Coastal California Environmental Justice (CCEJ) Mapping Tool User Guide
Updated July 2024

The Coastal California Environmental Justice Mapping Tool (CCEJ Tool) provides a first step to identify whether a project, policy, or program will affect environmental justice communities disproportionately. The passage of Assembly Bill 2616 (Burke) authorized the Coastal Commission and local governments to consider environmental justice in coastal development permit (CDP) decisions by adding (PRC Sec. 30604 (h)) to the Coastal Act:

> 30604(h) When acting on a coastal development permit, the issuing agency, or the commission on appeal, may consider **environmental justice**, or the equitable distribution of environmental benefits throughout the state.

What is environmental justice?

Coastal Act Section 30107.3 Environmental Justice

(a) "Environmental justice" means the fair treatment *and meaningful involvement* of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.

(b) "Environmental justice" includes, but is not limited to, all of the following:

(1) The availability of a healthy environment for all people.

(2) The deterrence, reduction, and elimination of pollution burdens for populations and communities experiencing the adverse effects of that pollution, so that the effects of the pollution are not disproportionately borne by those populations and communities.

(3) Governmental entities engaging and providing technical assistance to populations and communities most impacted by pollution to promote their meaningful participation in all phases of the environmental and land use decision making process.

(4) At a minimum, the meaningful consideration of recommendations from populations and communities most impacted by pollution into environmental and land use decisions.

How to Use the CCEJ Tool

The CCEJ Tool was developed to assist applicants, analysts, and the public with the implementation of the California Coastal Commission's Environmental Justice (EJ) Policy. The information available in this map is based on federal and state definitions for terms

used and data that combines environmental and demographic indicators in maps and reports. Though not required, the tool can be used for the following applications:

— As an initial screen to determine if additional environmental justice analysis or outreach is necessary for a proposed project.
— To support applicants, analysts and the public in the review of projects and local coastal program updates.
— To assist applicants, analysts and the public in finding information on pollution and environmental hazards to eliminate, prevent, or mitigate.
— To facilitate outreach and engagement with environmental justice communities, including low-income communities and communities of color.

The mapping tool is intended to be used in conjunction with additional tools and techniques for environmental justice analysis. This tool has several layers that show different impacts to any particular community. However, given the inherent quantitative function of maps, be aware that this is only a screening tool that reflects a particular moment in time of a community. Please note that the CCEJ tool does not serve as a substitute for in-depth analysis including but not limited to meaningful engagement for a community, formal boundary determination, or an environmental justice analysis.

Tips for Getting the Most Out of the CCEJ Tool

- Look at the data available in this tool early in your project research, planning, or review to identify if there are EJ considerations.
- Each project has a unique set of circumstances and may require a different approach, but you can still use this mapping tool to start your analysis.
- Learn more about the Commission's **Environmental Justice Policy and Program**
- If you are not seeing the type of information you are looking for, check the information box in the map for a complete layer list and/or check **Data Glossary and Sources** at the bottom of this document for more information on each of the layers.
- See the **Environmental Justice Considerations** section to find examples of questions you may want to consider and corresponding map layers which can help address these questions.

Disclaimer

The CCEJ Tool consolidates a variety of public data to assist staff, applicants and the interested public in considering potential environmental justice implications of projects in the California Coastal Zone. The CCEJ Tool includes jurisdictional, environmental, and demographic data and indexes produced by various organizations. Looking at overlays or combinations of these data layers may assist users in considering whether projects may have unequitable environmental impacts.

Though not required, the CCEJ Tool can be used for a "screening-level" look. Screening is a useful first step in understanding or highlighting locations that may be candidates for further review. While the data may be helpful for preliminary research and general planning purposes, this tool does not allow nor serve as a substitute for more in depth analysis including but not limited to meaningful community engagement, formal boundary determination, environmental justice analysis.

Any initial results from this tool should be supplemented with additional information, including information from community members in and around the project site or impact area, wherever appropriate. Initial results from this tool can also be used as a starting point to proactively reach out to the environmental justice team for further conversation. All resources, information, and opinions contained in the Digital Atlas remain the property and views of the cited entities/individuals, and the Commission bears no responsibility for their accuracy, legality, or content. Viewers should contact cited entities/individuals for more information about particular content.

For any questions/comments about CCEJ Tool functionality or for assistance in using the tool, please contact: ccejtool@coastal.ca.gov.

Questions or Assistance

For questions about the CCEJ Tool, please email: CCEJTool@coastal.ca.gov.

For questions about the environmental justice program, please email: EnvironmentalJustice@coastal.ca.gov.

Contents

GIS Data Layers

The GIS data layers were selected based on the following criteria:

1. Applicability to Coastal Act policies
2. Availability
3. Update frequency
4. Data consistency throughout the California Coastal Zone

To review the version of each data layer that is included in the tool, please check the update schedule, available here.

The mapping layers are organized by four major categories, as shown below.

❖ **Coastal Commission Data**
  ➢ Coastal Zone Boundary
  ➢ Coastal Zone Parcels
  ➢ Public Access Points
  ➢ Local Coastal Programs
  ➢ California Coastal Trail
  ➢ County Boundaries
  ➢ Coastal Armoring Database

❖ **Demographic &Socioeconomic Data**
  ➢ Housing Burden (CalEnviroScreen 4.0)
  ➢ Linguistic Isolation (CalEnviroScreen 4.0)
  ➢ Population Characteristics (CalEnviroScreen 4.0)
  ➢ Language Spoken (American Community Survey 2015-2019)
  ➢ AB1550 Low Income Communities (CA Air Resources Board)
  ➢ EPA EJ Screen
  ➢ 2x Federal Poverty Level (EPA EJScreen)
  ➢ Individuals of Color (EPA EJScreen)

❖ **Environmental Data**
  ➢ Pollution Burden (CalEnviroScreen 4.0)
  ➢ US Flood Hazard Layer (FEMA)
  ➢ 1ft Sea Level Rise (NOAA)
  ➢ 3ft Sea Level Rise (NOAA)
  ➢ 6ft Sea Level Rise (NOAA)
  ➢ 9ft Sea Level Rise (NOAA)

