



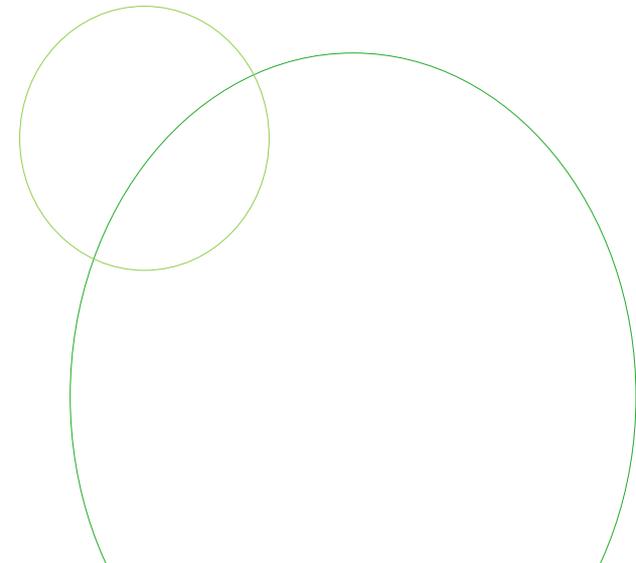
# **WEST FRESNO COMMUNITY LANDSCAPES PLAN**

COMMUNITY ENGAGEMENT EVENT

CENTRAL HIGH SCHOOL EAST

FEBRUARY 20, 2019

---



**WELCOME**

Lee Ayres  
Tree Fresno

# OUTLINE

---

## West Fresno Community Landscapes Plan

- Project Overview
- Benefits of Trees
- Land Use Assessment
- Transportation Assessment
- West Fresno Trees Assessment
- Landscape Assessment
- Q & A
- Ask the Expert!



[This Photo](#) by Unknown Author is licensed under [CC BY-SA](#)

# LARGE TREE RAFFLE



# **PROJECT OVERVIEW**

## **BENEFITS OF TREES**

Lee Ayres  
Tree Fresno

# West Fresno Community Landscapes Plan

---

- Granting Agency and Funding Source
- Project Goal
- Project Objectives
- Written Assessments by Experts
- Community Engagement
- Action Plan and Publication

## **CONSULTANTS**

---

John Pape

Rich Vaillancour

Sara Allinder

Georgiena Vivian

Doug Eisinger

Jamie Hinrich

Kelaine Ravdin

Joe Prado

## **West Fresno Community Landscapes Plan**

Kuthz Pape and Associates – Consulting Arborist

Robert Boro Landscape Architects  
Landscape Assessment

Provost and Prichard - Land Use Assessment

VRPA Technologies - Transportation Assessment

Sonoma Technologies, Inc. - Air Quality  
Assessment

Environmental Historian

Urban Ecos, LLC – Ecological Assessment

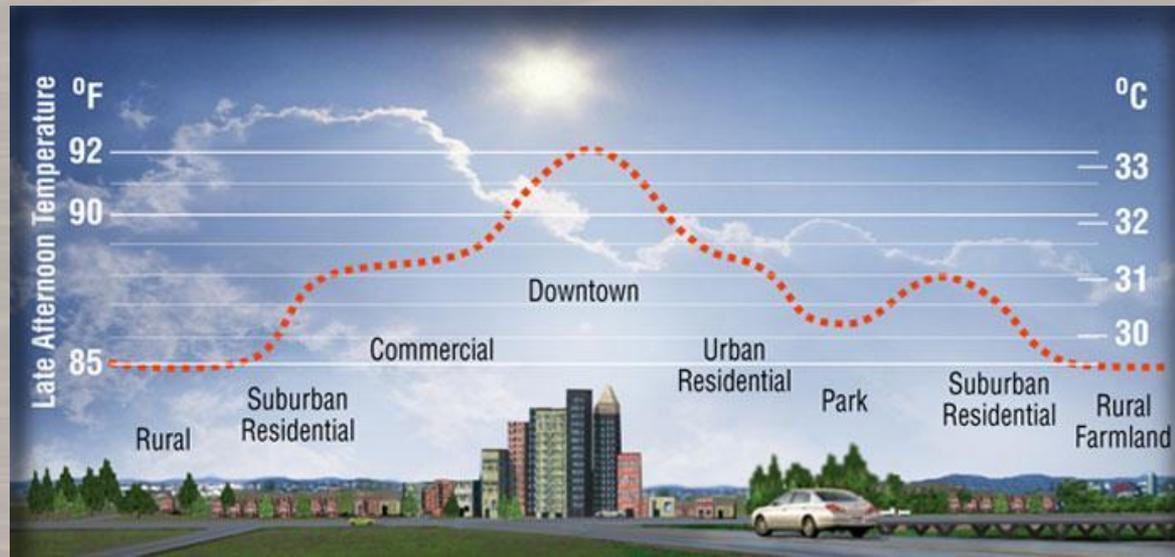
City of Fresno – Public Health Assessment

# Benefits of Urban Trees

# Urban Trees...

## #1 Make Cities Cooler

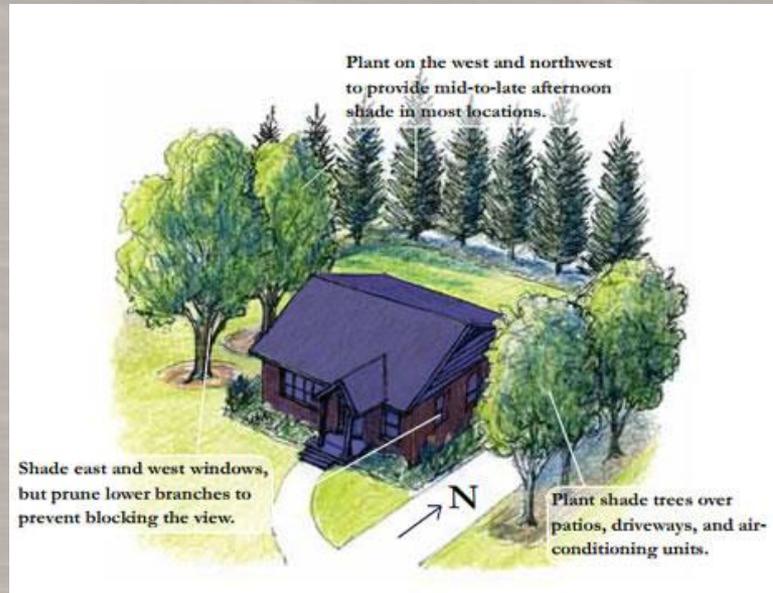
Cities are usually warmer than rural areas because they have cement and asphalt instead of plants and soil. Trees help cool cities down by creating shade and adding moisture to the atmosphere through the evaporation of water from their leaves.



# Urban Trees...

## #2 – Cut Energy Costs

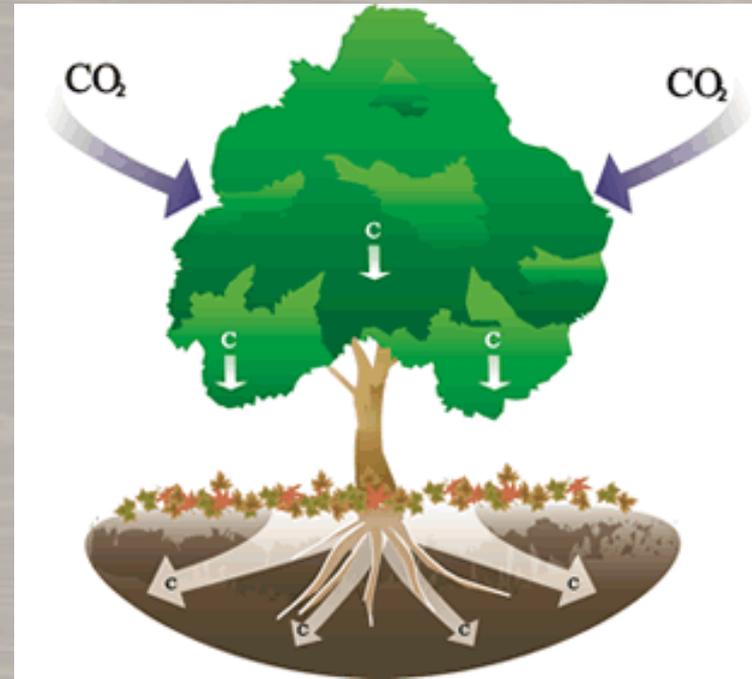
When trees are planted around buildings they give shade to the building, which decreases the need for air conditioning. Planting deciduous trees (trees that lose their leaves in winter) blocks the sun in the summer, but allows more sun to hit a building in winter months, which then decreases the need for heater use.



# Urban Trees...

## #3 - Absorb Carbon Dioxide

Trees take in carbon dioxide from the air to help them grow leaves, roots, and wood. If there is too much carbon dioxide (a greenhouse gas) in the air, it could increase the temperature of Earth. In the lifetime of a single tree, several *tons* of carbon dioxide are absorbed into the tree, thereby reducing climate change.



# Urban Trees...

## #4 - Improve Mental Health

People that live in urban spaces with trees report higher life satisfaction and lower stress levels. Having a taste of nature near our work also improves our performance and sense of satisfaction at work.



# Urban Trees...

## #5 - Reduce Violence

Vegetation cover, including trees, can contribute to reduced crime rates in cities in two ways. First, public space with trees tends to be more used by the public, which results in an organic increase in surveillance. Second, the presence of vegetation (like trees) lessens mental fatigue, which is often a contribution to episodes of violence or anger.



