

# Appendix C:

## Tributary Narratives

Tributary Narratives were developed for the SGV Greenway Network tributaries and can be used as a resource for planners, designers, and community members to understand key aspects of each tributary and inform future revitalization efforts and greenway projects. The Tributary Narratives were developed as a first step in understanding the tributaries and the communities which surround them. The Plan Team collected data and compiled “Tributary Narratives,” which aim to tell the story of each tributary through the following key lenses:

- **Community** – This lens was developed by gathering key information about community gathering spaces, park needs, locations of activity generators, and open spaces, and by mapping key demographic data such as ethnic population, household income, and density.
- **Circulation** – This lens was developed by identifying major crossings, railways, trails, existing bikeways, activity generators, schools, transit stops, and railway crossings and analyzing their impact on future Greenway projects. This included identifying which parts of the community have the least access to transit and/or vehicles based on American Community Survey data.
- **Environment** – This lens was developed by mapping environmental conditions along each tributary such as impervious surfaces, heat vulnerability, and tree canopy. This information could help inform the tributaries’ ability to improve environmental conditions.
- **Synergy** – This lens was developed by creating a Synergy story, which was informed through previous efforts and studies, EIP, and vacant/public land. The Synergy story could be a starting point for finding project opportunities and ways to coordinate with existing projects, and included the mapping of jurisdictional data about who maintained the channel and what type of ownership agreement the adjacent ROW parcels were under, describing some of the legal complexities to project implementation. Major road/railway crossings and available ROW widths were also mapped as part of the Synergy story to show some of the physical constraints that may add to a project’s complexity.
- **Equity** – This lens was developed by mapping CalEnviroScreen 3.0 environmental and socioeconomic burden data such as sensitivity and exposure to environmental pollution.

# **SAN GABRIEL VALLEY GREENWAY NETWORK STRATEGIC IMPLEMENTATION PLAN**

## APPENDIX C: TRIBUTARY NARRATIVES



January 2025

**PREPARED FOR:  
LOS ANGELES COUNTY AND LOS ANGELES COUNTY PUBLIC WORKS**



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**THIS BOOK IS APPENDIX C FOR THE SAN GABRIEL VALLEY GREENWAY NETWORK STRATEGIC  
IMPLEMENTATION PLAN**

Tributary Narratives were developed for the SGV Greenway Network tributaries and can be used as a resource for planners, designers, and community members to understand key aspects of each tributary and inform future revitalization efforts and greenway projects.

A prioritization framework was established in the SGV Greenway Network Plan's development using five key lenses: Community, Circulation, Environment, Synergy, and Equity.



PREPARED BY:

**STUDIO-MLA**

# TRIBUTARY NARRATIVE

## ALHAMBRA WASH

### OVERVIEW

- Alhambra Wash is a 4.7 mile tributary which weaves through a complex urban and suburban fabric of diverse communities.
- Alhambra Wash runs through the cities of San Gabriel, Alhambra, Rosemead, as well as unincorporated Los Angeles County communities.
- Alhambra Wash is rich with potential destinations for greenway users, including commercial/retail areas along Las Tunas Dr and Valley Blvd.
- Garvey Park, Whittier Narrows Recreation Area, and Vincent Lugo Park also serve as potential destinations for users of the greenway.
- Schools adjacent to the tributary include: San Gabriel Mission Elementary, Richard Garvey Intermediate, Eldridge Rice Elementary, and Saint Therese Catholic.
- Few existing bikeway connections exist in the area aside from the Rio Hondo bike path to the south.
- A multi-use path along the utility easement between Graves Avenue and the Union Pacific Right-of-way was proposed by the Southern California Association of Governments' Regional Transportation Plan in 2012.
- Alhambra Wash was identified as a top project by the San Gabriel Valley Council of Governments' Greenway Study in 2018. Short sections of Alhambra Wash between Ramona Street and Hovey Avenue as well as between Del Mar Blvd and the I-10 were also identified for greenway development in multiple previous plans.
- Alhambra Wash presents complex physical challenges to implementation with constrained right-of-way, complex intersections, and jurisdictional challenges to implementation.
- Environmentally, the area surrounding Alhambra Wash is lacking tree canopy, has high concentrations of impervious surfaces, and a highly vulnerable heat index.



# CIRCULATION STORY

## ALHAMBRA WASH

Knowing existing circulation can inform where we prioritize connections, partnerships, and modality.

### VEHICLE/TRANSIT ACCESS

Focused to the west of Alhambra Wash, the communities of Monterey Park, Rosemead, and Alhambra show the highest concentrations of households without vehicle access. However, these communities also show greater access to transit than their neighbors to the north and south.

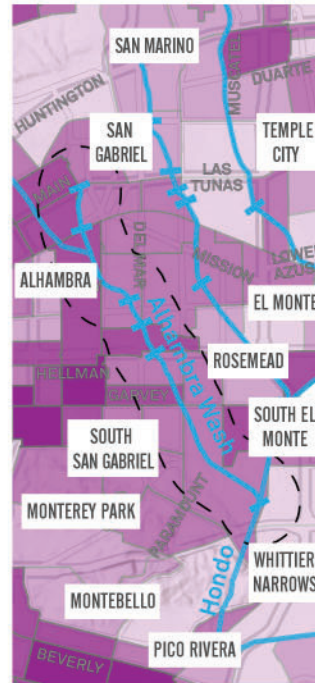
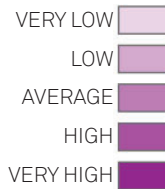
### ACTIVITY GENERATORS

Potential activity generators along the Wash include pockets of retail and commercial areas throughout the corridor, along with a few schools.

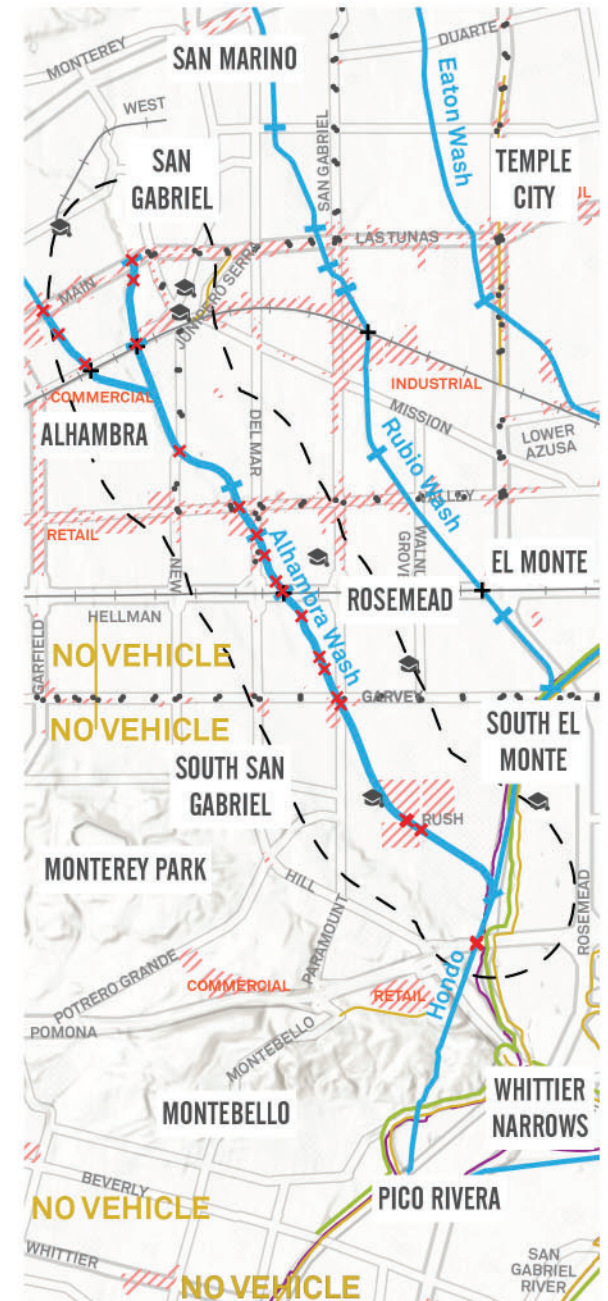
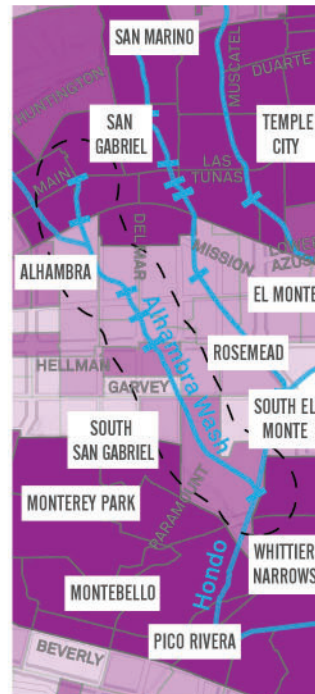
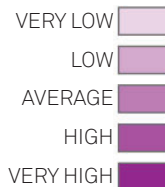
### EXISTING BIKEWAYS

Few existing bikeways exist in the area, aside from the Rio Hondo bike path and a short segment along Junipero Serra.

**NO VEHICLE ACCESS**  
American Community Survey asks about vehicles available to each household to develop transportation plans and services, understand how people are traveling in the course of a normal day, and evaluate pollution and access to transportation in emergencies.



**NO TRANSIT ACCESS**  
From the California Healthy Places Index, this indicator measures the percentage of people living close to convenient, reliable transit, as defined by a half-mile or ten-minute walk, that comes every fifteen minutes or less during peak commute times.



# EQUITY STORY

## ALHAMBRA WASH

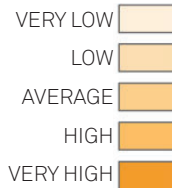
Unfair burden of air, water, and soil pollution can inform the value of nature-based solutions in our design concepts. While socioeconomic factors (e.g., poverty levels, linguistic isolation, etc) can help inform programming.

### OVERVIEW

The most environmentally burdened communities are towards the middle of this tributary through Monterey Park and El Monte. The most impacted tract in this area has a CalEnviroScreen percentile score of 86%.

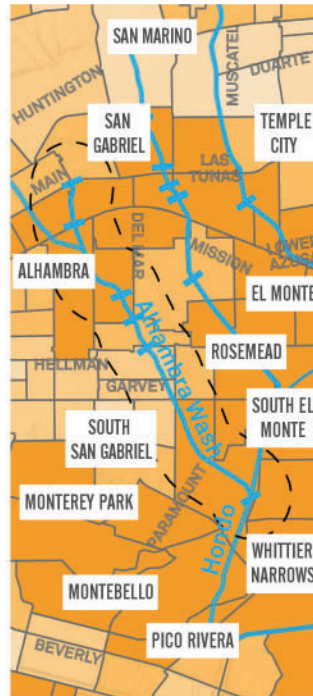
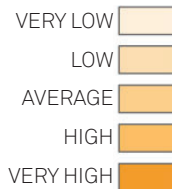
### SENSITIVITY AND SOCIOECONOMIC FACTORS

CalEnviroScreen rates each census tract's sensitivity to environmental pollution from Very Low to Very High based on socioeconomic and health factors.

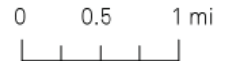


### ENVIRONMENTAL BURDEN

According to CalEnviroScreen, exposure to different types of pollution (e.g., air quality, lead risk, diesel, pesticides, etc) is very high throughout most of this area.



The equity story for Alhambra Wash is characterized by high rates of environmental and socioeconomic burden throughout the area.



# COMMUNITY STORY

## ALHAMBRA WASH

### PART 1 - GATHERING SPACES

Understanding existing community gathering spaces can inform how our project could add to open space access in the area by revealing where to route trails and optimize connectivity.

#### GATHERING SPACES

Activity Generators are concentrated along Las Tunas Blvd., and Valley Blvd.

#### PARK NEED

The southern end of the tributary is near existing parks along the Rio Hondo and Whittier Narrows. The northern segment has fewer parks and is showing “High” to “Very High” park need.

#### LOCATIONS OF ACTIVITY

Retail, office, and industrial land uses are highlighted in gold as potential activity drivers.



RETAIL / OFFICE / INDUSTRIAL

#### PARK NEED

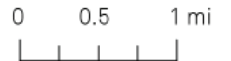
LA County’s Parks and Recreation Needs Assessment documented existing facilities, park pressure, park condition, and walkability.



VERY LOW  
LOW  
AVERAGE  
HIGH  
VERY HIGH



The community story for Alhambra Wash is characterized by High to Very High park need especially to the east and west.



# COMMUNITY STORY

## ALHAMBRA WASH

### PART 2 - DEMOGRAPHICS

Understanding key demographic factors can inform the style and programming of the area.

#### INCOME

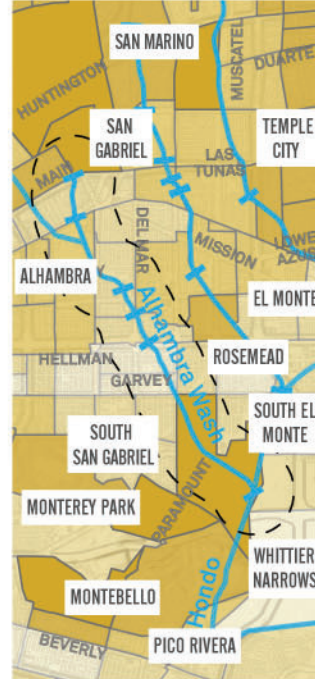
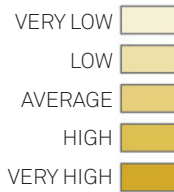
Median incomes in this area are mixed, however we see the highest incomes north near Pasadena and south near the unincorporated area. The lowest average household incomes are in South San Gabriel, Pico Rivera, and South El Monte.

#### POPULATION

There is a large Asian presence throughout the area. Hispanic communities are concentrated most in the southern communities of Montebello, Pico Rivera, and El Monte.

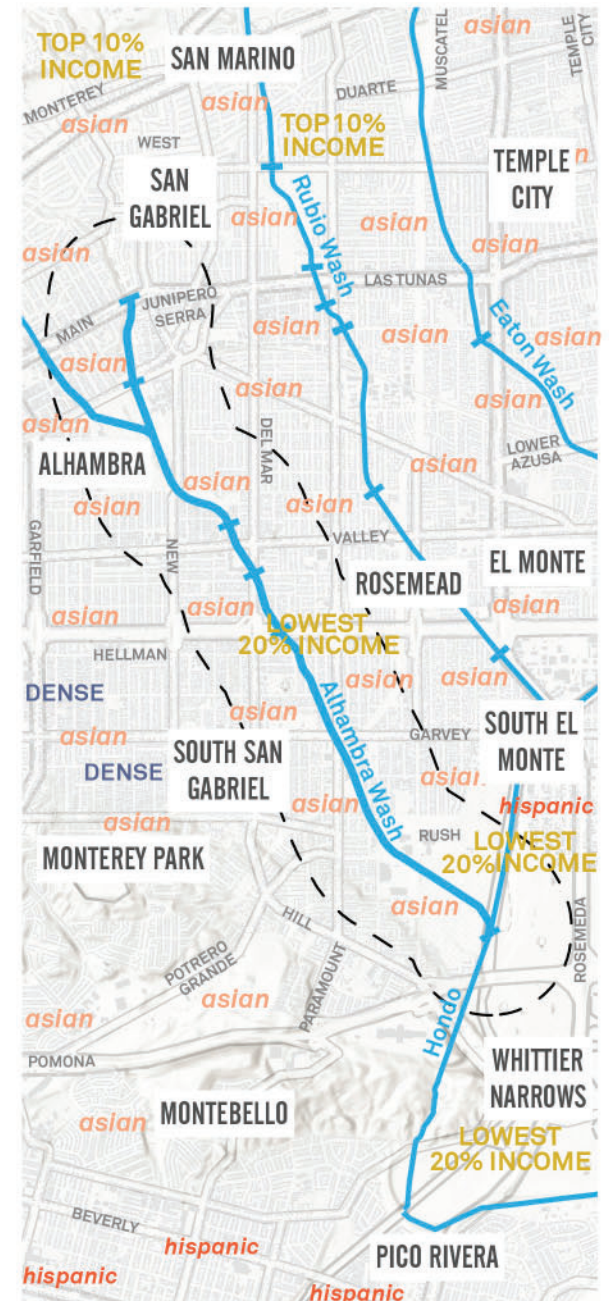
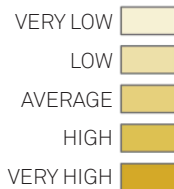
#### MEDIAN HOUSEHOLD INCOME

According to the 2010 census, income levels are mixed in this area with some of the highest income areas to the very north.



#### HISPANIC POPULATION

According to the 2010 census, the majority of the community near the southern segment of Alhambra Wash is in the highest quantile for Hispanic Population for LA County.



The demographic story for Alhambra Wash is characterized by a strong Asian community and lower incomes toward the south.



# SYNERGY STORY

## ALHAMBRA WASH

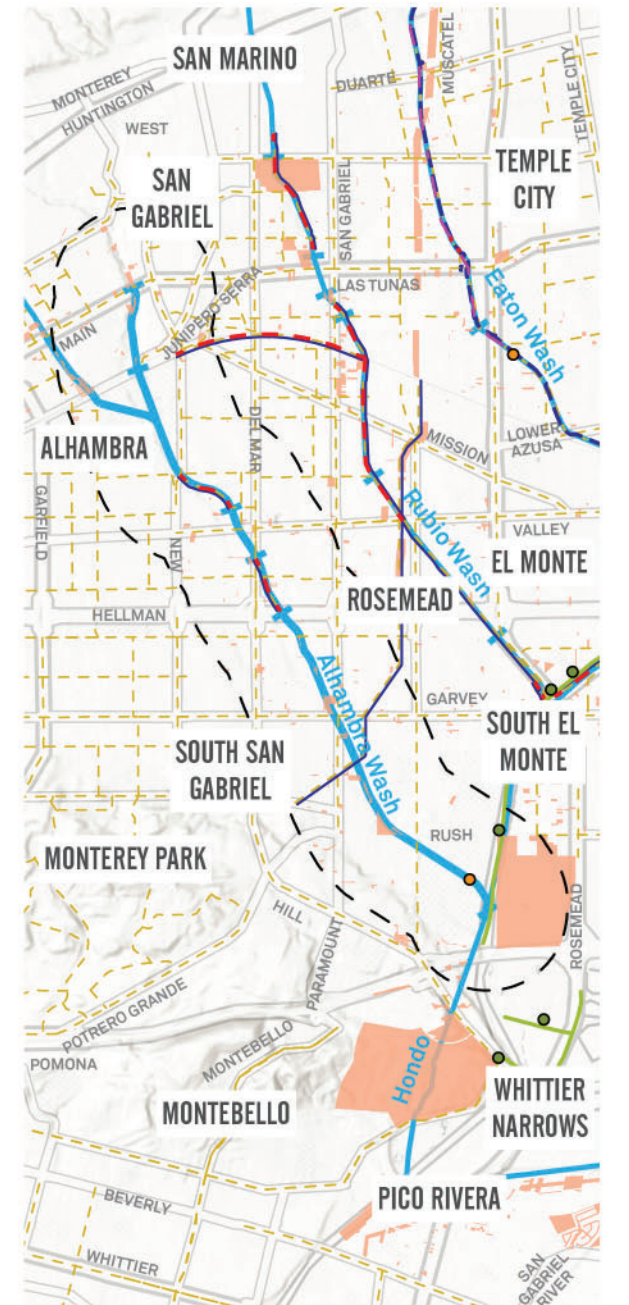
### PART 1 - OPPORTUNITIES

*Synergy story – early implementation projects, non-greenway projects, vacant parcels, and public land can help us understand where there are potential opportunities to build on the greenway.*

#### ALHAMBRA WASH SYNERGY OPPORTUNITIES:

- Few existing bikeway connections exist in the area aside from the Rio Hondo bike path to the south.
- A multi-use path along the utility easement between Graves Avenue and the Union Pacific Right-of-way was proposed by the Southern California Association of Governments' (SCAG) Regional Transportation Plan in 2012.
- Alhambra Wash was identified as a top project by the San Gabriel Valley Council of Governments' (SGVCOG) Greenway Study in 2018. Short sections of Alhambra Wash between Ramona Street and Hovey Avenue as well as between Del Mar Blvd and the I-10 were also identified for greenway development in multiple previous plans.
- Alhambra Wash presents complex physical challenges to implementation with constrained right-of-way, complex intersections, and jurisdictional challenges to implementation, given that the Wash is partially controlled by the United States Army Corps of Engineers.

- EMERALD NECKLACE 2017
- PARK NEEDS 2016
- LA CTY BIKE MASTERPLAN 2012
- GREENWAY NETWORK
- REGIONAL TRANSIT 2012
- METRO ACTIVE PLN 2016
- LA CTY PROPOSED BIKEWAYS
- EARLY IMPLEMENTATION
- VACANT GOV PARCELS



# SYNERGY STORY

## ALHAMBRA WASH

### PART 2 - LEGAL COMPLEXITY

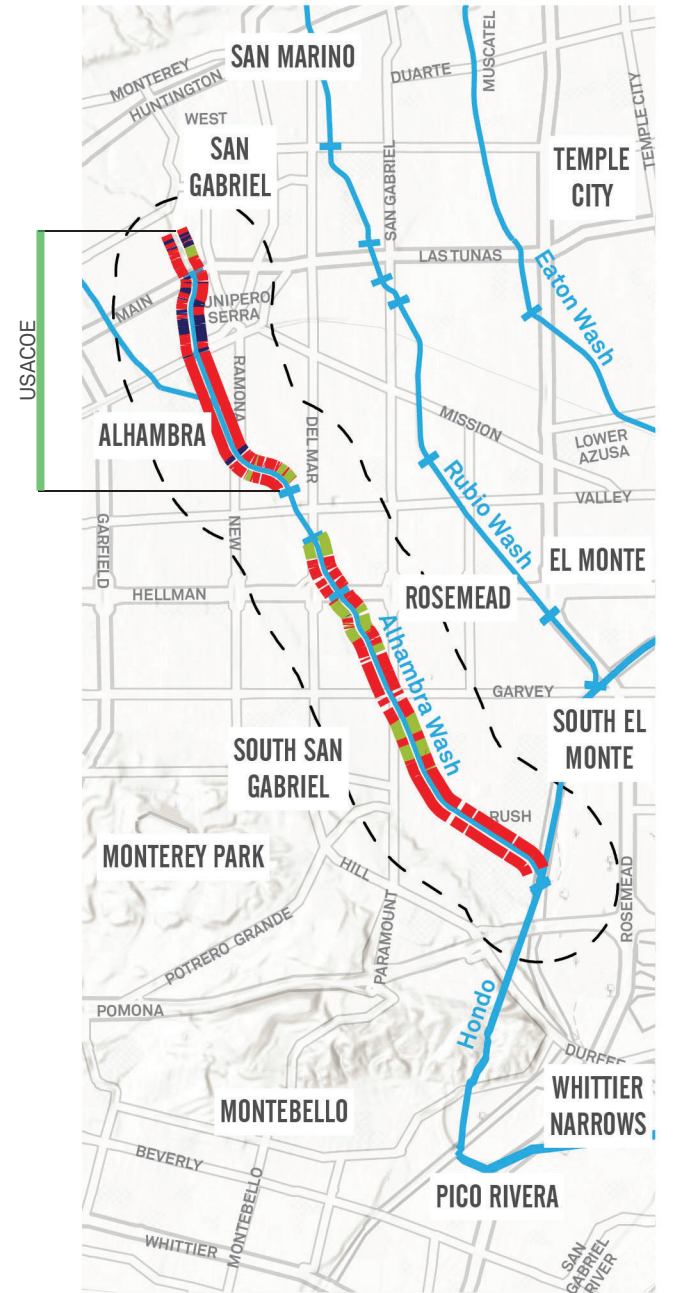
Understanding the legal constraints along each wash can help identify issues that should be accounted for in design.

#### ALHAMBRA WASH LEGAL COMPLEXITY

The parcels along Alhambra Wash are mostly owned through Easement and Fee agreements. Some of these Easement agreements only allow for flood control operation and would need to be modified for a greenway to be opened.

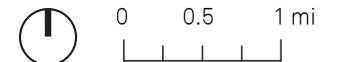
However, north of Valley Blvd., a large segment of the wash is owned by the US Army Corp of Engineers; this may add significant legal complexity/time to implementing a greenway or other amenities in this area.

A permit from the Army Corps of Engineers may be needed for any work that impacts flood control.



#### OWNERSHIP AGREEMENT

- EASEMENT
- OTHER
- FEE



# SYNERGY STORY

## ALHAMBRA WASH

### PART 3 - PHYSICAL COMPLEXITY

Understanding the physical constraints along each wash can help identify issues that should be accounted for in design.

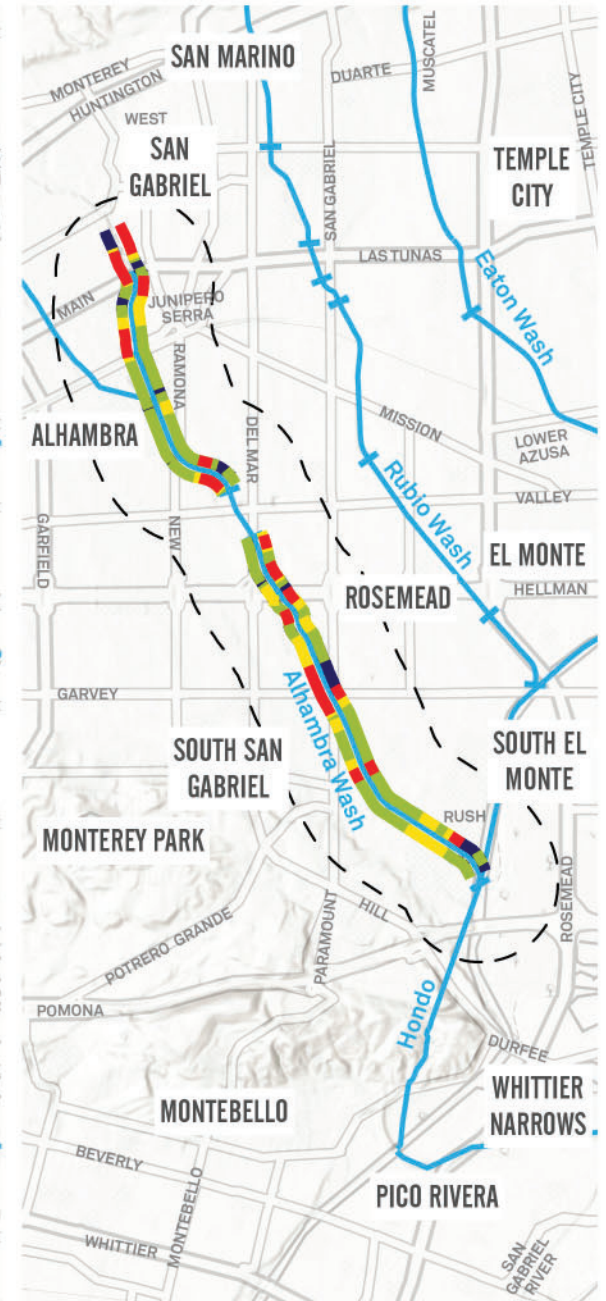
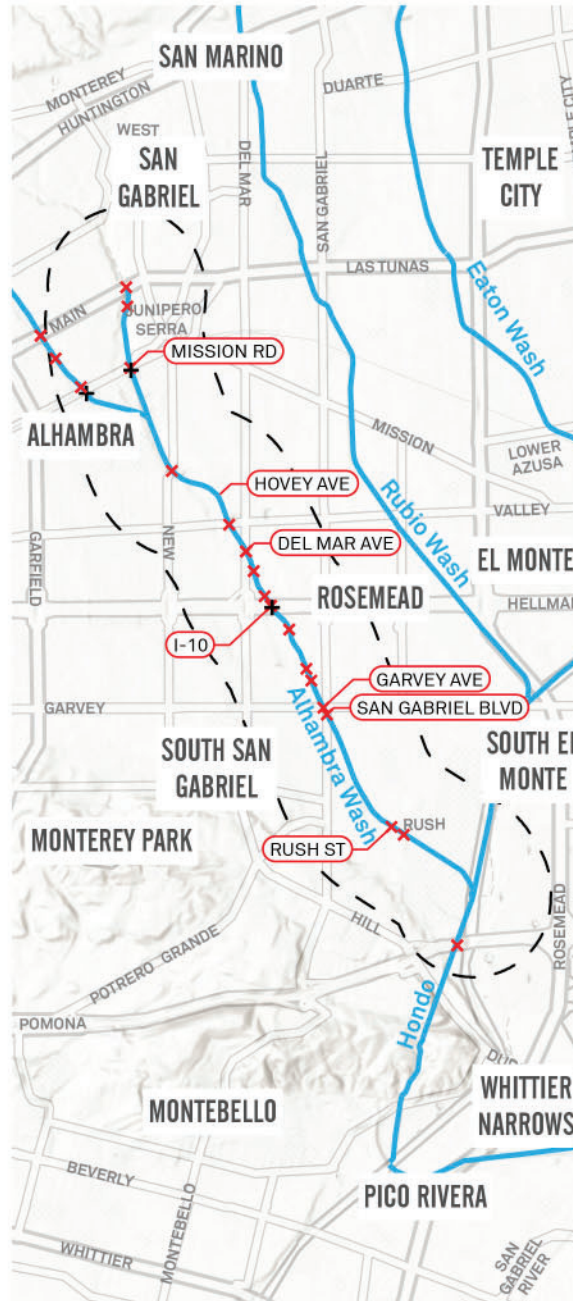
#### ALHAMBRA WASH PHYSICAL COMPLEXITY

Alhambra Wash has a highly constrained Right-of-way on either side of the channel. Most of the tributary does not have an adjacent access road, with less than 8 feet of available space. There is a short segment of available space along the Alhambra Municipal Golf Course, a short section near the I-10, and another to the south, near the Rio Hondo.

Exploring a greenway along Alhambra Wash would likely include more complex solutions such as cantilever decks, or an incised channel.

*Potentially challenging crossings along Alhambra Wash may include:*

- Mission Rd: a 5-lane arterial adjacent to a freight rail line.
- Between Hovey Ave and Del Mar Ave: the Wash is underground.
- I-10 Freeway: an undercrossing may be possible or at nearby Del Mar Ave.
- Garvey Ave/San Gabriel Blvd: the Wash crosses these major arterials at an angle.
- Rush St: a 5-lane arterial.



**INTERSECTIONS & CROSSINGS**  
 x STREET INTERSECTIONS  
 + RAILROAD CROSSINGS

**ROW WIDTH**  
 < 8 FT  
 8-13 FT  
 13-26 FT  
 > 26 FT

0 0.5 1 mi

# ENVIRONMENT STORY

## ALHAMBRA WASH

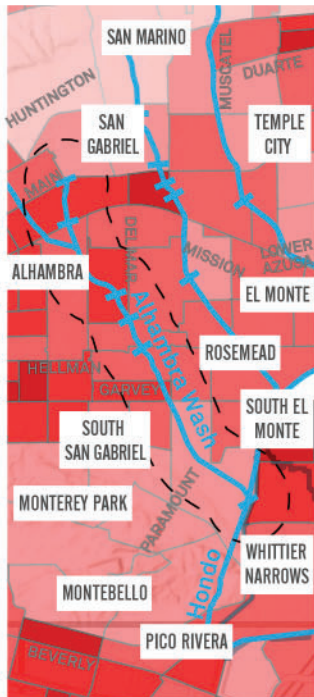
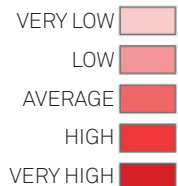
Shade study, impervious surfaces, and heat vulnerability can help us see where trees can be the most beneficial.

Tree canopy along Alhambra Wash is mostly average.

Impervious surfaces are most concentrated in South San Gabriel, El Monte, and Montebello, with more opportunities for water infiltration to the north and south. The heat vulnerability index mimics this pattern with the most vulnerable areas near the center of the tributary.

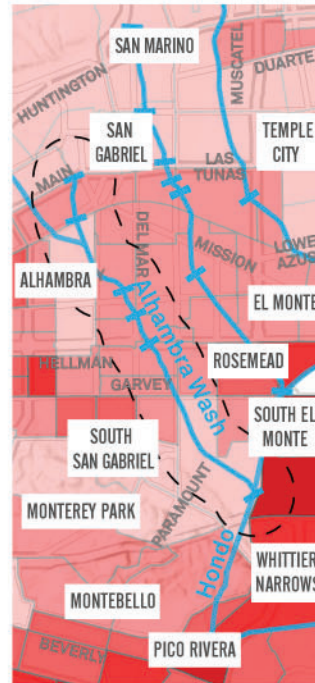
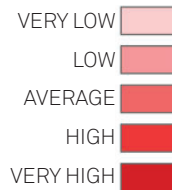
### PERCENT IMPERVIOUS SURFACES

Impervious surfaces are areas of the land hardened by such structures as houses, patios, driveways, and transportation infrastructure. An increase in impervious surfaces can alter the hydrology within a watershed with significant impact on water quality and aquatic and riparian habitat (CHAT).



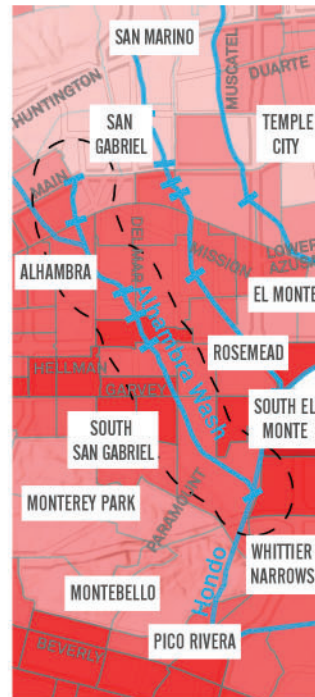
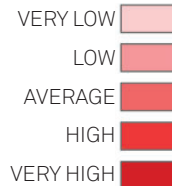
### PERCENT WITHOUT TREE CANOPY

Developed by the California Healthy Place Index, this indicator measures the percentage of land without tree canopy.

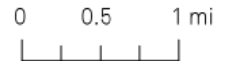


### HEAT VULNERABILITY

The California Heat Assessment Tool (CHAT) was developed by Four Twenty Seven, Inc. in partnership with Argos Analytics, Habitat Seven, and the Public Health Institute. This layer represents the vulnerability of communities to heat-related health impacts.



The environment story for Alhambra Wash shows high heat vulnerability across the community, particularly at the southern end where there is less tree canopy.

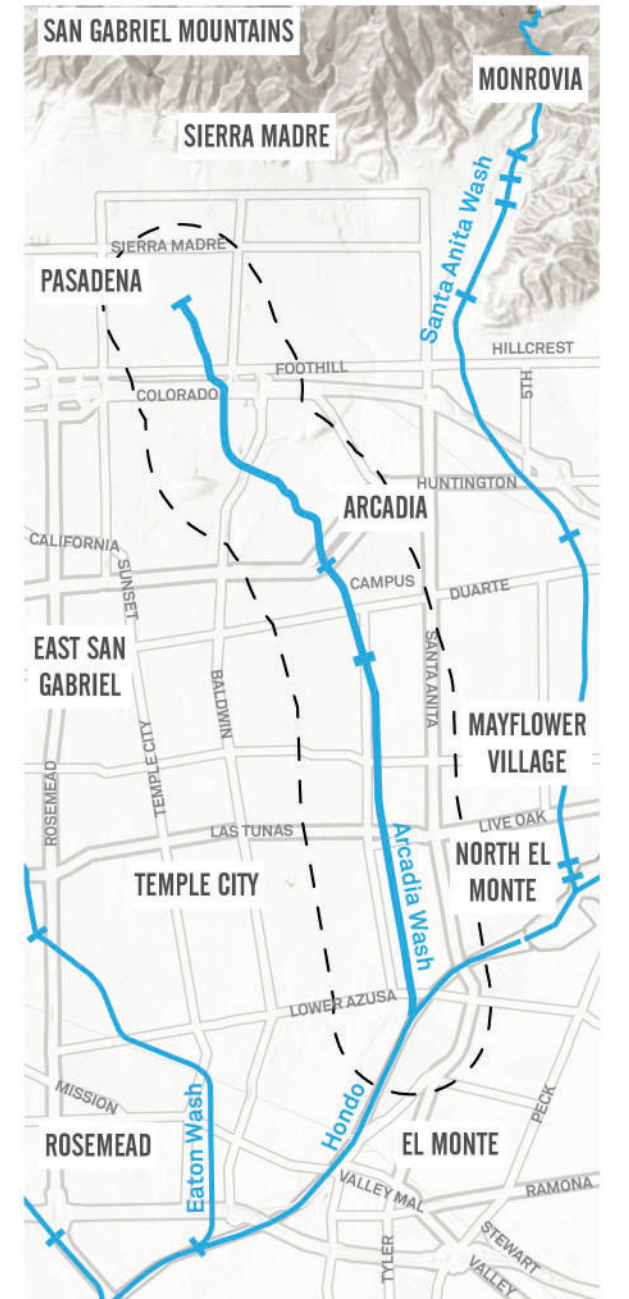


# TRIBUTARY NARRATIVE

## ARCADIA WASH

### OVERVIEW

- Arcadia Wash is approximately 5 miles in length and passes through many communities in the San Gabriel Valley including Pasadena, Arcadia, and North El Monte.
- Arcadia Wash weaves through a mostly residential area with a few larger destinations in the vicinity such as the Santa Anita Racetrack, the County Arboretum, and the Santa Anita Golf Course.
- Several schools are in the adjacent area including Longley Way Elementary, Holly Avenue Elementary, and Cleminson Elementary.
- Residents in the area generally have access to a vehicle, with low access to public transit.
- Arcadia Wash is adjacent to a large Asian population as well as Hispanic populations toward the south of the tributary.
- Income levels in the area vary, with higher average incomes in the communities along the northern section of the wash.
- There are on-street routes planned in the area but no previously planned projects along the Wash itself.
- Arcadia Wash presents physical and legal opportunities for greenway development, however, a large section of Arcadia Wash is underground north of Huntington Blvd.
- Environmentally, Arcadia Wash is in average need of tree canopy and permeable surfaces. Some larger areas of impervious surfaces near the center of the tributary.



TRIBUTARY SEGMENTS



0 0.5 1 mi

# CIRCULATION STORY

## ARCADIA WASH

Knowing existing circulation can inform where we prioritize connections, partnerships, and modality.

### VEHICLE/TRANSIT ACCESS

Most communities in the Arcadia Wash area have “average” access to vehicles, aside from a concentration of no vehicle access in the south near Rosemead. Additionally, the entire area lacks access to high quality transit.

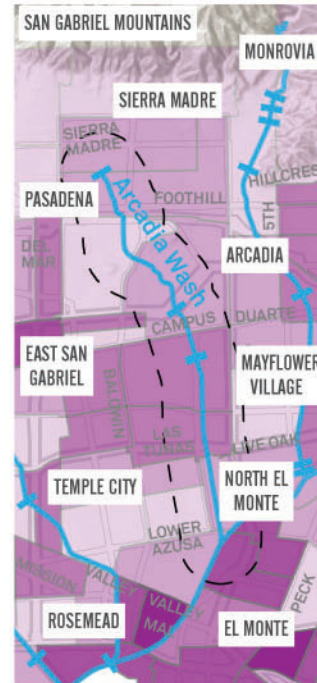
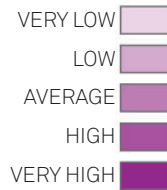
### ACTIVITY GENERATORS

The area around Arcadia Wash is mainly residential, with few commercial, retail, and industrial centers. There are several schools concentrated mainly, south of Huntington Drive.

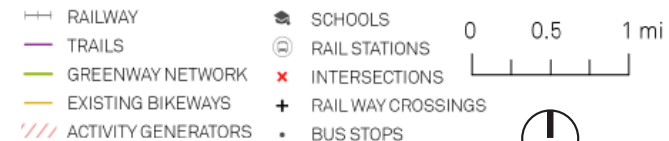
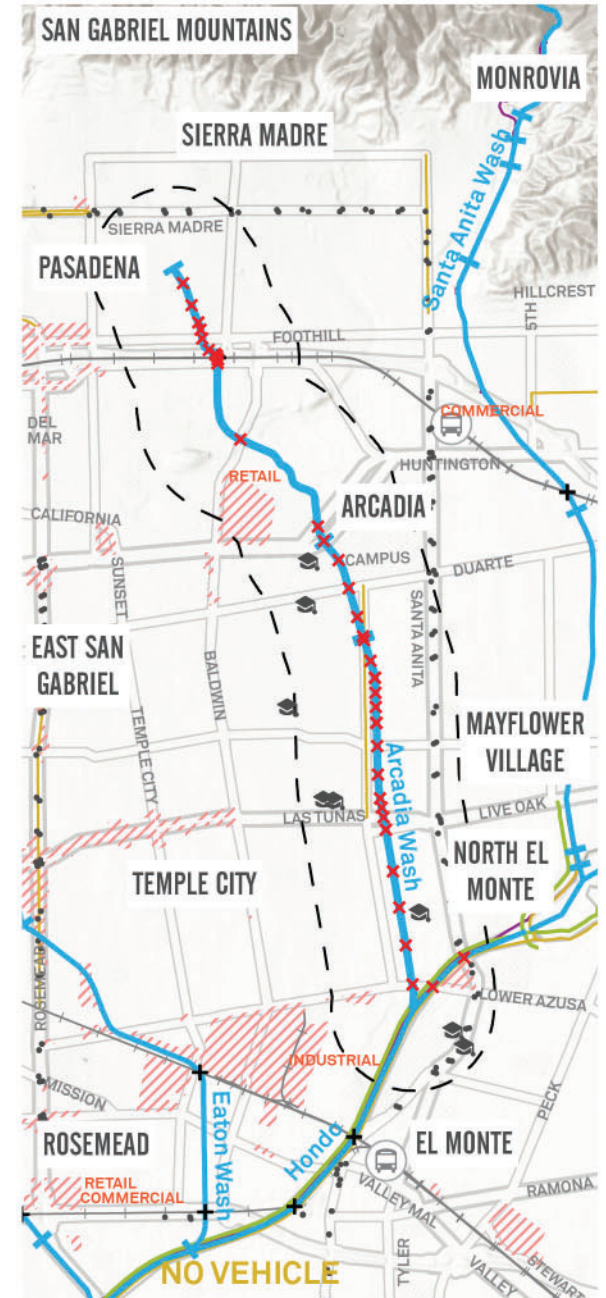
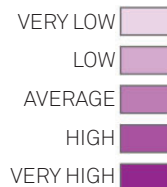
### EXISTING BIKEWAYS

Few existing bikeways are in the area, aside from the Rio Hondo bike path.

**NO VEHICLE ACCESS**  
American Community Survey provides information about vehicles available to each household to develop transportation plans and services, understand how people are traveling in the course of a normal day, evaluate pollution, and access to transportation in case of emergencies.



**NO TRANSIT ACCESS**  
From the California Healthy Places Index, this indicator measures the percentage of people living close to convenient, reliable transit, as defined by a half-mile or ten-minute walk, that arrives every fifteen minutes or less during peak commute times.



# EQUITY STORY

## ARCADIA WASH

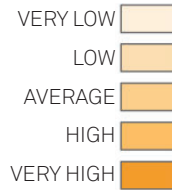
Unfair burden of air, water, and soil pollution can inform the value of nature-based solutions in our design concepts. While socioeconomic factors (e.g., poverty levels, linguistic isolation) will help inform programming.

### OVERVIEW

Socioeconomic and sensitivity factors in the area rank average. Environmental burden in the area is also average. The area most environmentally burdened is in Arcadia. Like much of the San Gabriel Valley, residents of this area are affected by asthma and pockets of linguistic isolation.

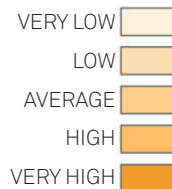
### SENSITIVITY AND SOCIOECONOMIC FACTORS

CalEnviroScreen rates each census tract's sensitivity to environmental pollution from Very Low to Very High based on socioeconomic and health factors.