❖ **Additional Indexes**
  ➢ Public Transit Availability (CalTrans)

- CalEnviroScreen (CES) 4.0 Overall Score
- Redlining Maps (Home Owners' Loan Corporation)
- BCDC Community Vulnerability (SF Bay Area Only)
- Green Space Access (California Protected Areas Database)

Accessing the CCEJ Tool

The CCEJ tool is available at the California Coastal Commission website on the Environmental Justice page. To navigate to this page, visit www.coastal.ca.gov, select Learn from the top ribbon, scroll to and hover over the Environmental Justice text. The CCEJ Screening Tool should appear then. It is also linked on the Environmental Justice page. Accompanying documentation including links to this guide, the data update schedule and the Commission Open Data Site are available in the same location. This is the direct link: coastal.ca.gov/env-justice/ccej-tool

Using the CCEJ Tool

Getting Started
Computer or Tablet

When you enter the application on a computer or tablet, you should see five information boxes surrounding a central map (image below). Please note that data in the map take up to a few minutes to load. If your computer is set to increase font size or display size system-wide, the map may show a single black box down the side of a map instead. If this happens, you can choose to either:

1. Adjust your browser zoom settings with the following keyboard shortcuts:
    a. **Windows/Linux:** Use **CTRL** and **+** to zoom in or **CTRL** and **-** to zoom out.
    b. **Mac (OSX):** Use **Command** and **+** to zoom in or **Command** and **-** to zoom out.
2. Change the zoom on your browser using the ellipsis icon in the upper right corner to change the zoom or by altering your computer display settings in system settings.
3. Use the arrows to the left and right of the box title to scroll between the information boxes or data lists.

If you do not see all five boxes, this does not necessarily mean there is an error with the application. You can still access all of the information by scrolling between the boxes. For additional information, check the Getting Started: Mobile Device section of this document as your

application may be displaying more similarly to how it would on a phone screen.
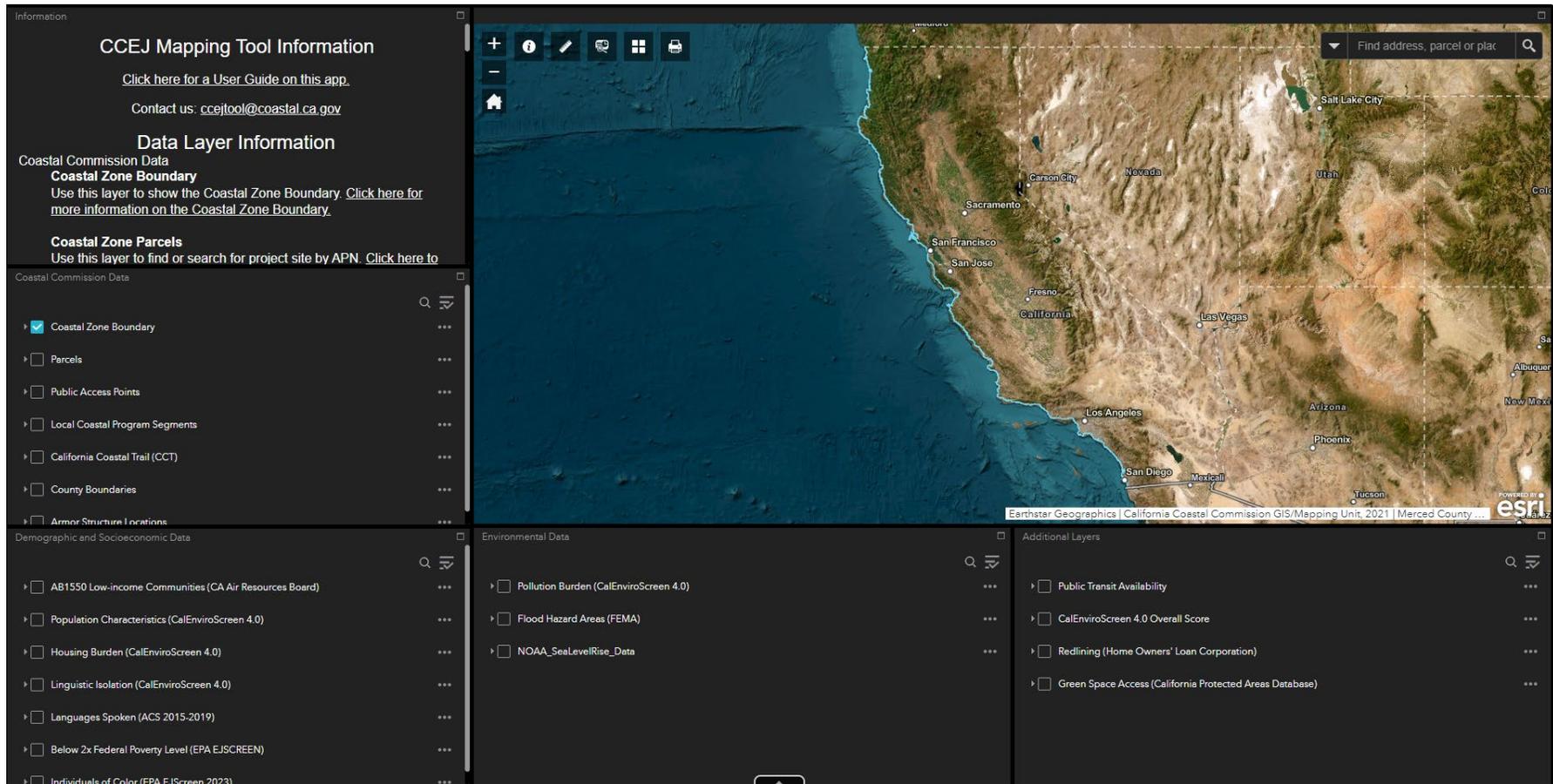
Mobile Device

