

City of Hercules

2023-2031 Housing Element Update

Initial Study and Negative Declaration



Prepared for:

City of Hercules
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Hercules, California 94547

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July 26, 2022

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SECTION 1: PURPOSE AND AUTHORITY OF INITIAL STUDY

1.1 Purpose and Authority

The purpose of this Initial Study is to identify and assess the significance of the environmental impacts that could result from any potential future physical change in the environment resulting from the adoption and implementation of the City of Hercules General Plan 2023-2031 Housing Element.

This Initial Study has been prepared in accordance with the California Environmental Quality Act (CEQA) Statutes and Guidelines and the City of Hercules's local rules and regulations. The proposed project requires discretionary approval from the City of Hercules and review by the California Department of Housing and Community Development (HCD). As the project initiator and because of the legislative approvals involved, the City is the Lead Agency with respect to this Initial Study pursuant to §15367 of the CEQA Guidelines. Specifically, this project requires City approval of the Housing Element Update. No other governmental agencies have discretionary permitting authority with respect to approval of the proposed project, and there are no Trustee Agencies, as defined in §21070 of the CEQA Statutes.

Pursuant to §15074 of the CEQA Guidelines, prior to approving this project, the City is obligated to consider the findings of this Initial Study and to either adopt a Negative Declaration (ND), a Mitigated Negative Declaration (MND), or to determine that an Environmental Impact Report (EIR) is required. The findings of this Initial Study support adoption of a ND, as discussed in Section 4. This means that the long-term plan for development of housing pursuant to the proposed Housing Element, in accordance with the governing land use planning policies and zoning standards, would be less than significant.

The environmental determination that is ultimately adopted or certified by the City is part of the discretionary review process with respect to evaluating the merits and disadvantages of the proposed Housing Element Update (HEU). The findings and determination of impact significance presented herein neither presuppose nor mandate any actions by the City concerning future decisions on the proposed HEU.

1.2 Contents

This report has been prepared to comply with Section 15063 of the State CEQA Guidelines, which sets forth in the required contents of an Initial Study. These include:

- A description of the project, including the location of the project (see Section 2)
- Identification of the environmental setting (see Section 2.11)
- Identification of environmental effects by use of a checklist, matrix, or other methods, provided that entries on the checklist or other form are briefly explained to indicate that there is some evidence to support the entries (see Section 3)
- Examination of whether the project is compatible with existing zoning, plans, and other applicable land use controls (see Sections 2.6 and 2.7)

The name(s) of the person(s) who prepared or participated in the preparation of the Initial Study (see Section 5.1)

1.3 Tiering

Section 15152 et al of the CEQA Guidelines describes “tiering” as a streamlining tool as follows:

(a) "Tiering" refers to using the analysis of general matters contained in a broader EIR (such as one prepared for a general plan or policy statement) with later EIRs and negative declarations on narrower projects; incorporating by reference the general discussions from the broader EIR; and concentrating the later EIR or negative declaration solely on the issues specific to the later project.

(b) Agencies are encouraged to tier the environmental analyses which they prepare for separate but related projects including general plans, zoning changes, and development projects. This approach can eliminate repetitive discussions of the same issues and focus the later EIR or negative declaration on the actual issues ripe for decision at each level of environmental review. Tiering is appropriate when the sequence of analysis is from an EIR prepared for a general plan, policy, or program to an EIR or negative declaration for another plan, policy, or program of lesser scope, or to a site-specific EIR or negative declaration. Tiering does not excuse the lead agency from adequately analyzing reasonably foreseeable significant environmental effects of the project and does not justify deferring such analysis to a later tier EIR or negative declaration. However, the level of detail contained in a first tier EIR need not be greater than that of the program, plan, policy, or ordinance being analyzed.

(c) Where a lead agency is using the tiering process in connection with an EIR for a large-scale planning approval, such as a general plan or component thereof (e.g., an area plan or community plan), the development of detailed, site-specific information may not be feasible but can be deferred, in many instances, until such time as the lead agency prepares a future environmental document in connection with a project of a more limited geographical scale, as long as deferral does not prevent adequate identification of significant effects of the planning approval at hand.

(d) Where an EIR has been prepared and certified for a program, plan, policy, or ordinance consistent with the requirements of this section, any lead agency for a later project pursuant to or consistent with the program, plan, policy, or ordinance should limit the EIR or negative declaration on the later project to affects which:

(1) Were not examined as significant effects on the environment in the prior EIR; or

(2) Are susceptible to substantial reduction or avoidance by the choice of specific revisions in the project, by the imposition of conditions, or other means.

(e) Tiering under this section shall be limited to situations where the project is consistent with the general plan and zoning of the city or county in which the project is located, except that a project requiring a rezone to achieve or maintain conformity with a general plan may be subject to tiering.

(f) A later EIR shall be required when the initial study or other analysis finds that the later project may cause significant effects on the environment that were not adequately addressed in the prior EIR. A negative declaration shall be required when the provisions of Section 15070 are met.

(1) Where a lead agency determines that a cumulative effect has been adequately addressed in the prior EIR that effect is not treated as significant for purposes of the later EIR or negative declaration, and need not be discussed in detail.

(2) When assessing whether there is a new significant cumulative effect, the lead agency shall consider whether the incremental effects of the project would be considerable when viewed in the context of past,

present, and probable future projects. At this point, the question is not whether there is a significant cumulative impact, but whether the effects of the project are cumulatively considerable. For a discussion on how to assess whether project impacts are cumulatively considerable, see Section 15064(i).

(3) Significant environmental effects have been "adequately addressed" if the lead agency determines that:

(A) they have been mitigated or avoided as a result of the prior environmental impact report and findings adopted in connection with that prior environmental report; or

(B) they have been examined at a sufficient level of detail in the prior environmental impact report to enable those effects to be mitigated or avoided by site specific revisions, the imposition of conditions, or by other means in connection with the approval of the later project.

(g) When tiering is used, the later EIRs or negative declarations shall refer to the prior EIR and state where a copy of the prior EIR may be examined. The later EIR or negative declaration should state that the lead agency is using the tiering concept and that it is being tiered with the earlier EIR.

(h) There are various types of EIRs that may be used in a tiering situation. These include, but are not limited to, the following:

(1) General Plan EIR (Section 15166).

(2) Staged EIR (Section 15167).

(3) Program EIR (Section 15168).

(4) Master EIR (Section 15175).

(5) Multiple-family residential development / residential and commercial or retail mixed-use development (Section 15179.5).

(6) Redevelopment project (Section 15180).

(7) Projects consistent with community plan, general plan, or zoning (Section 15183).

1.4 Approach

The environmental analysis contained in this Initial Study is based on the following assumptions:

General Plan Consistency: The analysis in this Initial Study is tiered off the "City of Hercules General Plan Land Use and Circulation Elements Update and Redevelopment Plan Amendments, Environmental Impact Report" adopted on June 9, 1995. As the General Plan is updated and/or amended, the City will ensure that such updates and amendments do not prevent implementation of the policies contained in the Housing Element Update.

Project Specific Environmental Review: In the City of Hercules, all development proposals are subject to an environmental review process to determine if CEQA review is required and if so, to identify potential impacts and impose appropriate mitigation measures, if needed, to avoid significant impacts.

This includes both discretionary projects, subject to the requirements of CEQA, and smaller-scale ministerial projects that require issuance of building permits.

Purpose of Environmental Review: This project does not authorize any plan for construction of new homes or other uses or redevelopment of any properties. No direct environmental impacts, therefore, would occur. This Initial Study addresses the assessment of potential environmental impacts resulting from the long-term effects of potential development facilitated by the Housing Element Update in accordance with the City's existing land use policies. No changes to land use policy related to density or intensity are proposed. The purpose of the environmental assessment is to determine whether there are any peculiar types of impacts that could occur as an indirect result of the proposed HEU strategies that were not examined in the General Plan EIR or if there could be impacts that are more severe than those anticipated in the EIR.

1.5 Availability

This Initial Study for the Hercules 2023-2031 Housing Element is available for public review at:

*City of Hercules
Planning Department
111 Civic Drive
Hercules, California 94547
(510) 254-6531*

SECTION 2: PROJECT DESCRIPTION

2.1 Project Title

City of Hercules 2023-2031 Housing Element

2.2 Lead Agency Name and Address

City of Hercules
Planning Department
111 Civic Drive
Hercules, California 94547

2.3 Contact Person and Phone Number

Timothy Rood, Community Development Director
(510) 799-8251

2.4 Project Location

The City of Hercules 2023-2031 Housing Element applies to all proposed and existing residential and mixed-use zoning districts, as well as to General Plan land use designations that allow residential or mixed-use development within the municipal boundaries of the City of Hercules.

Hercules is located within the West County portion of Contra Costa County, which includes the urbanized shoreline of San Francisco and San Pablo Bays. The City is separated from the remainder of Contra Costa County by the Briones Hills and open space lands. The incorporated City of Pinole is located south of Hercules and the unincorporated community of Rodeo is located north of Hercules.

Major roads and highways that traverse Hercules include portions of Interstate 80 (I-80), State Route 4 [also known as John Muir Parkway (SR 4)], and San Pablo Avenue.

In addition to San Francisco and San Pablo Bays, the other regionally significant natural feature in Hercules is Refugio Creek, which flows from the eastern edge of the City, through the central portion of Hercules, and into San Pablo Bay north of Hercules Point.

Most of the City's land area is located east of the I-80 corridor, which runs in a north-south direction through the community. Hercules is predominantly a residential community, with traditional single-family detached dwellings located both east and west of the I-80 corridor. Commercial and retail areas are generally located along Sycamore and Willow Avenues near the eastbound I-80 off-ramp. Industrial and R&D/office uses are concentrated in the northwest portion of Hercules, with light industrial uses dispersed to the east of I-80 along SR 4 and Willow Avenue.

The City maintains a number of local parks distributed throughout the community. These include Refugio Valley Park, Ohlone Park, Woodfield Park, Foxboro Park, Frog Pad Park, Duck Pond Park, and Railroad Park. A private golf course, Franklin Canyon Golf Course, provides additional recreational opportunities in the eastern portion of Hercules.

Exhibit 1 (Regional Context) shows the location of Hercules in relation to the East Bay region. Exhibit 2 (Local Context) depicts Hercules in the context of surrounding communities and other major features.

2.5 Project Sponsor’s Name and Address

City of Hercules
 Planning Department
 111 Civic Drive
 Hercules, California 94547
 (510) 799-8251

2.6 General Plan Designations

Existing residential and mixed-use land use designations that support housing development within the City of Hercules include those listed below in Table 1 (General Plan Residential Land Uses):¹

**Table 1
 General Plan Residential Land Uses**

<i>Land Use Designation</i>	<i>Intended Use</i>	<i>Maximum Density</i>
Single Family – Estate	Single-Family detached in an estate setting	1-2 du/ac
Single Family – Low Density	Single-family units on smaller lots as part of larger planned subdivision	2-7 du/ac
Multi Family – Low Density	Multi-family units such as townhouses, condominiums and apartments as well as single-family housing	Up to 12 du/ac
Multi Family – Medium Density	Townhouses, condominiums and apartments at medium density	12 - 30 du/ac
Multi Family – High Density	High density, multi-family housing, typically near public transit centers, adequate streets, shopping centers and other high activity areas	30-35 du/ac or 12 du/ac
Mobile Home Park	Appropriately located mobile home parks with densities consistent with sound standards for public health and safety	7 du/ac
Industrial Residential (Mixed Use)	Integrated mixture of residential space and workspaces in the same structure, with residential spaces generally located above the workspace such as a loft, and is to provide living area for persons employed within	25 du/ac (live-work units)
Planned Commercial Residential	Accommodates both residential and commercial uses in a well planned, mixed-use development	40 du/ac

2.7 Zoning Districts

Existing zoning districts that support residential development in Hercules are listed below in Table 2 (Residential Zoning Districts) along with the applicable development standards.²

¹ City of San Hercules General Plan. Land Use Element Part 2. 1998.

² City of Hercules. Zoning Ordinance. 2022.

**Table 2
Residential Zoning Districts**

District	Zoning District	Maximum Density (dwelling units/acre)
Single Family – Estate	RS-E	1-2 du/ac
Single Family – Low Density	RS-L	2-7 du/ac
Multi Family – Low Density	RM-L	Up to 12 du/ac
Multi Family – Medium Density	RM-M	12 - 30 du/ac
Multi Family – High Density	RM-H	30-35 du/ac or 12 du/ac
Mobile Home Park	P-M-H	7 du/ac
Industrial Residential (Mixed Use)	I-R	25 du/ac (live-work units)
Planned Commercial Residential ¹	PC-R	40 du/ac 80 du/ac ¹
New Town Center	NTC	30-75 du/ac

¹ A maximum density of 80 units per acre is permitted as a planned development plan per ordinance.

2.8 Project Description

The proposed Project includes the adoption of the 2023–2031 Housing Element of the Hercules General Plan and implementation of identified programs and policies set forth in the draft Housing Element. The State of California has mandated that all local jurisdictions within the Bay Area have approved updated Housing Elements to reflect current “fair share” housing allocations for each City and County. The State Housing and Community Development Department (HCD) reviews all Housing Elements to determine compliance with State Law governing the content of these Elements.

Housing Element Requirements

The Housing Element is one of seven required elements of the General Plan. It addresses existing and future housing needs of persons in all economic segment groups and serves as a tool for decision-makers and the public in understanding and meeting housing needs in Hercules. While the law does not require local governments to actually construct housing to meet identified needs, it does require that the community address housing needs in its discretionary planning actions by creating opportunities for housing in the land use plan and facilitating housing development through policy.

Housing Elements are legal documents, included within a community’s General Plan, that identify housing related conditions, provide an assessment of housing needs for the next five-year period of time, identify housing resources, identify housing opportunities and constraints, and establish policies, programs, and quantified housing objectives to achieve City housing needs.

Statutory Requirements

State law requires that all housing elements address four key topics: 1) housing needs, 2) constraints to housing development, 3) housing resources, and 4) a housing plan. Analysis of these topics provides the foundation for the preparation of a housing element. Article 10.6, Section 65580 – 65589.8, Chapter 3 of Division 1 of Title 7 of the Government Code sets forth the legal requirements for a housing element and encourages the provision of affordable and decent housing in suitable living environments for all communities to meet statewide goals. This 2023-2031 Housing Element update is a policy document of the City of Hercules regarding current and projected future housing needs, and the City’s goals, policies, and programs to address those identified needs, and represents a focused update to the City’s adopted

2008-2014 Housing Element, which was found to be fully in compliance with State law by the California Department of Housing and Community Development (HCD).

Housing Needs

Several factors influence the demand for housing in Hercules. The four major needs categories considered in the Housing Element include: 1) housing needs resulting from population growth, both in the City and the surrounding region; 2) housing needs resulting from overcrowding of units; 3) housing needs that result when households are paying more than they can afford for housing; and 4) housing needs of "special needs groups" such as the elderly, large families, female-headed households, households with a physically or developmentally disabled person, farm workers, and the homeless.

The City of Hercules 2023-2031 Housing Element profiles key community demographics and examines the related housing needs of various groups, including owners versus renters, lower-income households, overcrowded households, elderly households, special needs groups, and homeless persons. This information is detailed in the Housing Element.

California housing element law requires that each city and county develop local housing programs designed to meet their "fair share" of housing needs for all income groups, based on projected population growth. The HCD Housing Policy Division develops Regional Housing Needs Assessments (RHNA) for each region of the State represented by councils of governments. The Association of Bay Area Governments (ABAG) determines the housing allocation for each city and county within its six-county jurisdiction. ABAG has assigned Hercules a housing allocation of 995 units for the 2023-2031 planning period. Table 3 (Regional Housing Needs Assessment) identifies the total projected housing needs for the 2023-2031 Housing Element.

**Table 3
Regional Housing Needs Assessment**

Income Category	% of County AMI	2023-2031 RHNA Allocation Number of Units	Percentage of Units
Extremely Low	0-50%	0	0%
Very Low	30-50%	344	34.6%
Low	51-80%	198	19.9%
Moderate	81-120%	126	12.6%
Above Moderate	120% +	327	32.9%
Total		995	100%

Source: ABAG, 6th Cycle RHNA Allocation 2022

Opportunity Areas

The proposed Housing Element identifies housing opportunity sites to accommodate the City's fair share of regional housing needs for the 2023-2031 planning period to help meet the RHNA. These sites are depicted on Exhibit 3 (Housing Opportunity Sites). The City of Hercules has already met about 35 percent of its total RHNA goal with its units constructed or in the pipeline. The Hercules 2023-2031 Housing Element provides an inventory of vacant properties within the City, most of which are located within various planned development areas such as Central Hercules Plan and the Waterfront District Master Plan. The properties were all previously approved for high-density or mixed-used residential development or with pending projects. However, due to economic downturn, these approved projects

have not moved forward, and therefore the sites remain available for future development. All of the housing sites are either approved by the City of Hercules or are currently being considered for approval, generally within large residential or mixed-use districts or specific plan areas. No rezoning or amendments to any applicable area plan or regulating code are proposed as part of this project.

Individual development projects that would contribute to meeting the City's RHNA targets are described below (letters in parentheses refer to each site's location shown in Exhibit 3):

(A) Bayfront Phase III. *The third phase of this project will begin construction in Winter 2022 in the TOD Waterfront District of Downtown Hercules. The Hercules Bayfront Master Plan is a multi-phase TOD project spanning over 42 bay adjacent acres. Bayfront Phase III is being developed near plans for a new town center, a lively new waterfront, and an exciting new train and ferry terminal.*

(B) Hill Town. *The Santa Clara Valley Housing Group (SCVHG) has approvals for a mixed-use project on a 44-acre site bounded by John Muir Parkway to south, San Pablo Avenue to the west, the Victoria by the Bay development to the north, and Interstate 80 to the east. The project will include 598 units (including townhomes, courtyards, and podium housing) despite the challenging topography. The project will also include 4,200 square feet of neighborhood retail.*

(C) Sycamore Crossing. *This is a 12.88-acre site at the southwest corner of the intersection of Sycamore Avenue and San Pablo Avenue. The City approved an application by the property owners, represented by the Lewis Group, to develop the site with retail, hotel, and residential uses. Sycamore Crossing was approved for 120 residential units, with 30 units designated as affordable. The project includes a stormwater treatment area, open space, a community garden, and access to Ohlone Creek.*

(D) 215 Skelly. *ERC SC LLC, a partnership between D.R. Horton and the property seller, has proposed 40 single-family units on 7.44 acres at 215 Skelly Drive. The project will include two affordable housing units. The project includes a stormwater treatment area, an open space buffer, and a public trail along the southern portion of the project site that would provide pedestrian access to Pinole Creek and the San Francisco Bay Trail. The developer has completed the required community engagement and has submitted a project application to the City.*

(E) Hercules New Town Center (NTC) District. *This district will establish a new downtown for the community and the region. The NTC will include the relocated and expanded Hercules Transit Center at its core, combining a regional bus station and location for a potential future BART extension. Surrounding the mass transit station will be pedestrian-oriented mixed-use development including retail, entertainment, office and urban-density residential uses (a total of 1,306 units). In total, the anticipated development plan has a capacity of 1,306 units across four parcels. The NTC includes minimum and maximum density for residential development that ranges from 30-75 dwelling units per acre, with an anticipated 60 dwelling units per acre at build-out.*

Table 4 (Housing Element Opportunity Sites) summarizes the characteristics of the Housing Element Sites Inventory and their locations are shown in Exhibit 3 (Opportunity Sites Locations). The Housing Opportunity Sites will approximately 2,069 units on parcels with a maximum capacity of 2,451 units of new housing compared to the City's current RHNA of 995 units.

**Table 4
Housing Element Opportunity Sites**

Site¹	Name/General Location	Size (Acres)	Density (du/ac)	Maximum Units	General Plan Designation²
A	Bayfront Phase III – TOD Waterfront District, Downtown Hercules	9.61	1-40	387	PC-R
B	Hill Town - John Muir Parkway @ San Pablo Avenue	44.30	1-40	598	PC-R
C	Sycamore Crossing - Sycamore Avenue @ San Pablo Avenue	1.77	1-80	120	PC-R
D	215 Skelly – 215 Skelly Drive	7.49	1-7	40	RS-L
E	New Town Center – Sycamore Avenue @ Willow Avenue	24.16	30-75	1306	NTC
	Total	87.33	1-80	2,451	--

Source: City of Hercules Housing Element 2023-2031

¹ See Exhibit 3, Housing Element Opportunity Sites

² NTC = within the New Town Center

Other Factors Affecting New Housing

AB 1397

Consistent with updated Housing Element law (Assembly Bill 1397) related to the suitability of small and large sites, the lower-income sites inventory presented in this section is limited to sites of between 0.5 and 10 acres in size, as HCD has indicated these size parameters best accommodate lower-income housing. In this inventory, there are no sites that are less than one-half acre in size. AB 1397 also adds specific criteria for assessment of the realistic availability of non-vacant sites during the planning period. If non-vacant sites accommodate half or more of the lower-income need, the Housing Element must present “substantial evidence” that the existing use does not constitute an impediment for additional residential use on the site. Due to the built-out nature of Hercules, most sites have existing uses. Non-vacant sites included in the inventory have been chosen due to their location, existing uses, and potential for intensification. To ensure that appropriate sites have been chosen, properties that show recent investments or updates or that contain uses of local importance are not included, and clear criteria were used to evaluate all sites within Hercules.

“No Net Loss” Provision

Government Code Section 65863 stipulates that a jurisdiction must ensure that its Housing Element inventory can accommodate its share of the RHNA by income level throughout the planning period. If a jurisdiction approves a housing project at a lower density or with fewer units by income category than identified in the Housing Element, it must quantify at the time of approval the remaining unmet housing need at each income level and determine whether there is sufficient capacity to meet that need. If not, the City must “identify and make available” additional adequate sites to accommodate the jurisdiction’s share of housing need by income level within 180 days of approving the reduced-density project. Program H3-7 is included in the Housing Element to set up a process for compliance.

Comparison of Sites Inventory and RHNA

Combined, the opportunity sites identified have the potential to accommodate 2,069 residential units. As Table 4 indicates, these sites and the densities allowed will provide opportunities to achieve remaining

RHNA goals for all income categories as well as provide surplus of 1,079 units, which help support no net loss provisions consistent with State law. These areas are considered highly likely to experience high density residential development for two key reasons: 1) the high demand for more affordable housing throughout Contra Costa County, and 2) the availability of underutilized land in areas recently designated for mixed-use, with the potential for high density residential development. The sites chosen are significantly underutilized given their size and location. As market forces continue to push toward higher densities, recycling of underutilized land is expected to occur at an increasing rate. If the trend continues, the City can anticipate increased recycling of land, particularly in higher-density areas where economies of scale can be realized.

Housing Element

The proposed Housing Element Update (HEU) anticipates development that could occur under the General Plan, as may be amended to accommodate the above individual development projects, but neither proposes or approves individual development projects. Implementation of future housing development will continue upon application to the City for approval to construct site-specific projects that could be facilitated by the 2023–2031 HEU policies and programs as well as other City regulations and incentives. All future development may require the issuance of additional permits from the City of Hercules, including but not limited to Planned Development Plans, Design Review approvals, subdivision maps, and other approvals.

As in the current Housing Element, the 2023–2031 HEU continues to provide a policy and program framework that is receptive to future residential development proposals. The proposed Element also continues to take advantage of currently planned higher densities for transit-oriented development.

The Draft Housing Element identifies a number of programs and incentives that would assist in meeting the City’s quantified housing objectives. These include but are not limited to:

- Use of density bonuses for development of affordable housing.
- Use of secondary dwelling units (“granny flats”).
- Financial resources, including Community Development Block Grants, Section 8 assistance California Housing Finance Agency funding, and other sources.

This HEU goals, policies, and programs have been established to address current housing issues in Hercules and to meet State law housing requirements. The City’s enduring objective is to facilitate and encourage safe, decent housing that fulfills the diverse needs of current and future residents. To achieve this vision, the HEU identifies long-term housing goals and shorter-term policies and programs to address identified housing needs, constraints to development confronting the City, and resources available to address the housing needs. To make adequate provision for the housing needs for people of all income levels, State law (Government Code 65583[c]) requires that the City, at a minimum, identify programs that do all of the following:

- Identify adequate sites, with appropriate zoning and development standards and services to accommodate the locality’s share of the regional housing needs for each income level.
- Assist in the development of adequate housing to meet the needs of extremely low-, very low-, low-, and moderate-income households.

- Address and, where possible, remove governmental constraints to the maintenance, improvement, and development of housing, including housing for people at all income levels, as
- well as housing for people with disabilities.
- Conserve and improve the condition of the existing affordable housing stock and preserve assisted housing developments at risk of conversion to market-rate housing.
- Promote equal housing opportunities for all people, regardless of race, religion, sex, marital status, ancestry, national origin, color, familial status, or disability.

The following lists the HEU goals and policies that will be evaluated in the Initial Study.

Goals and Policies

A. Assist in the Development and Preservation of Affordable Housing

Hercules strives to have a balanced community, with housing units available for all income segments of the population. Prior to its dissolution, the Redevelopment Agency facilitated the production of affordable for-sale and rental housing through the provision of both financial and regulatory incentives. With the dissolution of Redevelopment, the City supports affordable housing through participation in the CDBG and HOME programs, through technical assistance and regulatory incentives, and through regional programs.

Goal H1: Assist in the provision of adequate housing to meet the needs of the community. Establish a balanced approach to meeting housing needs that includes the needs of both renter and owner households.

- Policy H1.1 Facilitate development of housing affordable to lower-income households by providing technical assistance, regulatory incentives and concessions, and financial resources as funding permits.
- Policy H1.2 Encourage and provide incentives for both the private and public sectors to produce or assist in the production of affordable housing, with emphasis on housing affordable to persons with disabilities, seniors, large families, female-headed households with children, and people experiencing homelessness.
- Policy H1.3 Establish partnerships with private developers and non-profit housing corporations to assist Hercules in meeting its housing goals.
- Policy H1.4 As funding allows, provide rental assistance to address existing housing problems and support regional programs to assist prospective homebuyers.

B. Encourage Housing Variety

Meeting the housing needs of all residents in the community requires the identification of adequate sites for all types of housing. By capitalizing on the allowances in the Development Code and continuing to maintain an inventory of potential sites, the City will ensure that adequate residentially zoned and mixed-use sites are available.

Goal H2: Encourage a variety of housing types to meet the existing and future needs of Hercules residents.

Policy H2.1 Accommodate a range of residential development types in Hercules, including low-density single-family homes, moderate-density townhomes, higher-density multi-family units, and residential/commercial mixed use in order to address the City's share of regional housing needs.

Policy H2.2 Continue to maintain an up-to-date residential sites inventory, and provide information to interested developers in conjunction with information on available development incentives.

Policy H2.3 Encourage development and long-range planning that uses compact urban forms that foster connectivity, walkability, and use of alternative transportation modes, particularly within the Hercules Regional Intermodal Transportation Center planning area.

Policy H2.4 Continue to allow accessory dwelling units as a means of providing additional infill housing opportunities.

Policy H2.5 Support the provision of high-quality rental housing for large families, students, and senior households.

Policy H2.6 Encourage housing for low- and moderate-income households to be located in many different locations and not concentrated in any single portion of the City.

Policy H2.7 Encourage infill development and recycling of land to provide adequate residential sites and support the assembly of small vacant or underutilized parcels to enhance the feasibility of infill development.

C. Remove Constraints to Housing Development

Market and governmental factors pose constraints to the provision of adequate and affordable housing. These factors tend to disproportionately impact low- and moderate-income households due to their limited resources for absorbing the costs. Hercules is committed to removing governmental constraints that might hinder the production of housing.

Goal H3 Minimize the impact of governmental constraints on housing production and affordability.

Policy H3.1 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 H3.2 Provide regulatory incentives, such as density bonuses and reduced parking, to offset the costs of developing affordable housing.

Policy H3.3 Monitor State and federal housing-related legislation, and update City plans, ordinances, and processes as appropriate to remove or reduce governmental constraints

D. Promote Equal Housing Opportunity

To fully meet the community's housing needs, housing must be accessible to all residents, regardless of race, religion, family status, age, or physical disability.

Goal H4 **Promote and affirmatively further fair housing opportunities and promote housing throughout the community for all.**

Policy H4.1 Affirmatively further fair housing related to the sale, rental, and financing of housing to avoid discrimination based on race, religion, age, sex, marital status, ancestry, national origin, color, familial status, or disability, or any other arbitrary factor.

Policy H4.2 Assist in the enforcement of fair housing laws by providing support to organizations that can receive and investigate fair housing allegations, monitor compliance with fair housing laws, and refer possible violations to enforcing agencies.

Policy H4.3 Facilitate increased participation among traditionally underrepresented groups in the public decision-making process.

Policy H4.4 Promote greater awareness of fair housing practices and requirements, tenant and landlord rights and obligations through outreach and education for the broader community of residents, residential property owners and operators.

Policy H4.5 Encourage housing construction or alteration to meet the needs of residents with special needs, such as the elderly and disabled.

2.9 Project Objectives

The goals, policies, and programs in the Housing Element build upon the identified housing needs in the community, constraints confronting the City, and resources available to address the housing needs. Hercules's housing goals, policies, and programs address the following six major areas:

- Assist in the provision of housing that meets the needs of all socioeconomic segments of the community.
- Conserve and improve housing supply.
- Provide adequate housing sites.
- Remove government constraints.
- Provide equal housing opportunity.
- Promote energy efficiency and conservation.

2.10 Environmental Setting

The City of Hercules is located in western Contra Costa County, approximately 15 miles north of Oakland. Situated along the coast of San Pablo Bay it is located in the eastern region of the San Francisco Bay area. Major freeways traversing the City include I-80 and State Route 4 (SR-4). The City's total planning area, including the Sphere of Influence is 11,634 acres (18 square miles). Hercules's pattern of land uses transitions between predominantly suburban and commercial areas, with pockets of vacant land dispersed in between subdivisions. Cities surrounding Hercules are also similarly developed and with comparable layout, design, and character. The Pinole Ridge and Mendocino

Reservoir are located south of the City. See Exhibit 3 for general locations of the proposed Opportunity Areas for the Housing Element.