# Urban Trees...

## #6 - Provide Wildlife Habitat

Urban trees provide habitats for animals, birds, and insects. Trees help shelter smaller critters from predators and weather, become hosts of egg laying, provide materials for nesting and egg-laying, and abound in food sources like leaves, bark, nuts, and fruits.



# Urban Trees...

## #7 - Increase Property Value

The dollar value of residential areas goes up by several percent if the area is tree lined than a similar piece of property without trees.



# Urban Trees...

## #8 - Are Good for Business

Studies suggest that customers are willing to pay more for the same product at a store with a visible tree canopy than at one without. Trees also provide shade for benches, which encourage patrons to linger longer in a city's shopping district.



# Urban Trees...

## #9 - Create Jobs

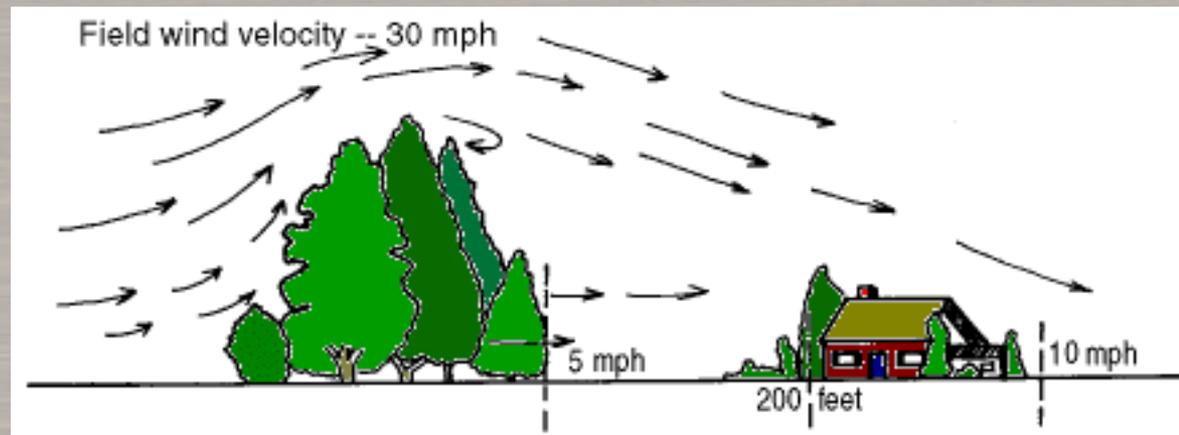
Urban forestry creates more jobs, in a collection of diverse fields. Chances are you could find a job that interests as one of the following: accountant, appraiser, arborist, botanical farmer, broker, community educator, ecologist, elementary school teacher, forester, fund raiser, grant writer, groundskeeper, high school teacher, landscape architect, lawyer, lumber miller, nature photographer, nursery manager, park planner, professor, researcher, writer, and many more!



# Urban Trees...

## #10 - Provide Visual, Sound, and Wind Barriers

Trees provide visual, sound, and wind barriers. Trees can become aesthetic covers for urban eyesores and can also give our home or business an added layer of privacy. Trees are a buffer to urban noise and can quiet noises from airports and highways. Trees also provide a windbreak. In the winter, trees acting as a wind barrier will reduce heat costs and in the summer the windbreak can lessen the drying effect on other vegetation in our yards.



# Urban Trees...

## **#11 - Foster a Sense of Neighborhood Pride**

Trees add character to an urban space. If one species of tree in particular is planted in a neighborhood, this tree could help create a united sense of neighborhood identity. The availability of green spaces creates a stronger appeal to identifying with our community.



# Urban Trees...

## #12 - Are Unifiers

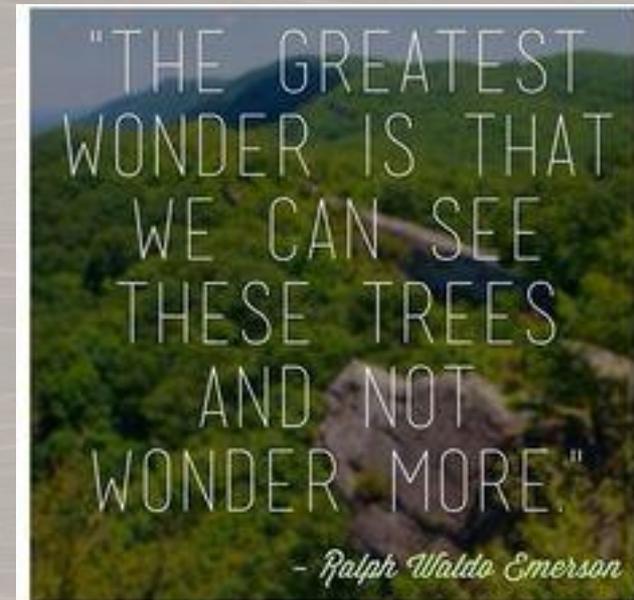
People of every type of social-economic backgrounds, races, genders, and ages can approach and enjoy trees as equals. So, urban trees provide a space in cities where the local community can feel united as they enjoy nature together. Researchers have found that people report better relations with their neighbors when they live in an area that has buildings with trees planted around them.



# Urban Trees...

## #13 - Are Vehicles of Curiosity about Nature

Few of us are born in a log cabin in the woods, so our first experience of nature is usually found in our own backyard. Trees planted in our yards, neighborhoods, businesses and local parks can give us a taste of a forest and inspire us to want to learn more about trees and even take a family trip to a national forest or national park.



# Urban Trees...

## #14 - Give Seasonality To Urban Spaces

In the “concrete jungle” that many cities become without trees, urban trees become markers of seasonality. The golden and red hues whispering of fall, the leafless branches of deciduous trees singing of winter, the sudden bloom of flower blossoms shouting of spring, and the deepening hues of green proclaiming summer. In the process, urban trees become the symphony of seasons throughout our year for all to enjoy.



# Urban Trees...

## #15 - Reduce Car Pollution

Trees planted around a work-place parking lot will help keep cars cooler (up to 40-50 degrees F cooler) throughout the day, and cooler cars emit less air pollution.



# Urban Trees...

## #16- Helps Save Water

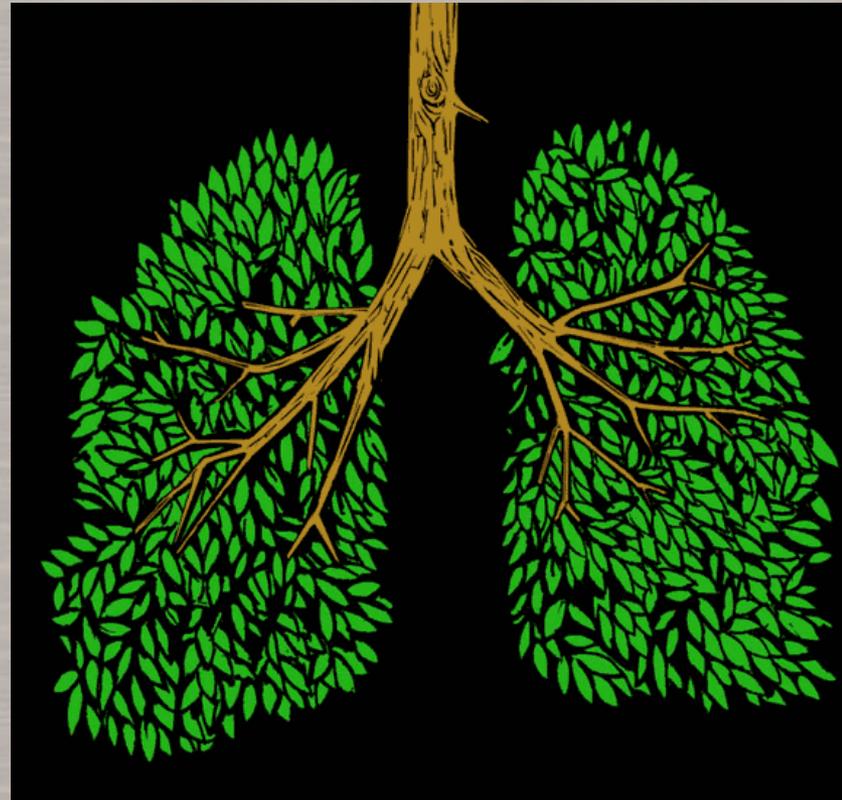
Tree-shaded lawns slow the evaporation of water from lawns, which helps lower our use of water and cost of water use. Additionally, trees increase groundwater recharge and, through transpiration (evaporation of water from leaves), add moisture to the atmosphere.



# Urban Trees...

## #17 - Are Good for Our Lungs

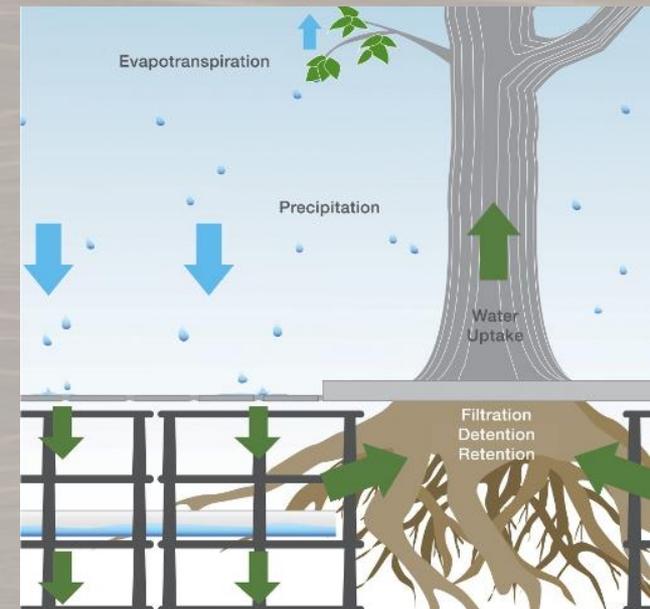
Trees produce oxygen, and we need oxygen to breathe. Trees also settle and trap smoke, pollen, ash and dust, improving the overall air quality.



