Diablo ranges.
	<i>Downingia pusilla</i>	dwarf downingia	CRPR 2B.2	Valley & foothill grassland, Vernal pool, Wetland	Not Expected. Vernal pools or similar habitats that could support this species are not likely present at any of the RHNA Sites.
	<i>Eriastrum ertterae</i>	Lime Ridge eriastrum	FCE, SCE, CRPR 1B.1	Chaparral; alkaline or sandy	Not Expected. Vernal pools or similar habitats that could support this species are not likely present at any of the RHNA Sites. This species is only known from the Lime Ridge area west of the Planning area.
	<i>Eriogonum nudum</i> var. <i>psychicola</i>	Antioch Dunes buckwheat	CRPR 1B.1	Interior dunes	Not Expected. The RHNA Sites are not known to possess dune soils that could support this species.
	<i>Eriogonum truncatum</i>	Mt. Diablo buckwheat	CRPR 1B.1	Chaparral, Coastal scrub, Valley & foothill grassland; sandy	Not Expected. The RHNA Sites are not known to possess sufficiently sandy soils that could support this species.
	<i>Eriogonum umbellatum</i> var. <i>bahiiforme</i>	bay buckwheat	CRPR 4.2	Cismontane woodland, Lower montane coniferous forest; rocky, serpentine	Not Expected. The RHNA Sites are not known to possess serpentine or rocky soils that could support this species.
	<i>Eriophyllum jepsonii</i>	Jepson's woolly sunflower	CRPR 4.3	Chaparral, Cismontane woodland, Coastal scrub; generally serpentine	Not Expected. The RHNA Sites are not known to possess serpentine soils that could support this species.
	<i>Eryngium jepsonii</i>	Jepson's coyote-thistle	CRPR 1B.2	Valley & foothill grassland, Vernal pool, clay	Not Expected. Vernal pools or similar habitats that could support this species are not likely present at any of the RHNA Sites.
	<i>Erysimum capitatum</i> var. <i>angustatum</i>	Contra Costa wallflower	FE, SE, CRPR 1B.1	Interior dunes	Not Expected. The RHNA Sites are not known to possess dune soils that could support this species.
	<i>Eschscholzia rhombipetala</i>	diamond-petaled California poppy	CRPR 1B.1	Valley & foothill grassland; alkaline, clay	Not Expected. The RHNA Sites are not known to possess sufficiently alkaline or clay soils that could support this species; the Planning Area is well outside of the known range of this species.
	<i>Extriplex joaquinana</i>	San Joaquin spearscale	CRPR 1B.2	Alkali playa, Chenopod scrub, Meadow & seep, Valley & foothill grassland' alkaline	Not Expected. The RHNA Sites are not known to possess sufficiently alkaline soils that could support this species.

Clayton Housing Element Update
Biological Constraints Analysis

Type	Scientific Name	Common Name	Federal, State, or Other Status	General Habitat	Probability to occur within the Planning Area and/or RHNA Sites
	<i>Galium andrewsii</i> ssp. <i>gatense</i>	phlox-leaf serpentine bedstraw	CRPR 4.2	Chaparral, Cismontane woodland, Lower montane coniferous forest; rocky, serpentine	Not Expected. The RHNA Sites are not known to possess serpentine or rocky soils that could support this species.
	<i>Helianthella castanea</i>	Diablo helianthella	CRPR 1B.2	Broadleaved upland forest, Chaparral, Cismontane woodland, Coastal scrub, Valley & foothill grassland; carbonate, openings, rocky, volcanic	Not Expected. The RHNA Sites are not known to possess ultramafic soils that could support this species.
	<i>Hesperervax caulescens</i>	hogwallow starfish	CRPR 4.2	Valley and foothill grassland, Vernal pools; alkaline	Not Expected. Vernal pools, alkaline, or similar habitats that could support this species are not likely present at any of the RHNA Sites.
	<i>Hesperolinon breweri</i>	Brewer's western flax	CRPR 1B.2	Chaparral, Cismontane woodland, Ultramafic, Valley & foothill grassland; serpentine	Not Expected. The RHNA Sites are not known to possess serpentine soils that could support this species.
	<i>Hoita strobilina</i>	Loma Prieta hoita	CRPR 1B.1	Chaparral, Cismontane woodland, Riparian woodland, Ultramafic; serpentine	Not Expected. The RHNA Sites are not known to possess serpentine soils that could support this species.
	<i>Isocoma arguta</i>	Carquinez goldenbush	CRPR 1B.1	Valley & foothill grassland	Not Expected. The Planning Area is well out of the known geographic range for this species; this species occurs largely west and north of the Planning area within more coastally influenced areas.
	<i>Juglans californica</i>	Southern California black walnut	CRPR 4.2	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland	May be Present. Riparian woodlands and similar habitats are known to occur within the Planning Area/Sites that may support this species.
	<i>Lasthenia conjugens</i>	Contra Costa goldfields	FE, CRPR 1B.1	Alkali playa, Cismontane woodland, Valley & foothill grassland, Vernal pool, Wetland	Not Expected. Vernal pools, alkaline soils, or similar habitats that could support this species are not likely present at any of the RHNA Sites.
	<i>Lathyrus jepsonii</i> var. <i>jepsonii</i>	Delta tule pea	CRPR 1B.2	Freshwater marsh, Marsh & swamp, Wetland	Not Expected. This Planning Area/Sites are out of the typical range of this species; this species typically occurs in marshes adjacent to bays or tidally influenced waters.
	<i>Lilaeopsis masonii</i>	Mason's lilaeopsis	SR, CRPR 1B.1	Freshwater marsh, Marsh & swamp, Riparian scrub, Wetland	Not Expected. This Planning Area/Sites are out of the typical range of this species; this species typically occurs in marshes adjacent to bays or tidally influenced inland waters.
	<i>Limosella australis</i>	Delta mudwort	CRPR 2B.1	Brackish marsh, Freshwater marsh, Marsh & swamp, Riparian scrub, Wetland	Not Expected. This Planning Area/Sites are out of the typical range of this species; this species typically occurs in marshes adjacent to bays or tidally influenced inland waters.
	<i>Lupinus albifrons</i> var. <i>abramsii</i>	Abrams' lupine	CRPR 3.2	Broad-leaved upland forest, Chaparral, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland; serpentine	Not Expected. The RHNA Sites are not known to possess serpentine or similar soils that could support this species.