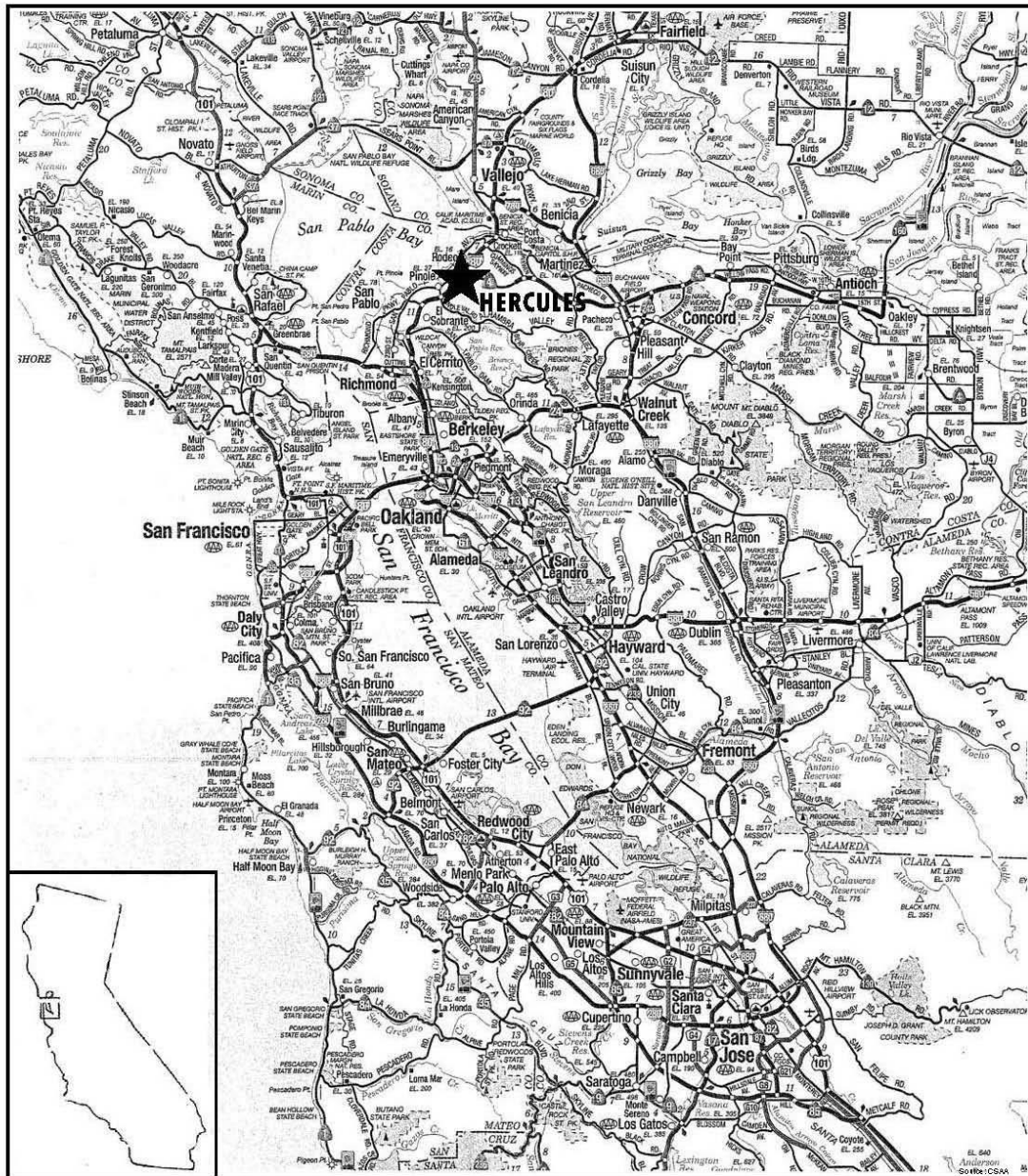
2.11 Required City Approvals

The City Council must approve a HEU to incorporate the 2023-2031 Housing Element into the City's General Plan in compliance with State Law.

2.12 Other Agency Approvals

The State of California, Department of Housing and Community Development (HCD) will review the Housing Element for compliance with State law and must determine if the adopted Element is in substantial compliance (Article 10.6 of the Government Code).

Exhibit 1. Regional Context



CITY OF HERCULES
INITIAL STUDY / HOUSING ELEMENT & ZONING ORDINANCE AMENDMENT

Exhibit 1
REGIONAL CONTEXT

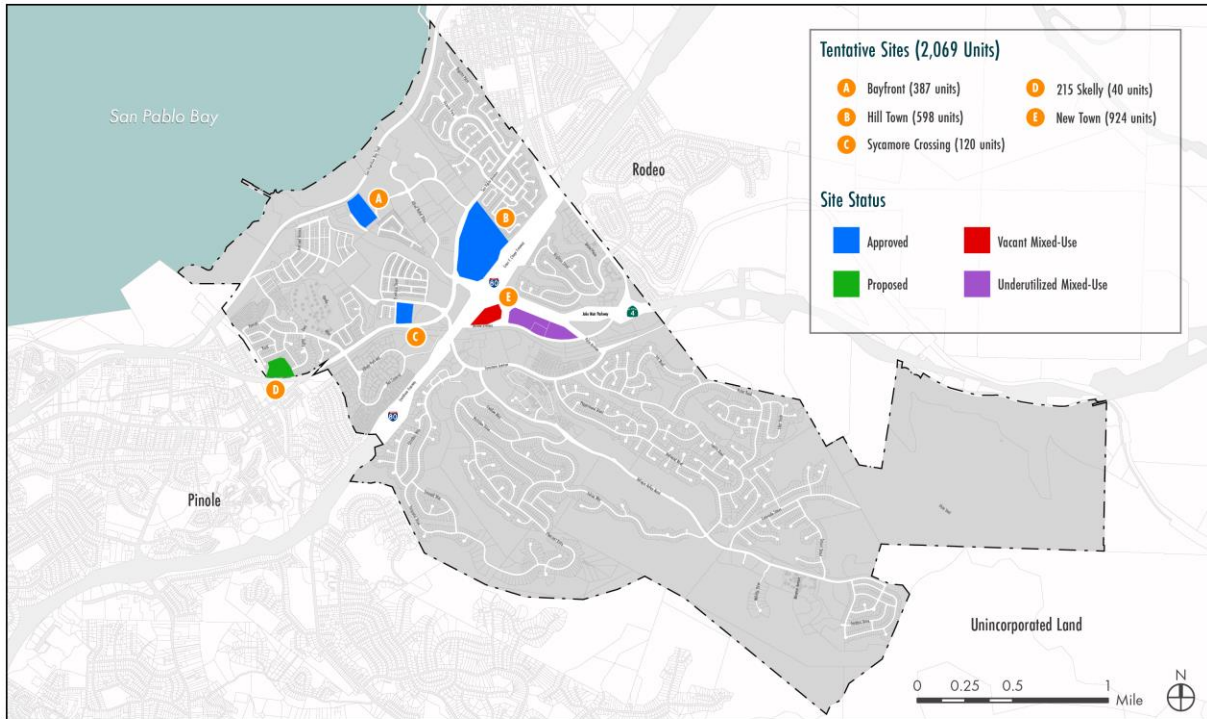
N

0 2 4 6 8 10 miles

Exhibit 2. Local Context



Exhibit 3. Housing Opportunity Sites



City of Hercules Housing Element Sites - May 2022



SECTION 3: DETERMINATION

1. **Project description:** Adoption of an updated 2023-2031 Housing Element as part of the Hercules General Plan as well as implementation of the updated Element
2. **Lead agency:** City of Hercules
3. **Contact person:** Timothy Rood, Community Development Director
4. **Project location:** City-wide
5. **Project sponsor:** City of Hercules
6. **General Plan designations:** Various
7. **Zoning:** Various
9. **Other agency required approvals:** Certification by the California Department of Housing and Community Development

3.1 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project.

<input type="checkbox"/>	Aesthetics	<input type="checkbox"/>	Agriculture Resources	<input type="checkbox"/>	Air Quality
<input type="checkbox"/>	Biological Resources	<input type="checkbox"/>	Cultural Resources	<input type="checkbox"/>	Energy
<input type="checkbox"/>	Geology /Soils	<input type="checkbox"/>	Greenhouse Gas Emissions	<input type="checkbox"/>	Hazards & Hazardous Materials
<input type="checkbox"/>	Hydrology / Water Quality	<input type="checkbox"/>	Land Use / Planning	<input type="checkbox"/>	Mineral Resources
<input type="checkbox"/>	Noise	<input type="checkbox"/>	Population / Housing	<input type="checkbox"/>	Public Services
<input type="checkbox"/>	Recreation	<input type="checkbox"/>	Transportation/Traffic	<input type="checkbox"/>	Tribal Cultural Resources
<input type="checkbox"/>	Utilities / Service Systems	<input type="checkbox"/>	Wildfire	<input type="checkbox"/>	Mandatory Findings of Significance

3.1 Determination

On the basis of this initial evaluation:

X I find that the proposed project **could not** have any new and significant effects on the environment that were not previously identified and addressed in the earlier environmental analyses described in Section 3.3, and a **Negative Declaration** will be prepared.

___ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A **Mitigated Negative Declaration** will be prepared.

___ I find that although the proposed project **may** have a significant effect on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on earlier analysis as described on the attached sheets, if the effect is a “potentially significant impact” or “potentially significant unless mitigated.” An **Environmental Impact Report** is required, but must only analyze the effects that remain to be addressed.

___ I find that although the proposed project could have a significant effect on the environment, there **will not** be a significant effect in this case because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed on the proposed project.

Signature: _____ Date: _____

Printed Name: _____ For: _____

3.2 Evaluation of Environmental Impacts

- 1) A brief explanation is required for all answers except “no impact” answers that are adequately supported by the information sources a lead agency cites in the parenthesis following each question. A “no impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g. the project falls outside a fault rupture zone). A “no impact” answer should be explained where it is based on project-specific factors as well as general factors (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect is significant. If there are one or more “potentially significant impact” entries when the determination is made, an EIR is required.
- 4) “Negative Declaration: Less Than Significant Unless Mitigation Incorporated” implies elsewhere the incorporation of mitigation measures reduces an effect from “potentially significant effect” to a “less than significant impact.” The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level.
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. In this case, a brief discussion should identify the following:
 - a. Earlier Analysis Used. Identify and state where they are available for review.
 - b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c. Mitigation Measures. For effects that are “Less-Than-Significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead Agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) This is a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.

- 9) The explanation of each agency should identify: (a) the significance criteria or threshold, if any, used to evaluate each question; and (b) the mitigation measure identified, if any, to reduce the impact to a less than significant level.

3.3 Earlier Analysis

Earlier analyses may be used where, pursuant to tiering, a program EIR, or other CEQA process, one or more effects have been adequately analyzed in an earlier EIR or Negative Declaration [Reference CEQA Guideline Section 15063 (c)(3)(d)].

Portions of the environmental analysis for this Initial Study refer to information contained in one or more of the EIRs listed below. The draft Housing Element does not propose any General Plan or Specific Plan land use changes or any rezoning of properties. The City proposes to meet its RHNA through existing General Plan land use and zoning designations. The following environmental review documents reflect these existing designations and/or zoning in their respective analyses.

- City of Hercules General Plan Land Use and Circulation Elements Update and Redevelopment Plan Amendments, Environmental Impact Report, SCH# 1995033027, certified on June 9, 1995.
- Hercules New Town Center EIR, SCH# 2007062002, certified on February 10, 2009.
- Hercules Update 2009 Redevelopment Plan EIR, SCH # 2008112040, certified on May 26, 2009.
- Hercules Bayfront Project EIR, SCH # 2009112058, certified on October 11, 2011.

These documents are incorporated herein by reference and are available for public review at the Hercules Planning Department, 111 Civic Drive, Hercules, during normal business hours. They are also posted on the City's website at the following internet address:

<https://www.ci.hercules.ca.us>.

3.4 Environmental Checklist

The following Environmental Checklist form is used to describe the impacts of the proposed project, as detailed in the Project Description. Potential environmental impacts are described as follows:

Potentially Significant Impact: An environmental impact that could be significant and for which no feasible mitigation is known. If any potentially significant impacts are identified in this Checklist, an Environmental Impact report (EIR) must be prepared.

Potentially Significant Unless Mitigated: An environmental impact that requires the incorporation of mitigation measures to reduce that impact to a less-than-significant level.

Less-Than-Significant-Impact: An environmental impact may occur, however, the impact would not be considered significant based on CEQA environmental standards.

No Impact: No environmental impacts are proposed.

SECTION 4: EVALUATION OF ENVIRONMENTAL IMPACTS

4.1 Aesthetics

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Overview. Visual and aesthetic characterizes within Hercules vary considerably within the community. Portions of the community lying east of the I-80 freeway are characterized by rolling hills, scattered residential uses, and commercial service land uses. With the exception of R&D and business park uses located west of San Pablo Avenue and north of John Muir Parkway, the portion of Hercules lying west of the I-80 freeway include a mix of residential uses at varying densities, commercial uses, parks, civic uses, vacant land, and resource protection areas.

Major scenic vistas. Major scenic vistas in the Hercules planning area include the I-80 freeway which provides distant views of San Pablo Bay and nearby hillside areas. Drivers travelling on SR-4 are

afforded views of vacant hillsides in their natural state and the Franklin Canyon Golf Course. Neither of these state routes is designated as scenic highways by the State of California (source: http://www.dot.ca.gov/hq/LandArch/scenic_highways.index.htm). However, the City of Hercules has designated SR-4 as a City Scenic Route and San Pablo Avenue from Pinole Valley Road to I-80 as a local Scenic Route.

Other scenic routes include San Pablo Avenue (a north–south arterial roadway that traverses wetland and riparian resources in the Refugio Valley) and Refugio Valley Road (an east–west arterial that parallels Refugio Creek in the central portion of Hercules). Views of San Pablo Bay are available from Railroad Street and Bayfront Boulevard adjacent to the Bay. San Pablo Bay Regional Shoreline also provides a scenic vista to San Pablo Bay. Finally, local parks in Hercules provide for scenic vistas of nearby hillsides and other views.

Scenic resources. Scenic resources in the Hercules planning area include surface water and riparian areas, undeveloped natural hillsides, and major stands of vegetation. The major surface body of water in the Hercules planning area is San Pablo Bay, located immediately west of the upland portion of the community. Refugio Creek provides another major scenic resource that flows from lands with higher elevations in the eastern portion of Hercules into San Pablo Bay.

A number of major natural and man-made vegetated areas exist in Hercules. These include:

- A corridor along Refugio Creek and Refugio Valley Road.
- Natural hillsides lying northeast of Emerald Way and Turquoise Drive in the southern portion of Hercules.
- Trees within local parks, including but not limited to Refugio Valley Park.

Light sources. Numerous sources of lights exist within the developed portions of Hercules. These include street lights, parking lot lights, building lights, security lights, and similar sources of light. Undeveloped portions of the community generally do not have light sources.

Impacts and Mitigation Measures from Previous EIRs

A number of impacts and mitigation measures included in previously certified CEQA documents that include the housing opportunity sites (see **Exhibit 3**) are listed below.

City General Plan EIR. The GP EIR identified the following potentially significant visual quality-related impact and five mitigation measures that would reduce impacts to less than significant levels:

Impact Visual-1: Implementation of the proposed land use designations could result in development that impairs the existing scenic quality of the upper drainage and lower drainage ridges, plateaus, and floodplain.

Mitigation Measure Visual-1a: Development proposals should be viewed in terms of natural objects in the vicinity that have aesthetic significance. This may include open space, eucalyptus groves, or vegetation that serves as a view corridor or has important visual attributes. Development proposal should be sited to ensure that these features are retained or replaced to the extent feasible, resulting in minimal view impairment.

Mitigation Measure Visual-1b: Plantings that serve to screen views of residential development, or that help to maintain a natural-appearing landscape, should be retained to the extent feasible. Such plants

could be thinned selectively if thinning would improve view corridors. If specific trees are to be removed, such as eucalyptus trees, replace with trees, preferably native species, that would provide suitable screening while retaining important view corridors.

Mitigation Measure Visual-1c: Preserve the wooded tree-lined character of the proposed hiking/biking trail along Refugio Creek west of I-80 through retention of existing vegetation and/or planting of replacement trees and other vegetation.

Impact Visual-2: Adoption of the proposed land use designations could result in development that could result in obstruction of scenic vistas and views open to the public.

Mitigation Measure Visual-2a: Development should preserve important view corridors, where feasible, by identifying and preserving the attributes of the view corridor that characterize its significance (e.g., framing elements, surface water reflections, presence or absence of impinging details) as seen from roadways, pedestrian paths or other public vantage points to avoid view obstruction. Building should be sited so as to minimize view obstruction from sensitive viewpoints. The following views, from publicly accessible viewpoints, should be preserved to the maximum extent feasible as the City evaluates new development or a parcel-specific basis:

- Upper drainage views from higher elevations of Parcel 13 easterly up the floor of Franklin Canyon.
- Lower drainage views across Hercules Point north across open water to Lone Tree Point and beyond to Solano and Napa Counties.
- Lower drainage ridge views from the promontory of San Pablo Bay, Lone Tree Point, Franklin Canyon and the Refugio Creek floodplain.
- San Pablo Avenue views of specimen oak tree stands and, where feasible, of Eucalyptus.
- Views of San Pablo Bay and the Hills of Marin, Sonoma, and Napa Counties, and inland of the Briones Hills, that are available from various elevation points on Parcels 2,4,5,6 7, and C and from the shoreline areas of Parcels 1, 2, and 6.
- Views from the former Hercules Powder Company offices on the promontory to the west, north, and east.

Impact Visual-3: Development in the upper drainage valleys, lower drainage floodplain and plateaus could introduce additional light and glare.

Mitigation Measure Visual-3a: The City of Hercules should evaluate the light and glare potential of new development on a parcel specific basis and apply the following measures:

- Screening of parking areas by using vegetation and trees. This would reduce the amount of glare generated from painted and chrome automobile surfaces and prevent expanses of stationary and moving automobiles.
- Hooded lights for nighttime illumination should be used for parking areas, shipping and receiving docks and industrial development. Hooded lights direct the light beam towards the ground, which if a dark pavement, will not reflect light and cause spillage into neighboring uses.
- Regular windows should be used instead of glass walls or massive reflective windows often used for research and development, and office park developments.

Impact Visual-4: Development consistent with the proposed Land Use and Circulation Elements Update could degrade objects having aesthetic or historical significance.

Mitigation Measure Visual-4a: The City would review development proposals on a project-specific basis. New development would be subject to design review as part of the City’s project review process.

Hercules New Town Center EIR. This EIR identified a potentially significant impact caused by future development within the New Town Center project that would alter the existing visual character of the project area and its surrounding area. Mitigation Measure AES1 requires that future development within the New Town Center project area be maintained in a clean and orderly condition. A screen fence shall be placed around construction sites, and construction staging areas are to be located away from public view.

Updated 2009 Redevelopment Plan EIR. Impact AES-2 identified a significant and unavoidable impact with respect to damage or removal of scenic resources adjacent to scenic corridors, including hillside areas, removal of mature trees, and removal of a riparian area for which a Statement of Overriding Consideration was adopted. Mitigation Measures AES-2a through 2f required: replacement of lost trees; sensitive placement of future buildings to minimize view obstruction; avoidance of inconsistent building designs; and installation of landscaping along San Pablo Avenue to soften the visual mass of future buildings. Even with adherence to these measures, this impact would not be reduced to a less-than-significant level. A Statement of Overriding Considerations was adopted for this impact due to the benefits of the plan.

Impact AES-3 noted that construction of the proposed project would alter the existing visual character of the sites and could substantially degrade the visual character and quality of the sites and their respective surroundings. This was identified as a significant and unavoidable impact. A Statement of Overriding Considerations was adopted for this impact due to the benefits of the plan.

Impact AES-4 identified a potentially significant impact with respect to creation of new sources of light and glare that could impact nighttime views of the area. Adherence to Mitigation Measures AES-4a and -4b reduces this impact to a less-than significant level by requiring parking areas in the Sycamore Crossing and Hill Town areas to be screened with trees and vegetation and the use of hooded and downward-directed light fixtures.

Hercules Bayfront Project EIR. Impact 4.1 found an impact with respect to scenic resources should the Bayfront project be approved and constructed. Specifically, views of the Bay and Refugio Creek would be blocked from a number of vantage points. Adherence to Mitigation Measure 4-1 partially reduces this impact by requiring changes to the project site plan. If these changes cannot be made, this impact would be significant and unavoidable. A Statement of Overriding Considerations was adopted for this impact due to the benefits of the plan

Impact 4.2 identified a significant and unavoidable impact with respect to changing the visual character of the site from an undeveloped area to an urbanized area. A Statement of Overriding Considerations was adopted for this impact due to the benefits of the plan.

Impact 4.3 identified an impact with the introduction of light and glare to the project site and vicinity. Adherence to Mitigation Measure 4-3 reduces this impact to a less-than-significant level by requiring the City Community Development Department to approve a lighting plan that demonstrates minimization of light and glare from the site.

Regulatory Framework

The City of Hercules has the following regulations to minimize impacts to visual and aesthetic resources.

General Plan. The General Plan contains the following goals and policies regulating aesthetic and scenic features of the City.

Land Use Element Objective 7 directs the City to achieve a pattern of development that is consistent with the City's desired image.

Open Space and Conservation Element Objective 1.d states that the City should plan for the preservation and enhancement of visual qualities as viewed from scenic routes.

Open Space/Conservation Element Objective 13 directs the City to preserve and enhance scenic views within the community. The following policies are also related to this Objective:

Development proposals shall be reviewed in terms of natural objects in the vicinity that have aesthetic significance. This may include opens space, eucalyptus groves or vegetation that serves as a view corridor or has important visual attributes. Development proposals shall be sites to ensure that these features are retained or replaced to the extent feasible, resulting in minimal view impairment (*Policy 13a*)

Plantings that serve to screen views of residential development or that help to maintain a natural-appearing landscape, shall be retained to the extent feasible. Such plants could be thinned selectively if thinning would improve view corridors. If specific trees are to be removed, such as eucalyptus trees, replace with trees, preferably native trees that will provide suitable screening while retaining important view corridors, especially along San Pablo Avenue, which is designated as a scenic corridor. (*Policy 13b*).

Development shall preserve important view corridors, where feasible, by identifying and preserving the attributes of the view corridor that characterize its significance (e.g. framing elements, surface water reflections, presence or absence of impinging details) as seen from roadways, pedestrian paths or other public vantage points to avoid view obstruction. Buildings shall be sited so as to minimize view obstruction from sensitive viewpoints (*Policy 13d*).

New development shall be designed to minimize light and glare impacts (*Policy 13e*).

Circulation Element Objective 2 directs the City to plan for the preservation and enhancement of visual qualities as viewed from designated scenic routes.

Hercules Zoning Ordinance. The Hercules Zoning Ordinance contains Chapter 25, the Scenic Road and Highway Overlay District. The purpose of this District is to implement the scenic road and highway designations of the General Plan, to review the visual impacts of development proposals adjacent to scenic corridors, and to encourage aesthetically attractive architecture and site designs.

The Zoning Ordinance also requires establishment and maintenance of a 50-foot wide setback from the top of banks for Refugio Creek and Rodeo Creek. (Section 22.400 (1).) The setback may be reduced for the west branch of Refugio Creek if the 50-foot setback proves infeasible.

Tree Removal Ordinance. The City's Tree Removal Ordinance regulates the removal of mature trees on public and private lands in the community. The ordinance defines a mature tree as a living tree with a trunk diameter of 12 inches or more measured approximately 4.5 feet above adjacent ground surface.

Project Impacts

- a) **Less than Significant Impact.** Potential dwelling units identified in the Housing Element Update are predominantly located in the central and western portions of Hercules, and impacts related to scenic vistas of the various housing sites have been analyzed in the Hercules New Town Center EIR, the 2009 Updated Redevelopment Plan EIR, and the Bayfront Project EIR. The Updated 2009 Redevelopment Plan EIR determined that approval and construction of dwelling units and other development pursuant to that plan, including the proposed Sycamore Crossing and Hill Town developments, would have a significant and unavoidable impact on scenic vistas and scenic resources. A Statement of Overriding Considerations was adopted for this impact due to the benefits of the plan.

The Bayfront Project EIR found that buildout of this project would obscure existing views of San Pablo Bay and Refugio Creek from a number of vantage points on the project site. Mitigation Measure 4.-1 contained in the EIR requires that modifications be made in the site design and roadway network to more effectively preserve bay views and vistas. With such modifications, potential impacts with respect to scenic vistas would be less-than-significant.

Transitional housing, supportive housing, and emergency shelters would likely be small-scale in nature and could be located within existing structures with no impacts to scenic vistas.

Impacts of constructing future dwellings included in the updated Housing Element have been analyzed in project specific CEQA documents, which are identified in the Earlier Analysis section of this Initial Study, and thus no new analysis is required. All mitigation measures contained in previous CEQA documents related to scenic vistas will continue to apply to future residential construction identified in the draft Housing Element so that this topic will be less-than-significant.

- b) **Less than Significant Impact.** Although there are no state-designated scenic highways within the City of Hercules, there are locally designated scenic routes as summarized in the Environmental Setting section. The Updated 2009 Redevelopment Plan EIR determined that approval and construction of dwelling units and other development pursuant to the updated redevelopment plan, including the proposed Sycamore Crossing and Hill Town developments, would have a significant and unavoidable impact on scenic vistas and scenic resources for which a Statement of Overriding Consideration was adopted. No such significant and unavoidable impacts were identified in the Hercules New Town Center EIR.

Future site-specific housing development proposals submitted to the City as part of the New Town Center, Updated 2009 Redevelopment Plan, Bayfront III project, as well as the other planned development outlined in Section 2.8 and Table 4, will be required to comply with applicable EIR mitigation measures and other City regulations and policies to protect scenic resources. Therefore, these potential impacts for this project are considered to be less than significant at this programmatic level.

- c) **Less than Significant Impact.** The Updated 2009 Redevelopment Plan EIR determined that approval and construction of dwelling units and other development pursuant to the updated redevelopment plan, including the proposed Sycamore Crossing and Hill Town developments, would result in a significant and unavoidable impact on the visual character of the Updated 2009 Redevelopment Plan project area by developing currently vacant parcels of land for which a Statement of Overriding Consideration was adopted. No similar significant and unavoidable impacts were identified in the Hercules New Town Center EIR.

Impacts of the proposed Bayfront project with respect to degradation of the scenic character of the waterfront site was analyzed in the EIR document and was found to be significant and unavoidable since the proposed development would change the existing visual character of the site of one of the last undeveloped waterfront open spaces in Hercules. A Statement of Overriding Considerations was adopted for this impact due to the benefits of the plan.

Future site-specific housing development proposals submitted to the City, including those resulting from this project and outlined in Section 2.8 and Table 4, and similar future developments will be required to comply with applicable EIR mitigation measures and other City regulations and policies to protect scenic resources. A less-than-significant impact is anticipated with respect to this topic.

- d) **Less than Significant Impact.** Previous CEQA documents prepared for various housing sites identified potentially significant impacts with respect to adding new sources of light and glare on housing sites associated with housing construction. Adherence to the mitigation measures contained in the three previous certified EIRs as noted above will assure that potential impacts from this project will be less than significant.

In addition, review of individual housing development projects as part of the City of Hercules planning and environmental review process will ensure that spillover of light and glare from individual housing sites is limited and that impacts of light and glare will be less-than-significant.

4.2 Agricultural and Forestry Resources

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220 (g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104 (g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

All of the housing sites identified in the Housing Element Update have urban-type General Plan land use designations and similar zoning. None of the sites are zoned for agricultural uses, are being used for agricultural production, or have a Williamson Act Land Conservation Contract. In addition, the 2008 Contra Costa County Important Farmland Map shows that the various housing sites included in the draft Housing Element are urban and built-up lands and are not considered as prime farmland.

Similarly, none of the housing sites contain significant stands of trees or forests.

Impacts and Mitigation Measures from Previous EIRs

The City contains no agricultural or forest resources and no previous EIRs identified any significant impacts or mitigation measures.

Project Impacts

- a-c) **No Impact.** No impacts are anticipated with respect to conversion of prime agricultural soils to non-agricultural uses, or to conflict with agricultural zoning or a Williamson Act contract, since none of the identified housing sites contain any of these features.
- d,e) **No Impact.** Approval of the proposed Housing Element Update would have no impact on forestland, since no forested lands exist on any of the housing opportunity sites.

4.3 Air Quality

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Air Pollution Climatology. The amount of a given pollutant in the atmosphere is determined by the amount of pollutant released and the atmosphere's ability to transport and dilute the pollutant. The major determinants of transport and dilution are wind, atmospheric stability, terrain and, for photochemical pollutants, sunshine.

Hercules is located in western Contra Costa County just south of the Carquinez Strait and is within the nine-county San Francisco Bay Area Air Basin. Its location near San Pablo Bay and the Carquinez Strait has a major influence on the climate and air quality of the area.

The Carquinez Strait is the only sea-level gap between San Francisco and the Central Valley. During the summer and fall months, high pressure offshore coupled with temperature-related low pressure in the Central Valley causes marine air to flow eastward through the Strait. The wind is strongest in the afternoon. During the nighttime weaker down-slope drainage flows are common, particularly in winter.

The pollution potential of the planning area is relatively low compared to other portions of the Bay Area. Ventilation is relatively good, and there is limited transport of pollutants from other upwind urban areas. However, during periods of light or calm winds, which typically occur in the fall and winter months, the entire Bay Area air basin is subject to stagnation and poor air quality.

Ambient Air Quality Standards

Criteria Pollutants. The Environmental Protection Agency and the California Air Resources Board have established ambient air quality standards for common pollutants. These ambient air quality standards

are levels of contaminants which represent safe levels that avoid specific adverse health effects associated with each pollutant. The ambient air quality standards cover what are called “criteria” pollutants because the health and other effects of each pollutant are described in criteria documents. Table 5 identifies the major criteria pollutants, characteristics, health effects and typical sources. The federal and California state ambient air quality standards are summarized in Table 6.

The federal and state ambient standards were developed independently with differing purposes and methods, although both processes attempted to avoid health-related effects. As a result, the federal and state standards differ in some cases. In general, the California state standards are more stringent. This is particularly true for ozone and particulate matter (PM₁₀ and PM_{2.5})

Toxic Air Contaminants. Toxic air contaminants (TACs) are a defined set of airborne pollutants that may pose a present or potential hazard to human health. A wide range of sources, from industrial plants to motor vehicles, emit TACs. Like PM_{2.5}, TAC can be emitted directly and can also be formed in the atmosphere through reactions among different pollutants.