When you enter the application on a phone or small tablet, you will see information boxes or lists displayed either at the left side or bottom of the screen below or alongside or below a map (image below.) Please note that data in the map make take up to a few minutes to load. There are a total of five information boxes available in the application. To scroll between different information boxes or lists, use the

arrows on either side of the box title. To view additional information or data layers within the same box or category, scroll up and down using the scroll bar on the right.
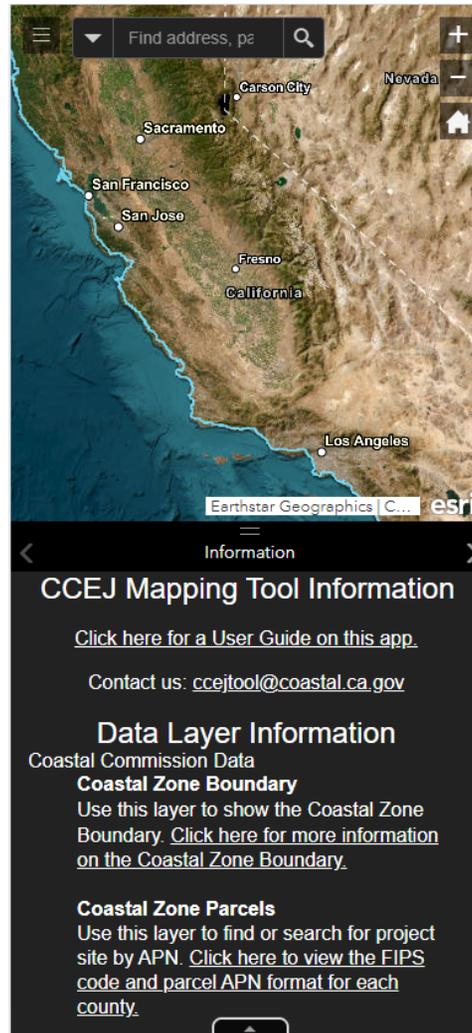
Navigating the CCEJ Tool

There are 5 black information boxes available through the application. One of these boxes, labeled 'EJ Screening Map Descriptions' includes additional information on each data layer. The remaining 4 boxes include lists of data layers available to view in the EJ Screening Map and boxes to check to turn these layers on and off in the viewer.

Data Available in the CCEJ Tool

Exploring Available Data

There are over 20 layers of data available in the EJ Mapping Tool. These data layers are organized into 5-layer categories in boxes around the outside of the viewer. On the top left corner is the **Information** box, which shows short description of each layer in the app. Some descriptions include links to the data source or additional information on the layer. Scroll to explore.

Within the 4 additional layer category boxes, there are data layers and features that can assist in viewing the map and analyzing data. Each of the 4 remaining layer category boxes has a title that describes the data layers available within that box. Each data layer can be turned on to show visually on the map using the checkbox to the left of the data layer. The three dots to the right of each data layer contains additional options including the ability to set the transparency of the layer. This can be helpful when you are trying to view multiple data layers at once.
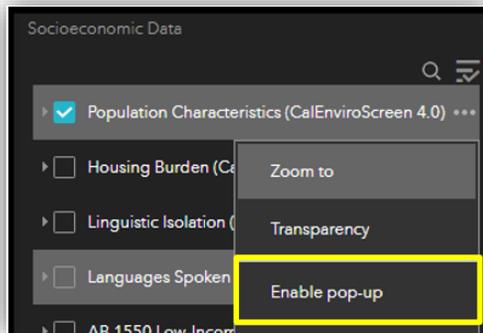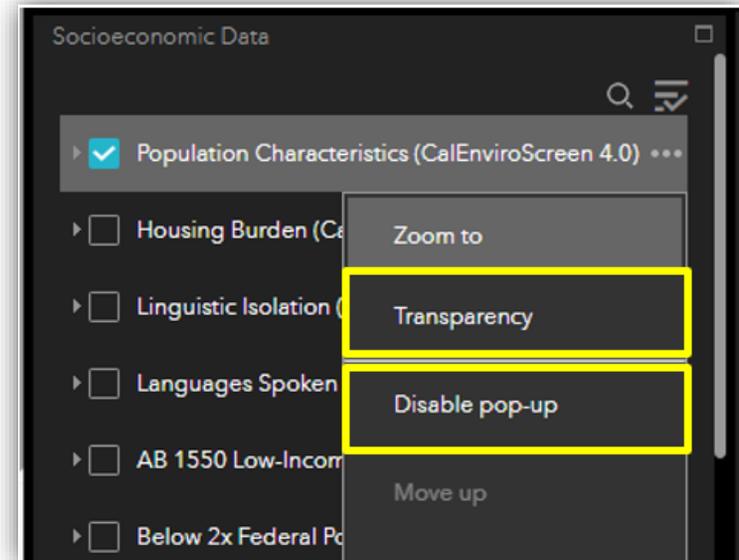
This menu also contains an option to disable pop-up. If you are trying to view the map and the pop-up is in the way, disabling the pop-up will allow you to view your selection without the pop-up. To turn the pop-up back on, use the same menu and select "Enable pop-up." Pop-ups will only be disabled for the layer menu you are viewing. To remove additional pop-ups, disable these pop-ups in the three-dot menu for the other layers, or use the check-box to turn these other layers off. Pop-ups will only show up for layers that are checked.

The three-dot menu also contains the option to show item details. Selecting this will take you to a separate page with additional information on the data layer. If the GIS data is not informative for a given layer, you may want to refer to the glossary linked in the EJ Mapping Tool Descriptions in the top left box.

NOTE: This map uses NOAA data for its Sea Level Rise layers due to consistency throughout the state and initial screening; however, staff recommends using COSMOS data, in geographic areas where it is available, for a more detailed analysis. When COSMOS data becomes available statewide, NOAA Sea Level Rise data in the map will be replaced with COSMOS data.