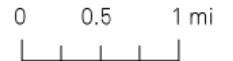


### ENVIRONMENTAL BURDEN

According to CalEnviroScreen, exposure to different types of pollution (e.g., air quality, lead risk, diesel, pesticides) is very high south of the Arcadia Wash.



The equity story for Arcadia Wash is characterized by high rates of asthma throughout the area and high levels of housing burden and linguistic isolation to the south.



# COMMUNITY STORY

## ARCADIA WASH

### PART 1 - GATHERING SPACES

Understanding existing community gathering spaces can inform how our project could add to open space access in the area by revealing where to route trails and optimize connectivity.

#### GATHERING SPACES

As a mostly residential area, there are few activity generators along Arcadia Wash in terms of commercial, retail, or industrial corridors. Major activity centers include the adjacent schools, the Los Angeles County Arboretum and Botanic Garden, and the Santa Anita Golf Course.

#### PARK NEED

Park need is average throughout the tributary area, aside from a concentration of high need in the southern area near North El Monte and Rosemead.

#### LOCATIONS OF ACTIVITY

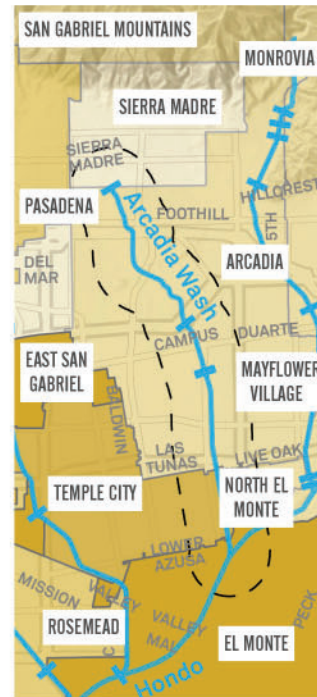
Retail, office, and industrial land uses are highlighted in gold as potential activity drivers.



RETAIL / OFFICE / INDUSTRIAL

#### PARK NEED

The Los Angeles County Department of Parks & Recreation (DPR) Park Needs Assessment documented existing facilities, park pressure, park condition, and walkability.



VERY LOW  
LOW  
AVERAGE  
HIGH  
VERY HIGH



The community story for Arcadia Wash is characterized by high to very high park need south of Las Tunas Drive.





# COMMUNITY STORY

## ARCADIA WASH

### PART 2 - DEMOGRAPHICS

Understanding key demographic factors can inform the style and programming of the area.

#### INCOME

Median incomes in this area are average to high, with some northern areas in the top 10% bracket for the County.

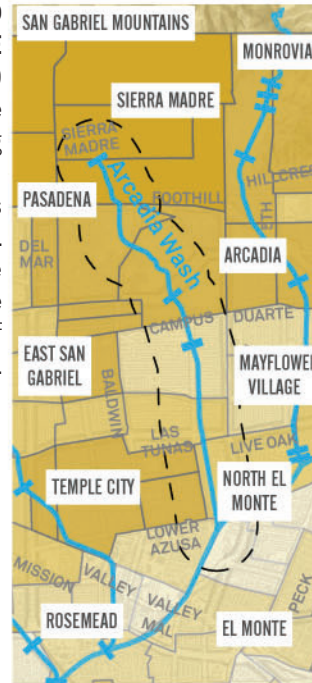
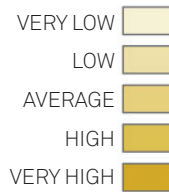
#### POPULATION

Demographics in the area are diverse, with a large Asian population throughout the area, concentrating in the lower portion of the Wash.

#### MEDIAN HOUSEHOLD INCOME

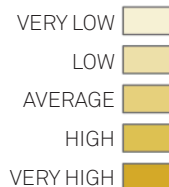
According to the 2010 census, the majority of the community within walking distance of Arcadia Wash is at or above the County's average household income.

Communities with the lowest household income are in the southern end of the tributary.

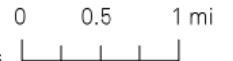


#### ASIAN POPULATION

According to the 2010 census, the southern end of Arcadia Wash is in the top quartile for Asian populations in LA County.



The demographic story for Arcadia Wash is characterized by a strong Asian community, with lower incomes in the south.





# SYNERGY STORY

## ARCADIA WASH

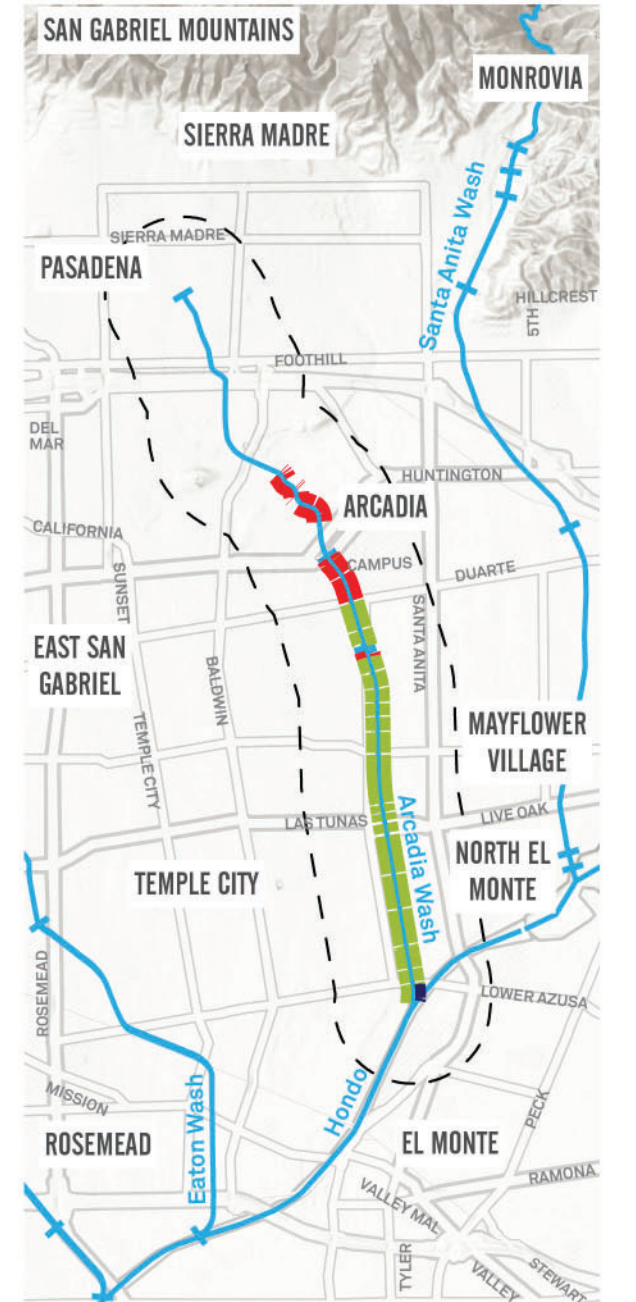
### PART 2 - LEGAL COMPLEXITY

*Understanding the legal constraints along each wash can help identify issues that should be accounted for in design.*

#### ARCADIA WASH LEGAL COMPLEXITY

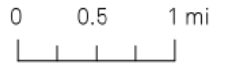
Arcadia Wash is completely within the Los Angeles County Flood Control District jurisdiction, operating through various Fee and Easement agreements. Some of these Easement agreements only allow for flood control operation and would need to be modified for a greenway to be opened.

A permit from the Army Corps of Engineers may be needed for any work that impacts flood control.



#### OWNERSHIP AGREEMENT

- EASEMENT
- FEE
- OTHER



# SYNERGY STORY

## ARCADIA WASH

### PART 3 - PHYSICAL COMPLEXITY

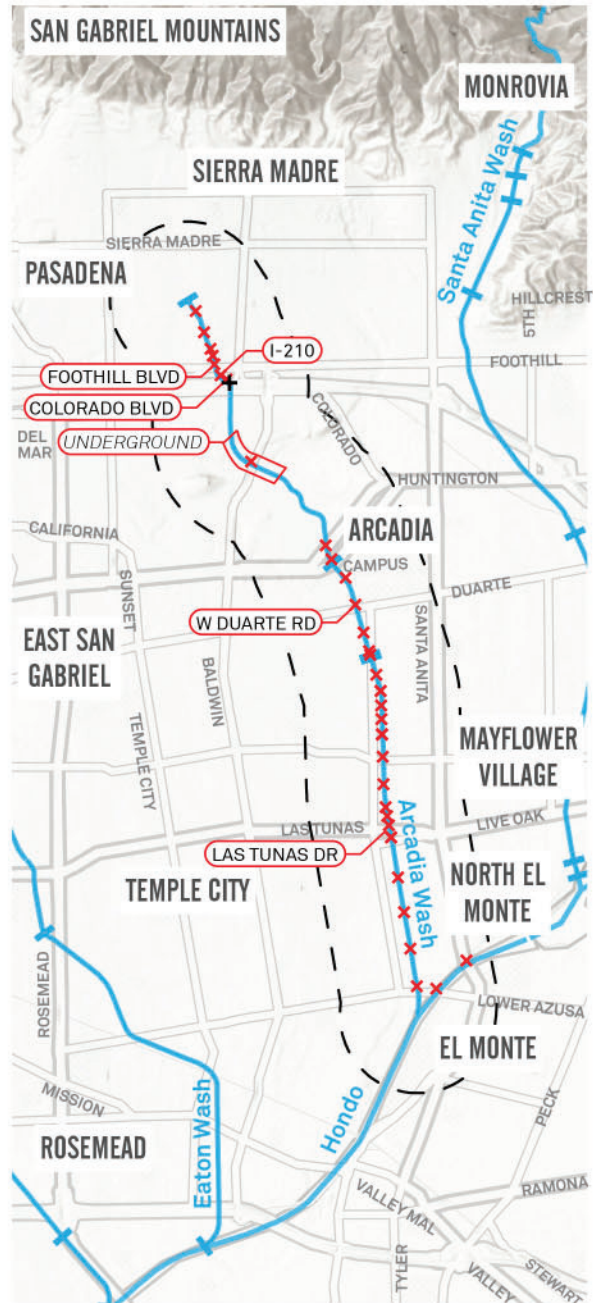
Understanding the physical constraints along each wash can help identify issues that should be accounted for in design.

#### ARCADIA WASH PHYSICAL COMPLEXITY

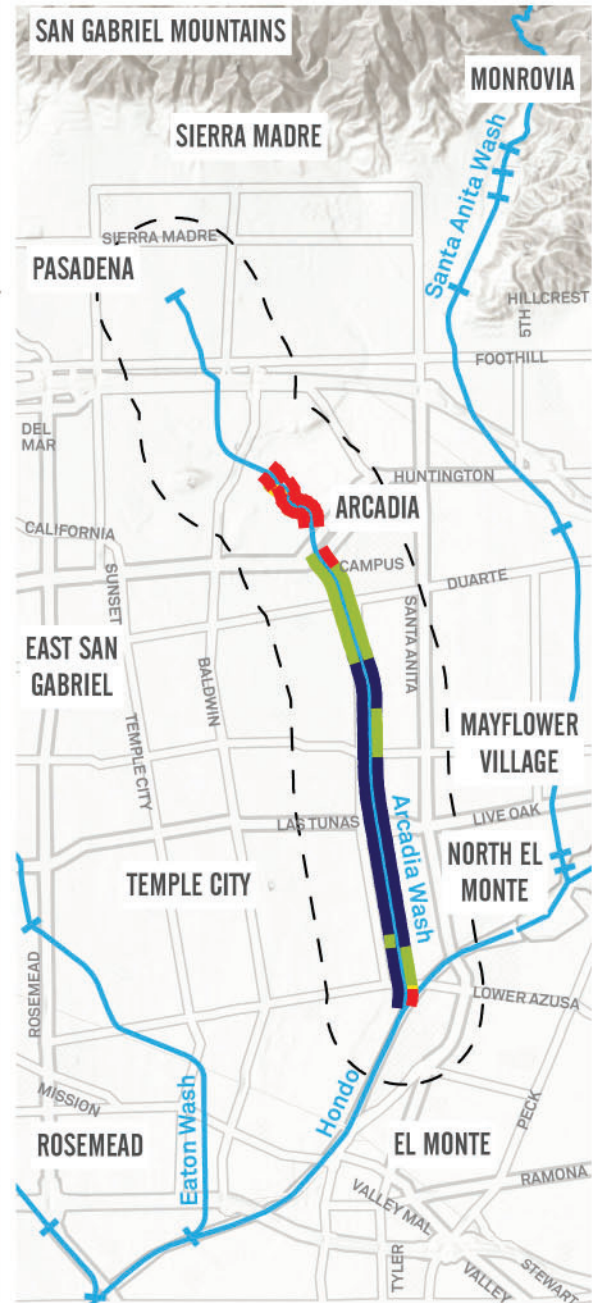
Arcadia Wash presents great physical opportunities for a greenway with most of the right-of-way adjacent to the channel being greater than 13 feet. It should be noted that north of Huntington Blvd, the tributary is mostly underground and covered by the Santa Anita Racetrack.

*Potentially challenging crossings along Arcadia Wash may include:*

- Between Foothill Blvd/I-210 Freeway/Colorado Blvd: the Wash passes underground through these significant crossings.
- The Wash also undergrounds through the Los Angeles County Arboretum and Botanic Garden and Santa Anita Park (Racetrack).
- West Duarte Rd: a 5-lane arterial.
- Las Tunas Dr: a 5-lane arterial.



**INTERSECTIONS & CROSSINGS**  
 x STREET INTERSECTIONS  
 + RAILROAD CROSSINGS



**ROW WIDTH**  
 < 8 FT  
 8-13 FT  
 13-26 FT  
 > 26 FT

0 0.5 1 mi

# ENVIRONMENT STORY

## ARCADIA WASH

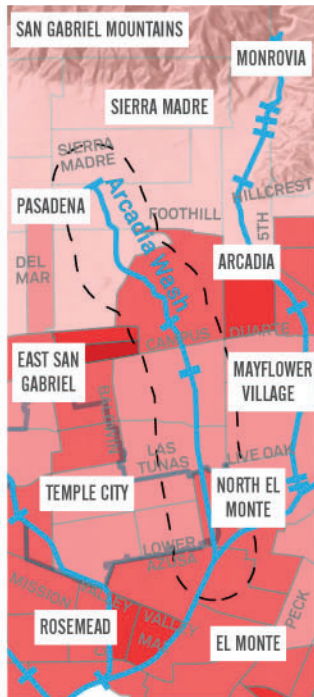
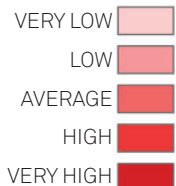
Shade study, impervious surfaces, and heat vulnerability will help us determine where trees can be the most beneficial.

Arcadia Wash has a healthy tree canopy throughout much of the adjacent area, with only a few small areas to the south lacking tree canopy. Also, this area has an average heat vulnerability index, with high heat vulnerability near El Monte.

This area has average permeability. There is a concentration of impervious surfaces in the center of the tributary, likely due to the racetrack and its adjacent parking lots which affect water quality.

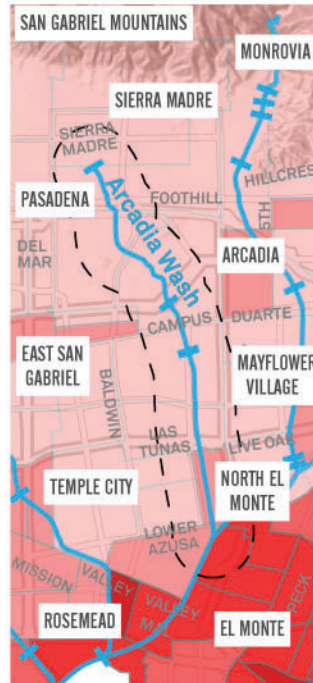
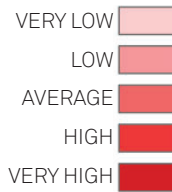
### PERCENT IMPERVIOUS SURFACES

Impervious surfaces are areas of land hardened by such structures as houses, patios, driveways, and transportation infrastructure. An increase in impervious surfaces can alter the hydrology within a watershed with significant impact on water quality and aquatic and riparian habitat. (CHAT)



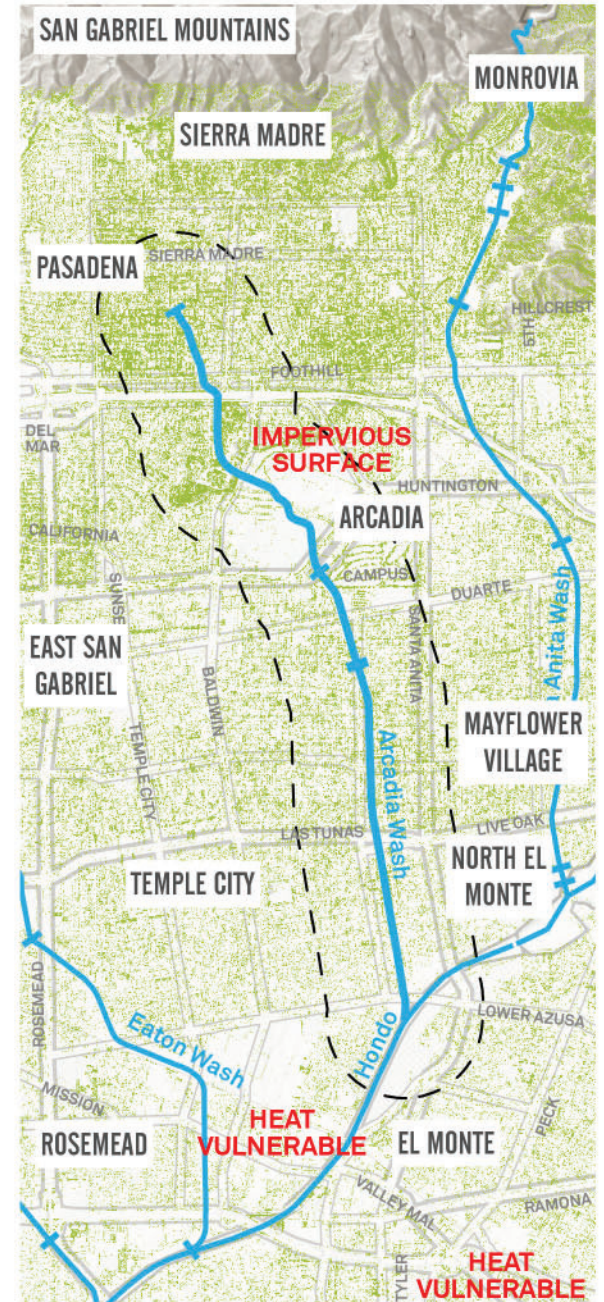
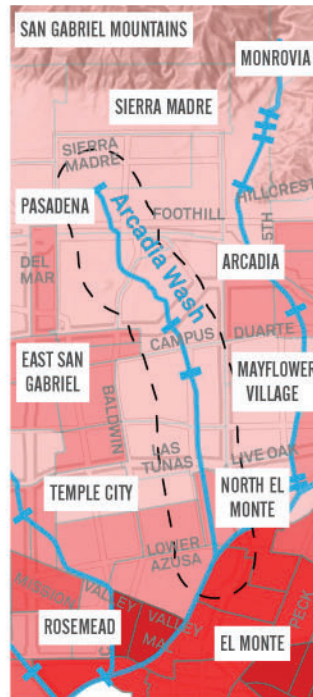
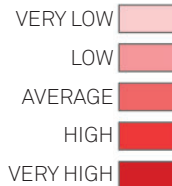
### PERCENT WITHOUT TREE CANOPY

Developed by the California Healthy Place Index, this indicator measures the percentage of land without tree canopy.

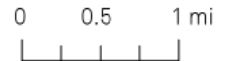


### HEAT VULNERABILITY

The California Heat Assessment Tool (CHAT) was developed by Four Twenty Seven, Inc. in partnership with Argos Analytics, Habitat Seven, and the Public Health Institute. This layer represents the vulnerability of communities to heat-related health impacts.



The environment story for Arcadia Wash shows high heat vulnerability at the southern end of the tributary where there is less tree canopy.



# TRIBUTARY NARRATIVE

## BIG DALTON WASH

### OVERVIEW

- At 16.6 miles, Big Dalton Wash is one of the longest tributaries in the study area, stretching from the San Gabriel River to the Angeles National Forest.
- There are approximately 26 schools within 1/2 mile of Big Dalton Wash.
- Households surrounding Big Dalton Wash generally have good access to a vehicle and lack access to high quality transit.
- Income levels in the area vary; average household income to the east near Glendora is in the top 10% for LA County. Areas in the west near Baldwin Park and El Monte is in the lowest 10%.
- Limited portions of Big Dalton Wash have been proposed for greenways in other studies.
- The available right-of-way along Big Dalton Wash is promising, with most areas having over 13 feet of available width.
- Environmentally, the area has limited tree canopy and is vulnerable to heat island effects.



TRIBUTARY SEGMENTS



0 0.5 1 mi

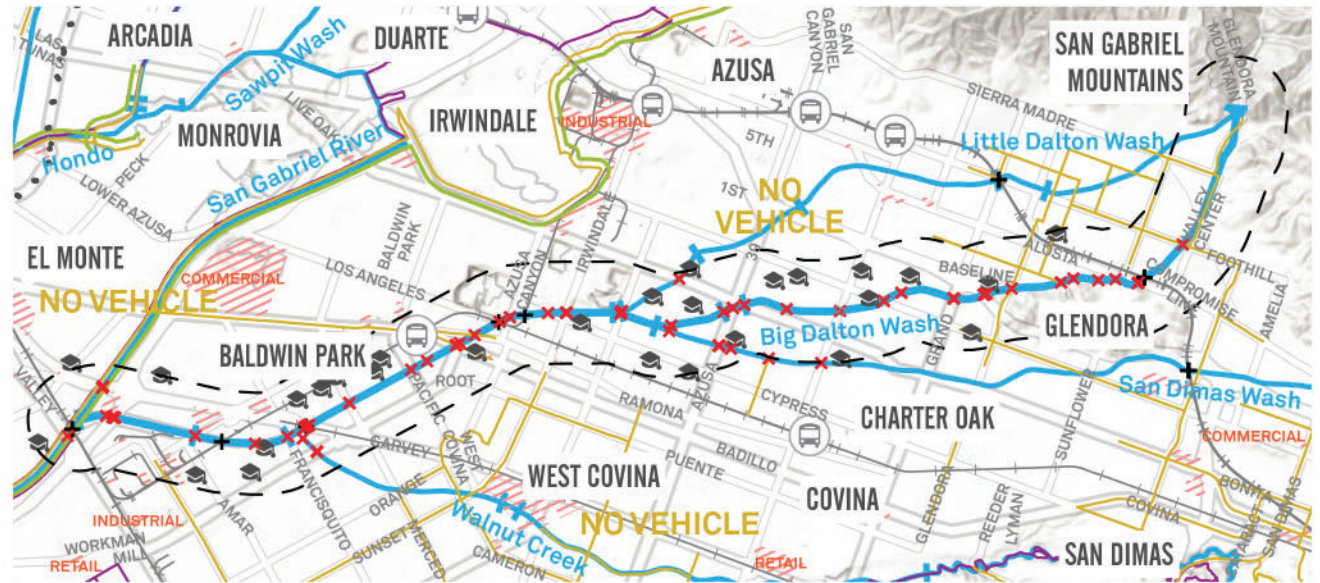
# CIRCULATION STORY

## BIG DALTON WASH

Knowing existing circulation can inform where we prioritize connections, partnerships, and modality.

### VEHICLE/TRANSIT ACCESS

Aside from a small area near the center of the wash near Covina and Azusa, the households surrounding Big Dalton Wash generally have access to a vehicle. Similarly, most of the surrounding area is without access to high quality transit.



### ACTIVITY GENERATORS

The area is mostly residential with few commercial/retail/industrial areas. However, there are approximately 26 schools near Big Dalton Wash. The area is also served by a number of rail stations.

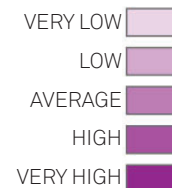
### EXISTING BIKEWAYS

The tributary is in the vicinity of many existing on-street bike routes in Glendora, as well as parts of Covina, and down to the San Gabriel River. The City of Baldwin Park is currently designing a 2.8-mile passive recreational greenway from Walnut Creek at Baldwin Park Blvd to Big Dalton Wash at Central Avenue.



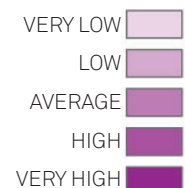
#### NO TRANSIT ACCESS

From the California Healthy Places Index, this indicator measures the percentage of people living close to convenient, reliable transit, as defined by a half-mile or ten-minute walk, that comes every fifteen minutes or less during peak commute times.



#### NO VEHICLE ACCESS

American Community Survey asks about vehicles available to each household to develop transportation plans and services, understand how people are traveling in the course of a normal day, and evaluate pollution and access to transportation in emergencies.



# EQUITY STORY

## BIG DALTON WASH

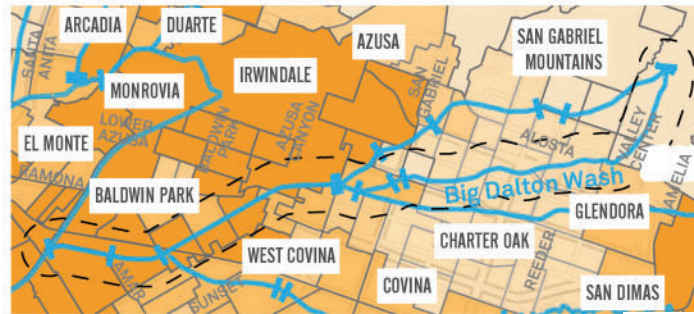
Unfair burden of air, water, and soil pollution will inform the value of nature-based solutions in our design concepts. While socioeconomic factors (e.g., poverty levels, linguistic isolation, etc) can help inform programming.

### OVERVIEW

Socioeconomic factors and environmental burden are concentrated in the western half of Big Dalton Wash. Certain areas in Baldwin Park towards the San Gabriel River are in the 98th percentile for environmental burden.

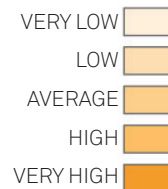


According to CalEnviroScreen, the equity story for Big Dalton Wash is characterized by high rates of asthma throughout the area and heavy levels of housing burden and linguistic isolation to the west. Areas affected by additional sensitivity factors determined by the California Heat Assessment Tool (CHAT) are labeled here as well.



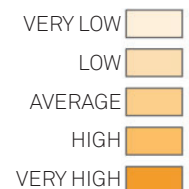
### ENVIRONMENTAL BURDEN

According to CalEnviroScreen, exposure to different types of pollution (e.g., air quality, lead risk, diesel, pesticides, etc) is very high on the western side of the tributary.



### SENSITIVITY AND SOCIOECONOMIC FACTORS

CalEnviroScreen rates each census tract's sensitivity to environmental pollution from Very Low to Very High based on socioeconomic and health factors.





# COMMUNITY STORY

## BIG DALTON WASH

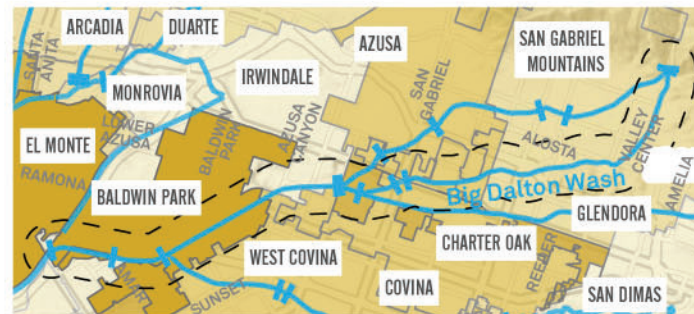
### PART 1 - GATHERING SPACES

Understanding existing community gathering spaces can inform how our project could add to open space access in the area by revealing where to route trails and optimize connectivity.

Major gathering and recreation spaces along Big Dalton Wash include the South Hills Wilderness Area as well as the Glenoaks Golf Course and Park. Big Dalton Wash stretches all the way from the San Gabriel River and the Duck Farm property to the Big Dalton Wilderness Park in the Angeles National Forest and could serve as a connection between the two.

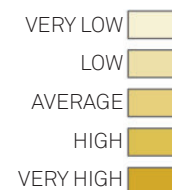


The community story for Big Dalton is characterized High to Very High park need, especially to the west.



#### PARK NEED

LA County's Parks and Recreation Needs Assessment documented existing facilities, park pressure, park condition, and walkability.



#### LOCATIONS OF ACTIVITY

Retail, office, and industrial land uses are highlighted in gold as potential activity drivers.



# COMMUNITY STORY

## BIG DALTON WASH

### PART 2 - DEMOGRAPHICS

Understanding key demographic factors can inform the style and programming of the area.

#### INCOME

Median Household income in this area is average to high, aside from some areas to the west near the San Gabriel River. Big Dalton Wash serves as a connection between those earning the lowest 20% of median household income in the County, and the highest 10%.

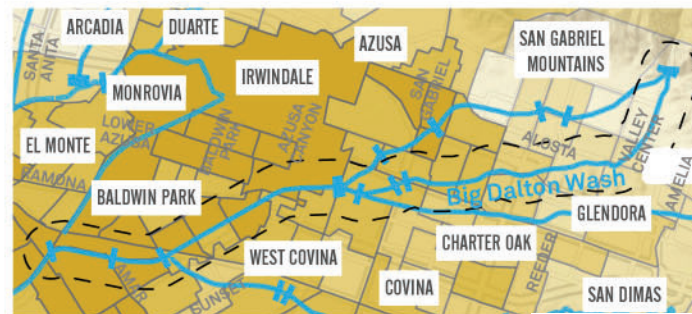


The demographic story for Big Dalton is characterized by a strong Hispanic community and lower incomes to the west.



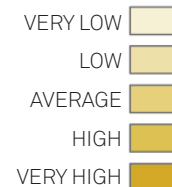
#### POPULATION

There is a large Hispanic population in the area, concentrated mostly toward the west at the confluence of the San Gabriel.



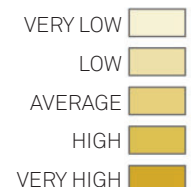
#### HISPANIC POPULATION

According to the 2010 census, the majority of the community in the west areas of Big Dalton are Hispanic.



#### MEDIAN HOUSEHOLD INCOME

According to the 2010 census, the income levels along Big Dalton Wash are greatly varied.



# SYNERGY STORY

## BIG DALTON WASH

### PART 1 - OPPORTUNITIES

*Synergy story – early implementation projects, non-greenway projects, vacant parcels, and public land will help us understand where there are potential opportunities to build on the greenway.*

#### BIG DALTON SYNERGY OPPORTUNITIES:

- There are many proposed on-street facilities in this area that could make potential connections to the greenway.
- A greenway has been proposed previously along the western portion of Big Dalton Wash between the San Gabriel River and Ramona Ave. This segment was in the Metro Active Transportation Strategic Plan as well as the LA County Bicycle Master Plan.
- A 2.8 mile passive recreational greenway is currently being designed from Walnut Creek at Baldwin Park Blvd to Big Dalton Wash at Central Avenue.
- A 3.14 mile bikeway and greenway is currently being designed between Irwindale Ave and Lark Ellen Ave and between Arrow Hwy and Citrus Ave.



- EMERALD NECKLACE 2017
- PARK NEEDS 2016
- SGR MASTERPLAN 2006
- SGR WATERSHED MGMT PLN
- LA CITY BIKE MASTERPLAN 2012
- GREENWAY NETWORK
- REGIONAL TRANSIT 2012
- METRO ACTIVE PLN 2016
- - - LA CITY PROPOSED BIKeways
- - - EARLY IMPLEMENTATION
- VACANT GOV PARCELS



0 0.5 1 mi

# SYNERGY STORY

## BIG DALTON WASH

### PART 2 - LEGAL COMPLEXITY

Understanding the legal constraints along each wash can help identify issues that should be accounted for in design.

#### BIG DALTON LEGAL COMPLEXITY

The underlying parcels of Big Dalton Wash are mostly owned by the County Flood Control District, enabling potential greenway implementation. Some easement agreements may need to be updated to allow for uses other than flood control. Additionally, Big Dalton Wash is operated and maintained entirely by the County Flood Control District.

A permit from the Army Corps of Engineers may be needed for any work that impacts flood control.



# SYNERGY STORY

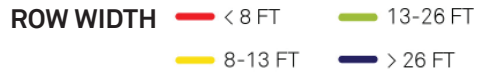
## BIG DALTON WASH

### PART 3 - PHYSICAL COMPLEXITY - ROW

*Understanding the physical constraints along each wash can help identify issues that should be accounted for in design.*

#### BIG DALTON PHYSICAL COMPLEXITY

The adjacent right-of-way along Big Dalton Wash is generally available and wide enough for a greenway. Certain sections of the tributary, such as near Azusa Avenue and Alostia Avenue, are underground. There are also major crossings of freeways and major arterials that could present challenges along this long corridor.



# SYNERGY STORY

## BIG DALTON WASH

### PART 3.1 - PHYSICAL COMPLEXITY - INTERSECTIONS

Potentially challenging crossings along Big Dalton Wash may include:

- Area between E Walnut Ave and Route 66: Wash is underground.
- S Glendora Ave: 5-lane arterial road.
- I-210: Under-crossing may be possible.
- S Grand Ave: 5-lane arterial with planted median.
- N Barranca Ave: 5-lane arterial with painted median.
- W Arrow Highway/N Azusa Ave: 2 major arterial crossings and Wash underground through shopping center.
- N Lark Ellen Ave: 5-lane arterial road.
- N Irwindale Ave: 5-lane arterial road.
- E Cypress St: 5-lane arterial road.
- Azusa Canyon Rd/Los Angeles St/Freight Rail Crossing: Wash crosses two major roads and railroad tracks at an angle.
- Garvey Ave/I-10 Freeway/Dalewood St: Freeway with frontage roads on either side.



INTERSECTIONS X STREET INTERSECTIONS



# ENVIRONMENT STORY

## BIG DALTON WASH

Shade study, impervious surfaces, and heat vulnerability will help us see where trees can be the most beneficial.

The area surrounding Big Dalton Wash has limited tree canopy. This is contributing to heat vulnerability in the area, which is highest in the western portion of the wash. Fortunately, the amount of impervious surfaces in the area appears to be average to low, contributing to less water runoff pollution issues than we have seen in other areas.

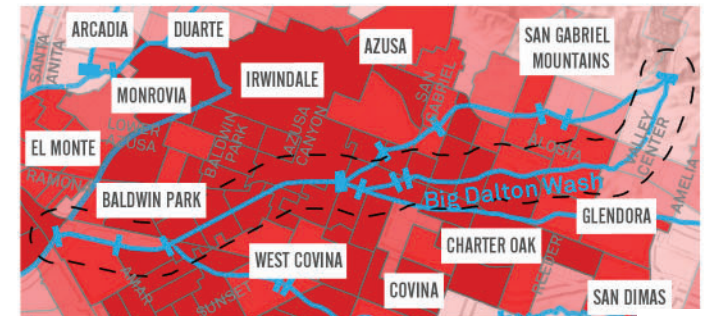
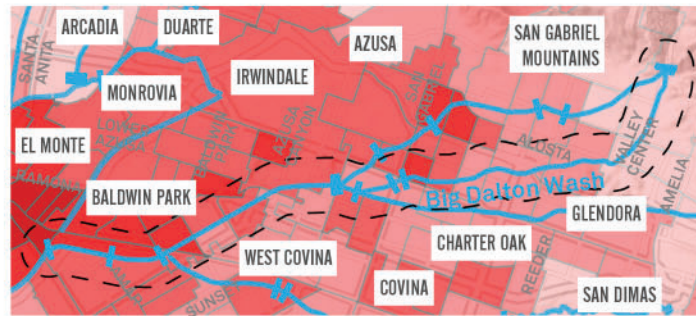


The environment story for Big Dalton shows high heat vulnerability across the community, particularly near the tributary itself where there is less tree canopy.



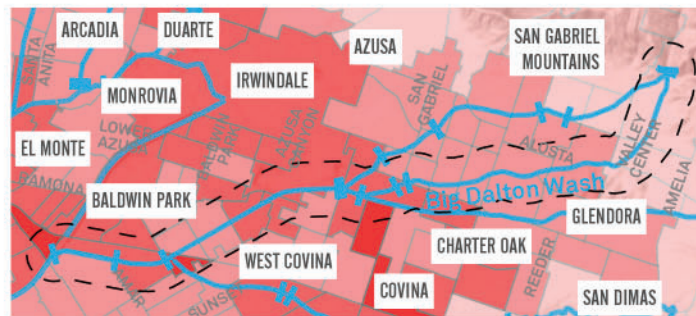
### HEAT VULNERABILITY

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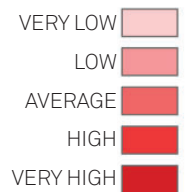
### PERCENT IMPERVIOUS SURFACES

Impervious surfaces are areas of the land hardened by such structures as houses, patios, driveways, and transportation infrastructure. An increase in impervious surfaces can alter the hydrology within a watershed with significant impact on water quality and aquatic and riparian habitat (CHAT).



### PERCENT WITHOUT TREE CANOPY

Developed by the California Healthy Place Index, this indicator measures the percentage of land without tree canopy.



# TRIBUTARY NARRATIVE

## EATON WASH

### OVERVIEW

- Eaton Wash is an 8.1 mile tributary flowing from Pasadena to the Rio Hondo.
- Schools in the area include Chaim Weizmann Jewish School, Living Way Christian Academy, Hale School, Pasadena Continuation High, Jefferson Middle, Savannah Elementary, and Cortada Elementary.
- Retail, office and industrial spaces along Colorado, Huntington, Valley Blvd and Las Tunas may drive activity along the tributary.
- The area has low access to transit.
- Average household income is generally average to high throughout the corridor.
- Portions of greenway along Eaton Wash are currently in an implementation phase: A 0.4 mile bicycle path between Longden Ave and Rosemead Blvd, as well as a 1 mile bikeway and greenway between Huntington Dr and Longden Ave.
- Eaton Wash was identified as a top project in the 2018 San Gabriel Valley Council of Governments' (SGVCOG) Greenway Study, as well as in the 2012 LA County Bicycle Plan
- Eaton Wash has a promising amount of right-of-way available along it's banks with most areas meeting the minimum requirement for a greenway. Underground segments and intersections may present challenges to alignment.
- There is a lack of tree canopy in the area south of Las Tunas.





# CIRCULATION STORY

## EATON WASH

Knowing existing circulation can inform where we prioritize connections, partnerships, and modality.

### VEHICLE/TRANSIT ACCESS

North of Sierra Madre and south of Las Tunas, there is a lack of access to reliable transit. Most of the Eaton Wash community has access to a vehicle.

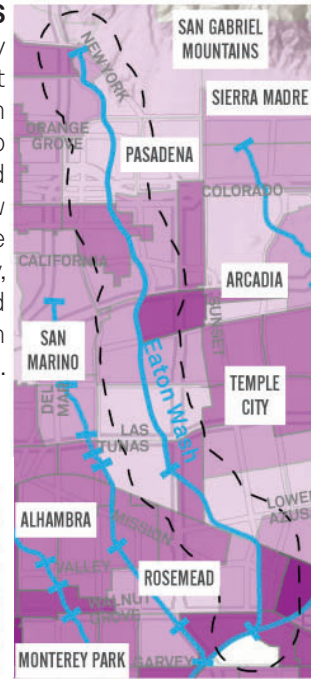
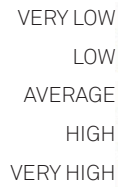
### ACTIVITY GENERATORS

Retail, office and industrial spaces along Colorado, Huntington, Valley and Las Tunas may drive activity along the corridor.

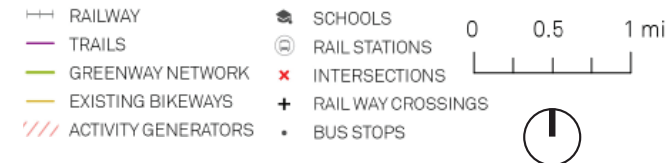
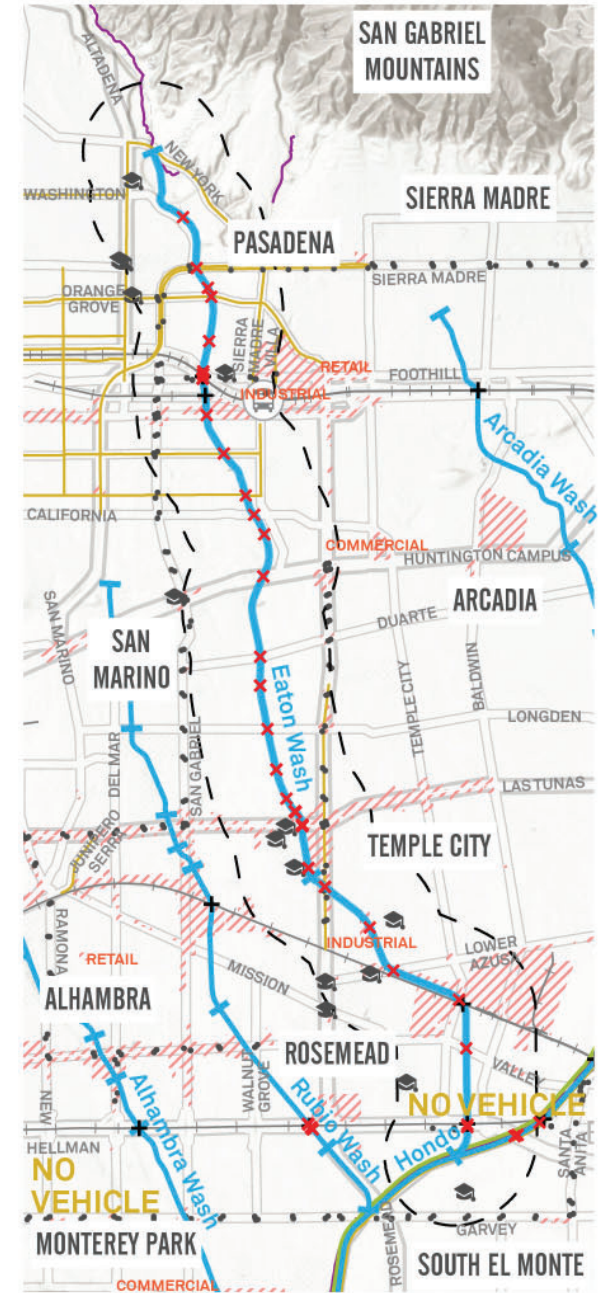
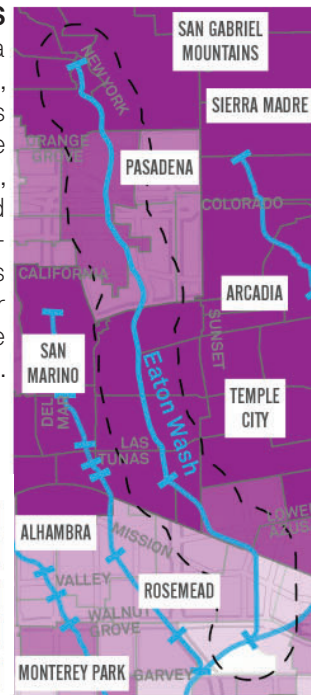
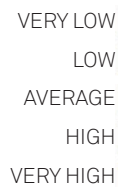
### EXISTING BIKEWAYS

Existing bikeways are concentrated to the north in Pasadena. There is also an existing Class IV bikeway along Rosemead Blvd that would provide an additional connection to the greenway.

**NO VEHICLE ACCESS**  
American Community Survey asks about vehicles available to each household to develop transportation plans and services, understand how people are traveling in the course of a normal day, and evaluate pollution and access to transportation in emergencies.



**NO TRANSIT ACCESS**  
From the California Healthy Places Index, this indicator measures the percentage of people living close to convenient, reliable transit, as defined by a half-mile or ten-minute walk, that comes every fifteen minutes or less during peak commute times.



# EQUITY STORY

## EATON WASH

Unfair burden of air, water, and soil pollution can inform the value of nature-based solutions in our design concepts. While socioeconomic factors (e.g., poverty levels, linguistic isolation, etc) can help inform programming.