The health effects associated with TACs are quite diverse and generally are assessed locally, rather than regionally. TACs can cause long-term health effects (such as cancer, birth defects, neurological damage, asthma, bronchitis or genetic damage) or short-term acute effects, such as eye watering, respiratory irritation (coughing), running nose, throat pain, and headaches. For evaluation purposes, TACs are separated into carcinogens and non-carcinogens based on the nature of the physiological effects associated with exposure to the pollutant. Carcinogens are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per one million exposed individuals, typically over a lifetime of exposure. Non-carcinogenic substances differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are expressed as a hazard index (HI), which is the ratio of expected exposure levels to an acceptable reference exposure levels.

TACs are primarily regulated through State and local risk management programs. These programs are designed to eliminate, avoid, or minimize the risk of adverse health effects from exposures to TACs. A chemical becomes a regulated TAC in California based on designation by the California Office of Environmental Health Hazard Assessment (OEHHA). As part of its jurisdiction under Air Toxics Hot Spots Program, OEHHA derives cancer potencies and reference exposure levels (RELs) for individual air contaminants based on the current scientific knowledge that includes consideration of possible differential effects on the health of infants, children and other sensitive subpopulations, in accordance with the mandate of the Children’s Environmental Health Protection Act.

PM_{2.5} is a complex mixture of substances that includes elements such as: carbon and metals; compounds such as nitrates, organics, and sulfates; and complex mixtures such as diesel exhaust and wood smoke. PM_{2.5} can be emitted directly and can also be formed in the atmosphere through reactions among different pollutants.

Compelling evidence suggests that PM_{2.5} is by far the most harmful air pollutant in the San Francisco Bay Area Air Basin in terms of the associated impact on public health. A large body of scientific evidence indicates that both long-term and short-term exposure to PM_{2.5} can cause a wide range of health effects, e.g., aggravating asthma and bronchitis, causing visits to the hospital for respiratory and cardiovascular symptoms, and contributing to heart attacks and deaths.

Common stationary source types of TAC and PM_{2.5} emissions include gasoline stations, dry cleaners, and diesel backup generators, which are subject to BAAQMD permit requirements. The other, often more significant, common source type is on-road motor vehicles on freeways and roads such as trucks and cars, and off-road sources such as construction equipment, ships, and trains.

Ambient Air Quality. The BAAQMD maintains a network of monitoring sites in the Bay Area. The closest to the project site are located in San Pablo several miles southwest of the site and in Vallejo several miles northwest of the site. Table 7 summarizes violations of air quality standards at these monitoring sites for the period 2017-2019. Table 7 shows that the federal ambient air quality standards are met in the project area with the exception of PM_{2.5} while State ambient standards are not yet met for ozone, PM₁₀ and PM_{2.5}.

Attainment Status and Regional Air Quality Plans. The federal Clean Air Act and the California Clean Air Act of 1988 require that the State Air Resources Board, based on air quality monitoring data, designate portions of the state where the federal or state ambient air quality standards are not met as “nonattainment areas.” Because of the differences between the national and state standards, the designation of nonattainment areas is different under the federal and state legislation. The U. S. Environmental Protection Agency has classified the San Francisco Bay Area as a non-attainment area for the federal 8-hour ozone standard. The Bay Area was designated as unclassifiable/attainment for the federal PM₁₀ and PM_{2.5} standards. Under the California Clean Air Act, Contra Costa County is a non-attainment area for ozone and particulate matter (PM₁₀ and PM_{2.5}). The county is either attainment or unclassified for other pollutants.

Table 5. Major Criteria Pollutants

Pollutant	Characteristics	Health Effects	Major Sources
Ozone	A highly reactive photochemical pollutant created by the action of sunshine on ozone precursors (primarily reactive hydrocarbons and oxides of nitrogen). Often called photochemical smog.	Eye irritation; Respiratory function impairment.	The major sources of ozone precursors are combustion sources such as factories and automobiles, and evaporation of solvents and fuels.
Carbon Monoxide	Carbon monoxide is an odorless, colorless gas that is highly toxic. It is formed by the incomplete combustion of fuels.	Impairment of oxygen transport in the bloodstream. Aggravation of cardiovascular disease. Fatigue, headache, confusion, dizziness. Can be fatal in the case of very high concentrations.	Automobile exhaust, combustion of fuels, combustion of wood in woodstoves and fireplaces.
Nitrogen Dioxide	Reddish-brown gas that discolors the air, formed during combustion.	Increased risk of acute and chronic respiratory disease.	Automobile and diesel truck exhaust, industrial processes, fossil-fueled power plants.
Sulfur Dioxide	Sulfur dioxide is a colorless gas with a pungent, irritating odor.	Aggravation of chronic obstruction lung disease. Increased risk of acute and chronic respiratory disease.	Diesel vehicle exhaust, oil-powered power plants, industrial processes.
Particulate Matter	Solid and liquid particles of dust, soot, aerosols, and other matter which are small enough to remain suspended in the air for a long period of time.	Aggravation of chronic disease and heart/lung disease symptoms.	Combustion, automobiles, field burning, factories, and unpaved roads. Also a result of photochemical processes.

Source: Donald Ballanti, 2009

Table 6. Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	Federal Primary Standard	State Standard
Ozone	1-Hour	--	0.09 PPM
	8-Hour	0.075 PPM	0.07 PPM
Carbon Monoxide	8-Hour	9.0 PPM	9.0 PPM
	1-Hour	35.0 PPM	20.0 PPM
Nitrogen Dioxide	Annual Average	0.053 PPM	0.030 PPM
	1-Hour	0.10 PPM	0.18 PPM
Sulfur Dioxide	Annual Average	0.03 PPM	--
	24-Hour	0.14 PPM	0.04 PPM
	1-Hour	--	0.25 PPM
PM ₁₀	Annual Average	--	20 µg/m ³
	24-Hour	150 µg/m ³	50 µg/m ³
PM _{2.5}	Annual	15 µg/m ³	12 µg/m ³
	24-Hour	35 µg/m ³	--
Lead	Calendar Quarter	1.5 µg/m ³	--
	30 Day Average	--	1.5 µg/m ³
Sulfates	24 Hour	--	25 µg/m ³
Hydrogen Sulfide	1-Hour	--	0.03 PPM
Vinyl Chloride	24-Hour	--	0.01 PPM

PPM = Parts per million

µg/m³ = Micrograms per cubic meter

Source: California Air Resources Board, Ambient Air Quality Standards

<http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>

Table 7. Summary of Air Quality Data for San Pablo and Vallejo

Pollutant	Standard	Monitoring Site	Days Exceeding Standard in:		
			2017	2018	2019
Ozone	State 1-Hour	San Pablo	3	0	1
		Vallejo	1	0	0
Ozone	Federal 8-Hour	San Pablo	2	0	2
		Vallejo	2	0	1
Ozone	State 8-Hour	San Pablo	2	0	2
		Vallejo	2	0	1
Carbon Monoxide	State/Federal 8-Hour	San Pablo	0	0	0
		Vallejo	0	0	0
Nitrogen Dioxide	State 1-Hour	San Pablo	0	0	0
		Vallejo	0	0	0
PM ₁₀	Federal 24-Hour	San Pablo	0	1	0
		Vallejo	ND	ND	ND
PM ₁₀	State 24-Hour	San Pablo	4	2	0
		Vallejo	ND	ND	ND
PM _{2.5}	Federal 24-Hour	San Pablo	9	14	1
		Vallejo	9	13	0

Source: Air Resources Board, Aerometric Data Analysis and Management (ADAM), BAAQMD Data Sheets, 2017-2019.

(<http://www.arb.ca.gov/adam/select8/sc8start.php> ND = No Data

Sensitive Receptors. The Bay Area Air Quality Management District defines sensitive receptors as facilities where sensitive receptor population groups (children, the elderly, the acutely ill, and the chronically ill) are likely to be located. These land uses include residences, schools, playgrounds, childcare centers, retirement homes, convalescent homes, hospitals, and medical clinics.

Impacts and Mitigation Measures from Previous EIRs

Impacts and mitigation measures included in previously certified CEQA documents are listed below:

General Plan EIR. The GP EIR identified the following two significant air quality-related impacts:

Impact Air-3: Projected development under the proposed Land Use and Circulation Elements Update would generate criteria pollutants that would increase total air pollutant emissions in the region.

Impact Air-5: The Land Use Element Update would result in increases in population and employment beyond ABAG projections and, therefore, would not be consistent or in conformance with the 1991 Clean Air Plan.

Mitigation Measure Air-3a: The City could prepare an Air Quality Element of its General Plan. The BAAQMD recommends that an Air Quality Element be developed for cities subject to rapid growth and change. An Air Quality Element can be used in the preparation of subsequent specific area plans, EIRs, and for the achievement of ambient air quality standards. The BAAQMD's philosophy is that air quality concerns should be an early input into the planning process. The purpose of the Air Quality Element would be to:

- (1) Contain the air quality goals of the City, based on background conditions including the local and regional meteorological influences on air quality, emissions inventory data, and existing City sources of criteria, odorous, and toxic air pollutants.
- (2) Provide City-approved mitigation measures for mobile sources, stationary sources, and a commitment to implementation of these measures in specific projects that are subsequently proposed.
- (3) Serve as a land use planning tool by identifying sensitive receptors in the City.
- (4) Encourage mixed-use development that could minimize vehicle use.

Mitigation Measure Air-3b: Coordinate with the BAAQMD in planning future growth, implementing regional transportation plans and trip reduction measures, and controlling stationary source emissions. Incorporate the recommendations of the BAAQMD in General Plan policies and directing for regional growth and development.

In addition, The GP EIR identified the following potentially significant air quality-related impacts and three mitigation measures that would reduce impacts to less than significant levels:

Impact Air-1: Fugitive dust generated by construction and demolition activities under the Land Use and Circulation Elements Update would add to ambient PM₁₀ levels.

Mitigation Measure Air-1a: The elements of the dust abatement program include the following dust control measures:

- Sprinkle all construction areas with water (recycled when possible) at least twice a day, during excavation and other ground-preparing operations, to reduce fugitive dust emissions. Wetting could reduce particulate (dust) emissions by up to 50 percent.
- Cover stockpiles of sand, soil, and similar materials, or surround them with windbreaks. This measure would substantially reduce wind erosion of stockpiled materials during demolition, and construction, reducing the potential for the project to contribute to excessive suspended particulate (dust) concentrations when the wind exceeds 10 miles per hour.
- Cover trucks hauling dirt and debris to reduce spillage onto paved surfaces.
- Post signs that limit vehicle speeds on unpaved roads and over disturbed soils to 10 miles per hour during construction.
- Use canvas drapes to enclose building floors during application of mineral-based fiber insulation to structural steel frames.
- Sweep up dirt and debris spilled onto paved surfaces immediately to reduce resuspension of particulate matter through vehicle movement over those surfaces.
- Require the construction contractor to designate a person or persons to oversee the implementation of a comprehensive dust control program and to increase watering, as necessary.

Impact Air-2: Exhaust emissions from construction equipment would increase the criteria air pollutant emissions during the construction periods for individual projects under the proposed Land Use and Circulation Elements Update.

Mitigation Measure Air-2a: Require construction contractors to maintain and operate construction equipment so as to minimize exhaust emissions. All internal combustion engines should be kept well-tuned with regular and periodic inspection and maintenance checks to minimize exhaust emissions. During construction, trucks and equipment should be running only when necessary.

Mitigation Measure Air-2b: Require that construction of large projects be timed to avoid significant periods of overlap.

Impact Air-4: CO generated by vehicular traffic generated as a result of the Land Use and Circulation Elements Update would increase roadside CO concentrations along heavily traveled roadways and at congested intersections.

Mitigation Measures Air-3a and -3b above.

Finally, impacts to Air Quality (Impact Air-6) were found to be Less Than Significant and no mitigation measures were proposed.

Hercules New Town Center EIR. The New Town Center identified several potentially significant air quality impacts and mitigation measures, as follows:

- There would be short-term air quality impacts associated with site preparation and construction associated with future development. Mitigation Measures AQ1 and AQ2 require a number of specific measures to minimize fugitive dust emissions. Mitigation Measure AQ3 requires future contractors to adhere to Bay Area Air Quality Management District standards with respect to use and application of exterior coatings and paints. Taken together, conformance with the three measures reduces this impact to a less than significant level.

- Operation of project improvements would result in air quality emissions, including emissions from both stationary and mobile sources. Although Mitigation Measure AQ4 would partially reduce this impact, long-term operational impacts would remain significant and unavoidable. Mitigation Measure AQ4 requires future individual development projects to incorporate features to reduce operational emissions, such as solar or low-emission water heaters, use of EnergyStar appliances and low-flow appliances. A Statement of Overriding Considerations was adopted for this impact due to the benefits of the plan.
- Cumulative build-out of the proposed New Town Center would conflict with the local air quality management plan. This was determined to be a significant and unavoidable impact. A Statement of Overriding Considerations was adopted for this impact due to the benefits of the plan.
- Regional air emissions resulting from operation of the proposed project could impact regional air quality on a cumulative basis. Adherence to Mitigation Measure AQ4 partially but not fully mitigated this impact, but not to a less-than-significant level, so that this impact would remain significant and unavoidable. A Statement of Overriding Considerations was adopted for this impact due to the benefits of the plan.

Updated 2009 Redevelopment Plan EIR. This EIR identified several potentially significant air quality impacts and mitigation measures, as follows:

- Impact AQ-1 identified an impact with respect to a conflict with and an obstruction to implementing the local air quality plan since there would be a population increase with the proposed project that was not reflected in the local air quality plan. Mitigation Measure AQ-1 required the City to provide updated population projections to the Bay Area Air Quality Management District to be included in future regional projections; however this impact would remain significant and unavoidable. A Statement of Overriding Considerations was adopted for this impact due to the benefits of the plan.
- Impact AQ-2 noted that demolition or construction activities facilitated by the proposed project could generate construction-related exhaust emissions and fugitive dust that would affect local air quality. Adherence to Mitigation Measure AQ-2 reduces this impact to a less-than-significant level by requiring adherence to BAAQMD dust and construction emissions requirements.
- Impact AQ-3 noted that demolition or construction activities facilitated by the proposed project could generate construction-related exhaust emissions and fugitive dust that would affect local air quality. Adherence to Mitigation Measure AQ-2 reduces this impact to a less-than-significant level by requiring adherence to BAAQMD dust and construction emissions requirements.
- Impact AQ-5 found that development facilitated by the 2009 Redevelopment Plan would result in the emission of new air pollutants into the air basin. These emissions would exceed the standards of significance for regional pollutants. Mitigation Measures 5a and 5b requires future individual developers to adhere to BAAQMD measures to reduce vehicle and stationary emissions; however, even with implementation of these measures Impact AQ-5 would remain significant and unavoidable. A Statement of Overriding Considerations was adopted for this impact due to the benefits of the plan.

- Impact AQ-8 found that emissions of PM₁₀ would result in a cumulatively considerable increase into the environment, which would increase pollutants into a non-attainment area. Although Mitigation Measures AQ-5 would partially reduce cumulative emissions, this impact would remain significant and unavoidable. A Statement of Overriding Considerations was adopted for this impact due to the benefits of the plan.

Bayfront Project EIR. The following potentially significant air quality impacts and mitigation measures were identified in this EIR, as follows:

- Impact 5-1 identified construction-related air quality impacts from construction equipment exhaust and from fugitive dust generated by grading activities. Mitigation Measure 5-1 will reduce this impact to a less-than-significant level by requiring adherence to BAAQMD methods for construction-related impacts.
- Impact 5-2 identified long-term regional emission impacts from project build-out that would exceed standards for reactive organic gases and oxides of nitrogen. Even with adherence to Mitigation Measure 5-1 that requires implementation of a transportation management plan, use of energy efficient facilities and other requirements, this impact was found to be significant and unavoidable. A Statement of Overriding Considerations was adopted for this impact due to the benefits of the plan.

Project Impacts

- a) **No Impact.** Residential dwellings identified in the Housing Element Update, including the current RHNA allocation, are included within the Hercules General Plan and current land use buildout projections prepared by the Association of Bay Area Governments (ABAG), which are used as the basis for air quality emissions forecasting in the BAAQMD's 2017 Bay Area Clean Air Plan.

The 2009 Updated Redevelopment Plan EIR found that residential development associated with the project would have a significant and unavoidable impact with respect to a conflict with the BAAQMD regional air quality plan and a Statement of Overriding Considerations was approved by the City of Hercules when certifying this EIR. The Bayfront EIR did not identify any conflicts with the Clean Air Plan for this project.

No significant impacts would result with respect to conflicts to or obstructions of the 2017 Bay Area Clean Air Plan if the HEU is adopted by the City of Hercules.

- b) **Less than Significant Impact.** Previous EIRs that include housing opportunity sites identified significant and unavoidable impacts with respect to air quality violations for which a Statement of Overriding Consideration was adopted. In certifying the Updated 2009 Redevelopment Plan EIR, the Bayfront Project EIR, and the New Town Center EIR, Statements of Overriding Considerations were adopted for project and cumulative air quality emissions. Impacts of constructing future dwellings included in the draft Housing Element have been analyzed in previous CEQA documents identified in the Earlier Analysis section of this Initial Study, and no new analysis is required. All air quality Mitigation Measures contained in previous CEQA documents will continue to apply to future residential construction occurring in each of the identified housing sites so that these potential impacts would be less-than-significant. A Statement of Overriding Considerations was adopted for this impact due to the benefits of the plan. In addition, new housing projects under the HEU would

be required to document their future air pollutant emissions and recommend mitigation if emission levels exceed BAAQMD thresholds. Therefore, at a programmatic level the HEU will have less than significant impacts relative to cumulatively considerable increases in air pollutants.

- c) **Less than Significant Impact.** New dwelling units facilitated by the draft Housing Element could be occupied by sensitive receptor populations (senior citizens, chronically ill individuals, etc.). Future individual housing projects located near sources of major pollutants (such as freeways, arterial roadways, and similar generators) will be reviewed to ensure that: a) the location of housing on individual sites will minimize air quality impacts to sensitive receptors, and b) appropriate on-site pollutants control features, such as air conditioning systems, will be included with such housing developments. This review will take place as part of the normal and customary City of Hercules planning and environmental review process, including but not limited to conditional use permits and Planned Development Plans. Therefore, at a programmatic level the HEU will have less than significant impacts relative to sensitive receptors.
- d) **No Impact.** The project would not result in new land uses that would emit objectionable odors, since the project involves future residential development. No impacts are therefore anticipated.

4.4 Biological Resources

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Environmental Setting

Biological communities. Housing opportunity sites identified in the Housing Element Update contain a variety of biological communities, including but not limited to non-native grasslands, disturbed scrublands, intermittent stream/riparian, and wetlands.

Special Status Plants and Wildlife Species. The Updated 2009 Redevelopment Plan, Bayfront Project, and New Town Center EIRs identify a number of potentially occurring special-status plant and wildlife species listed by state and/or federal agencies that could occur on a number of identified housing sites.

These include:

- Bent-flowered fiddleneck
- Fragrant fritillary
- Diablo helianthella
- Contra Costa goldfields
- San Joaquin spearscale
- Congdon's Tarplant
- * Mt. Diablo fairy-lantern
- Santa Cruz tarplant
- Delta tule pea
- Mason's lilaepsis
- Rayless ragwort

Special-Status wildlife and birds

- Monarch butterfly
- Great blue heron
- White-tailed kite
- Northern harrier
- Long-billed curlew
- Loggerhead shrike
- Salt marsh common yellowthroat
- Pallid bat
- California red-legged frog

Seasonal wetlands. A number of seasonal and freshwater marsh habitat areas have been documented to exist on a number of potential housing sites.

Regulatory Framework

Federal Species Protection. The federal Endangered Species Act (FESA) protects listed species from harm or "take," which is broadly defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct. Take can also include habitat modification or

degradation that results in death or injury to a listed species. An activity can be defined as a “take” even if it is unintentional or accidental. Listed plant species are provided less protection than listed wildlife species. Listed plant species are legally protected from take under FESA, if they occur on federal lands or if the project requires a federal action, such as a wetland fill permit.

Migratory Bird Treaty Act. In addition to FESA, the federal Migratory Bird Treaty Act (16 U.S.C., Sec. 703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs. Most native bird species on the project site are covered by this act.

California Endangered Species Act. The California Endangered Species Act (CESA) prohibits the take of any plant or animal listed or proposed for listing as rare (plants only), threatened, or endangered. In accordance with the CESA, California Department of Fish and Wildlife (CDFW) has jurisdiction over state-listed species (California Fish and Game Code 2070).

California Species of Special Concern. Additionally, the CDFW maintains lists of “species of special concern” that are defined as species that appear to be vulnerable to extinction because of declining populations, limited ranges, and/or continuing threats. Pursuant to the requirements of CESA, a state agency reviewing a proposed project within its jurisdiction must determine whether any state-listed or proposed endangered or threatened species may be present in the project area and determine whether the proposed project will have a potentially significant impact on such species.

Clean Water Act. Under Section 404 of the federal Clean Water Act, the U.S. Army Corps of Engineers (Corps) is responsible for regulating the discharge of fill material into waters of the United States (U.S.). Waters of the U.S. and their lateral limits are defined in 33 CFR Part 328.3 (a) and include streams that are tributary to navigable waters and their adjacent wetlands. Wetlands that are not adjacent to waters of the U.S. are termed “isolated wetlands” and, depending on the circumstances, may not be subject to Corps jurisdiction.

California Water Quality and Related Programs. Pursuant to Section 401 of the federal Clean Water Act and the state’s Porter-Cologne Act, projects that are regulated by the Corps must obtain water quality certification from the Regional Water Quality Control Board (RWQCB). This certification ensures that the project will uphold state water quality standards. The RWQCB may impose mitigation requirements even if the Corps does not.

The CDFW also exerts jurisdiction over the bed and banks of watercourses and waterbodies according to provisions of Sections 1601 to 1603 of the Fish and Game Code. The Fish and Game Code requires a Streambed Alteration Permit for the fill or removal of material within the bed and banks of a watercourse or body of water.

California Native Plant Society List. The California Native Plant Society (CNPS), a non-governmental conservation organization, has developed lists of special-status plant species of concern in California. Vascular plants included on these lists are defined as follows:

- List 1A Plants considered extinct.
- List 1B Plants rare, threatened, or endangered in California and elsewhere.
- List 2 Plants rare, threatened, or endangered in California but more common elsewhere.

- List 3 Plants about which more information is needed - review list.
- List 4 Plants of limited distribution - watch list.

Although the CNPS is not a governmental regulatory agency and plants on these lists have no formal regulatory protection, plants appearing on List 1B or List 2 are, in general, considered to meet CEQA's Section 15380 criteria and adverse effects to these species are considered "significant."

Hercules General Plan. The Open Space and Conservation Element of the Hercules General Plan contains several policies with respect to the protection of biological resources:

The City shall require project proponents to design construction footprints to avoid wetlands and provide buffer zones around wetlands. If avoidance is not possible, projects shall be redesigned so as to impact the least amount of wetlands. Any areas that are classified as wetlands and will be affected by wetlands shall be re-created either on or off site in accordance with the California Department of Fish & Wildlife and Corps of Engineers (*Policy 2a*).

Design of building footprints along any riparian corridor shall be outside the Department of Fish & Game (Wildlife) and Corps of Engineers pre-approved buffer zone. Sensitive riparian habitats shall be marked by a qualified biologist to deter any destruction by equipment during construction (*Policy 3a*).

Protect riparian and wetland habitat communities from degradation through introduction of urban pollutants in stormwater runoff (*Policy 4a*).

The City shall review development proposals for consistency with minimizing impacts to salt marsh zones. Buildings shall be located on existing developed or graded areas, where practicable (*Policy 5a*).

The City shall continue to utilize environmental review under CEQA to review development projects that are not exempt from the CEQA Guidelines for impacts on sensitive species and their habitats (*Policy 6a*).

The City shall require that development within the General Plan area incorporate features to preserve habitat for sensitive species (*Policy 6b*).

As much open space as possible within sites proposed for development shall be retained as informal open space for wildlife habitat, rather than as formal, landscaped parks or grounds. The City shall require that native plants from the local area be used in landscaping and in areas with a lower water table, native drought tolerant species shall be used in landscaping (*Policy 6c*).

Impacts and Mitigation Measures from Previous EIRs

Impacts and mitigation measures included in previously certified CEQA documents that are listed below.

General Plan EIR. The GP EIR identified the following potentially significant biological resource-related impact and four mitigation measures that would reduce impacts to less than significant levels:

Impact Biology-1: Introduction of invasive non-native species used in landscaping would be detrimental to the native habitats within the Hercules General Plan Update project area.

Mitigation Measure Biology-1a: The City shall require that native plants from the local area be used in landscaping, and in areas with a lower water table, native drought tolerant species shall be used in landscaping.

Impact Biology-2: Seasonal freshwater wetlands would be directly affected (lost or damaged) by development within the Land Use Element Update study area.

Mitigation Measure Biology-2a: The City shall require project proponents to design construction footprints to avoid any wetlands and CDFG- and/or COE-approved buffer zones around the wetlands in the project area. If avoidance is not possible, projects shall be redesigned so as to impact the least amount of wetlands. Any areas that are classified as wetlands and would be affected by project development shall be recreated either on or off site in accordance with CDFG and COE.

Mitigation Measure Biology-2b: Prior to construction in areas of wetlands, the City shall support CDFG and Corps permitting processes. A project sponsor shall be required to obtain a Streambed Alteration Agreement from CDFG and/or a Section 404 Corps permit prior to any development within a wetland.

Mitigation Measure Biology-2c: If flood control improvements are required along Refugio Creek the City shall work with the Corps to create the flood control area wide enough to provide for establishment within the flood control area of native vegetation to provide for wildlife habitat. The city shall allow a transition area between proposed land uses and this natural community, as described in Program 13B of the proposed Land Use Element.

Impact Biology-3: Development of Parcel A would directly encroach upon the Refugio Creek riparian corridor.

Mitigation Measure Biology-3a: Prior to construction in areas of riparian corridors or wetlands, the City shall support CDFG and Corps permitting processes. A Streambed Alteration Agreement from CDFG and/or a Section 404 Corps permit shall be obtained by the project applicant prior to any new development within any creek or discharge or fill into any creek.

Mitigation Measure Biology-3b: Design of building footprints along any riparian corridors shall be outside of CDFG- and/or Corps-preapproved buffer zone. Sensitive riparian habitats shall be marked by a qualified biologist to deter any destruction by equipment during construction.

Mitigation Measure Biology-3c: Development along any riparian corridor shall incorporate measures to avoid impacts during construction, including:

- i) Construction of any access bridge shall be limited to the bridge footprint area only.
- ii) Parking of large equipment shall be on the upland grassland area or on the paved street. Construction workers cars shall have designated parking areas.
- iii) Basins for oil leaks from the equipment shall be installed if equipment is parked onsite overnight.

Impact Biology-4: The proximity of development to riparian and wetland communities could cause degradation of these communities through introduction of urban pollutants in stormwater runoff.

Mitigation Measure Biology-4a: The City shall require project proponents to design facilities to prevent degradation of riparian and wetland communities from urban pollutants in storm runoff.

Mitigation Measure Biology-4b: To minimize pollution downstream from sedimentation, the City shall require installation of sedimentation and grease basins in the storm drain system in parking lots in accordance with NPDES regulations and shall require that property owners maintain the basins annually, or as required by NPDES regulations. Parking lots shall be swept periodically to decrease the amount of debris that could potentially contaminate the riparian or wetland habitat.

Impact Biology-5: Development on Parcels 1 and 2 under the updated Land Use Element could result in the disturbance of salt marsh zones along San Pablo Bay due to the proximity of urbanization.

Mitigation Measures Biology-5a: The city shall review development proposals for consistency with minimizing impacts to salt marsh zones. The City shall incorporate the following policies and programs for development near San Pablo Bay:

- Buildings shall be located on existing developed or graded pads, where practicable.
- The City shall work with CDFG, BCDC, East Bay Regional Park District, and the Corps to determine appropriate buffer zones along the Bay to protect tidal habitat when designing a bay access trail linkage between Pinole and Rodeo. Public access and pedestrian pathways shall be limited within the buffer zone, and when possible, located along the edges of the buffer zone. Bicycles shall be encouraged to stay on bike paths through the use of signage and fencing.
- The City shall require developers to provide signage and fencing to enforce leash laws around remaining areas of sensitive habitats such as salt marsh wetlands and mud flats.

Impact Biology-6: Habitat for several special status plant and animal species would be affected by construction within development areas of the study area.

Mitigation Measure Biology-6a: For projects not exempt from the California Environmental Quality Act, the City shall continue to utilize environmental review under CEQA to review development for impacts on sensitive species and their habitat.

Mitigation Measure Biology-6b: The City shall require that development within the General Plan area incorporate features to preserve foraging habitat for wildlife.

Mitigation Measure Biology-6c: Areas that could provide habitat for sensitive species shall be surveyed by qualified biologists provided by project sponsors prior to project design. Surveys in sensitive areas would have to be conducted prior to any development. Sensitive areas within the study area include eucalyptus groves, freshwater wetlands and adjacent trees, open grasslands, ponds and creeks, and buildings which are abandoned or slated for destruction. If any species is present, coordination with the CDFG will be required for mitigation of impacts and redesigning of the project footprint to avoid any sensitive species or sensitive habitat. If avoidance is unavailable, coordination with the CDFG will be required for relocation of these species and for determining replacement of habitat.

- i) If monarch butterfly is present, eucalyptus groves within the development should be retained during the winter roosting season. Removal of eucalyptus trees, if undertaken, should occur from August through October, before the butterfly's winter roosting season and after raptor nesting.

- ii) Surveys for Ricksecker’s water scavenger beetle, reg-legged frog, and northwestern and southwestern pond turtle should be conducted by a qualified biologist in all ponds prior to development.
- iii) If surveys find nesting black-shouldered kite, loggerhead shrike, or saltmarsh yellowthroat are present in trees along the freshwater marsh or in grasslands, respectively, suitable replacement foraging habitat should be evaluated for nesting availability. Construction should be timed to occur after the fledging seasons of the kite (June through August), the shrike (March through August), and the saltmarsh yellowthroat (April to mid-July), before the pairing season in February.
- iv) Surveys for Pacific western big-eared bat shall be conducted during the spring and winter seasons to determine if nursery colonies or winter colonies occur in the building. If individuals are found within the building during springtime, destruction of the building shall commence in August when the young have left with the females. If a winter roost occurs in the building, blockage by a qualified pest control operator shall be conducted prior to destruction of the building.

The City shall condition approval of individual development proposals on implementation of the following programs:

Mitigation Measure Biology-6d: As much open space as possible within sites proposed for development shall be retained as informal open space for wildlife habitat, rather than as formal, landscaped parks or grounds. Wildlife areas shall be revegetated with native or non-native grassland and native species of shrubs requiring no irrigation and little management beyond the first year after planting.