Adding Data to the Map

The data layers that are available to add to the map appear in the 4-layer categories located around the center map. The categories are Coastal Commission, Demographic & Socioeconomic, Environmental, and Additional Indexes. To view data layers on the map, select the box next to the data layer (as shown in the image). The layer will be displayed on the map when the corresponding box is checked. There is no limit to the number of layers that can be displayed at one time.
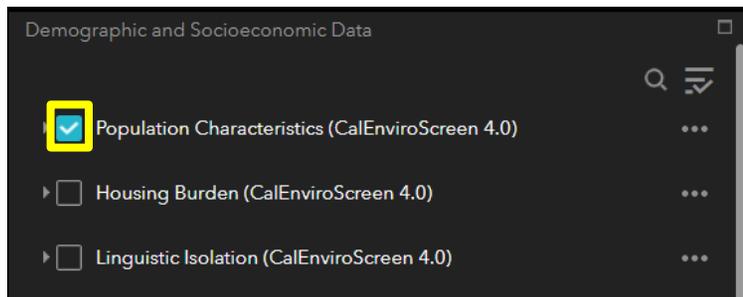
Visualizing Data Layers
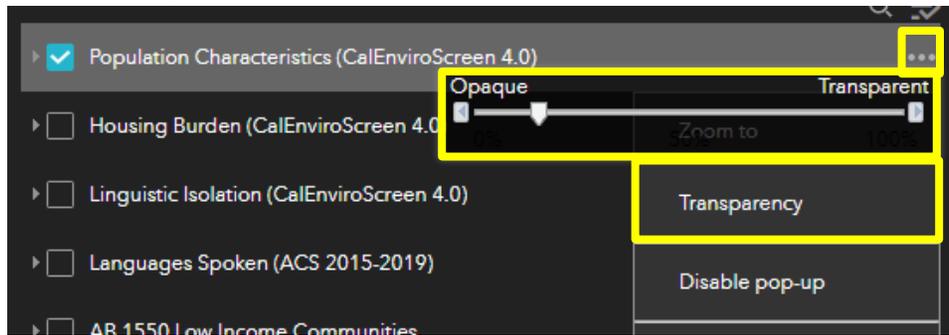
Although it is possible to add multiple data layers to the map, this may make the layers difficult to see. **To help visualize multiple layers**, click the ellipsis or 3 dots to the right of the layer name. This will open a menu that includes the option to change the **transparency** of the layer. You can increase the transparency to better see the layers below or move the slider towards opaque to make the upper layers clearer.

Clicking the arrow on the left side of the data layer will make a **legend** visible. This feature can be selected layer-by-layer to provide more information on the meaning of the data on the map.
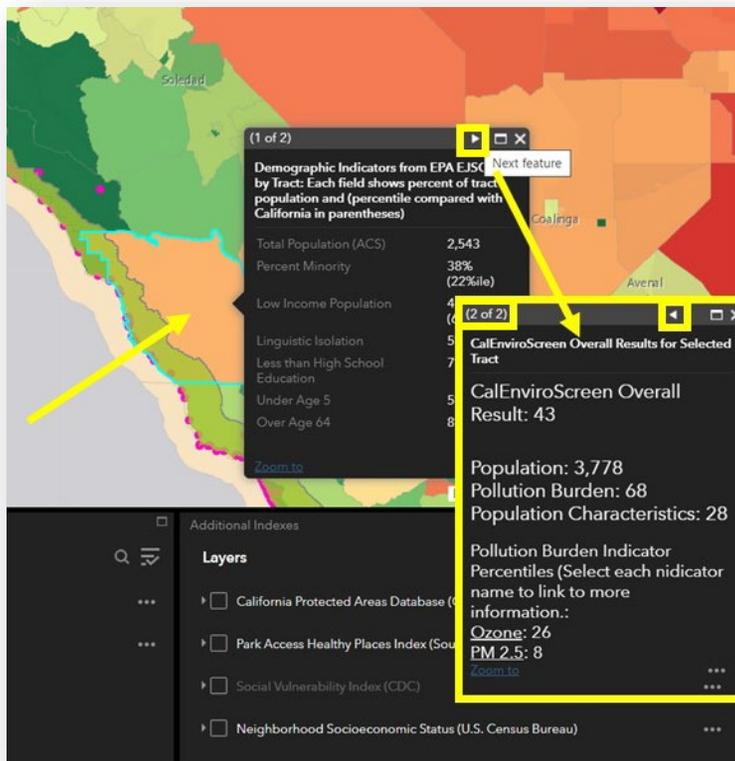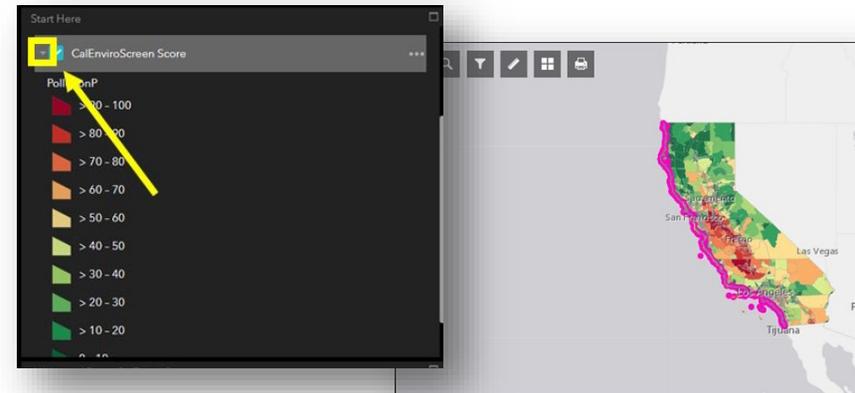
Another way to interact with the data in the map is to select a specific site (census tract, polygon, line, or point) on the map with a layer and use the **pop-ups** to learn more. Clicking on a site on the map will cause a window to pop up with the selected layer(s)' data about that area. Each data layer that is checked 'on' in the map and has data for the selected location will be represented by a separate tab in the pop-up window. To move between **tabs**, use the arrow button on the top bar of the pop-up. The text at the top left of the pop-up window shows how many layers are represented in the selected location. On some layers, there are links that you can click on to explore that data.

Changing the Basemap

The Basemap Gallery provides options to change the basemap to view imagery, roads, or for a simplified background to view the layers. To change the basemap, select the grid icon, then select the basemap of your choice. The map will automatically reload with this background.