Clayton Housing Element Update
Biological Constraints Analysis

Type	Scientific Name	Common Name	Federal, State, or Other Status	General Habitat	Probability to occur within the Planning Area and/or RHNA Sites
	<i>Madia radiata</i>	showy golden madia	CRPR 1B.1	Cismontane woodland, Valley & foothill grassland	Not Expected. The Planning Area is well out of the known geographic range for this species; this species occurs largely east of the Planning Area within hillsides of the San Joaquin Valley.
	<i>Malacothamnus hallii</i>	Hall's bush-mallow	CRPR 1B.2	Chaparral, Coastal scrub, Ultramafic	Not Expected. The RHNA Sites are not known to possess ultramafic soils that could support this species.
	<i>Microseris sylvatica</i>	sylvan microseris	CRPR 4.2	Chaparral, Cismontane woodland, Great Basin scrub, Pinyon and juniper woodland, Valley and foothill grassland; serpentine	Not Expected. The RHNA Sites are not known to possess serpentine or similar soils that could support this species; the nearest known location of this species is within the Mt. Diablo ranges.
	<i>Monolopia gracilens</i>	woodland woollythreads	CRPR 1B.2	Broadleaved upland forest, Chaparral, Cismontane woodland, North coast coniferous forest, Ultramafic, Valley & foothill grassland; serpentine	Not Expected. The RHNA Sites are not known to possess serpentine or similar soils that could support this species.
	<i>Navarretia gowenii</i>	Lime Ridge navarretia	CRPR 1B.1	Chaparral	Not Expected. Habitats that could support this species are not likely present at any of the RHNA Sites. This species is only known from clay soils the Lime Ridge area west of the Planning area, and Quinto Canyon (Stanislaus Co.)
	<i>Navarretia heterandra</i>	Tehama navarretia	CRPR 4.3	Valley and foothill grassland, Vernal pools	Not Expected. Vernal pools or similar habitats that could support this species are not likely present at any of the RHNA Sites.
	<i>Navarretia nigelliformis</i> ssp. <i>radians</i>	shining navarretia	CRPR 1B.2	Cismontane woodland, Valley & foothill grassland, Vernal pool, Wetland; clay	Not Expected. The RHNA Sites are not known to possess clay soils or vernal pools that could support this species.
	<i>Oenothera deltoides</i> ssp. <i>howellii</i>	Antioch Dunes evening-primrose	FE, SE, CRPR 1B.1	Interior dunes	Not Expected. The RHNA Sites are not known to possess dune or sufficiently sandy soils that could support this species.
	<i>Phacelia phacelioides</i>	Mt. Diablo phacelia	CRPR 1B.2	Chaparral, Cismontane woodland, Ultramafic; rocky	Not Expected. The RHNA Sites are not known to possess ultramafic/rocky soils that could support this species.
	<i>Plagiobothrys hystriculus</i>	bearded popcornflower	CRPR 1B.1	Valley & foothill grassland, Vernal pool, Wetland	Not Expected. Vernal pools or similar habitats that could support this species are not likely present at any of the RHNA Sites.
	<i>Ranunculus lobbii</i>	Lobb's aquatic buttercup	CRPR 4.2	Cismontane woodland, North Coast coniferous forest, Valley and foothill grassland, Vernal pools	Not Expected. Vernal pools or similar habitats that could support this species are not likely present at any of the RHNA Sites.
	<i>Sanicula saxatilis</i>	rock sanicle	SR, CRPR 1B.2	Broadleaved upland forest, Chaparral, Valley & foothill grassland; rocky, scree, talus	Not Expected. The RHNA Sites are not known to possess rocky, scree, talus substrates that could support this species.
	<i>Senecio aphanactis</i>	chaparral ragwort	CRPR 2B.2	Chaparral, Cismontane woodland, Coastal scrub; alkaline	Not Expected. The RHNA Sites are not known to possess alkaline or similar substrates that could support this species.

Clayton Housing Element Update
Biological Constraints Analysis

Type	Scientific Name	Common Name	Federal, State, or Other Status	General Habitat	Probability to occur within the Planning Area and/or RHNA Sites
	<i>Senecio hydrophiloides</i>	sweet marsh ragwort	CRPR 4.2	Lower montane coniferous forest, Meadows and seeps	Not Expected. The RHNA Sites are not known to possess marsh-like substrates that could support this species.
	<i>Sidalcea keckii</i>	Keck's checkerbloom	FE, CRPR 1B.1	Cismontane woodland, Ultramafic, Valley & foothill grassland; clay, serpentine	Not Expected. The RHNA Sites are not known to possess clay or serpentine soils or vernal pools that could support this species.
	<i>Spergularia macrotheca</i> var. <i>longistyla</i>	long-styled sand-spurrey	CRPR 1B.2	Marsh & swamp, Meadow & seep; alkaline	Not Expected. The RHNA Sites are not known to possess alkaline or similar substrates that could support this species.
	<i>Streptanthus albidus</i> ssp. <i>peramoenus</i>	most beautiful jewelflower	CRPR 1B.2	Chaparral, Cismontane woodland, Ultramafic, Valley & foothill grassland; serpentine	Not Expected. The RHNA Sites are not known to possess serpentine soils that could support this species.
	<i>Streptanthus hispidus</i>	Mt. Diablo jewelflower	CRPR 1B.3	Chaparral, Valley & foothill grassland; rocky	Not Expected. The RHNA Sites are not known to possess rocky or similar substrates that could support this species; this species is only known from the Mt. Diablo ranges.
	<i>Symphyotrichum lentum</i>	Suisun Marsh aster	CRPR 1B.2	Brackish marsh, Freshwater marsh, Marsh & swamp, Wetland;	Not Expected. This Planning Area/Sites are out of the typical range of this species; this species typically occurs in marshes adjacent to large bodies of water or tidally influenced waters.
	<i>Trifolium hydrophilum</i>	saline clover	CRPR 1B.2	Marsh & swamp, Valley & foothill grassland, Vernal pool, Wetland	Not Expected. The RHNA Sites are not known to contain vernal pools or waters sufficiently mesic enough to support this species.
	<i>Tropidocarpum capparideum</i>	caper-fruited tropidocarpum	CRPR 1B.1	Valley & foothill grassland (alkaline hills)	Not Expected. The RHNA Sites are not known to possess alkaline or similar substrates that could support this species.
	<i>Viburnum ellipticum</i>	oval-leaved viburnum	CRPR 2B.3	Cismontane woodland, Valley & foothill grassland	Not Expected. The RHNA Sites are located at lower elevations than this species is expected to occur.
Plants (Monocots)	<i>Calochortus pulchellus</i>	Mt. Diablo fairy-lantern	CRPR 1B.2	Chaparral, Cismontane woodland, Riparian woodland, Valley & foothill grassland	Not Expected. The RHNA Sites are not known to possess ultramafic soils that could support this species.
	<i>Calochortus umbellatus</i>	Oakland star-tulip	CRPR 4.2	Broad-leafed upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest, Valley and foothill grassland; serpentine	Not Expected. The RHNA Sites are not known to possess serpentine soils that could support this species.
	<i>Eleocharis parvula</i>	small spikerush	CRPR 4.3	Marshes and swamps	Not Expected. The RHNA Sites are out of the known range of this species; the nearest locations of this species are within tidally-flooded marshes and swamps within the coastal bays.
	<i>Fritillaria agrestis</i>	stinkbells	CRPR 4.2	Chaparral, Cismontane woodland, Pinyon and juniper woodland, Valley and foothill grassland; clay, serpentinite (sometimes)	Not Expected. The RHNA Sites are not known to possess serpentine or clay soils that could support this species.