Mitigation Measure Biology-6e: Wildlife habitat shall be consolidated into “preserves” that are as large as possible.

Mitigation Measure Biology-6f: Habitats on adjoining parcels shall be as contiguous as possible to create wildlife corridors.

Mitigation Measure Biology-6g: Wildlife open space shall be placed adjacent to other wildlife habitat to preserve the greatest ecological value.

Mitigation Measure Biology-6h: Public access to wildlife habitat shall be minimized by placing trails close to buildings so as to provide the largest area of habitat possible with the least amount of impact from the public.

Impact Biology-7: Loss of open space within the Hercules City Limits would have a cumulative adverse impact on wildlife.

Mitigation Measure Biology-7a: Open space areas shall be designed into the footprint of proposed projects and shall be located adjacent to existing open space areas, providing a larger contiguous area for wildlife to use.

Mitigation Measure Biology-7b: Open space areas, if disturbed during construction, shall be landscaped with native species.

Mitigation Measure Biology-7c: Trails, if any, shall be placed close to buildings so as not to disturb wildlife nesting/denning areas.

Hercules New Town Center EIR. The New Town Center identified several potentially significant biological resource impacts and mitigation measures, as follows:

- Future development consistent with the New Town Center plan could have a substantial effect, either directly or indirectly through habitat modification on candidate, special-status, and/or sensitive species, including state and federally listed species. The EIR includes five measures that reduced this impact to a less-than-significant level, including conducting pre-construction surveys for California red-legged frog species and implementation of appropriate mitigation if such species are found (BIO1), limiting mass grading between April 1 to October 31 to avoid impacts to dispersing frogs during the rainy season (BIO2), constructing an exclusion fence to protect aquatic habitat and any construction area along with one-way openings out of construction areas (BIO3), adherence with C.3 water quality standards (BIO4), and conducting pre-construction surveys for nesting birds and bats if construction would occur during respective breeding seasons (BIO5).
- Development of the New Town Center project could have a substantial adverse impact on state and federally protected wetlands, riparian areas, and associated policies and regulations protecting such wetland resources. Adherence to Mitigation Measure BIO6 requires 1:1 replacement ratio for lost or filled wetlands, as well as a mitigation plan if replacement wetlands are to be created. This mitigation also requires performance criteria for replacement wetlands and a monitoring and maintenance plan. BIO7 requires planting of replacement vegetation at a 2:1 ratio within the planning area or at a 3:1 ratio if off-site. A Mitigation Plan is also required to be developed for replacement plantings. With adherence to these measures, impacts to wetlands and riparian areas were found to be less-than-significant.

Updated 2009 Redevelopment Plan EIR. This EIR identified several potentially significant air quality impacts and mitigation measures, as follows:

- Impact BIO-1 identified potential impacts with respect to sensitive habitats and natural communities, including riparian habitats, intermittent drainages and freshwater emergency wetlands. Adherence to Mitigation Measures BIO-1a through 1d reduces this impact to a less-than-significant level. These measures require contact with the US Army Corps of Engineers to obtain a jurisdictional wetland determination (Mitigation Measure BIO-1a), contacting the California Department of Fish & Game (Wildlife) to determine wetlands under state jurisdiction and determine an appropriate setback from identified wetland areas (Mitigation Measure BIO-1b), securing approval from the appropriate regulatory agency for any encroachments into wetland buffer areas (Mitigation Measure BIO-1c), and ensuring that any project fencing complies with state and federal biological regulatory agency requirements (Mitigation Measure BIO-1d).
- Impact BIO-2 noted a potentially significant impact with respect to candidate, sensitive and other special-status species, as identified on plans and policies adopted by various regulatory agencies. Adherence to Mitigation Measures BIO-2a through 2c reduces this impact to a less-than-significant level. These measures require focused surveys for special-status plants if grading is to occur between April and May (Mitigation Measure BIO-2a), conducting focused surveys for monarch butterflies, salt marsh common yellowthroat, and raptor species in the project area (Mitigation Measure BIO-2b), and preparing landscape plans for manufactured slope areas that include any region-specific plants and designed to encourage habitat value (Mitigation Measure BIO-3c).

- Impact BIO-3 identified an impact with respect to an inconsistency between the project plans and General Plan policies and the City's tree preservation ordinance. Adherence to Mitigation Measures BIO-3, requiring conformance with the City's Tree Ordinance, will reduce this impact to a less-than-significant level.
- Impact BIO-4 identified a cumulative impact on biological resources. Adherence to Mitigation Measures BIO-1 through BIO-3 will reduce this impact to a less-than-significant level.

Bayfront Project EIR. This EIR identified several potentially significant air quality impacts and mitigation measures, as follows:

- Impact 6-1 found an impact with respect to special-status bird species, including destruction of nests adjacent to Refugio Creek and loss of habitat for a number of special-status bird species. Adherence to Mitigation Measure 6-1 will reduce this impact to a less-than-significant level by limiting construction periods to prohibit construction periods or providing adequate buffer areas adjacent to inhabited nests.
- Impact 6-2 identified an impact with respect to inadvertent "take" of special-status mammal species during construction, including the salt marsh wandering shrew and the San Pablo vole. Adherence to Mitigation Measure 6-2 will reduce this impact to a less-than-significant level by conducting pre-construction surveys and relocating any species to a suitable alternative habitat prior to construction.
- Impact 6-3 found an impact with the possibility of inadvertent take of vernal fairy shrimp. Adherence to Mitigation Measure 6-3 reduces this impact to a less-than-significant level by requiring pre-construction surveys for vernal fairy shrimp and, if found, implementing avoidance or other measures to protect this species per USFWS requirements.
- Impact 6-4 found an impact with the possibility of inadvertent take of steelhead, western pond turtle, or California red-legged frog. Adherence to Mitigation Measure 6-4 will reduce this impact to a less-than-significant level by requiring pre-construction surveys for these species, and if found, implementing avoidance or other measures to protect this species per USFWS requirements.
- Impact 6-5 found an impact with the possibility of loss of roosting habitat for special-status bats. Adherence to Mitigation Measure 6-3 reduced this impact to a less-than-significant level by requiring pre-construction surveys for roosting bats and, if found, implementing a minimum 200-foot wide buffer adjacent to bat roosts until the roosts are vacated.
- Impact 6-6 found an impact with the potential loss of sensitive marsh habitat communities including two federally and state list special-status species. Adherence to Mitigation Measure 6-6 reduces this impact to a less-than-significant level.
- Impact 6-7 identified an impact with respect to loss or modification of jurisdiction wetlands or other waters as a result of project construction. Adherence to Mitigation Measure 6-7 reduced this impact to a less-than-significant level by requiring avoidance of wetland areas

or, if avoidance is not feasible, providing suitable replacement wetlands in project open space areas.

- Impact 6-8 noted that project landscaping could include invasive plant species. Adherence to Mitigation Measure 6-8 reduced this impact to a less-than-significant level by implementing specific methods to minimize inadvertent spread of non-native, invasive plant material.

Project Impacts

- a) **Less than Significant Impact.** Future housing projects that could be constructed in the City of Hercules pursuant to the HEU are subject to policies contained in the Open Space and Conservation Element of the General Plan. This Element contains policies to protect stream corridors, wetlands and riparian vegetation, wildlife habitat and sensitive plant and wildlife species.

Developers of future housing projects on sites identified in the HEU are also required to comply with the Mitigation Measures contained in the 2009 Updated Redevelopment Plan EIR, the Bayfront Project EIR, and the Hercules New Town Center EIR, as applicable to each respective site, to minimize impacts to candidate, sensitive, and other special-status species. Therefore, any potential impacts to candidate and special-status species would be less-than-significant.

- b, c) **Less than Significant Impact.** Future development on a number of the identified housing sites could result in fill of a limited amount of wetlands and loss of some riparian habitat. Adherence to wetland and riparian protection mitigation measures contained in the Updated 2009 Redevelopment Plan EIR, the Bayfront Project EIR, and the New Town Center EIR, as well as wetland protection policies contained in the Open Space and Conservation Element of the Hercules General Plan will ensure that impacts to wetlands and riparian resources from future development under the HEU will be less-than-significant.
- d) **Less than Significant Impact.** Adherence to adopted Mitigation Measures identified for applicable certified EIRs in the Environmental Setting section and resource protection goals contained in the Open Space and Conservation Element of the General Plan will reduce any potential project impacts related to movement of fish or wildlife species from future development under the HEU to less-than-significant levels.
- e, f) **No Impact.** No Habitat Conservation Plans or Natural Community Conservation Plans have been established in the City of Hercules. Future development that could be facilitated by the proposed Project is required to comply with all City ordinances and requirements protecting biological resources, including impacts to heritage trees. No impacts would therefore result. None of the identified housing sites are located within the boundaries of any Habitat Conservation Plan or Natural Community Conservation Plan area and no impacts are anticipated.

4.5 Cultural Resources

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Prehistoric Resources. Based on background information contained in the Hercules General Plan, prehistoric sites within western Contra Costa County are typically found near the edge of historic San Pablo Bay margins, on valley and midslope terraces, and in hilly areas on terraces near seasonal watercourses. Numerous aboriginal village and camp sites have been uncovered in the bay margins. Hercules has one confirmed prehistoric site (CA-CCO-370) and one unconfirmed site (CA-CCO-248), both of which are located west of the I-80 freeway.

Historic Resources. In the early to mid-1800s, the area now known as Hercules was part of a Spanish land grant called Rancho El Pinole. In the late 1800s much of this land was purchased by the California Powder Works as a site for the production of dynamite. The Town of Hercules was incorporated in 1900 as the company town. In 1917, Hercules Incorporated and became the largest producer of dynamite in the United States, and operations encompassed approximately 3,000 acres of land. During the 1960s the plant transitioned from dynamite to fertilizer production and much of the land was sold off to private builders and developers. The plant closed in the late 1970s. As the plant was closing, suburban housing development began creating the community known today. A number of older company buildings and Victorian-style homes remain from earlier times, including the former company headquarters and a number of company-owned homes.

Impacts and Mitigation Measures from Previous EIRs

Impacts and mitigation measures included in previously certified CEQA documents that are listed below:

General Plan EIR. The GP EIR identified the following potentially significant cultural resource-related impacts and five mitigation measures that would reduce impacts to less than significant levels:

Impact Cultural-1: Development consistent with the proposed Land Use and Circulation Elements Update could result in damage to known or unknown prehistoric archaeological resources.

Mitigation Measure Cultural-1a: Prior to development of Parcels 1, 2, 4, A and C, an attempt should be made through a combination of archival research and in-field testing to identify areas that may have been used by native American populations. Areas containing prehistoric deposits would be mapped; evaluation of their significance would follow only in those areas where future development might affect the resources.

Mitigation Measure Cultural-1b: The City should enact the following program prior to any development in the vicinity of CA-CCO-370 and CA-CCO-248 on Parcels 1 and I, respectively. The program shall be conducted under the guidance of Appendix K of the *CEQA Guidelines*.

The program would also apply to Parcels A, C, and I-4 where the potential for Native American remains exists.

- Prior to excavation and construction on the above parcels, the prime construction contractor and any subcontractor(s) would be cautioned on the legal and/or regulatory implications of knowingly destroying cultural resources or removing artifacts, human remains, bottles, and other cultural materials from the project site.
- The project sponsor would identify a qualified archaeologist prior to any demolition, excavation, or construction. The City would approve the project sponsor's selection for a qualified archaeologist. The archaeologist would have the authority to temporarily halt excavation and construction activities in the immediate vicinity (ten-meter radius) or a find if significant or potentially significant cultural resources are exposed and/or adversely affected by construction operations.
- Reasonable time would be allowed for the qualified archaeologist to notify the proper authorities for a more detailed inspection and examination of the exposed cultural resources. During this time, excavation and construction would not be allowed in the immediate vicinity of the find; however, those activities could continue in other areas of the project site.
- If any find were determined to be significant by the qualified archaeologist, representatives of the project sponsor or construction contractor and the City, the qualified archaeologist, and a representative of the Native American community (if the discovery is an aboriginal burial) would meet to determine the appropriate course of action.
- All cultural materials recovered as part of the monitoring program would be subject to scientific analysis, professional museum curation, and a report prepared according to current professional standards.

Mitigation Measure Cultural-1c: If previously unknown subsurface cultural resources are discovered during excavation activities on the identified parcels or elsewhere in the study area, excavation would be temporarily halted and an archaeologist consulted as to the importance of the resources. Should the archaeologist determine that the resources are important, the project sponsor would follow the procedure described in Mitigation Measure Cultural-1b.

Impact Cultural-2: Development consistent with the proposed Land Use and Circulation Elements Update could result in damage to known or unknown historic archaeological resources.

Mitigation Measures Cultural-1a through 1c apply.

Impact Cultural-3: Development consistent with the proposed Land Use and Circulation Elements Update could result in damage to known historical resources.

Mitigation Measure Cultural-3a: Prior to the development of Parcels 1 and C, the City should initiate an architectural evaluation of the remaining Hercules Powder Company buildings. Since the architectural evaluation was done in 1977, the State Historic Preservation Office has altered its definition of what is historically significant. At present any structure 45 years or older may qualify as significant under CEQA. The elements of the architectural evaluation program should include:

- *[none of the opportunity sites in the HEU involve the Hercules Powder Company Parcels 1 or C]*

Hercules New Town Center EIR. The New Town Center EIR identified several potentially significant impacts with respect to disturbance or destruction of prehistoric resources, paleontological resources, human remains and/or historic resources. Adherence to Mitigation Measure CUL1 reduced this impact to a less-than-significant level. This measure requires that, during the construction process, a project sponsor shall retain a qualified archeologist to train construction crews to identify cultural resources. In the event cultural resources are found, work shall be stopped and the archeologist shall consult with the City to determine the best treatment for such resources. In the event human remains are found, the County Coroner is to be called. If remains are believed to be of Native American ancestry, the Native American Heritage Commission is to be contacted. All recovered materials are to be subject to scientific analysis, professional museum curation and reporting.

Updated 2009 Redevelopment Plan EIR. This EIR identified several potentially significant cultural resource impacts and mitigation measures, as follows:

- Impact Cult-1 stated that the proposed project could cause a substantial adverse change in the significance of archeological resources pursuant to Section 15064.5 of the CEQA Guidelines. Adherence to Mitigation Measure CUL-1 requires that if prehistoric or unique archeological resources are discovered during construction of future projects, work within a 50-foot radius of the discovery shall be halted until a qualified archeologist evaluates the find and determines proper protection measures. Work within the 50-foot radius of the find shall be halted until the archeologist states in writing that continuing work would not result in a significant effect on such resource and the City concurs.
- Impact Cult-2 identifies that the proposed project could potentially destroy unknown unique paleontological resources within the project area. Adherence to Mitigation Measure CUL-2 reduced this impact by requiring review of individual development proposals in the 2009 Redevelopment Plan to determine the potential for deposits of paleontological resources on each site. For sites identified as having sensitivity to such resources, a paleontological monitoring program shall be implemented prior to grading operations. If necessary, the program may require maintenance of daily field logs, recovery of soil samples, and the ability to remove resources as needed. A photo log of grading operations of the site must also be kept. If significant paleontological resources are found, the monitor shall have the authority to halt operations that affect such resources.
- Impact Cult-3 identified an impact with respect to disturbance of unidentified human remains, including those interred outside of formal cemeteries. Mitigation Measure CUL-3 requires construction work on individual project sites to be suspended if human remains are found. Then, the Hercules Public Works Department and County Coroner shall be notified. If remains are determined to be of Native American origin, the Native American Heritage Commission shall be notified within 24 hours.

Bayfront Project EIR. This EIR identified several potentially significant cultural resource impacts and mitigation measures, as follows:

- Impact 8-1 identified an impact with disturbance of archeological resources on the project site. Adherence to Mitigation Measure 8-1 reduced this impact to a less-than-significant level by requiring future developers in the Bayfront area to retain a qualified archeologist in the event of discovery of unrecorded historic resources and, if possible, preserving the site. If preservation is not possible, a data recovery plan shall be submitted and approved by the City and then implemented by the developer.
- Impact 8-2 noted an impact with respect to destruction or degradation of two identified historic resources with construction of planned project improvements. Adherence to Mitigation Measure 8-2 reduced this impact to a less-than-significant level by requiring future developers to renovate structures in a manner consistent with Secretary of Interior standards and incorporate historic structures into the ultimate development of the project.

Regulatory Framework

Hercules General Plan. The Land Use Element of the General Plan contains Objective 8, which reads: “Preserve Hercules history while developing its future.”

The Open Space and Conservation Element contains the following objective and policy with respect to the protection of cultural resources:

- Protect and preserve important historic and prehistoric resources (*Objective 12*).
- Historic resources shall be identified and preserved to the extent feasible. If previously unknown subsurface resources are discovered during excavation, excavation would be temporarily halted and an archeologist consulted as to the importance of the resource. (*Policy 12a*).

Project Impacts

- a) **Less than Significant Impact.** A majority of the identified housing sites do not contain historic resources. If historic resources are encountered as a result of future construction of dwellings and associated housing units under the auspices of the updated Housing Element, mitigation measures contained in certified CEQA documents for each of the sites reduce this impact to a less-than-significant level. Future housing developments will also be required to adhere to applicable Objectives and Policies of the Hercules General Plan to protect significant historic resources.
- b-c) **Less than Significant Impact.** Future housing developments in the City of Hercules that could be facilitated as a result of the updated Housing Element are required to comply with mitigation measures contained in certified EIRs that cover identified housing sites. In addition, state law contains regulatory requirements when human remains are found. Therefore, implementation of appropriate General Plan objectives and policies and compliance with state law will ensure that potential impacts related to archeological and Native American resources and human remains will remain at less-than-significant levels.

4.6 Energy

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Energy is primarily categorized into three areas: electricity, natural gas, and fuels used for transportation. According to the U.S. Energy Information Administration (USEIA), California is the most populous state in the United States, representing 12 percent of the total national population, has the largest economy, and is second only to Texas in total energy consumption. However, California has one of the lowest per capita energy consumption levels in the U.S. This is a result of California's mild climate, extensive efforts to increase energy efficiency, and implementation of alternative technologies. California leads the nation in electricity generation from solar, geothermal, and biomass resources.

Impacts and Mitigation Measures from Previous EIRs

General Plan EIR. The GP EIR identified the following potentially significant energy-related impacts and five mitigation measures that would reduce impacts to less than significant levels:

Impact Energy-1: Increased energy consumption related to construction and operation of development consistent with the Land Use and Circulation Elements Update would derive mostly from non-renewable energy resources.

Mitigation Measure Energy-1a: A performance standard that exceeds Title 24 by 10 percent. Under such a standard, the developers of individual projects could design their projects to exceed Title 24

energy conservation performance standards by a certain percentage (at least 10 percent), based on the same calculation methods required for demonstrating compliance with the standard.

- *[specific measures for commercial and office buildings were also included but they are not relevant to future housing projects]*

Impact Energy-2: Development would result in interference with PG&E transmission and distribution facilities.

Mitigation Measure Energy-2a: The City shall preserve access for PG&E to work on electric and natural gas lines that extend through or adjacent to Parcels 1, 7 and 12, possibly through deeding of access rights-of-way.

Mitigation Measure Energy-2b: The City shall require individual developers or commercial tenants to contact PG&E during the building application process to allow PG&E to review specific development plans with respect to potential impacts on PG&E distribution facilities.

The GP EIR also found Energy Impact-3 was less than significant and no mitigation was required.

The remaining EIRs concluded their project impacts would be less than significant with regulatory compliance and no mitigation was required.

Regulatory Framework

Hercules General Plan. The Conservation Element of the 1995 General Plan did not contain any specific goals or policies related to energy use, but some goals and policies in other elements referred to careful use and protection of resources, which generally applies to energy resources, especially those derived from non-renewable fossil fuels.

Project Impacts

- a) **Less Than Significant Impact.** Energy is primarily categorized into three areas: electricity, natural gas, and fuels used for transportation.

Electricity. In recent years more and more of California's net electricity generation has been generated from renewable resources, including hydropower. The state has set a goal for California's Renewables Portfolio Standard (RPS) for 60 percent of its electric load to be from renewable sources by 2030. In 2018 the California electric system used 281,120 GWh of electricity, nearly 71% of which (199,595 GWh) was produced in-state. Electricity in the City of Hercules is provided by the Pacific Gas and Electric Company (PG&E).

Natural Gas. California accounts for less than 1% of total U.S. natural gas reserves and production; however, almost two-thirds of California households use natural gas for home heating (U.S. EIA 2019). In 2018, California consumed about 12,638 million therms³ of natural gas. Approximately 35% of natural gas was consumed by the residential sector which makes up approximately two-thirds of state-wide and county-wide consumption (CEC 2019b). PG&E provides natural gas service to the City for residential, commercial, and industrial customers.

Transportation. California's transportation sector consumed 80.6 million Btu of energy per capita in 2017 which ranked 31st in the nation. Most gasoline and diesel fuel sold in California for motor vehicles is refined in California to meet state-specific formulations required by the California Air Resources Board.

Future housing developed in accordance with the goals and policies of the Housing Element Update will have the effect of contributing to increased energy consumption in the City, which will be part of regional growth in energy use as the surrounding communities continue to grow as well. Future growth in the City will be required to be consistent with the state's energy conservation regulations as codified in Title 24 of the CCR and the California Green Building Code. As long as future development adheres to these multiple energy conservation plans and requirements, the Project will have less than significant impacts relative to energy consumption and efficiency and no mitigation is required. Development implemented through the Project would not use energy in a wasteful, inefficient, or unnecessary manner.

- b) **Less Than Significant Impact.** The analysis in Section 6.A above demonstrates that the proposed Project would not conflict with nor obstruct a state or local plan adopted for the purposes of increasing the amount of renewable energy or energy efficiency. As discussed above, future development under the HEU would be subject to the California Title 24 Building Code energy efficiency standards for residential and non-residential buildings, which would help reduce energy consumption overall within the City.

Equipment and vehicles associated with construction and operation of new development would also be subject to fuel standards at the state and federal level. Truck traffic from some new non-residential development would inherently benefit from programs implemented to achieve the goals of the state's Sustainable Freight Plan, such as the turnover of older, less fuel-efficient trucks, as fuel economy standards are rolled out and zero emission vehicles (ZEV) trucks and vehicles in general becomes more widely available and cost effective for businesses and residents. Therefore, the HEU would not conflict with nor obstruct a state or local plan for renewable energy or energy efficiency. Impacts would be less than significant and no mitigation is required.

4.7 Geology and Soils

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1997), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Geologic conditions. The Hercules planning area is located in the Coast Range geomorphic province of California, which is characterized by a series of parallel, northwesterly trending and faulted hills and valleys. Local geology consists of a mix of alluvial deposits in lower elevations caused by stream erosion and sedimentary rocks within higher elevations.

Seismicity. The San Francisco Bay area, within which Hercules is located, is one of the most seismically active areas in the United States. Major regional faults include Hayward, Rodgers Creek, Calaveras, San Andreas, and San Gregorio Faults. The United States Geological Survey (USGS) Working Group on California Earthquake Probabilities estimated a 62% probability of one or more earthquakes of Richter magnitude 6.7 or greater occurring in the Bay Area between 2003 and 2032. No properties within Hercules are located within an Earthquake Fault Zone as defined by the Alquist-Priolo Act.

Environmental effects associated with seismic activity include:

- Surface fault rupture, which involves cracks or chasms on the ground surface caused by seismic activity. The risk of surface fault rupture in the Hercules planning area is considered low due to the absence of active faults.
- Ground shaking is the violent shaking of the ground surface during a seismic event. In general, the greater the distance from a seismic epicenter, the less intensity of ground shaking that could be expected. The effects of ground shaking include damage to structures, roads, utility facilities, and other infrastructure.
- Liquefaction is a phenomenon in which saturated, cohesionless soil experiences temporary loss of strength due to the buildup of water pressure induced by a seismic event. Generally, soils susceptible to liquefaction are loose, clean, saturated, and fine-grained sands located near bodies of water. The effects of liquefaction include collapse of buildings and road improvements.
- Landslides can be triggered by seismic events particularly on steep slopes with a history of soil instability.

Expansive soils. Expansive soil conditions typically occur in soils with high clay content. Typically, these soils swell when moisture is added and shrink under dry conditions. Expansive soils can damage building foundations and underground utilities.

Soil erosion. Unprotected soils are subject to erosion caused by wind or water action.

Paleontological Resources. Although some areas in the East Bay have yielded fossils in the past, the sites for future development within the City are underlain by recent alluvial soils which do not generally yield significant fossiliferous materials. The only local site with identified fossil resources is Pectin Point on the San Pablo Bay (pectin shells found) although Mt. Diablo to the southeast contains a number of paleontological sites (Fossilspot 2020).

Impacts and Mitigation Measures from Previous EIRs

Impacts and mitigation measures included in previously certified CEQA documents regarding geological and soil resources are listed below.

General Plan EIR. The GP EIR identified the following potentially significant geology and soil-related impacts and 13 mitigation measures that would reduce impacts to less than significant levels:

Impact Geology-1: Development consistent with the proposed Land Use and Circulation Elements Update would involve construction of facilities in a seismically active zone, characterized by a high probability of strong ground shaking. Ground shaking could pose a threat to the structural integrity of any developed structures and associated underground utility lines, as well as a threat to the welfare and safety of people occupying the sites.

Mitigation Measure Geology-1a: No critical facility or school should be permitted in areas subject to very strong ground shaking or ground failure until an evaluation of alternative sites with reduced earthquake and flood hazards is completed. For each proposal, require a feasibility study to determine whether any proposed critical facilities (emergency response centers, police stations, and hospitals) and schools could be sited in areas with lesser earthquake hazards. An alternative site feasibility assessment should include a consideration of sites in areas with lesser earthquake (and flood) hazards in addition to considerations of service area, accessibility, and economic considerations.

Mitigation Measure Geology-1b: For projects proposed in areas subject to very strong earthquake ground shaking or ground failure, conduct geotechnical studies and structural design evaluations for all critical facilities, schools, high-population facilities (such as shopping malls) and industries using or generating significant amounts of hazardous materials.

If the alternative site feasibility study for a critical facility or school were to indicate that other less hazardous sites are not available for the critical facility, then geotechnical studies and structural design processes for the facility would be conducted in accordance with the State of California requirements and recommendations of the Seismic Safety Commission. These could include detailed studies of the geologic materials at the site, seismic event response evaluations to identify design criteria, foundation design criteria and dynamic method analyses of proposed structures, and others. As these studies are costly and the resulting foundation and structural designs are often expensive to construct, it is recommended that the alternative site feasibility study be conducted first.

For the other types of facilities, the alternative site feasibility assessment would be an optional requirement of the City (an alternative sites evaluation may be required under CEQA). A rigorous geotechnical evaluation and structural design process would be required to ensure that the proposed structures would perform in major earthquakes without creating a life safety hazard to occupants or people in surrounding areas.

Mitigation Measure Geology-1c: Prepare or update an Earthquake Preparedness and Emergency Response Plan for the City to deal with specific effects of seismic-induced ground shaking, liquefaction, and lurching.

Mitigation Measure Geology-1d: Require site-specific geotechnical investigations for every new development.

Impact Geology-2: Development consistent with the proposed Land Use and Circulation Elements Update would involve grading that would disrupt, compact, and overcover existing soil. This could alter the capacity of the native soils to absorb precipitation and runoff and increase their erosion potential.

Mitigation Measure Geology-2a: Development of the project sites should minimize the amount of native soils compacted by construction vehicles and structures, as well as the amount of soil disturbed through grading and excavation. As much as possible, native soils should be left undisturbed and used for open space and landscaping purposes.

Mitigation Measure Geology-2b: Development of the project sites should also maximize the use of pervious materials, including fill, and incorporate proper drainage structures capable of handling anticipated increases in surface runoff.

Mitigation Measure Geology-2c: Minimize amount of grading when building on hill sides.

Impact Geology-3: Development consistent with the proposed Land Use and Circulation Elements Update would accelerate natural erosion of native soils and fill by wind and water. If uncontrolled, increased runoff could undermine structures built upon the study area parcels. Eroded materials could also increase sedimentation in nearby Refugio Creek and in San Pablo Bay.

Mitigation Measure Geology-3a: No grading should occur on slopes steeper than 30 percent, and cut slope angles no greater than 33 percent be maintained.

Mitigation Measure Geology-3b: The use of silt fencing, sediment trapping basins, runoff diversion devices, and hydroseeding of barren slopes can minimize or prevent this impact. It is recommended that applicants for construction permits within the City of Hercules submit an erosion control plan for the proposed development site, based on soil and underlying substrate conditions and using criteria obtained from the City's Grading Ordinance.

Grading in the City should occur with no increase in discharge of sediments to wetlands, Refugio Creek, or San Pablo Bay. Measures to be implemented by the developers should be identified in their erosion control plans, as required by the City's Grading Ordinance. Measures identified in the report should be incorporated as conditions of approval for the development.

Impact Geology-4: Development consistent with the proposed Land Use and Circulation Elements Update could result in changes in topography and construction on steep slopes in some portions of the study area that would accelerate the development of landslides or mudslides.

Mitigation Measure Geology-4a: Develop and implement hillside drainage plans to reduce the risk of further movement by existing landslides. Site new structures away from steep hillsides and the toes of existing landslide surfaces, reducing the potential for damage from landslide movement or burial. Require potential developers to perform site-specific slope stability analyses, including field estimates of the soil properties significant to slope stability, for those parcels or portions thereof identified as having the steepest slopes or greatest potential for landslides.

In addition, the City should add the following policies to the proposed Land Use Element Update:

Mitigation Measure Geology-4b: Develop the study area parcels in such a way as to minimize the potential for creating new landslides or reactivating old ones.

Impact Geology-5: Development consistent with the proposed Land Use and Circulation Elements Update could expose people and structures to the hazard of differential settlement.

Mitigation Measure Geology-5a: For proposed structures in areas subject to settlement hazards, conduct a geotechnical engineering investigation to determine the degree of hazard and the appropriate approach to reducing the hazard to an acceptable level of risk.

Impact Geology-6: Development consistent with the proposed Land Use and Circulation Elements Update would result in construction on soils with high shrink-swell potential and corrosive potential, which could cause cracking of foundations and corrosion of concrete.

Mitigation Measure Geology-6a: Applicants for development of structures within the City of Hercules shall submit a report by a California certified engineering geologist documenting the geotechnical suitability of the site for the proposed development based on soil and underlying substrate conditions; and the measures required to ensure public safety and the protection of property.