Searching for Sites

You can search for specific project sites by using either the **magnifying glass (search) icon** to type in an address or by using the mouse **zoom** or + and – icons (highlighted on the right) to zoom in to a specific area. The **home icon** (highlighted below) will cause the map to return to the original extent, displaying the entire state of California.
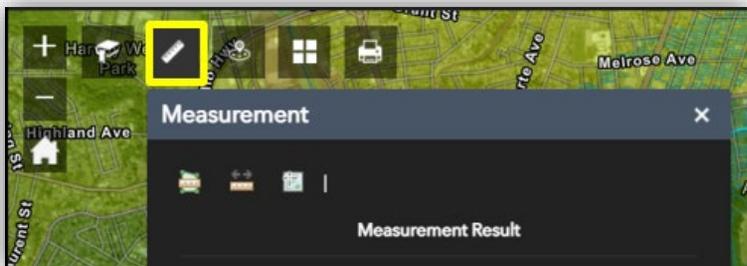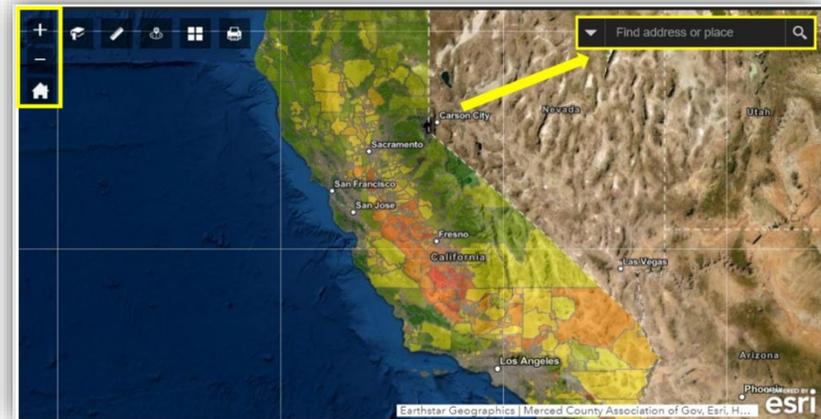
Measuring Distances

The measurement tool allows you to measure distance, area or determine the coordinates of locations on the map. To use this tool, navigate to the parcel or area you need to measure and select the ruler icon. You will see three different measurement options. The first box with a ruler over a green trapezoid will measure the area. Select this icon, use the drop-down menu to change the units, and click the map to create the vertices of the polygon you want to measure. When you have completed the outline of your desired area, double click on the last vertex. The square footage of your outlined area will appear in the widget. To snap to or exactly trace the boundary of a polygon, hold CTRL while drawing your shape.

Selecting the second icon, a ruler with outward facing arrows will measure linear distance. Similarly, select this icon, chose your units, and click to add a point at each location you would like to measure the distance between. You are not limited to two points; however, the tool will provide a total measurement of the line you draw, not the distance of each segment. To stop drawing, double click on your last point. The distance will appear in the measurement window. The third icon shows the latitude and longitude of a selected point on the map in the measurement box. To use this feature, select this icon and click on a point on the map.
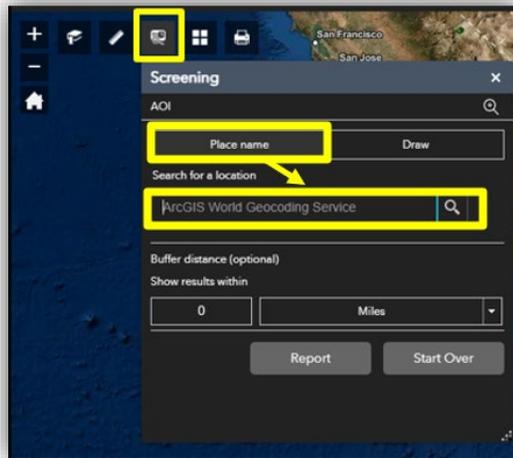
Exporting a Screening Report

The Screening Report tool is indicated by the icon of a document with a magnifying glass, highlighted in yellow in this image. The Screening Report tool allows you to search for an address or parcel and will then report on data from whichever layers you have selected within a given distance of your specified location. This report will include all data within this buffer distance, as well as the attributes of this data. To search by place name, type the address or parcel number into the "Search for a location bar." Then select a buffer distance. If you only want results from within that parcel, leave the buffer distance blank, and click Report. Once you select report, you will see a list of data layers selected and the results of each of these data layers within your specified distance of your address or parcel. You have the option to refresh, download, print, or change the settings of your report in icons along the top of the window. The download option allows you to download the report as a csv file which you can then sort and manipulate in Excel.

In addition to selecting by address or parcel, you can select a search location by drawing on the map. To do this, select Draw as highlighted on the image to the right. Use the icons to choose to draw a point, line, or polygon. Click the location on the map to begin
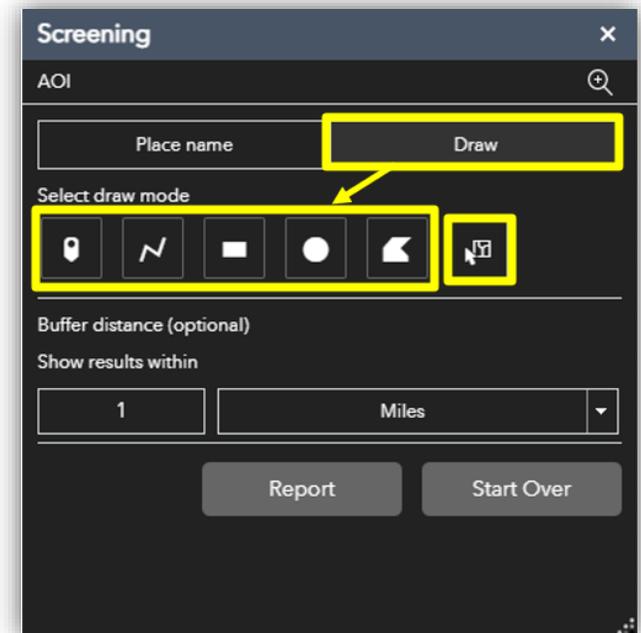
drawing and double click to complete your shape. Like with an address or parcel search, you can choose a buffer distance from your drawing and select report.

In the Draw menu, there is also an icon of a map with an arrow highlighted to the right of the draw menu. This icon allows you to select or deselect which data layers are present in your report. At the very top of the Screening window, the ribbon with Area of Interest (AOI) and a magnifying glass will move the map to center on your location of interest.