Clayton Housing Element Update
Biological Constraints Analysis

Type	Scientific Name	Common Name	Federal, State, or Other Status	General Habitat	Probability to occur within the Planning Area and/or RHNA Sites
	<i>Fritillaria liliacea</i>	fragrant fritillary	CRPR 1B.2	Cismontane woodland, Coastal prairie, Coastal scrub, Ultramafic, Valley & foothill grassland; serpentinite	Not Expected. The RHNA Sites are not known to possess serpentine soils that could support this species.
	<i>Lilium rubescens</i>	redwood lily	CRPR 4.2	Broad-leaved upland forest, Chaparral, Lower montane coniferous forest, North Coast coniferous forest, Upper montane coniferous forest; roadsides/serpentine	Not Expected. The RHNA Sites are not known to possess serpentine soils that could support this species.
	<i>Piperia michaelii</i>	Michael's rein orchid	CRPR 4.2	Chaparral, Cismontane woodland, Closed-cone coniferous forest, Coastal bluff scrub, Coastal scrub, Lower montane coniferous forest	Not Expected. This species typically prefers vegetation associations that are not known within the Planning Area; the nearest occurrence for this species is within Mt. Diablo.
	<i>Puccinellia simplex</i>	California alkali grass	CRPR 1B.2	Chenopod scrub, Meadow & seep, Valley & foothill grassland, Vernal pool	Not Expected. Vernal pools, alkaline soils, or similar habitats that could support this species are not likely present at any of the RHNA Sites.
	<i>Stuckenia filiformis</i> ssp. <i>alpina</i>	northern slender pondweed	CRPR 2B.2	Marsh & swamp, Wetland	Not Expected. This species prefers larger waterways than those that are known to occur within the Planning Area. The nearest location of this species is within the Mt. Diablo ranges.
Natural Communities	Stabilized Interior Dunes	Stabilized Interior Dunes	S	--	Not Expected. The RHNA Sites have not been reported to have interior dune soils, and therefore this type of habitat is not expected.
	Serpentine Bunchgrass	Serpentine Bunchgrass	S	--	Not Expected. The RHNA Sites have not been reported to have serpentine soils, and therefore this type of habitat is not expected.
	Valley Needlegrass Grassland	Valley Needlegrass Grassland	S	--	
	Coastal Brackish Marsh	Coastal Brackish Marsh	S	--	Not Expected. The Planning area is not adjacent to the coast, and therefore this type of habitat is not expected.
<p>Relevant Species Status Codes: FE = Federally listed as endangered; FT = Federally Threatened; FCE = Federal Candidate Endangered ST = State Threatened; SE = State-listed as Endangered; SCE = State Candidate Endangered; SSC = California Special Concern species by CDFW; 1B.1 = Plants rare, threatened, or endangered in California and elsewhere, seriously threatened in California; 1B.2 = Plants rare, threatened, or endangered in California or elsewhere, fairly threatened in California; 4.2 = Plants of limited distribution, fairly threatened in California. S = Considered a Sensitive Natural Community by CDFW Source: California Natural Diversity Database. June 2022</p>					

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Sensitive Natural Communities and Habitats

Regionally sensitive natural communities or habitat types are an important indicator of the existence of sensitive species. According to the CNDDDB and as described above, natural communities and habitats occur near or within the Planning Area, and especially in areas within and adjacent to Mount Diablo State Park, Lime Ridge Open Space, natural parks, creeks, and vernal mesic areas; however, most of the site locations planned for updates in the Housing Element are primarily located in Urban/Developed areas or vegetation types that are not known to be Sensitive. Table 3 provides a summary of vegetation and landcover types known to occur within the Planning area; and map is provided in Figure 1.

Table 3
Vegetation Communities and Landcover

Vegetation or Landcover Type (CLN 2.0, NWI 2022)	Description (CLN 2.0 2019, NWI 2022)
Barren	This landcover type typically is devoid of vegetation, and typically found in urban areas.
Blue Oak	This vegetation type is dominated by blue oak (<i>Quercus douglassi</i>) with a grassland understory, generally with sparse cover by shrubs and herbs.
Chamise	This vegetation type is dominated by chamise (<i>Adenostoma fasciculatum</i> var. <i>fasciculatum</i>), typical of chaparral type habitats.
Coast Live Oak	This vegetation type is dominated by Coast Live Oak (<i>Quercus agrifolia</i>) and secondarily by other oaks and hardwoods
Coyote Brush	This vegetation type is dominated by Coyote Brush (<i>Baccharis pilularis</i>), which is often a core component of riparian and coastal sage scrub type habitats
Gray Pine	This vegetation type is dominated by Gray/Foothill Pine (<i>Pinus sabiniana</i>) and may contain some blue oak with an understory of shrubs and grasses.
Non-Native / Ornamental Grass	This landcover type consists of areas of planted and grasses, such as those within golf courses or parks.
Riparian Mixed Hardwood	This vegetation type may variously be dominated by willow (<i>Salix</i> sp.), cottonwood, white alder, and/or red alder.
Urban/Developed (General)	This landcover type consists of areas that have been highly disturbed by human activity, and nearly devoid of natural habitat value due to the presence of built structures, roads, or other development.
Warm Grasslands	This vegetation type is dominated by both annuals, primarily grasses, and varying amounts of native perennials.
Riparian/Wetland	These areas are mapped by the USFWS National Wetlands Inventory (NWI) and consists of habitats that are saturated for all or a portion of the year.

IMPACT EVALUATION

This section describes potential impacts related to biological resources which could result from the implementation of the project and recommends mitigation measures, as needed, to reduce significant impacts.

Special Status Species Protections

Impact BIO-1 – Would the Clayton Housing Element Update 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 Game or U.S. Fish and Wildlife Service?

Analysis of Impacts

Since the Planning area is covered by the ECCC HCP/NCCP, implementation of conservation measures described in Chapter 6.4 of the ECCC HCP/NCCP will be required as part of project approval. The ECCC HCP/NCCP requires submission and approval of an HCP/NCCP application, including implementing planning and/or preconstruction biological surveys on a project-level basis and fee payment to offset potential project impacts. Each RHNA Site identified in Figure 1 would require individual applications and evaluations based on site plans that will be developed in the future. Further, compliance with the ECC HCP/NCCP would require setbacks for sensitive habitats (e.g., wetlands) that may support sensitive species identified in this analysis. It is expected that no additional mitigation for each project would be needed, and potential impacts caused by zoning updates are less than significant, assuming appropriate implementation of the ECCC HCP/NCCP is conducted on a project-level basis.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Sensitive Natural Communities

Impact BIO-2 – Would the Clayton Housing Element Update have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?

Analysis of Impacts

Since the Planning area is covered by the ECCC HCP/NCCP, implementation of conservation measures described in Chapter 6.4 of the ECCC HCP/NCCP will be required as part of project approval. No known new sensitive communities are expected to be found within the Planning Area or Sites, which is mostly urban and rural. Riparian/Wetland habitat is evaluated during the HCP/NCCP application process, including implementing jurisdictional delineations on a project-level basis. Each RHNA Site identified in Figure 1 that potentially possesses jurisdictional areas would require individual applications and evaluations based on site plans that will be developed in the future. Further compliance with the ECC HCP/NCCP would require setbacks for jurisdictional areas, including sensitive riparian

habitats. It is expected that no additional mitigation for each project would be needed, and potential impacts caused by zoning updates are less than significant, assuming appropriate implementation of the ECCC HCP/NCCP is conducted on a project-level basis.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Wetland Conservation

Impact BIO-3 – Would the Clayton Housing Element Update 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?