Hercules New Town Center EIR. The New Town Center EIR identified two potentially significant impacts with respect to geology and soils:

- Exposure of people or structures to risk of loss, injury, or death involving strong seismic shaking or seismic related ground failure. Adherence to Mitigation Measure GS1 reduces this impact to a less-than-significant level. This measure requires completion of geotechnical investigations for individual development projects. Such investigations include subsurface testing and laboratory analysis. Recommendations made in such investigations shall be implemented in final building plans, grading, and other construction designs.
- Development that could occur under the New Town Center Plan and associated zoning could be located on expansive soil creating a potential risk to life and property. Adherence to Mitigation Measure GS2 reduces this impact to a less-than-significant level by requiring that contractors for future development proposals test for moisture conditions prior to grading, place non-expansive fill below building slabs, and/or design building foundations to resist soil movement associated with expansive soils.

Updated 2009 Redevelopment Plan EIR. The Updated 2009 Redevelopment Plan EIR identified two potentially significant geology and soils impacts and mitigation measures, as follows:

- Impact GEO-1 found that the proposed project could expose people and structures to substantial adverse effects related to seismic groundshaking. Adherence to Mitigation Measure GEO-1 requires the preparation of site-specific geotechnical investigations for any new development located in the Updated 2009 Redevelopment Plan area. Each report shall conform to current building code requirements. Structures for human habitation shall be designed to meet appropriate standards contained in the California Building Code.
- Impact GEO-2 identified a potentially significant impact related to exposure of people and structures to seismic-related liquefaction or landslides. Adherence to Mitigation Measures GEO 2a and 2b reduces this impact by requiring individual, site-specific geotechnical reports for site preparation, grading, retaining walls, and building foundations. The project proponent of the Hill Town development is required to form a Geologic Hazard Abatement District for the purpose of carrying out monitoring of geological hazards and identifying site-specific measures to reduce such hazards.

Bayfront Project EIR. This EIR identified several potentially significant geology and soil impacts and mitigation measures, as follows:

- Impact 9-1 identified an impact regarding potentially significant effects of ground shaking on project improvements during seismic events. Adherence to Mitigation Measure 8-1 reduces this impact to a less-than significant level by requiring future developers to prepare detailed, design-level geotechnical investigations to assess the risk of seismic activity and related soil hazards. Recommendations included in such reports shall be included in construction plans and specifications.
- Impact 9-2 identified an impact concerning the possibility of landslide, slope stability, and erosion hazards with project construction. Adherence to Mitigation Measure 9-1 reduces this impact to a less-than significant level as noted above.
 - Impact 9-3 identified an impact related to the presence of expansive soils on the site. Adherence to Mitigation Measure 9-1 reduces this impact to a less-than significant level as noted above.
 - Impact 9-4 found that project grading, changed drainage patterns, and installation of project landscape irrigation could impact existing groundwater flow in the area, resulting in slope instability. Adherence to Mitigation Measure 9-1, requiring a detailed design-level geotechnical investigation reduces this impact to a less-than significant level, as noted above.

Impacts and mitigation measures included in previously certified CEQA documents regarding paleontological resources are listed below.

Hercules New Town Center EIR. The New Town Center EIR identified several potentially significant impacts with respect to disturbance or destruction of paleontological resources but adherence to Mitigation Measure CUL1 reduced this impact to a less-than-significant level. This measure requires that, during the construction process, a project sponsor shall retain a qualified archeologist to train construction crews to identify cultural resources (which can include paleontological resources). In the event cultural resources are found, work shall be stopped and the archeologist shall consult with the City to determine the best treatment for such resources. In the event human remains are found, the County Coroner is to be called. If remains are believed to be of Native American ancestry, the Native American Heritage Commission is to be contacted. All recovered materials are to be subject to scientific analysis, professional museum curation and reporting.

Updated 2009 Redevelopment Plan EIR. This EIR identified potentially significant impacts to paleontological resource impacts and recommended the following mitigation measure, as follows:

- Impact Cult-2 identifies that the proposed project could potentially destroy unknown unique paleontological resources within the project area. Adherence to Mitigation Measure CUL-2 reduced this impact by requiring review of individual development proposals in the 2009 Redevelopment Plan to determine the potential for deposits of paleontological resources on each site. For sites identified as having sensitivity to such resources, a paleontological monitoring program shall be implemented prior to grading operations. If necessary, the program may require maintenance of daily field logs, recovery of soil samples, and the ability to remove resources as needed. A photo log of grading operations of the site must

also be kept. If significant paleontological resources are found, the monitor shall have the authority to halt operations that affect such resources.

Bayfront Project EIR. This EIR did not identify potentially significant impacts to paleontological resources or recommended any mitigation measures.

Regulatory Framework

Hercules General Plan. The Safety Element of the General Plan contains Policy 2D regarding geologic hazards. This Policy reads:

The administration of subdivision and grading ordinances should allow for flexibility in the review and approval of construction plans to permit sound engineering design in the solution of specific geological problems. Site-specific geotechnical investigations shall be required for every new development.

Project Impacts

- a) **Less than Significant Impact.** The proposed HEU would facilitate construction of new dwellings and other housing-related facilities and improvements. Potential impacts related to soil and geologic impacts on future residential construction would be reduced by adherence to the Safety Element of the Hercules General Plan, which addresses impacts related to geological issues, including groundshaking, ground rupture, and related soil-based hazards, such as differential settlement, liquefaction, and landslides.

All future housing projects constructed pursuant to the HEU, as described in Section 2.8 and Table 4, are required to comply with the Safety Element of the General Plan to obtain site-specific geotechnical investigations as required by mitigation measures set forth in the Hercules New Town Center, Bayfront Project, and Updated 2009 Redevelopment Plan EIRs for these respective project areas. Adherence to these Mitigation Measures, identified above in the Environmental Setting Section, reduces this impact to a less-than-significant level.

- b) **Less than Significant Impact.** New housing structures that could be constructed in the community pursuant to the HEU will be required to implement Best Management Practices (BMPs) as required by the City of Hercules to comply with the City's NPDES permit as part of normal and customary review of individual residential development projects. This compliance will ensure less-than-significant impacts regarding substantial soil erosion or loss of topsoil from future development under the HEU. These BMPs typically include but are not limited to installation of silt fences, sandbags, and similar measures to minimize substantial erosion and loss of topsoil. Future housing developments will also be required to comply with applicable mitigation measures set forth in certified EIRs on identified housing sites.
- c-d) **Less than Significant Impact.** Adherence to the Safety Element of the Hercules General Plan and mitigation measures for future site-specific housing sites as identified in the Environmental Setting Section, will ensure that impacts related to unstable soils, liquefaction, lateral spreading, landslide, and other soil hazards for future construction will be less-than-significant.

- e) **No Impact.** All new housing projects are required by the City of Hercules to connect to the local sewer system, maintained by the East Bay Municipal Utility District (EBMUD). No impacts would therefore result with regard to septic systems or alternative wastewater disposal systems.

- f) **Less Than Significant Impact.** Although some areas in the East Bay have yielded fossils in the past, the sites for future development within the City are underlain by recent alluvial soils which do not generally yield significant fossiliferous materials. It is not likely that future development under the HEU would disturb significant paleontological resources. However, if resources are found during grading the City's standard conditions of approval require work to halt in that area until any resources can be assessed by qualified professionals and appropriate action taken. In addition, mitigation measures in previous CEQA documents adequately protect potential paleontological resources on those sites (i.e., Hercules New Town Center and 2009 Redevelopment Plan). Therefore, potential impacts of the HEU on paleontological resources will be less than significant.

4.8 Greenhouse Gas Emissions

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Gases that trap heat in the atmosphere are referred to as greenhouse gases (GHGs) because they capture heat radiated from the sun as it is reflected back into the atmosphere, much like a greenhouse does. The accumulation of GHGs has been implicated as a driving force for global climate change. Definitions of climate change vary between and across regulatory authorities and the scientific community, but in general can be described as the changing of the earth's climate caused by natural fluctuations and anthropogenic activities that alter the composition of the global atmosphere.

California State law defines greenhouse gases as:

- Carbon Dioxide (CO₂)
- Methane (CH₄)
- Nitrous Oxide (N₂O)
- Hydrofluorocarbons
- Perfluorocarbons
- Sulfur Hexafluoride

The overall approach to the GHG calculation in this report is based upon the technical advisory of the Governor's Office of Planning and Research (OPR) embodied in the document *CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review*. According to the Governor's Office of Planning and Research, the most common GHG that results from human activity is carbon dioxide, followed by methane and nitrous oxide. The last three of the six identified GHGs are primarily emitted by industrial facilities. For this analysis, only carbon dioxide, methane, and nitrous oxide emissions are considered, as described below.

Carbon dioxide is primarily generated by fossil fuel combustion in stationary and mobile sources. Due to the emergence of industrial facilities and mobile sources in the past 250 years, the concentration of carbon dioxide in the atmosphere has increased 35 percent. Carbon dioxide is the most widely emitted GHG and is the reference gas [Global Warming Potential (GWP) of 1] for determining GWPs for other GHGs.

Methane is emitted from biogenic sources, incomplete combustion in forest fires, landfills, manure management, and leaks in natural gas pipelines. In the United States, the top three sources of methane are landfills, natural gas systems, and enteric fermentation. Methane is the primary component of natural gas, which is used for space and water heating, steam production, and power generation. The GWP of methane is 21.

Nitrous oxide is produced by both natural and human-related sources. Primary human-related sources include agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic acid production, and nitric acid production. The GWP of nitrous oxide is 310.

Greenhouse Gas Effects. There is international scientific consensus that human-caused increases in GHGs have and will continue to contribute to global warming, although there is uncertainty concerning the magnitude and rate of the warming. Potential global warming impacts in California may include, but are not limited to, loss in snowpack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. Secondary effects are likely to include a global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity.

Sources of Greenhouse Gas Emissions. Anthropogenic GHG emissions worldwide as of 2005 totaled approximately 30,800 CO₂ equivalent million metric tons (MMTCO₂E). The United States was the top producer of greenhouse gas emissions as of 2005. The primary contributors to GHG emissions in California are transportation, electric power production from both in-state and out-of-state sources, industry, agriculture and forestry, and other sources, which include commercial and residential activities.

Impacts and Mitigation Measures from Previous EIRs

All previous EIRs were prepared prior to the time the issue of greenhouse gas emissions was required to be evaluated in EIRs. Therefore, they contain no determination of impacts or recommend any mitigation measures relative to greenhouse gas emissions.

Regulatory Setting

Federal Greenhouse Gas Regulations. In September 2009, EPA issued a final rule for mandatory reporting of GHGs from large GHG emissions sources in the United States. In general, this national reporting requirement will provide EPA with accurate and timely GHG emissions data from facilities that emit 25,000 metric tons or more of CO₂ per year. An estimated 85% of the total U.S. GHG emissions, from approximately 10,000 facilities, are covered by this final rule.

In April 2009, EPA published its Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases under the Clean Air Act (CAA) (Endangerment Finding) in the Federal Register. The Administrator proposed the finding that atmospheric concentrations of GHGs endanger the public health and welfare within the meaning of Section 202(a) of the CAA. The final finding was released on December 7, 2009. The findings do not in and of themselves impose any emission reduction requirements but rather allow EPA to finalize the GHG standards recently proposed for new light-duty vehicles as part of the joint rulemaking with the Department of Transportation.

State Greenhouse Gas Regulations. California has adopted several pieces of legislation and the Governor has issued executive orders mandating reductions in greenhouse gasses. These include but are not limited to Assembly Bill 32, Assembly Bill 1493, Senate Bills 1078 and 107, Senate Bill 1368, Senate Bill 375, Senate Bill 97, and several Executive Orders.

Local Greenhouse Gas Regulations. The Bay Area Air Quality Management District (BAAQMD) has established a climate protection program to reduce pollutants that contribute to global climate change and affect air quality in the Bay Area. In May 2017, the BAAQMD published a new version of the CEQA Air Quality Guidelines, which included revisions made to address the Supreme Court’s decision on the *California Building Industry Association v. BAAQMD* and contained the BAAQMD’s recommendations to Lead Agencies for evaluating and assessing the significance of a project’s potential greenhouse gas impacts. In March 2022, the BAAQMD published the CEQA Thresholds for Evaluating the Significance of Climate Impacts From Land Use Projects and Plans, which requires plans to show GHG reductions consistent with California’s reduction targets in order to have a less than significant climate impact.

The BAAQMD provides guidance on assessing and mitigating GHG emissions impacts. In April 2022, the BAAQMD adopted new CEQA thresholds for evaluating climate impacts from land use projects and plans. The proposed HEU is a planning-level document that does not authorize or approve any specific project and, therefore, is analyzed using the BAAQMD’s plan-level guidance. Future development project supported by the HEU could be analyzed using the project-level guidance contained in BAAQMD’s CEQA Air Quality Guidelines. This guidance informs the evaluation of GHG emissions impacts presented below. The BAAQMD’s plan- and project-level thresholds of significance are summarized in Tables 8 and 9, respectively. The project-level thresholds are provided for information purposes only.

**Table 8
BAAQMD Plan-Level GHG Thresholds of Significance**

Pollutant	Plan-Level Thresholds of Significance for Operations	
	Option A	Option B
GHG	Meet the State’s goals to reduce emissions to 40 percent below 1990 levels by 2030 and carbon neutrality by 2045; or	Be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).
Source: BAAQMD 2022		

**Table 9
BAAQMD Project-Level GHG Thresholds of Significance**

Pollutant	Plan-Level Thresholds of Significance for Operations	
	Option A	Option B
GHG	Projects must include, at a minimum, the following project design elements: <ol style="list-style-type: none"> 1. Project buildings will not include natural gas appliances or natural gas plumbing (in both residential and non-residential projects). 2. Project buildings will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis 	Be consistent with a local GHG reduction strategy that meets the criteria under

	<p>required under CEQA (PRC Section 21100(b)(3)) and the State CEQA Guidelines (Section 15126.2(b)).</p> <p>3. Project-generated VMT will be reduced below regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor’s Office of Planning and Research’s Technical Advisory on Evaluating Transportation Impacts in CEQA:</p> <ul style="list-style-type: none"> i. Residential projects: 15% below the existing VMT per capita. ii. Office projects: 15 percent below the existing VMT per employee. iii. Retail projects: No net increase in existing VMT. <p>4. The project will comply with the off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.</p>	<p>State CEQA Guidelines Section 15183.5(b).</p>
<p>Source: BAAQMD, 2022</p>		

The City’s General Plan includes measures that promote energy efficiency, reduce vehicle miles traveled, and develop alternative sources of energy, all of which assist in reducing emissions of GHG and in reducing air pollutants that affect the health of residents. BAAQMD also seeks to support current climate protection programs in the region and to stimulate additional efforts through public education and outreach, technical assistance to local governments and other interested parties, and promotion of collaborative efforts among stakeholders.

Project Impacts a) Less than Significant Impact. Potential GHG impacts from approved projects on opportunity sites were not evaluated in previous EIR documents as that topic was not required at that time, including the General Plan EIR from 1995. Future housing units that could be built under the updated Housing Element would incrementally increase GHG emissions associated with traffic increases and direct and indirect energy use. This incremental increase would contribute to regional and global increases in GHG emissions and associated climate change effects. However, future development under the updated Housing Element would be proposed by private developers and subject to the City’s permitting process and would be reviewed for CEQA compliance at the time of submittal (including GHG emissions). This review would include the BAAQMD GHG requirements in terms of impact analysis and mitigation current at that time. The City would require GHG reduction features to be incorporated into individual developments at that time, which could likely consist of installation of energy efficient appliances, additional building insulation, installation of drought tolerant landscaping, and other techniques to reduce GHG increases to a less-than-significant level on a project and cumulative basis.

b) Less than Significant Impact. The City of Hercules and other governmental agencies currently enforce a number of programs and requirements to make development more energy efficient, to provide alternative modes of travel that reduce vehicular traffic, and other similar measures that reduce greenhouse gas emissions. A number of these include:

- Title 24 Building Energy Efficiency Standards and Green Building Standards to maximize building insulation, lighting requirements, and similar standards.
- Appliance Energy Standards adopted by the California Energy Commission to improve heating and cooling appliances used in residential dwellings.
- Transportation energy efficiency standards as required by the City of Hercules, including but not limited to installation of sidewalks, bike lanes, and bus turnouts.
- Water Use Efficiency, which limits use of water for irrigation pursuant to the State's Model Water Efficiency Ordinance.
- The City of Hercules has adopted stringent requirements for recycling of household materials as well as construction debris.

4.9 Hazards and Hazardous Materials

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Soil and/or Groundwater Contamination. The following potential housing sites in the City have been identified on the Cortese List (http://www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm) as possibly containing contaminated soil and/or water conditions:

- Hercules New Town Center site. Parcels within the New Town Center project area include: the Carone Brothers parcel (1350 Bayberry Way), a Caltrans maintenance yard (1369 Willow Way), and others.
- Updated 2009 Redevelopment project area. Numerous investigations undertaken within the Hill Town site have found residue of heavy metals and hydrocarbons.
- Bayfront project site. Much of the site has been remediated from historic activities related to dynamite, black powder and later fertilizer manufacturing although isolated pockets of contaminated material may still exist.

Pipelines. At least one of the proposed housing sites, the Hill Town site, is traversed by an oil pipeline. One of the New Town Center parcels is also traversed by an underground oil pipeline.

Airports. No public or private airports (or airstrips) exist within or near the Project area.

Wildland Fire. Identified housing sites are all located within urbanized portions of Hercules and have a minimal chance of being subject to a significant wildland fire hazards. The General Plan Safety Element indicates that no Opportunity Site or other residential area within the City are within a Very High Fire Hazard Severity Zone (VHFHZ) as mapped by the California Department of Forestry and Fire Projection (CALFIRE).

Impacts and Mitigation Measures from Previous EIRs

Impacts and mitigation measures included in previously certified CEQA documents analyzing hazards and hazardous materials impacts are listed below.

General Plan EIR. The GP EIR identified the following two significant hazardous material-related impacts:

Impact Hazard-7: Generation of hazardous waste by new industries in the project area (as discussed under Impact Hazard-3) would add to the cumulative hazardous waste disposal requirements in the County. Cleanup and disposal of any contaminated soils within the project area (as discussed under Impact Hazard-1) would increase the cumulative burden on existing landfill storage capacity.

Mitigation Measure Hazard-7a: The Source Reduction and Recycling Element of the City's General Plan encourages waste minimization and includes plans and programs for handling special wastes that might be hazardous, such as contaminated soils and industrial sludge.

Mitigation Measure Hazard-7b: The City's Hazardous Waste Management Plan also addresses waste minimization by encouraging local businesses through source reduction, product substitution, development of alternative technologies, recycling, or other effective means. The Hazardous Waste Management Plan goes on to recommend that the City provide staff and work with the local business community to undertake and encourage a program of identifying waste minimization opportunities or procedures for local industry. Procedures developed should encourage source reduction, recycling, reuse, and onsite treatment.

Even with these mitigation measures, potential hazardous material impacts from implementation of the proposed Land Use and Circulation Elements Update will still be significant and unavoidable.

The GP EIR also identified the following potentially significant hazardous material-related impacts and ten mitigation measures that would reduce impacts to less than significant levels:

Impact Hazard-1: Cleanup of hazardous materials or wastes currently in the project area could pose a threat to workers or the environment.

Mitigation Measure Hazard-1a: At every potentially contaminated location to be developed within the City, the project applicant shall have the site inspected by a Registered Environmental Assessor (i.e., a professional environmental scientist or engineer registered as an REA in California) for the presence of hazardous materials or wastes.

Mitigation Measure Hazard-1b: In the event that the site inspection of Mitigation Measure Hazard-1a uncover chemical contamination, underground storage tanks, abandoned drums, or other hazardous materials or wastes at a parcel, the inspection report preparer shall so notify the City and other agencies, as applicable, potentially including the state Department of Toxic Substances Control, the Regional Water Quality Control Board, and/or the County Health Services Department. The City would also notice the proper agencies as required by law. Under the direction of the appropriate agencies, a site remediation plan shall be prepared by the project applicant in accordance with applicable regulations.

Mitigation Measure Hazard-1c: For the Hercules Properties, Inc. Parcel 1 that is currently being remediated, the City shall obtain copies of closure reports prepared by Cal-EPA certifying that the properties have been remediated and pose no threats to public health.

Impact Hazard-2: Potentially hazardous installations in or adjacent to the project area could pose a threat to occupants or residents should adjacent areas be developed.

Mitigation Measure Hazard-2a: No residential development shall be allowed within a "one in a million" cancer risk isopleth enclosing Pacific Refining Company, as illustrated in the Pacific Refining Company Improved Fuels Modification Project EIR. This mitigation only applies to Parcels 6 and 7.

Mitigation Measure Hazard-2b: If required by the Contra Costa County Health Services Department, a Risk Management and Prevention Plan (RMPP) should be prepared for acutely hazardous chemicals handled at the Hercules Wastewater Treatment Plant. The RMPP should be prepared by the operators of the Hercules Wastewater Treatment Plant. The RMPP should be prepared with the guidance of the Contra Costa County Health Services Department.

Mitigation Measure Hazard-2c: One policy of the City of Hercules *Hazardous Waste Management Plan* is to coordinate City emergency response procedures with the Rodeo-Hercules Fire Protection District, and to train city personnel in emergency response procedures through establishment of an interagency emergency response task force. The city shall include potential emergencies involving hazardous materials handled at the Hercules Wastewater Treatment Plant shall be included in the emergency planning.

Mitigation Measure Hazard-2d: If required by the RMPP prepared under Measure Hazard-2b, future residents or occupants of Parcels 1, 3 and 4 shall be informed of what actions to take in the event of an acutely hazardous materials release from the Hercules Wastewater Treatment Plant.

Mitigation Measure Hazard-2e: Consistent with pipeline operators' standards, no buildings or other structures that could impede access shall be installed in any pipeline right-of-way.

Mitigation Measure Hazard-2f: The City shall permit pipeline operators with pipelines and pipeline rights-of-way adjacent to parcels subject to Tentative Map approval to review these maps.

Mitigation Measure Hazard-2g: Prior to the start of construction on any parcel that includes or is bordered by a pipeline or pipeline right-of-way or easement, the City shall consult with the Rodeo-Hercules Fire Protection District and the operator(s) of affected pipeline(s) regarding the adequacy of safety procedures for pipeline accidents.

Mitigation Measure Hazard-2h: The City shall consider a requirement that sponsors of residential development notify homeowners of the presence of adjacent or nearby pipelines.

Impact Hazard-3: Development consistent with the proposed Land Use and Circulation Elements Update would indirectly allow for the potential increased handling of hazardous materials and the potential increased generation of hazardous wastes by new industrial and commercial facilities occupying areas of the City designated and zoned for such uses.

Mitigation Measure Hazard-3a: The City shall ensure that use, storage, and handling of hazardous materials by businesses and industries within the project area is done in compliance with applicable City policies as well as state and local laws, guidelines, and regulations.

Mitigation Measure Hazard-3b: Residents adjacent to new hazardous materials handling facilities shall be notified immediately by the City emergency response organizations of any accidental occurrences such as spills, leakages, or eruptions which may affect the health, safety, and welfare of the public.

Mitigation Measure Hazard-3c: New businesses in the project area shall be required to install their temporary hazardous waste storage areas on paved, impermeable surfaces with drainage controls and spill containment features.

Mitigation Measure Hazard-3d: Waste stored temporarily at generator facilities shall be segregated by hazard category and stored in individual, sealed storage containers. Separate containers shall be used for flammables, acids, bases, poisons, and reactive wastes.

Impact Hazard-6: Transport of hazardous materials and wastes would result indirectly in greater potential for accidents involving hazardous materials.

Mitigation Measure Hazard-6a: For each specific project that would generate hazardous waste, the City shall require as a condition of building permit and/or business license approval that the project sponsor prepare a hazardous material transportation program. The transportation program shall identify the location of the new facility or use and designate either (1) specific routes to be used for transport of hazardous materials and wastes to and from the facility, or (2) specific routes to be avoided during transport of hazardous materials and wastes to and from the facility. Routes would be selected to minimize proximity to sensitive receptors to the greatest practical degree. Passage through residential neighborhoods should be minimized, and parking of waste haulers on residential streets should be prohibited. The City shall review and approve the applicant's hazardous material transportation program or, working with the applicant, modify it to the satisfaction of both parties. The City shall require that the applicant provide a copy of the program to the Rodeo-Hercules Fire Protection District. Documentation to that effect shall be added to the administrative record.

The GP EIR also found Hazardous Materials Impacts Hazard-4 and -5 to be less than significant and did not recommend any mitigation.

Hercules New Town Center EIR

- Future development within the New Town Center project area could create a significant hazard to the public through the reasonably foreseeable release of hazardous materials into the environment. Adherence to Mitigation Measures HM1 through HM12 reduces this impact to a less-than-significant level. These measures require additional testing for contaminated materials for a number of parcels within the project area and remediation of hazardous materials if actionable levels of such materials are encountered. Measures HM4 through HM12 deal with future construction activities.
- Development that could occur within the New Town Center zoning district could create a significant hazard to the public or environment due to the presence of a contaminated site within the project area. Adherence to Mitigation Measure HM 7.11 and 12 reduces this impact to a less-than-significant level.

Updated 2009 Redevelopment Plan EIR

- Impact HAZ-1 states that the proposed project could involve hazardous material release during the decommissioning and dismantling of industrial facilities within the Hill Town project area. Adherence to Mitigation Measure HAZ-1a, 1b, and 1c reduces this impact to a less-than-significant level. These measures require additional testing of conditions of petroleum storage tanks and other facilities on the site and require appropriate removal and disposal of such material, if found.
- Impact HAZ-2 identifies a potentially significant impact to the public related to an accidental upset or leak from existing petroleum pipelines through the Hill Town site. Adherence to Mitigation Measures HAZ-2e through 2h reduces this impact by requiring that no buildings be located within pipeline rights-of-way, consultation with the Fire Protection District regarding the adequacy of safety procedures for the pipeline, and future notification of the presence of the pipeline to future residents.

- Impact HAZ-5 notes that site remediation efforts on the Hill Town site could result in a potentially significant impact due to the transport of hazardous material on City streets. Adherence to Mitigation Measure HAZ-6 reduces this impact by requiring that all remediation plans contain detailed transportation plans and that such routes avoid school sites.

Bayfront Project EIR. This EIR identified several potentially significant hazardous materials impacts and mitigation measures, as follows:

- Impact 10-1 stated that the project site and vicinity could contain hazardous materials from previous site uses that could pose a hazard to construction workers, employees, visitors, and future residents. Adherence to Mitigation Measure 10-1 reduces this impact to a less-than significant level by requiring additional site remediation to County, state, and federal standards, if required.
- Impact 10-2 noted a potential impact with respect to asbestos, PCBs and/or mercury. Adherence to Mitigation Measure 10-2 reduces this impact to a less-than-significant level by requiring future site surveys for these contaminants and remediation of any hazards encountered as a result of the survey.
- Impact 10-3 identified an impact with respect to potential exposure of future site occupants and visitors to lead-based paint as a result of building renovations. Adherence to Mitigation Measure 10-3 reduces this impact to a less-than-significant level by requiring safe removal of any lead-based paint in a manner consistent with CalOSHA regulations.

Project Impacts

- a) **No Impact.** Implementation of the proposed Housing Element would not involve any industrial, manufacturing, or similar land uses or activities that would use, generate, transport, or store significant quantities of hazardous materials, although it is likely that future housing projects would use and store normal amounts of yard chemicals, paints, solvents, and similar materials. The intent of the proposed updated Housing Element is to encourage construction of new housing in Hercules. No impact is anticipated with regard to this topic.
- b) **Less than Significant Impact.** The proposed HEU anticipates future residential development which is not expected to create hazardous emissions. As identified in the Environmental Setting section, several candidate housing sites likely contain some level of hazardous materials as a result of existing or previous uses or activities on that site or sites, including the Hill Town site, portions of the Bayfront site, and portions of the New Town Center project area. Future development on these sites will be required to adhere to mitigation measures set forth in previously certified EIRs for these projects that require remediation prior to future housing development. This impact is expected to be less-than-significant.
- c) **Less than Significant Impact.** As identified in the Environmental Setting section, several candidate housing sites likely contain some level of hazardous materials as a result of existing or previous uses or activities on that site or sites, including the Hill Town site, portions of the Bayfront site, and portions of the New Town Center project area. The mixed use area of the New Town

Center site is just within a quarter mile of the Tutu (dance) School Hercules, and the 215 Skelly site is within a quarter mile of the La Casita Bilingue Montessori School. However, future development on these sites will be required to adhere to mitigation measures set forth in previously certified EIRs for the projects that require remediation of hazmat conditions prior to future housing development (see discussion under Threshold d below). With previously recommended mitigation, this impact is expected to be less-than-significant and no additional mitigation is required.

- d) **Less than Significant Impact.** A number of the housing sites shown on **Exhibit 3** contained in this Initial Study are listed on the California Department of Toxic Substances Control (DTSC) Cortese List of hazardous sites, including portions of the proposed New Town Center. The New Town Center EIR contains Mitigation Measures HM7, 11 and 12 that reduce this impact to a less-than-significant level. The Bayfront Project EIR contains Mitigation Measures 10-1 and 10-2 that require future remediation of any identified hazardous materials identified on this site. Future residential developers on this site will be required to adhere to these measures. Other future development under the proposed HEU would be required to identify potential impacts related to hazardous materials and incorporate mitigation as appropriate. Therefore, impacts of the HEU relative to this topic are less-than-significant.
- e) **No Impact.** No airports are located near Hercules, so no impacts would result with respect to this topic.
- f) **No Impact.** Future housing units constructed as a result of updating the Housing Element will be constructed on private lands and will be reviewed by the Hercules Police Department and Fire District to ensure that no interference with emergency plans would occur. No impacts are anticipated with regard to this topic.
- g) **No Impact.** All proposed housing sites are located within urban areas and are not designated as subject to wildfire hazards, so there would be no impact with respect to wildland fire hazards.

4.10 Hydrology

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would:				
(i) result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or				
(iv) impede or redirect flood flows.				
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Surface water resources. The primary surface water feature in the Hercules planning area is Refugio Creek, a regionally significant perennial creek that, along with several primary tributaries, generally flows westward from the east end of Hercules into San Pablo Bay. A number of smaller unnamed creeks are also located within the Hercules planning area.

Drainage facilities. Stormwater flows from the urbanized portion of Hercules in a westerly direction, towards San Pablo Bay. Stormwater flows within a combination of regional facilities maintained by the Contra Costa County Flood Control District and localized drainage facilities. Generally, developed areas of Hercules are served by drainage facilities while drainage on vacant sites is by sheet flow to local streets.