Printing
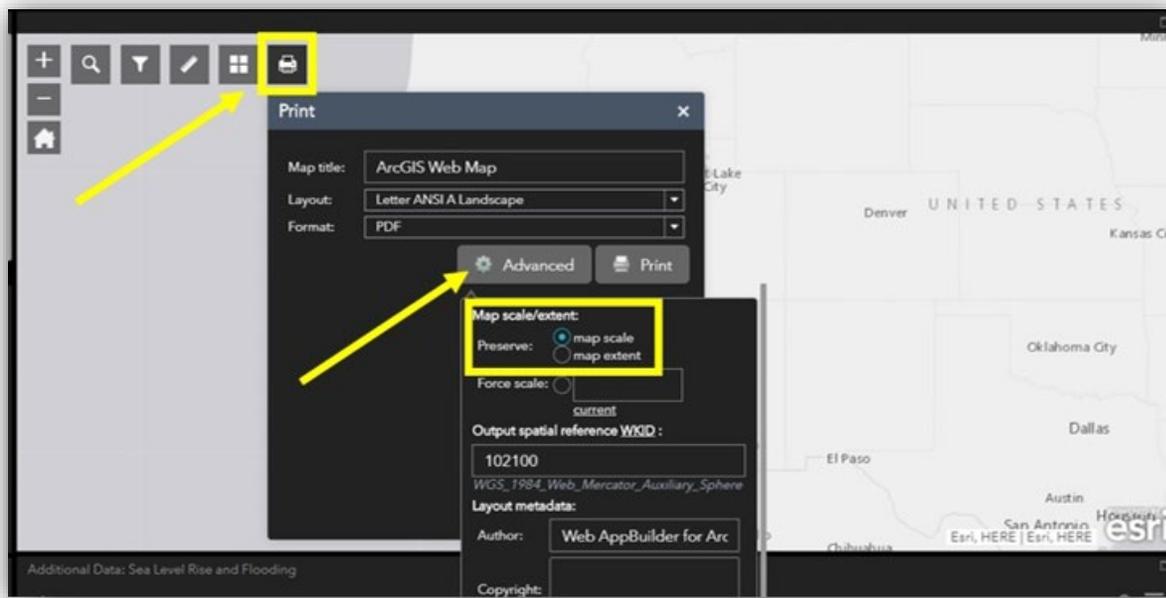
To print the map you have created from the data layers available, select the print icon (highlighted below). A pop-up with appear to allow you to change the print format. In addition to these settings, click Advanced. This menu allows you to set the extent that will be printed and decide whether or not to include a legend.

Environmental Justice Considerations

The following table shows potential questions on the left and example layers that could be useful in answering these questions or providing additional context to your project site or scope, on the right. For additional information on these layers, please review the Data Glossary & Sources below this section.

EJ Considerations	Resources and Potentially Relevant Layers

• **Where is the project located? Is it in the Coastal Zone? Is it within a certified local coastal program (LCP) segment?**	Use the search/address bar to locate the project area on the map. Use these layers to help you identify what planning regulations apply at your project site.
	
	• **Coastal Zone Parcels**
	• **Coastal Zone Boundary**
	  • NOTE: The CZB has limited zoom in capabilities
	• **LCP Segments**
	  • The pop-up for this layer contains additional information on LCP designations. This may help you understand if your project is subject to LCP requirements.

• **Is the project in or near a low-income community?**	Use income to understand which communities may be most impacted. • **AB 1550 Low-Income Community** • **Below 2x Federal Poverty Level** (EPA EJSCREEN)

• **Is the project in or near a community with many individuals of color? Especially when compared to other areas of the city?**	Communities of color are statistically more vulnerable to unintended negative project impacts.
	
	• **Individuals of Color (EPA EJSCREEN)**
	  • Displays census tracts that are majority people of color (non-white populations and those who identify as Hispanic/Latino)
	• **CalEnviroScreen 4.0 Overall Score**
	  • When using this layer, click on the census tract you are viewing and scroll to the bottom of the pop-up window to see the racial/ethnic breakdown

• **Are there historically marginalized communities or vulnerable communities in or**	For additional context, use these layers to understand a community. Remember that mapping is just for screening, and additional outreach may be needed to understand historical context and character of a

near the project area?	community.
	• **Redlining (Home Owner's Loan Corporation)** ◦ Not available in all locations, it is from 1930s but can be used to determine historical marginalization caused by the federal practice of redlining. • **CalEnviroScreen 4.0 Overall Score** ◦ Also known as CES 4.0; an index which shows communities with existing levels of pollution and hazard exposure and sensitive population characteristics and compares them throughout the state. • **Population Characteristics (CES 4.0)** ◦ Index of several demographic and socioeconomic characteristics of communities with high sensitivity to environmental pollution in a census tract. • **Pollution Burden (CES 4.0)** ◦ Index of pollution and exposure burdens experienced by populations in a census tract • **Housing Burden (CES 4.0)** ◦ Shows households that are burdened through rent or housing costs.
• **Is the community linguistically isolated or are there significant number of non-English speakers?**	Identifying and removing language barriers is critical to achieving equitable access to services and meaningful engagement. Use these two layers in conjunction: • **Linguistic Isolation (CES 4.0)** • Shows households where no one speaks English well (• **Languages Spoken** • identify what languages are commonly spoken at home by clicking on layer info • Additional resource: • Data visualization of languages
• **If the project is not in or near an EJ community, are individuals from underserved communities affected in other ways (workers, visitors, unsheltered**	While there is a lack of data on who visits the areas you're researching, one can approximate an answer by looking at surrounding communities using the above layers. This information can also be obtained by getting a general geographic scope from stakeholders more familiar with the area and using the tool to identify communities in this geographic scope. Consider using the measure tool to identify

individuals, etc.)? Are underserved communities in the broader region or state affected by the project?	general distances between your project site and local or regional hubs as appropriate. • **Public Transit Availability** • Shows how people may be able to access the project site
• **Have you identified Tribal communities in, near, or with ancestral ties to the project site?**	Tribal consultation is a separate step than identifying EJ communities, but it is important to review the intersection of EJ communities and tribal/indigenous interests. Use the following: • Digital Atlas of California Native Americans by California Department of Parks and Recreation • Native-Land.ca | Our home on native land See the Commission's Tribal Consultation webpage for Tribal Consultation Policy and district Tribal Liaison contact information

Data Glossary & Sources

The Environmental Justice Mapping Tool compiles layers available in national and state-wide databases and the Coastal Commission GIS Data site. Below you will find a short explanation of each layer used in the Mapping Tool and hyperlinks for additional information. All resources, information, and opinions contained in the Digital Atlas remain the property and views of the cited entities/individuals, and the Commission bears no responsibility for their accuracy, legality, or content. Viewers should contact cited entities/individuals for more information about particular content.