Analysis of Impacts

Since the Planning area is covered by the ECCC HCP/NCCP, implementation of conservation measures described in Chapter 6.4 of the ECCC HCP/NCCP will be required as part of project approval. The ECCC HCP/NCCP requires submission and approval of an HCP/NCCP application, including implementing jurisdictional delineations on a project-level basis. Each RHNA Site identified in Figure 1 that potentially possesses wetlands would require individual applications based on site plans which are not available for review. Further compliance with the ECCC HCP/NCCP and coverage under the USACE Regional General Permit would require setbacks for jurisdictional areas. It is expected that no additional mitigation for each project would be needed, and potential impacts caused by zoning updates are less than significant, assuming appropriate implementation of the ECCC HCP/NCCP is conducted on a project-level basis.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Fish and Wildlife Movement

Impact BIO-4 – Would the Clayton Housing Element Update interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Analysis of Impacts

The Clayton Housing Element Update does not interfere substantially with the movement of any native resident or migratory fish or wildlife species, with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. No documented wildlife corridors are known within the Planning Area., Each RHNA Site identified in Figure 1 would require individual applications and evaluations based on site plans that will be developed in the future to ensure compliance with the ECCC HCP/NCCP. It is expected that no additional mitigation for each project would be needed, and potential

impacts caused by zoning updates are less than significant, assuming appropriate implementation of the ECCC HCP/NCCP is conducted on a project-level basis.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Conflicts with Local Biological Resources Plans

Impact BIO-5 – Would the Clayton Housing Element Update conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Analysis of Impacts

The Clayton Housing Element Update does not conflict with any local policies or ordinances protecting biological resources. The City of Clayton has adopted (Ordinance No.412) the implementation of the ECCC HCP/NCCP and added Chapter 16.55 to the Clayton Municipal Code, which details implementation of and compliance with the ECCC HCP/NCCP for projects. The ECCC HCP/NCCP requires submission and approval of an HCP/NCCP application, including implementing planning and/or preconstruction biological surveys on a project-level basis and fee payment to offset potential project impacts. Further, the Clayton Housing Element Update does not conflict with any measures included in the City's Municipal Code or General Plan. It is expected that no additional mitigation for each project would be needed, and potential impacts caused by zoning updates are less than significant, assuming appropriate implementation of the ECCC HCP/NCCP is conducted on a project-level basis.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

None required.

Habitat Conservation Plans

Impact BIO-6 – Would the Clayton Housing Element Update conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Analysis of Impacts

The City of Clayton has fully adopted the ECCC HCP/NCCP, including enacting municipal codes, and permitting processes to promote and comply with the measures required of the ECCC HCP/NCCP. The zoning changes proposed in the Clayton Housing Element Update do not conflict with the requirements of the ECCC HCP/NCCP, and all evaluations for each RHNA Site will be evaluated on an individual basis through the ECCC HCP/NCCP process to ensure compliance. It is expected that no additional mitigation for each project would be needed, and potential impacts caused by zoning updates are less than significant, assuming appropriate implementation of the ECCC HCP/NCCP is conducted on a project-level basis.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

None required.

Cumulative Impacts

Would the Clayton Housing Element Update cause substantial adverse cumulative impacts with respect to Biological Resources?

Analysis of Impacts

The Clayton Housing Element Update will not contribute to substantial adverse cumulative impacts to biological resources, as the RHNA Sites are primarily in a developed urban area covered by the ECCC HCP/NCP. The ECCC HCP/NCCP requires submission and approval of an HCP/NCCP application, including implementing planning and/or preconstruction biological surveys on a project-level basis and fee payment to offset potential project impacts, including potential cumulative impacts. It is expected that no additional mitigation for each project would be needed, and potential impacts caused by zoning updates are less than significant, assuming appropriate implementation of the ECCC HCP/NCCP is conducted on a project-level basis.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

REFERENCES

East Contra Costa County Habitat Conservation Plan / Natural Community Conservation Plan (ECCC HCP/NCCP, Contra Costa County 2006)

California Department of Fish and Wildlife. 2022. California Natural Diversity Database (CNDDB), 7.5-minute quadrangle for Clayton (where the study area occurs) and the surrounding 8 quadrangles including *Tassajara*, *Diablo*, *Antioch South*, *Antioch North*, *Walnut Creek*, *Honker Bay*, *Vine Hill*, and *Las Trampas Ridge*. Web: <https://wildlife.ca.gov/Data/CNDDB/Maps-and-Data> [Accessed May 2022].

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USFWS. Birds of Conservation Concern. Web: <https://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php> [Accessed May 2022].

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USFWS. National Wetlands Inventory: Wetlands Mapper. Web: <https://www.fws.gov/wetlands/data/Mapper.html> [Accessed May 2022].

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USFWS. Migratory Bird Treaty Act Protected Species. Web: <https://www.fws.gov/birds/management/managed-species/migratory-bird-treaty-act-protected-species.php> [Accessed May 2022].

Appendix E - Noise Analysis Technical Data

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Clayton Housing Element Update

City of Clayton, California

Appendix E: Noise Data

Prepared by: MIG, Inc.

August 2022

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Appendix E: Noise Data

Sheet 1: ADT and DNL Comparison Tables

Table 1: ADT and DNL Comparison												
Road / Segment	2020		2040 No Project		Net Change		2040 HEU		Net Change (2040 HEU to 2020)		Net Change (2040 HEU to 2040 NP)	
	ADT	DNL 50 Ft	ADT	DNL 50 Ft	ADT	DNL	ADT	DNL 50 Ft	ADT	DNL 50 Ft	ADT	DNL 50 Ft
Clayton Road												
City Limit to Mt. Zion Drive	24,763	72.2	27,903	72.9	3,139	0.7	31,021	73.4	6,257	1.2	3,118	0.5
Mt Zion Dr to Marsh Creek Road	17,508	70.3	20,650	71.1	3,142	0.8	23,402	71.7	5,894	1.4	2,752	0.6
Marsh Creek Road to Marsh Creek Road	2,592	61.8	5,909	66.9	3,317	5.1	6,925	67.5	4,333	5.7	1,015	0.6
Mitchell Canyon Road												
South of Clayton Road	517	50.9	627	51.4	110	0.5	733	51.6	216	0.7	106	0.2
Oakhurst Drive												
Cam Estrada to Clayton Rd	4,284	63.5	6,542	65.6	2,258	2.1	7,055	65.8	2,771	2.3	513	0.2
Pine Hollow Road												
El Camino Drive to Mitchell Canyon Rd	357	49.4	391	47.5	34	-1.9	501	48.3	144	-1.1	110	0.8
City Limit to El Camino Drive	3,946	59.1	4,447	59.7	501	0.6	4,151	59.4	205	0.3	-296	-0.3
Kirker Pass Road												
Clayton Road to Concord Boulevard	35,373	74.8	40,896	75.4	5,523	0.6	41,826	75.5	6,453	0.7	930	0.1

Marsh Creek Road												
Clayton Road to Mountaire Pkwy	11,533	66.4	29,432	70.9	17,899	4.5	31,308	71.1	19,775	4.7	1,876	0.2
Mountaire Pkwy to Marsh Creek Road	3,947	62.1	4,933	63.2	986	1.1	5,229	63.5	1,281	1.4	296	0.3
Clayton Rd to Regency Dr	3,531	63.1	10,818	69.7	7,287	6.6	12,072	70.1	8,541	7.0	1,254	0.4
Regency Dr to City Limit	3,531	62.3	10,818	68.8	7,287	6.5	12,072	69.3	8,541	7.0	1,254	0.5

SHEET 2: TNM Roadway Geometry Information

TNM Roadway Geometry Information						
Road / Segment	Road Travel Lanes ^(A)		Road Width in Feet ^(B)			Speed
	Total	Directional	Total	Direction 1	Direction 2	MPH
Clayton Road						
City Limit to Mt Zion Drive	4	2	70	35	35	40
Mt Zion Dr to Marsh Creek Road	4	2	74	37	37	40
Marsh Creek Road to Marsh Creek Road	4	2	78	39	39	45
Mitchell Canyon Road at Canyon Court						
South of Clayton Road	2	1	24	12	12	25
Oakhurst Drive						
Cam Estrada to Clayton Road	4	2	72	36	36	40
Pine Hollow Road						
El Camino Drive to Mitchell Canyon Rd	2	1	60	30	30	25
City Limit to El Camino Drive	2	1	48	32	16	25
Kirker Pass Road						
Clayton Road to Concord Boulevard	6	3	92	46	46	45
Marshcreek Road						
Clayton Road to Mountaire Pkwy	2	1	48	24	24	35
Mountaire Pkwy to Clayton Rd	2	1	48	24	24	35
Clayton Rd to Regency Dr	4	2	78	39	39	45
Regency Dr to City Limit	2	1	34	17	17	45

Table Notes:

A - Total travel lanes includes north and southbound or east and westbound travel lanes. All roads were modeled as a single lane in each direction.