Flood hazard. Flood Insurance Rate Maps (FIRMs), which are prepared by the Federal Emergency Management Agency (FEMA), identify potential flood zones. Flood hazards related to storm events generally are described in terms of a 100-year or 500-year flood. A 100-year flood is defined as a major flood event that has a one percent or greater chance of occurring during any one year. Flood hazard planning practices address such storms, as well as 500-year events. No areas within the City or Sphere of Influence have been identified within 500-year flood hazard areas. However, certain areas of the City (generally adjacent to creeks) have been identified to be within the 100-year flood zones. These areas have a one-percent chance of inundation at varying depths. The lower channel of Refugio Creek has had a history of overflowing and improvements to the lower channel in recent years have reduced the potential for flooding both upstream and downstream. Approximately 2,500 linear feet of Refugio Creek adjacent to the Bayside subdivision was realigned and restored in 2004. As part of the restoration, the creek was relocated to a new 180-foot wide channel to convey flood flows.

Groundwater recharge areas. The General Plan does not designate any areas of the community for groundwater recharge. However, runoff that is not collected by local storm drains and remains on vacant land or on pervious surfaces in developed areas can eventually percolate back into the local groundwater.

Coastal waters and seiche or tsunami potential. Housing located in the proposed Bayfront development project is located adjacent to San Pablo Bay. Portions of the bayfront area have been identified by the Association of Bay Area Governments (ABAG) as being subject to tsunami effects (source: <https://abag.ca.gov/our-work/resilience/data-research/tsunami-additional-hazards>).

Impacts and Mitigation Measures from Previous EIRs

Potentially significant impacts and mitigation measures included in previously certified CEQA documents analyzing hydrology impacts are listed below.

General Plan EIR. The GP EIR identified the following potentially significant hydrology or water quality-related impacts and four mitigation measures that would reduce impacts to less than significant levels:

Impact Hydrology-1: Development consistent with the proposed Land Use and Circulation Elements Update would place structures and an increased population in areas already subject to 100-year flooding from Refugio Creek and from coastal storms. Additionally, construction of new impermeable surfaces could increase runoff and contribute to flooding.

Mitigation Measure Hydrology-1a: The City shall review and refine, as necessary, its master Drainage Plan, including specifics for drainage on individual parcels (except those such as parcel 6 which already have drainage infrastructure), prior to approval of any development in the study area. This is an important measure since new drainage and pollution prevention and control infrastructure would have to be built to accommodate the increase in runoff.

Mitigation Measure Hydrology-1b: For each new development project, runoff increase calculations for the parcel at full buildout should be measured against estimates of existing runoff to ensure that no flooding will result.

Impact Hydrology-2: Development under the Land Use and Circulation Elements Update could result in increased non-point source and point-source pollution of surface waters from construction activity and vehicle use.

Mitigation Measure Hydrology-2a: Develop a Master Water Quality Control Plan for the City, including measures to clean up existing contaminated water resources in various parcels, to identify and remove or mitigate existing sources of pollution, and to develop ways of preventing further pollution such as specific water treatment policies for industries and retention basins for surface runoff suspected of carrying roadway pollutants. Such a plan must be approved by the City Engineer and should be reviewed by the Regional Water Quality Control Board and State Department of Water Resources for correctness and thoroughness, prior to implementation.

Mitigation Measure Hydrology-2b: Develop a set of best management practices (BMPs) for developer to follow:

- Use of stormwater retention or detention structures;
- The use of oil and water separators; and
- The use of sediment traps.

Particles of sediment absorb many of the heavy metal pollutants from automobile exhaust, as well as trapping oil and grease within their pores. Through the use of water separators and sediment traps, in conjunction with settling basins, many of the pollutants could be removed.

Hercules New Town Center EIR

- Future development within the New Town Center project area could alter existing drainage plans within the project area, including stream courses, and could also increase the rate or amount of surface runoff in a manner that would result in on- or off-site flooding. Adherence to Mitigation Measure WQ1 reduces this impact to a less-than-significant level by requiring future developers in the New Town Center project to prepare hydrology analyses to ensure that no net increase in stormwater flow into the City's drainage system would occur.
- Development that could occur in the New Town Center zoning district could place future housing within a 100-year flood hazard area or could impede or redirect flood flows. Adherence to Mitigation Measures WQ2 and WQ3 reduced this impact to a less-than-significant level by requiring future developers of individual projects to submit reports delineating 100-year flood plains near the project site and, if necessary, submitting final development plans demonstrating that finished floor elevations would be at least 1-foot above the 100-year flood hazard area.

- Development proposed in the Market Town project could violate water quality standards and waste discharge requirements. Adherence to Mitigation Measure WQ4 reduces this impact to a less-than-significant level by requiring future Market Town developer(s) to submit a Stormwater Management Plan to the Hercules Public Works Department demonstrating that applicable C.3 water quality standards will be met.
- The proposed Market Town development could create or contribute stormwater runoff that would exceed the capacity of existing and planned drainage systems or could result in substantial sources of polluted runoff. Adherence to Mitigation Measure WQ1 reduces this impact to a less-than-significant level.

Updated 2009 Redevelopment Plan EIR

- Impact Hyd-2 states that the proposed project would alter the drainage pattern of the west branch of Refugio Creek on the Sycamore Crossing site. There could also be potentially significant impacts flooding impacts with respect to proposed drainage facilities as part of the Hill Town project site. Adherence to Mitigation Measure HYD-2 reduces this impact to a less-than-significant level. This measure requires future developers of the Hill Town and Sycamore Crossing projects to prepare hydrology reports calculating anticipated peak stormwater flows and to identify existing or planned stormwater facilities to accommodate this drainage.
- Impact Hyd-3 identifies a potentially significant impact with respect to placement of housing in a portion of Sycamore Crossing site within a 100-year flood hazard area. This could also redirect floodwater flows. Adherence to Mitigation Measures HYD-3 reduces this impact to a less-than-significant level by prohibiting development in a 100-year flood hazard area. Future developers may be required to obtain Letters of Map Revisions from the Federal Emergency Management Agency (FEMA) to remove affected properties from a flood hazard area by requiring: that no buildings be located within pipeline rights-of-way; consultation with the Fire Protection District regarding the adequacy of safety procedures for the pipeline; and future notification of the presence of the pipeline to future residents.

Bayfront Project EIR. This EIR identified several potentially significant hydrology and water quality impacts and mitigation measures, as follows:

- Impact 11-1 noted that surface water pollutants associated with project grading and construction could significantly degrade waters in Refugio Creek and ultimately into San Pablo Bay. Adherence to Mitigation Measure 11-1 reduces this impact to a less-than-significant level by requiring project compliance with City, regional, and state water quality standards, including preparation of a Stormwater Pollution Prevention Plan (SWPPP), to minimize runoff of polluted runoff into off-site surface waters.
- Impact 11-2 identified an impact with respect to project related dredging on Refugio Creek water quality. Adherence to Mitigation Measure 11-2 reduces this impact to a less-than-significant level by requiring the project applicant to obtain a dredging and disposal permit from the U. S. Army Corps of Engineers. Conditions of permit typically require a sampling plan and removal of polluted sediments from dredge spoils, if any are identified.

- Impact 11-3 stated that on-going operational activities associated with the project could increase the level of contaminants in local waters as a result of stormwater runoff and use of chemicals. Adherence to Mitigation Measure 11-3 reduces this impact to a less-than-significant level by requiring the project applicant to prepare a Stormwater Pollution Prevention Plan.
- Impact 11-4 noted that the proposed project could place housing within a 100-year flood hazard area and could place improvements in a location that would redirect or impede floodwaters. Adherence to Mitigation Measure 11-3 reduces this impact to a less-than-significant level by requiring future project housing to be located a minimum of one foot above the 100-year flood elevation and detailed analyses to ensure that future development does not contribute to downstream flooding.
- Impact 11-5 noted that the proposed construction of the Intermodal Transit Center could exceed the capacity of Refugio Creek to receive increased stormwater flows. Adherence to Mitigation Measure 11-5 reduces this impact to a less-than-significant level by requiring that Refugio Creek flows be monitored to ensure that future flooding will not be significant.

Regulatory Framework

Contra Costa Clean Water Program. The City of Hercules participates with all of the other incorporated cities in Contra Costa County and the Contra Costa County Flood Control and Water Conservation District in the Contra Costa Clean Water Program. The Clean Water Program holds a joint Municipal NPDES permit from the Regional Water Quality Control Board to comply with the Clean Water Act.

Hercules General Plan. The General Plan contains several policies addressing hydrology and water quality, as follows.

The Growth Management Element contains Performance Standard III.E.7, which reads: “All new structures shall be located outside the Flood Zones A and B, as designated by the Flood Insurance Rate Maps; or ensure that the finished floor elevation is at least one foot above the flood elevation as determined by FEMA. Development of any property shall not significantly increase the flooding potential at downstream areas, or otherwise significantly impact or aggravate a flooding problem at downstream properties.”

The Seismic Safety/Safety Element contains the following applicable policies:

- Refugio Creek Channel should be improved for existing drainage so that adequate capacity for expected flood flow is provided (*Policy C.2.e.1*).
- The City should develop ordinances and enforcement mechanisms which preserve, develop and maintain existing drainage courses (*Policy C.2.e.2*).
- Review of any significant project proposals for areas which are not presently in flood zones should include an evaluation of increased downstream flows resulting from the project (*Policy C.2.e.3*).
- Finished floor elevations of all developments must be one foot above the 100-year flood elevations prescribed on the Flood Insurance Rate Map (*Policy C.2.e.4*).

Project Impacts

- a) **Less than Significant Impact.** Construction of new dwellings anticipated in the updated Housing Element have been included in the current Hercules General Plan and incorporated into local agency water quality planning by the City and the Bay Area Regional Water Quality Control Board; this HEU does not propose any increase in the density/intensity of general plan land use designations. The issues of exceeding water quality standards and waste discharge requirements have also been previously analyzed in earlier CEQA documents identified in the Earlier Analysis section of this Initial Study.

The updated Housing Element would result in construction on currently vacant or underutilized properties. This construction could result in a greater quantity of stormwater runoff as a result of increasing the amount of impervious surfaces. The City of Hercules enforces Best Management Practices (BMPs) included in the Contra Costa Clean Water Plan to minimize siltation and erosion from individual sites. These include both construction and post-construction BMPs, including but not limited to requiring installation of silt fences and straw bales on construction sites and frequent sweeping of parking areas, covering of solid waste dumpsters, and other post-construction measures. Implementation of BMPs is required for all new development, so there would be no significant impacts from altered drainage patterns.

In addition, mitigation measures included in the Bayfront Project EIR, the New Town Center EIR, and the Hercules Updated 2009 Redevelopment Plan EIR require that each of these projects limit polluted stormwater runoff to a less-than-significant level.

The City of Hercules requires all individual development projects, including future housing development projects facilitated as a result of an updated Housing Element, to meet Best Management Practices to ensure that water quality would be protected. Best Management Practices are described above in Section 8c of this Initial Study. A less-than-significant impact is anticipated with regard to this topic.

As outlined above, implementation of the updated Housing Element would not exceed waste discharge requirements imposed on the City by the Regional Water Quality Control Board. Impacts related to this topic would therefore be less-than-significant.

- b) **No Impact.** Implementation of the HEU would result in the construction of additional dwelling units, however, they would be within the levels of growth previously estimated for the City. The primary source of water to dwellings is imported surface water supplied by the East Bay Municipal Utility District (EBMUD) that does not rely on local groundwater. Therefore, there would be no impacts related to lowering of the water table or reducing the amount of groundwater recharge areas.
- c) **Less than Significant Impact.** Future development according to the HEU is not expected to change overall drainage patterns within the City as evaluated in the General Plan EIR and previous environmental documents. In addition, onsite and offsite drainage will be evaluated when future development is proposed on specific sites based on conditions at that time.

A number of housing sites in the City are located within a 100-year flood hazard area, including housing sites within the 2009 Redevelopment Plan area. Adherence to Mitigation Measure HYD-3 reduced this impact to a less-than-significant level. For the Bayfront Project, adherence to Mitigation Measures 11-4 and 11-5 reduces flooding impacts to a less-than-significant level. For other potential developments that could occur as identified in the updated Housing Element, adherence to Policies C.2.e.3 and C.2.e.4 will ensure that housing would not be placed in flood hazard areas. Furthermore, proposed Housing Element Program 1A.7 requires essential public facilities to be placed outside of flood and fire hazard areas, where possible, or to be constructed to prevent damage to those facilities where those hazards may occur. Impacts will be less than significant with implementation of existing and proposed regulatory and policy requirements.

- d) **Less than Significant Impact.** Based on dam inundation maps prepared by the Association of Bay Area Governments, no portions of Hercules are subject to dam inundation (source: <http://quake.abag.ca.gov/dam-failure/>). Impacts related to seiche, tsunami and/or mudflows would be less-than-significant. In terms of tsunami and seiche incidents, many of the potential housing sites are located well inland from any major bodies of water, thus tsunami and seiche impacts would be minimal. For the proposed Bayfront project, future development would be protected by the existing railroad tracks located between the Bayfront project site and San Pablo Bay. Construction on the Sycamore and Bayfront III sites is also subject to applicable policies contained in the Growth Management Element Performance Standard III.E.7 and Safety Element Policies C.2.e.1 through C.2.e.4 that would reduce any potential impacts related to inundation to less-than-significant levels.

Regarding the potential for mudflows, many of the housing sites are located on relatively flat areas of the community so that no impact would occur with respect to this topic. For potential housing sites located on areas of steeper topography, such as Hill Town, the City of Hercules requires geotechnical studies as a normal and customary part of the development review process to minimize any significant mudflow impacts. This impact is anticipated to be less-than-significant.

- e) **Less Than Significant Impact.** The discussion under Threshold (a) above demonstrates the HEU would not have significant impacts relative to regional water quality plans. In addition, the discussion under Threshold (b) indicates the primary source of local water is imported surface water supplied by the East Bay Municipal Utility District (EBMUD) that does not primarily rely on local groundwater. Therefore, future housing under the HEU would have no significant impact on local groundwater supplies or groundwater planning activities in this portion of the Bay Area.

4.11 Land Use

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Existing uses, General Plan and land use designations for identified housing sites include:

- *Refugio Senior Housing*. This 1.3-acre development site is currently vacant and is planned for Residential Multi-Family/Low Density.
- *Bayfront Project*. The Bayfront project site is currently vacant and is zoned as Historic Town Center.
- *Hill Town*. The Hill Town project site—a former industrial but currently vacant site—is planned and zoned for Planned Commercial–Residential land uses.
- *New Town Center*. This site is partially developed with light industrial uses and the Hercules Transit Center. The Hercules General Plan and zoning ordinance designate this site as New Town Center.

None of the above sites are included within a Habitat Conservation Plan or Natural Community Conservation Plan.

Impacts and Mitigation Measures from Previous EIRs

The previous EIRs did not identify any significant land use impacts specifically related to their projects and did not recommend any mitigation measures.

Regulatory Framework

The State gives local jurisdictions control over land uses within their boundaries through preparation and implementation of their General Plan and zoning documents and maps.

Project Impacts

- a) **No Impact.** Construction of future dwellings and associated housing units under the updated Housing Element would proceed under guidance by the Hercules General Plan and other applicable land use regulatory documents and would not physically divide any established communities. No impacts are anticipated.

- b) **No Impact.** The Housing Element Update includes potential housing opportunity sites that could allow approximately 2,069 units as outlined in Section 2.8 and Table 4 to comply with the State’s current housing goals (i.e., as demonstrated by the City’s current RHNA). No amendments are required to the Hercules General Plan and no rezonings are required to allow construction of the anticipated dwellings to comply with RHNA. Future housing developments anticipated in the updated Housing Element may be required to obtain subdivision maps, conditional use permits, building permits, and potentially other permits from the City of Hercules. No impacts are anticipated with respect to this topic.

4.12. Mineral Resources

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Based on the Open Space and Conservation Map of the Hercules General Plan and related State³ mapping, no significant mineral resources exist on any of the identified housing sites.

Impacts and Mitigation Measures from Previous EIRs

The previous EIRs did not identify any significant mineral resource-related impacts and did not recommend any mitigation measures.

³ California Department of Conservation (DOC), Division of Mines and Reclamation (DMR), and California Geological Survey (CGS) Mineral Land Classification Map (MLC) studies (<https://maps.conservation.ca.gov/mineralresources/>)

Regulatory Framework

The State Surface Mining and Reclamation Act (SMARA) gives local jurisdictions the ability to identify and plan land uses to accommodate important mineral resources within their boundaries through preparation and implementation of their General Plan.

Project Impacts

a, b) **No Impact.** The General Plan notes no deposits of minerals on any of the housing sites, and thus no impacts would result.

4.13 Noise

Would the project result in:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Noise can be defined as unwanted sound and is commonly measured with an instrument called a sound level meter. The sound level meter “captures” sound with a microphone and converts it into a number called a sound level. Sound levels are expressed in units of decibels (dB).

To correlate the microphone signal to a level that corresponds to the way humans perceive noise, the A-weighting filter is used. A-weighting de-emphasizes low-frequency and very high-frequency sound in a manner similar to human hearing. The use of A-weighting is required by most local agencies as well as other federal and state noise regulations (e.g., Caltrans, EPA, OSHA, and HUD). The abbreviation dBA is often used when the A-weighted sound level is reported.

Because of the time-varying nature of environmental sound, there are many descriptors that are used to quantify the sound level. Although one individual descriptor alone does not fully describe a particular noise environment, taken together, they can more accurately represent the noise environment. There are four descriptors that are commonly used in environmental studies; the L_{max} , L_{eq} , L_{90} and DNL (or CNEL).

The maximum instantaneous noise level (L_{max}) is often used to identify the loudness of a single event such as a car pass-by or airplane flyover. To express the average noise level, the L_{eq} (equivalent noise level) is used. The L_{eq} can be measured over any length of time but is typically reported for periods of 15 minutes to 1 hour. The background noise level (or residual noise level) is the sound level during the quietest moments. It is usually generated by steady sources such as distant freeway traffic. It can be quantified with a descriptor called the L_{90} which is the sound level exceeded 90 percent of the time.

To quantify the noise level over a 24-hour period, the Day/Night Average Sound Level (L_{dn}/DNL) or Community Noise Equivalent Level (CNEL) is used. These descriptors are averages like the L_{eq} except they include a 10 dBA penalty for noises that occur during nighttime hours (and a 5 dBA penalty during evening hours in the CNEL) to account for people's increased sensitivity during these hours.

In environmental noise, a change in the noise level of 3 dBA is considered a just noticeable difference. A 5 dBA change is clearly noticeable, but not dramatic. A 10 dBA change is perceived as a halving or doubling in loudness.

Existing noise sources

The Noise Element of the Hercules General Plan identifies two major sources of noise in the community. These include:

- Vehicular (mobile) sources. The most significant mobile noise sources include vehicles traversing the I-80 corridor through Hercules, vehicles using State Route 4, and vehicles using San Pablo Avenue between State Route 4 and Sycamore.
- Railroad noise. Trains using main rail lines through Hercules generate a significant amount of noise on adjacent properties. Main railroad lines include the Union Pacific tracks along the east side of San Pablo Bay and the BN&SF line through eastern Hercules.

The Noise Element notes that vehicles traversing other roadways in Hercules generate moderate to minor noise levels.

Sensitive noise receptors. Sensitive noise receptors are considered to be residential uses, schools, hospitals, parks, and similar uses.

Airports and airstrips. No public airports or private airstrips are located near the Project area.

Impacts and Mitigation Measures from Previous EIRs

Potentially significant impacts and mitigation measures included in previously certified CEQA documents assessing noise impacts are listed below.

General Plan EIR. The GP EIR identified the following potentially significant noise-related impacts and eight mitigation measures that would reduce impacts to less than significant levels:

Impact Noise-1: Development consistent with the proposed Land Use and Circulation Elements Update would result in temporary noise impacts related to construction activities.

Mitigation Measure Noise-1a: For construction near sensitive receptors, require that noisy construction activities be scheduled for periods, such as between 8 a.m. and 6 p.m. on weekdays and 9 a.m. and 6 p.m. on Saturday, when loud noises would have the least impact on adjacent residents or other sensitive receptors.

Mitigation Measure Noise-1b: Develop a construction schedule that minimizes potential cumulative construction noise impacts and accommodates particularly noise-sensitive periods for nearby land uses (e.g., for schools, churches, etc.).

Mitigation Measure Noise-1c: Where feasible require that holes for driven piles be pre-drilled to reduce the level and duration of noise impacts.

Mitigation Measure Noise-1d: Where feasible construct temporary, solid noise barriers between source and sensitive receptor(s) to reduce off-site propagation of construction noise. This measure could reduce construction noise by up to five decibels.

Mitigation Measure Noise-1e: Require internal combustion engines used for construction purposes to be equipped with a properly operating muffler of a type recommended by the manufacturer. Also, require impact tools to be shielded per manufacturer's specifications.

Impact Noise-2: Development consistent with the proposed Land Use and Circulation Elements Update would result in a long-term increase in traffic noise levels along the City road network.

Mitigation Measure Noise-2a: The City shall limit truck traffic to between 7:00 am and 6:00 pm and prohibit heavy-duty diesel trucks on Hercules Avenue.

Impact Noise-3: Noise from stationary sources developed under the Land Use and Circulation Elements Update could raise ambient noise levels above City standards.

Mitigation Measure Noise-3a: As discussed in Impact Noise-1, the City could revise the Municipal Code to include a Noise Ordinance. The Noise Ordinance would encourage the scheduling of noisy activities during normal business hours so that they would have the least interrupting and intrusive effect at nearby residential land uses.

Impact Noise-4: New roads developed under the Circulation Element Update would increase noise levels along the new alignments.

Mitigation Measure Noise-4a: The City shall post signs prohibiting trucks from using the proposed Claeys Road extension, except for local deliveries. All other trucks shall be required to use Sycamore Avenue to reach the Claeys Road/SR 4 interchange.

Impact Noise-5: Development consistent with the proposed Land Use and Circulation Elements Update would expose future noise-sensitive land uses to traffic and railroad noise above the City's recommended standards.

Mitigation Measure Noise-2a above.

Hercules New Town Center EIR

- Future development within the New Town Center project area could result in temporary noise and vibration levels on adjacent sensitive noise receptors. Adherence to Mitigation Measure NOI1 reduced this impact to a less-than-significant level by requiring future developers in the New Town Center near sensitive noise receptors to undertake a number of noise reduction measures, including but not limited to reducing construction vehicle

noise, outfitting construction equipment with mufflers, locating stationary noise sources away from stationary receptors, locating material stockpiles away from sensitive receptors, and identifying a project liaison to resolve any noise complaints.

- Development that could occur under the New Town Center Plan could result in on-site noise levels in excess of City noise standards. Adherence to Mitigation Measures NOI2 and NOI3 reduces this impact to a less-than-significant level by requiring future developers of individual projects adjacent to the I-80 corridor, SR 4, and the Union Pacific Railroad to prepare site-specific acoustic analyses to ensure that interior and exterior City noise standards are met. Adherence to Mitigation Measure NOI6 requires future developers to include sound transmission class specifications for future building construction. Mitigation Measure NOI7 requires residential buildings located along SR 4 and San Pablo Avenue require mechanical ventilation systems to be installed.
- Development proposed in this project area could result in an increase in ambient noise due to generation of on-site stationary noise sources. Adherence to Mitigation Measures NOI4 and NOI5 reduces this impact to a less-than-significant level by requiring future developers to locate mechanical noise sources away from sensitive noise receptor areas and by depressing the elevation of commercial loading docks near residential areas or locating docks in an internal building bay.

Updated 2009 Redevelopment Plan EIR

- Impact Noise-2 found that future residents of the Sycamore Crossing and Hill Town sites would be subject to noise from adjacent roadways and other sources that could exceed State noise compatibility guidelines. Adherence to Mitigation Measures NOI-1 and NOI-2 reduces this impact to a less-than-significant level. These measures require that future developers within the project area prepare design-level noise studies to ensure that future residences will not be subject to noise levels in excess of City indoor and outdoor standards.
- Impact Noise-3 noted that future development in this project area has the potential to temporarily increase noise levels during construction as well as ground vibration. Adherence to Mitigation Measures NOI-3a through 3e reduces this impact to a less-than significant level by requiring: scheduling of noise-generating activities to limit impacts to sensitive noise receptors; scheduling of construction activities to minimize noise impacts; predrilling of foundation pilings; placement of solid noise barriers near noise receptors if future noise would exceed 70 dB CNEL; and outfitting internal combustion-powered equipment with mufflers.

Bayfront Project EIR. This EIR identified several potentially significant noise impacts and mitigation measures, as follows:

- Impact 13-1 found an impact with respect to construction period noise. Adherence to Mitigation Measure 13-1 reduces this impact to a less-than significant level by requiring a number of specific noise minimization methods, including but not limited to scheduling of

major noise-producing activities during mid-day periods, muffling construction equipment, installation of temporary noise barriers, and appointment of a noise disturbance coordinator.

- Impact 13-2 identified an impact with respect to exposure of future development residents, visitors, and employees to excessive interior noise levels. Adherence to Mitigation Measure 13-2 reduces this impact to a less-than-significant level by requiring site-specific acoustic analysis for future projects in the Bayfront project to ensure that City and state interior noise limits are met.
- Impact 13-3 identified an impact with respect to exposure of future development residents, visitors, and employees to excessive exterior noise levels. Adherence to Mitigation Measure 13-3 reduces this impact to a less-than significant level by requiring that the future retaining wall/noise barrier be constructed to adequately reduce outdoor noise levels. If the retaining wall is not constructed first, to shield other structures from outdoor noise, acoustic analyses are required to identify specific methods to reduce noise to acceptable levels. These measures are to be included in the project.
- Impact 13-4 noted an impact with respect to exposure of future development to excessive groundborne vibration that would exceed standards. Adherence to Mitigation Measure 13-4 reduces this impact to a less-than-significant level by requiring construction techniques for project residences to minimize vibration, including but not limited to restricting span lengths and joist depths and installing vibration-resistant stiffeners.

Regulatory Framework

The Noise Element of the City of Hercules General Plan contains guidelines to promote land uses that are compatible with the local noise environment. The Noise Element goals and policies that would apply to the HEU are as follows:

Appropriate interior noise levels in commercial, industrial and office buildings are a function of the use of space and shall be evaluated on a case-by-case basis. Interior noise levels in offices generally should be maintained at 45 dBA L_{eq} (hourly average) or less (*Policy 1*).

New non-residential land development projects shall meet acceptable exterior noise level standards set forth in Table 1 of the Noise Element. The noise contour map in the General Plan (on file at City Hall) shall be used to screen projects to determine if acoustical studies will be required (*Policy 2*).

Protect existing noise-sensitive land uses from long-term noise impacts generated by new projects. The City shall use the following criteria to judge the significance of long-term noise impacts on existing noise-sensitive land uses:

- Noise level increases resulting from traffic associated with new projects will be considered significant if: (1) the noise level increase is 5 dBA L_{dn} or greater and the future noise level is less than 60 dBA L_{dn} ; or (2) the noise level increase is 3 dBA L_{dn} or greater and the future noise level is 60 dBA L_{dn} or greater.
- Noise levels produced by stationary sources associated with new projects will be considered significant if they exceed the noise level standards set forth in Table 2 of the Noise Element as measured at any affected noise-sensitive land use.

- Noise levels produced by other noise sources (such as ball fields, etc.) will be considered significant if an acoustical study demonstrates that a significant adverse community response would occur. The criteria to judge the significance of the community response would be based on acceptable analysis techniques such as the International Standards Organization’s “Assessment of Noise with Respect to Community Response, ISO R-1996-1971” (*Policy 3*).

Noise created by commercial or industrial sources associated with new projects or developments shall be controlled so as not to exceed the noise level standards set forth in Table 2 as measured at any affected residential land use (*Policy 4*).

Project Impacts

- a) **Less than Significant Impact.** Construction of future dwellings in Hercules under the auspices of the updated Housing Element could be located on sites in moderate to high noise level areas of the community, including but not limited to sites adjacent to I-80, SR 4, San Pablo Avenue, and other major roadways. Future housing units on those sites could expose future residents to noise levels in excess of noise standards established in the Noise Element of the General Plan. Other noise sources in the community include noise from railroad operations and stationary noise sources associated with on-site land uses and activities.

Future residential development in Hercules resulting from implementation of an updated Housing Element could cause a temporary increase in ambient noise levels as a result of construction activities, including but not limited to demolition of existing structures (if needed), site grading and preparation, and construction activities. Adherence to exterior and interior noise standards established in the Noise Element would reduce permanent noise impacts from future housing projects on sites identified in the updated Housing Element to a less-than-significant level.

A number of noise Mitigation Measures have been adopted as part of previously certified CEQA documents for development projects that include identified housing sites. These measures, which are described above, will be applied to site-specific housing developments to reduce impacts related to exposure of noise levels above General Plan standards to a less-than-significant level.

- b) **Less than Significant Impact.** For most future housing projects identified in the updated Housing Element, it is unlikely that construction of future housing units allowed under an updated Housing Element would result in significant levels of vibration, since normal construction methods would be used. For the proposed Bayfront project, adherence to Mitigation Measure 13-4 reduces potential impacts related to groundborne vibration to a less-than-significant level. Overall, this impact is expected to be less-than-significant.
- c) **No Impact.** No housing sites are located near or within the land use plan of a public or private airport, airfield, or airstrip. No impacts are anticipated with respect to this topic.

4.14 Population and Housing

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The City of Hercules is a diverse community, consisting of a mix of residential, commercial, light industrial, research and development, and civic uses, schools, parks, open spaces, and road rights-of-way. The City had an estimated population of 26,016 in 2020. Existing uses, General Plan and land use designations for identified housing sites include:

- *Refugio Senior Housing*. This 1.3-acre development site is currently vacant and is planned for Residential Multi-Family/Low Density.
- *Bayfront Project*. The Bayfront project site is currently vacant and is zoned as Historic Town Center.
- *Hill Town*. The Hill Town project site—a former industrial but currently vacant site—is planned and zoned for Planned Commercial–Residential land uses.
- *New Town Center*. This site is partially developed with light industrial uses and the Hercules Transit Center. The Hercules General Plan and zoning ordinance designate this site as New Town Center.

Impacts and Mitigation Measures from Previous EIRs

The General Plan EIR concluded that impact Population-1 would be less than significant and no mitigation was required. The other previous EIRs did not identify any significant impacts specifically related to population and housing impacts were determined to be less than significant and did not recommend any mitigation measures.