# Urban Trees...

## #18 - Clean City Water

Rainwater often builds up instead of being absorbed into the ground because cities have many impermeable surfaces (such as asphalt streets and cement sidewalks). This water flows over streets and sidewalks, gathering contaminants, and then filters into urban waterways. Urban trees, however, will absorb rain, filter it down to their roots and into the soil beneath them, purifying the water along the way. Trees also save cities money by decreasing the need for artificial storm water controls and reducing flood damage caused by storm runoff on urban property.



# Urban Trees...

## #19 - Benefit Children

Studies show that contact with nature encourages children to think more creatively and imaginatively. Children also achieve higher test scores and have a better graduation rate if they attend schools that have views of trees.



# Urban Trees...

## #20 - Motivate us to Be Active

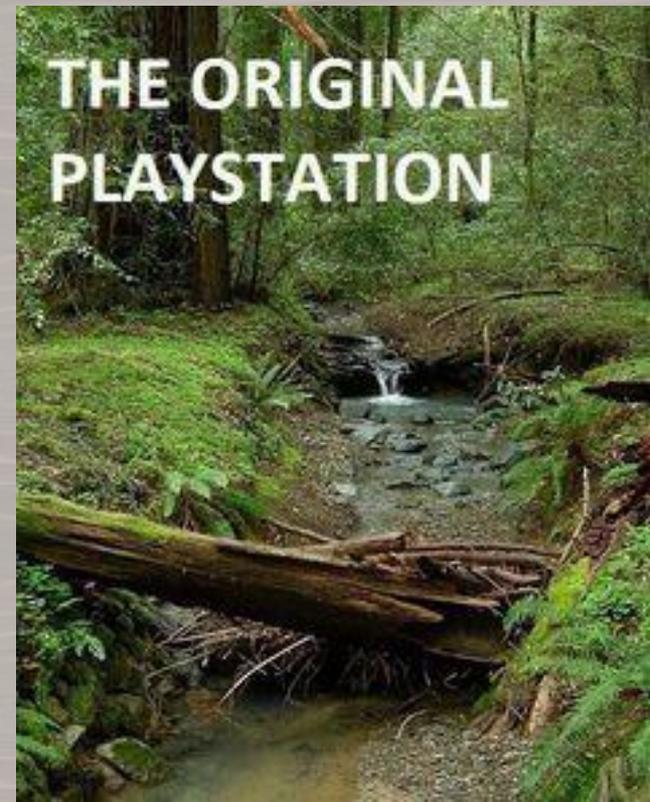
Green spaces, which trees create, provide areas to be active. Easily accessible and attractive green spaces may encourage the local population to exercise more and with greater regularity. Exercise improves our memory, cognitive, and learning abilities.



# Urban Trees...

## #21 - Are Good for Our Soul

As the trend continues for mankind to settle in urban environments, it is also becoming increasingly important to have means to reconnect with nature. Urban trees provide a means for urbanites to reconnect with nature daily just by looking outside their window or walking outside their front door.



# Urban Trees...

## #22 - Give Aesthetic Benefits

Quite simply – spaces with trees tend to be more aesthetically appealing than a space without. Trees add visual variety to an area with the various sizes and shapes of leaves, seasonal flowers, and texture of bark. Trees also add beauty to urban areas by softening the sharp lines of buildings and adding contrasting color.



# Urban Trees...

## **#23 - Become the Only Forest Some May Ever See**

While some of us may take the time and money to drive to a national forest or national park, not all of us have the means to do so. Urban forests become the only forest some people ever may see, which makes tree planting in cities a valuable endeavor.



# Urban Trees...

## #24 - Provide Volunteer Opportunities

Urban forestry groups (like Tree Fresno) provide volunteer opportunities to the local public. Volunteering helps us feel more connected socially and hence less lonely. Volunteering can help lower our blood pressure and increase our lifespan. This sense of “making a difference” in our local community helps us achieve greater self-esteem and better overall mental health in our functioning in the day-to-day.



# Urban Trees...

## #25 - Our Good for Our Health

Scientists have found that deaths from respiratory and cardiovascular diseases are higher in areas where trees have been removed. Conversely, patients experience fewer complications, less pain, and a quicker discharge from hospitals when they have a room with a view of nature. Activities in the outdoors, made more attractive by the presence of trees and green spaces, have been shown to decrease the symptoms of stress, Alzheimer's, depression, and dementia.