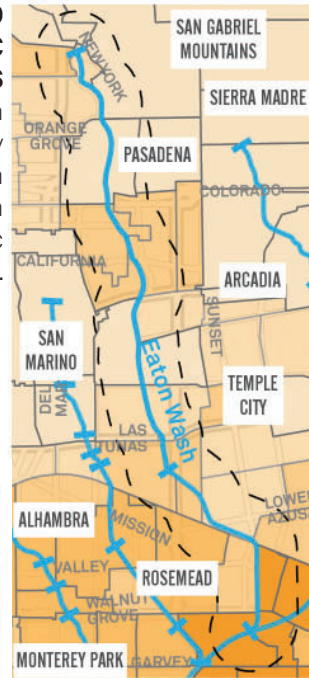
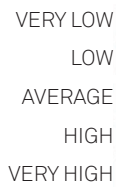
### OVERVIEW

North of Longden Ave, sensitivity and socioeconomic factors range from low to very low. Pollution exposure is high to very high, particularly in the Pasadena and East Pasadena area.

South of Longden Ave, the community generally suffers from very high environmental burden. There is also an over-representation of sensitive populations (e.g. asthma, housing burden, linguistic isolation) south of Valley Blvd.

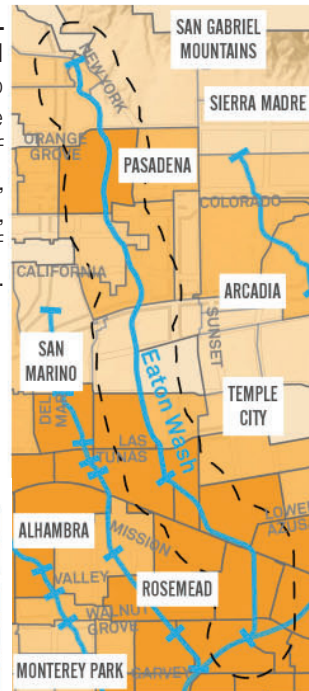
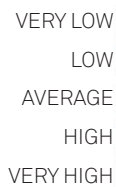
### SENSITIVITY AND SOCIOECONOMIC FACTORS

CalEnviroScreen rates each census tract's sensitivity to environmental pollution from Very Low to Very High based on socioeconomic and health factors.

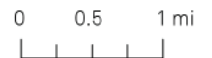


### ENVIRONMENTAL BURDEN

According to CalEnviroScreen, exposure to different types of pollution (e.g., air quality, lead risk, diesel, pesticides, etc) is very high south of Las Tunas Drive.



The equity story for Eaton Wash is characterized by high rates of asthma throughout the area and heavy levels of housing burden and linguistic isolation to the south.



# COMMUNITY STORY

## EATON WASH

### PART 1 - GATHERING SPACES

Understanding existing community gathering spaces can inform how our project could add to open space access in the area by revealing where to route trails and optimize connectivity.

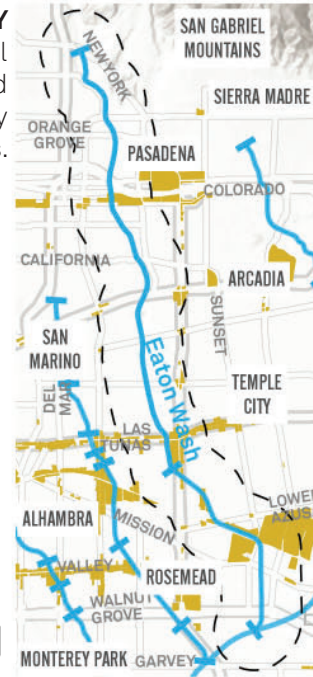
#### GATHERING SPACES

There are retail, office and industrial spaces along Colorado, Huntington and Las Tunas that may generate activity along a future greenway.

#### PARK NEED

The Department of Parks and Recreation Park Needs Assessment shows High to Very High park need south of Huntington Drive.

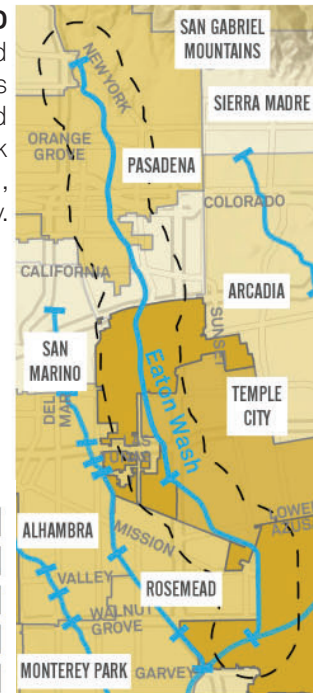
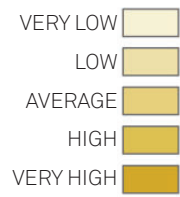
**LOCATIONS OF ACTIVITY**  
Retail, office, and industrial land uses are highlighted in gold as potential activity drivers.



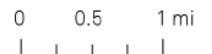
RETAIL / OFFICE / INDUSTRIAL

#### PARK NEED

LA County's Parks and Recreation Needs Assessment documented existing facilities, park pressure, park condition, and walkability.



The community story for Eaton Wash is characterized High to Very High park need south of Huntington Drive.



# COMMUNITY STORY

## EATON WASH

### PART 2 - DEMOGRAPHICS

Understanding key demographic factors can help prioritize projects and inform the style and programming of park projects in the area.

#### INCOME

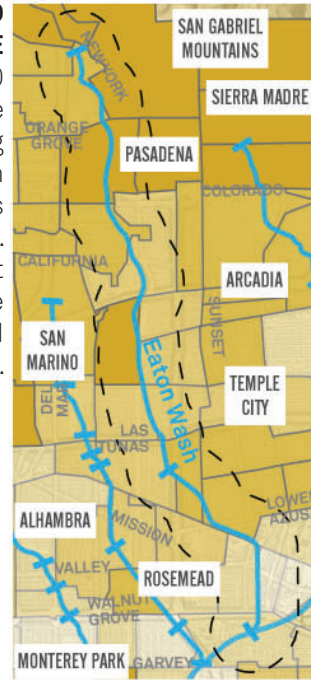
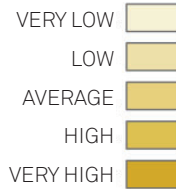
The Eaton Wash community has income that is higher than the County's average, especially to the north.

#### POPULATION

South of Huntington Drive, there is a strong Asian community.

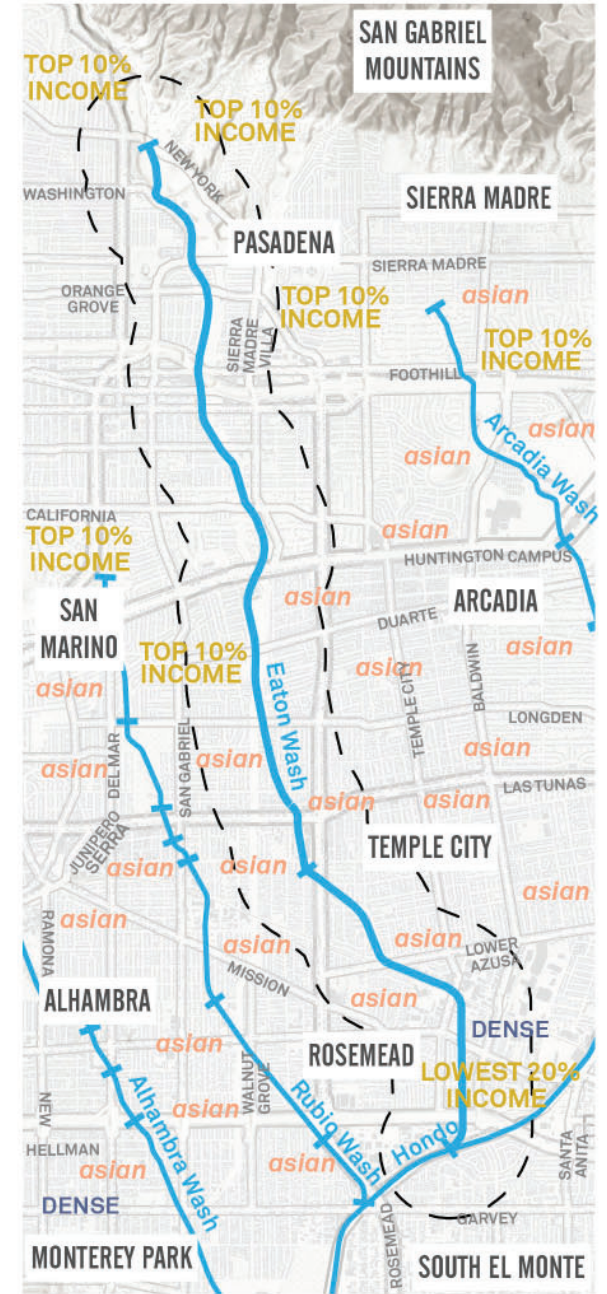
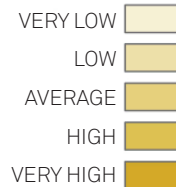
#### MEDIAN HOUSEHOLD INCOME

According to the 2010 census, the majority of the community within walking distance of Eaton Canyon is at or above the County's average Household Income. Communities with lowest household income are grouped in the southern end of Eaton Canyon.

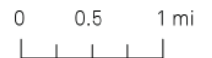


#### ASIAN POPULATION

According to the 2010 census, the majority of the community within walking distance of Eaton Canyon is in the highest quantile in terms of Asian Population for LA County.



The demographic story for Eaton Wash is characterized by a strong Asian community and lower incomes in the south.



# SYNERGY STORY

## EATON WASH

### PART 1 - OPPORTUNITIES

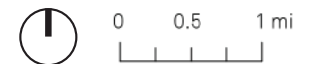
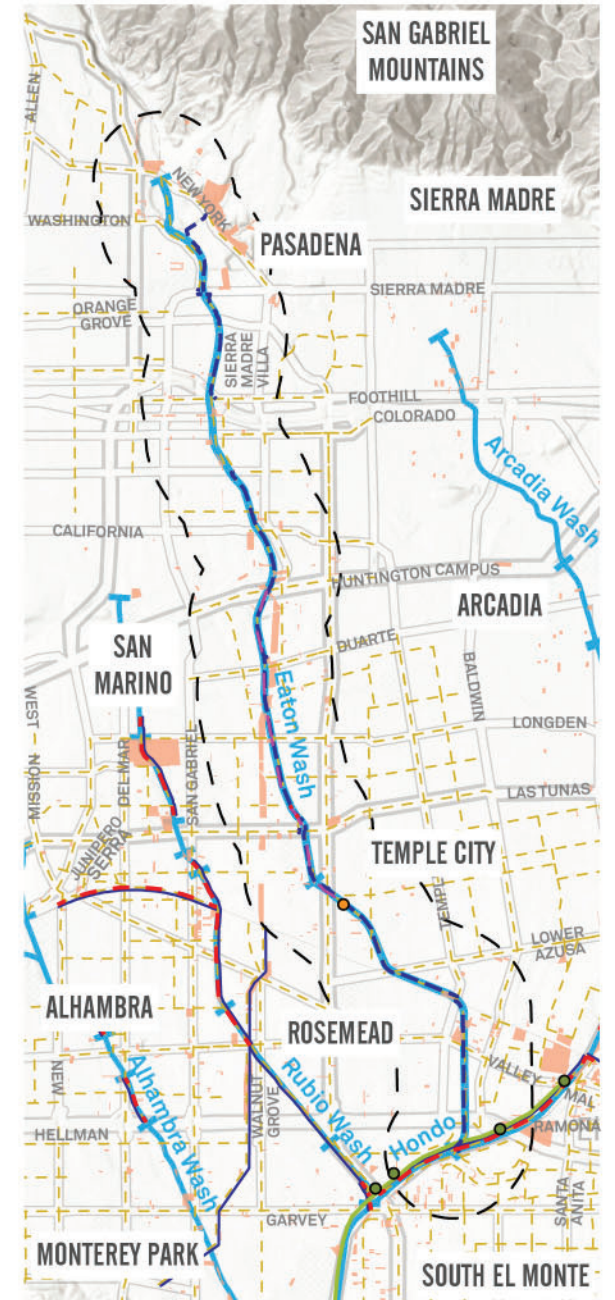
*Synergy story – early implementation projects, non-greenway projects, vacant parcels, and public land can help us understand where there are potential opportunities to build on the greenway.*

#### EATON WASH SYNERGY OPPORTUNITIES:

Eaton Wash is a popular tributary and has been identified by many studies and planning efforts in the past:

- The LA County Bicycle Master Plan 2012 identified a greenway alignment along this reach.
- The San Gabriel Valley Council Of Governments' (SGVCOG) Greenways Study ranked Eaton Wash among its "top 50 miles".
- A 1.3 mile greenway along the southern portion of Eaton Wash is currently in design between Rosemead Ave and Longden Ave.
- Phase 2 will continue North from Longden Ave to Huntington Drive (Currently in planning phase).
- Additionally, "constructing a park in the vicinity of Eaton Wash" was identified by the community as a high priority project during the 2016 Parks Needs Assessment.

- EMERALD NECKLACE 2017
- PARK NEEDS 2016
- LA CTY BIKE MASTERPLAN 2012
- GREENWAY NETWORK
- REGIONAL TRANSIT 2012
- METRO ACTIVE PLN 2016
- LA CTY PROPOSED BIKEWAYS
- EARLY IMPLEMENTATION
- VACANT GOV PARCELS



# SYNERGY STORY

## EATON WASH

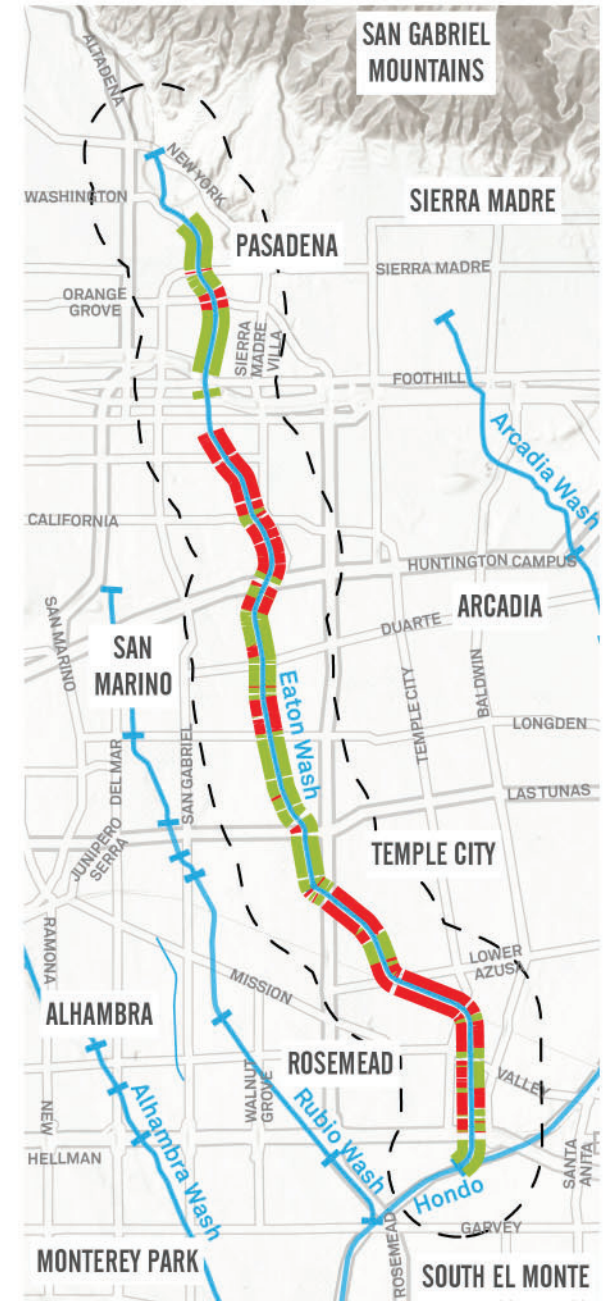
### PART 2 - LEGAL COMPLEXITY

*Understanding the legal constraints along each wash can help identify issues that should be accounted for in design.*

#### EATON CANYON LEGAL COMPLEXITY

Eaton Canyon parcels are mostly fee property, with a few marginal quitclaims and easements along the channel. “Fee” parcels would require the least amount of regulatory approvals. Some easement agreements may need to be updated to allow for uses other than flood control.

A permit from the Army Corps of Engineers may be needed for any work that impacts flood control.



#### OWNERSHIP AGREEMENT

- EASEMENT
- FEE



# SYNERGY STORY

## EATON WASH

### PART 3 - PHYSICAL COMPLEXITY

Understanding the physical constraints along each wash can help identify issues that should be accounted for in design.

#### EATON CANYON PHYSICAL COMPLEXITY

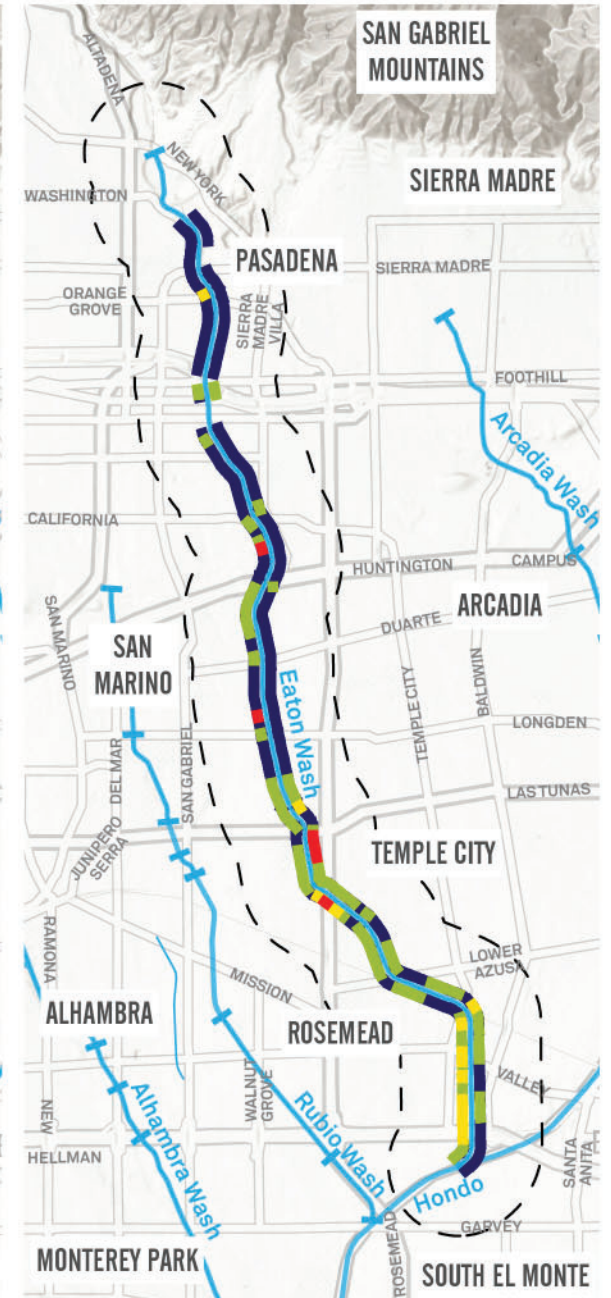
Generally, Eaton Wash has over 10 feet of ROW available outside of the flood control channel.

Potentially challenging crossings along Eaton Wash may include:

- East Sierra Madre Ave: a 6-lane arterial with large, planted median.
- I-210 Freeway; the Wash undergrounds here, but a crossing may be possible at nearby Foothill Boulevard.
- Between East Walnut St and East Colorado Blvd, the Wash undergrounds beneath a shopping center.
- Huntington Dr: an 8-lane arterial.
- Las Tunas Dr: a 6-lane arterial.
- Rosemead Blvd: a 5-lane arterial.
- East Valley Blvd: a 5-lane arterial.
- I-10 Freeway: undercrossing may be possible or nearby at Baldwin Ave.



**INTERSECTIONS & CROSSINGS**  
 x STREET INTERSECTIONS  
 + RAILROAD CROSSINGS



**ROW WIDTH**  
 < 8 FT  
 8-13 FT  
 13-26 FT  
 > 26 FT

0 0.5 1 mi

# ENVIRONMENT STORY

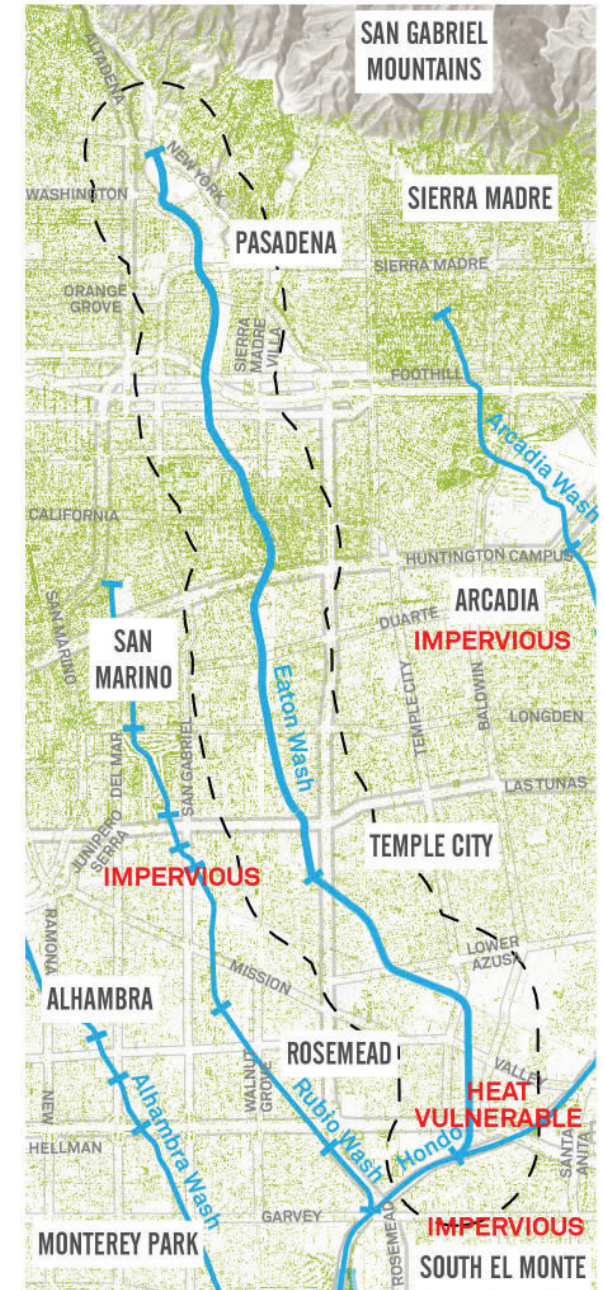
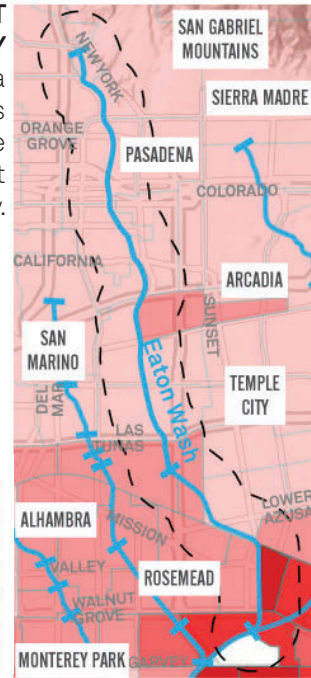
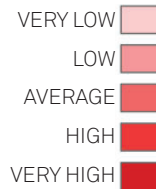
## EATON WASH

Shade study, impervious surfaces, and heat vulnerability can help us see where trees can be the most beneficial.

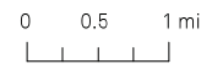
South of Las Tunas, there is high to very high heat vulnerability in many areas. This is also the area that lacks a strong tree canopy. Areas with a high percentage of impervious surfaces are concentrated in the area south of Huntington Drive.

### PERCENT WITHOUT TREE CANOPY

Developed by the California Healthy Place Index, this indicator measures the percentage of land without tree canopy.

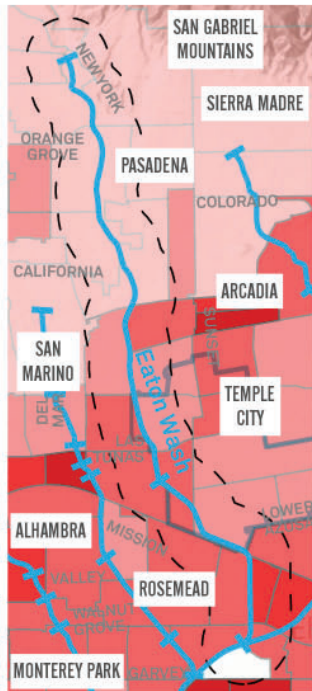
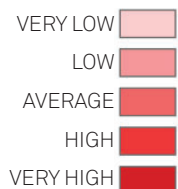


The environment story for Eaton Wash shows high heat vulnerability across the community, particularly at the southern end where there is less tree canopy.



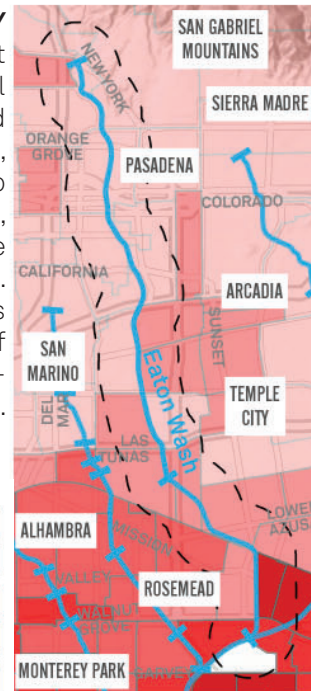
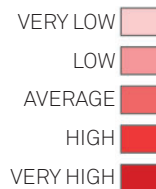
### PERCENT IMPERVIOUS SURFACES

Impervious surfaces are areas of the land hardened by such structures as houses, patios, driveways, and transportation infrastructure. An increase in impervious surfaces can alter the hydrology within a watershed with significant impact on water quality and aquatic and riparian habitat (CHAT).



### HEAT VULNERABILITY

The California Heat Assessment Tool (CHAT) was developed by Four Twenty Seven, Inc. in partnership with Argos Analytics, Habitat Seven, and the Public Health Institute. This layer represents the vulnerability of communities to heat-related health impacts.



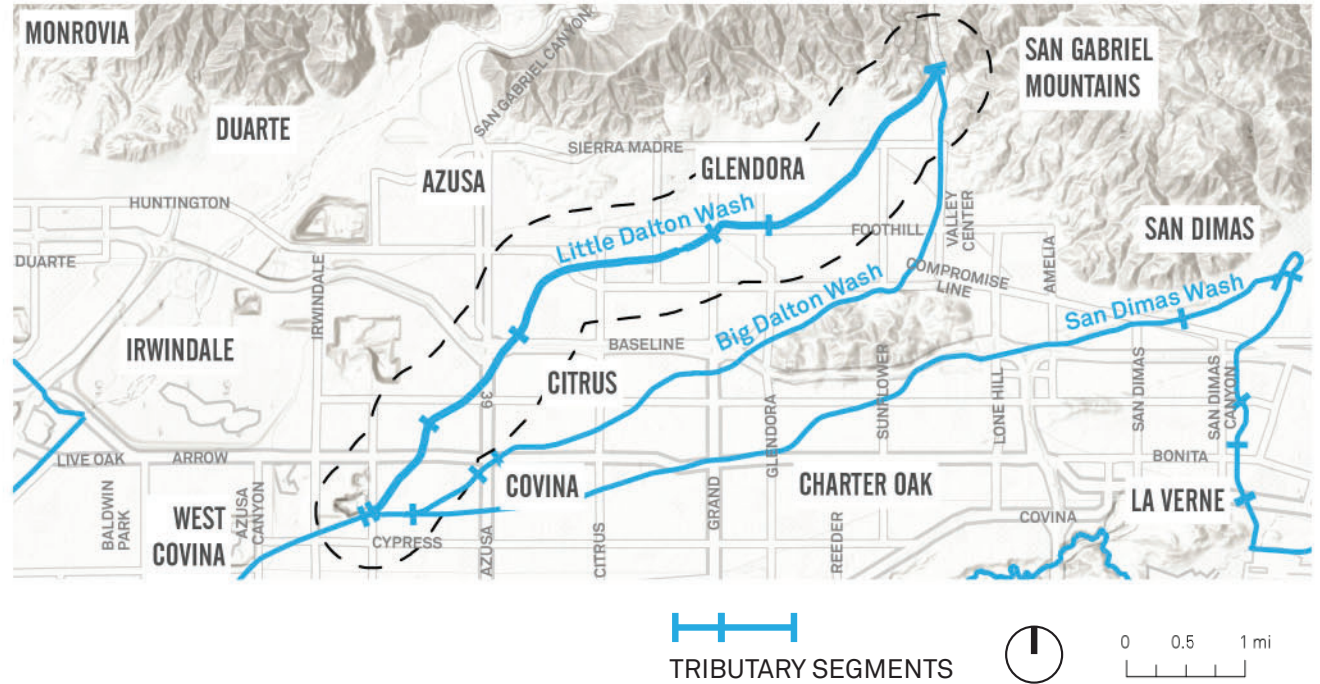


# TRIBUTARY NARRATIVE

## LITTLE DALTON WASH

### OVERVIEW

- Little Dalton Wash is a 6.7 mile tributary connecting the Angeles National Forest to the San Gabriel River via Big Dalton Wash.
- The area is primarily residential with few commercial/retail areas. There are several schools in the area including Citrus Community College, Asuza University, Paramount Elementary, Merwin Elementary, and others.
- Towards the center of the tributary, the Azusa Gold Line station provides potential connection to high quality transit.
- The areas around Little Dalton Wash generally rank low in terms of the level of socioeconomic and environmental burden faced by the community.
- There are very few previously planned projects along Little Dalton Wash; the Wash was identified as a top project by the San Gabriel Valley Council of Governments' Greenways Study.
- Physically, Little Dalton Wash presents lots of opportunities, with available right-of-way along most of the tributary.
- This area has limited tree canopy.



# CIRCULATION STORY

## LITTLE DALTON WASH

Knowing existing circulation can inform where we prioritize connections, partnerships, and modality.

### VEHICLE/TRANSIT ACCESS

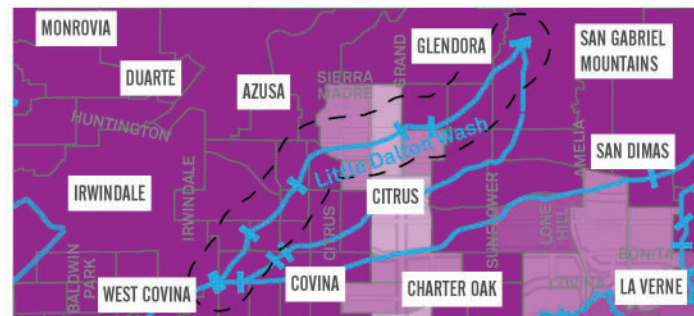
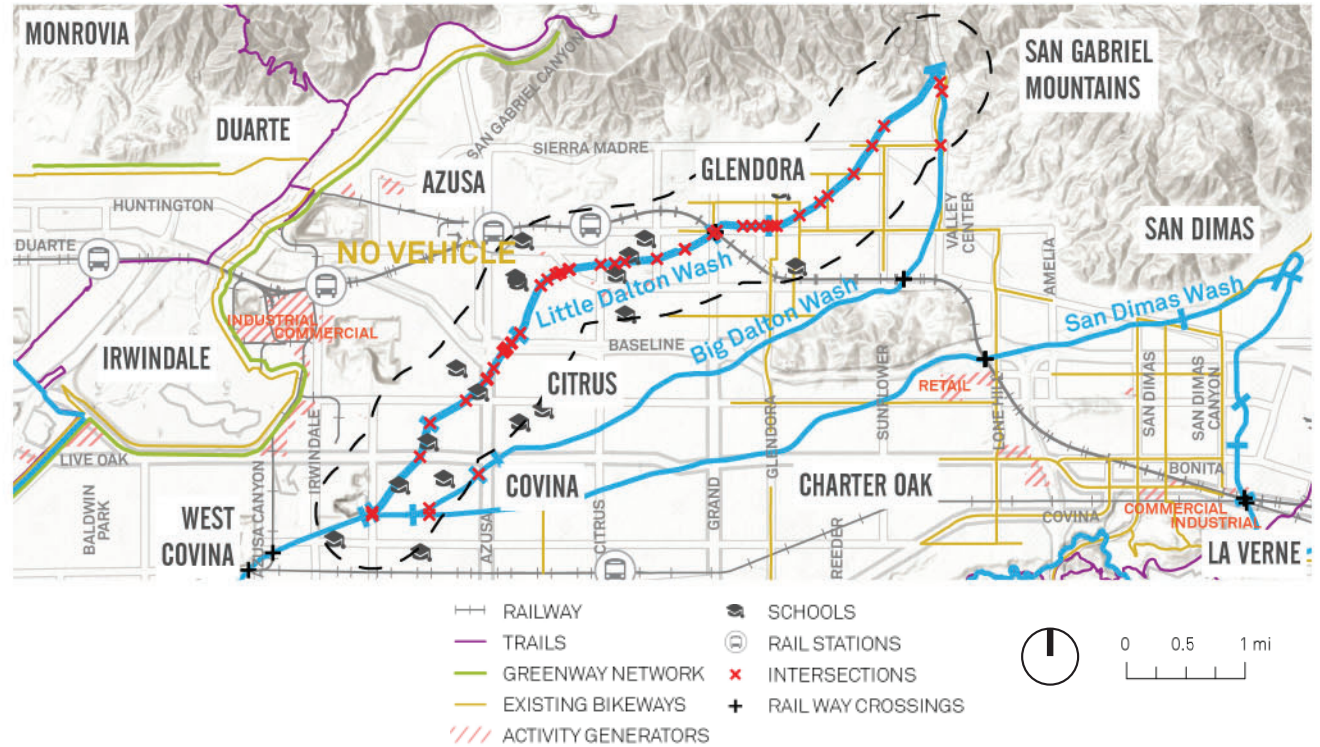
Generally, the households adjacent to Little Dalton Wash have access to a vehicle. Some areas south of Azusa report lower rates of vehicle access. There are very few areas within walking distance of the tributary that have access to high quality transit.

### ACTIVITY GENERATORS

The area is mainly residential, with very few commercial areas driving activity. However, like Big Dalton Wash, there are many schools within ½ mile of Little Dalton Wash, including Citrus Community College. The current terminus of the Metro Gold Line lands near the center of Little Dalton, providing a valuable potential connection. Recreational access to the San Gabriel Mountains is also nearby.

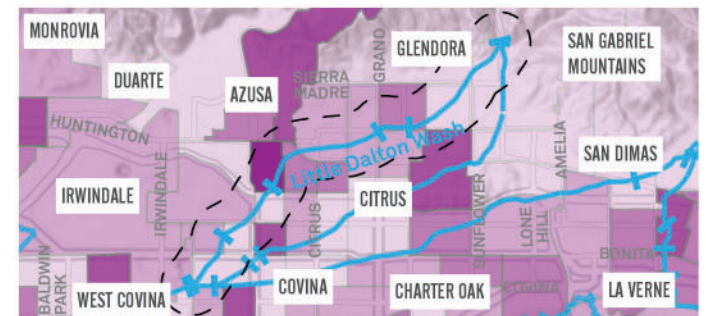
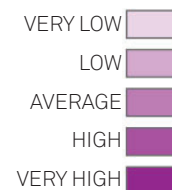
### EXISTING BIKEWAYS

Existing on-street bikeways in the area are generally concentrated to the east in Glendora, with some crossing the upper reach of Little Dalton.



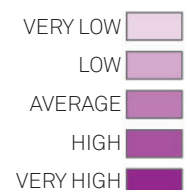
### NO TRANSIT ACCESS

From the California Healthy Places Index, this indicator measures the percentage of people living close to convenient, reliable transit, as defined by a half-mile or ten-minute walk, that comes every fifteen minutes or less during peak commute times.



### NO VEHICLE ACCESS

American Community Survey asks about vehicles available to each household to develop transportation plans and services, understand how people are traveling in the course of a normal day, and evaluate pollution and access to transportation in emergencies.



# EQUITY STORY

## LITTLE DALTON WASH

Unfair burden of air, water, and soil pollution can inform the value of nature-based solutions in our design concepts. While socioeconomic factors (e.g., poverty levels, linguistic isolation, etc) can help inform programming.

### OVERVIEW

Environmental burden and Socioeconomic/sensitivity factors in the areas surrounding Little Dalton Wash are generally low. However, some areas near the western part of the tributary near Irwindale and Azusa are highly impacted. Similar to most of the San Gabriel Valley, the most commonly reported environmental sensitivity issue in the area is asthma.

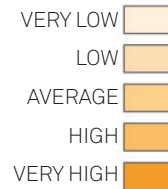


The equity story for Little Dalton Wash is characterized by high rates of asthma throughout the area and heavy levels of housing burden and linguistic isolation to the south. Areas affected by additional sensitivity factors determined by the California Heat Assessment Tool (CHAT) are labeled here as well.



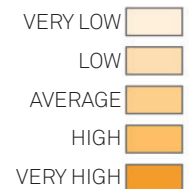
### ENVIRONMENTAL BURDEN

According to CalEnviroScreen, exposure to different types of pollution (e.g., air quality, lead risk, diesel, pesticides, etc) is Very High toward the western side of Little Dalton.



### SENSITIVITY AND SOCIOECONOMIC FACTORS

CalEnviroScreen rates each census tract's sensitivity to environmental pollution from Very Low to Very High based on socioeconomic and health factors.



# COMMUNITY STORY

## LITTLE DALTON WASH

### PART 1 - GATHERING SPACES

Understanding existing community gathering spaces can inform how our project could add to open space access in the area by revealing where to route trails and optimize connectivity.

#### OVERVIEW

As a primarily residential area, there are a limited number of gathering spaces in the area. There are only a few commercial/retail areas within walking distance of Little Dalton Wash, and there is very little park space. However, the proximity to the Angeles National Forest to the east, and the Santa Fe Dam recreation area to the west produces an average to low score for this area in terms of “Park Need.”

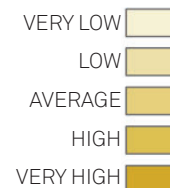


The community story for Little Dalton is characterized by Average to High park need, especially near Charter Oak.



#### PARK NEED

LA County’s Parks and Recreation Needs Assessment documented existing facilities, park pressure, park condition, and walkability.



#### LOCATIONS OF ACTIVITY

Retail, office, and industrial land uses are highlighted in gold as potential activity drivers.



# COMMUNITY STORY

## LITTLE DALTON WASH

### PART 2 - DEMOGRAPHICS

Understanding key demographic factors will inform the style and programming of the area.

#### INCOME

Median household incomes in the area surrounding Little Dalton Wash are generally average to high, with some households near the eastern portion of the tributary in the County's highest 10% income bracket.

#### POPULATION

Towards the western portion of the tributary in Irwindale, Azusa, and Citrus, there is a strong Hispanic population.

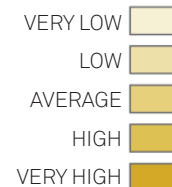


The demographic story for Little Dalton is characterized by a strong Hispanic community with higher than average incomes.



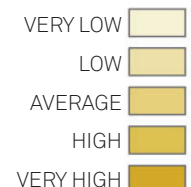
#### HISPANIC POPULATION

According to the 2010 census, the western side of Little Dalton is majority Hispanic.



#### MEDIAN HOUSEHOLD INCOME

According to the 2010 census, the majority of the community within walking distance of Little Dalton is at or above the County's average.



# SYNERGY STORY

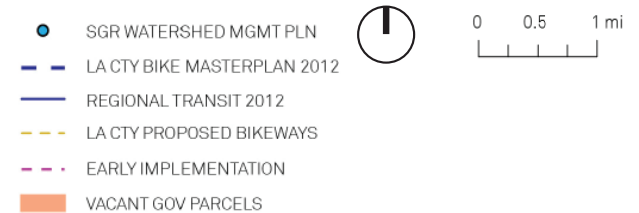
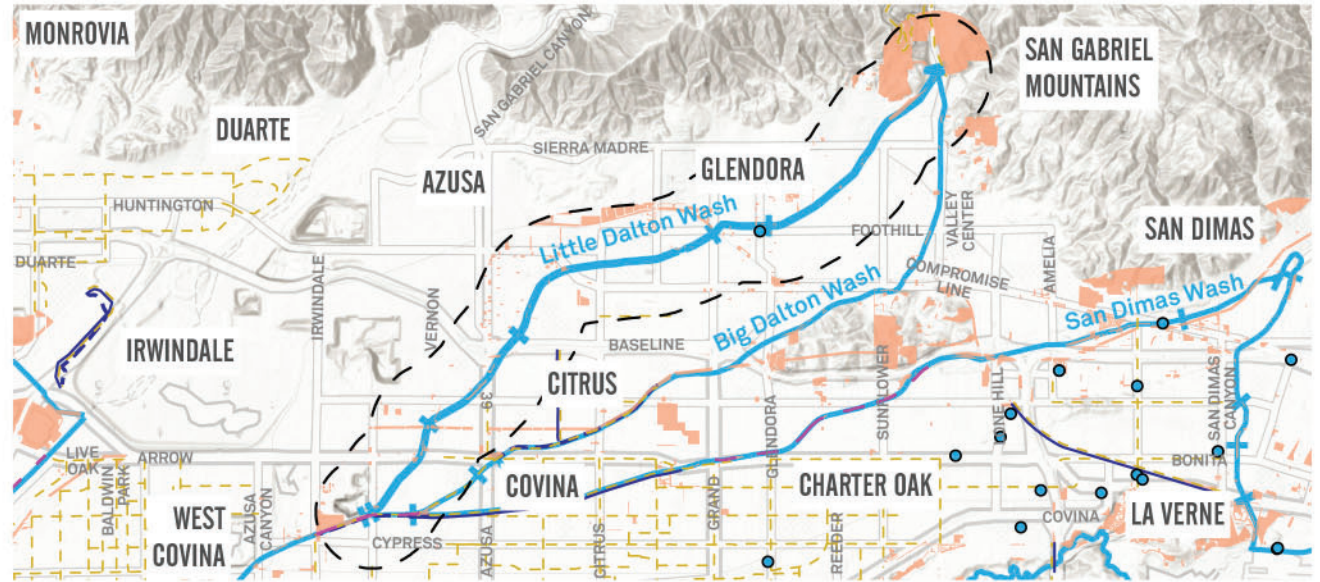
## LITTLE DALTON WASH

### PART 1 - OPPORTUNITIES

*Synergy story – early implementation projects, non-greenway projects, vacant parcels, and public land will help us understand where there are potential opportunities to build on the greenway.*

#### LITTLE DALTON SYNERGY OPPORTUNITIES:

- There are no current planned or proposed greenways along the tributary.
- With the Metro Gold Line making its way further east, Little Dalton could potentially provide a key connection to transit for communities south of that railway. Additionally, as mentioned in previous maps, Little Dalton is a direct connection to recreation in the Angeles National Forest and could build synergy with efforts to bring people to recreation destinations in the San Gabriel Mountains.
- A moderate amount of vacant government-owned parcels exist along the tributary which could be potential future park spaces.