B - Total road width is measured from curb to curb or edge of pavement. Width does not include any unpaved part of the right of way. Direction 1 refers to one travel direction (e.g., northbound) and direction 2 refers to the opposite travel direction (e.g., southbound). Road direction widths were set to

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Appendix E: Noise Data

Sheet 3: 2020 Traffic Noise Contours

Road / Segment	Estimated DNL 50 Feet from Road Center Line	Estimated Distance from Modeled Road Center to Noise Contour (in Feet)			
		75 DNL	70 DNL	65 DNL	60 DNL
Clayton Road					
City Limit to Mt. Zion Drive	72.2	26	83	262	830
Mt Zion Dr to Marsh Creek Road	70.3	17	54	169	536
Marsh Creek Road to Marsh Creek Road	61.8	2	8	24	76
Mitchell Canyon Road					
South of Clayton Road	50.9	0	1	2	6
Oakhurst Drive					
Cam Estrada to Clayton Rd	63.5	4	11	35	112
Pine Hollow Road					
El Camino Drive to Mitchell Canyon Rd	49.4	0	0	1	4
City Limit to El Camino Drive	59.1	1	4	13	41
Kirker Pass					
Clayton Road to Concord Boulevard	74.8	48	151	477	1,510
Marsh Creek Road					
Clayton Road to Mountaire Pkwy	66.4	7	22	69	218
Mountaire Pkwy to Marsh Creek Road	62.1	3	8	26	81
Clayton Rd to Regency Dr	63.1	3	10	32	102
Regency Dr to City Limit	62.3	3	8	27	85

SHEET 4: 2020 Road Traffic Volume Information (Percentages)

2020 NO PROJECT TRAFFIC VOLUME PERCENTAGE OF ADT												
Road / Segment	ADT	TIME OF DAY SPLIT		DAY FLEET MIX (7 AM to 10 PM)				NIGHT FLEET MIX (10PM to 7 AM)				
		% Day	% Night	% Auto	% MDT	% HDT	% MCY	% Auto	% MDT	% HDT	% MCY	NOTES
Clayton Road												
City Limit to Mt. Zion Drive	24,763	68.86%	31.14%	94.67%	1.64%	1.16%	2.53%	94.67%	1.64%	1.16%	2.53%	A,B,C,D
Mt Zion Dr to Marsh Creek Road	17,508	68.64%	31.36%	94.67%	1.64%	1.16%	2.53%	94.67%	2.30%	1.16%	2.53%	A,B,C,D
Marsh Creek Road to Marsh Creek Road	2,592	83.51%	16.49%	94.67%	1.64%	1.16%	2.53%	94.67%	1.64%	1.16%	2.53%	A,B,C,D
Mitchell Canyon Road at Canyon Court												
South of Clayton Road	517	69.11%	30.89%	94.67%	1.64%	1.16%	2.53%	94.67%	1.64%	1.16%	2.53%	A,B,C,D
Oakhurst Drive												
Cam Estrada to Clayton Rd	4,284	72.87%	27.13%	94.67%	1.64%	1.16%	2.53%	94.67%	1.64%	1.16%	2.53%	A,B,C,D
Pine Hollow Road												
El Camino Drive to Mitchell Canyon Rd	357	70.32%	29.68%	94.67%	1.64%	1.16%	2.53%	94.67%	1.64%	1.16%	2.53%	A,B,C,D
City Limit to El Camino Drive	3,946	66.99%	33.01%	94.67%	1.64%	1.16%	2.53%	94.67%	1.64%	1.16%	2.53%	A,B,C,D
Kirker Pass												
Clayton Road to Concord Boulevard	35,373	66.52%	33.48%	94.67%	1.64%	1.16%	2.53%	94.67%	1.64%	1.16%	2.53%	A,B,C,D
Marshcreek Road (separate from Clayton)												
Clayton Road to Mountaire Pkwy	11,533	66.84%	33.16%	94.67%	1.64%	1.16%	2.53%	94.67%	1.64%	1.16%	2.53%	A,B,C,D
Mountaire Pkwy to Marsh Creek Road	3,947	64.20%	35.79%	94.67%	1.64%	1.16%	2.53%	94.67%	1.64%	1.16%	2.53%	A,B,C,D
Clayton Rd to Regency Dr	3,531	82.02%	17.98%	94.67%	1.64%	1.16%	2.53%	94.67%	1.64%	1.16%	2.53%	A,B,C,D
Regency Dr to City Limit	3,531	82.02%	17.98%	94.67%	1.64%	1.16%	2.53%	94.67%	1.64%	1.16%	2.53%	A,B,C,D
Table Notes:												
A - City traffic volume informaton based on modeling from the Traffic Impact Analysis for the Clayton Housing Element (Fehr and Peers, 2022).												
B - ADT represents average daily traffic along all segments of the listed road segment. Actual traffic volumes may vary slightly along different indivual segments within the modeled segment start and end point.												
C - Time of day split refers to what percentage of the listed ADT occurs during the daytime (7 AM to 10 PM) and nighttime (10 PM to 7 AM) time periods												
D - Fleet mix by time of day refers to the percentage of autos, trucks, etc. that make up total day, evening, and nighttime traffic.												

SHEET 5: 2020 Road Traffic Volume Information (Volumes)

EXISTING (2020) TRAFFIC VOLUMES												
Road / Segment	ADT	DAY (7 AM to 10 PM)					NIGHT (10 PM to 7 AM)					NOTES
		AUTO	MHDT	HHDT	MCY	TOTAL	AUTO	MHDT	HHDT	MCY	TOTAL	
Clayton Road												
City Limit to Mt. Zion Drive	24,763	16,143	280	198	431	17,051	7,301	126	89	195	7,712	A, B
Mt Zion Dr to Marsh Creek Road	17,508	11,377	197	139	304	12,018	5,198	126	64	139	5,490	A, B
Marsh Creek Road to Marsh Creek Road	2,592	2,049	36	25	55	2,165	405	7	5	11	427	A, B
Mitchell Canyon Road at Canyon Court												
South of Clayton Road	517	338	6	4	9	357	151	3	2	4	160	A, B
Oakhurst Drive												
Cam Estrada to Clayton Rd	4,284	2,955	51	36	79	3,122	1,100	19	13	29	1,162	A, B
Pine Hollow Road												
El Camino Drive to Mitchell Canyon Rd	357	238	4	3	6	251	100	2	1	3	106	A, B
City Limit to El Camino Drive	3,946	2,503	43	31	67	2,643	1,233	21	15	33	1,303	A, B
Kirker Pass												
Clayton Road to Concord Boulevard	35,373	22,276	386	273	595	23,530	11,213	194	137	299	11,843	A, B
Marshcreek Road (separate from Clayton)												
Clayton Road to Mountaire Pkwy	11,533	7,298	126	89	195	7,709	3,621	63	44	97	3,824	A, B
Mountaire Pkwy to Clayton Rd	3,947	2,399	42	29	64	2,534	1,337	23	16	36	1,413	A, B
Clayton Rd to Regency Dr	3,531	2,742	47	34	73	2,896	601	10	7	16	635	A, B
Regency Dr to City Limit	3,531	2,742	47	34	73	2,896	601	10	7	16	635	A, B
Table Notes:												
A - ADT represents average daily traffic along all segments of the listed road segment. Actual traffic volumes may vary along different indivual segments within the modeled segment start and end point.												
B - Day and nighttime volumes are for the entire time period (e.g., there are 8,932 autos on Clayton Road b/n City Limit and Mt. Zion Drive during the 15-hour daytime period).												