# **LAND USE ASSESSMENT**

Sara Allinder  
Provost and  
Prichard



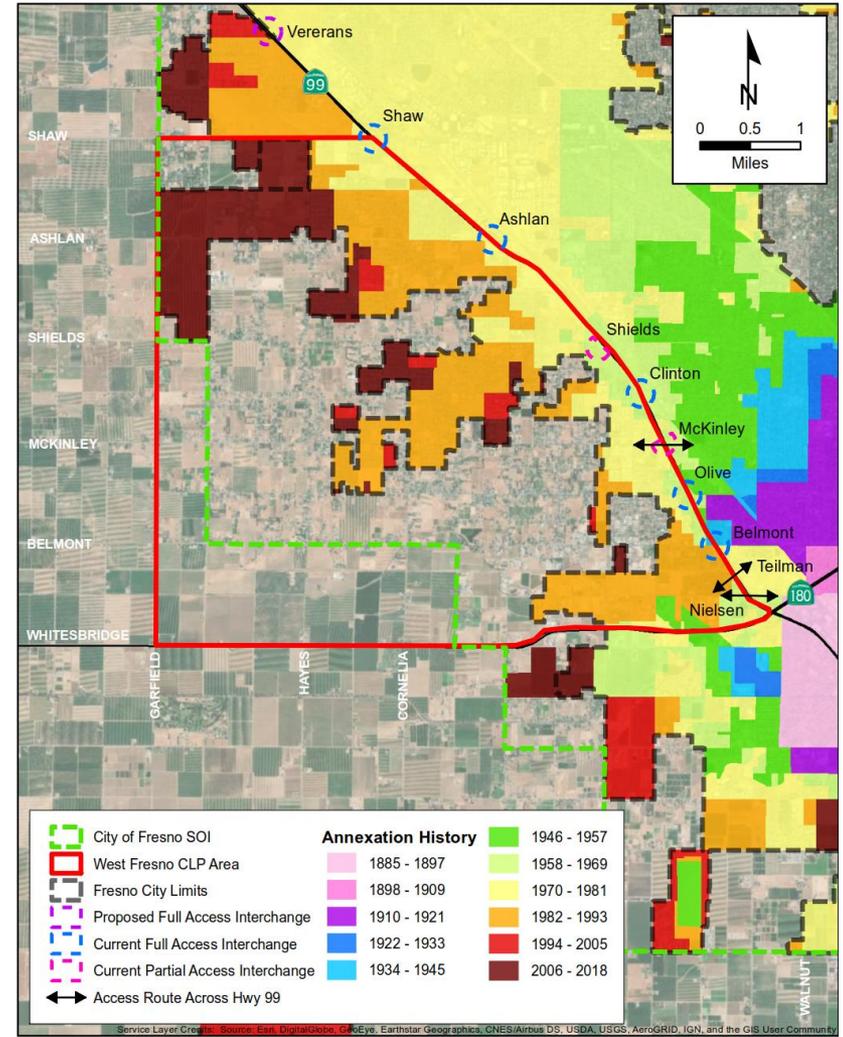
# Land Use Assessment Observations

Transportation Network Disruptions and Limitations

Recent Planning Efforts Provide Clear Policy Direction

Opportunity to Influence Through Regulations

City of Fresno Does Not Control All Land Use Decisions



# Transportation Network Disruptions and Limitations

## Development pattern is disjointed

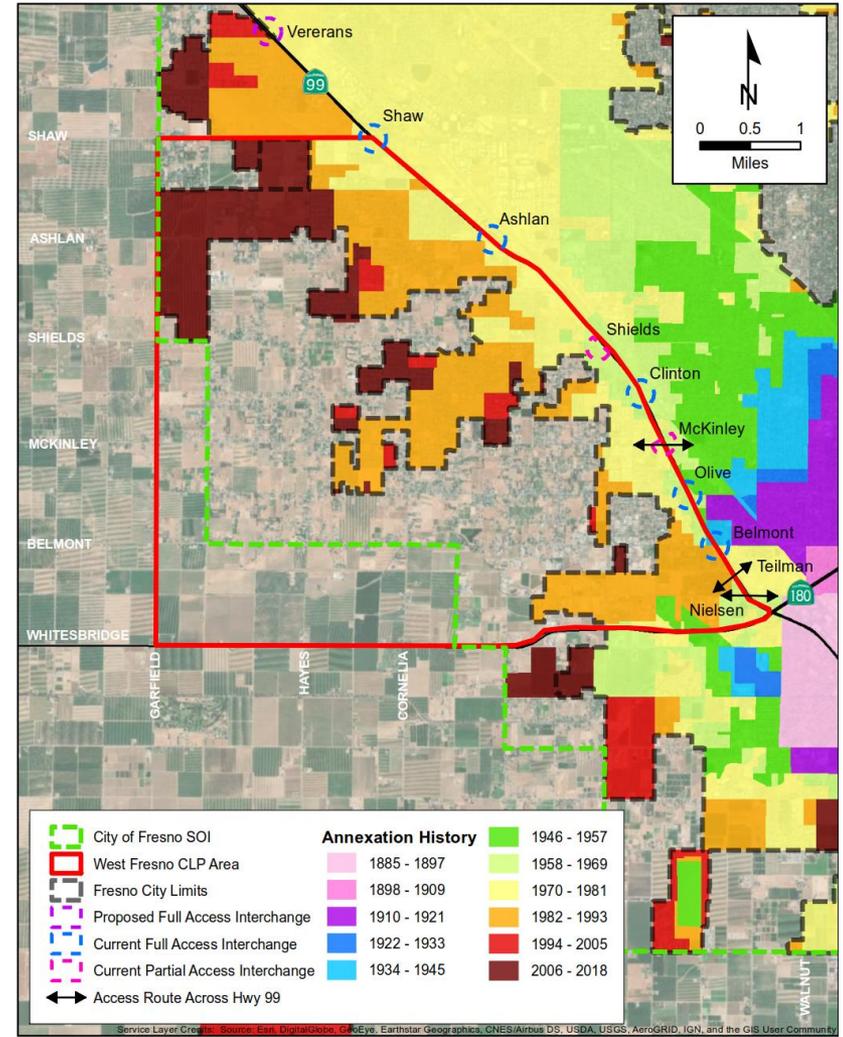
- Disruptions in the roadway network as segments of network are not completed

## Most regional services are located east of State Route (SR) 99

- Limited points of access across SR 99

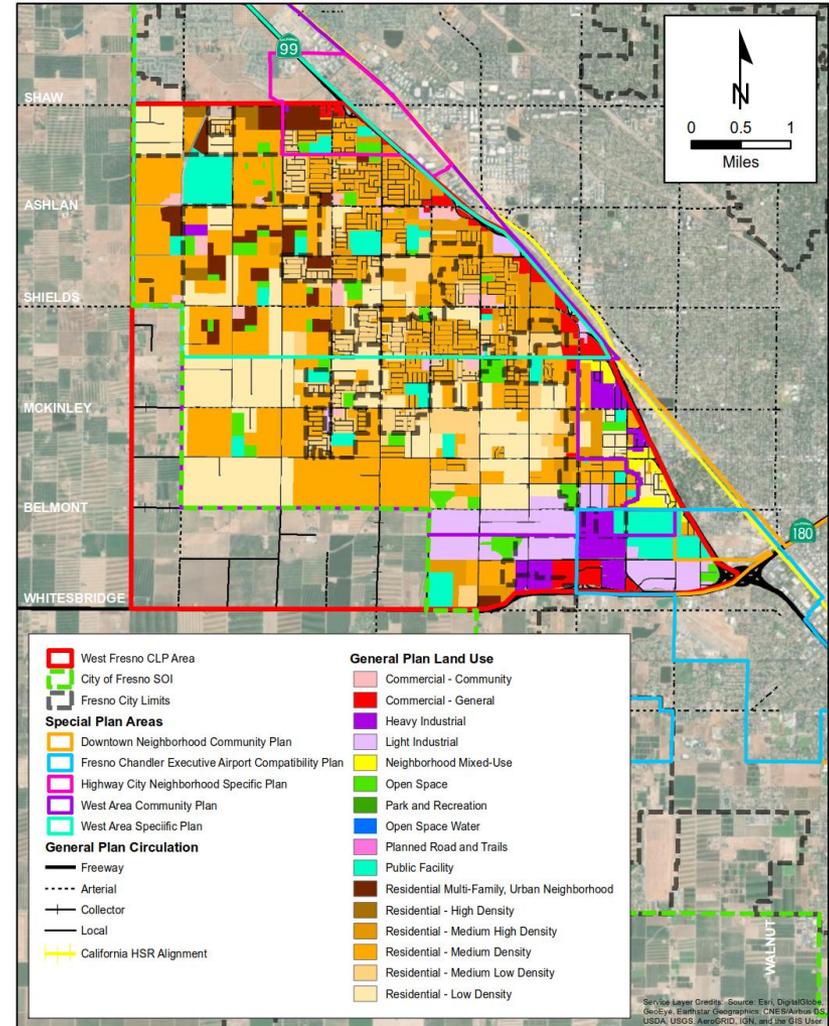
## Additional access points

- Herndon
- Veteran's Boulevard
- SR 180/Whitesbridge



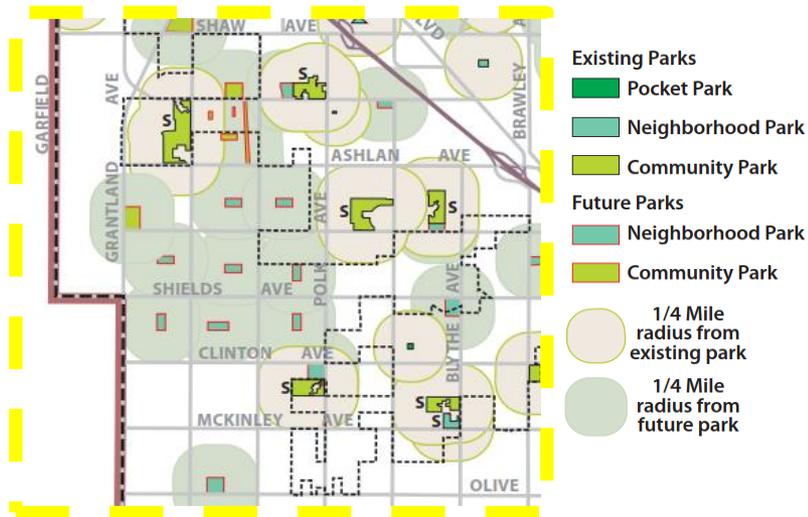
# Recent Planning Efforts Provide Clear Policy Direction

**Fresno General Plan (2014)**  
**Parks Master Plan (2017)**  
**West Area Specific Plan (ongoing)**

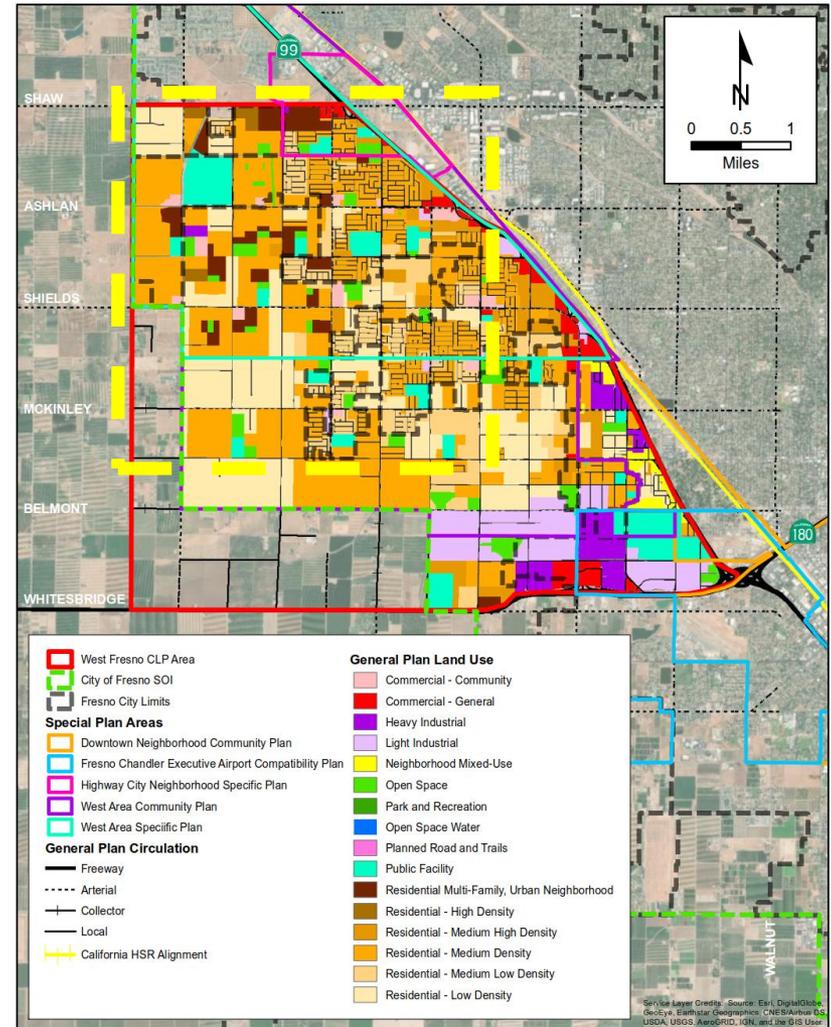


# Recent Planning Efforts Provide Clear Policy Direction

**Fresno General Plan (2014)**  
**Parks Master Plan (2017)**  
**West Area Specific Plan (ongoing)**



Source: City of Fresno General Plan Figure POSS-1: Parks and Open Space



# Opportunity to Influence Implementation through Regulations

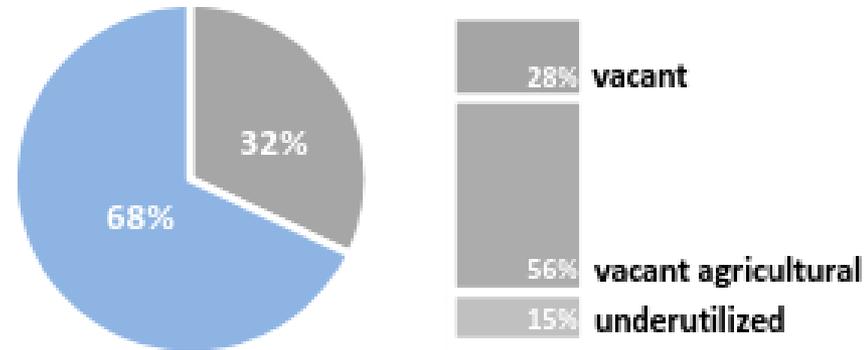
## Zoning Regulations:

- Address development on primarily private property, including:
  - How much and what type of landscaping or open space is required
  - How many trees are required

## Subdivision Regulations:

- Address design and improvement of private and public property related to subdivisions, including:
  - How properties connect to surrounding uses through streets, sidewalks, and trails
  - How streets are designed to accommodate for pedestrians and bicyclists
  - How parks are integrated

## West Fresno Area Developed v. Vacant and Underutilized Acres



# Opportunity to Influence Implementation through Regulations

## Zoning Regulations:

- Address development primarily on private property, including:
  - How much and what type of landscaping or open space is required
  - How many trees are required

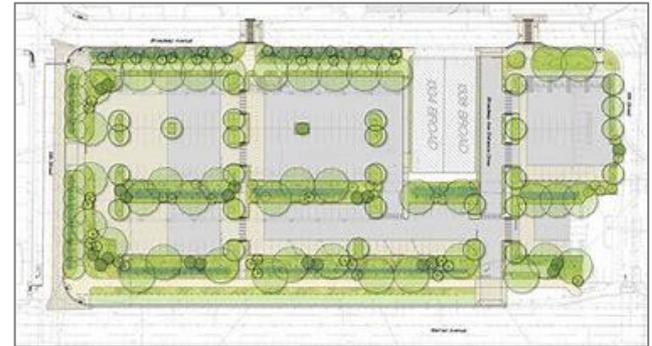
## Subdivision Regulations:

- Address design and improvement of private and public property related to subdivisions, including:
  - How properties connect to surrounding uses through streets, sidewalks, and trails
  - How streets are designed to accommodate for pedestrians and bicyclists
  - How parks are integrated

*Single Family Landscape Plan*



*Parking Lot Shading and Landscape Plan*



# Opportunity to Influence Implementation through Regulations

## Zoning Regulations:

- Address development on primarily private property, including:
  - How much and what type of landscaping or open space is required
  - How many trees are required

## Subdivision Regulations:

- Address design and improvement of private and public property related to subdivisions, including:
  - How properties connect to surrounding uses through streets, sidewalks, and trails
  - How streets are designed to accommodate for pedestrians and bicyclists
  - How parks are integrated

*Traditional Neighborhood Design*



*Conventional Neighborhood Design*

Credit: [www.cnu.org](http://www.cnu.org)

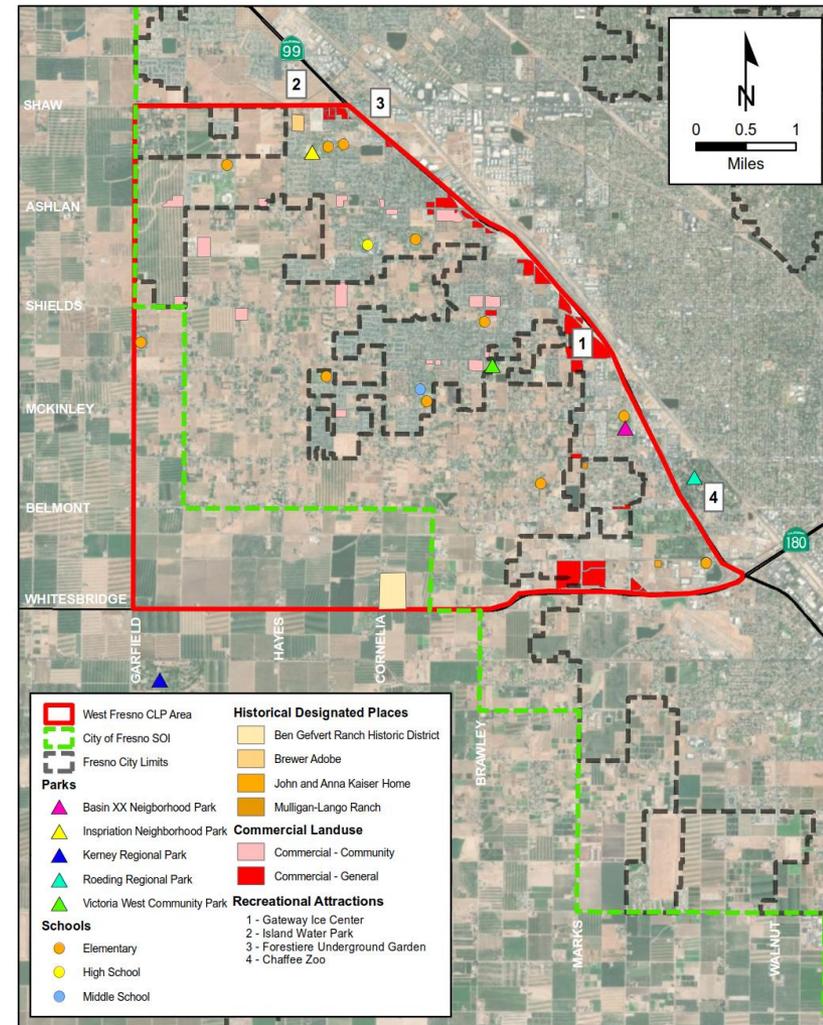
# City of Fresno Does Not Control All Land Use Decisions

## Development and Division of Land Under County of Fresno Jurisdiction

- Nearly 10 square miles is currently under County of Fresno jurisdiction
- Development is occurring consistent with County policies and practices

## Siting and Development of Schools

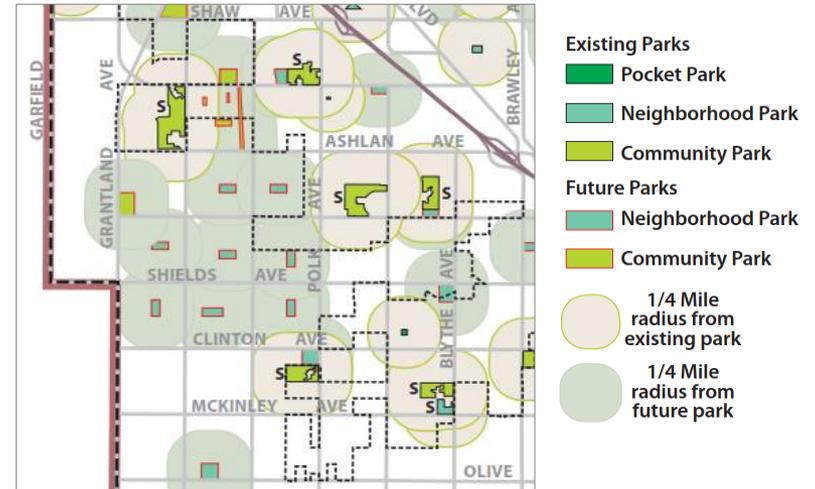
- Central Unified and Fresno Unified School Districts are subject to different standards and procedures



# Next Steps: Strategic Properties and Community Shaping Plan

## Identify Neighborhood Components

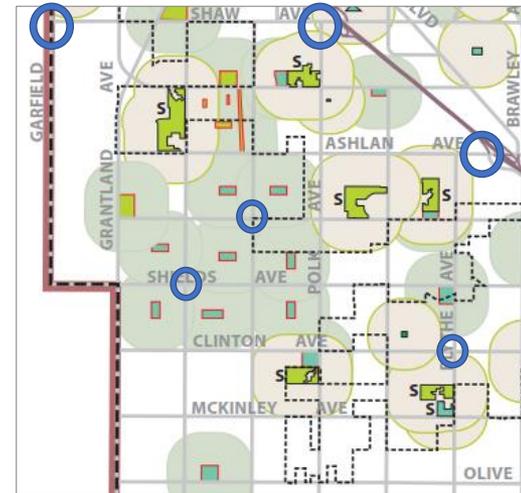
- Neighborhood/district identifiers
  - Schools
  - Parks
  - Commercial Centers
- Gateways
  - Major intersection
  - Interface between neighborhoods
- Connectors
  - Trails
  - Complete streets



# Next Steps: Strategic Properties and Community Shaping Plan

## Identify Neighborhood Components

- Neighborhood/district identifiers
  - Schools
  - Parks
  - Commercial Centers
- Gateways
  - Major intersection
  - Interface between neighborhoods
- Connectors
  - Trails
  - Complete streets



*Intersection Landscaping*



*Entryway Signage and Landscaping*



*Gateway Signage and Landscaping*



# Next Steps: Strategic Properties and Community Shaping Plan

## Identify Neighborhood Components

- Neighborhood/district identifiers
  - Schools
  - Parks
  - Commercial Centers
- Gateways
  - Major intersection
  - Interface between neighborhoods
- Connectors
  - Trails
  - Complete streets

*Landscaped and  
Complete Streets as  
Connectors*



*Class I Trail  
Systems*



# **TRANSPORTATION ASSESSMENT**

Georgiana  
Vivian

VRPA  
Technologies

# Transportation Overview

## Transportation Overview — Georgiena Vivian, VRPA Technologies, Inc.

- West Fresno's existing transportation system is primarily oriented toward automobile travel
- Opportunities exist for creating a transportation system that is more esthetically pleasant, less intrusive for residents, and provides more opportunities for travel by transit and active transportation (i.e. bicycle and pedestrian travel)
- An enhanced transportation system can be implemented through the use of landscaping, separation of bicycle and pedestrians from automobile traffic, improved transit connections, complete street projects, and traffic calming features such as roundabouts



# Transportation Challenges

## ✓ Roadways

- Traffic congestion is a key issue for roadways in West Fresno, including segments along Shaw Ave, Ashlan Ave, and SR 99 that experience traffic congestion during peak hours on weekdays.