# SYNERGY STORY

## LITTLE DALTON WASH

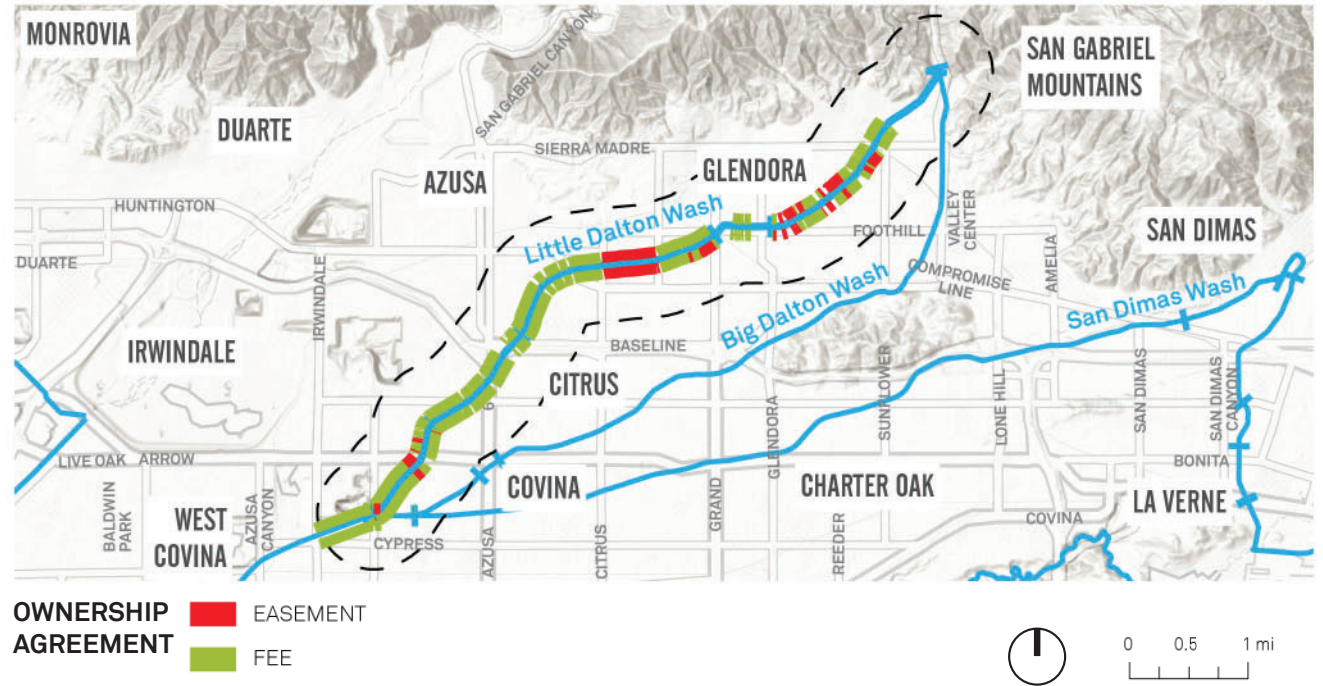
### PART 2 - LEGAL COMPLEXITY

*Understanding the legal constraints along each wash can help identify issues that should be accounted for in design.*

#### LITTLE DALTON LEGAL COMPLEXITY

The underlying parcels of Little Dalton Wash are mostly owned by the County Flood Control District, enabling potential greenway implementation. Some of these Easement agreements only allow for flood control operation and would need to be modified for a greenway to be opened. Little Dalton Wash is operated and maintained entirely by the County Flood Control District.

A permit from the Army Corps of Engineers may be needed for any work that impacts flood control.



# SYNERGY STORY

## LITTLE DALTON WASH

### PART 3 - PHYSICAL COMPLEXITY

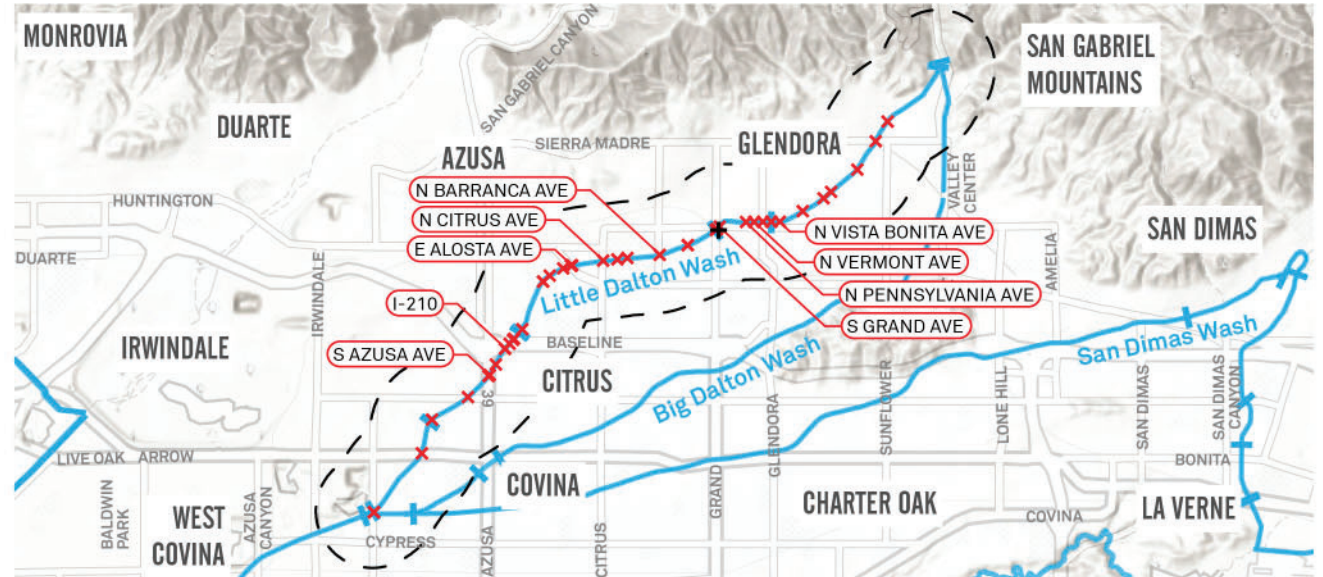
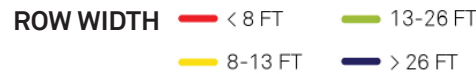
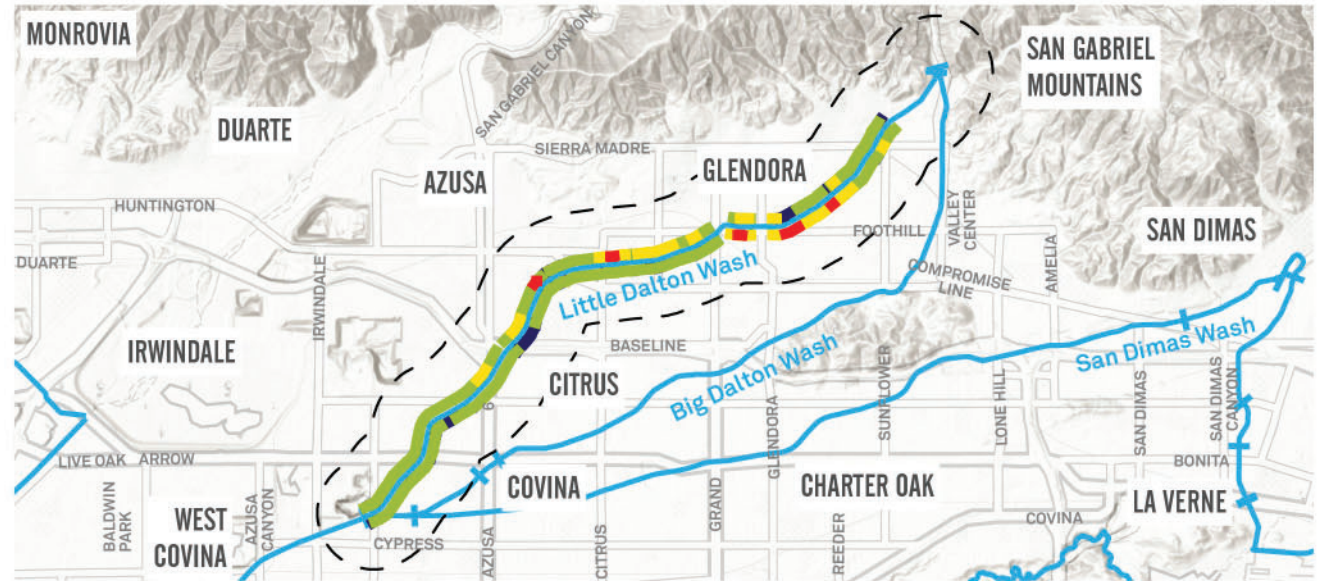
Understanding the physical constraints along each wash can help identify issues that should be accounted for in design.

#### LITTLE DALTON PHYSICAL COMPLEXITY

The available right-of-way along Little Dalton Wash is generally promising, with few constrained areas southwest of Citrus Ave and the Citrus Community College. Through Glendora, the tributary becomes more constrained with portions of narrow right-of-way as well as portions that are underground. Major crossings include the Foothill Freeway (210) and various heavy rail lines.

#### Potentially challenging crossings along Little Dalton Wash may include:

- Between N Vista Bonita Ave and N Vermont Ave: the Wash undergrounds here and becomes an alley.
- Between N Pennsylvania Ave and S Grand Ave: the Wash undergrounds here beneath a shopping center and 6-lane arterial road.
- N Barranca Ave: 5-lane arterial road.
- N Citrus Ave: 5-lane arterial road.
- E Alosta Ave/Rte 66: 5-lane arterial road with median.
- I-210 Freeway: nearest undercrossing is S Azusa Ave.
- S Azusa Ave: 5-lane arterial road.





# ENVIRONMENT STORY

## LITTLE DALTON WASH

Shade study, impervious surfaces, and heat vulnerability will help us see where trees can be the most beneficial.

Tree canopy in this area is very limited. Aside from the furthest northeast segment of the wash, we see low tree canopy and pockets of severe heat index vulnerability, especially in the area just south of Azusa. Permeability seems to be less of an issue along Little Dalton, with most areas registering in the average level. Closer to the confluence with Big Dalton, and Live Oak, the area is less permeable which can affect water quality and flood risk.

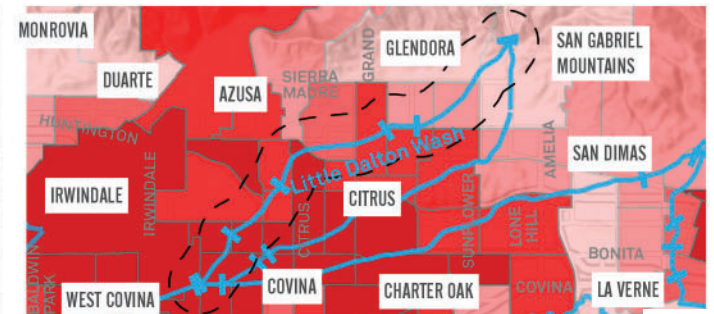
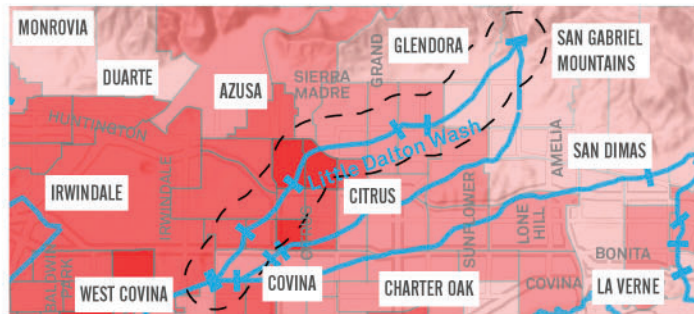


The environment story for Little Dalton shows high heat vulnerability across the community, particularly at the western end where there is less tree canopy.



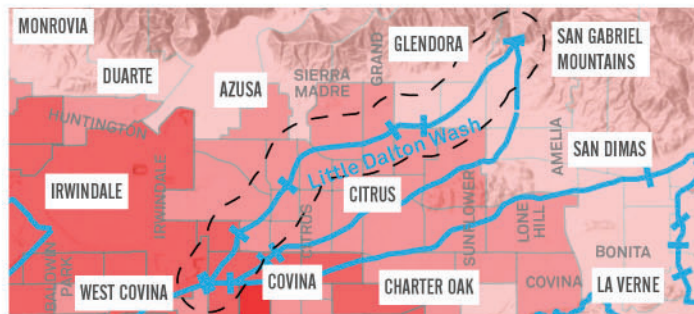
### HEAT VULNERABILITY

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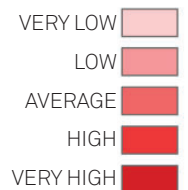
### PERCENT IMPERVIOUS SURFACES

Impervious surfaces are areas of the land hardened by such structures as houses, patios, driveways, and transportation infrastructure. An increase in impervious surfaces can alter the hydrology within a watershed with significant impact on water quality and aquatic and riparian habitat (CHAT).



### PERCENT WITHOUT TREE CANOPY

Developed by the California Healthy Place Index, this indicator measures the percentage of land without tree canopy.



# TRIBUTARY NARRATIVE

## SAN DIMAS WASH

(SAN DIMAS/PUDDINGSTONE/LIVE OAK)

### OVERVIEW

- This study area is comprised of San Dimas Wash, Puddingstone Channel, and Live Oak Wash.
- The area is primarily residential, with several schools, as well as connections to some major parks and recreational areas including Bonelli Regional Park, South Hills Recreational Area, Horsethief Canyon Park, and others.
- Environmental and Socioeconomic burden in the area is average.
- Average household income is average to high for the County.
- There are a number of projects in development along these tributaries. The area was identified as a top project in the San Gabriel Council of Governments' Greenways Study. Additionally, there is a 3-phase project in development along San Dimas Wash within Glendora.
- There are many opportunities for greenways along these tributaries with sufficient right-of-way available in many areas.
- Environmentally, the area ranks average in terms of tree canopy, heat vulnerability, and permeability.



TRIBUTARY SEGMENTS



0 0.5 1 mi

# CIRCULATION STORY

## SAN DIMAS WASH

Knowing existing circulation will inform where we prioritize connections, partnerships, and modality.

### VEHICLE/TRANSIT ACCESS

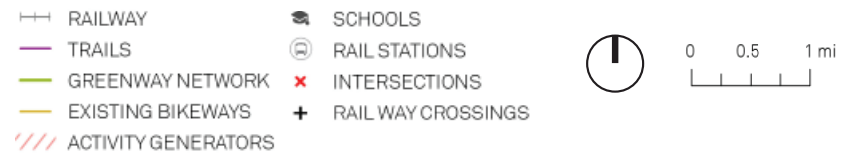
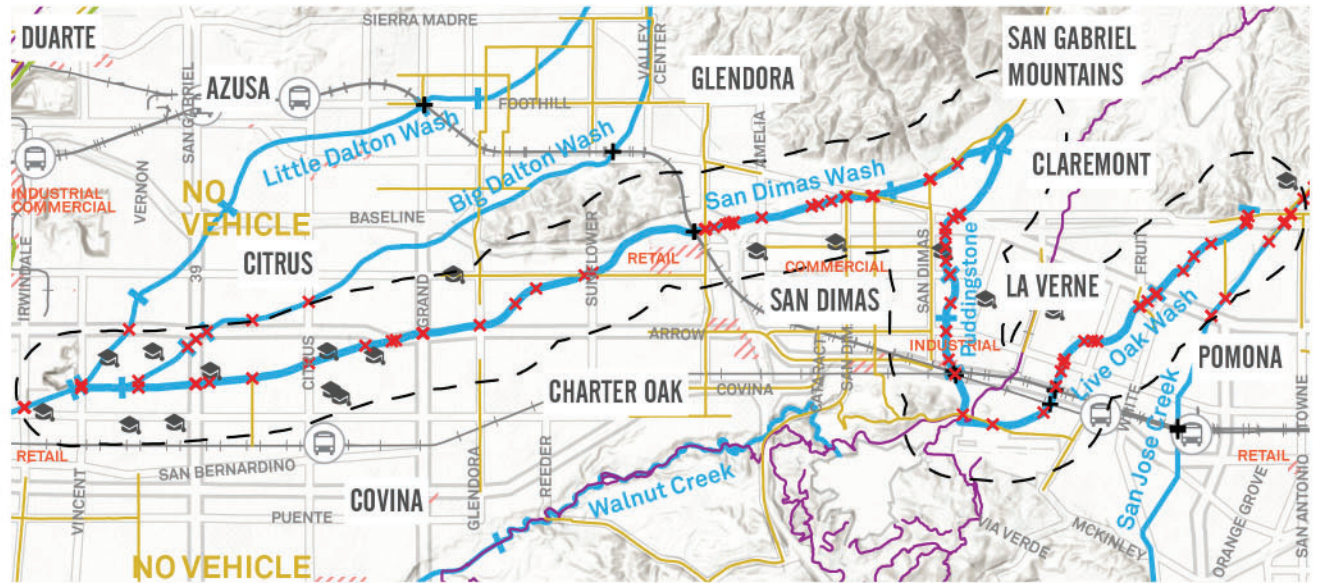
Generally, the households adjacent to this tributary have access to a vehicle. There are very few areas within walking distance of the tributary that have access to high quality transit.

### ACTIVITY GENERATORS

This area is primarily residential with few commercial/retail/industrial areas. There are several schools in the area, mostly at the western end of the area.

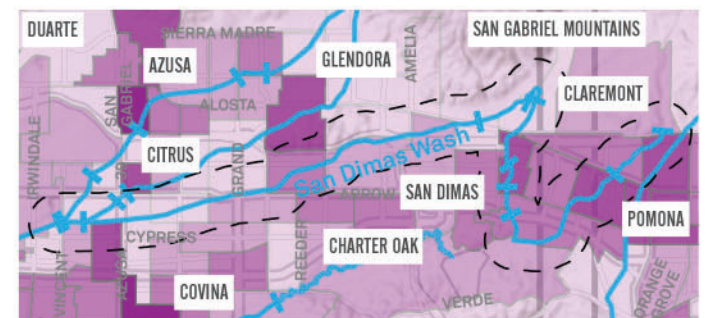
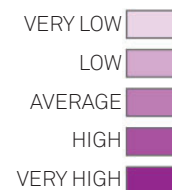
### EXISTING BIKEWAYS

Existing bikeways in the area are concentrated in San Dimas, just south of the tributary. The Marshall Canyon Trail connects to this tributary near Brackett field, potentially connecting to the foothills. The City of Glendora recently completed a 1 mile bike trail along the San Dimas Wash from Sunflower Ave. to Forbes Spreading Grounds.



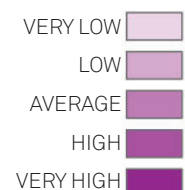
### NO TRANSIT ACCESS

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### NO VEHICLE ACCESS

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# EQUITY STORY

## SAN DIMAS WASH

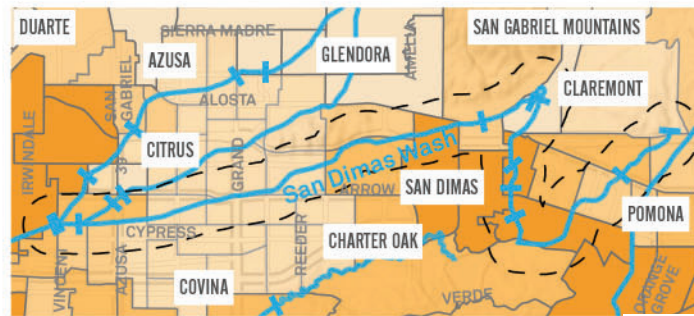
Unfair burden of air, water, and soil pollution will inform the value of nature-based solutions in our design concepts. While socioeconomic factors (poverty levels, linguistic isolation, etc) will help inform programming.

### OVERVIEW

Environmental burden and socioeconomic factors in the areas surrounding this tributary are generally low. However, some areas of the tributary near Pomona are highly impacted. Similar to much of the San Gabriel Valley, the most commonly reported environmental sensitivity issue in the area is asthma.

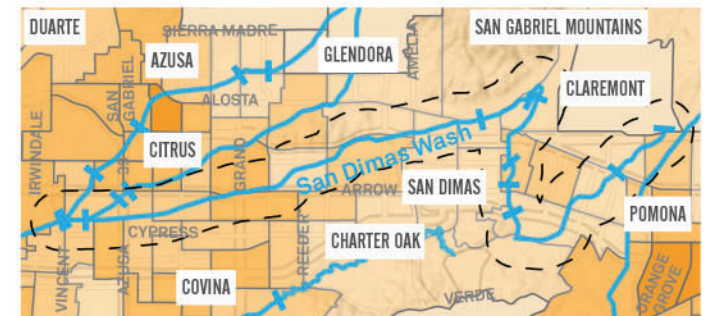
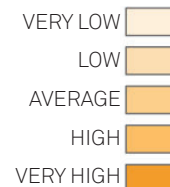


The equity story for San Dimas Wash is characterized by high rates of asthma throughout the area and heavy levels of housing burden and linguistic isolation to the south. Areas affected by additional sensitivity factors determined by the California Heat Assessment Tool (CHAT) are labeled here as well.



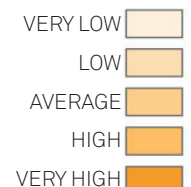
### ENVIRONMENTAL BURDEN

According to CalEnviroScreen, exposure to different types of pollution (e.g., air quality, lead risk, diesel, pesticides, etc) is very high to the east.



### SENSITIVITY AND SOCIOECONOMIC FACTORS

CalEnviroScreen rates each census tract's sensitivity to environmental pollution from Very Low to Very High based on socioeconomic and health factors.



# COMMUNITY STORY

## SAN DIMAS WASH

### PART 1 - GATHERING SPACES

Understanding existing community gathering spaces can inform how our project could add to open space access in the area by revealing where to route trails and optimize connectivity.

#### OVERVIEW

As a primarily residential area, there are limited activity generators in the area from retail, commercial, or industrial land uses. There are some major park spaces such as the South Hills Wilderness Area, Frank G Bonelli Regional Park, and Horsethief Canyon Park.

To the west however, near Covina, we do see some areas that have high park need.

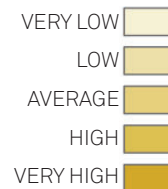


The community story for San Dimas Wash is characterized High to Very High park need, especially to the west.



#### DPR PARK NEED

LA County's Park Needs Assessment documented existing facilities, park pressure, park condition, and walkability.



#### LOCATIONS OF ACTIVITY

Retail, office, and industrial land uses are highlighted in gold as potential activity drivers.



# COMMUNITY STORY

## SAN DIMAS WASH

### PART 2 - DEMOGRAPHICS

Understanding key demographic factors will inform the style and programming of the area.

#### INCOME

Median household incomes in the area surrounding this tributary are generally average to high, with some households near the middle and eastern portions of the tributary in the County's highest 10% income bracket.



The demographic story for Live Oak Wash is characterized by a strong Hispanic community average to high incomes.



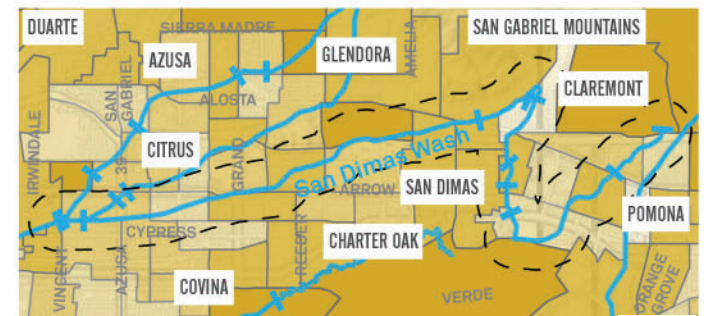
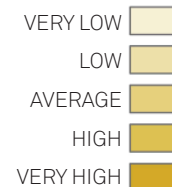
#### POPULATION

Towards the western portion of the tributary in Irwindale and Vincent, there is a strong Hispanic population.



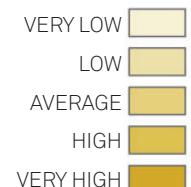
#### HISPANIC POPULATION

The western end of the tributary is characterized by a strong Hispanic community.



#### MEDIAN HOUSEHOLD INCOME

Income varies throughout this area but generally is higher toward the eastern end of the tributary.



# SYNERGY STORY

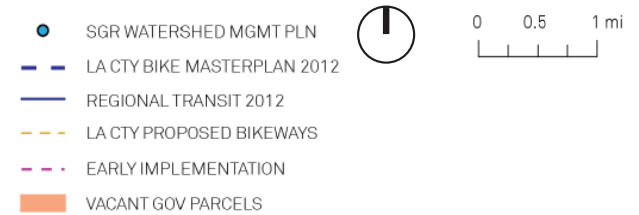
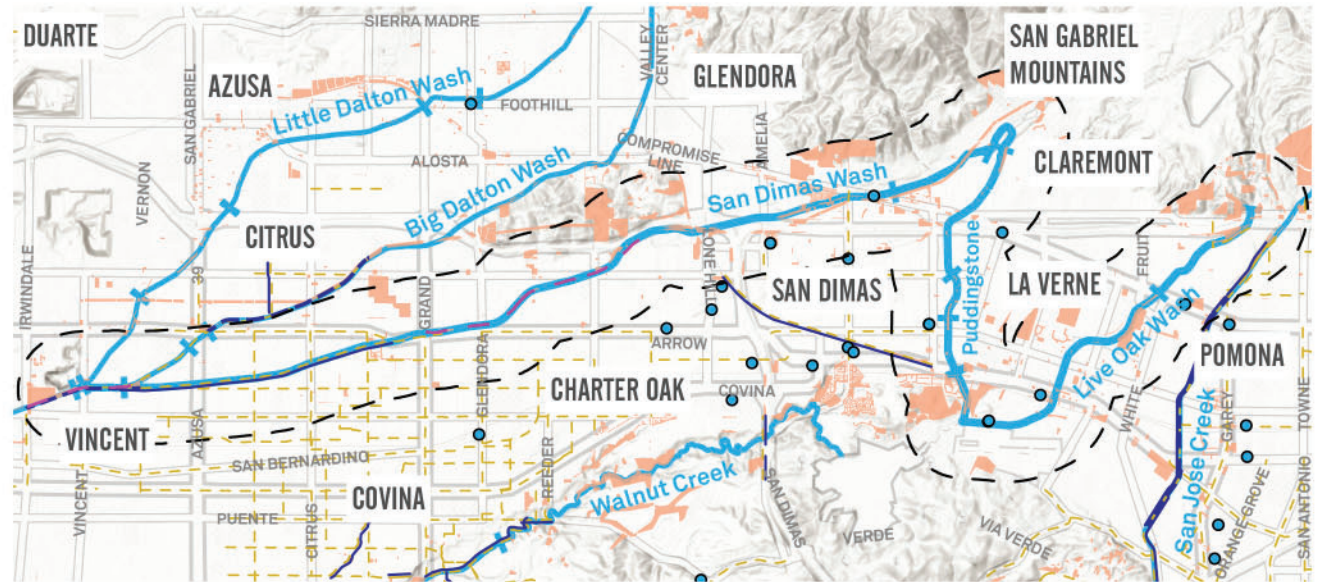
## SAN DIMAS WASH

### PART 1 - OPPORTUNITIES

*Synergy story – early implementation projects, non-greenway projects, vacant parcels, and public land will help us understand where there are potential opportunities to build on the greenway.*

#### SAN DIMAS WASH SYNERGY OPPORTUNITIES:

- San Dimas Wash, the western portion of this tributary, has been studied in various regional plans and a greenway was proposed along certain sections. Both the LA County Bicycle Master Plan and the Regional Transportation Plan proposed a bikeway along this segment from Grand Ave. to the confluence at Big Dalton Wash. Other portions of San Dimas Wash have been proposed for greenways as part of the Glendora Master Plan.
- A 1 mile greenway was recently completed on San Dimas Wash from Sunflower Ave. to Forbes Spreading Grounds.
- A 1.75 mile greenway is currently in design on San Dimas Wash between Grand Ave. and Gladstone St.
- The Puddingstone and Live Oak sections of this tributary remain largely unstudied. This area does appear to have ample opportunities for park space that can potentially be developed in adjacent vacant government-owned land.



# SYNERGY STORY

## SAN DIMAS WASH

### PART 2 - LEGAL COMPLEXITY

*Understanding the legal constraints along each wash can help identify issues that should be accounted for in design.*

#### SAN DIMAS WASH LEGAL COMPLEXITY

The underlying parcels of this tributary are mostly owned by the County Flood Control District through various fee and easement agreements. Some of these Easement agreements only allow for flood control operation and would need to be modified for a greenway to be opened. Additionally, these channels are operated and maintained entirely by the County Flood Control District.

A permit from the Army Corps of Engineers may be needed for any work that impacts flood control.





# SYNERGY STORY

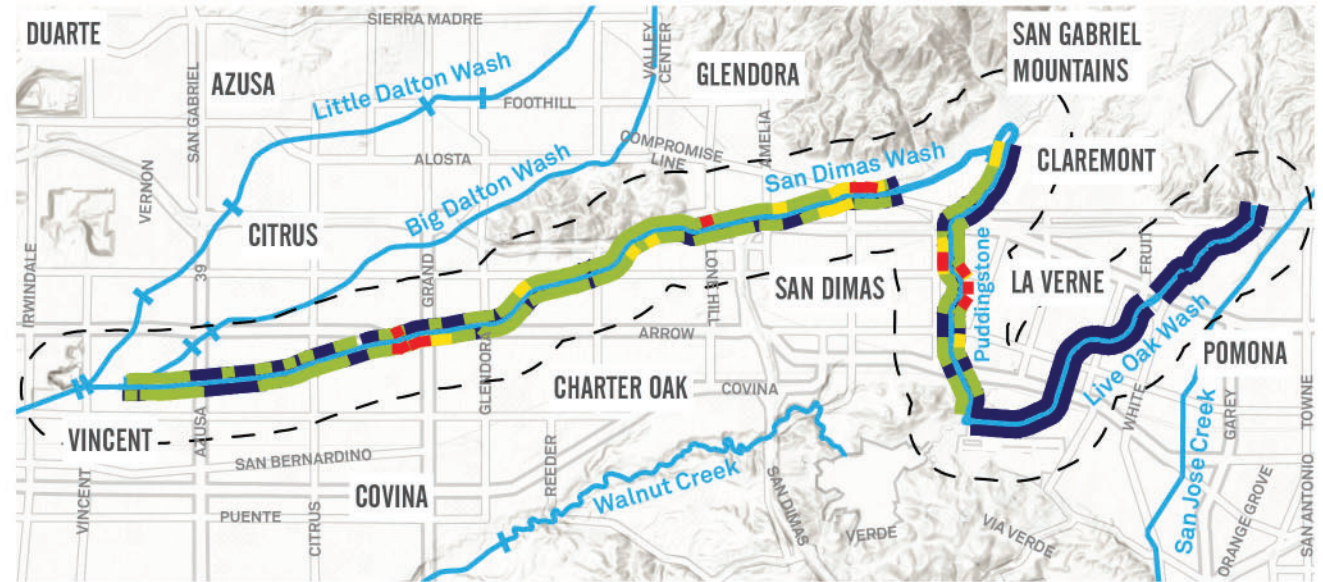
## SAN DIMAS WASH

### PART 3 - PHYSICAL COMPLEXITY - ROW

*Understanding the physical constraints along each wash can help identify issues that should be accounted for in design.*

#### SAN DIMAS WASH PHYSICAL COMPLEXITY

The available right-of-way along this tributary is generally promising, with few constrained areas. The area at the intersection of San Dimas and Puddingstone channel is not channelized, however there still may be opportunities available to incorporate a connected greenway.



# SYNERGY STORY

## SAN DIMAS WASH

### PART 3.1 - PHYSICAL COMPLEXITY - INTERSECTIONS

*Potentially challenging crossings along Live Oak Wash may include:*

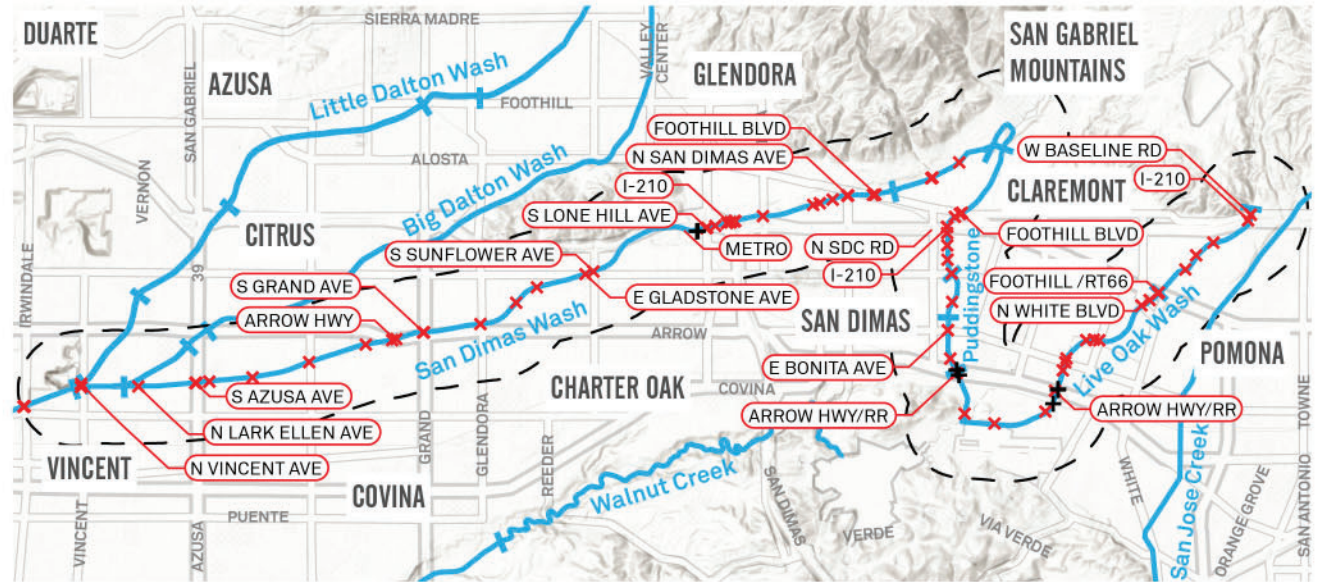
- W Baseline Rd/I-210 Foothill Freeway: undercrossing may be possible.
- Foothill Blvd/Rte 66/N White Ave: 6-lane arterial with planted median adjacent to shopping center where wash undergounds.
- Arrow Hwy/Freight Rail: 6-lane arterial road.

*Potentially challenging crossings along Puddingstone Channel may include:*

- Arrow Hwy/Freight Rail: 6-lane arterial with planted median and adjacent single rail line.
- E Bonita Ave: 5-lane arterial road.
- I-210 Foothill Fwy: nearest undercrossing at N San Dimas Canyon Rd.
- Foothill Blvd: 5-lane arterial road.

*Potentially challenging crossings along San Dimas Wash may include:*

- Foothill Blvd: 5-lane arterial road.
- N San Dimas Ave: 5-lane arterial road.
- I-210/57 interchange: nearest undercrossing at S Lone Hill Ave.
- Metro Goldline tracks: currently under construction.
- S Sunflower Ave/E Gladstone St: 5-lane arterial roads crossed at an angle.
- S Grand Ave: 5-lane arterial crossing.
- Arrow Hwy: 5-lane arterial crossing.
- S Azusa Ave: 5-lane arterial road.
- N Lark Ellen Ave: 5-lane arterial road.
- N Vincent Ave: 5-lane arterial road.



**INTERSECTIONS & CROSSINGS**

- ✕ STREET INTERSECTIONS
- + RAILROAD CROSSINGS



# ENVIRONMENT STORY

## SAN DIMAS WASH

Shade study, impervious surfaces, and heat vulnerability will help us see where trees can be the most beneficial.

Environmentally, we see a healthy tree canopy in the communities to the east, and limited tree canopy to the west. Despite the limited amount of trees, heat index vulnerability remains average for the western areas of this tributary. Permeability is also average in the area, with the most impermeable areas near the confluence of Big Dalton Wash. This could cause water quality and flood risk issues.

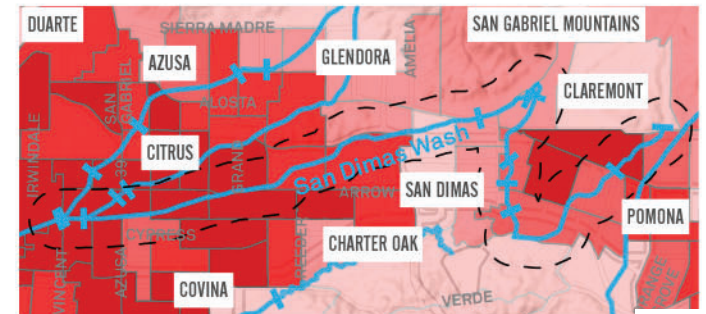
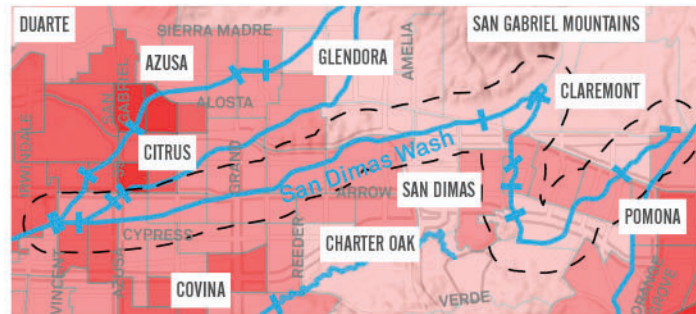


The environment story for this area shows high heat vulnerability across the community, particularly at the western end where there is less tree canopy.



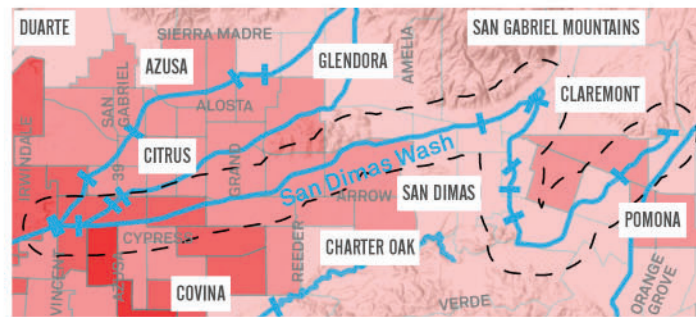
### HEAT VULNERABILITY

The California Heat Assessment Tool (CHAT) was developed by Four Twenty Seven, Inc. in partnership with Argos Analytics, Habitat Seven, and the Public Health Institute. This layer represents the vulnerability of communities to heat-related health impacts.



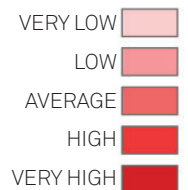
### PERCENT IMPERVIOUS SURFACES

Impervious surfaces are areas of the land hardened by such structures as houses, patios, driveways, and transportation infrastructure. An increase in impervious surfaces can alter the hydrology within a watershed with significant impact on water quality and aquatic and riparian habitat (CHAT).



### PERCENT WITHOUT TREE CANOPY

Developed by the California Healthy Place Index, this indicator measures the percentage of land without tree canopy.

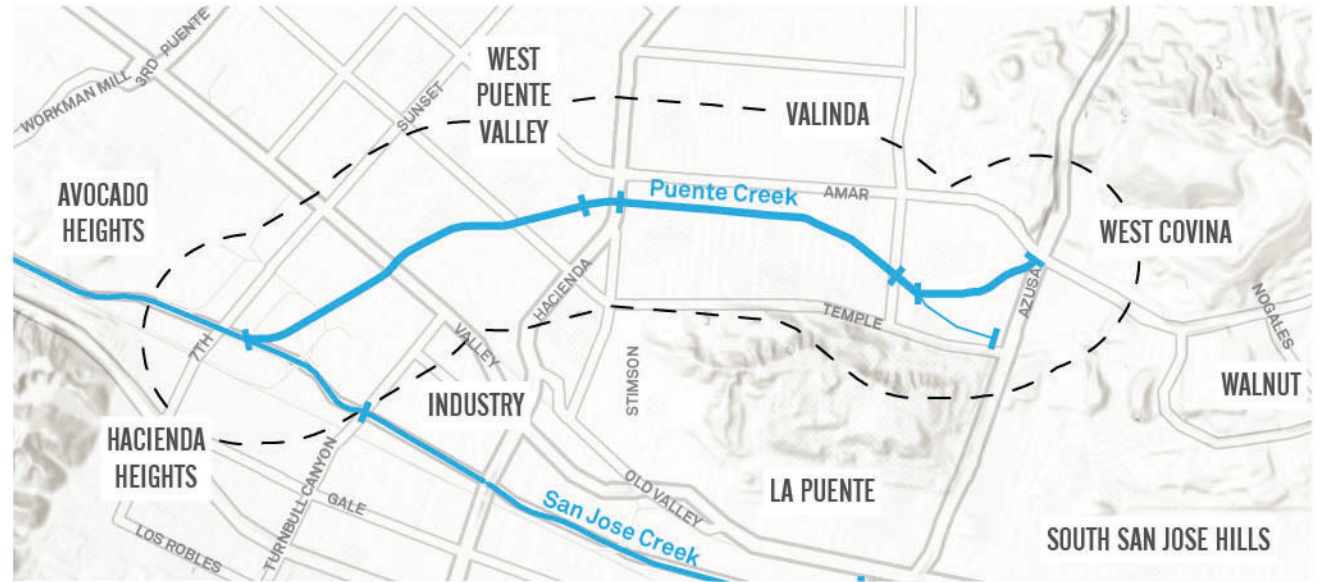


# TRIBUTARY NARRATIVE

## PUENTE CREEK

### OVERVIEW

- Puente Creek is a short 4 mile tributary to the north of San Jose Creek.
- Puente Creek has some pockets of commercial/retail areas that may generate activity, including several schools in the vicinity; Wing Lane Elementary, Workman High, Del Valle School, Sierra Vista Middle, Sparks Elementary, and others.
- Puente Creek is near some existing major on-street bikeways that could serve as important connections.
- The Puente Creek area is generally heavily impacted by socioeconomic and environmental burdens.
- Puente Creek has been recommended for a bikeway in many previous planning studies and a portion of the tributary is currently in design between Rimgrove Drive and Hacienda Blvd.
- Right-of-way is available along much of the tributary and most of the property adjacent to the channel is owned in fee by the County.
- Tree canopy is lacking in this area.



TRIBUTARY SEGMENTS



0 0.5 1 mi

# CIRCULATION STORY

## PUENTE CREEK

Knowing existing circulation can inform where we prioritize connections, partnerships, and modality.

### VEHICLE/TRANSIT ACCESS

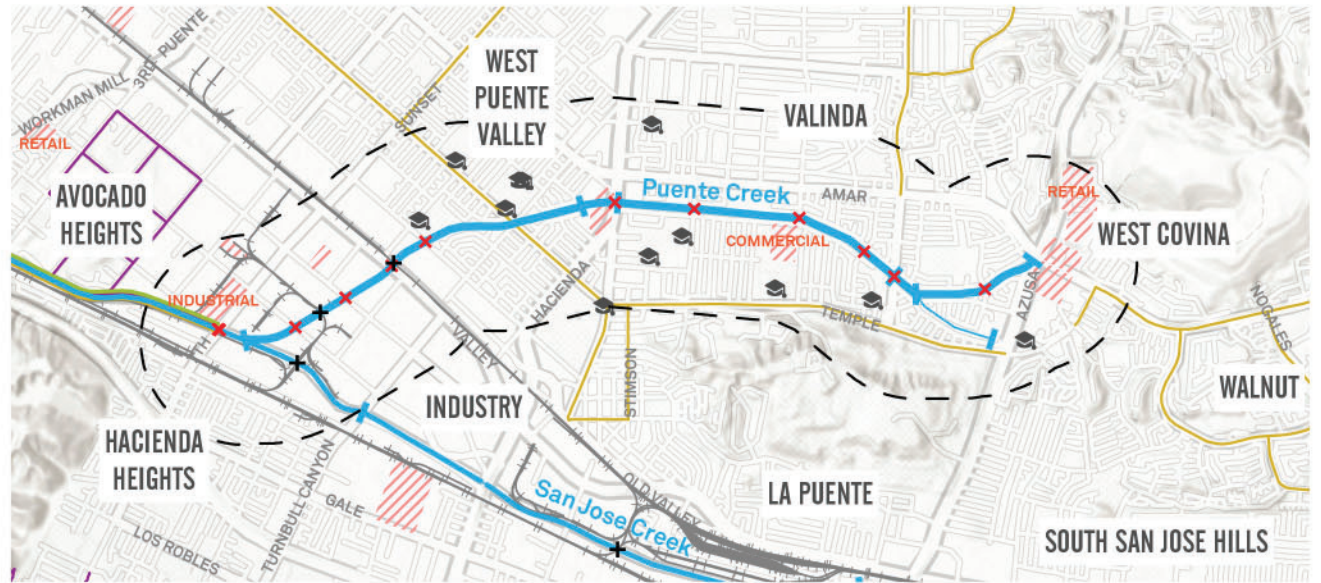
Generally, the households adjacent to Puente Creek have access to a vehicle. Additionally, there are very few areas within walking distance of the tributary that have access to high quality transit.