Clayton Housing Element Update
City of Clayton, California
Appendix E: Noise Data

Sheet 6: 2020 Traffic Noise Contours

Road / Segment	Estimated DNL 50 Feet from Road Center Line	Estimated Distance from Modeled Road Center to Noise Contour (in Feet)			
		75 DNL	70 DNL	65 DNL	60 DNL
Clayton Road					
City Limit to Mt. Zion Drive	72.9	31	97	308	975
Mt Zion Dr to Marsh Creek Road	71.1	20	64	204	644
Marsh Creek Road to Marsh Creek Road	66.9	8	24	77	245
Mitchell Canyon Road					
South of Clayton Road	51.4	0	1	2	7
Oakhurst Drive					
Cam Estrada to Clayton Rd	65.6	6	18	57	182
Pine Hollow Road					
El Camino Drive to Mitchell Canyon Rd	47.5	0	0	1	3
City Limit to El Camino Drive	59.7	1	5	15	47
Kirker Pass					
Clayton Road to Concord Boulevard	75.4	55	173	548	1,734
Marsh Creek Road					
Clayton Road to Mountaire Pkwy	70.9	19	62	195	615
Mountaire Pkwy to Marsh Creek Road	63.2	3	10	33	104
Clayton Rd to Regency Dr	69.7	15	47	148	467
Regency Dr to City Limit	68.8	12	38	120	379

SHEET 7: 2040 No Project Road Traffic Volume Information (Percentages)

FUTURE (2040) NO PROJECT TRAFFIC VOLUME PERCENTAGE OF ADT												
Road / Segment	ADT	TIME OF DAY SPLIT		DAY FLEET MIX (7 AM to 10 PM)				NIGHT FLEET MIX (10PM to 7 AM)				NOTES
		% Day	% Night	% Auto	% MDT	% HDT	% MCY	% Auto	% MDT	% HDT	% MCY	
Clayton Road												
City Limit to Mt. Zion Drive	27,903	67.09%	32.91%	94.69%	1.80%	1.22%	2.30%	94.69%	1.80%	1.22%	2.30%	A,B,C,D
Mt Zion Dr to Marsh Creek Road	20,650	67.55%	32.45%	94.69%	1.80%	1.22%	2.30%	94.69%	1.80%	1.22%	2.30%	A,B,C,D
Marsh Creek Road to Marsh Creek Road	5,909	71.98%	28.02%	95%	2%	1%	2%	95%	2%	1%	2%	A,B,C,D
Mitchell Canyon Road at Canyon Court												
South of Clayton Road	627	78.28%	21.72%	95%	2%	1%	2%	95%	2%	1%	2%	A,B,C,D
Oakhurst Drive												
Cam Estrada to Clayton Rd	6,542	69.64%	30.36%	95%	2%	1%	2%	95%	2%	1%	2%	A,B,C,D
Pine Hollow Road												
El Camino Drive to Mitchell Canyon Rd	391	94.66%	5.34%	95%	2%	1%	2%	95%	2%	1%	2%	A,B,C,D
City Limit to El Camino Drive	4,447	66.69%	33.31%	95%	2%	1%	2%	95%	2%	1%	2%	A,B,C,D
Kirker Pass												
Clayton Road to Concord Boulevard	40,896	66.68%	33.32%	95%	2%	1%	2%	95%	2%	1%	2%	A,B,C,D
Marshcreek Road (separate from Clayton)												
Clayton Road to Mountaire Pkwy	29,432	62.20%	37.80%	95%	2%	1%	2%	95%	2%	1%	2%	A,B,C,D
Mountaire Pkwy to Marsh Creek Road	4,933	63.86%	36.14%	95%	2%	1%	2%	95%	2%	1%	2%	A,B,C,D
Clayton Rd to Regency Dr	10,818	68.22%	31.78%	95%	2%	1%	2%	95%	2%	1%	2%	A,B,C,D
Regency Dr to City Limit	10,818	68.22%	31.78%	95%	2%	1%	2%	95%	2%	1%	2%	A,B,C,D
Table Notes:												
A - City traffic volume informaton based on modeling from the Traffic Impact Analysis for the Clayton Housing Element (Fehr and Peers, 2022).												
B - ADT represents average daily traffic along all segments of the listed road segment. Actual traffic volumes may vary slightly along different individual segments within the modeled segment start and end point.												
C - Time of day split refers to what percentage of the listed ADT occurs during the daytime (7 AM to 10 PM) and nighttime (10 PM to 7 AM) time periods												
D - Fleet mix by time of day refers to the percentage of autos, trucks, etc. that make up total day and nighttime traffic.												

SHEET 8: 2040 No Project Road Traffic Volume Information (Volumes)

FUTURE (2040) NO PROJECT TRAFFIC VOLUMES												
Road / Segment	ADT	DAY (7 AM to 10 PM)					NIGHT (10 PM to 7 AM)					NOTES
		AUTO	MHDT	HHDT	MCY	TOTAL	AUTO	MHDT	HHDT	MCY	TOTAL	
Clayton Road												
City Limit to Mt. Zion Drive	27,903	17,724	336	229	430	18,719	8,696	165	112	211	9,184	A, B
Mt Zion Dr to Marsh Creek Road	20,650	13,209	250	170	320	13,950	6,344	120	82	154	6,700	A, B
Marsh Creek Road to Marsh Creek Road	5,909	4,028	76	52	98	4,254	1,568	30	20	38	1,656	A, B
Mitchell Canyon Road at Canyon Court												
South of Clayton Road	627	465	9	6	11	491	129	2	2	3	136	A, B
Oakhurst Drive												
Cam Estrada to Clayton Rd	6,542	4,314	82	56	105	4,556	1,880	36	24	46	1,986	A, B
Pine Hollow Road												
El Camino Drive to Mitchell Canyon Rd	391	350	7	5	9	370	20	0	0	0	21	A, B
City Limit to El Camino Drive	4,447	2,808	53	36	68	2,966	1,403	27	18	34	1,482	A, B
Kirker Pass												
Clayton Road to Concord Boulevard	40,896	25,820	490	333	626	27,269	12,902	245	166	313	13,627	A, B
Marshcreek Road (separate from Clayton)												
Clayton Road to Mountaire Pkwy	29,432	17,334	329	224	420	18,307	10,534	200	136	256	11,125	A, B
Mountaire Pkwy to Marsh Creek Road	4,933	2,983	57	38	72	3,150	1,688	32	22	41	1,783	A, B
Clayton Rd to Regency Dr	10,818	6,988	133	90	170	7,380	3,255	62	42	79	3,438	A, B
Regency Dr to City Limit	10,818	6,988	133	90	170	7,380	3,255	62	42	79	3,438	A, B
Table Notes:												
A - ADT represents average daily traffic along all segments of the listed road segment. Actual traffic volumes may vary along different indivual segments within the modeled segment start and end point.												
B - Day and nighttime volumes are for the entire time period (e.g., there are 18,721 autos on Clayton Road b/n City Limit and Mt. Zion Drive during the 15-hour daytime period).												