General Definitions

- **Cumulatively or cumulative effect**: Means the incremental effects of an individual project shall be reviewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects per Coastal Act Section 30105.5.
- **Underserved, environmental justice communities, communities of concern:** In this document, the terms "underserved communities" and "environmental justice communities" are used interchangeably with the term "communities of concern." All these terms refer to low-income communities, communities of color, and other populations with higher exposure and/or sensitivity to adverse project impacts due to historical marginalization, discriminatory land use practices, and/or less capacity to mitigate adverse impacts.
- **Disproportionate**: A cornerstone of EJ analyses is evaluating disproportionate impacts to environmental justice communities. The term "disproportionate" means that one population group is receiving more or less benefits or burdens than other groups.
- **Census tract:** Many layers use census tracts as the unit of analysis. Census tracts are small, relatively permanent statistical subdivisions of a county. Uniquely numbered in each county with a numeric code, averaging about 4,000 inhabitants.

Coastal Commission Data

Coastal Zone Boundary: California's Coastal Zone generally extends seaward to the state's outer limit of jurisdiction, including all offshore islands, and inland to approximately 1,000 yards from the mean high tide line (MHTL) of the sea or, in significant coastal estuarine, habitat, and recreational areas, to the first major ridgeline paralleling the sea or five miles from the mean high tide line of the sea, whichever is less. In developed urban areas the zone generally extends inland less than 1,000 yards.

California Coastal Act Section 30103(b) directed the Coastal Commission to prepare and adopt more detailed 1:24,000 scale Coastal Zone Boundary (CZB) maps, which occurred March 1, 1977. These 161 adopted maps provide the official basis for all other representations of the landward CZB. The digital version of the CZB created by developing this data is a conformed copy of the official boundary, and in some locations reflects legislative changes and Coastal Commission minor adjustments adopted from time to time since March 1977. More info on the Coastal Zone Boundary here.

Coastal Zone Parcels: Coastal Zone Parcels are a subset of the administrative units maintained by each county assessor. This layer shows compiled county assessor parcel data from July 2021 for all parcels within the Coastal Zone and any parcels located up to 600 meters landward of the Coastal Zone Boundary.

Public Access Points: The Access Points data provides locations on over 1500 public beaches spanning all 15 coastal counties. Each location includes attributes that define the characteristics of that beach, such as dog friendliness and wheelchair accessible.

Local Coastal Programs (LCPs): Local Coastal Programs (LCPs) are basic planning tools prepared by local governments and used in partnership with the Coastal Commission to guide development in California's coastal zone. LCPs consist of Land Use Plans and Implementation Plans and contain the ground rules for development and protection of coastal resources in each of California's 61 coastal cities and 15 coastal counties. Following adoption by a city council or county board of supervisors, an LCP is submitted to the Coastal Commission for review and compliance with Coastal Act requirements. Many of the 75 coastal counties and cities have elected to divide their coastal zone jurisdictions into separate geographic segments, resulting in some 126 separate LCP segments. This shapefile represents the first statewide digital version of the LCP segment boundaries and boundaries of uncertified LCP areas, and also includes Non-LCP areas such as federal, tribal, and military lands. More info on LCPs here.

California Coastal Trail (CCT): The California Coastal Trail is identified as a trail of national and statewide significance. The Trail is envisioned to be a continuous interconnected public trail system along the California coastline from Oregon to Mexico, covering 15 coastal counties. The trail system is primarily a pedestrian trail, located as close to the coast as possible. It is located on a variety of terrains, including the beach, bluff top, pathways, etc. The purpose of this dataset is to provide a current georeferenced, attributed, depiction of the current status of the California Coastal Trail. More info on the Coastal Trail here or map of the Coastal Trail here.

Socioeconomic Data

Population Characteristics (CalEnviroScreen 4.0): The CalEnviroScreen model is made up of multiple components cited in the above definition as contributors to cumulative impacts. The model includes two components representing Population Characteristics: Sensitive population indicators measure the number of people in a community who may be more severely affected by pollution because of their age or health; and Socioeconomic factor indicators are conditions that may increase people's stress or make healthy living difficult and cause them to be more sensitive to pollution's effects. More info on population indicators here.

Housing Burden (CalEnviroscreen 4.0): Housing burdened low-income households are households that are both low income and highly burdened by housings costs. California has very high housing costs relative to much of the country, which can make it hard for many to afford housing. Households with lower incomes may spend a larger proportion of their income on housing and may suffer from housing-induced poverty. Housing affordability is an important determinant of health and well-being. Low-income households with high housing costs may suffer adverse health impacts. More info on housing burden here.

Linguistic Isolation (CalEnviroscreen 4.0): Linguistic isolation is a term used by the U.S. Census Bureau for limited English-speaking households. More than 40 percent of Californians speak a language other than English at home. About half of those do not speak English well or at all. Adults who are not able to speak English well often have trouble talking to the people who provide social services and medical care. Linguistically isolated households may also not hear or understand important information when there is an emergency like an accidental chemical release or spill. More info on linguistic isolation here.

ACS Language spoken at home: The American Community Survey (ACS) is the most widely used source of language data in the United States, largely because it is the only survey to provide language and English-speaking ability data for local communities. The American Community Survey measures language use with a series of three questions: Do you speak a language other than English at home? What is this language? How well do you speak English? Respondents who speak a language other than English at home specify the language in writing. More detailed info on languages spoken available here.