### ACTIVITY GENERATORS

This area is primarily residential however a few pockets of commercial/retail/industrial areas along the tributary could lead to increased activity. There are also several schools in the area including Wing Lane Elementary, Workman High, Del Valle School, Sierra Vista Middle, Sparks Elementary, and others.

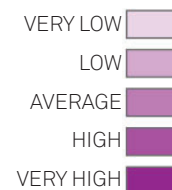
### EXISTING BIKEWAYS

There are a few major on-street bikeways near Puente Creek that could serve as valuable future connections including Temple Ave, Valinda Ave, and the existing bikeway along San Jose Creek.



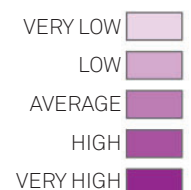
### NO TRANSIT ACCESS

From the California Healthy Places Index, this indicator measures the percentage of people living close to convenient, reliable transit, as defined by a half-mile or ten-minute walk, that comes every fifteen minutes or less during peak commute times.



### NO VEHICLE ACCESS

American Community Survey asks households if they have no vehicle available to develop transportation plans and services, understand how people are traveling in the course of a normal day, and evaluate pollution and access to transportation in emergencies.



# EQUITY STORY

## PUENTE CREEK

Unfair burden of air, water, and soil pollution can inform the value of nature-based solutions in our design concepts. While socioeconomic factors (e.g., poverty levels, linguistic isolation, etc) can help inform programming.

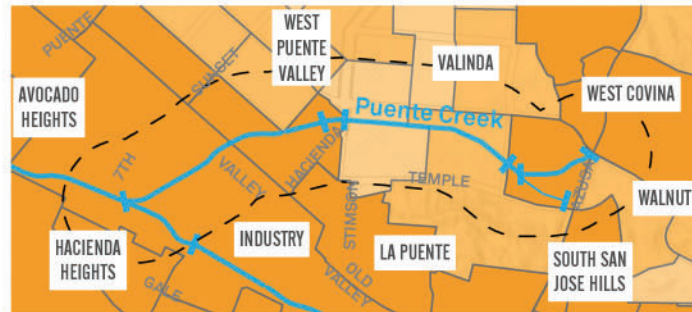
### OVERVIEW

Puente Creek is adjacent to many communities that are heavily impacted by environmental burden and socioeconomic factors including Industry, Hacienda Heights, Avocado Heights, and others.

Environmental burden is highest in the areas west of Stimson Ave, while sensitivity factors are more concentrated east of Stimson.

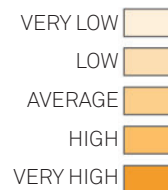


The equity story for Puente Creek is characterized by high rates of asthma throughout the area and heavy levels of housing burden and linguistic isolation throughout. Areas affected by additional sensitivity factors determined by the California Heat Assessment Tool (CHAT) are labeled here.



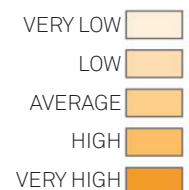
### ENVIRONMENTAL BURDEN

According to CalEnviroScreen, exposure to different types of pollution (e.g., air quality, lead risk, diesel, pesticides, etc) is very high throughout.



### SENSITIVITY AND SOCIOECONOMIC FACTORS

CalEnviroScreen rates each census tract's sensitivity to environmental pollution from Very Low to Very High based on socioeconomic and health factors.



# COMMUNITY STORY

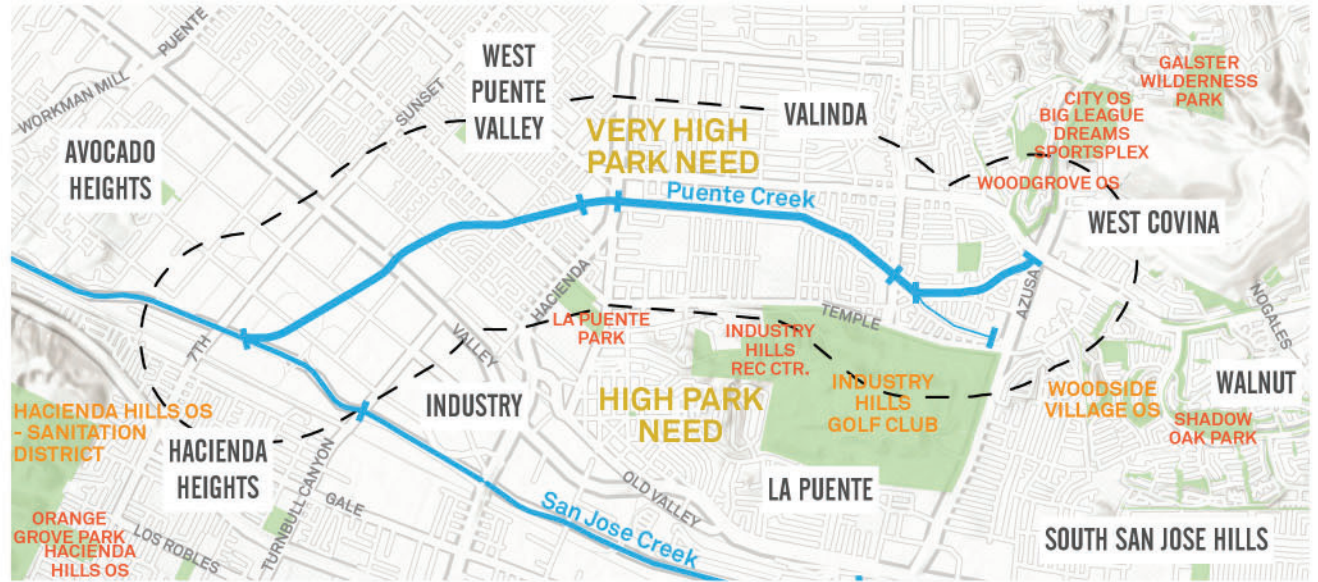
## PUENTE CREEK

### PART 1 - GATHERING SPACES

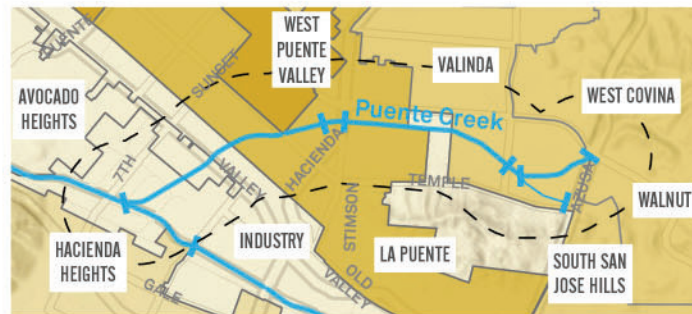
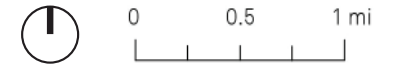
Understanding existing community gathering spaces can inform how our project could add to open space access in the area by revealing where to route trails and optimize connectivity.

#### OVERVIEW

Puente Creek does have small areas of retail/commercial development, however, lacks park space. The largest open space in the area is a golf course, leading to some areas having a designation of “high” to “very high” park need in the latest Department of Parks and Recreation (DPR) analysis.

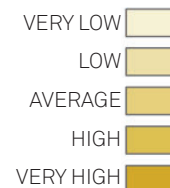


The community story for Puente Creek is characterized High to Very High park in the eastern areas of the tributary.



#### PARK NEED

LA County's Parks and Recreation Needs Assessment documented existing facilities, park pressure, park condition, and walkability.



#### LOCATIONS OF ACTIVITY

Retail, office, and industrial land uses are highlighted in gold as potential activity drivers.



# COMMUNITY STORY

## PUENTE CREEK

### PART 2 - DEMOGRAPHICS

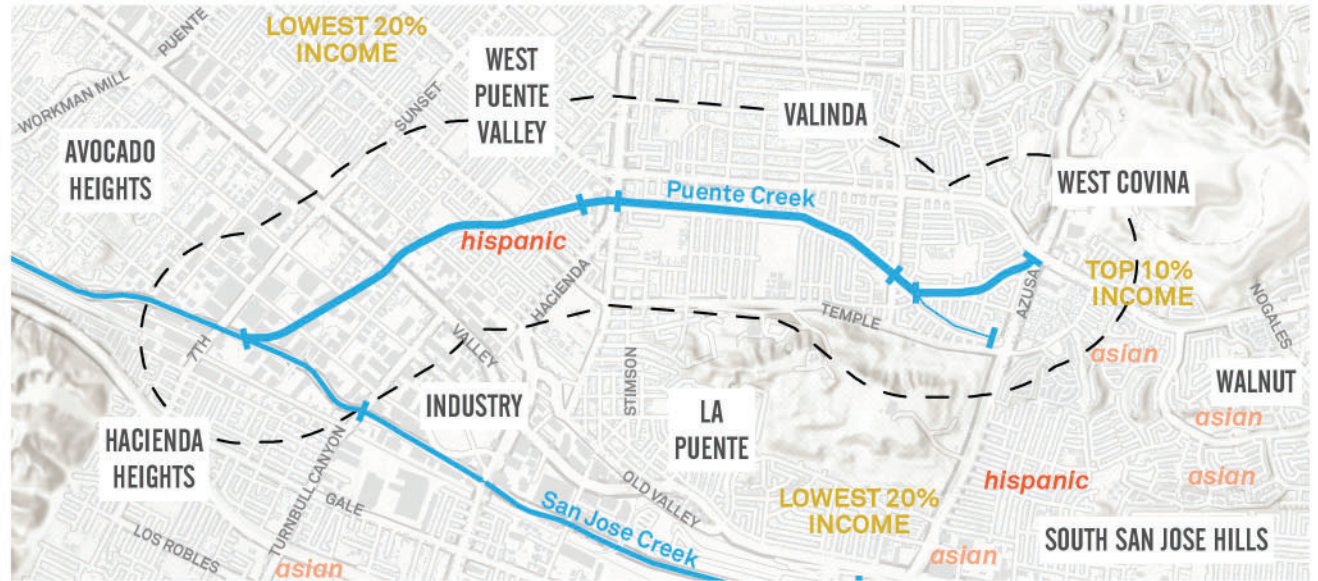
Understanding key demographic factors can inform the style and programming of the area.

#### INCOME

Much of the community adjacent to Puente Creek is in average income brackets for the County. Parts of the eastern end of the wash, near West Covina are higher income.

#### POPULATION

There is a large Hispanic population in most of the area adjacent to Puente Creek.

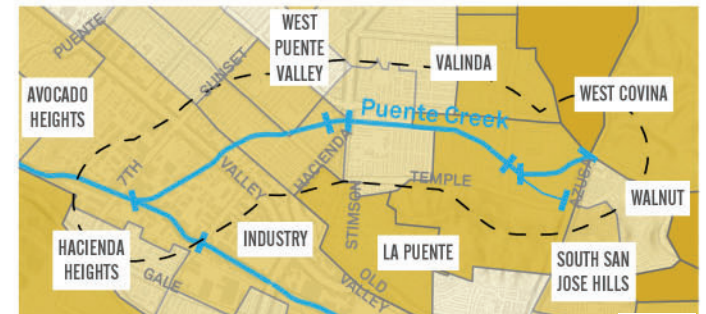
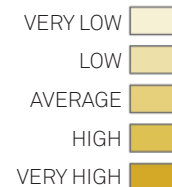


The demographic story for Puente Creek is characterized by a strong Hispanic community and mixed incomes.



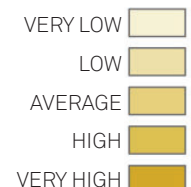
#### HISPANIC POPULATION

According to the 2010 census, the majority of the community within walking distance of Puente Creek is in the highest quartile in terms of Hispanic Population for LA County.



#### MEDIAN HOUSEHOLD INCOME

According to the 2010 census, the majority of the community within walking distance of Puente Creek is at or above the County's average Household Income.





# SYNERGY STORY

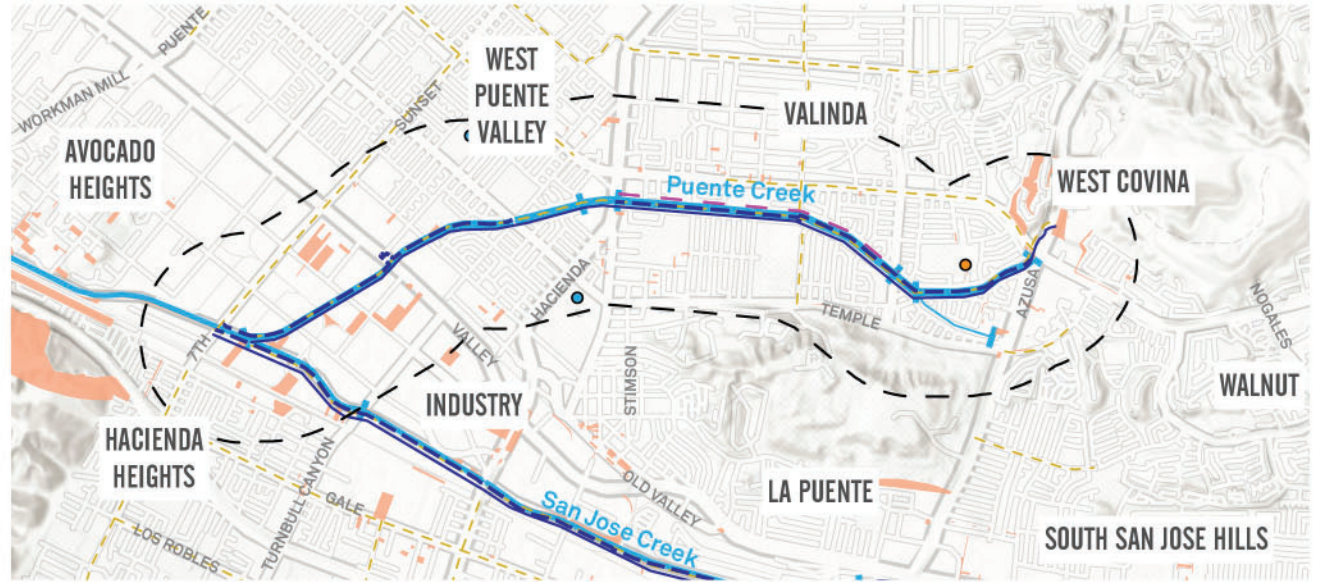
## PUENTE CREEK

### PART 1 - OPPORTUNITIES

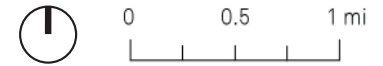
*Synergy story – early implementation projects, non-greenway projects, vacant parcels, and public land can help us understand where there are potential opportunities to build on the greenway.*

#### PUENTE CREEK SYNERGY OPPORTUNITIES:

- Puente Creek has been recommended for a bikeway by multiple previous efforts and studies including the LA County Bicycle Master Plan, the Southern California Association of Governments' (SCAG) Regional Transportation Plan, and the San Gabriel Valley Council of Governments' (SGVCOG) Greenway Study.
- A 1.9 mile “early implementation” bikeway project is in a design phase between Rimgrove Drive and Hacienda Boulevard.



- PARK NEEDS 2016
- SGR WATERSHED MGMT PLN
- LA CTY BIKE MASTERPLAN 2012
- REGIONAL TRANSIT 2012
- - - LA CTY PROPOSED BIKEWAYS
- - - EARLY IMPLEMENTATION
- VACANT GOV PARCELS



# SYNERGY STORY

## PUENTE CREEK

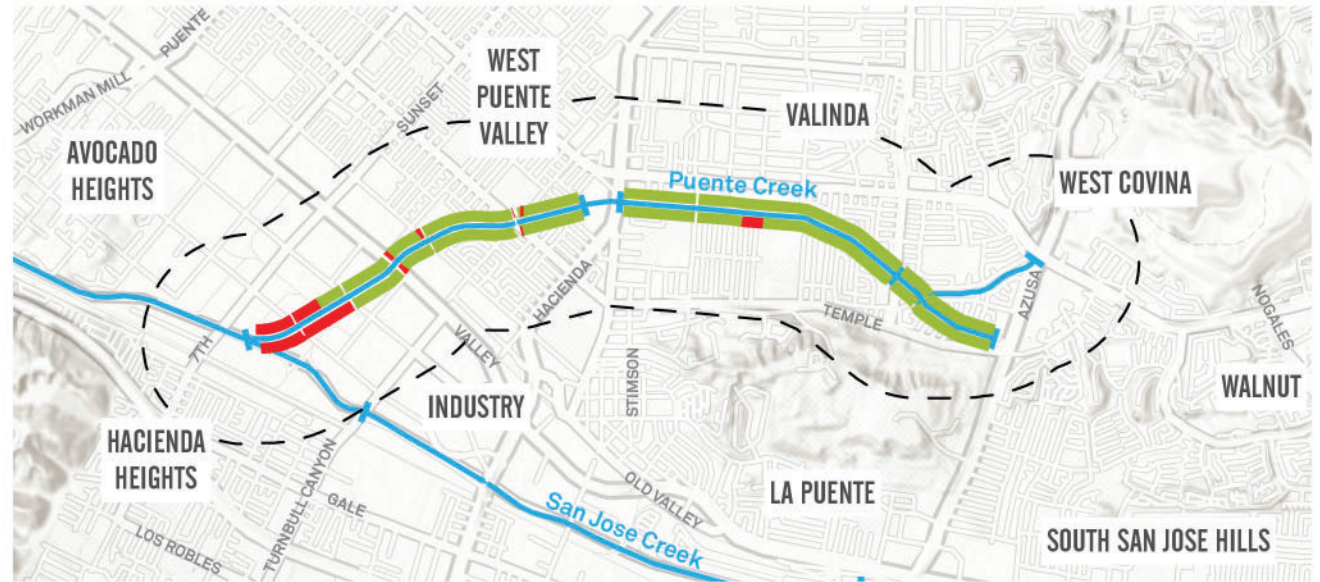
### PART 2 - LEGAL COMPLEXITY

*Understanding the legal constraints along each wash can help identify issues that should be accounted for in design.*

#### PUENTE CREEK LEGAL COMPLEXITY

The underlying parcels of this tributary are mostly owned by the County Flood Control District, enabling potential greenway implementation. Some of these Easement agreements only allow for flood control operation and would need to be modified for a greenway to be opened. Additionally, these channels are operated and maintained entirely by the County Flood Control District.

A permit from the Army Corps of Engineers may be needed for any work that impacts flood control.



**OWNERSHIP AGREEMENT**  
■ EASEMENT  
■ FEE



# SYNERGY STORY

## PUENTE CREEK

### PART 3 - PHYSICAL COMPLEXITY

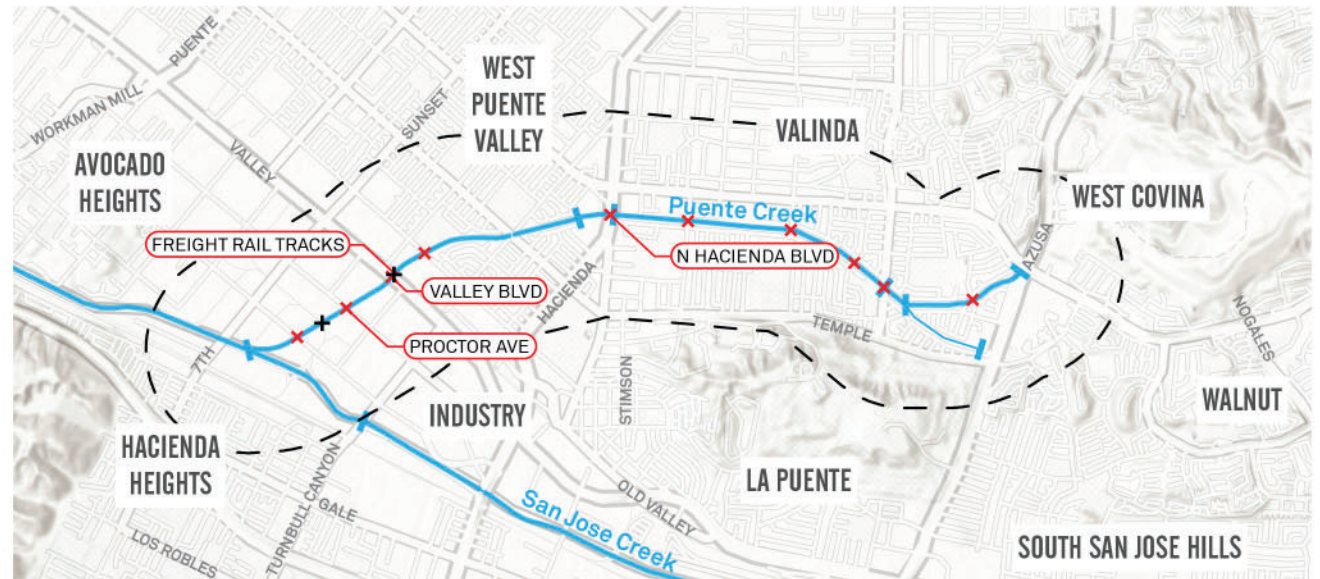
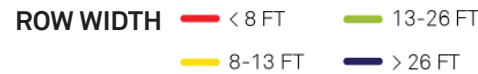
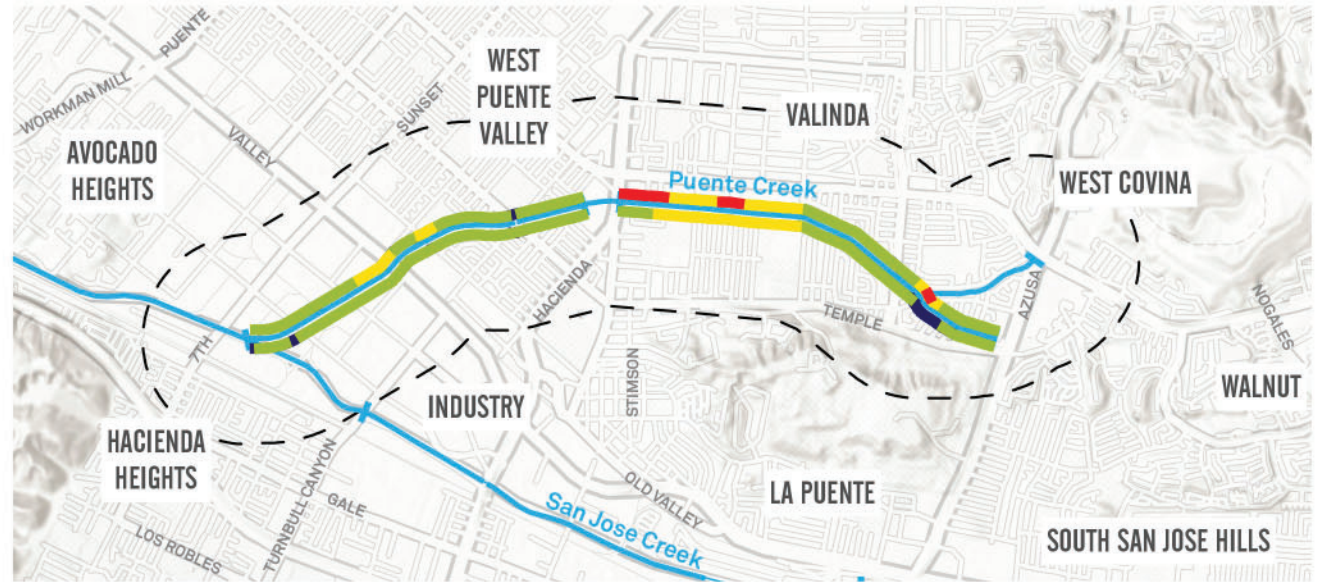
Understanding the physical constraints along each wash can help identify issues that should be accounted for in design.

#### PUENTE CREEK PHYSICAL COMPLEXITY

The available right-of-way along Puente Creek is generally promising, with few constrained areas. Major physical constraints include the crossing at Hacienda Blvd, as well as the narrow right-of-way between Hacienda Blvd and North Echelon Ave.

*Potentially challenging crossings along Puente Creek may include:*

- N Hacienda Blvd/shopping center: 5-lane arterial road adjacent to shopping center where the Wash undergrouds.
- Valley Blvd/Railroad: 6-lane arterial with adjacent freight rail tracks.
- Proctor Ave: 5-lane arterial road.



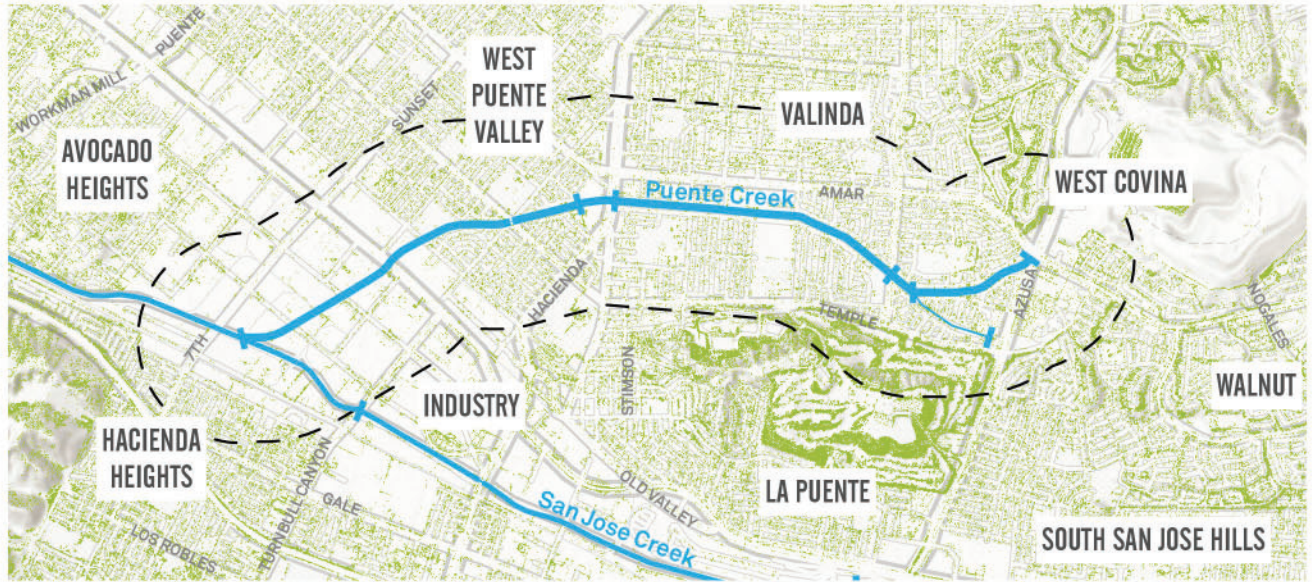
# ENVIRONMENT STORY

## PUENTE CREEK

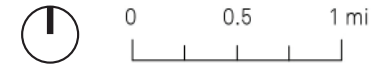
Shade study, impervious surfaces, and heat vulnerability can help us see where trees can be the most beneficial.

### OVERVIEW

Tree canopy in this area is very much lacking. Aside from the furthest east segment of the wash, we see low tree canopy and pockets of severe and above average heat index vulnerability, especially in the area of West Puente Valley. Permeability seems to be less of an issue along Puente Creek, with most areas registering in the average level. In West Puente Valley and South San Jose Hills, the area is less permeable which may affect water quality and flood risk.

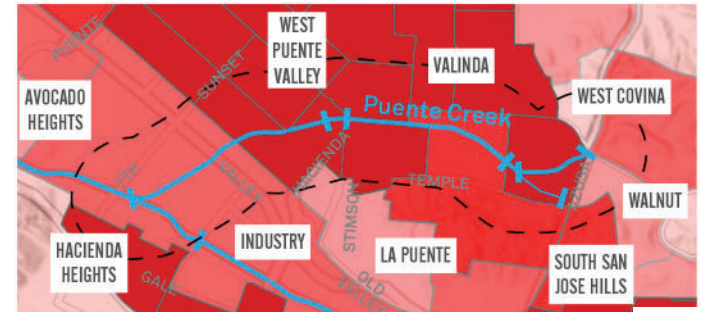
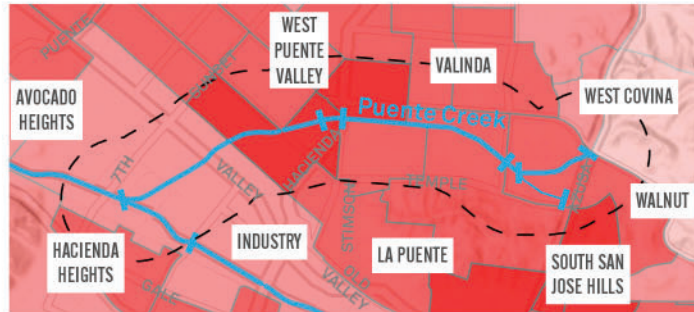


The environment story for Puente Creek shows high heat vulnerability across the community, particularly at the eastern end where there is less tree canopy.



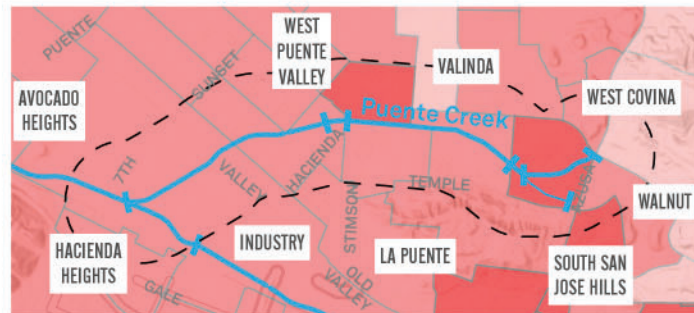
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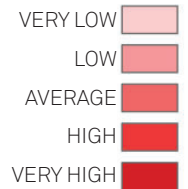
### PERCENT IMPERVIOUS SURFACES

Impervious surfaces are areas of the land hardened by such structures as houses, patios, driveways, and transportation infrastructure. An increase in impervious surfaces can alter the hydrology within a watershed with significant impact on water quality and aquatic and riparian habitat (CHAT).



### PERCENT WITHOUT TREE CANOPY

Developed by the California Healthy Place Index, this indicator measures the percentage of land without tree canopy.



# TRIBUTARY NARRATIVE

## RUBIO WASH

### OVERVIEW

- Rubio Wash is a 5 mile tributary which weaves through diverse urban and suburban communities.
- Rubio Wash is rich with potential destinations including commercial corridors along Valley Blvd, the Southern Pacific Railway, and Las Tunas Blvd.
- Schools in the area include Emma Shuey Elementary and Mildred Janson Elementary.
- The communities in the northern portion of the wash lack access to reliable transit.
- The majority of the community within walking distance of Rubio Wash is at or above the County's average for Household Income.
- A greenway has been proposed along Rubio Wash by many previous planning documents including the Southern California Association of Governments' Regional Transportation Plan, the San Gabriel Valley Council of Governments' Greenway Study, as well as in the 2012 LA County Bicycle Plan.
- Rubio Wash presents complex physical challenges to implementation with a constrained right-of-ways along much of its banks.
- Environmentally, the southern part of Rubio Wash is lacking tree canopy, is high in concentrations of impervious surfaces, and has a highly vulnerable heat index.
- The southern end of the tributary provides the most opportunity for improving environmental conditions



TRIBUTARY SEGMENTS



0 0.5 1 mi

# CIRCULATION STORY

## RUBIO WASH

Knowing existing circulation can inform where we prioritize connections, partnerships, and modality.

### VEHICLE/TRANSIT ACCESS

Focused to the west of Rubio Wash, the communities of Monterey Park, Rosemead, and Alhambra show concentrations of households with “No Vehicle.” The northern section of Rubio Wash above Mission Road, as well as the very southern area near Rio Hondo, show high concentrations of households that do not have access to high quality transit.

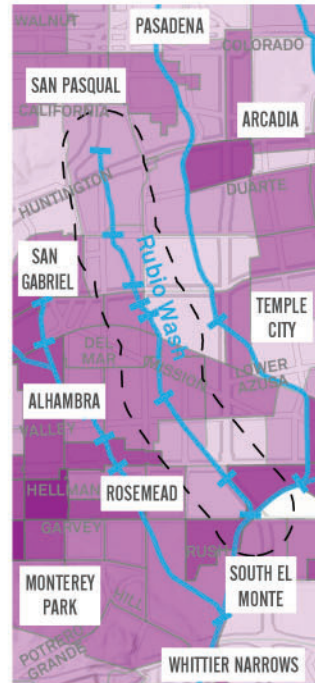
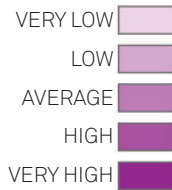
### ACTIVITY GENERATORS

Potential activity generators along the Wash include pockets of retail and commercial areas along Las Tunas, Valley, and Huntington Blvd., as well as many schools.

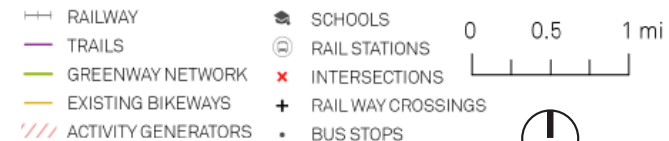
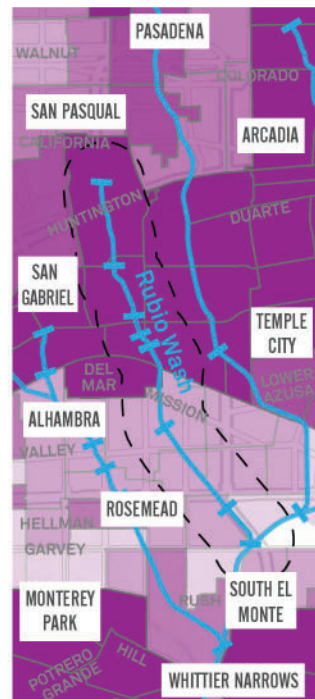
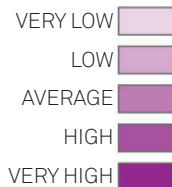
### EXISTING BIKEWAYS

Few existing bikeways exist in the area, aside from the Rio Hondo bike path and further north in Pasadena.

**NO VEHICLE ACCESS**  
American Community Survey asks about vehicles available to each household to develop transportation plans and services, understand how people are traveling in the course of a normal day, and evaluate pollution and access to transportation in emergencies.



**NO TRANSIT ACCESS**  
From the California Healthy Places Index, this indicator measures the percentage of people living close to convenient, reliable transit, as defined by a half-mile or ten-minute walk, that comes every fifteen minutes or less during peak commute times.



# EQUITY STORY

## RUBIO WASH

Unfair burden of air, water, and soil pollution can inform the value of nature-based solutions in our design concepts. While socioeconomic factors (e.g., poverty levels, linguistic isolation, etc) can help inform programming.

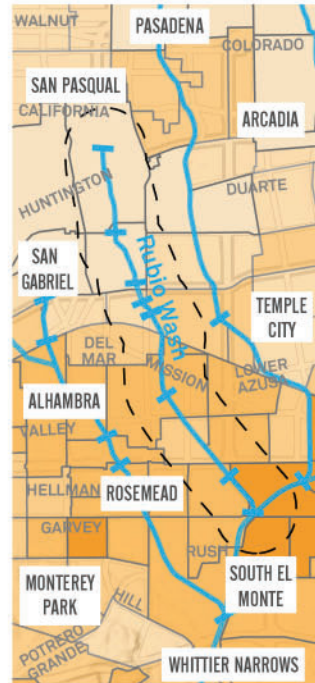
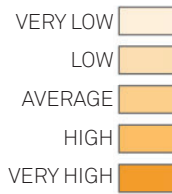
### OVERVIEW

The most environmentally burdened communities of Rubio Wash are concentrated towards the south of this tributary through San Gabriel and El Monte. The most impacted tract in this area is near Rosemead with a CalEnviroScreen percentile score of 83%.

We also see pockets of Environmental Burden, Housing Burden, and Linguistic Isolation in the central areas of Rubio Wash.

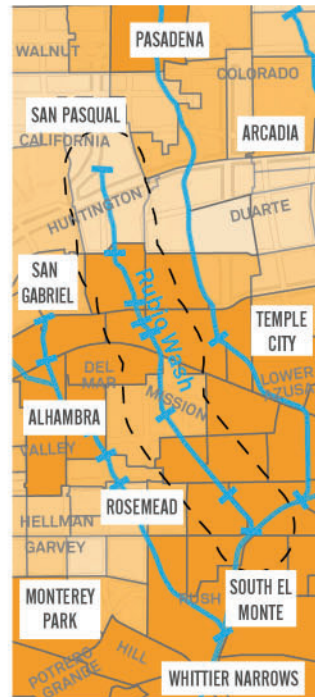
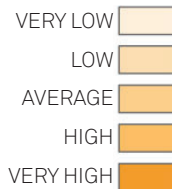
### SENSITIVITY AND SOCIOECONOMIC FACTORS

CalEnviroScreen rates each census tract's sensitivity to environmental pollution from Very Low to Very High based on socioeconomic and health factors.

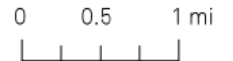


### ENVIRONMENTAL BURDEN

According to Cal EnviroScreen, exposure to different types of pollution (e.g., air quality, lead risk, diesel, pesticides, etc) is Very High south of Las Tunas Drive.



The equity story for Eaton Canyon is characterized by high rates of asthma throughout the area and heavy levels of housing burden to the south.



# COMMUNITY STORY

## RUBIO WASH

### PART 1 - GATHERING SPACES

Understanding existing community gathering spaces can inform how our project could add to open space access in the area by revealing where to route trails and optimize connectivity.

#### ACTIVITY GENERATORS

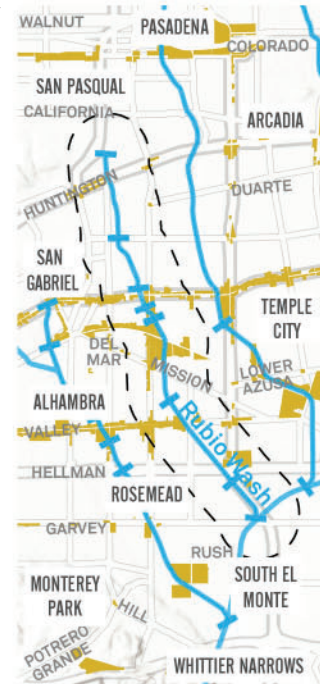
Gathering spaces are concentrated along Las Tunas, Valley, and Huntington Blvds. There are very few parks and open spaces in the area adjacent to Rubio Wash.

#### PARK NEED

Park Need is average to Very High throughout the tributary area. The highest concentration in park need is in the southern area near Rosemead, and also to the east in Temple City and southern Arcadia.

#### LOCATIONS OF ACTIVITY

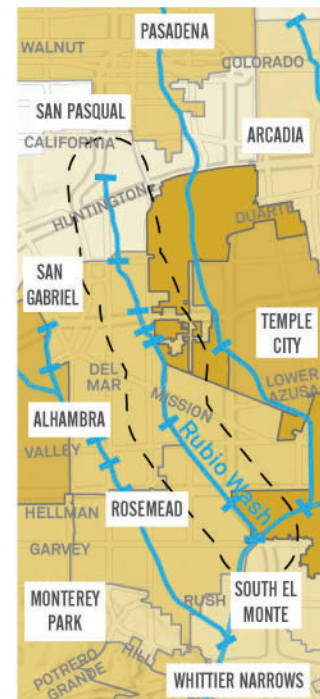
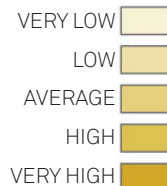
Retail, office, and industrial land uses are highlighted in gold as potential activity drivers.



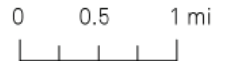
RETAIL / OFFICE / INDUSTRIAL

#### PARK NEED

LA County's Parks and Recreation Needs Assessment documented existing facilities, park pressure, park condition, and walkability.



The community story for Rubio Wash is characterized by High to Very High park need east and south of the tributary.





# COMMUNITY STORY

## RUBIO WASH

### PART 2 - DEMOGRAPHICS

Understanding key demographic factors can inform the style and programming of the area.

#### INCOME

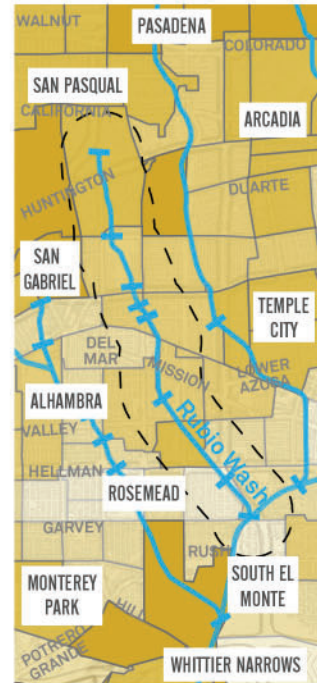
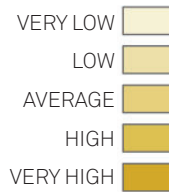
Median incomes in this area are generally Average to High in this area, however we see the highest incomes north near San Marino, East San Gabriel. The lowest average household incomes are in San Gabriel, Rosemead, and El Monte.

#### POPULATION

There is a strong Asian presence throughout the area. Hispanic communities are largest in El Monte. The most population dense area is also in El Monte and near Rosemead.

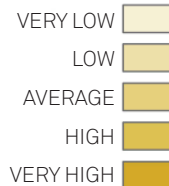
#### MEDIAN HOUSEHOLD INCOME

According to the 2010 census, the majority of the community within walking distance of Rubio Wash is at or above the County's average Household Income. Communities with lowest household income are grouped in the southern end of the tributary.

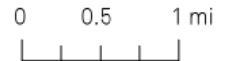


#### ASIAN POPULATION

According to the 2010 census, the majority of the community within walking distance of Rubio Wash is in the highest quantile in terms of Asian Population for LA County.



The demographic story for Rubio Wash is characterized by a strong Asian community, lower incomes to the south, and higher incomes to the north.



# SYNERGY STORY

## RUBIO WASH

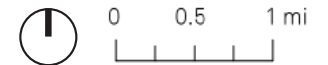
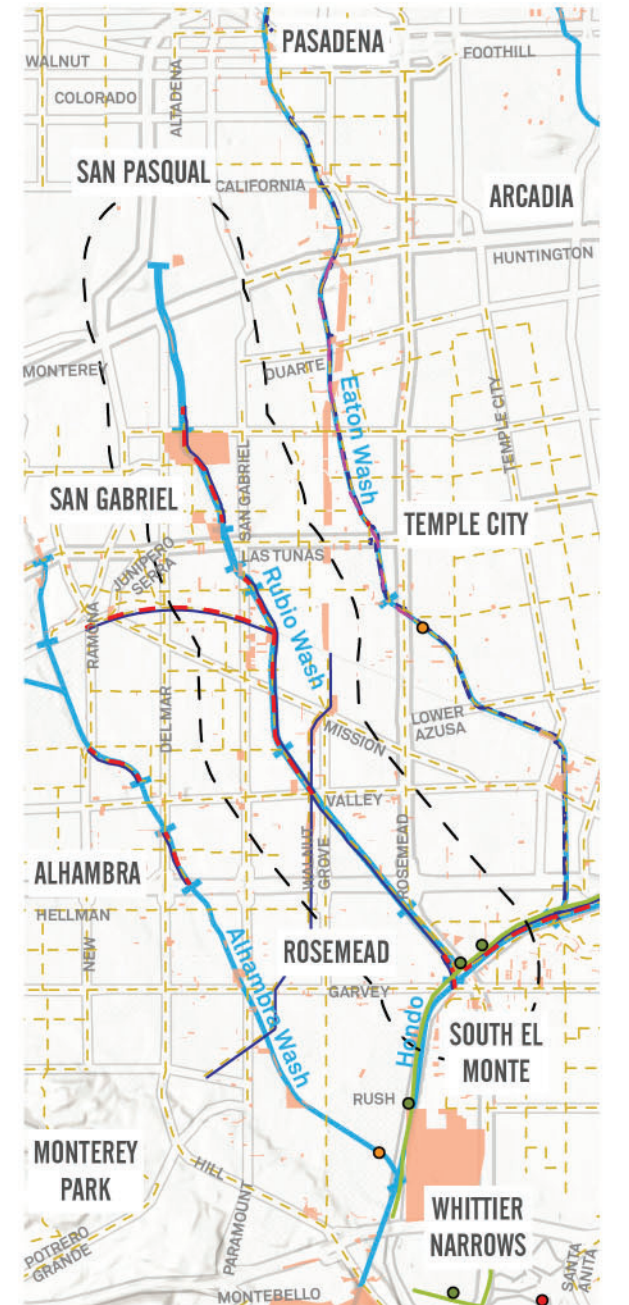
### PART 1 - OPPORTUNITIES

*Synergy story – early implementation projects, non-greenway projects, vacant parcels, and public land will help us understand where there are potential opportunities to build on the greenway.*

#### RUBIO WASH SYNERGY OPPORTUNITIES:

- There are many proposed on-street facilities in this area that may provide future connections.
- Rubio Wash has been identified for greenway development in the San Gabriel Valley Council Of Governments' (SGVCOG) Greenways Study, and some segments of it were identified in the Metro Active Transportation Strategic Plan; including a greenway along the Alhambra subdivision railway.
- The 2012 LA County Bicycle Master Plan, as well as the San Gabriel Valley Regional Bicycle Plan 2014, and the Southern California Association of Governments' (SCAG) Regional Transportation Plan 2014 also identified Rubio Wash for future greenway development.