Clayton Housing Element Update
City of Clayton, California
Appendix E: Noise Data

Sheet 9: 2040 HEU Traffic Noise Contours

Road / Segment	Estimated DNL 50 Feet from Road Center Line	Estimated Distance from Modeled Road Center to Noise Contour (in Feet)			
		75 DNL	70 DNL	65 DNL	60 DNL
Clayton Road					
City Limit to Mt. Zion Drive	73.4	35	109	346	1,094
Mt Zion Dr to Marsh Creek Road	71.7	23	74	234	740
Marsh Creek Road to Marsh Creek Road	67.5	9	28	89	281
Mitchell Canyon Road					
South of Clayton Road	51.6	0	1	2	7
Oakhurst Drive					
Cam Estrada to Clayton Rd	65.8	6	19	60	190
Pine Hollow Road					
El Camino Drive to Mitchell Canyon Rd	48.3	0	0	1	3
City Limit to El Camino Drive	59.4	1	4	14	44
Kirker Pass					
Clayton Road to Concord Boulevard	75.5	56	177	561	1,774
Marsh Creek Road					
Clayton Road to Mountaire Pkwy	71.1	20	64	204	644
Mountaire Pkwy to Marsh Creek Road	63.5	4	11	35	112
Clayton Rd to Regency Dr	70.1	16	51	162	512
Regency Dr to City Limit	69.3	13	43	135	426

SHEET 10: 2040 HEU Road Traffic Volume Information (Percentages)

FUTURE (2040) HEU TRAFFIC VOLUME PERCENTAGE OF ADT												
Road / Segment	ADT	TIME OF DAY SPLIT		DAY FLEET MIX (7 AM to 10 PM)				NIGHT FLEET MIX (10PM to 7 AM)				NOTES
		% Day	% Night	% Auto	% MDT	% HDT	% MCY	% Auto	% MDT	% HDT	% MCY	
Clayton Road												
City Limit to Mt. Zion Drive	31,021	66.54%	33.46%	94.69%	1.80%	1.22%	2.30%	94.69%	1.80%	1.22%	2.30%	A,B,C,D
Mt Zion Dr to Marsh Creek Road	23,402	67.00%	33.00%	94.69%	1.80%	1.22%	2.30%	94.69%	1.80%	1.22%	2.30%	A,B,C,D
Marsh Creek Road to Marsh Creek Road	6,925	72.11%	27.89%	95.00%	2.00%	1.00%	2.00%	95.00%	2.00%	1.00%	2.00%	A,B,C,D
Mitchell Canyon Road at Canyon Court												
South of Clayton Road	733	82.68%	17.32%	95%	2%	1%	2%	95%	2%	1%	2%	A,B,C,D
Oakhurst Drive												
Cam Estrada to Clayton Rd	7,055	71.12%	28.88%	95%	2%	1%	2%	95%	2%	1%	2%	A,B,C,D
Pine Hollow Road												
El Camino Drive to Mitchell Canyon Rd	501	94.66%	5.34%	95%	2%	1%	2%	95%	2%	1%	2%	A,B,C,D
City Limit to El Camino Drive	4,151	67.27%	32.73%	95%	2%	1%	2%	95%	2%	1%	2%	A,B,C,D
Kirker Pass												
Clayton Road to Concord Boulevard	41,826	66.42%	33.58%	95%	2%	1%	2%	95%	2%	1%	2%	A,B,C,D
Marshcreek Road (separate from Clayton)												
Clayton Road to Mountaire Pkwy	31,308	62.13%	37.87%	95%	2%	1%	2%	95%	2%	1%	2%	A,B,C,D
Mountaire Pkwy to Marsh Creek Road	5,229	63.53%	36.47%	95%	2%	1%	2%	95%	2%	1%	2%	A,B,C,D
Clayton Rd to Regency Dr	12,072	68.18%	31.82%	95%	2%	1%	2%	95%	2%	1%	2%	A,B,C,D
Regency Dr to City Limit	12,072	68.18%	31.82%	95%	2%	1%	2%	95%	2%	1%	2%	A,B,C,D
Table Notes:												
A - City traffic volume informaton based on modeling from the Traffic Impact Analysis for the Clayton Housing Element (Fehr and Peers, 2022).												
B - ADT represents average daily traffic along all segments of the listed road segment. Actual traffic volumes may vary slightly along different individual segments within the modeled segment start and end point.												
C - Time of day split refers to what percentage of the listed ADT occurs during the daytime (7 AM to 10 PM) and nighttime (10 PM to 7 AM) time periods												
D - Fleet mix by time of day refers to the percentage of autos, trucks, etc. that make up total day, evening, and nighttime traffic.												

SHEET 11: 2040 HEU Road Traffic Volume Information (Volumes)

FUTURE (2040) HEU TRAFFIC VOLUMES												
Road / Segment	ADT	DAY (7 AM to 10 PM)					NIGHT (10 PM to 7 AM)					NOTES
		AUTO	MHDT	HHDT	MCY	TOTAL	AUTO	MHDT	HHDT	MCY	TOTAL	
Clayton Road												
City Limit to Mt. Zion Drive	31,021	19,545	371	252	474	20,642	9,827	186	127	238	10,379	A, B
Mt Zion Dr to Marsh Creek Road	23,402	14,847	282	192	360	15,680	7,311	139	94	177	7,722	A, B
Marsh Creek Road to Marsh Creek Road	6,925	4,728	90	61	115	4,993	1,829	35	24	44	1,931	A, B
Mitchell Canyon Road at Canyon Court												
South of Clayton Road	733	574	11	7	14	606	120	2	2	3	127	A, B
Oakhurst Drive												
Cam Estrada to Clayton Rd	7,055	4,751	90	61	115	5,017	1,929	37	25	47	2,038	A, B
Pine Hollow Road												
El Camino Drive to Mitchell Canyon Rd	501	510	10	7	12	539	-36	-1	0	-1	-38	A, B
City Limit to El Camino Drive	4,151	2,644	50	34	64	2,793	1,286	24	17	31	1,359	A, B
Kirker Pass												
Clayton Road to Concord Boulevard	41,826	26,306	499	339	638	27,782	13,297	252	172	323	14,043	A, B
Marshcreek Road (separate from Clayton)												
Clayton Road to Mountaire Pkwy	31,308	18,417	349	238	447	19,451	11,227	213	145	272	11,858	A, B
Mountaire Pkwy to Marsh Creek Road	5,229	3,145	60	41	76	3,322	1,805	34	23	44	1,907	A, B
Clayton Rd to Regency Dr	12,072	7,794	148	101	189	8,231	3,637	69	47	88	3,841	A, B
Regency Dr to City Limit	12,072	7,794	148	101	189	8,231	3,637	69	47	88	3,841	A, B
Table Notes:												
A - ADT represents average daily traffic along all segments of the listed road segment. Actual traffic volumes may vary along different individual segments within the modeled segment start and end point.												
B - Day and nighttime volumes are for the entire time period (e.g., there are 20,123 autos on Clayton Road b/n City Limit and Mt. Zion Drive during the 15-hour daytime period).												