Regulatory Framework

The State gives local jurisdictions control over land uses within their boundaries through preparation and implementation of their General Plan and zoning documents and maps. There are no regulations that specifically apply to population, but the draft updated Housing Element of the City of Hercules General Plan contains goals to promote stability of existing neighborhoods and the City's resident population. Key goals include:

- Assist in the provision of housing that meets the needs of all socioeconomic segments of the community (*Goal 1.0*).
- Conserve and improve the condition of the existing housing stock, especially affordable housing (*Goal 2.0*).
- Provide suitable sites for housing development which can accommodate a range of housing by type, size, location, price, and tenure (*Goal 3.0*).

Project Impacts

- a) **No Impact.** Residential development that could be facilitated as a result of adopting and implementing an updated Housing Element would not cause substantial population growth in Hercules, since anticipated dwellings are currently included in the buildout projections of the Hercules General Plan. The 1998 General Plan originally estimated the City would have a population of 25,100 persons after its planning horizon of 20 years so around 2018. The U.S. Census Bureau (USCB) estimated the City's 2018 population at 25,601 residents and currently estimates it at 26,091 residents. Similarly, the 1998 General Plan estimated the City would have a total of 8,490 units after 20 years, while the USCB estimates the City's current (2021) housing stock is 8,554 units and 8,135 households. Therefore, the City's current population and housing figures are relatively consistent with the estimates originally made in the 1998 General Plan.

Beyond 2020, ABAG's growth forecasts from their 2020 Plan Bay Area for the City are shown in Table 10 (note the 2020 Plan has a planning horizon of 2050 but growth projections are only through 2040).

**Table 10
2020 Plan Bay Area Forecasts**

ABAG Projections¹	2010	2015	2020	2025	2030	2035	2040	Change² 2010-2040
<u>Total Households</u>								
City of Hercules	8,115	8,495	8,650	8,800	8,900	8,900	9,655	+19.0%
Contra Costa County	368,585	386,755	399,615	422,435	440,765	461,065	475,390	+29.0%
<u>Total Population</u>								
City of Hercules	23,680	24,665	25,135	25,530	25,820	26,155	28,700	+21.2%
Contra Costa County	1,036,970	1,093,170	1,128,660	1,198,715	1,257,790	1,329,330	1,387,295	+33.8%
<u>Persons/Household</u>								
City of Hercules	2.91	2.90	2.90	2.89	2.90	2.93	2.96	+1.7%
Contra Costa County	2.79	2.80	2.80	2.81	2.83	2.86	2.89	+3.6%
<u>Total Jobs</u>								
City of Hercules	4,955	5,245	5,280	5,365	5,500	5,615	5,420	+9.4%
Contra Costa County	352,290	406,130	414,290	423,845	458,255	483,810	498,115	+41.1%
<u>Jobs/Housing³</u>								
City of Hercules	0.61	0.62	0.61	0.61	0.62	0.63	0.56	-8.2%
Contra Costa County	0.96	1.05	1.04	1.00	1.04	1.05	1.05	+9.4%
<u>Total Households</u>								
City of Hercules	8,115	8,495	8,650	8,800	8,900	8,900	9,655	+19.0%
Contra Costa County	368,585	386,755	399,615	422,435	440,765	461,065	475,390	+29.0%

Source: Plan Bay Area 2040, Projections 2040, Association of Bay Area Governments, July 2017
¹ 2010 value from pre-run microdata that most closely approximates the 2010 federal Census data
² Arithmetic Average = 2040 value minus 2010 value then divided by 2010 value (result in percent)
³ Total Jobs divided by Total Households

It should be noted the ABAG growth estimates do not specifically take into account the current RHNA allocation, so the ABAG forecasts may underestimate anticipated population and housing growth for the City. The additional 2,069 residential units expected under the HEU would generate approximately 6,323 new City residents based on an assumed occupancy of 3.05 persons per unit from the 2020 U.S. Census Bureau Factsheet for the City (USCB 2022). If those new residents are added to the 2020 City population, they exceed the ABAG projection for either 2025 or 2030.

In addition, any potential significant growth inducement has been assessed in previously certified CEQA documents for identified housing sites. Therefore, no significant population or housing impacts at a programmatic level are anticipated from implementation of the proposed HEU.

- b) **No Impact** Adoption of the updated Housing Element and construction of residences pursuant to the updated Housing Element would likely not displace people and residential dwellings since a majority of the sites are currently vacant or portions of the sites have already been developed with relatively new housing units. No impacts are anticipated.

4.15 Public Services

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Public services to the City of Hercules are provided as follows:

- *Fire Protection.* Fire protection services are provided by the Rodeo–Hercules Fire Protection District, an independent district formed in 1937 that provides fire suppression, rescue, emergency medical, and hazardous material response to the City of Hercules and the unincorporated community of Rodeo. The District is headquartered at 1680 Refugio Valley Road in Hercules, which is also the location of Station 76, the closest station to the Project area. Station 76 is staffed by a fire captain, an engineer, and one firefighter/paramedic. The District maintains an automatic aid agreement with the Crockett–Carquinez Fire Protection District to the east.
- *Police Protection.* Police and security protection is provided by the Hercules Police Department, headquartered at the Hercules Civic Center. The Department currently has 20 sworn and 3 unsworn officers on staff.
- *Schools.* Public educational services for residents of the project site are provided by the West Contra Costa County Unified School District. The District provides K–12 educational services for residents of Richmond, El Cerrito, San Pablo, Pinole, and Hercules and some adjacent unincorporated areas.
- *Library Service.* Contra Costa County Library provides library services in the project area. Numerous branch libraries are located in both incorporated cities and unincorporated

communities throughout the County, including the Hercules Library. The library administrative headquarters is located in Pleasant Hill.

- *Maintenance.* Maintenance of local streets, roads, and other governmental facilities are the responsibility of the City of Hercules. Maintenance of I-80 and SR-4 is provided by Caltrans.

Impacts and Mitigation Measures from Previous EIRs

Potentially significant impacts and mitigation measures included in previously certified CEQA documents assessing noise impacts are listed below.

General Plan EIR. The GP EIR identified the following two significant public service-related impacts:

Impact Schools-1: Development consistent with the proposed Land Use and Circulation Elements Update would increase the number of students served by the West Contra Costa Unified School District.

Mitigation Measure Schools-1a: For specific development proposals that require legislative action (e.g., General Plan Amendment, adoption of a Specific Plan, amendment to the Zoning Ordinance) and that would have a substantial effect on school facilities through a projected increase in enrollment, the City shall enter into consultation with the West Contra Costa Unified School District and the project proponent(s) to determine whether a mutually agreeable contribution to the school district by the proponent(s) can be determined (including but not limited to cash payment, land dedication, and/or provision of school facilities) to offset the impacts of increased enrollment. For such development proposals requiring legislative action, the City shall consider imposition of a development fee that is greater than that required for non-legislative proposals, if such fee is justified by economic analysis.

Mitigation Measure Schools-1b: In the case of new residential developments having a significant impact on school facilities, the City shall take steps to ensure that developers in each case coordinate and work closely with the District (via the City) regarding timely and proper submittal of the required development impact fees.

Mitigation Measure Schools 1c: The City could establish, through the Zoning Ordinance Update, a procedure for imposing a school impact fee higher than the state-mandated maximum (currently \$1.72 per square foot of residential construction). Alternatively, the City could support other options for enhancing school financing, such as participation in a Mello-Roos district by a property proposed for development and working with the West Contra Costa Unified School District and property owners to arrange donation of land for school sites.

Impact Park-1: Development consistent with the Land Use and Circulation Elements Update would increase the need for neighborhood and community parks.

Mitigation Measure Park-1a: The City shall continue to work closely with the East Bay Regional Park District (EBRPD) in implementing the Shoreline Trail through Hercules.

Mitigation Measure Park-1b: The City shall ensure that new development funds its share of costs associated with the provision of park facilities by attaching project-specific mitigation as conditions of approval.

Mitigation Measure Park-1c: The City shall consider development agreements that would provide additional community parks and recreation facilities, such as ballfields and other areas for organized recreation, in exchange for allowing development at greater than the “typical” FAR, as specified in the proposed Land Use Element Update.

In addition, the Growth Management Element has the following requirements:

- A minimum of 1.5 acres of neighborhood parks shall be provided for each 1,000 residents.
- A minimum of 3.5 acres of community parks shall be provided for each 1,000 residents

Even with these mitigation measures, potential public service impacts from implementation of the proposed Land Use and Circulation Elements Update will still be significant and unavoidable.

The GP EIR also identified the following potentially significant public service-related impact and seven mitigation measures that would reduce impacts to less than significant levels:

Impact Fire-1: Development consistent with the proposed Land Use and Circulation Elements Update would result in increased demand on the Rodeo-Hercules Fire Protection District services in the City.

Mitigation Measure Fire-1a: The City shall assist the Rodeo-Hercules Fire Protection District in processing the collection of fire impact fees from all new development within the District.

Mitigation Measure Fire-1b: The City shall work with the Rodeo-Hercules Fire Protection District to determine the specific needs for fire protection when a particular development proposal is reviewed and ensure the District’s needs are met.

Mitigation Measure Public Works-1a: Prior to project approval, the City would initiate expansion of the Landscaping and Street Lighting benefit assessment district to encompass all study area parcels not currently included within the district.

Finally, the GP EIR identified impacts to Public Services and Utilities Police-1, Storm Drainage-1, and Government-1 to be less than significant and no mitigation was required.

Bayfront Project EIR

- Impact 15-1 identified an impact with respect to parks, recreation facilities, and open spaces. Adherence to Mitigation Measure 15-1 reduces this impact to a less-than-significant level by requiring that the future development plans and/or subdivision maps in the Bayfront project area comply with General Plan policies and standards for the provision of parks and open spaces.

Regulatory Framework

The Land Use Element of the City of Hercules General Plan contains policies applicable to public services, as follows:

Refer applicants of new developments to the appropriate school district in order to pay the District’s required developer impact fees prior to the building permit issuance for individual projects, as needed and justified, to maintain school performance standards (*Policy 16A*).

Project Impacts

- a) **Less than Significant Impact.** Housing that could be built in Hercules under the auspices of the updated Housing Element would result in an increase in the number of calls for emergency services to the District. The potential for increases in such calls have been analyzed in the previous General Plan EIR and individual EIRs for the New Town Center Project, the 2009 Updated Redevelopment Plan, and the Bayfront Project. No significant impacts with provision of fire protection by the Rodeo-Hercules Fire Protection District were noted, and it is anticipated this impact will be less-than-significant.
- b) **Less than Significant Impact.** Similar to fire service, there would likely be an increase in the number of calls for service to the Hercules Police Department based on an increase in residential development as a result of the updated Housing Element. Anticipated dwelling units that could be built as a result of the proposed Housing Element have been analyzed in the Hercules General Plan EIR and previous certified CEQA documents, and less-than-significant impacts were identified with respect to police protection.
- c) **Less than Significant Impact.** Public educational services in Hercules are provided by the West Contra Costa Unified School District. The District maintains a number of K–12 schools throughout Hercules. There are also a number of private educational facilities in the community. Future residential development that could be facilitated by the updated Housing Element would generate additional school-aged children that would need to be accommodated by local schools; however, new residential development is subject to statutory school impact fees which will provide for new public educational facilities in the community. Under CEQA the payment of legally established school impacts fees is considered full and complete mitigation for potential school impacts from new residential development. Therefore, this impact would be less-than-significant.
- d) **Less than Significant Impact.** Any new public or private parks or recreational facilities that would be constructed as part of any future housing development would be constructed to City standard so that a less than-significant impact would occur. Development Impact Fees from future development will also help fund additional parks as population and the need for recreational facilities and services increase. For additional discussion of park-related impacts, see Thresholds 4.16a-b below. With regulatory compliance, potential impacts will be less than significant related to the HEU.
- e) **No Impact.** As growth occurs there will be incremental demand for other public facilities such as hospitals, government services, libraries, etc. Revenues from increased property taxes and development impact fees will help fund additional facilities as needed. Impacts related to the HEU relative to other public facilities are expected to be less than significant.

4.16 Recreation

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The City of Hercules maintains a number of neighborhood and community parks in the City. These include:

- Refugio Valley Park
- Ohlone Park and Community Garden
- Woodfield Park and Tennis Courts
- Foxboro Park and Tennis Courts
- Frog Pad Park
- Duck Pond Park
- Railroad Park
- Shoreline Park
- Hanna Ranch Park
- Beechnut Mini-Park
- Bayside Park

In addition, the City of Hercules offers a wide range of recreational programs to community members.

Regional parks near Hercules are provided by the East Bay Regional Park District. The Bay Trail has also been planned adjacent to the waterfront through Hercules, including Hercules Bay Trail West, a mile-long segment of Bay Trail that opened in 2018 and connects existing trail segments to Railroad Avenue in Hercules.

Impacts and Mitigation Measures from Previous EIRs

General Plan EIR. The GP EIR identified the following two significant public service-related impacts:

Impact Park-1: Development consistent with the Land Use and Circulation Elements Update would increase the need for neighborhood and community parks.

Mitigation Measure Park-1a: The City shall continue to work closely with the East Bay Regional Park District (EBRPD) in implementing the Shoreline Trail through Hercules.

Mitigation Measure Park-1b: The City shall ensure that new development funds its share of costs associated with the provision of park facilities by attaching project-specific mitigation as conditions of approval.

Mitigation Measure Park-1c: The City shall consider development agreements that would provide additional community parks and recreation facilities, such as ballfields and other areas for organized recreation, in exchange for allowing development at greater than the “typical” FAR, as specified in the proposed Land Use Element Update.

In addition, the Growth Management Element has the following requirements:

- A minimum of 1.5 acres of neighborhood parks shall be provided for each 1,000 residents.
- A minimum of 3.5 acres of community parks shall be provided for each 1,000 residents

Bayfront Project EIR

This EIR identified one impact with respect to parks and recreational facilities as follows:

- Impact 15-1 found that build-out of the project would increase the demand for parks, recreational facilities, and open space. Adherence to Mitigation Measure 15-1 reduces this impact to a less-than-significant level by requiring compliance with City of Hercules park and open space requirements.

Regulatory Framework

State Quimby Act (1975). The Quimby Act allows cities and counties to adopt park dedication standards/ordinances requiring developers to set aside land, donate conservation easements, or pay fees towards parkland. With the anticipated population growth, the City will use impact fees from development projects to fund park construction. The City has adopted an ordinance implementing the provisions of the Quimby Act (Whittier Municipal Code 17.16.040 - Formula for dedication of land).

State Public Park Preservation Act (California Public Resource Code Section 5400 – 5409). The State Public Park Preservation Act is the primary instrument for protecting and preserving parkland in California. Under the Act, cities and counties may not acquire any real property that is in use as a public park for any non-park use unless compensation or land, or both, are provided to replace the parkland acquired. This ensures no net loss of parkland and facilities.

The Hercules Municipal Code requires new development to pay for the cost of new parks and recreation facilities based on new population added to the community.

Project Impacts

- a, b) **Less than Significant Impact.** Approval and implementation of the HEU would increase the need for local and regional park and recreational facilities. Future residential projects that could be constructed under the updated Housing Element may include on-site recreational facilities, and future housing developers will be required to comply with City requirements mandating construction of private, onsite recreational facilities or the payment of appropriate in lieu development fees for parkland and improvements.

The City's residents, employees, and visitors will use local parks and recreation facilities. The City currently owns and operates 6 parks with a total of 98 acres of parkland. With a 2021 population of 26,091 residents, the City provides 3.76 acres of parkland per 1,000 residents. The County and State provide additional parklands and recreational opportunities for City residents. The State Quimby Act recommends a minimum goal of 3 acres per thousand population and an optimum goal of 5 acres per thousand population for the provision of local parks and regional park facilities.

The additional 2,069 residential units expected under the HEU would generate approximately 6,323 new City residents based on an assumed occupancy of 3.05 persons per unit from the 2020 U.S. Census Bureau Factsheet for the City (USCB 2022). Based on the state Quimby Act standard, implementation of the proposed HEU would generate a need for 19.0 additional acres of parkland (based on the 3-acre standard) or 31.6 additional acres of parkland based on the 5-acre standard. The City's 2021 population plus the anticipated new 6,323 residents would result in a total population of 32,414 persons. This population would generate a need for 97.2 acres of parkland based on the 3-acre Quimby standard and the City currently has 98 acres of parkland.

With established regulatory compliance (i.e., providing onsite facilities or payment of development Impact Fees for new parkland), the HEU would have less-than-significant programmatic impacts with respect to recreation.

4.17 Traffic and Transportation

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Major roadways and streets in the Hercules planning area include:

- *San Pablo Avenue* is a north-south arterial roadway with two travel lanes in each direction, as well as Class II bicycle lanes in both directions. San Pablo is a route of regional significance that provides access to commercial, residential, and other uses in Hercules and also provides regional access to and from communities both north and south of Hercules. This roadway provides primary access to and from the Hill Town and Sycamore Crossing housing sites
- *Sycamore Avenue* generally runs in an east-west direction. East of San Pablo Avenue, Sycamore Avenue is a four-lane arterial roadway that provides access to residential and commercial areas in the City of Hercules; west of San Pablo Avenue, Sycamore Avenue provides two-lane access (one lane in each direction) to the Bayfront and Sycamore Crossing areas. Class II bicycle lanes are located on both sides of the street east of Refugio Valley Road.
- *Willow Avenue* connects to Sycamore Avenue just north of the BN&SF railroad tracks. Willow Street extends in an east-west direction and has two travel lanes. In this area, Willow Street has no pedestrian or bicycle facilities, except for a sidewalk on one side from Sycamore Avenue to a

crosswalk that connects to the Hercules Transit Center. As Willow Street extends of SR-4, there is a pedestrian sidewalk on the north side of the street extending to the I-80 intersection.

Regional access to the Project area is provided by State Route 4 (John Muir Parkway) and Interstate 80 (I-80). SR-4 is a four-lane highway that connects Hercules and I-80 to Franklin Canyon, Martinez, and Interstate 680 to the east. Interstate 80 is a major north-south regionally significant freeway linking the Bay Area to points east. An interchange exists where SR-4 intersects I-80. At SR-4, I-80 is a six-lane facility extending in a north-south direction.

Transit Facilities

Bus transit service in the Hercules area is provided by West Contra Costa County Transit (WestCAT). Buses operate weekdays and weekends with limited holiday service.

Impacts and Mitigation Measures from Previous EIRs

Potentially significant impacts and mitigation measures included in previously certified CEQA documents assessed Level of Service (LOS) traffic and transportation impacts which at the time were considered environmental issues under CEQA but CEQA no longer considers LOS impacts to be a CEQA issue - see also Threshold (b) below.

General Plan EIR. The GP EIR identified the following significant traffic-related impact and four mitigation measures:

Impact Transportation-3: Transportation generated by development consistent with the proposed Land Use Element would contribute to unacceptable cumulative levels of service on the I-180 Freeway.

Mitigation Measure Transportation-3a: The following planned capital projects for I-80 are included in the Circulation Draft of the West Contra Costa County Action Plan (most of these measures would be outside the authority of the City of Hercules): *[Measure included LOS or congestion improvements for 1990-2000 and 2000-2010]*

Mitigation Measure Transportation-3b: The following is a summary of the Traffic Service Objectives and Actions for I-80 included in the Circulation Draft of the West Contra Costa County Action Plan. Responsibility for implementation rests with the Contra Costa County Transportation Advisory Committee, its member jurisdictions (including Hercules), and applicable transit agencies (many of these measures would be outside the authority of the City of Hercules): *[Objectives and Actions related to specific LOS or congestion improvements through 2005]*

Mitigation Measure Transportation-3c: Although no significant impact was identified, the following planned capital projects for SR 4 are included in the Circulation Draft of the West Contra Costa County Action Plan (most of these measures would be outside the authority of the City of Hercules): *[Measure included LOS or congestion improvements for 1990-2000 and 2000-2010]*

Mitigation Measure Transportation-3d: Although no significant impact was identified, the following is a summary of the Traffic Service Objectives and Actions for SR 4 included in the Circulation Draft of the West Contra Costa County Action Plan. Responsibility for implementation rests with the Contra Costa County Transportation Advisory Committee, its member jurisdictions (including Hercules), and

applicable transit agencies (many of these measures would be outside the authority of the City of Hercules): *[Objectives and Actions related to specific LOS or congestion improvements through 2000]*

Even with these mitigation measures, potential traffic impacts from implementation of the proposed Land Use and Circulation Elements Update will still be significant and unavoidable.

In addition, the GP EIR also identified the following potentially significant traffic-related impact and two mitigation measures that would reduce impacts to less than significant levels:

Impact Transportation 2: Traffic generated by development consistent with the proposed Land Use Element would increase volumes at other intersections in Hercules.

Mitigation Measure Transportation 2a: The City shall design and construct the proposed Sycamore/Claeys intersection and constructed such that there is adequate space between this intersection and the proposed Claeys/SR 4 EB Ramp intersection to allow for potential signalization of the Sycamore/Claeys intersection.

Mitigation Measure Transportation 2b: If the level of service at the unsignalized Sycamore/Claeys intersection, once constructed, were LOS E or worse, as projected by this analysis, the City would install a traffic signal at this intersection.

Finally, the GP EIR concluded that Impacts Transportation 4-6 were less than significant and no mitigation was required.

Hercules New Town Center EIR

- Future development within the New Town Center project area would result in traffic on local intersections, with and without freeway ramp relocations. Adherence to Mitigation Measures TR1 to TR4 reduces this impact to a less-than-significant level. These measures require future developers in the New Town Center to widen Sycamore Avenue and widen existing turn lanes, contribute to signalization of the Willow Avenue/South Bound SR 4 hook ramp intersection and install other improvements at this intersection, and signalize the Willow Avenue/Palm Avenue intersection along with related intersection improvements.
- Development that could occur under the project would increase traffic through local roadway intersections under cumulative (year 2035) conditions. Adherence to Mitigation Measures TR11 through TR13 would partially reduce this impact but not to a less-than-significant level. Mitigation Measures TR11 through TR13 requires future developers of individual projects to install a second EB left-turn from San Pablo Avenue to EB John Muir Parkway as well as to install other traffic improvements as set forth in the Development Fee program. Other mitigation requirements include widening of Willow Avenue and installation of one left-turn and one right-turn lane at the former Market Hall driveway.
- Impacts to multi-modal transit systems were identified as a result of project construction. This impact would be reduced to a less-than-significant impact by requiring future project developers to work with WestCAT to install bus transponders, re-route buses, increase busses on certain routes, and make other public transportation improvements.

Updated 2009 Redevelopment Plan EIR

- Impact Traf-1 found that build-out of the Sycamore Crossing and Hill Town sites would cause unacceptable peak hour level of service at the intersections of San Pablo Avenue/Sycamore Avenue, San Pablo Avenue/Linus Pauling Drive, Willow Avenue at BART Replacement Parking East Driveway, and Sycamore Avenue/South Front Street. Adherence to Mitigation Measures TRAF-1 reduces this impact to a less-than-significant level by requiring future project developers to pay a fair share to fund a number of roadway improvements at key intersections.
- Impact Traf-5 identified an impact with respect to project contribution to cumulative traffic conditions. Adherence to Mitigation Measure TRAF-5 requires project developers to encourage public transit use by future project residents and employers. With adherence to this measure, this impact was found to be less-than-significant.

Bayfront Project EIR. This EIR identified several potentially significant traffic and mitigation measures, as follows:

- Impact 16-1 found that existing plus project traffic would worsen congestion at the I-80 westbound mainline diverge to the John Muir Parkway off-ramp during the AM peak hour. Mitigation of this impact was found to be infeasible, and this impact would be significant and unavoidable. A Statement of Overriding Considerations was adopted for this impact due to the benefits of the plan.
- Impact 16-2 identified an impact with respect to worsening of intersection operations within the community during both the AM and PM peak hour periods. Adherence to Mitigation Measures 16-2-1 to 16-2-3 would partially reduce this impact to a less-than-significant level by requiring site-specific intersection improvements. Mitigation of the San Pablo Avenue/Sycamore Avenue was found not to be feasible, and this impact was found to be significant and unavoidable. A Statement of Overriding Considerations was adopted for this impact due to the benefits of the plan.
- Impact 16-3 noted an impact with respect to contribution of project traffic to freeway operations. Mitigation of this impact was found to be infeasible, so this impact was determined to be significant and unavoidable. A Statement of Overriding Considerations was adopted for this impact due to the benefits of the plan.
- Impact 16-4 noted an impact in terms of a bicycle lane gap on a portion of John Muir Parkway. Adherence to Mitigation Measure 16-4 reduces this impact to a less-than-significant level by requiring future developers to install improvements to facilitate bicycle traffic in this location.

Project Impacts

- a) **Less than Significant Impact.** The City last updated the Circulation Element of its General Plan in September 2018. The City is served by local transportation facilities including streets and bus routes in addition to non-motorized transportation facilities such as sidewalks, trails, and bikeways. These facilities provide options for travel modes that include passenger vehicles, trains, buses, bikes, and

walking. These facilities and modes of travel comprise the circulation system for the City, and the broader system, designed with the goals of efficiently moving people and goods throughout the region by providing ease of access to multiple modes of travel.

Future housing development will primarily generate passenger vehicle trips that will disperse during the morning as residents drive to commercial, industrial, and institutional facilities for a variety of reasons but primarily for work and school. Some trips may be to transit centers, such that a portion of a resident's trip may include alternative transportation modes, while others may simply walk to their destination or to other transit options. The return leg of a trip is generally anticipated to be the reverse of the initial leg of the trip during the afternoon, albeit with higher likelihood of a portion of the trip being dedicated to accessing shopping, entertainment, or other uses.

The concern regarding transportation facilities and their counterpart modes of travel is excessive use throughout the day or during morning and/or afternoon peak hours and the resulting effects on the performance of the facilities' ability to move people and goods. The direct effects of reduced circulation system performance are annoyance and stress, thereby decreasing the quality of life for the user. Direct failure or accelerated deterioration of circulation system facilities can also occur if the facility was not designed to function under increased loading. A variety of indirect impacts to human health and the environment are attributed specifically to excessive use of vehicles on local and regional roadways including effects related to air pollution and ambient noise.

ABAG Plan. Two planning efforts guide the long-term improvement of the circulation system at the regional and local levels. The 2020 Plan Bay Area prepared by the Association of Bay Area Governments (ABAG) fulfills the legislative requirements for a Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) to meet the regional needs of travel and goods movement through the year 2050. The ABAG Plan was jointly prepared with the Contra Costa Transportation Authority (CCTA).

CMP. Urbanized areas within the state of California such as Contra Costa County are required to adopt a Congestion Management Program (CMP). The goals of the CMP are to reduce traffic congestion and to provide a mechanism for coordinating land use development and transportation improvement decisions. The CMP addresses congestion management through a process developed cooperatively throughout the metropolitan region that provides for safe and effective management and operation of existing and future transportation facilities through demand reduction and operations strategies.

While the Plan Bay Area addresses the broader goals of the transportation network, the CMP focuses on specific, regional facilities requiring funding for maintenance and improvements in order to meet the goals of the ABAG Plan. The CMP relies on local jurisdiction standards in determining the performance of the CMP network. The final effort is the City's General Plan Circulation Element that identifies long-term transportation improvements for local facilities. The General Plan includes goals and policies aimed to provide an efficient multi-modal circulation system in the City. General Plan policies also encourage the development of an efficient and safe bikeway and public transportation system. Policy 1A: Transportation Performance Standards, in the City's most recent General Plan Circulation Element defines LOS D as the minimum acceptable peak hour roadway performance standard.

2023-2031 Housing Element. Goal H2 encourages a variety of housing types to meet the existing and future needs of Hercules residents, and its Policy H2.3 encourages development and long-range planning that uses compact urban forms that foster connectivity, walkability, and use of alternative transportation modes, particularly within the Hercules Regional Intermodal Transportation Center planning area.

Summary. These local and regional planning efforts are designed to reduce the direct and indirect effects of travel so as to minimize or avoid resulting impacts on human health and the environment. The proposed HEU is consistent with the growth assumptions used in the development of the 2020 Plan Bay Area and CMP and the does not include any land use changes to the General Plan, therefore, the Project will not conflict with the goals or transportation planning efforts of the City, ABAG, or the CCTA.

Based on this preceding analysis, future housing development will not impede local or regional efforts to ensure an efficient circulation system. Future housing development will be subject to preliminary environmental review pursuant to CEQA and if found not to be exempt, subject to full environmental analysis at which time all environmental issues will be vetted and appropriate mitigation incorporated, if needed, should transportation impacts be identified that are not covered under existing or future development impact fees.

Implementation of the proposed Housing Element would not conflict with local or regional plans that support non-automotive transportation modes. As is standard practice with other development proposals, the City of Hercules will require installation of sidewalks and bicycle racks as conditions of approval for future housing developments as well as improvements to facilitate public transportation. No impacts are anticipated with respect to this topic.

- b) **Less than Significant Impacts.** In response to Senate Bill (SB) 743, the California Natural Resource Agency certified and adopted new CEQA Guidelines in December 2018, which now identify Vehicle Miles Traveled (VMT) as the most appropriate metric to evaluate a project's transportation impacts under CEQA (Section 15064.3). Effective July 1, 2020, the previous CEQA metric for significant traffic impacts of Level of Service (LOS) which is typically a measure of automobile delay, roadway capacity and congestion. After that date, LOS would no longer constitute a significant environmental impact but instead VMT was to be used to identify significant transportation impacts.

Although VMT is now the accepted methodology for evaluating potential transportation impacts of a project, the City General Plan identifies standards for maintaining an adequate level of service (LOS) for City streets and intersections. To be consistent with the 2020 State CEQA Guidelines, a LOS analysis is no longer required for purposes of this Initial Study impact analysis and determination of significant impacts under CEQA. However, an evaluation of the overall circulation network and services available to the City is still appropriate and is provided under Threshold (a) above.

According to the Governor's Office of Planning and Research, the VMT effects of land use projects may be analyzed using one of two basic approaches:

- 1) VMT efficiency (compare projects to similar land uses in the jurisdiction or region) – this approach is recommended for residential and employment uses; and

- 2) Net VMT impact (any increase in VMT over the area affected by the project) – this approach is recommended specifically for retail and for other non-residential uses that are not employment focused.

The travel demand model maintained by the Contra Costa Transportation Authority (CCTA) is the most likely potential tool for analyzing VMT relative to the HEU. However, the model uses employment as one of the primary determinants of trip end production and attraction so it would not be appropriate for evaluating the HEU. The HEU does not propose any specific non-residential development on any specific site that would generate employment, so quantitative modeling of the HEU for VMT impacts would not be useful at this time.