- EMERALD NECKLACE 2017
- PARK NEEDS 2016
- SGR MASTERPLAN 2006
- LA CTY BIKE MASTERPLAN 2012
- GREENWAY NETWORK
- REGIONAL TRANSIT 2012
- METRO ACTIVE PLN 2016
- - - LA CTY PROPOSED BIKEWAYS
- - - EARLY IMPLEMENTATION
- VACANT GOV PARCELS



# SYNERGY STORY

## RUBIO WASH

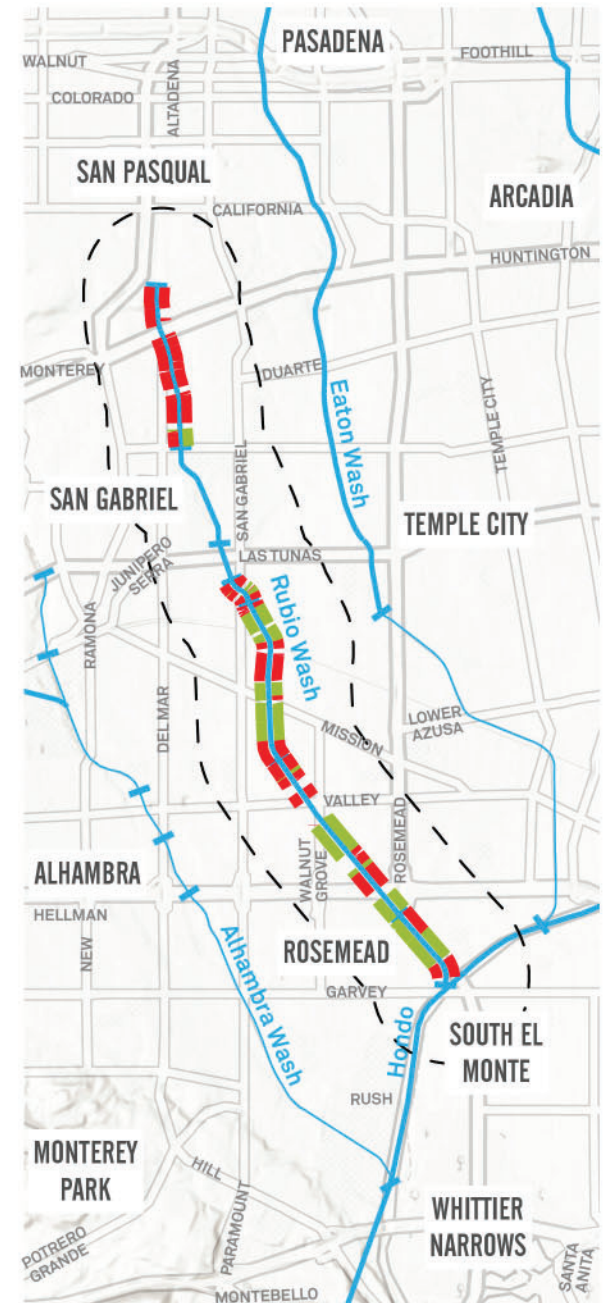
### PART 2 - LEGAL COMPLEXITY

*Understanding the legal constraints along each wash can help identify issues that should be accounted for in design.*

#### RUBIO WASH LEGAL COMPLEXITY

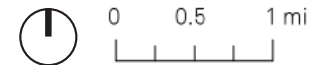
Rubio Wash is completely within the Los Angeles County Flood Control District maintenance jurisdiction. The channel is operated through various Fee and Easement agreements with underlying property owners. Some of these Easement agreements only allow for flood control operation and would need to be modified for a greenway to be opened.

US Army Corp of Engineers permits may be needed for work impacting flood control.



#### OWNERSHIP AGREEMENT

- EASEMENT
- FEE



# SYNERGY STORY

## RUBIO WASH

### PART 3 - PHYSICAL COMPLEXITY

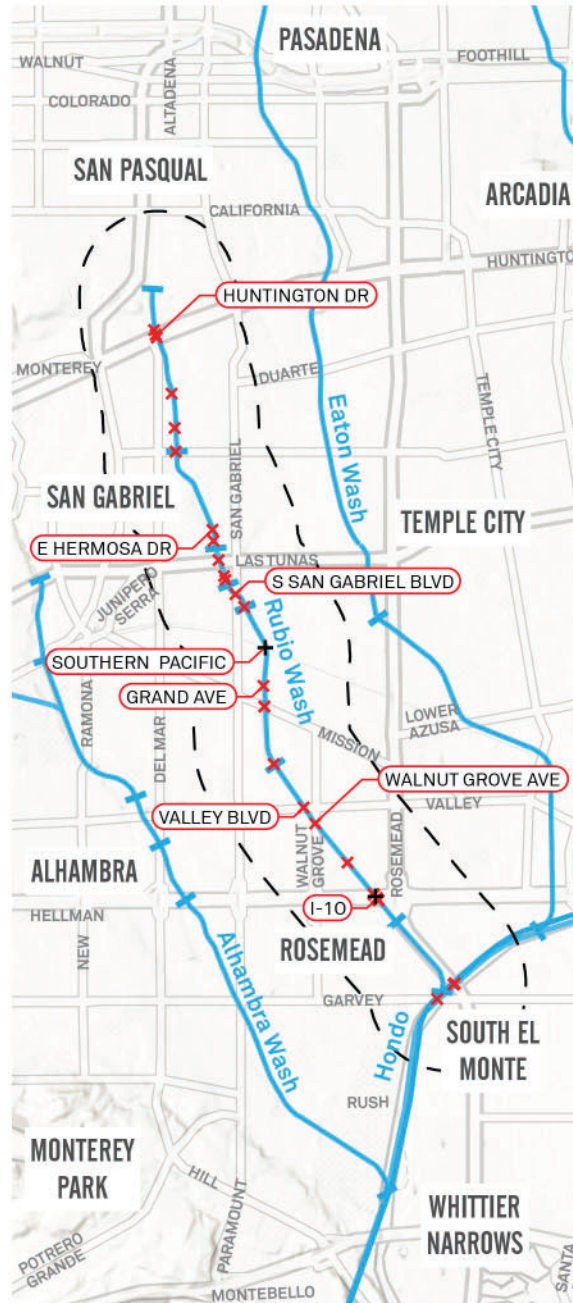
Understanding the physical constraints along each wash can help identify issues that should be accounted for in design.

#### RUBIO WASH PHYSICAL COMPLEXITY

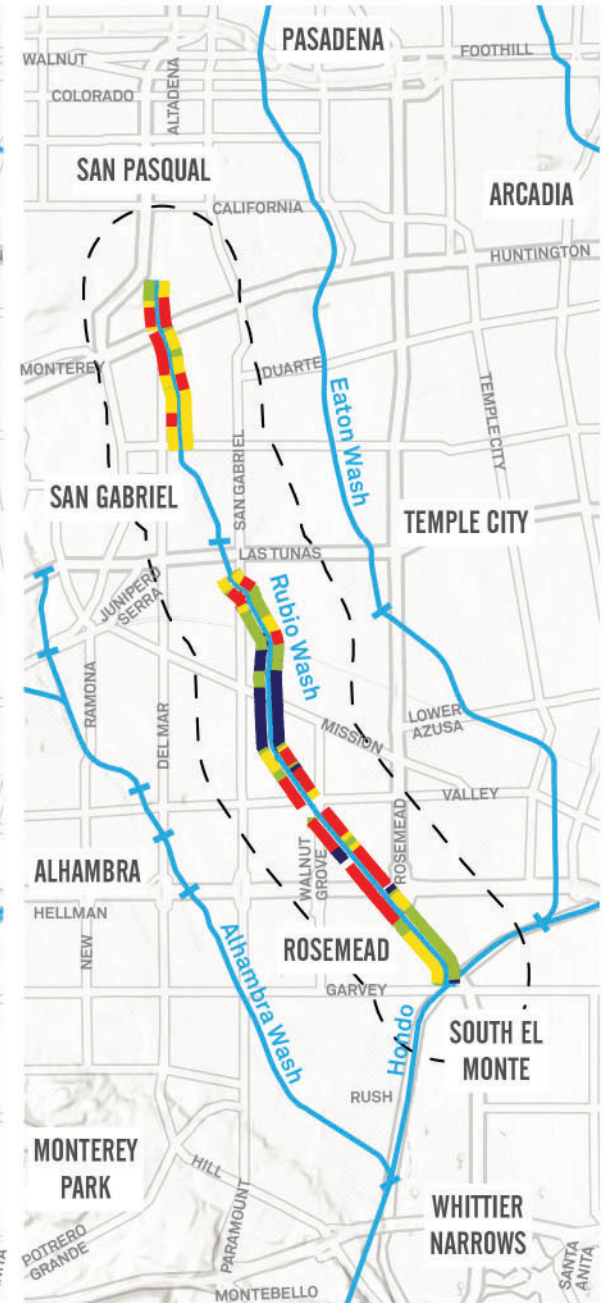
Rubio Wash has a highly constrained Right-of-ways on either side of the channel. Most of the tributary does not have an adjacent access road, with less than 8 feet of available space. There is a short segment of available space near Mission Road, and another to the south, near the Rio Hondo. Exploring a greenway along Rubio Wash would likely include more complex solutions such as cantilever decks, or an incised channel.

*Potentially challenging crossings along Rubio Wash may include:*

- Huntington Dr: 6 travel lanes and a large, planted median.
- The segment between East Hermosa Dr and South San Gabriel Blvd where the Wash is underground and crosses two major roads.
- Southern Pacific Railroad crossing north of Grand Ave.
- Between Valley Blvd and Walnut Grove Ave where the Wash crosses two 5-lane arterial roads and passes below a parking lot.
- The I-10 Freeway.



**INTERSECTIONS & CROSSINGS**  
 X STREET INTERSECTIONS  
 + RAILROAD CROSSINGS



**ROW WIDTH**  
 < 8 FT  
 8-13 FT  
 13-26 FT  
 > 26 FT

0 0.5 1 mi

# ENVIRONMENT STORY

## RUBIO WASH

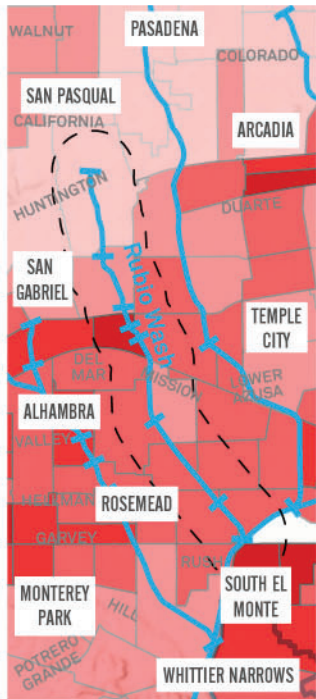
Shade study, impervious surfaces, and heat vulnerability can help us see where trees can be the most beneficial.

Tree canopy along Rubio Wash is sparse, aside from a few small areas to the north.

Impervious surfaces are most concentrated in South San Gabriel, El Monte, and Rosemead. The heat vulnerability index and impervious surface concentration is highest in the southern communities of South El Monte, South San Gabriel, and Rosemead.

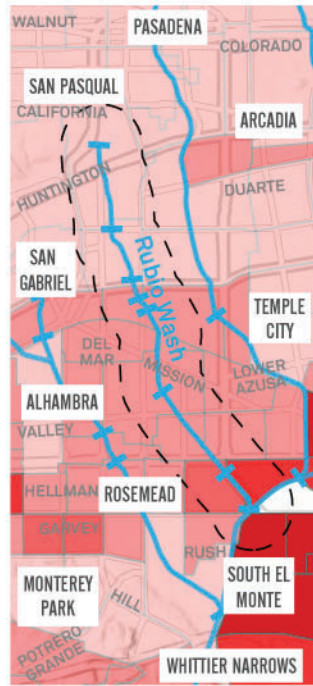
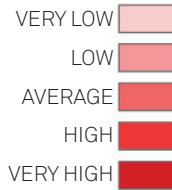
### PERCENT IMPERVIOUS SURFACES

Impervious surfaces are areas of the land hardened by such structures as houses, patios, driveways, and transportation infrastructure. An increase in impervious surfaces can alter the hydrology within a watershed with significant impact on water quality and aquatic and riparian habitat (CHAT).



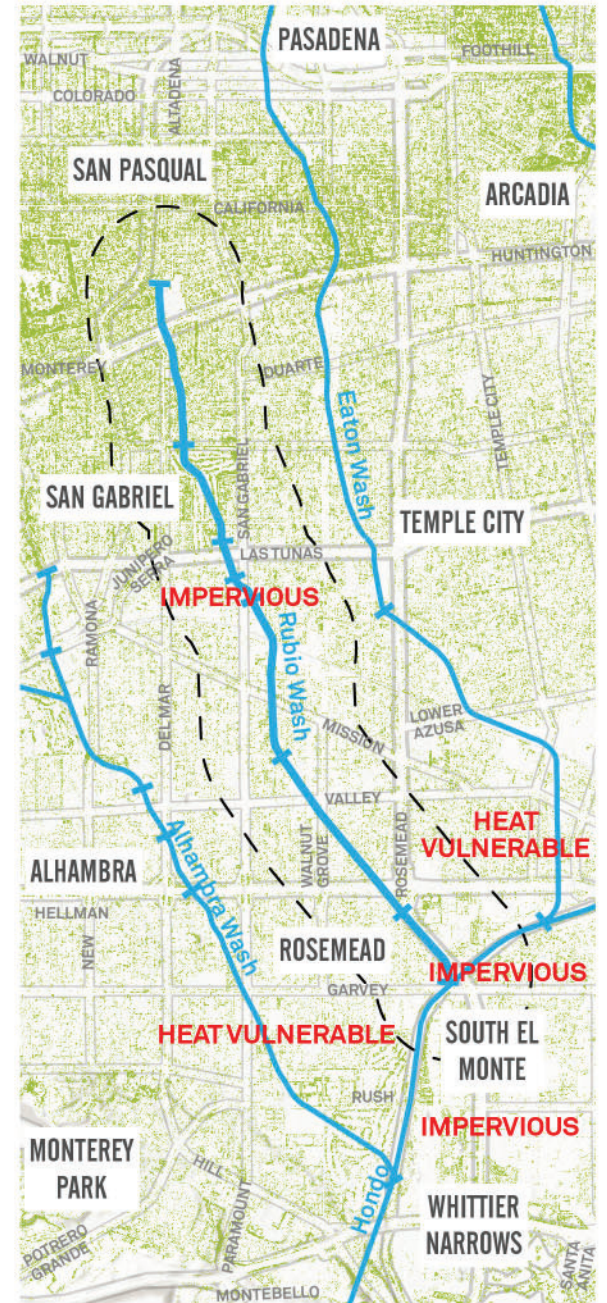
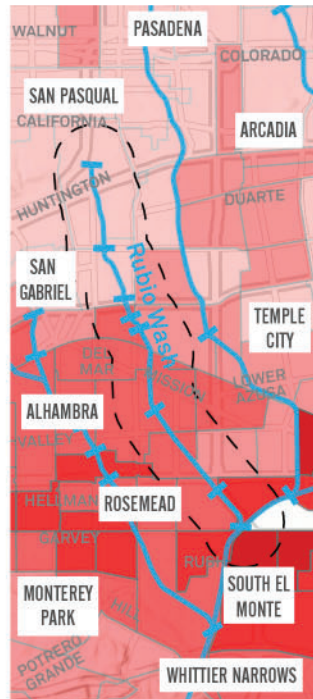
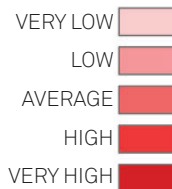
### PERCENT WITHOUT TREE CANOPY

Developed by the California Healthy Place Index, this indicator measures the percentage of land without tree canopy.

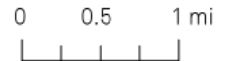


### HEAT VULNERABILITY

The California Heat Assessment Tool (CHAT) was developed by Four Twenty Seven, Inc. in partnership with Argos Analytics, Habitat Seven, and the Public Health Institute. This layer represents the vulnerability of communities to heat-related health impacts.



The environment story for Rubio Wash shows high heat vulnerability in the southern end where there is less tree canopy.



# TRIBUTARY NARRATIVE

## SAN JOSE CREEK

### OVERVIEW

- At 24 miles, San Jose Creek is one of the largest tributaries in the study area. The tributary stretches from the San Gabriel River to the Mountains via Thompson Creek.
- The area does not have many retail or commercial corridors, but there are some light industrial job centers, and important connections to transit.
- Many of the San Jose Creek communities are heavily burdened environmentally and socioeconomically.
- Many of the San Jose Creek communities are “park poor.”
- A short bikeway exists on the western end of San Jose Creek. San Jose Creek has been identified for greenway development in multiple plans and a 3 mile greenway within Pomona is currently in development.
- There are many opportunities for Greenway development along the banks of San Jose Creek, with only minor segments of constrained right-of-way.
- This area lacks tree canopy.



TRIBUTARY SEGMENTS



0 0.5 1mi

# CIRCULATION STORY

## SAN JOSE CREEK

Knowing existing circulation can inform where we prioritize connections, partnerships, and modality.

### VEHICLE/TRANSIT ACCESS

Generally, the households adjacent to San Jose Creek have access to a vehicle. Additionally, there are very few areas within walking distance of San Jose Creek that have access to high quality transit, especially on the western side of the tributary.

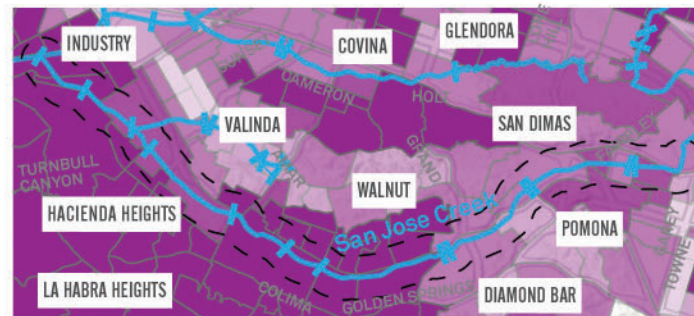


### EXISTING BIKEWAYS

There are a few major on-street bikeways near San Jose Creek that could serve as valuable future connections. Namely, North Grand Avenue and Colima Road. Additionally Metrolink runs just south of San Jose Creek and two nearby stations could serve as vital transit connections.

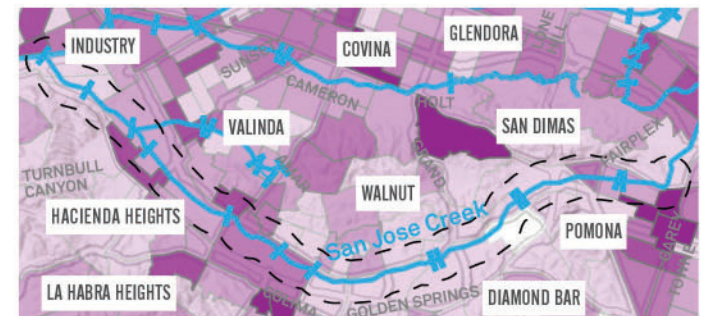
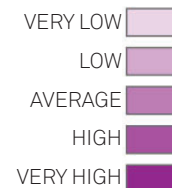
### ACTIVITY GENERATORS

This area is primarily residential however a few pockets of commercial/retail/industrial areas along the tributary could lead to increased activity. There are also several schools in the area, including major colleges Pitzer and Claremont on the far east side.



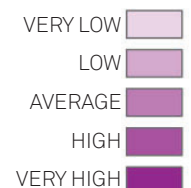
#### NO TRANSIT ACCESS

From the California Healthy Places Index, this indicator measures the percentage of people living close to convenient, reliable transit, as defined by a half-mile or ten-minute walk, that comes every fifteen minutes or less during peak commute times.



#### NO VEHICLE ACCESS

American Community Survey asks households if they have no vehicle to develop transportation plans and services, understand how people are traveling in the course of a normal day, and evaluate pollution and access to transportation in emergencies.



# EQUITY STORY

## SAN JOSE CREEK

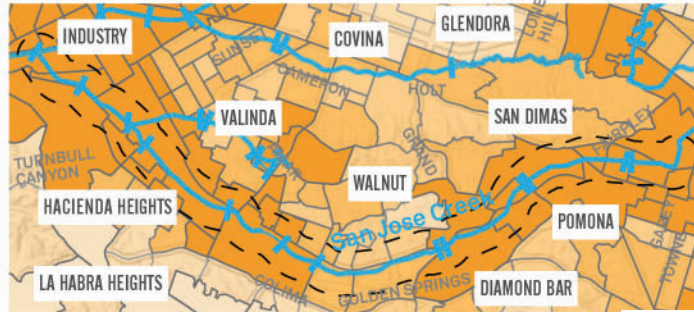
Unfair burden of air, water, and soil pollution can inform the value of nature-based solutions in our design concepts. While socioeconomic factors (e.g., poverty levels, linguistic isolation, etc) can help inform programming.

### OVERVIEW

The communities of San Jose Creek are heavily impacted by environmental burden as well as socioeconomic factors. Industrial pollution and other factors have resulted in a largely disadvantaged community. Socioeconomic factors and environmental burden range from high to very high in most of this area.

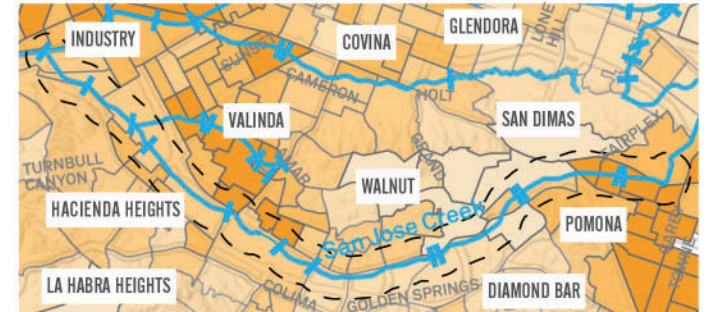
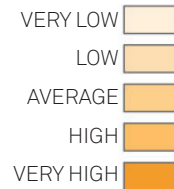


The equity story for San Jose Creek is characterized by high rates of asthma throughout the area and heavy levels of housing burden and linguistic isolation throughout. Areas affected by additional sensitivity factors determined by the California Heat Assessment Tool (CHAT) are labeled here as well.



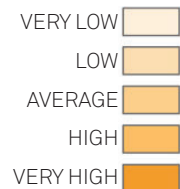
### ENVIRONMENTAL BURDEN

According to Cal EnviroScreen, exposure to different types of pollution (e.g., air quality, lead risk, diesel, pesticides, etc) is very high through most of the corridor.



### SENSITIVITY AND SOCIOECONOMIC FACTORS

CalEnviroScreen rates each census tract's sensitivity to environmental pollution from Very Low to Very High based on socioeconomic and health factors.





# COMMUNITY STORY

## SAN JOSE CREEK

### PART 1 - GATHERING SPACES

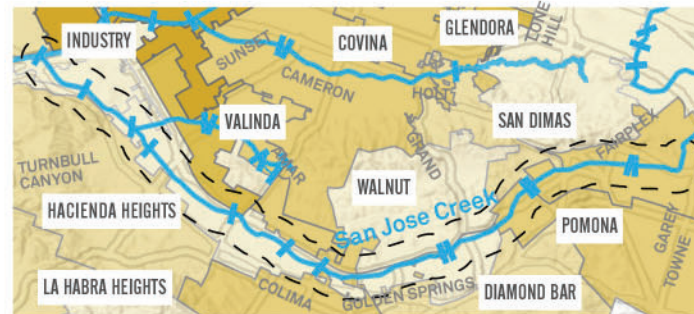
Understanding existing community gathering spaces can inform how our project could add to open space access in the area by revealing where to route trails and optimize connectivity.

#### OVERVIEW

There are large park spaces to the north and south of San Jose Creek that relieve some of the area's "park pressure," however most of them fall outside of walking distance from San Jose Creek and thus many of the residents who live near the creek. Many of the areas near San Jose Creek are in the High to Very High Park Need categories. Aside from some light industrial use to the east, there are few commercial or retail areas along San Jose Creek.

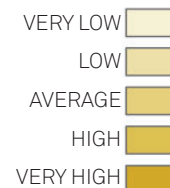


The community story for San Jose Creek is characterized by High to Very High park need to the north and south of the tributary.



#### PARK NEED

LA County's Parks and Recreation Needs Assessment documented existing facilities, park pressure, park condition, and walkability.



#### LOCATIONS OF ACTIVITY

Retail, office, and industrial land uses are highlighted in gold as potential activity drivers.



# COMMUNITY STORY

## SAN JOSE CREEK

### PART 2 - DEMOGRAPHICS

Understanding key demographic factors can inform the style and programming of the area.

#### INCOME

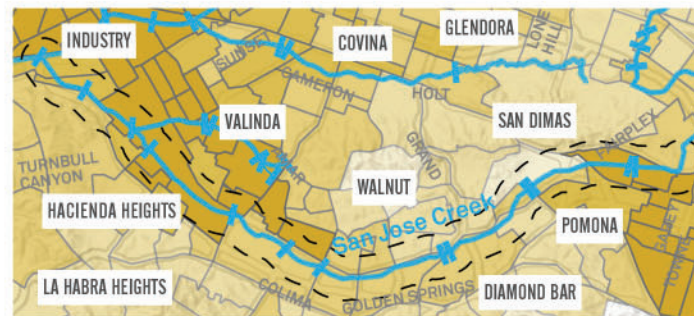
Median incomes in this area are mixed, with many areas in the Lowest 20% income bracket, yet a few areas to the far east of the tributary in the Top 10% bracket for the County.

#### POPULATION

Demographics in the area are mixed as well, with a large Asian population throughout the area, as well as Hispanic areas in the western part of the tributary.

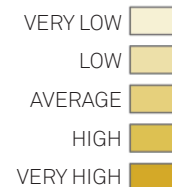


The demographic story for San Jose Creek is characterized by a strong Asian community and mixed incomes. Areas affected by additional sensitivity factors determined by the California Heat Assessment Tool (CHAT) are labeled here as well.



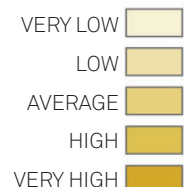
#### HISPANIC POPULATION

According to the 2010 census, much of the area on the eastern and western ends of San Jose Creek are in the highest quartile in terms of Hispanic Population for LA County.



#### MEDIAN HOUSEHOLD INCOME

According to the 2010 census, the community within walking distance of San Jose Creek is mixed income, with average household income ranging from the top 10% to the lowest 20% for the County.



# SYNERGY STORY

## SAN JOSE CREEK

### PART 1 - OPPORTUNITIES

*Synergy story – early implementation projects, non-greenway projects, vacant parcels, and public land can help us understand where there are potential opportunities to build on the greenway.*

#### SAN JOSE CREEK SYNERGY OPPORTUNITIES:

- San Jose Creek has been identified by both the LA County Bicycle Master Plan as well as the Southern California Association of Governments' (SCAG) Regional Transportation Plan for greenway development.
- A 3.3-mile bicycle path is currently being designed within City of Pomona limits between W Temple Avenue and Murchison Avenue.
- There is an existing bikeway along a short section of the Creek near the San Gabriel River between Workman Mill and 7th, however it does not connect to the River bikeway itself. Plans to connect this portion of greenway to the San Gabriel River Path are in development.



- EMERALD NECKLACE 2017
- PARK NEEDS 2016
- SGR MASTERPLAN 2006
- SGR WATERSHED MGMT PLN
- LA CTY BIKE MASTERPLAN 2012
- GREENWAY NETWORK
- REGIONAL TRANSIT 2012
- METRO ACTIVE PLN 2016
- LA CTY PROPOSED BIKEWAYS
- EARLY IMPLEMENTATION
- VACANT GOV PARCELS



0 0.5 1mi

# SYNERGY STORY

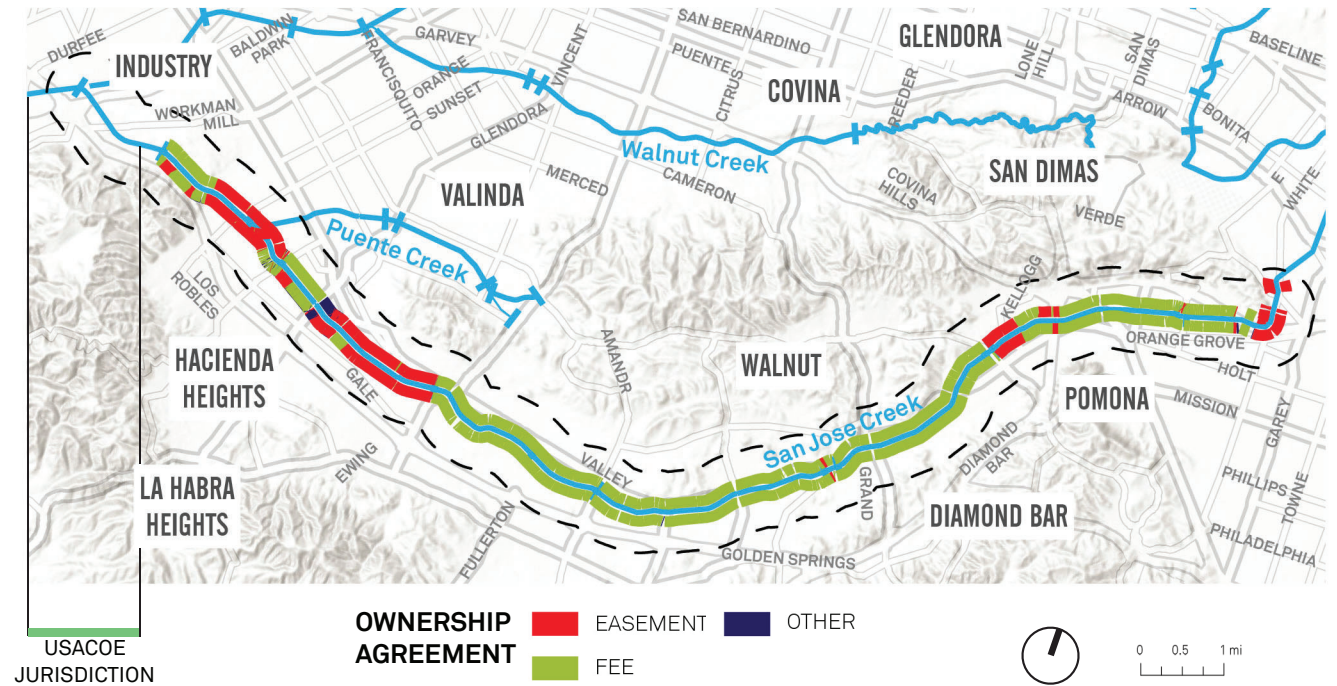
## SAN JOSE CREEK

### PART 2 - LEGAL COMPLEXITY

*Understanding the legal constraints along each wash can help identify issues that should be accounted for in design.*

#### SAN JOSE CREEK LEGAL COMPLEXITY

The underlying parcels of this tributary are mostly owned by the County Flood Control District, enabling potential greenway implementation. Some of these Easement agreements only allow for flood control operation and would need to be modified for a greenway to be opened. There is a portion of San Jose Creek, towards the San Gabriel River confluence that is operated by the US Army Corps of Engineers; this could present legal/regulatory challenges to implementation in that area. A permit from the Army Corps of Engineers may be needed for any work that impacts flood control.



# SYNERGY STORY

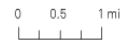
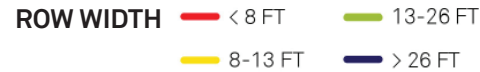
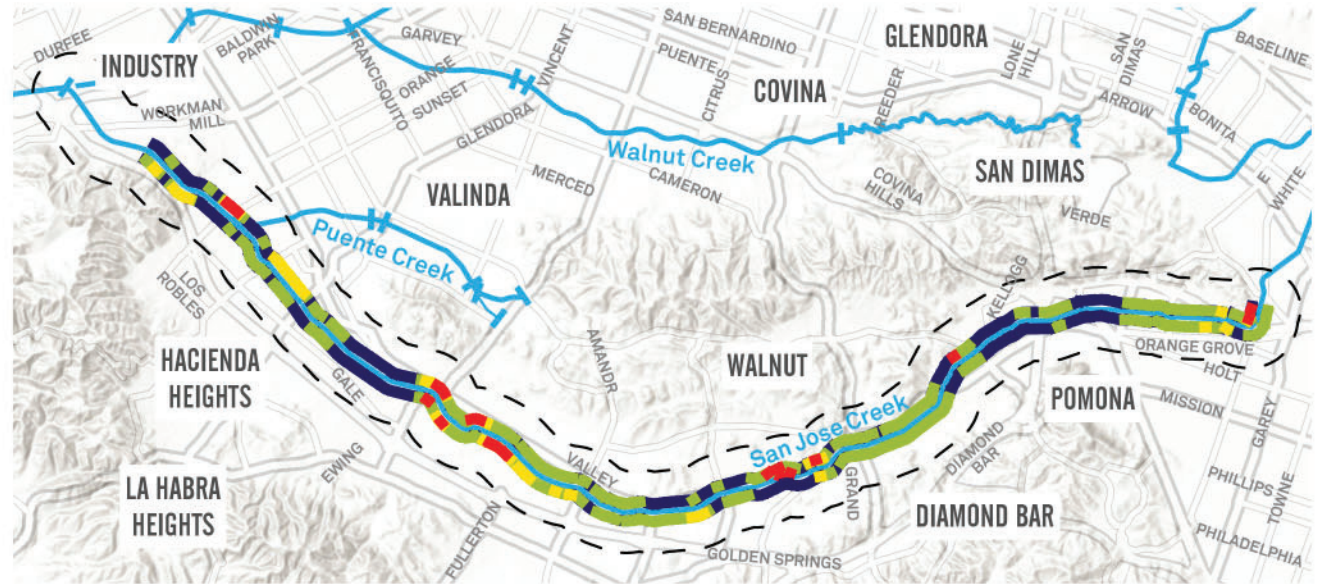
## SAN JOSE CREEK

### PART 3 - PHYSICAL COMPLEXITY - ROW

*Understanding the physical constraints along each wash can help identify issues that should be accounted for in design.*

#### SAN JOSE CREEK PHYSICAL COMPLEXITY

The available right-of-way along San Jose Creek is generally promising, however there are a few constrained widths between Azusa Way and Nogales St. Some arterial crossings as well as the Orange Freeway present major crossing challenges.



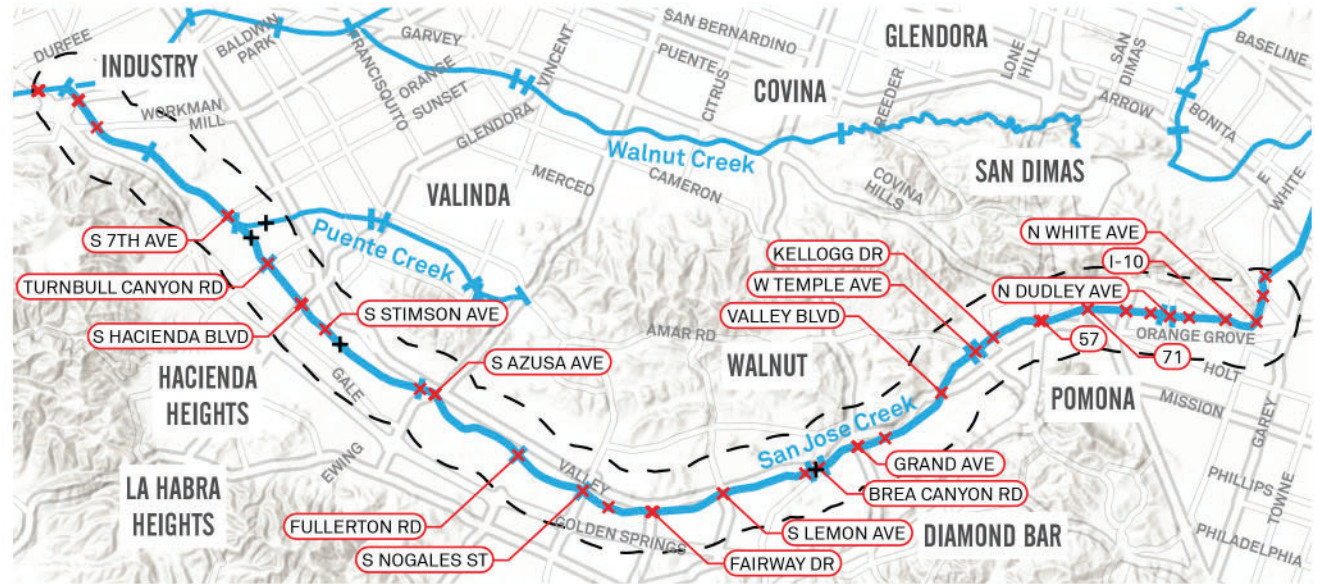
# SYNERGY STORY

## SAN JOSE CREEK

### PART 3.1 - PHYSICAL COMPLEXITY - INTERSECTIONS

*Potentially challenging crossings along San Jose Creek may include:*

- I-10 Freeway: nearest undercrossing N White Ave.
- N Dudley Ave: 5-lane arterial road.
- 71-Chino Valley Freeway: undercrossing may be possible.
- 57-Orange Freeway: undercrossing may be possible.
- Kellogg Dr: 5-lane arterial road.
- W Temple Ave: 5-lane arterial road.
- Valley Blvd: 5-lane arterial road.
- Grand Ave: 5-lane arterial road.
- Brea Canyon Rd: 5-lane arterial road with adjacent railway.
- S. Lemon Ave: 5-lane arterial road.
- Fairway Dr: 5-lane arterial road.
- S. Nogales St: 5-lane arterial road.
- Fullerton Rd: 5-lane arterial road.
- S. Azusa Ave: 6-lane arterial road. Undercrossing may be possible.
- S. Stimson Ave: 5-lane arterial road.
- S. Hacienda Blvd: 6-lane arterial road. Undercrossing may be possible.
- Turnbull Canyon Rd: 5-lane arterial road.
- S. 7th Ave: 5-lane arterial road.



**INTERSECTIONS & CROSSINGS**  
x STREET INTERSECTIONS  
+ RAILROAD CROSSINGS



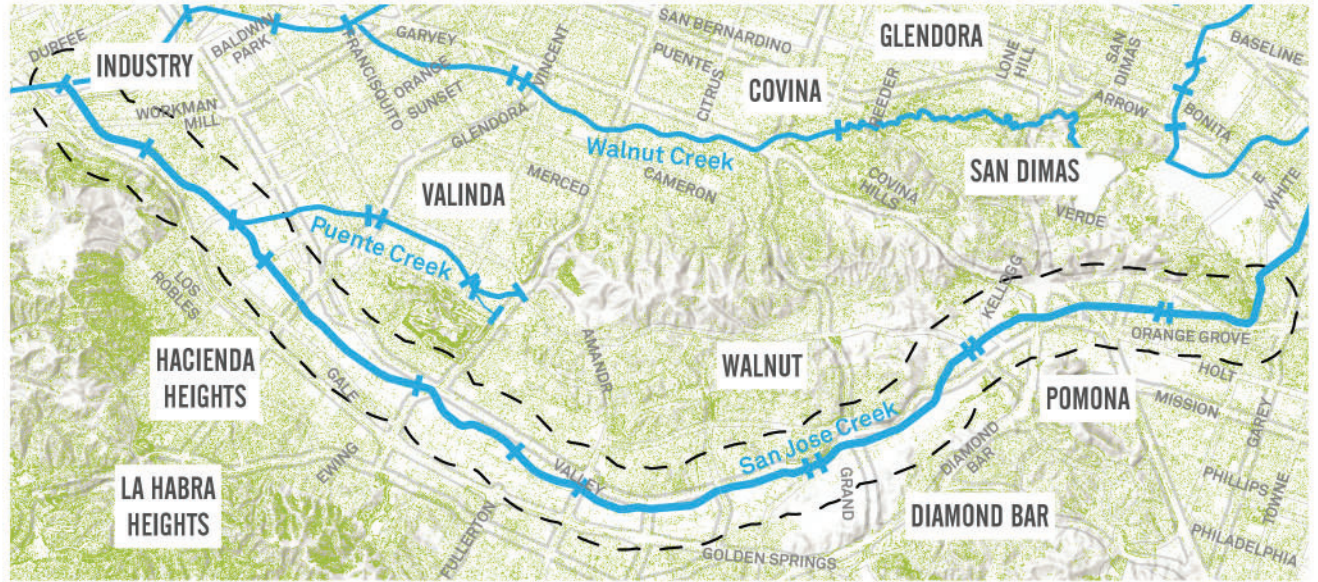
# ENVIRONMENT STORY

## SAN JOSE CREEK

Shade study, impervious surfaces, and heat vulnerability will help us see where trees can be the most beneficial.

### OVERVIEW

There is a healthy tree canopy to the east and west of San Jose Creek, however the creek itself remains sparse with little to no canopy. Similarly the area adjacent to the Creek has some of the least permeability, which may be contributing to water quality and flood risk issues. The more industrial areas in the northwest also show a higher concentration of impervious surfaces.

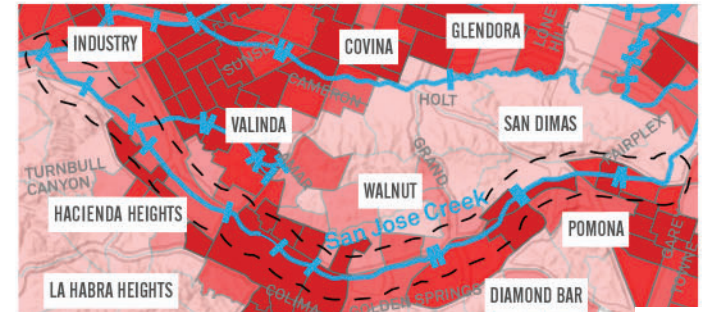
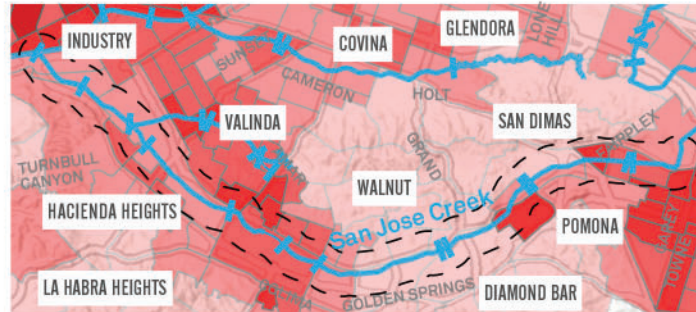


The environment story for San Jose Creek shows high heat vulnerability across the community, particularly in the areas directly adjacent to San Jose Creek, where there is less tree canopy.