Shaw Avenue, west of SR 99

## ✓ Bicycles

- As currently constructed, there are a limited number of facilities for bicycle travel in West Fresno.



Hughes Avenue, south of Olive Avenue

# Transportation Challenges

## ✓ Pedestrians

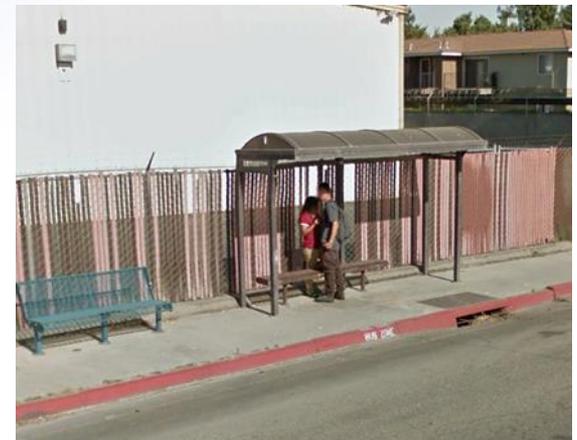
- One of the primary challenges facing pedestrian travel are gaps that exist in the pedestrian network

## ✓ Transit

- Issues include the demand for an increase in service/frequency among some fixed routes and transit service being underutilized among other routes



Cornelia Avenue, north of Ashlan Avenue



Cornelia Avenue at Sierra Mobile Park

# Potential transportation solutions

## ✓ Roadways

- Roundabouts for smooth traffic flow
- Additional lanes to roadways
- Complete Streets

## ✓ Bicycles

- Bicycle gap closures
- Separated bicycle facilities
- Separated bicycle facilities at railroad and freeway crossings
- Enhanced bicycle solutions at traffic signals



# Potential transportation solutions

## ✓ Pedestrians

- Separated pedestrian facilities at railroad and freeway crossings
- Enhanced pedestrian solutions at traffic signals
- Improve/add sidewalks
- Add crosswalks, pedestrian refuge areas in roadway median, and mid-block pedestrian signals



## ✓ Transit

- Increase transit service/frequency
- Transit signal priority
- Improve access to transit
- Provide enhanced transit stops



# Potential features of the Existing and Planned Transportation Network



## West Fresno Potential Features of the Existing and Planned Transportation Network - Figure 1

--- Study Area Boundary

### School Facilities

- Head Start
- Elementary School
- Middle School
- High School

### Existing Bicycle Network

- Class I Bike Path
- Class II Bike Lane
- Class III Bike Route

### Planned Bicycle Network

- Class I Bike Path
- Class II Bike Lane
- Class III Bike Route
- Class IV Separated Bikeways

- Rails to Trails
- Recommended Complete Streets
- Landscaping Features

### Manchester Transit Station

### Existing Level of Service (LOS)

- LOS A-D (not shown)
- LOS E
- LOS F

Add Landscaping to Existing Roadway Facilities for Noise Attenuation Throughout Plan Area



Add Landscape Features to Existing & Proposed Bicycle Facilities & Trails Throughout Plan Area



Convert Rail Lines to Landscaped Trails



Recommend Complete Streets with Landscape Features



Potential Roundabouts for Smooth Traffic Flow, Accommodate Pedestrians and Reduce Noise

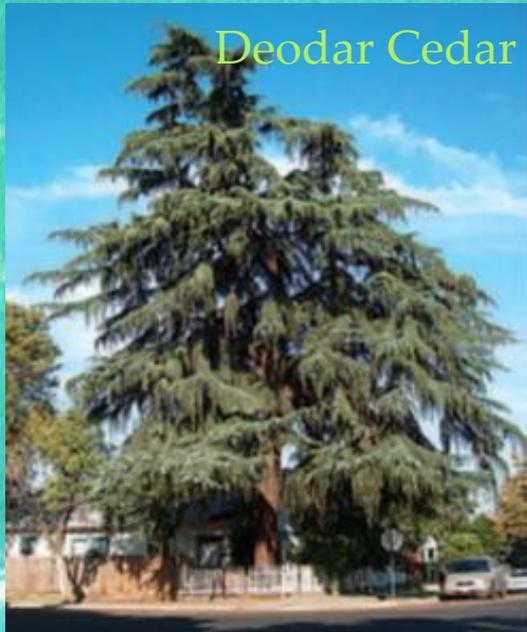


# **TREES ASSESSMENT**

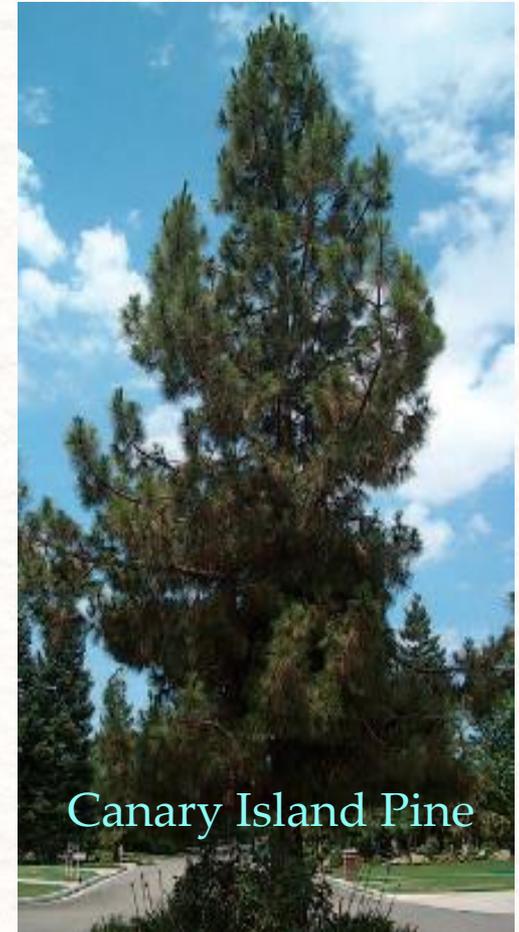
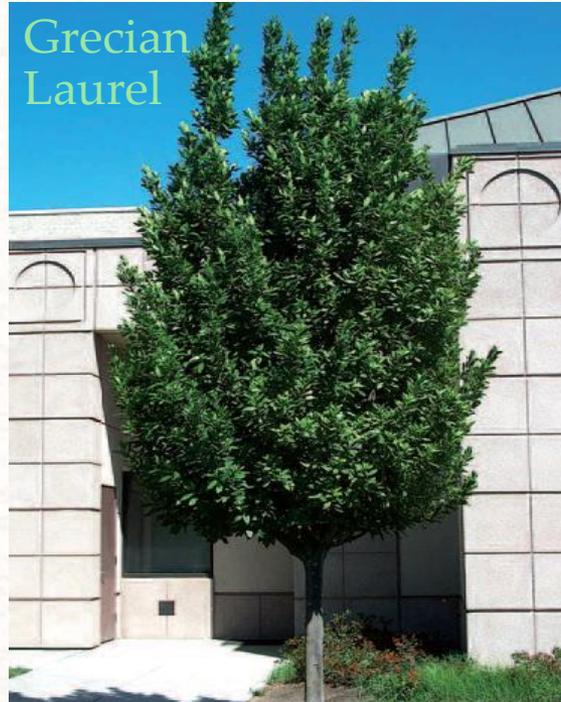
John Pape