To better evaluate potential VMT impacts of the HEU, the City retained DKS to prepare a “Preliminary VMT Assessment for Approved and Proposed Projects” dated July 5, 2022. This assessment applied to the Bayfront Phase II, Hill Town, Sycamore Crossing, Skelly Drive, and Hercules New Town Center District projects. According to SB 743 and technical guidance published by OPR, there are several screening procedures to potentially streamline project analysis (i.e., conclude less than significant impacts under CEQA and eliminate the need for further or more detailed quantitative VMT analysis. The screening thresholds are: small projects; proximity to transit; inclusion of affordable housing; and low VMT area. The DKS report concluded the following:

- None of the projects meet the “small project size” screening threshold;
- Only the Hercules Town Center and Hill Town projects meet the “proximity to transit” screening threshold;
- The Sycamore Crossing and Skelly Drive projects will meet the “provide affordable housing” screening threshold; and
- The Sycamore Crossing and Skelly Drive projects are in areas with VMT that is much lower than the city or county average (lower VMT screening threshold).

The DKS Assessment concluded that four out of the five planned residential projects can be presumed to have less than significant VMT impacts since they meet at least one of the VMT screening thresholds. However, one of the projects, Bayfront Phase III, does not meet any of the current thresholds. Therefore, the City’s development review process will require that future projects under the HEU will prepare VMT impact analyses using the CCTA Travel Demand model to determine whether they will have significant VMT impacts and require project-specific mitigation.

In addition, DKS prepared a CCTA Model run for the City as a whole using 2020 baseline and 2030 future year conditions with the planned housing projects. The results of the DKS City-wide analysis are presented in Table 11, Housing Element 2030 VMT Impacts. DKS found the 2020 baselines and thresholds of significance for VMT per capita were: Countywide average (17.3) compared to their threshold of significance (14.7); and City of Hercules average (18.5) and threshold of significance (15.8). Table 11 demonstrates the future housing in the Hercules New Town Center may exceed VMT significance criteria although it is estimated the other four approved projects will not exceed the VMT threshold and therefore will not have significant project-level VMT impacts. Although one project TAZ would slightly exceed the more stringent County-wide threshold, overall the projects would not result in City-wide VMT per capita exceeding either the City or County thresholds for 2030. For the City as a whole under the HEU, VMT per capita is expected to be 14.2 by 2030 which would not exceed either the County threshold (14.3) or the City threshold (14.5). Therefore, the HEU will not have a program level significant VMT impact.

**Table 11
Housing Element 2030 VMT Impacts**

Project/Area	CCTA TAZ	Home-Based VMT	Population	VMT Per Capita	Significant Impact?
Skelly Drive	10236	1,462,577	1,025	14.3	No
Bayfront Phase III	10242	3,243,607	2,352	13.8	No
Sycamore Crossing	10247	597,430	411	14.5	No
Hill Town	10255	3,111,159	2,287	13.6	No
Hercules New Town Center (NTC) District	10269	4,565,492	3,060	14.9	Yes
<i>VMT Thresholds</i>					
<i>County</i>				14.3	
<i>City</i>				14.5	
Total (aggregate Housing Element)	--	12,980,265	9,135	14.2	No

Source: DKS 2022 CCTA = Contra Costa Transportation Authority TAZ = Traffic Analysis Zone

Based on the analysis above, the HEU is consistent with CEQA Section 15064.3 regarding VMT impacts. Programmatic impacts of the HEU will be less than significant and no mitigation is required.

- c) **No Impact.** The proposed HEU does not authorize the construction of any roadway and will result in no direct effects on the design of existing or future streets. Therefore, it will not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). Roadway and driveway improvements of future development under the HEU will be reviewed by the City of Hercules Public Works Department, Planning Department, and Fire District to ensure that no hazards would be created. Therefore, no impacts would result from implementation of the HEU.

- d) **No Impact.** The proposed Project does not involve any road construction or any development activity and thus will not obstruct or restrict emergency access to or through the City. Future development that could occur under the proposed Housing Element will be reviewed by the City of Hercules Police, Planning, and Public Works Departments and the Rodeo–Hercules Fire Protection District staff to ensure that adequate emergency access will be provided. No impacts are anticipated with respect to this topic.

4.18 Tribal Cultural Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Environmental Setting

Based on background information contained in the Hercules General Plan, prehistoric sites within western Contra Costa County are typically found near the edge of historic San Pablo Bay margins, on valley and midslope terraces, and in hilly areas on terraces near seasonal watercourses. Numerous aboriginal village and camp sites have been uncovered in the bay margins. Hercules has one confirmed prehistoric site (CA-CCO-370) and one unconfirmed site (CA-CCO-248), both of which are located west of the I-80 freeway. In addition, representatives of local Native American tribal groups have expressed concerns in the past over impacts of new development on known or unknown tribal resources.

Impacts and Mitigation Measures from Previous EIRs

Impacts and mitigation measures included in previously certified CEQA documents regarding archaeological and historical resources⁴ are listed below:

General Plan EIR. The GP EIR only dealt with Cultural Resources” which include pre-historic or archaeological resources. For impacts and mitigation, see the previous Section 4.5.

Hercules New Town Center EIR. The New Town Center EIR identified several potentially significant impacts with respect to disturbance or destruction of prehistoric resources, paleontological resources, human remains and/or historic resources. Adherence to Mitigation Measure CUL1 reduced this impact to a less-than-significant level. This measure requires that, during the construction process, a project sponsor shall retain a qualified archeologist to train construction crews to identify cultural resources. In the event cultural resources are found, work shall be stopped and the archeologist shall consult with the City to determine the best treatment for such resources. In the event human remains are found, the County Coroner is to be called. If remains are believed to be of Native American ancestry, the Native American Heritage Commission is to be contacted. All recovered materials are to be subject to scientific analysis, professional museum curation and reporting.

Updated 2009 Redevelopment Plan EIR. This EIR identified several potentially significant cultural resource impacts and mitigation measures, as follows:

- Impact Cult-1 stated that the proposed project could cause a substantial adverse change in the significance of archeological resources pursuant to Section 15064.5 of the CEQA Guidelines. Adherence to Mitigation Measure CUL-1 requires that if prehistoric or unique archeological resources are discovered during construction of future projects, work within a 50-foot radius of the discovery shall be halted until a qualified archeologist evaluates the find and determines proper protection measures. Work within the 50-foot radius of the find shall be halted until the archeologist states in writing that continuing work would not result in a significant effect on such resource and the City concurs.
- Impact Cult-3 identified an impact with respect to disturbance of unidentified human remains, including those interred outside of formal cemeteries. Mitigation Measure CUL-3 requires construction work on individual project sites to be suspended if human remains are found. Then, the Hercules Public Works Department and County Coroner shall be notified. If remains are determined to be of Native American origin, the Native American Heritage Commission shall be notified within 24 hours.

Bayfront Project EIR. This EIR identified several potentially significant cultural resource impacts and mitigation measures, as follows:

- Impact 8-1 identified an impact with disturbance of archeological resources on the project site. Adherence to Mitigation Measure 8-1 reduced this impact to a less-than-significant level by requiring future developers in the Bayfront area to retain a qualified archeologist in the event of discovery of unrecorded historic resources and, if possible, preserving the site.

⁴ It should be noted that these documents were prepared prior to the state requiring an expanded analysis of impacts to tribal cultural resources versus only impacts to archaeological resources as a result of passage of SB 18 and AB 52.

If preservation is not possible, a data recovery plan shall be submitted and approved by the City and then implemented by the developer.

- Impact 8-2 noted an impact with respect to destruction or degradation of two identified historic resources with construction of planned project improvements. Adherence to Mitigation Measure 8-2 reduced this impact to a less-than-significant level by requiring future developers to renovate structures in a manner consistent with Secretary of Interior standards and incorporate historic structures into the ultimate development of the project.

Regulatory Framework

State - Native American Consultation. Two state laws (SB 18 and AB 52) require cities to consult directly with local Native American tribes to determine if any tribal cultural resources will be impacted by private development or public works projects proposed in the City. All future development of the Inventory Sites will be required to prepare Cultural Resource Assessments (CRAs) to determine if there are any impacts to cultural or tribal cultural resources as required by the General Plan Conservation Element. In addition, the City will consult with any local tribal representatives who have previously indicated in writing they wish to consult per SB 18 and/or AB 52. This is considered regulatory compliance and not specific mitigation under CEQA.

Hercules General Plan. The Land Use Element of the General Plan contains Objective 8, which reads: “Preserve Hercules history while developing its future.”

The Open Space and Conservation Element contains the following objective and policy with respect to the protection of cultural resources:

- Protect and preserve important historic and prehistoric resources (*Objective 12*).
- Historic resources shall be identified and preserved to the extent feasible. If previously unknown subsurface resources are discovered during excavation, excavation would be temporarily halted and an archeologist consulted as to the importance of the resource. (*Policy 12a*).

Similar to potential impacts resulting from the effects of future housing development on historical resources, impacts to archaeological resources can result in the loss of information important to the history (and potentially the pre-history) of California and the people who created and/or used the materials. The potential for uncovering significant resources at Inventory Site locations during construction activities is unknown given that no such resources have been discovered and/or recorded previously. The General Plan states that archaeological and historical resources shall be protected and preserved to the maximum extent feasible. In addition, the City will consult with any local tribal representatives who have previously indicated in writing they wish to consult per AB 52. This is considered regulatory compliance and not specific mitigation under CEQA.

Future development of the proposed Inventory Sites will be subject to General Plan requirements and review in accordance with CEQA requirements. Impacts related to implementation of the proposed HEU will be less than significant and no mitigation is required at this programmatic level.

Project Impacts

- a) **Less than Significant Impact.** No listed historic properties are located on any of the identified Housing Inventory Sites, implementation of the proposed Housing Element Update will not cause substantial adverse change in significance of a historical resource. In addition, Open Space and Conservation Element Objective 12 and Policy 12a protect potential historical or archaeological sites as part of the City's development review process. Therefore, impacts will be less than significant and no mitigation is required.

- b) **Less than Significant Impact.** Prehistoric sites within western Contra Costa County are typically found near the edge of historic San Pablo Bay margins, on valley and midslope terraces, and in hilly areas on terraces near seasonal watercourses. None of the opportunity sites are found in these locations.

The assuming consultation with local Native American tribal representatives per SB 18 and AB 52 as appropriate, potential impacts of HEU implementation relative to tribal cultural resources will be less than significant.

4.19 Utilities and Service Systems

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The Project area is served by the following service providers:

- *Water Supply.* East Bay Municipal Utility District (EBMUD). The District maintains potable water service to a majority of the Project area as well as fire hydrants.

- *Sewage collection and treatment.* Pinole-Hercules Wastewater Treatment Facility.
- *Storm drainage.* Sheet flow drainage into Refugio Creek tributaries.
- *Solid waste service.* Richmond Sanitary Service (RSS) provides residential and non-residential solid waste hauling and recycling services to dwellings and businesses.

Impacts and Mitigation Measures from Previous EIRs

Potentially significant impacts and mitigation measures included in previously certified CEQA documents analyzing public services and utilities are listed below.

General Plan EIR. The GP EIR identified the following significant utility-related impacts:

Impact Water-1: Development consistent with the proposed Land Use and Circulation Elements Update would increase demand for potable water and could require additional delivery and/or storage facilities.

Mitigation Measure Water-1a: The City shall include in the proposed Land Use Element Update the following programs under Policy 3A:

- Ensure that the new development pays its fair share of the costs associated with the provision of facilities for water by attaching project-specific mitigation requirements as conditions of approval.
- The City shall cooperate with the East Bay Municipal Utility District planning efforts to help assure an adequate water system for existing and future residents and to maintain adequate water reserves.
- Encourage effective water conservation practices by residents and businesses including household conservation and use of drought-resistant landscaping and reclaimed wastewater.
- The City will practice water conservation in management of parks and requirements for landscaping design development.
- The City will encourage the installation of dual plumbing systems in large developments to accommodate future use of reclaimed wastewater for non-domestic purposes such as landscape irrigation, commercial and industrial process uses and toilet flushing in non-residential buildings.

The City shall condition approval of individual development proposals on the following implementation programs:

Mitigation Measure Water-1b: The City shall require installation of low-flush toilets and other low-flow plumbing fixtures for new residential and commercial development.

Impact Wastewater-1: Development consistent with the proposed Land Use and Circulation Elements Update would increase the demand for wastewater treatment.

Mitigation Measure Wastewater-1a: The City shall include in the proposed Land Use Element Update the following program under Policy 3A:

- The City shall ensure that new development funds its share of the costs associated with the provision of wastewater treatment facilities by attaching project-specific mitigation as conditions of approval.

Mitigation Measure Wastewater 1b: The City shall initiate the wastewater treatment study discussed in Program III.A.1 of the Economic Development Element and shall implement programs to ensure adequate wastewater capacity prior to approval of development that would generate demand for

treatment in excess of capacity, including increased capacity improvements now planned. This study shall include the following information:

- Inventory of existing facilities, including collection systems, treatment plants, and pumping stations (This inventory has been accomplished as part of the planning for improvements described in the Setting).
- An alternative analysis of the City's three options to treat additional wastewater expected at buildout of the proposed Land Use Element Update.
- Identification of funding sources.
- Coordination with the City of Pinole, EBMUD and other agencies involved in wastewater treatment and/or water reclamation.
- Appropriate use of reclaimed water within the City.

Mitigation Measure Wastewater-1c: The City shall implement a Capital Improvement Program (CIP) for the selected wastewater treatment alternative(s). The CIP shall include funding, scheduling and development programs for the selected alternative.

In addition, the GP EIR also identified the following potentially significant utility-related impacts and mitigation measure that would reduce impacts to less than significant levels:

Storm Drainage-1: Development consistent with the proposed Land Use and Circulation Elements Update would increase the demand for stormwater collection and, potentially treatment.

Mitigation Measures 1a, 2a, and 2b under Hydrology and Water Quality above

Impact Solid Waste-1: Development consistent with the proposed Land Use and Circulation Elements Update would increase the demand for solid waste services.

Mitigation Measure Solid Waste-1a: Prior to development of any of the 24 parcels, the City shall consult with the Richmond Sanitary Service to confirm that adequate capacity exists for solid waste that would be generated by the project.

Mitigation Measure Solid Waste-1b: Prior to development of any of the 24 parcels, the City shall require that project sponsor(s) demonstrate that project includes adequate recycling facilities.

Impact Public Works-1: Development consistent with the proposed Land Use and Circulation Elements Update would increase the demand for street maintenance and other public works services.

Mitigation Measure Public Works-1a: Prior to project approval, the City would initiate expansion of the Landscaping and Street Lighting benefit assessment district to encompass all study area parcels not currently included within the district.

Updated 2009 Redevelopment Plan EIR

- Impact USS-1 found that build-out of the Sycamore Crossing and Hill Town sites would not exceed wastewater treatment requirements of the RWQCB, but could require construction of new wastewater treatment facilities. Adherence to Mitigation Measure USS-1 reduces this impact to a less-than-significant level by requiring future project developers confirm from the wastewater provider that adequate capacity exists to serve such development.

- Impact USS-2 identified an impact with respect to the availability of a long-term water supply to serve future development. Adherence to Mitigation Measure USS-2 reduces this impact to a less-than-significant level by requiring project developers complete water supply assessments confirming the existence of an adequate long-term water supply.

Bayfront Project EIR. This EIR identified one potentially significant impact with respect to utilities. This impact and associated mitigation measure is addressed in Section 15 of this Initial Study, Recreation.

Regulatory Framework

The local utility agencies and companies are ultimately regulated by the State Public Utilities Commission and are subject to a variety of state laws regarding the provision of water, wastewater, flood control, and solid waste services.

Project Impacts

- Less Than Significant Impact.** As demonstrated in Impacts (b) and (c) below, the HEU will not result in relocation or construction of new or expanded water, wastewater treatment facilities or systems to serve future housing. The discussion in the previous Section 4.9, Hydrology and Water Quality, demonstrates that the HEU will not result in significant impacts to storm water drainage systems. Finally, the City currently has established electric power, natural gas, and telecommunications networks that will be incrementally expanded to accommodate the anticipated future increase of 2,069 units from HEU implementation. None of these incremental changes are expected to result in the construction of significant new or relocation of existing facilities which could cause significant environmental effects.
- Less Than Significant Impact.** Implementation of the HEU would result in the construction of additional dwelling units, however, they would be within the levels of growth previously estimated for the City. The primary source of water to dwellings is imported surface water supplied by the East Bay Municipal Utility District (EBMUD) that does not rely on local groundwater. The Urban Water Management Plan (UWMP) prepared for the EBMUD is based on housing and population projections that cover the City's short-term growth under the current RHNA.

Domestic water to supply future dwellings that could be constructed under the auspices of the updated Housing Element would be supplied by the EBMUD. Each of the major housing projects identified in the updated Element have completed CEQA reviews and no significant impacts were identified with respect to long-term water supplies.

The UWMP also indicates the EBMUD will have sufficient water supplies under normal year, drought year, and multiple drought years, as shown below.

In 2013, the EBMUD completed a Groundwater Management Plan (GMP) for the southern portion of the East Bay Plain Subbasin to coordinate regional planning and ensure its sustainability. In September 2014 three legislative bills (AB 1739, SB 1168, and SB 1319), collectively known as the Sustainable Groundwater Management Act (SGMA), were signed into law. On November 29, 2016, the District became an exclusive Groundwater Sustainability Agency (GSA) for the portion of the East Bay Plain Subbasin which underlies the EBMUD's service area pursuant to Water Code §10723.8. As GSAs and because DWR has listed the East Bay Plain Subbasin as a

medium-priority groundwater basin, EBMUD and the City of Hayward were responsible for completing a single Groundwater Sustainability Plan (GSP) for the East Bay Plain Subbasin by January 31, 2022. The GSP establishes management actions to ensure the East Bay Plain Subbasin is sustainable within 20 years of implementation.

EBMUD’s service area spans portions of Alameda and Contra Costa counties. Customized population projections were developed for EBMUD’s service area. The projections incorporated data from the U.S. Census Bureau and Association of Bay Area Governments (ABAG) which is responsible for forecasting changes to the population and economy and provides local governments with information on how the region is expected to change over time. EBMUD uses population data published in the Plan Bay Area Projections 2040 (see Table 12). The Plan Bay Area takes into account land use policy, using information from local plans and associated growth as well as legislative mandates, to provide the projected population growth. In Contra Costa County, ABAG forecasts that by 2040, the population will be over 1.3 million, an increase of approximately 335,000 people from 2010. Contra Costa County is also expected to add over 138,000 new jobs in the same period.

**Table 12
EBMUD Population Projections**

Region	2020	2025	2030	2035	2040
Contra Costa County Population within EBMUD Service Area	473,000	490,000	513,000	531,000	552,000
Proportion of EBMUD Service Area Population Within Contra Costa County	34%	33%	33%	33%	32%
EBMUD Service Area Population Within Contra Costa County	160,820	161,700	169,290	175,230	176,640
Contra Costa County (entire area)	1,128,660	1,198,715	1,257,790	1,329,330	1,387,295
City of Hercules	25,135	25,530	25,820	26,155	28,700

Sources: UWMP 2020, EBMUD June 2021, and 2020 Plan Bay Area

EBMUD’s water supply system consists of a network of reservoirs, aqueducts (pipelines), water treatment plants (WTP), pumping plants, and other distribution facilities and pipelines that convey Mokelumne River water from Pardee Reservoir to EBMUD customers. EBMUD’s facilities and operations are heavily regulated by numerous local, state, and federal agencies.

EBMUD’s efforts to identify additional sources of supply to meet long-term demand began in the mid-1960s. In 1970, EBMUD executed a contract with the United States Bureau of Reclamation (USBR) for delivery of Central Valley Project (CVP) water from the American River. In 2000, USBR, EBMUD, and Sacramento region parties reached an agreement to modify the contract and develop a joint water supply intake on the Sacramento River, rather than the American River. This agreement led to the construction of the Freeport Project, discussed in Section 1.4.4.

In 2006, EBMUD signed a Long-Term Renewal water service contract with USBR that modified its original contract for CVP supplies. The contract provided for delivery of up to 133,000 AF in a single qualifying year, not to exceed a total of 165,000 AF in three consecutive qualifying years. Qualifying years for obtaining CVP deliveries are those in which EBMUD’s total stored water supply is forecast as of March 1, updated monthly through May 1, to be below 500 TAF on

September 30 of that year. Because EBMUD relies on CVP deliveries during dry and critically dry periods, the CVP supply constitutes a critical component of EBMUD's water supply reliability. EBMUD exercised its contract and received CVP water during the 2014-2015 drought period. In 2014 EBMUD received 18,641 acre-feet of CVP water, and in 2015 EBMUD received 33,250 acre-feet of CVP water.

On February 28, 2020 the EBMUD signed a Contract with US Bureau of Reclamation (USBR) which "converted" its 2006 water service contract to a permanent repayment contract pursuant to the 2016 Water Infrastructure Improvements for the Nation (WIIN) Act. The converted contract superseded the 2006 contract and removes the requirement to periodically renew the contract while retaining the other essential water service terms and conditions. Conversion to a permanent repayment contract is intended to protect EBMUD's water supply reliability from the uncertainty of regulatory requirements that may exist in year 2046, when the 2006 Long-Term Renewal water service contract will expire.

EBMUD's service area is divided into 125 pressure zones ranging in elevation from sea level to 1,450 feet. Approximately 50 percent of treated water is distributed to customers purely by gravity. The water distribution network includes 4,200 miles of pipe, 131 pumping plants, and 167 water distribution reservoirs. Their water distribution reservoirs have a total system-wide capacity of 748 million gallons. The reservoirs, which are typically enclosed tanks, are sized to meet the estimated water service requirements of EBMUD's customers, including projected future water demands and fire flows.

Table 13 projects that under normal conditions their water supplies will equal or exceed their demand through 2040. However, under second dry year drought conditions, EBMUD customers could be required to conserve approximately 14 percent of expected demand. Under extreme (i.e., worst case) drought conditions, EBMUD customers may have to conserve up to 21 percent by 2030 and possibly as much as 60 percent by 2040 (if drought conditions persisted into the next decade and no additional water sources are obtained). Each year the EBMUD estimates its projected water supply and demand for the coming year to identify if or how much water conservation will be required of its customers that year.

The additional 2,073 residential units expected under the HEU would generate approximately 6,323 new City residents based on an assumed occupancy of 3.05 persons per unit from the 2020 U.S. Census Bureau Factsheet for the City (USCB 2022). These additional residents would consume approximately 1.04 million gallons of water per day based on an EBMUD average per capita rate of 164 gallons per person per day (Table F-1, EBMUD UWMP 2020). This represents an annual consumption of 1,161 acre-feet of water based on 326,000 gallons per acre-foot.

As part of the City's development review process, future development under the HEU would be required to demonstrate the EBMUD has "will serve" capacity for the proposed development based on its anticipated supply and demand for the coming years. With regulatory compliance, future development under the HEU will have less than significant impacts related to water supply and demand, and no mitigation is required at this time.

**Table 13
EBMUD Projected Water Demand and Supply (MGD)**

Water Condition	2020	2025	2030	2035	2040
<u>Normal Year</u>					
Demand	181	186	190	194	201
Supply	181	181	190	194	201
Conservation Needed	0	0	0	0	0
<u>Single Dry Year</u>					
Demand	181	186	190	194	201
Supply	181	181	189	192	201
Conservation Needed	0	0	1	2	2
<u>Second Dry Year</u>					
Demand	181	186	190	194	201
Supply	156	161	164	167	172
Conservation Needed	13	13	13	14	14
<u>Third Dry Year</u>					
Demand	181	186	190	194	201
Supply	153	157	158	157	144
Conservation Needed	15	15	15	15	28
Conservation with Extreme Drought	15	15	21	35	60

Sources: Planning Levels (rounded), Table 3-1, UWMP 2020, EBMUD June 2021, and Table W-3, Water Shortage Contingency Plan, EBMUD, June 2021

- c) Wastewater treatment service is currently provided to the City of Hercules by the Pinole-Hercules wastewater treatment plant. The plant has a dry weather treatment capacity of 4.06 million gallons per day (MGD) and a maximum wet weather flow of 10.3 MGD. The San Francisco Bay Regional Water Quality Control Board has issued an order that the plant eventually be expanded to a capacity of 20 MGD. The wastewater collection system within Hercules is not subject to significant inflow and infiltration issues according to the Hercules Public Works Department. Treated effluent from the Pinole Plant is then pumped to an outfall facility operated by the Rodeo Sanitary District.

Impacts related to wastewater treatment, consistent with Regional Water Quality Control Board discharge standards and related water quality impacts, have been analyzed in the Hercules New Town Center EIR, the 2009 Redevelopment EIR, and the Bayfront Project EIR, and no significant impacts were identified. Future development will be evaluated for among other things adequate sewer and wastewater treatment capacity during the City’s planning and environmental review process. The plant will be expanded as needed and as funding is available to accommodate future development consistent with the HEU. Therefore, programmatic impacts of the HEU relative to wastewater treatment will be less than significant.

Wastewater collection, treatment and disposal service for new dwellings envisioned in the Hercules Housing Element would continue to be provided by the City of Hercules at the Pinole-Hercules Wastewater Treatment Facility. Impacts related to wastewater treatment capacity have been analyzed in the Hercules New Town Center EIR, the 2009 Redevelopment EIR and the Bayfront Project EIR and no significant impacts were identified.

- d) **Less than Significant Impact.** Construction of future housing units under the auspices of the updated Housing Element would generate additional quantities of solid waste. This topic was analyzed in previous CEQA documents for major housing developments that would be facilitated by approval of the HEU. This impact would be less-than-significant.
- e) **No Impact.** The proposed HEU would have no impact with regard to federal, state, or local statutes or laws governing solid waste.

4.20 Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water resources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

According to the State CalFire “SRA Viewer” website⁵, the City is not located within a very high fire hazard severity zone for wildfires or in a State Responsibility Area (SRA).

Impacts and Mitigation Measures from Previous EIRs

The previous EIRs, including the General Plan EIR, did not identify any significant impacts of any of the projects related to wildfires and no mitigation was recommended.

Regulatory Framework

Although fire protection services are often managed at the local level, the State Department of Forestry and Fire Prevention (CalFire) identifies zones of high risk from wildfires in the state, and also identifies area of land that are managed for fire protection by the state (State Responsibility Area or SRA) or a Local Responsibility Area (LRA). The City of Hercules is in a LRA and services are provided by the Rodeo–Hercules Fire Protection District.

Project Impacts

- a) **Less Than Significant Impact.** The City Office of Emergency Management coordinates disaster response and recovery efforts in the City. The City’s goal is to respond to emergency situations with a coordinated system of emergency service providers and facilities. The City has planned responses to extraordinary emergency situations associated with natural disasters, technological incidents, terrorist activities, and war-related operations. The City is part of a county and statewide emergency management system that addresses evacuation and movement of people in the event of an emergency.

The HEU does not involve any road construction or any development activity and thus will not obstruct or restrict emergency access to or through the City. Future housing development facilitated by implementation of Housing Element policies will be subject to site plan review and approval during entitlement review and/or application for building permits. The local Fire Department reviews all plans to ensure compliance with all applicable emergency access and safety requirements. Impacts involving emergency access will be less than significant with continued implementation of development review procedures. Therefore, any impacts will be less than significant and no mitigation is required.

- b) **Less Than Significant Impact.** The City is relatively flat and is completely urban so there is little or no chance of a wildfire event affecting the City. No conditions in the City would lead residents to be exposed to pollutant concentrations in excess of those regional conditions that could result in large wildfire in this portion of the County.

The HEU will allow the eventual construction of new housing in the City that may be subject to urban fires. However, there are no conditions in the City that would exacerbate wildfire risks and expose future project occupants to, pollutant concentrations from wildfire or the uncontrolled spread of a wildfire due to slope, prevailing winds, and other factors. Impacts will be less than significant and no mitigation is required.

⁵ <https://bof.fire.ca.gov/projects-and-programs/state-responsibility-area-viewer/>

- c. **No Impact.** The City is in a generally urbanized setting and is not located in an area susceptible to wildfires or in an Local Responsibility Area for fire preservation and protection. The Fire Department has a Class 4 rating which is largely dependent on the distance from the local fire stations. The City has full infrastructure (roads, water lines with fire hydrants, etc.) to support fire protection services. Therefore, the Project would not require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water resources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. There are no impacts and no mitigation is required.

- d. **Less Than Significant Impact.** Sections 9.C and 9.D of this Initial Study concluded that future housing in the City under the Project would not experience significant impacts from flooding. Therefore, the Project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. The Impacts will be less than significant and no mitigation is required.

4.21 Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
a) Less than Significant Impact. The results of the preceding analysis indicate that the proposed HEU would have less than significant impacts upon sensitive biological, historical, archaeological, or paleontological resources. There will be less than significant impacts to scenic vistas and visual character and resources. Less than significant impacts would also occur with regard to air quality, geology and soils, greenhouse gases, hazards and hazardous materials, hydrology and water quality, noise, public services, recreation facilities, traffic and transportation, and utilities and services systems.				

The results of the preceding analysis indicate that the proposed HEU would have no significant impact on agricultural resources, land use and planning, mineral resources, or population and

housing. The proposed project involves consideration of an updated Housing Element as part of the General Plan. No construction would directly result from approval of the proposed project. Future construction that could be indirectly caused as a result of the updated Element has been previously analyzed in other CEQA documents. The City finds that impacts related to degradation of the environment will be less than significant.

- b) **Less than Significant Impact.** Cumulative effects resulting from full implementation of the City's land use policies were evaluated in the General Plan EIR. The proposed HEU would not change any of these policies and do not propose any specific development or redevelopment project that could contribute to short-term or long-term cumulative impacts that were not addressed sufficiently in the General Plan EIR. The proposed HEU does not include any changes to land use designations and thus is consistent with the analysis in the General Plan EIR. The City finds that the contribution of the proposed HEU to cumulative impacts will be less than significant.

- c) **Less than Significant Impact.** As supported by the preceding environmental evaluation, the project would not result in substantial adverse effects on human beings. Under each environmental consideration addressed in the preceding analysis, the proposed project is considered to have little or no adverse impacts on people and the environment. Based on the analysis in this Initial Study, the City finds that direct and indirect impacts to human beings will be less than significant.

SECTION 5: REFERENCES

5.1 Sources

CEQA Guidelines, Bay Area Air Quality Management District (BAAQMD), 2017.

Cortese List, California Department of Toxic Substances Control,

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Quickfacts, City of Hercules, California. United States Census Bureau (USCB), 2022.

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5.2 Agencies Consulted

The following agencies and organizations were contacted in the course of this Initial Study:

City of Hercules

Timothy Rood, Community Development Director

5.3 List of Preparers

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