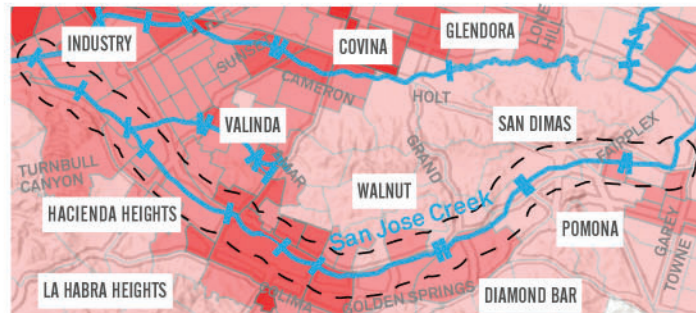
### HEAT VULNERABILITY

The California Heat Assessment Tool (CHAT) was developed by Four Twenty Seven, Inc. in partnership with Argos Analytics, Habitat Seven, and the Public Health Institute. This layer represents the vulnerability of communities to heat-related health impacts.



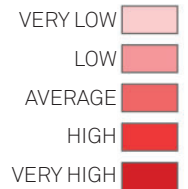
### PERCENT IMPERVIOUS SURFACES

Impervious surfaces are areas of the land hardened by such structures as houses, patios, driveways, and transportation infrastructure. An increase in impervious surfaces can alter the hydrology within a watershed with significant impact on water quality and aquatic and riparian habitat (CHAT).



### PERCENT WITHOUT TREE CANOPY

Developed by the California Healthy Place Index, this indicator measures the percentage of land without tree canopy.



# TRIBUTARY NARRATIVE

## SANTA ANITA WASH

### OVERVIEW

- Santa Anita Wash stretches 6.3 miles from the San Gabriel Mountains in the city of Arcadia down to the Rio Hondo.
- There are a number of schools very close to Santa Anita Wash including Foothills Junior High, Rancho High, Camino Grove Elementary, and Rio Hondo Elementary.
- The area is mainly residential, with little access to high quality transit, and has high rates of vehicle ownership.
- The Santa Anita Wash community has low to average rates of environmental and socioeconomic burden.
- Average Household Income in the area varies with higher average income in the northern areas of the wash.
- Connected to regional parks and wilderness areas, park pressure is low.
- Santa Anita Wash was identified by the SGVCOG Greenways Study as a Top Project. There is a short greenway planned in the Unincorporated area between Live Oak Ave and Longden Ave, identified in both the LA County Bicycle Master Plan and the SCAG Regional Transportation Plan. Additionally the Monrovia's City Profile within the Department of Parks and Recreation Park Needs Assessment identified "Multipurpose Trail in Flood Control Wash" as a top priority for the community.
- Santa Anita Wash presents many opportunities for greenway development, with wide right-of-way available along most of its banks.
- This area has a healthy tree canopy.





# CIRCULATION STORY

## SANTA ANITA WASH

Knowing existing circulation can inform where we prioritize connections, partnerships, and modality.

### VEHICLE/TRANSIT ACCESS

The communities of Santa Anita Wash generally have high rates of vehicle ownership, and very little access to high quality transit.

### EXISTING BIKEWAYS

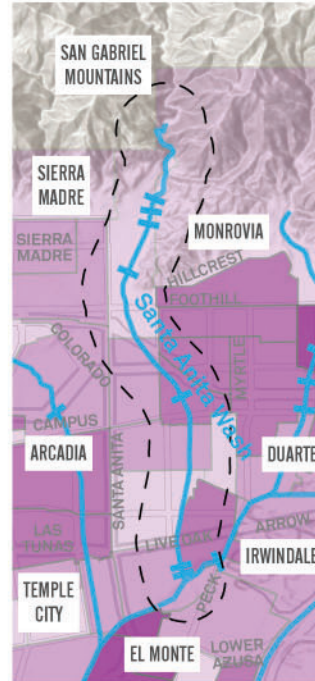
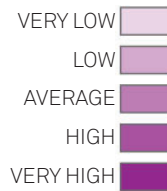
There are few existing on-street bikeways in this area aside from an east-west route along Colorado Blvd and Olive Ave.

### ACTIVITY GENERATORS

There are limited activity generators within the area aside from the schools: Foothills Junior High, Rancho High, Camino Grove Elementary, and Rio Hondo Elementary.

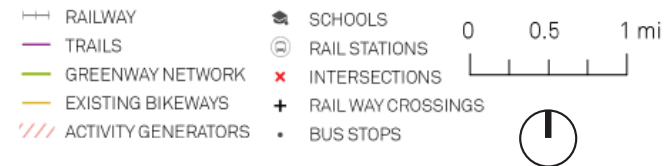
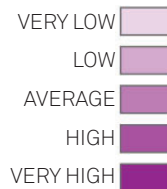
### NO VEHICLE ACCESS

American Community Survey provides information about vehicles available to each household to develop transportation plans and services, understand how people are traveling in the course of a normal day, evaluate pollution, and access to transportation in case of emergencies.



### NO TRANSIT ACCESS

From the California Healthy Places Index, this indicator measures the percentage of people living close to convenient, reliable transit, as defined by a half-mile or ten-minute walk, that arrives every fifteen minutes or less during peak commute times.



# EQUITY STORY

## SANTA ANITA WASH

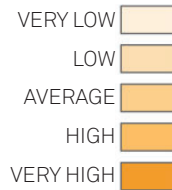
Unfair burden of air, water, and soil pollution can inform the value of nature-based solutions in our design concepts. While socioeconomic factors (e.g., poverty levels, linguistic isolation) will help inform programming.

### OVERVIEW

Environmental burden and socioeconomic factors are low to average in the communities surrounding Santa Anita Wash. Similar to the rest of the San Gabriel Valley, asthma rates are high. The most environmentally burdened areas are near the south end of the tributary.

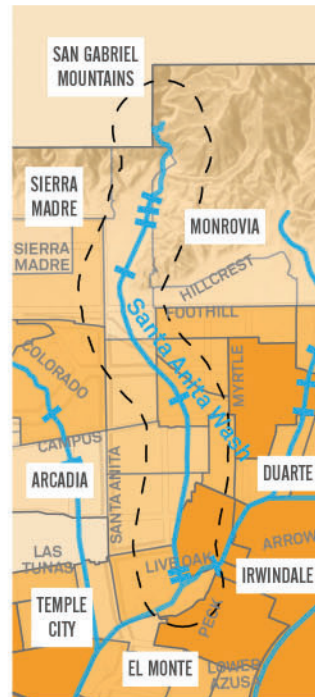
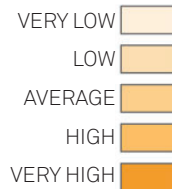
### SENSITIVITY AND SOCIOECONOMIC FACTORS

CalEnviroScreen rates each census tract's sensitivity to environmental pollution from Very Low to Very High based on socioeconomic and health factors.

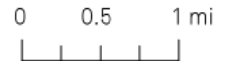


### ENVIRONMENTAL BURDEN

According to CalEnviroScreen, exposure to different types of pollution (e.g., air quality, lead risk, diesel, pesticides) is higher south of the tributary.



The equity story for Santa Anita Wash is characterized by high rates of asthma throughout the area and average environmental burden.



# COMMUNITY STORY

## SANTA ANITA WASH

### PART 1 - GATHERING SPACES

Understanding existing community gathering spaces can inform how our project could add to open space access in the area by revealing where to route trails and optimize connectivity.

#### OVERVIEW

The Santa Anita Wash area is mainly residential with few retail, office, or industrial districts.

Arcadia Wilderness Park and the Angeles National Forest to the north, as well as the Los Angeles County Arboretum and Botanic Garden toward the middle of the tributary, are relieving park pressure in this area, giving it a low to average rating in terms of park need.

#### LOCATIONS OF ACTIVITY

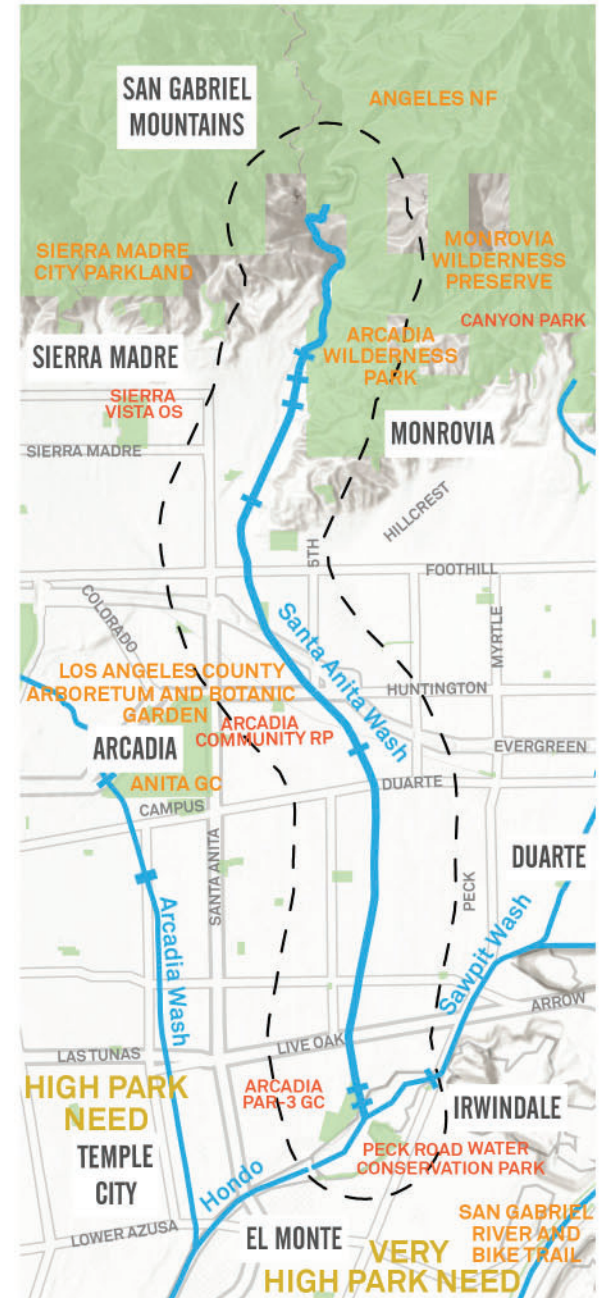
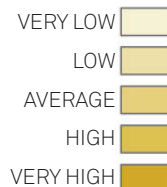
Retail, office, and industrial land uses are highlighted in gold as potential activity drivers.



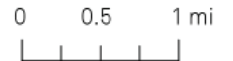
RETAIL / OFFICE / INDUSTRIAL

#### PARK NEED

LA County's Parks and Recreation Needs Assessment documented existing facilities, park pressure, park condition, and walkability.



The community story for Santa Anita Wash is characterized by high to very high park need south of the tributary.



# COMMUNITY STORY

## SANTA ANITA WASH

### PART 2 - DEMOGRAPHICS

Understanding key demographic factors can inform the style and programming of the area.

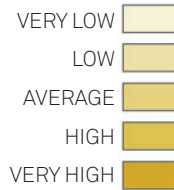
#### OVERVIEW

Demographically, this area has a strong Asian population, and median household income is in the average to high range.

There is also a large Hispanic population in the southeast area adjacent to this tributary in Irwindale and Duarte.

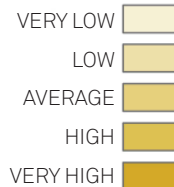
#### MEDIAN HOUSEHOLD INCOME

According to the 2010 census, the majority of the community within walking distance of Santa Anita Wash is at or above the County's average household income. Communities with the lowest household income are in the southern end of Santa Anita Wash.

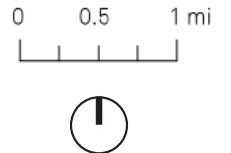


#### HISPANIC POPULATION

According to the 2010 census, the majority of the community to the southeast of Santa Anita Wash is in the highest quantile of Hispanic populations in LA County.



The demographic story for Santa Anita is characterized by strong Hispanic communities to the south and higher incomes to the north.



# SYNERGY STORY

## SANTA ANITA WASH

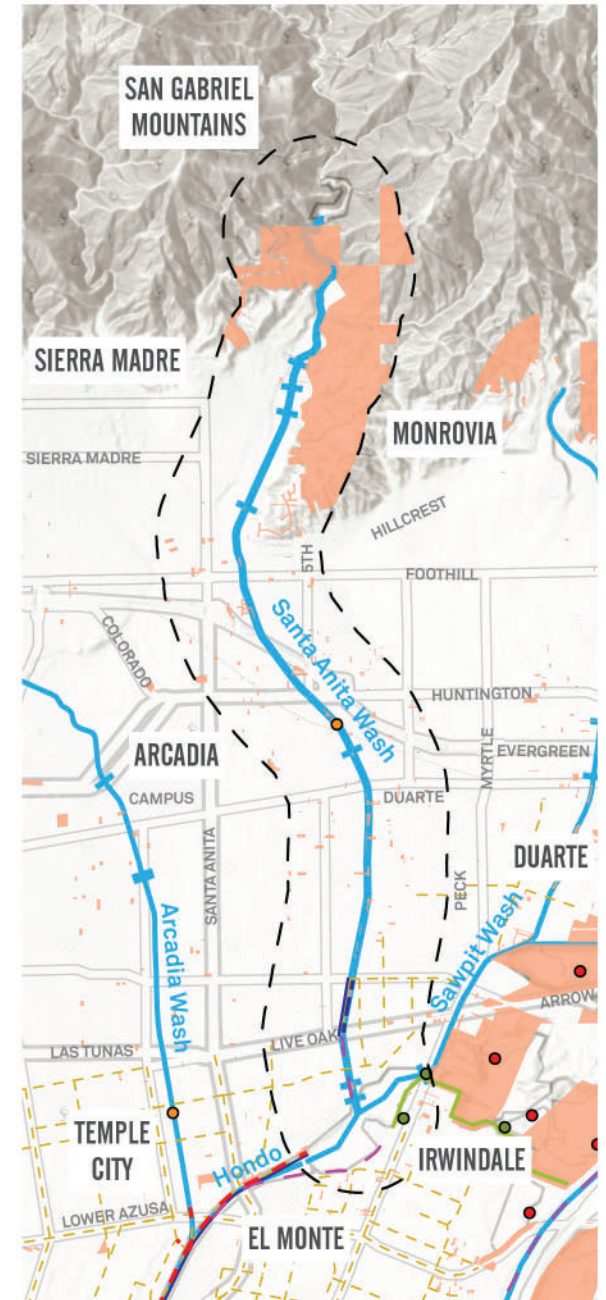
### PART 1 - OPPORTUNITIES

*Synergy story – early implementation projects, non-greenway projects, vacant parcels, and public land can help us understand where there are potential opportunities to build on the greenway.*

#### SANTA ANITA WASH SYNERGY OPPORTUNITIES:

- Santa Anita Wash was identified by the San Gabriel Valley Council of Governments (SGVCOG) Greenways Study as a top scoring project.
- There is a short greenway planned in the Unincorporated area between Live Oak Ave and Longden Ave to the south, identified in both the LA County Bicycle Master Plan and the SCAG Regional Transportation Plan.
- Additionally, the Monrovia's City Profile within the Department of Parks and Recreation Park Needs Assessment identified "Multipurpose Trail in Flood Control Wash" as a top priority for the community.
- Vacant, government-owned parcels along the tributary could provide opportunities for adjacent pocket parks and amenities in this area.

- EMERALD NECKLACE 2017
- PARK NEEDS 2016
- SGR MASTERPLAN 2006
- LA CTY BIKE MASTERPLAN 2012
- GREENWAY NETWORK
- REGIONAL TRANSIT 2012
- METRO ACTIVE PLN 2016
- LA CTY PROPOSED BIKeways
- EARLY IMPLEMENTATION
- VACANT GOV PARCELS



# SYNERGY STORY

## SANTA ANITA WASH

### PART 2 - LEGAL COMPLEXITY

*Understanding the legal constraints along each wash can help identify issues that should be accounted for in design.*

#### SANTA ANITA WASH LEGAL COMPLEXITY

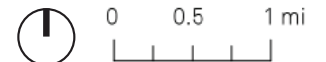
The underlying parcels of this tributary are mostly owned by the Los Angeles County Flood Control District (LACFCD), enabling potential greenway implementation. Some of these Easement agreements only allow for flood control operation and would need to be modified for a greenway to be opened. Additionally, these channels are operated and maintained entirely by the LACFCD.

A permit from the Army Corps of Engineers may be needed for any work that impacts flood control.



#### OWNERSHIP AGREEMENT

- EASEMENT
- OTHER
- FEE



# SYNERGY STORY

## SANTA ANITA WASH

### PART 3 - PHYSICAL COMPLEXITY

Understanding the physical constraints along each wash can help identify issues that should be accounted for in design.

#### SANTA ANITA WASH PHYSICAL COMPLEXITY

Santa Anita Wash presents excellent opportunities for greenway development with greater than 20 feet of right-of-way width available along most of its banks. However, major arterials and freeway crossings add to implementation complexity.

*Potentially challenging crossings along Santa Anita Wash may include:*

- E Foothill Blvd: a 5-lane arterial, however there may be room for an undercrossing.
- At Colorado Blvd, where the Wash crosses the intersection at an angle.
- At Huntington Drive where the Wash crosses the intersection at an angle.



**INTERSECTIONS & CROSSINGS**  
 X STREET INTERSECTIONS  
 + RAILROAD CROSSINGS

**ROW WIDTH**  
 < 8 FT  
 > 26 FT

0 0.5 1 mi

# ENVIRONMENT STORY

## SANTA ANITA WASH

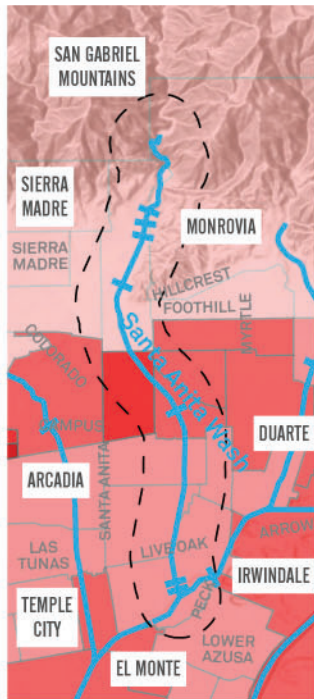
Shade study, impervious surfaces, and heat vulnerability will help us determine where trees can be the most beneficial.

### OVERVIEW

This area has a healthy tree canopy throughout much of the area, likely contributing to low heat vulnerability. Much of the adjacent area has good permeability, especially to the north; however, there are some small pockets of impervious surfaces that may contribute to water quality and flood risk issues.

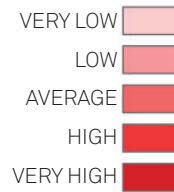
### PERCENT IMPERVIOUS SURFACES

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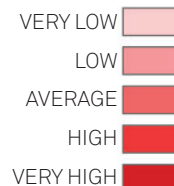
### PERCENT WITHOUT TREE CANOPY

Developed by the California Healthy Place Index, this indicator measures the percentage of land without tree canopy.

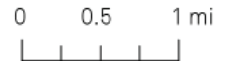


### HEAT VULNERABILITY

The California Heat Assessment Tool (CHAT) was developed by Four Twenty Seven, Inc. in partnership with Argos Analytics, Habitat Seven, and the Public Health Institute. This layer represents the vulnerability of communities to heat-related health impacts.



The environment story for Santa Anita Wash shows high heat vulnerability at the southern end where there is less tree canopy.





# TRIBUTARY NARRATIVE

## SAWPIT WASH

### OVERVIEW

- Sawpit Wash stretches 4.9 miles from the base of the San Gabriel Mountains in Monrovia, to the Rio Hondo confluence in North El Monte.
- The Sawpit Wash area is mostly residential with a handful of schools and industrial centers.
- Schools include Immacualte Conception School, Plymouth Elementary, and Annunciation School.
- The Metro Gold Line crosses Sawpit Wash which is adjacent to two stations; Monrovia and Duarte.
- Sawpit Wash was identified within the San Gabriel Valley Council of Governments' Greenways Study as a top-project. Additionally, as part of the Department of Parks and Recreation's Parks Need Assessment, developing a greenway along Sawpit Wash was an identified priority for the community.
- The area is mixed demographically, with Hispanic and Asian populations, and average to high incomes.
- Sawpit Wash shows many areas of opportunities for greenways with few constrained areas along its right-of-way.
- There is mostly healthy tree canopy in this area, with communities to the east showing less canopy and higher heat vulnerability.



# CIRCULATION STORY

## SAWPIT WASH

Knowing existing circulation can inform where we prioritize connections, partnerships, and modality.

### VEHICLE/TRANSIT ACCESS

Most of the Sawpit Wash community has access to vehicles, aside from pockets in the Duarte region. Despite crossing the Gold Line, most of this area shows little to no access to high quality transit according to census data.

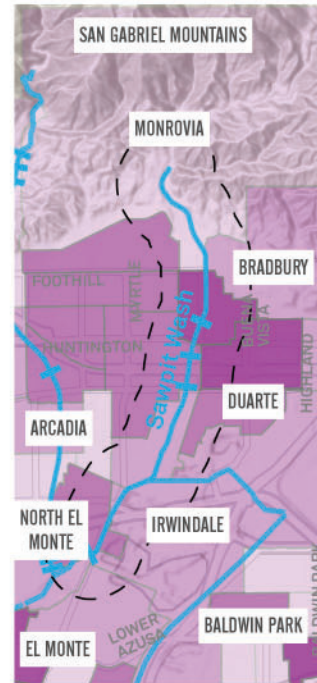
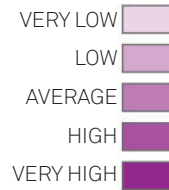
### EXISTING BIKEWAYS

A few existing on-street facilities exist to the north, however, there are generally few connections.

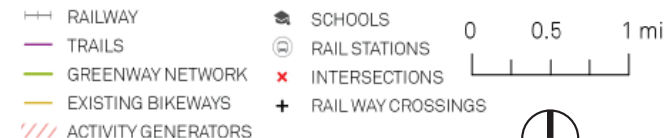
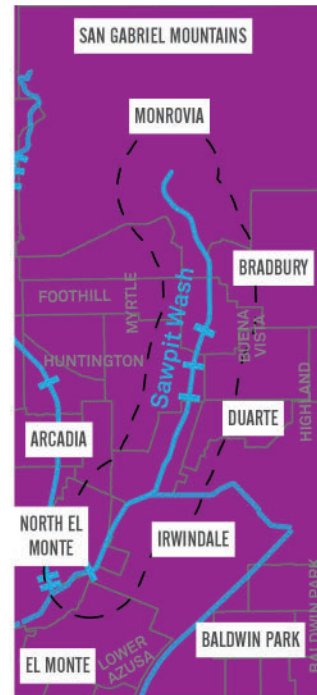
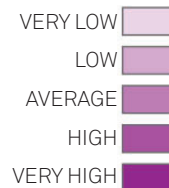
### ACTIVITY GENERATORS

Aside from the Metro Gold Line, there are a handful of schools, industrial areas, and existing bikeways in this area that may generate activity and circulation.

**NO VEHICLE ACCESS**  
American Community Survey provides information about vehicles available to each household to develop transportation plans and services, understand how people are traveling in the course of a normal day, evaluate pollution, and access to transportation in case of emergencies.



**NO TRANSIT ACCESS**  
From the California Healthy Places Index, this indicator measures the percentage of people living close to convenient, reliable transit, as defined by a half-mile or ten-minute walk, that arrives every fifteen minutes or less during peak commute times.



# EQUITY STORY

## SAWPIT WASH

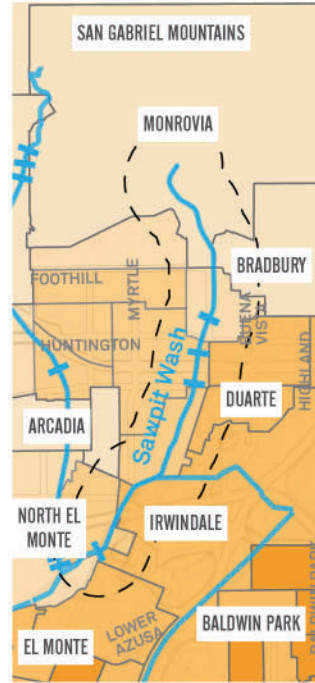
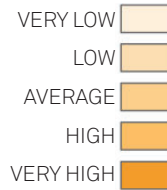
Unfair burden of air, water, and soil pollution can inform the value of nature-based solutions in our design concepts. While socioeconomic factors (e.g., poverty levels, linguistic isolation) can help inform programming.

### OVERVIEW

Socioeconomic factors and environmental burden are average to high in this area. Similar to the rest of the San Gabriel Valley, asthma is a pervasive issue. Environmental burden is high while socioeconomic burden is low to average.

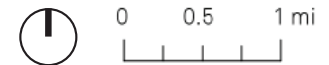
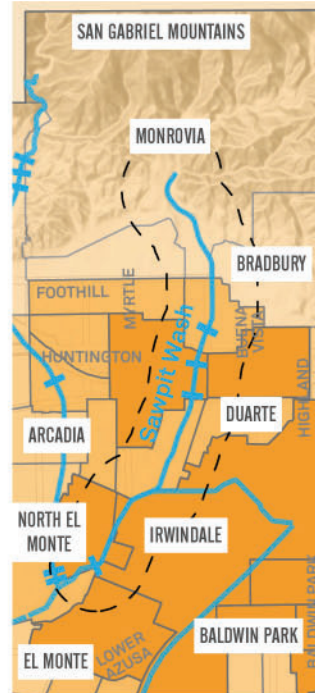
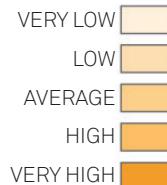
### SENSITIVITY AND SOCIOECONOMIC FACTORS

CalEnviroScreen rates each census tract's sensitivity to environmental pollution from Very Low to Very High based on socioeconomic and health factors.



### ENVIRONMENTAL BURDEN

According to CalEnviroScreen, exposure to different types of pollution (e.g., air quality, lead risk, diesel, pesticides) is very high south of Foothill Blvd.



# COMMUNITY STORY

## SAWPIT WASH

### PART 1 - GATHERING SPACES

Understanding existing community gathering spaces can inform how our project could add to open space access in the area by revealing where to route trails and optimize connectivity.

#### OVERVIEW

Aside from a few small commercial areas, not many community gathering spaces in this area exist that would lead to increased circulation. However, the massive recreation and wilderness area to the north (Angeles National Forest) is a regional destination which also relieves park pressure. Most of the area around Sawpit Wash indicates low Park Need. There are some areas at the very south end of the tributary in El Monte with Very High park need.

#### LOCATIONS OF ACTIVITY

Retail, office, and industrial land uses are highlighted in gold as potential activity drivers.



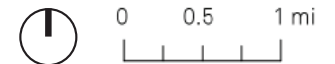
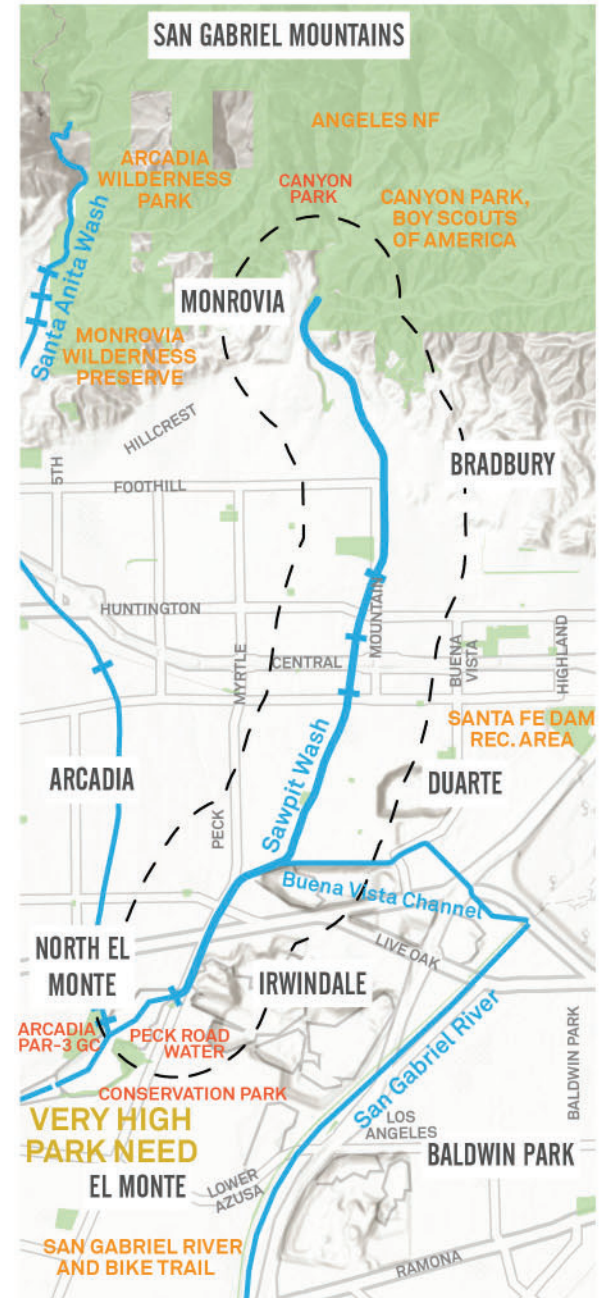
RETAIL / OFFICE / INDUSTRIAL

#### PARK NEED

LA County's Parks and Recreation Needs Assessment documented existing facilities, park pressure, park condition, and walkability.



VERY LOW  
LOW  
AVERAGE  
HIGH  
VERY HIGH



# COMMUNITY STORY

## SAWPIT WASH

### PART 2 - DEMOGRAPHICS

Understanding key demographic factors will inform the style and programming of the area.

#### INCOME

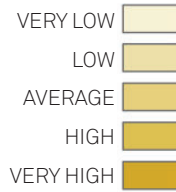
Household median income in this area generally is average to high.

#### POPULATION

The southeastern area of the tributary is largely Hispanic, while there are Asian communities to the west of Sawpit Wash.

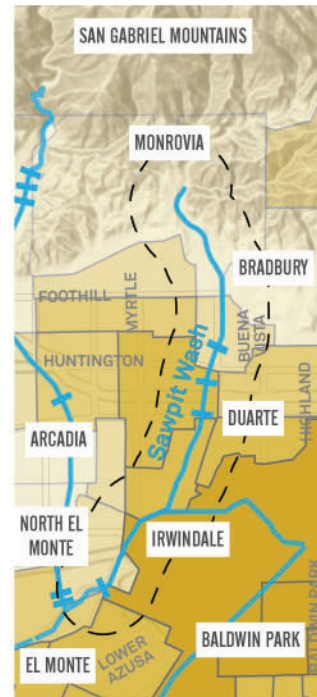
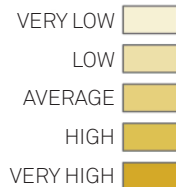
#### MEDIAN HOUSEHOLD INCOME

According to the 2010 census, the majority of the community within walking distance of Sawpit Wash is at or above the County's average household income. Communities with the lowest household income are in the center of the tributary.

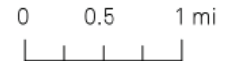


#### HISPANIC POPULATION

According to the 2010 census, the majority of the community within walking distance of Sawpit Wash is in the highest quantile in terms of Hispanic populations in LA County.



The demographic story for Sawpit Wash is characterized by a strong Hispanic community and average to high incomes.



# SYNERGY STORY

## SAWPIT WASH

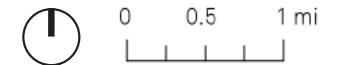
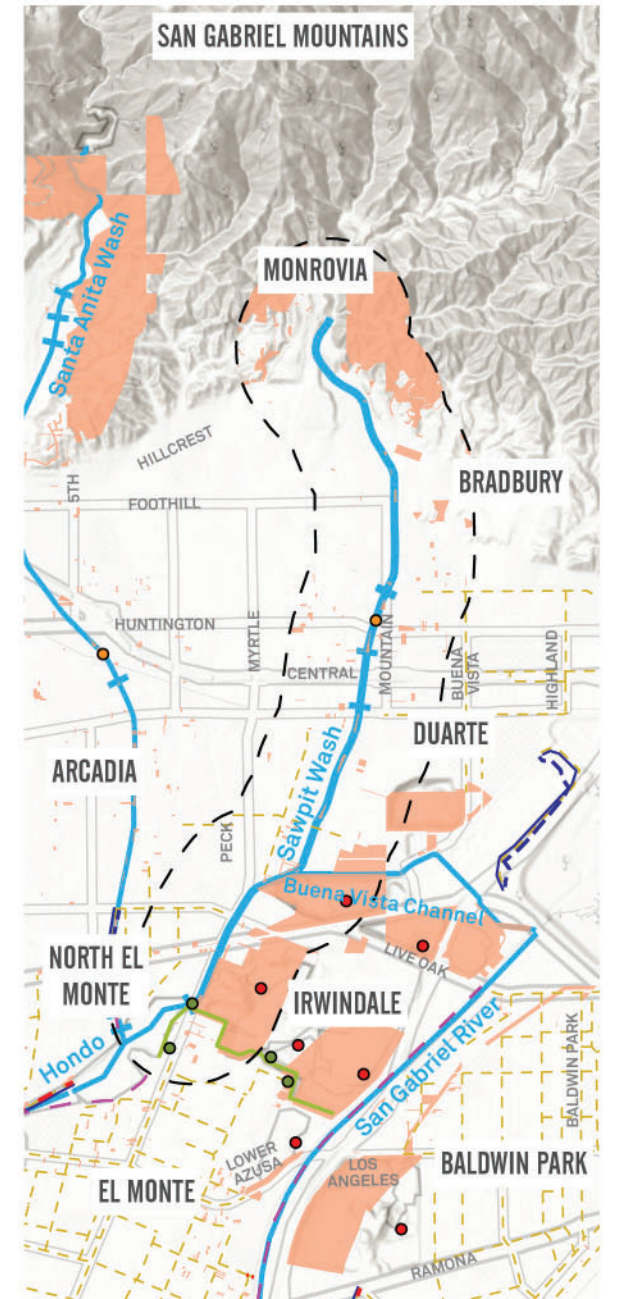
### PART 1 - OPPORTUNITIES

*Synergy story – early implementation projects, non-greenway projects, vacant parcels, and public land will help us understand where there are potential opportunities to build on the greenway.*

#### SAWPIT WASH SYNERGY OPPORTUNITIES:

- Sawpit Wash was identified within the San Gabriel Valley Council of Governments' (SGVCOG) Greenways Study as a top-project. Additionally, as part of the Department of Parks and Recreation's Parks Need Assessment, developing a greenway along Sawpit Wash was an identified priority for the community.
- Vacant, government-owned parcels along the tributary could provide opportunities for adjacent pocket parks and amenities in this area as well.

- EMERALD NECKLACE 2017
- PARK NEEDS 2016
- SGR MASTERPLAN 2006
- LA CTY BIKE MASTERPLAN 2012
- GREENWAY NETWORK
- REGIONAL TRANSIT 2012
- METRO ACTIVE PLN 2016
- LA CTY PROPOSED BIKEWAYS
- EARLY IMPLEMENTATION
- VACANT GOV PARCELS



# SYNERGY STORY

## SAWPIT WASH

### PART 2 - LEGAL COMPLEXITY

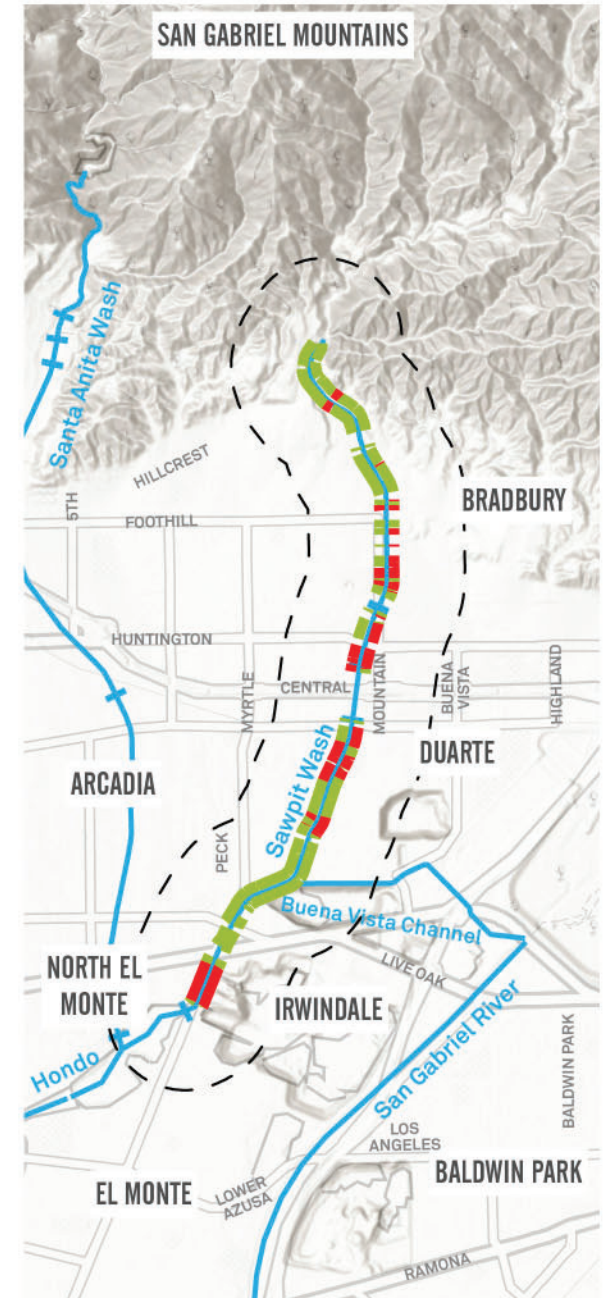
*Understanding the legal constraints along each wash can help identify issues that should be accounted for in design.*

#### SAWPIT WASH LEGAL COMPLEXITY

The underlying parcels of this tributary are mostly owned by the Los Angeles County Flood Control District (LACFCD), enabling potential greenway implementation. Fee parcels would require the least amount of regulatory approvals.

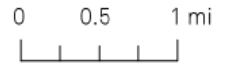
Some Easement agreements only allow for flood control operation and would need to be modified for a greenway to be opened. Additionally, these channels are operated and maintained entirely by the County Flood Control District.

A permit from the Army Corps of Engineers may be needed for any work that impacts flood control.



#### OWNERSHIP AGREEMENT

- EASEMENT
- FEE



# SYNERGY STORY

## SAWPIT WASH

### PART 3 - PHYSICAL COMPLEXITY

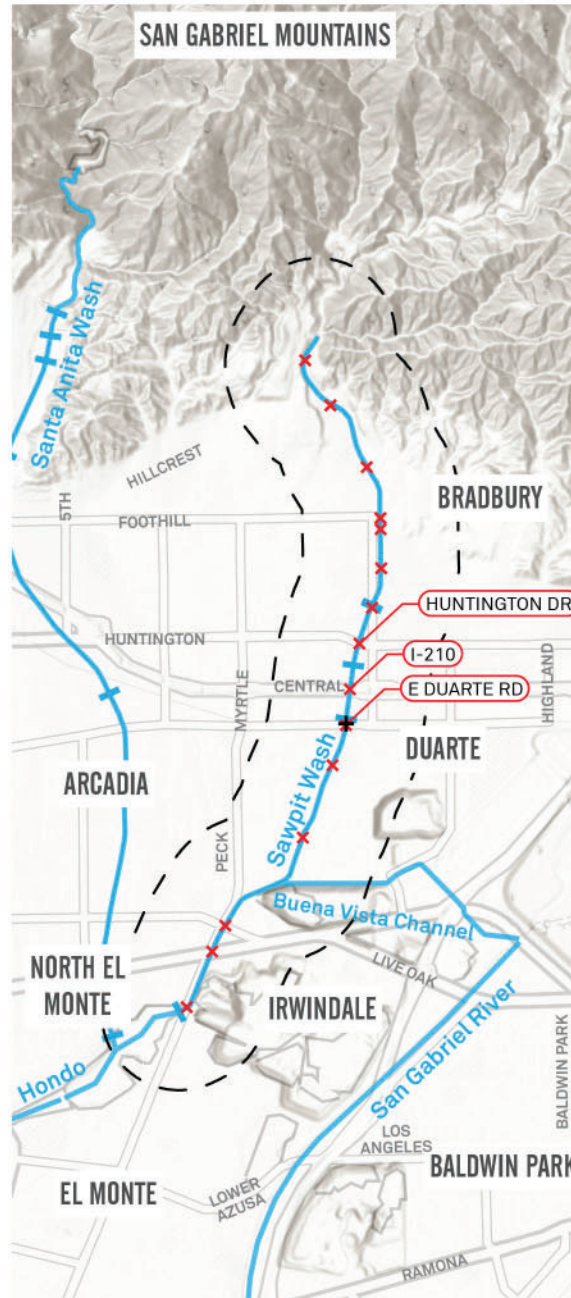
Understanding the physical constraints along each wash can help identify issues that should be accounted for in design.

#### SAWPIT WASH PHYSICAL COMPLEXITY

The right-of-way adjacent to Sawpit Wash presents many opportunities for greenway development with very few constrained areas. The Metro Gold Line as well as the I-210 freeway present major crossing challenges. The tributary is largely underground in this area.

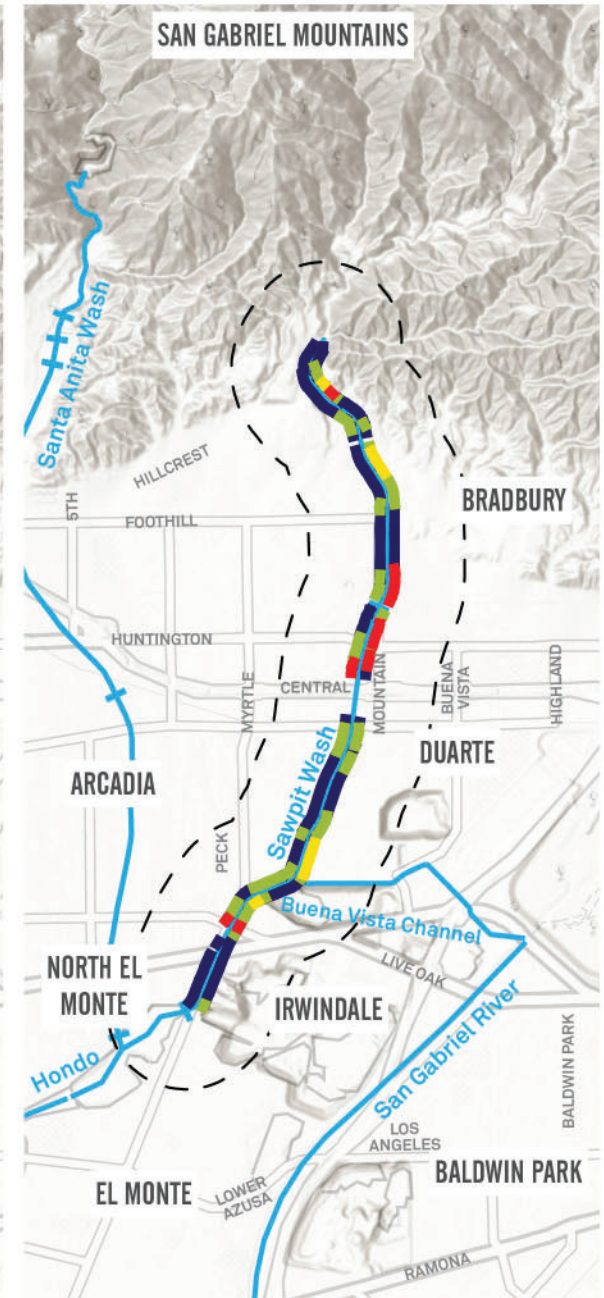
*Potentially challenging crossings along Sawpit Wash may include:*

- The stretch between Huntington Dr and E Duarte Rd where the Wash crosses 2 arterial roadways, the I-210, Metro Gold Line tracks, and multiple parking lots.