John Pape  
Consulting,  
LLC

# Trees Performing Well in West Fresno



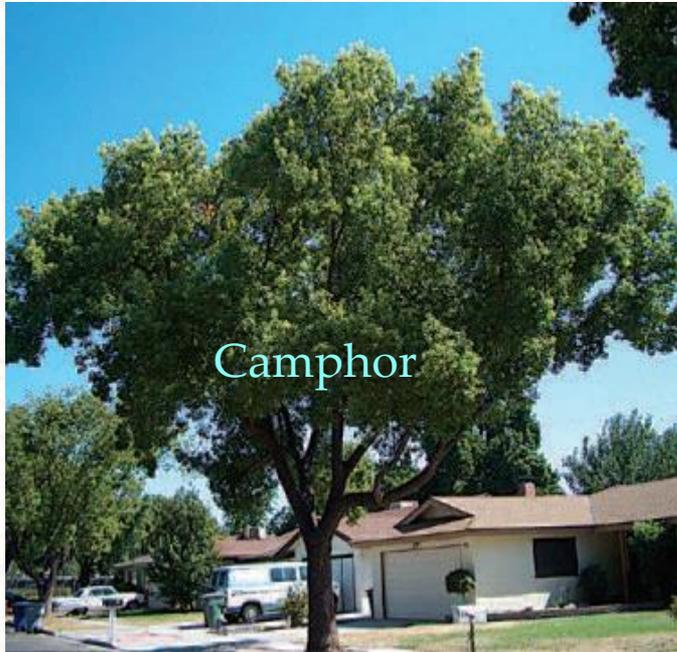
# Trees Performing Well in West Fresno



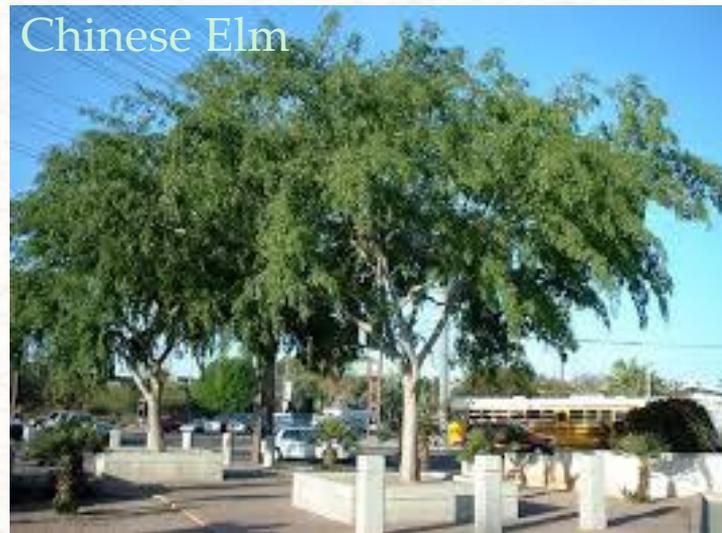
# Trees Performing Well in West Fresno



East African Yellowwood



Camphor

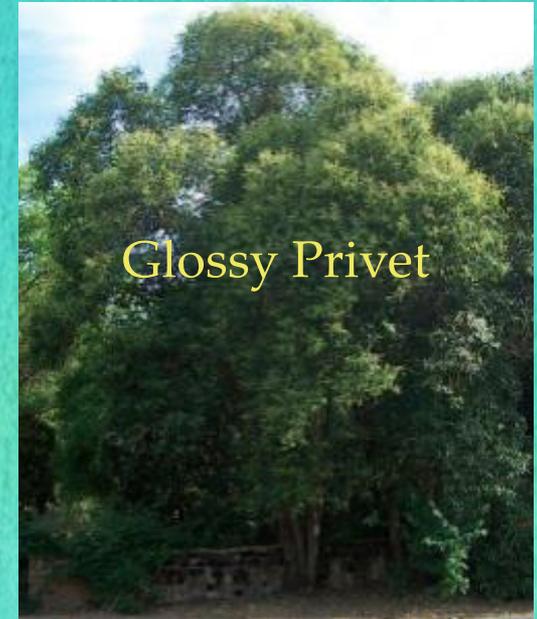
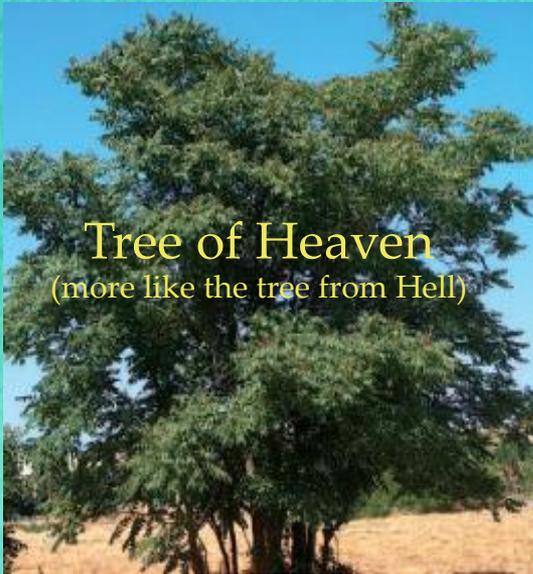


Chinese Elm



Aleppo Pine

# Inappropriate Trees in West Fresno



# LANDSCAPES ASSESSMENT

Rich  
Vaillancour  
Robert Boro  
Landscape  
Architects

# West Fresno Landscape Assessment

---

## IMPRESSION

- Definition
- Continuity
- Edge
- Identity
- Opportunity

## SENSE OF PLACE

- Tree Canopy
- Defined Space
- Accent Boundary
- Environmental Control

## HEALTHY COMMUNITY

- Clean Air
- Shade / Heat Gain
- Environmental Interaction



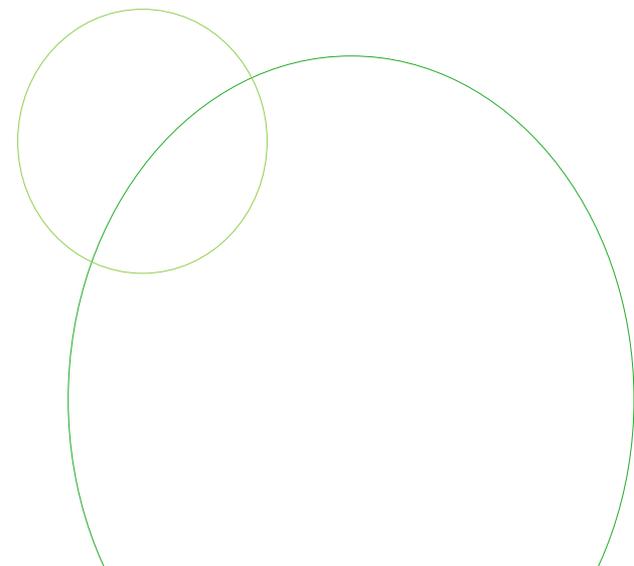
[This Photo](#) by Unknown Author is licensed under [CC BY-SA](#)