Sheet 12: EMFAC Vehicle Class Distributions

TNM 3.0/EMFAC2022 VEHICLE POPULATION INFORMATION (Unadjusted)					
TNM Vehicle Type	Vehicle Class (EMFAC2007)	2022 Vehicle Population	2022 Vehicle Population %	2040 Vehicle Population	2040 Vehicle Population %
Auto	LDA	365,870	50.9%	404,744	50.8%
Auto	LDT1	34,907	4.9%	23,942	3.0%
Auto	LDT2	154,127	21.4%	189,522	23.8%
Auto	LHDT1	21,279	3.0%	21,787	2.7%
Auto	MDV	104,134	14.5%	115,109	14.4%
Subtotal		680,317	94.7%	755,104	94.7%
Medium Truck	LHDT2	4,652	0.6%	5,533	0.7%
Medium Truck	MHDT	6,224	0.9%	7,788	1.0%
Medium Truck	OBUS	400	0.1%	378	0.0%
Medium Truck	SBUS	509	0.1%	619	0.1%
Subtotal		11,785	1.6%	14,319	1.8%
Heavy Truck	HHDT	5,263	0.7%	7,579	1.0%
Heavy Truck	MH	2,717	0.4%	1,803	0.2%
Heavy Truck	UBUS	346	0.0%	359	0.0%
Subtotal		8,326	1.2%	9,742	1.2%
Motorcycle	MC	18,166	2.5%	18,316	2.3%
Subtotal		18,166	2.5%	18,316	2.3%
TOTAL		718,594	100.0%	797,481	100.0%
Table Notes:					
A) EMFAC2021 raw data file is available upon request.					

TNM 3.0/EMFAC2022 VEHICLE POPULATION INFORMATION (Excluding MHDT and HHDT)					
TNM Vehicle Type	Vehicle Class (EMFAC2007)	2022 Vehicle Population	2022 Vehicle Population %	2040 Vehicle Population	2040 Vehicle Population %
Auto	LDA	365,870	51.7%	404,744	51.8%
Auto	LDT1	34,907	4.9%	23,942	3.1%
Auto	LDT2	154,127	21.8%	189,522	24.2%
Auto	LHDT1	21,279	3.0%	21,787	2.8%
Auto	MDV	104,134	14.7%	115,109	14.7%
Subtotal		680,317	96.2%	755,104	96.5%
Medium Truck	LHDT2	4,652	0.7%	5,533	0.7%
Medium Truck	MHDT	0	0.0%	0	0.0%
Medium Truck	OBUS	400	0.1%	378	0.0%
Medium Truck	SBUS	509	0.1%	619	0.1%
Subtotal		5,562	0.8%	6,530	0.8%
Heavy Truck	HHDT	0	0.0%	0	0.0%
Heavy Truck	MH	2,717	0.4%	1,803	0.2%
Heavy Truck	UBUS	346	0.0%	359	0.0%
Subtotal		3,063	0.4%	2,163	0.3%
Motorcycle	MC	18,166	2.6%	18,316	2.3%
Subtotal		18,166	2.6%	18,316	2.3%
TOTAL		707,107	100.0%	782,114	100.0%
Table Notes:					
A) EMFAC2021 raw data file is available upon request.					

REPORT:

Results: Sound Levels - No Barrier Objects

TNM VERSION

3.1.7970.37608

REPORT DATE:

7 July 2022

CALCULATED WITH:

3.1.7970.37608

CALCULATION DATE:

7/7/2022 10:00:50 PM

CASE:

01_Clayton_20Ex

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Clayton Housing Element Update

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing Ldn dBA						
				Ldn		Increase over Existing		Type of Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
				dBA	dBA	dBA	dBA		
Clayton 1	1	1	---	72.2	60.0	---	---	Sound Level	
Clayton 2	3	1	---	70.3	60.0	---	---	Sound Level	
Clayton 3	5	1	---	61.8	60.0	---	---	Sound Level	
Mitchell 1	4	1	---	50.9	60.0	---	---	None	
Oakhurst 1	5	1	---	63.5	60.0	---	---	Sound Level	
PineHollow 1	6	1	---	49.4	60.0	---	---	None	
PineHollow 2	7	1	---	59.1	60.0	---	---	None	
Kirker 1	8	1	---	74.8	60.0	---	---	Sound Level	
MarshCrk 1	9	1	---	66.4	60.0	---	---	Sound Level	
MarshCrk 2	10	1	---	62.1	60.0	---	---	Sound Level	
MarshCrk 3	11	1	---	63.1	60.0	---	---	Sound Level	
MarshCrk 4	12	1	---	62.3	60.0	---	---	Sound Level	

REPORT:

Results: Sound Levels - No Barrier Objects

TNM VERSION

3.1.7970.37608

REPORT DATE:

7 July 2022

CALCULATED WITH:

3.1.7970.37608

CALCULATION DATE:

7/7/2022 11:00:30 PM

CASE:

Clayton_40NP

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Clayton Housing Element Update

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing Ldn dBA						
				Ldn		Increase over Existing		Type of Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
				dBA	dBA	dBA	dBA		
Clayton 1	1	1	---	72.9	60.0	---	---	Sound Level	
Clayton 2	3	1	---	71.1	60.0	---	---	Sound Level	
Clayton 3	5	1	---	66.9	60.0	---	---	Sound Level	
Mitchell 1	4	1	---	51.4	60.0	---	---	None	
Oakhurst 1	5	1	---	65.6	60.0	---	---	Sound Level	
PineHollow 1	6	1	---	47.5	60.0	---	---	None	
PineHollow 2	7	1	---	59.7	60.0	---	---	None	
Kirker 1	8	1	---	75.4	60.0	---	---	Sound Level	
MarshCrk 1	9	1	---	70.9	60.0	---	---	Sound Level	
MarshCrk 2	10	1	---	63.2	60.0	---	---	Sound Level	
MarshCrk 3	11	1	---	69.7	60.0	---	---	Sound Level	
MarshCrk 4	12	1	---	68.8	60.0	---	---	Sound Level	

REPORT:

Results: Sound Levels - No Barrier Objects

TNM VERSION

3.1.7970.37608

REPORT DATE:

7 July 2022

CALCULATED WITH:

3.1.7970.37608

CALCULATION DATE:

7/7/2022 10:58:55 PM

CASE:

Clayton_40HEU

ORGANIZATION:

MIG, Inc.

UNITS:

English

ANALYSIS BY:

CDugan

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Clayton Housing Element Update

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing Ldn dBA						Type of Impact
				Ldn		Increase over Existing			
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
				dBA	dBA	dBA	dBA		
Clayton 1	1	1	---	73.4	60.0	---	---	Sound Level	
Clayton 2	3	1	---	71.7	60.0	---	---	Sound Level	
Clayton 3	5	1	---	67.5	60.0	---	---	Sound Level	
Mitchell 1	4	1	---	51.6	60.0	---	---	None	
Oakhurst 1	5	1	---	65.8	60.0	---	---	Sound Level	
PineHollow 1	6	1	---	48.3	60.0	---	---	None	
PineHollow 2	7	1	---	59.4	60.0	---	---	None	
Kirker 1	8	1	---	75.5	60.0	---	---	Sound Level	
MarshCrk 1	9	1	---	71.1	60.0	---	---	Sound Level	
MarshCrk 2	10	1	---	63.5	60.0	---	---	Sound Level	
MarshCrk 3	11	1	---	70.1	60.0	---	---	Sound Level	
MarshCrk 4	12	1	---	69.3	60.0	---	---	Sound Level	