**INTERSECTIONS & CROSSINGS**

- x STREET INTERSECTIONS
- + RAILROAD CROSSINGS



**ROW WIDTH**

- < 8 FT
- 8-13 FT
- 13-26 FT
- > 26 FT

0 0.5 1 mi



# ENVIRONMENT STORY

## SAWPIT WASH

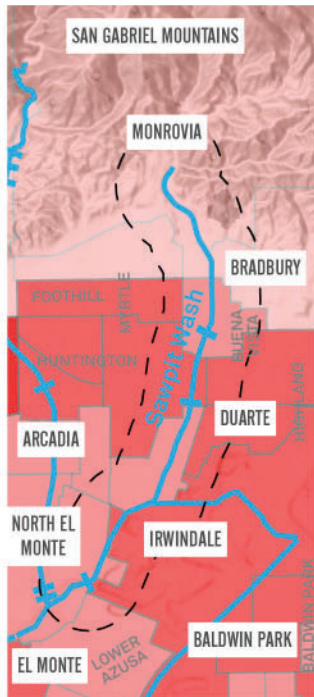
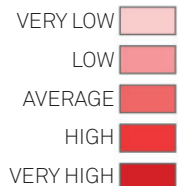
Shade study, impervious surfaces, and heat vulnerability will help us determine where trees can be the most beneficial.

### OVERVIEW

This area has a healthy tree canopy and a low heat vulnerability index. Generally, the communities to the southeast near Duarte and Irwindale are most affected by environmental factors, showing greater heat vulnerability, less tree canopy, and less permeable surfaces.

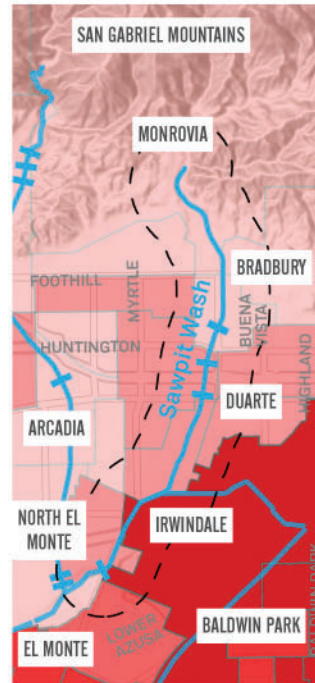
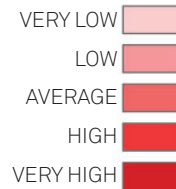
### PERCENT IMPERVIOUS SURFACES

Impervious surfaces are areas of the land hardened by such structures as houses, patios, driveways, and transportation infrastructure. An increase in impervious surfaces can alter the hydrology within a watershed with significant impact on water quality and aquatic and riparian habitat (CHAT).



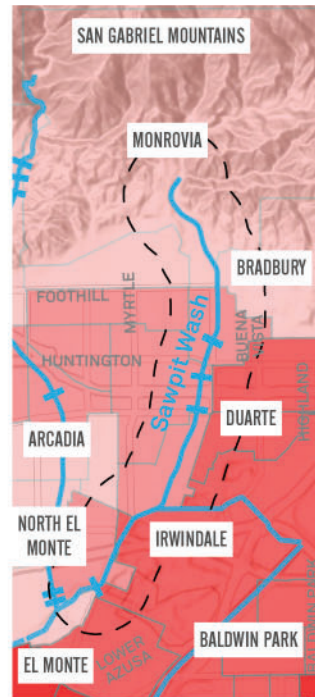
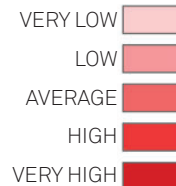
### PERCENT WITHOUT TREE CANOPY

Developed by the California Healthy Place Index, this indicator measures the percentage of land without tree canopy.

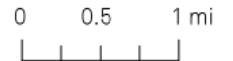


### HEAT VULNERABILITY

The California Heat Assessment Tool (CHAT) was developed by Four Twenty Seven, Inc. in partnership with Argos Analytics, Habitat Seven, and the Public Health Institute. This layer represents the vulnerability of communities to heat-related health impacts.



The environment story for Sawpit Wash shows high heat vulnerability at the southeastern end where there is less tree canopy.



# TRIBUTARY NARRATIVE

## THOMPSON CREEK

### OVERVIEW

- Thompson Creek connects the canyons above Claremont with San Jose Creek.
- There are a handful of schools and colleges in the area, as well as a Metrolink line and several on-street bikeways.
- Areas to the south of Thompson Creek are the most burdened environmentally and socioeconomically.
- Several parks in the area serve as gathering places and relieve park pressure. Generally, this area shows average park need.
- Thompson Creek presents excellent opportunities for greenway development with greater than 20 feet of right-of-way width available along most of its banks.
- Most of the area lacks tree canopy.



TRIBUTARY SEGMENTS



0 0.5 1 mi

# CIRCULATION STORY

## THOMPSON CREEK

Knowing existing circulation can inform where we prioritize connections, partnerships, and modality.

### VEHICLE/TRANSIT ACCESS

Thompson Creek is near the Metrolink and shows mixed levels of car-ownership/transit access. Near the middle of the tributary we see lower vehicle ownership rates while to the north through Claremont we see higher rates.



- RAILWAY
- TRAILS
- GREENWAY NETWORK
- EXISTING BIKEWAYS
- ACTIVITY GENERATORS
- SCHOOLS
- RAIL STATIONS
- INTERSECTIONS
- RAIL WAY CROSSINGS
- BUS STOPS

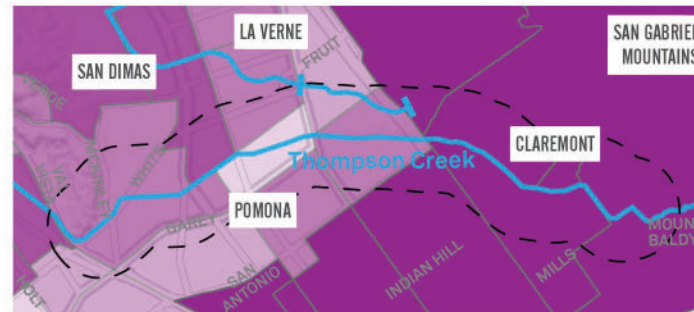


### BIKEWAY CONNECTIONS

Generally, this area is served by on-street bikeway facilities with major connections on Baseline Road, as well as a bikeway along a portion of the Creek itself.

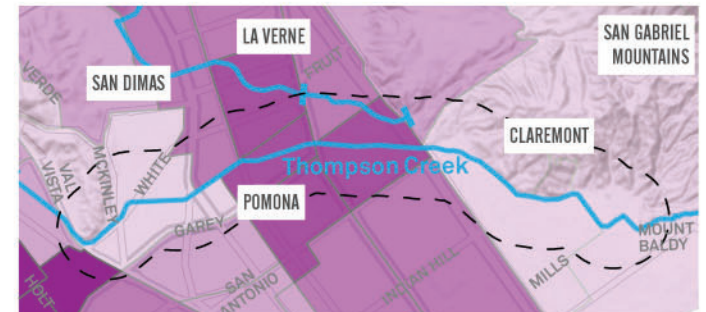
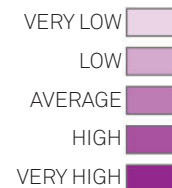
### ACTIVITY GENERATORS

A number of schools are directly adjacent to Thompson Creek including Yorba and San Jose Elementary. Just south of the tributary, major colleges such as Pitzer, add to the circulation needs and opportunities along Thompson Creek.



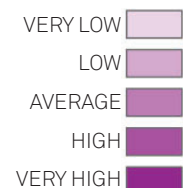
#### NO TRANSIT ACCESS

From the California Healthy Places Index, this indicator measures the percentage of people living close to convenient, reliable transit, as defined by a half-mile or ten-minute walk, that comes every fifteen minutes or less during peak commute times.



#### NO VEHICLE ACCESS

American Community Survey asks about vehicles available to each household to develop transportation plans and services, understand how people are traveling in the course of a normal day, and evaluate pollution and access to transportation in emergencies.



# EQUITY STORY

## THOMPSON CREEK

Unfair burden of air, water, and soil pollution can inform the value of nature-based solutions in our design concepts. While socioeconomic factors (e.g., poverty levels, linguistic isolation, etc) can help inform programming.

### OVERVIEW

The communities of Thompson Creek are most impacted by environmental burden as well as socioeconomic factors in the southern communities in and around Pomona. Industrial pollution and other factors have resulted in environmental pollution as well as communities sensitive to these pollutants.

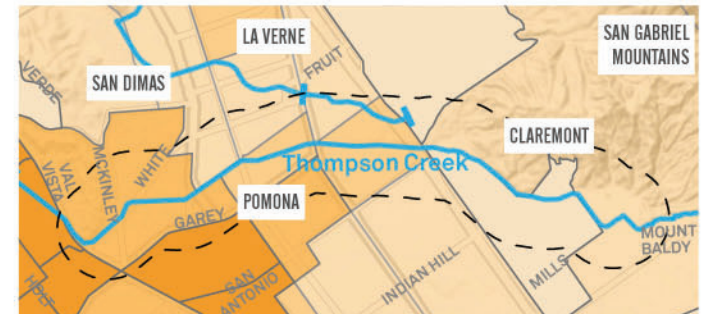
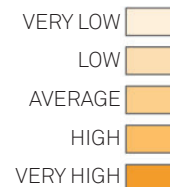


According to CalEnviroScreen, the equity story for Thompson Creek is characterized by high rates of asthma throughout the area as well as heavy levels of housing burden and ambulatory disabilities. Areas affected by additional sensitivity factors determined by the California Heat Assessment Tool (CHAT) are labeled here as well.



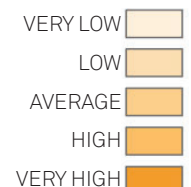
### ENVIRONMENTAL BURDEN

According to CalEnviroScreen, exposure to different types of pollution (e.g., air quality, lead risk, diesel, pesticides, etc) is very high near Pomona.



### SENSITIVITY AND SOCIOECONOMIC FACTORS

CalEnviroScreen rates each census tract's sensitivity to environmental pollution from Very Low to Very High based on socioeconomic and health factors.



# COMMUNITY STORY

## THOMPSON CREEK

### PART 1 - GATHERING SPACES

Understanding existing community gathering spaces can inform how our project could add to open space access in the area by revealing where to route trails and optimize connectivity.

#### OVERVIEW

Community gathering spaces are sparse along Thompson Creek, however the tributary provides a valuable connection between adjacent communities and the Claremont Hills Wilderness Park, a 2500 acre recreation area popular for hiking. To the south, Ganesha Park in Pomona provides a public pool and other amenities.

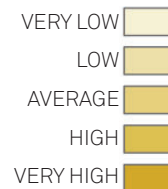


Few retail/commercial areas are in the area, however there are a number of parks serving as gathering places and relieving park pressure. Generally this area shows average park need.



#### PARK NEED

LA County's Department of Parks and Recreation Needs Assessment documented existing facilities, park pressure, park condition, and walkability.



#### LOCATIONS OF ACTIVITY

Retail, office, and industrial land uses are highlighted in gold as potential activity drivers.



# COMMUNITY STORY

## THOMPSON CREEK

### PART 2 - DEMOGRAPHICS

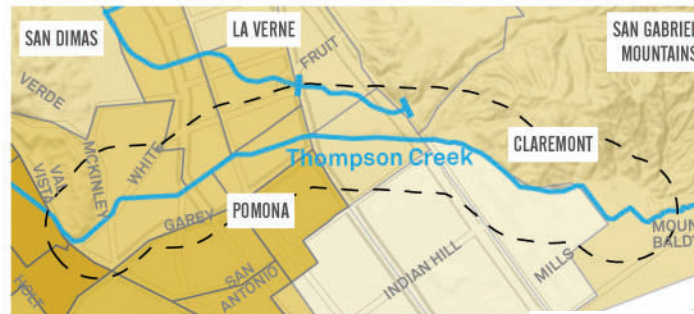
Understanding key demographic factors can inform the style and programming of the area.

#### OVERVIEW

Thompson Creek passes through diverse communities from Claremont in the north to Pomona in the south. The Hispanic population in the south is high for the County's average. In the north, we see income's in the top 10% for the County.

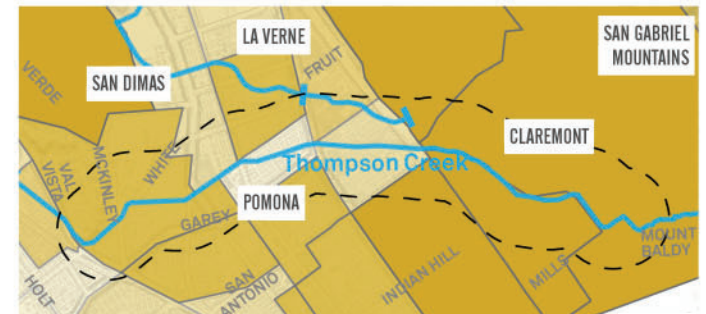
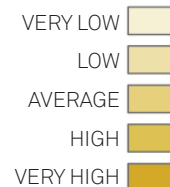


Median household income in this area is average to high, with certain areas near the tributary in the top 10% income bracket for the County.



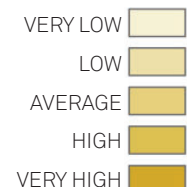
#### HISPANIC POPULATION

According to the 2010 census, the majority of the community within walking distance of Thompson Creek is in the highest quantile in terms of Hispanic Population for LA County.



#### MEDIAN HOUSEHOLD INCOME

According to the 2010 census, the majority of the community within walking distance of Thompson Creek is at or above the County's average Household Income. Communities with highest household income are grouped in the northern end of Thompson Creek.



# SYNERGY STORY

## THOMPSON CREEK

### PART 1 - OPPORTUNITIES

*Synergy story – early implementation projects, non-greenway projects, vacant parcels, and public land can help us understand where there are potential opportunities to build on the greenway.*

#### THOMPSON CREEK SYNERGY OPPORTUNITIES:

- Both the LA County Bicycle Master Plan as well as the Southern California Association of Governments' (SCAG) Regional Transportation Plan propose a bikeway along the lower half of Thompson Creek. Vacant, government-owned parcels along the tributary could provide opportunities for adjacent pocket parks and amenities in this area.



# SYNERGY STORY

## THOMPSON CREEK

### PART 2 - LEGAL COMPLEXITY

*Understanding the legal constraints along each wash can help identify issues that should be accounted for in design.*

#### THOMPSON CREEK LEGAL COMPLEXITY

The underlying parcels of this tributary are mostly owned by the County Flood Control District, enabling potential greenway implementation. Some of these Easement agreements only allow for flood control operation and would need to be modified for a greenway to be opened. The channel is operated and maintained entirely by the County Flood Control District.

A permit from the Army Corps of Engineers may be needed for any work that impacts flood control.





# SYNERGY STORY

## THOMPSON CREEK

### PART 3 - PHYSICAL COMPLEXITY

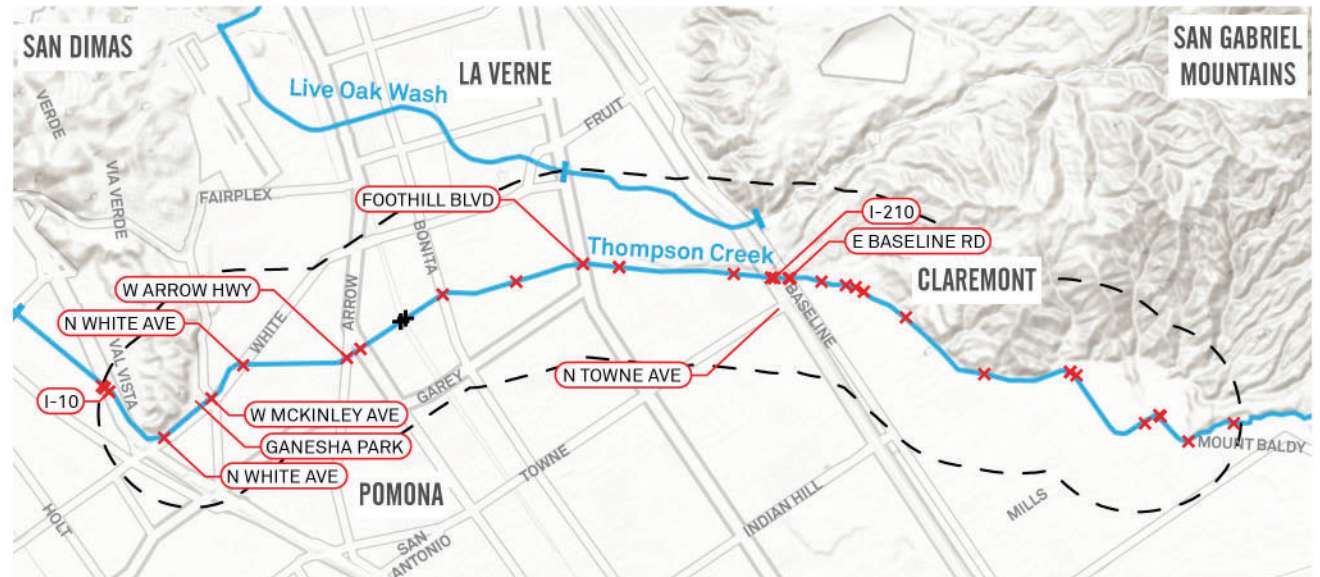
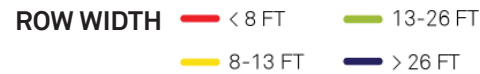
Understanding the physical constraints along each wash can help identify issues that should be accounted for in design.

#### THOMPSON CREEK PHYSICAL COMPLEXITY

Thompson Creek presents excellent opportunities for greenway development with greater than 20 feet of right-of-way width available along most of its banks. Major arterials and freeway crossings however add to implementation complexity. Thompson Creek north of about Mills Ave is a natural channel.

*Potentially challenging crossings along Thompson Creek may include:*

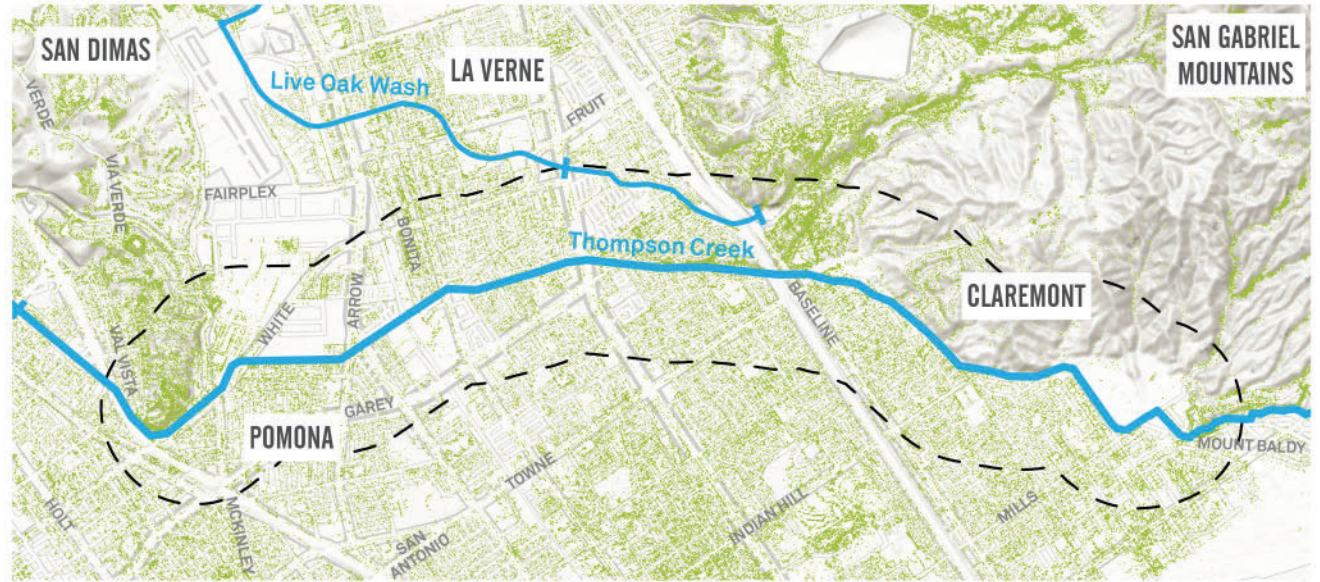
- E Baseline Rd: 5-lane arterial road.
- I-210 Foothill Freeway: undercrossing may be possible. Nearest overpass at N Towne Ave.
- Foothill Blvd: 5-lane arterial road.
- W Arrow Hwy: 5-lane arterial.
- N. White Ave: 5-lane arterial road with median.
- Between W McKinley Ave and Ganesha Park: Wash is underground.
- I-10 Freeway: nearest undercrossing is at N White Ave.



# ENVIRONMENT STORY

## THOMPSON CREEK

Shade study, impervious surfaces, and heat vulnerability can help us see where trees can be the most beneficial.

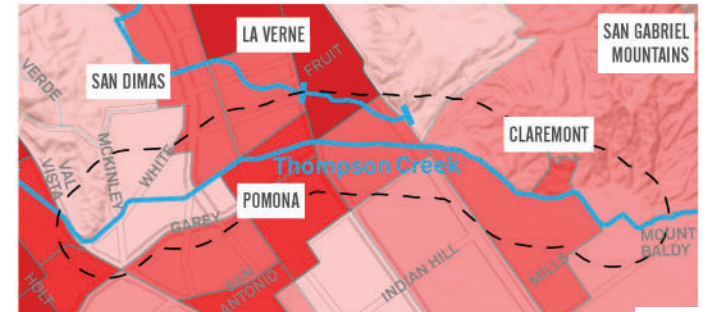
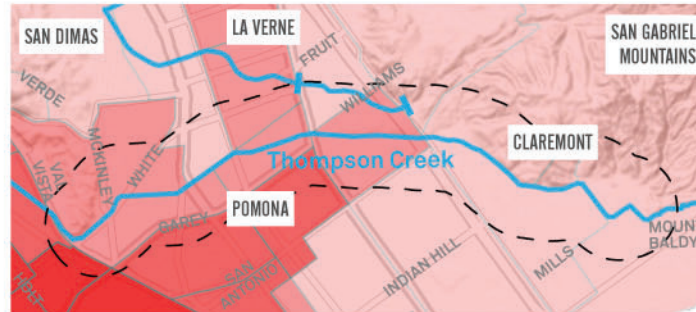


To the south of Thompson Creek, parks and natural areas are contributing to a healthy tree canopy. To the north, we see a lack of tree canopy, heat vulnerability, and a lack of permeability.



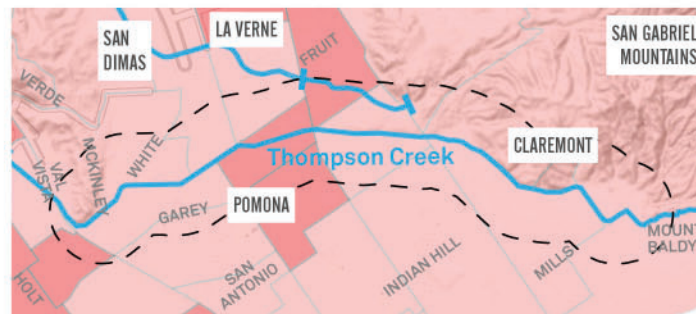
### HEAT VULNERABILITY

The California Heat Assessment Tool (CHAT) was developed by Four Twenty Seven, Inc. in partnership with Argos Analytics, Habitat Seven, and the Public Health Institute. This layer represents the vulnerability of communities to heat-related health impacts.



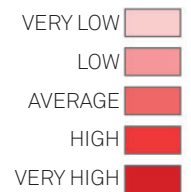
### PERCENT IMPERVIOUS SURFACES

Impervious surfaces are areas of the land hardened by such structures as houses, patios, driveways, and transportation infrastructure. An increase in impervious surfaces can alter the hydrology within a watershed with significant impact on water quality and aquatic and riparian habitat (CHAT).



### PERCENT WITHOUT TREE CANOPY

Developed by the California Healthy Place Index, this indicator measures the percentage of land without tree canopy.



# TRIBUTARY NARRATIVE

## WALNUT CREEK

### OVERVIEW

- Walnut Creek stretches from a confluence with Big Dalton Wash to hills above Pomona and the Puddingstone Reservoir.
- Walnut Creek is a naturalized channel east of Covina Hill Road.
- Walnut Creek weaves through diverse suburban areas and has potential to connect with several on-street bikeways.
- Environmental and socioeconomic burden in this area is average to high.
- Demographics are diverse with Asian, Hispanic, and African-American communities all nearby.
- There are no currently planned bikeways along Walnut Creek.
- The right-of-way along Walnut Creek is generally 13 to 24 feet wide, presenting major opportunity.
- Tree canopy and other environmental factors are healthier to the south, while north of the tributary we see limited tree canopy, higher heat vulnerability, and low permeability.



TRIBUTARY SEGMENTS



0 0.5 1 mi

# CIRCULATION STORY

## WALNUT CREEK

Knowing existing circulation can inform where we prioritize connections, partnerships, and modality.

### VEHICLE/TRANSIT ACCESS

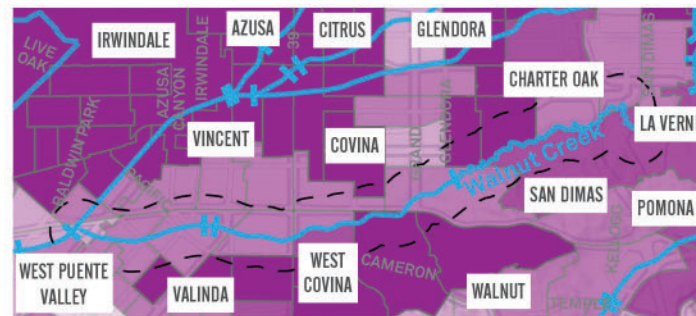
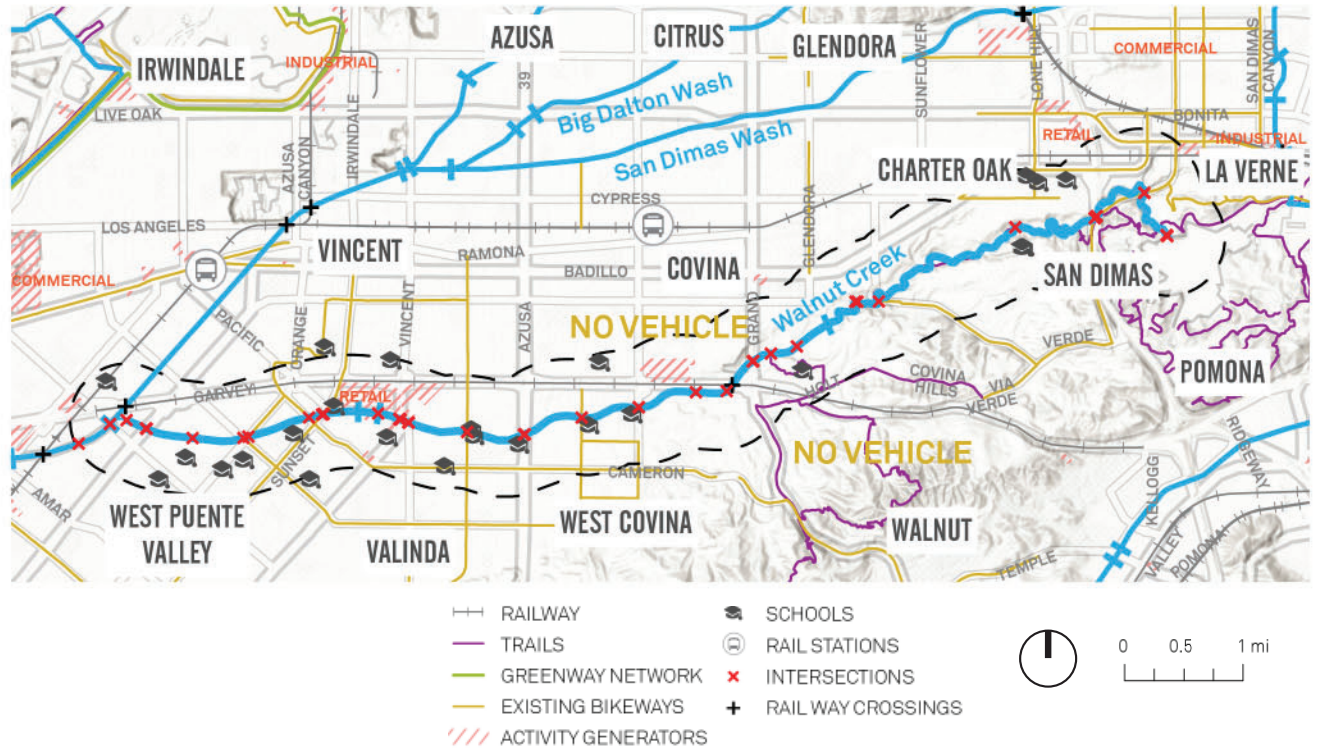
Most of the Walnut Creek community has access to a vehicle aside from pockets of Covina and Walnut showing low access. The areas to the north and south show lack of access to transit, while the area directly adjacent to the tributary has greater access to transit.

### EXISTING BIKEWAYS

Existing bikeways are concentrated in the eastern areas near La Verne, with a few other on-street facilities near West Covina.

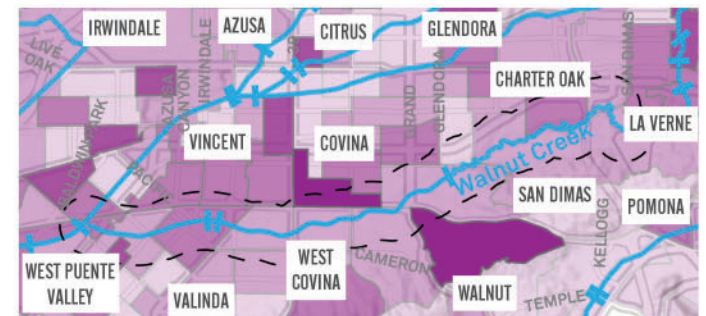
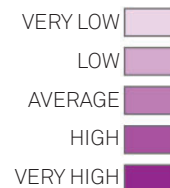
### ACTIVITY GENERATORS

There are pockets of commercial/retail, and industrial areas throughout the area. Additionally, there are many schools adjacent to Walnut Creek including Cal Poly Pomona. Existing trails also contribute to circulation opportunities in Pomona and Walnut.



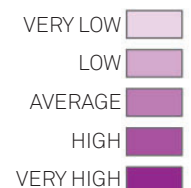
#### NO TRANSIT ACCESS

From the California Healthy Places Index, this indicator measures the percentage of people living close to convenient, reliable transit, as defined by a half-mile or ten-minute walk, that comes every fifteen minutes or less during peak commute times.



#### NO VEHICLE ACCESS

American Community Survey asks about vehicles available to each household to develop transportation plans and services, understand how people are traveling in the course of a normal day, and evaluate pollution and access to transportation in emergencies.



# EQUITY STORY

## WALNUT CREEK

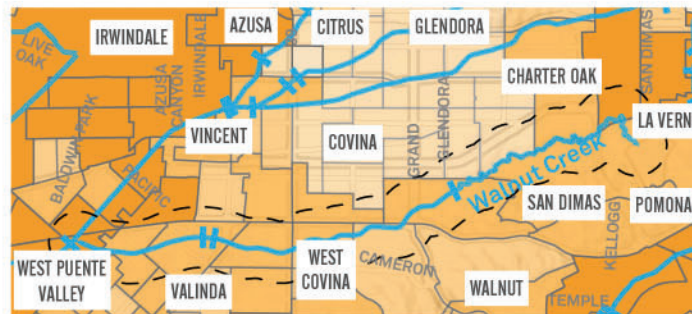
Unfair burden of air, water, and soil pollution can inform the value of nature-based solutions in our design concepts. While socioeconomic factors (e.g., poverty levels, linguistic isolation, etc) can help inform programming.

### OVERVIEW

The communities of San Jose Creek are impacted by environmental burden as well as by sensitivity and socioeconomic factors. The highest burden is seen in the western area of the tributary near West Puente Valley and to the east near Charter Oak.

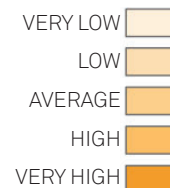


Environmental and socioeconomic burden in this area is average to high. The greatest burden is shown in areas closest to the tributary itself. Asthma is a pervasive issue, as well as other sensitivities related to environmental burden. Areas affected by additional sensitivity factors determined by the California Heat Assessment Tool (CHAT) are labeled here as well.



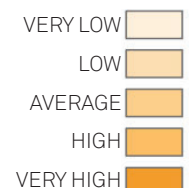
#### ENVIRONMENTAL BURDEN

According to CalEnviroScreen, exposure to different types of pollution (e.g., air quality, lead risk, diesel, pesticides, etc) is very high in the western portion of Walnut Creek.



#### SENSITIVITY AND SOCIOECONOMIC FACTORS

CalEnviroScreen rates each census tract's sensitivity to environmental pollution from Very Low to Very High based on socioeconomic and health factors.



# COMMUNITY STORY

## WALNUT CREEK

### PART 1 - GATHERING SPACES

Understanding existing community gathering spaces can inform how our project could add to open space access in the area by revealing where to route trails and optimize connectivity.

#### PARK NEED

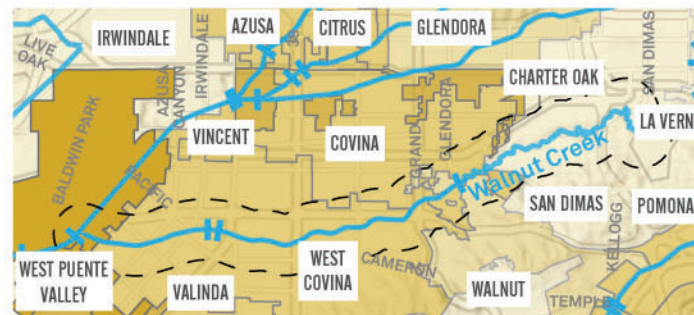
Despite the Frank Bonelli Regional Park at the eastern end of the tributary, this area exhibits a very high park need, especially in the western part of the tributary.

#### GATHERING SPACES

There are a number of commercial and retail areas along the tributary that may drive activity and serve as gathering places.

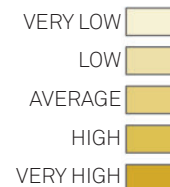


The community story for Walnut Creek is characterized High to Very High park need, especially to the west.



#### PARK NEED

LA County's Parks and Recreation Needs Assessment documented existing facilities, park pressure, park condition, and walkability.



#### LOCATIONS OF ACTIVITY

Retail, office, and industrial land uses are highlighted in gold as potential activity drivers.



# COMMUNITY STORY

## WALNUT CREEK

### PART 2 - DEMOGRAPHICS

Understanding key demographic factors can inform the style and programming of the area.

#### INCOME

Median household income varies in this area, with areas to the south of Walnut Creek showing average income in the lowest 20%, and areas in the far eastern end of the tributary in the highest 10% for the County.

#### POPULATION

The area is diverse ethnicity with strong Asian, Hispanic, and African-American communities all neighboring this tributary.

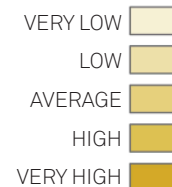


The demographic story for Walnut Creek is characterized by a mixed incomes and diverse communities.



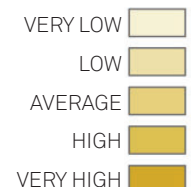
#### HISPANIC POPULATION

According to the 2010 census. There is a strong Hispanic population toward the western side of the tributary.



#### MEDIAN HOUSEHOLD INCOME

According to the 2010 census.



# SYNERGY STORY

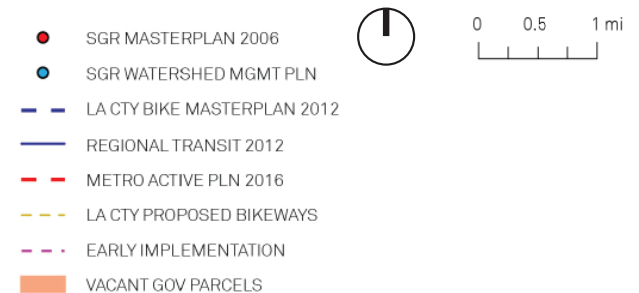
## WALNUT CREEK

### PART 1 - OPPORTUNITIES

*Synergy story – early implementation projects, non-greenway projects, vacant parcels, and public land can help us understand where there are potential opportunities to build on the greenway.*

#### WALNUT CREEK SYNERGY OPPORTUNITIES:

- A 2.2 mile bicycle path from Ramona Blvd to Baldwin Ave along the San Gabriel River and continuing along Walnut Creek at Baldwin Park Boulevard is currently being permitted.
- Vacant, government-owned parcels along the tributary could provide opportunities for adjacent pocket parks and amenities in this area.





# SYNERGY STORY

## WALNUT CREEK

### PART 2 - LEGAL COMPLEXITY

*Understanding the legal constraints along each wash can help identify issues that should be accounted for in design.*

#### WALNUT CREEK LEGAL COMPLEXITY

The underlying parcels of this tributary are mostly owned by the County Flood Control District, enabling potential greenway implementation. Some of these Easement agreements only allow for flood control operation and would need to be modified for a greenway to be opened. Additionally, these channels are operated and maintained entirely by the County Flood Control District.

A permit from the Army Corps of Engineers may be needed for any work that impacts flood control.



# SYNERGY STORY

## WALNUT CREEK

### PART 3 - PHYSICAL COMPLEXITY

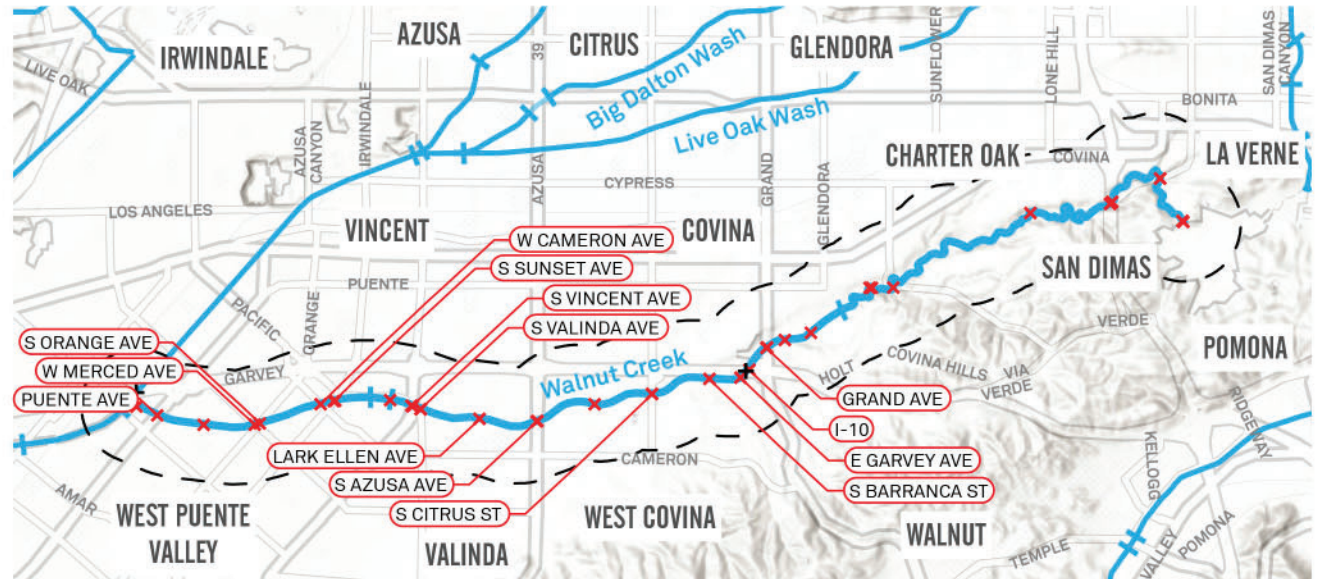
Understanding the physical constraints along each wash can help identify issues that should be accounted for in design.

#### WALNUT CREEK PHYSICAL COMPLEXITY

Walnut Creek presents excellent opportunities for greenway development with greater than 20 feet of right-of-way width available along most of its banks. Major arterials and freeway crossings however add to implementation complexity. Walnut Creek east of about Covina Hill Road is a natural channel. There may still be opportunities here for greenway development however further study and engineering is needed.

#### Potentially challenging crossings along Walnut Creek may include:

- Grand Ave: 5-lane arterial road.
- I-10 Freeway/E Garvey Ave: nearest undercrossing at S Grand Ave.
- S Barranca St: 5-lane arterial road.
- S Citrus St: 5-lane arterial road.
- S Asuza Ave: 5-lane arterial road.
- Lark Ellen Ave: 5-lane arterial road.
- S Valinda Ave/S Vincent Ave: two adjacent 5-lane arterial roads.
- S Sunset Ave: 5-lane arterial road with median.
- W Cameron Ave: 5-lane arterial road.
- W Merced Ave/S Orange Ave: Wash crosses near intersection of two roads.
- Puente Ave: 5-lane arterial road with center median.



# ENVIRONMENT STORY

## WALNUT CREEK

Shade study, impervious surfaces, and heat vulnerability can help us see where trees can be the most beneficial.

To the south of Walnut Creek, parks and natural areas are contributing to a healthy tree canopy. To the north, we see limited tree canopy, heat vulnerability, and a lack of permeability.

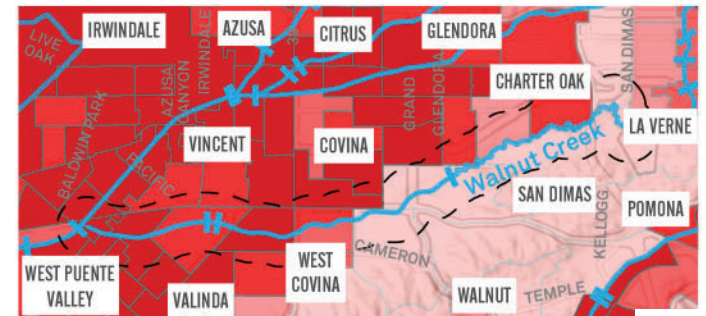
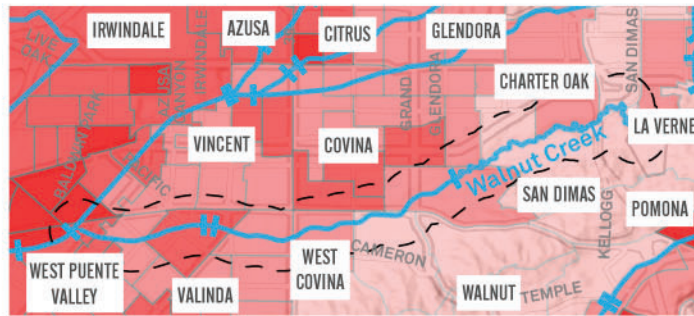


The environment story for Walnut Creek shows high heat vulnerability across the community, particularly to the north end where there is less tree canopy.



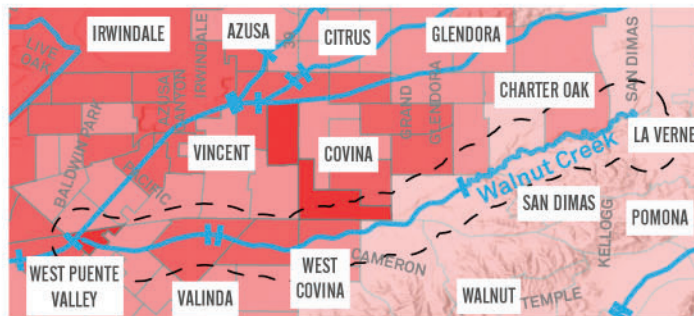
### HEAT VULNERABILITY

The California Heat Assessment Tool (CHAT) was developed by Four Twenty Seven, Inc. in partnership with Argos Analytics, Habitat Seven, and the Public Health Institute. This layer represents the vulnerability of communities to heat-related health impacts.



### PERCENT IMPERVIOUS SURFACES

Impervious surfaces are areas of the land hardened by such structures as houses, patios, driveways, and transportation infrastructure. An increase in impervious surfaces can alter the hydrology within a watershed with significant impact on water quality and aquatic and riparian habitat (CHAT).



### PERCENT WITHOUT TREE CANOPY

Developed by the California Healthy Place Index, this indicator measures the percentage of land without tree canopy.