AB1550 Low-income: AB 1550 identifies Low-income households or communities according to these definitions : (1) "Low-income households" are those with household incomes at or below 80 percent of the statewide median income or with household incomes at or below the threshold designated as low-income by the Department of Housing and Community Development's (HCD) State Income Limits adopted pursuant to Section 50093.; and (2) "Low-income communities" are census tracts with median household incomes at or below 80 percent of the statewide median income or with median household incomes at or below the threshold designated as low income by HCD's State Income Limits adopted pursuant to Section 50093. This

layer displays the (2) "low-income communities." More information on how AB1550 designates low income communities through the California Air Resources Board's AB1550 mapping tool linked here.

2x Federal Poverty: The number or percent of a block group's population in households where the household income is less than or equal to twice the federal "poverty level." More info on demographic indicators from EPA EJScreen here.

Individuals of Color (EPA EJ Screen): a federal EPA environmental justice mapping and screening tool that provides a nationally consistent dataset and approach for combining environmental and demographic indicators. We pulled information on the percent of individuals in a block group who list their racial status as a race other than white alone and/or list their ethnicity as Hispanic or Latino. That is, all people other than non-Hispanic white-alone individuals. The word "alone" in this case indicates that the person is of a single race, not multiracial. More info on demographic indicators from EPA EJScreen here.

Environmental Data

Pollution Burden (CalEnviroScreen 4.0): The CalEnviroScreen model is made up of multiple components cited in the above definition as contributors to cumulative impacts. The model includes two components representing Pollution Burden – Exposure indicators based on measurements of different types of pollution that people may come into contact with, and Environmental effects indicators are based on the locations of toxic chemicals in or near communities. More info on pollution burden here.

Green Space Access (California Protected Areas Database): The California Protected Areas Database (CPAD) is a GIS dataset depicting lands that are owned in fee and protected for open space purposes by over 1,000 public agencies or non-profit organizations. CPAD depicts the wide diversity of parks and open spaces in California, ranging from our largest National Forests and Parks to neighborhood pocket parks. More info on CPAD here. For additional information on park access and community health, see the California Public Health Alliance's Healthy Places Index map.

US Flood Hazard Layer: This layer displays Flood Hazard Areas from the Flood Insurance Rate Map created by the Federal Emergency Management Agency. The Federal Emergency Management Agency (FEMA) produces Flood Insurance Rate maps and identifies Special Flood Hazard Areas as part of the National Flood Insurance Program's floodplain management. Special Flood Hazard Areas have regulations that include the mandatory purchase of flood insurance. More flood hazard layer info here.

1-9ft Sea Level Rise (NOAA): The purpose of this dataset is to show potential sea level rise inundation of 6 ft above current Mean Higher High Water (MHHW) for the area. Tiles have been cached down to Level ID 15

(1:18,055). This dataset illustrates the scale of potential flooding, not the exact location, and does not account for erosion, subsidence, or future construction. Inundation is shown as it would appear during the highest high tides (excludes wind driven tides) with the sea level rise amount. The dataset should be used only as a screening-level tool for management decisions. As with all remotely sensed data, all features should be verified with a site visit. More info on NOAA SLR data here.

Additional Indexes

Public Transit Availability: This data layer provided by CalTrans shows local, regional, state and federal transit routes around the state of California and includes information on the route name, type and managing agency. More info on Public Transit Availability here.

CalEnviroScreen 4.0 Overall Results: The overall CalEnviroScreen community scores are driven by a weighted multiplication of 20 statewide indicators of pollution burden and population characteristics associated with increased vulnerability to pollution's health effects. The score measures the relative pollution burdens and vulnerabilities in one census tract compared to others and is not a measure of health risk. The map displays the percentiles for all the census tracts of the state, highlighting the census tracts scoring the highest in red, and the census tracts scoring the lowest in green. More info on CalEnviroScreen here.

- *Disadvantaged communities (designations per Senate Bill (SB) 535 – De Leon Chapter 830, Statutes of 2012) are identified by the California Environmental Protection Agency (CalEPA) as the top 25% most impacted census tracts in CalEnviroScreen. Map of SB535 disadvantaged communities here.*

Redlining Home Owners' Loan Corporation (HOLC): The Home Owners' Loan Corporation (HOLC) was created in the New Deal Era and created a neighborhood ranking system infamously known today as redlining. Local real estate developers and appraisers in over 200 cities assigned grades to residential neighborhoods. These maps and neighborhood ratings set the rules for decades of real estate practices. The grades ranged from A to D. A (Best-Green): Upper- or upper-middle-class white neighborhoods that HOLC defined as posing minimal risk for banks and other mortgage lenders, as they were "ethnically homogeneous" and had room to be further developed; B (Still Desirable-Blue): Generally nearly or completely White, U.S. -born neighborhoods that HOLC defined as "still desirable" and sound investments for mortgage lenders; C (Declining-Yellow): Areas where the residents were often working-class and/or first or second-generation immigrants from Europe. These areas often lacked utilities and were characterized by older building stock; D (Hazardous-Red): Areas here often received this grade *because* they were "infiltrated" with "undesirable populations" such as Jewish, Asian, Mexican, and Black families. These areas were more likely to be close to industrial areas and to have older housing. Banks received federal backing to lend money for mortgages based on these grades. Many banks simply refused to lend to areas with the lowest grade, making it impossible for people in many areas to become homeowners. While this type of neighborhood classification is no longer legal thanks to the Fair Housing Act of 1968 (which was passed in large part due to the activism and work of the NAACP and other groups), the effects of disinvestment due to redlining are still observable today. More info on the Home Owners' Loan Corporation maps here.

BCDC Community Vulnerability (Bay Area Only): The San Francisco Bay Conservation and Development Commission (BCDC) Adapting to Rising Tides Program developed a dataset to better understand community vulnerability to current and future flooding due to sea level rise and storm surges. The community vulnerability dataset contains four categories of information:1. Social Vulnerability Indicators; 2. Contamination Vulnerability Indicators; 3. Residential Exposure to Sea Level Rise; and 4. Complementary Community Vulnerability Screening Tools. This data has been used in the Adapting to Rising Tides Bay Area Sea Level Rise Vulnerability and Assessment project as well as helping inform the implementation of the BCDC Environmental Justice and Social Equity Bay Plan amendment. More info on BCDC Community Vulnerability here.