# LARGE TREE RAFFLE





# Q & A

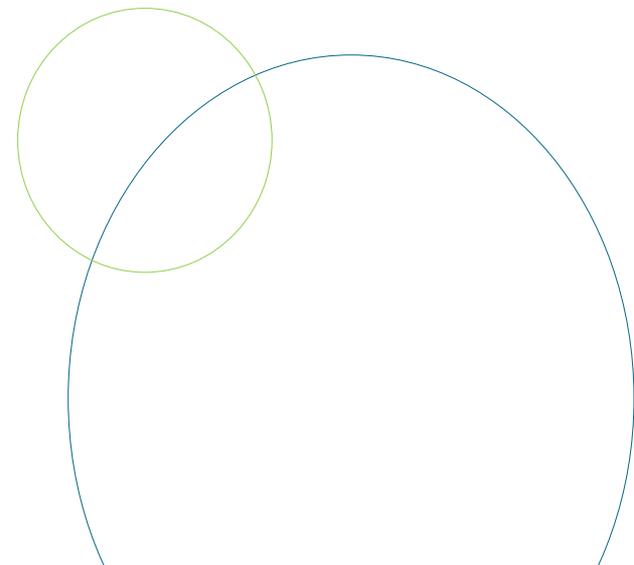


Rich Vaillancour  
Robert Boro  
Landscape  
Architects

John Pape  
John Pape  
Consulting, LLC

# ASK THE EXPERT!

STICK AROUND TO TALK TO OUR TREES AND  
LANDSCAPE EXPERTS



# Particle Size Explained

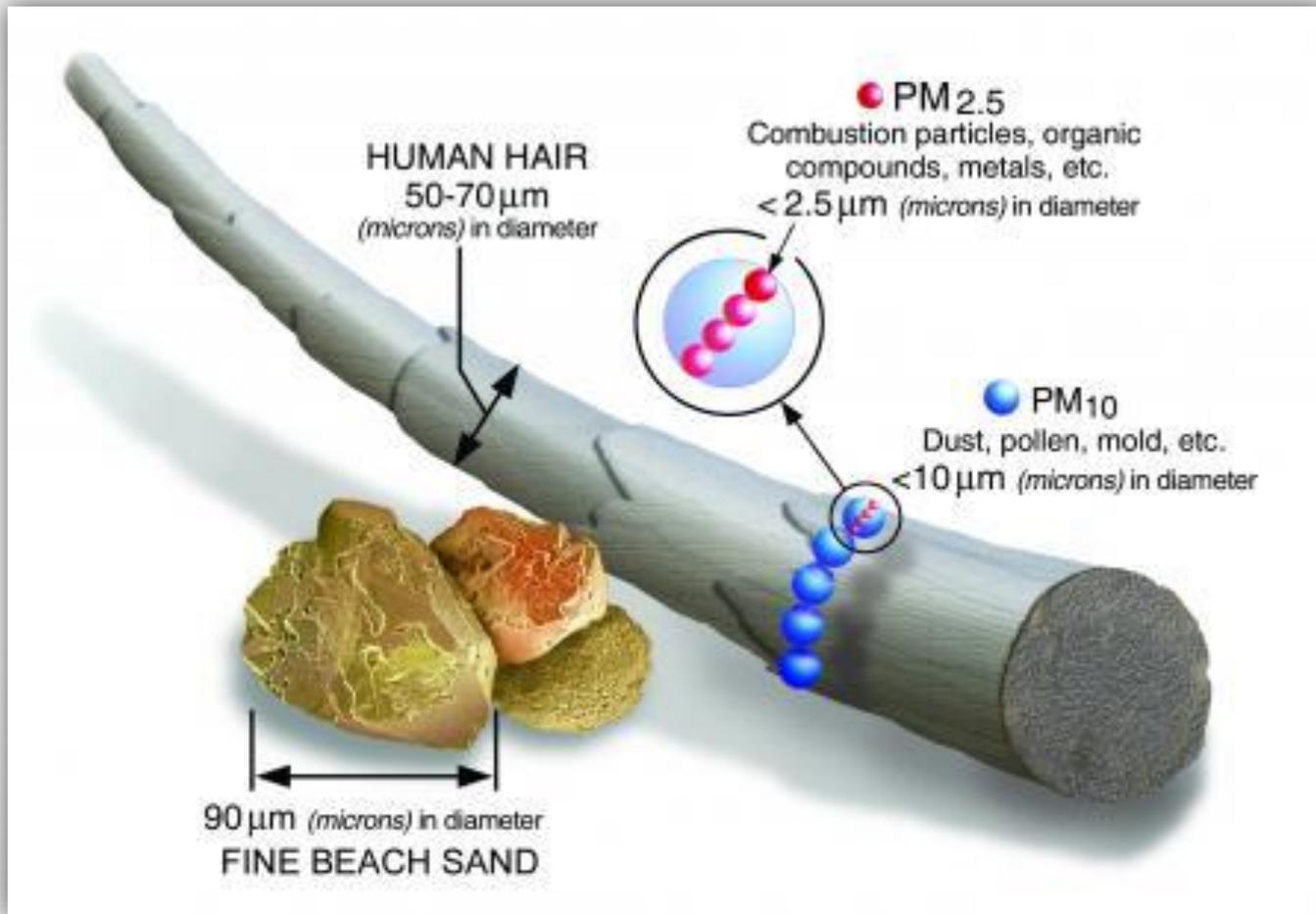
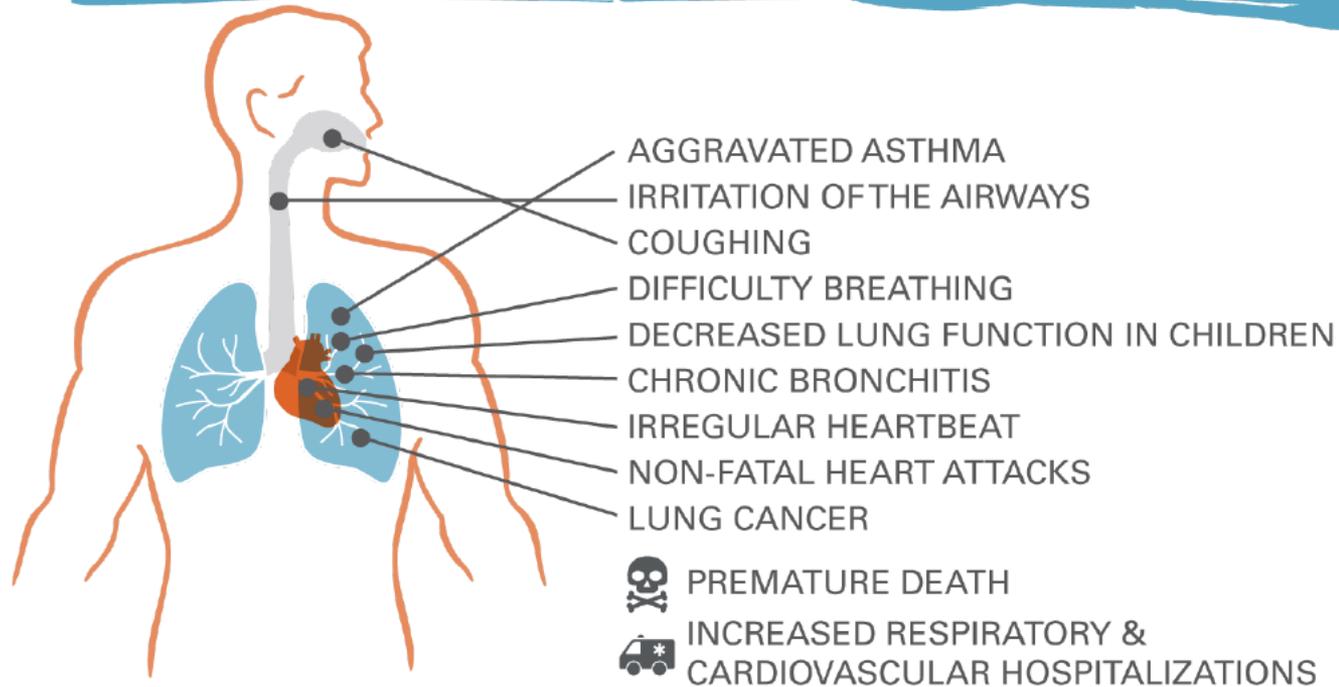


Image source: U.S. EPA

<https://www.epa.gov/pm-pollution/particulate-matter-pm-basics>

## Health impacts from exposure to PM<sub>2.5</sub>



*Children, older adults, and individuals with heart or lung diseases are the most likely to be affected by PM<sub>2.5</sub>.*

Image source: California Air Resources Board: "Meeting PM<sub>2.5</sub> Standards in the San Joaquin Valley," May 17, 2017.

# Key Sources Contributing to PM<sub>2.5</sub>

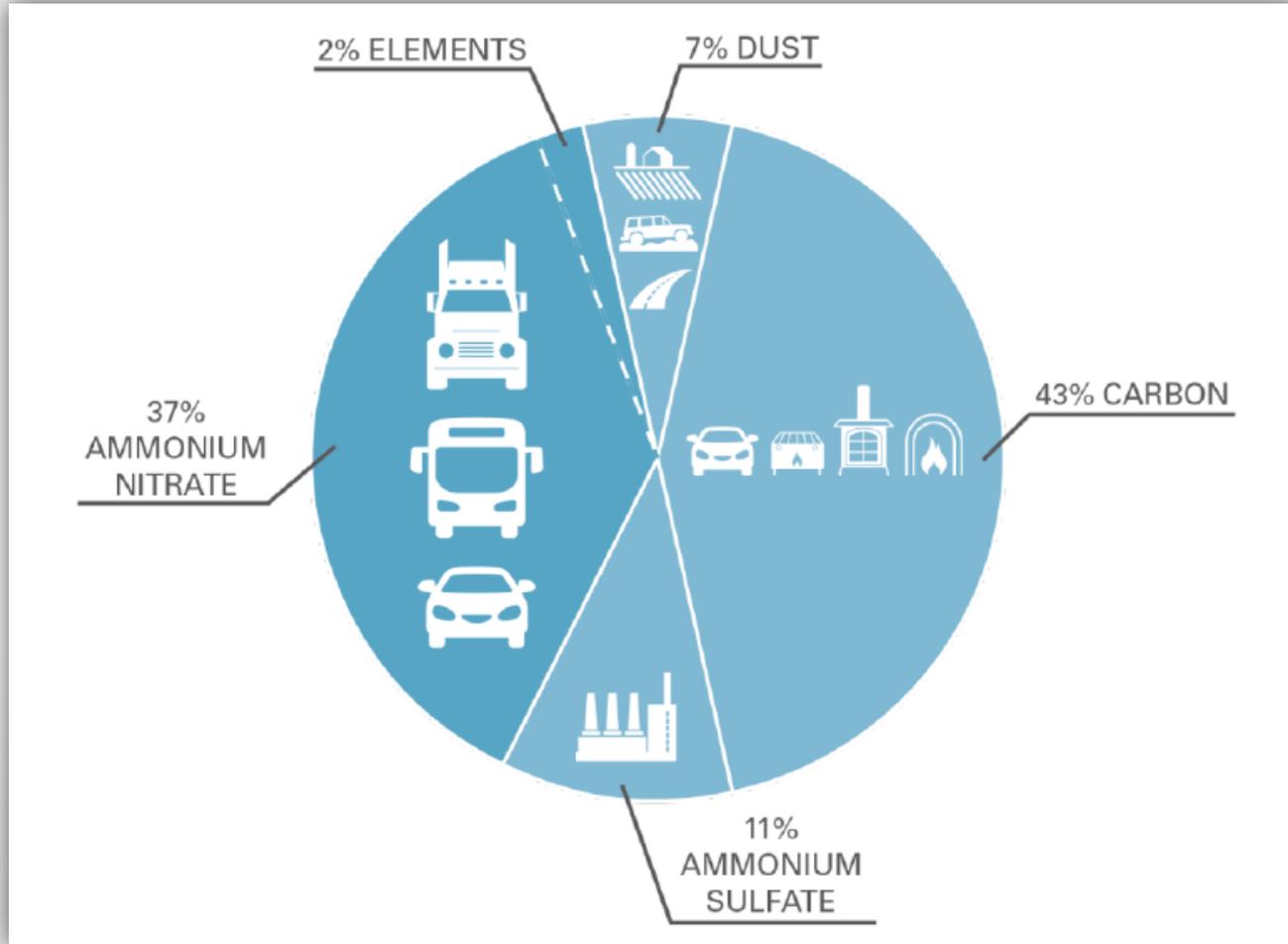


Image source: California Air Resources Board: "Meeting PM<sub>2.5</sub> Standards in the San Joaquin Valley," May 17, 2017. Example data for Bakersfield.