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## Acknowledgments

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City of Twentynine Palms  
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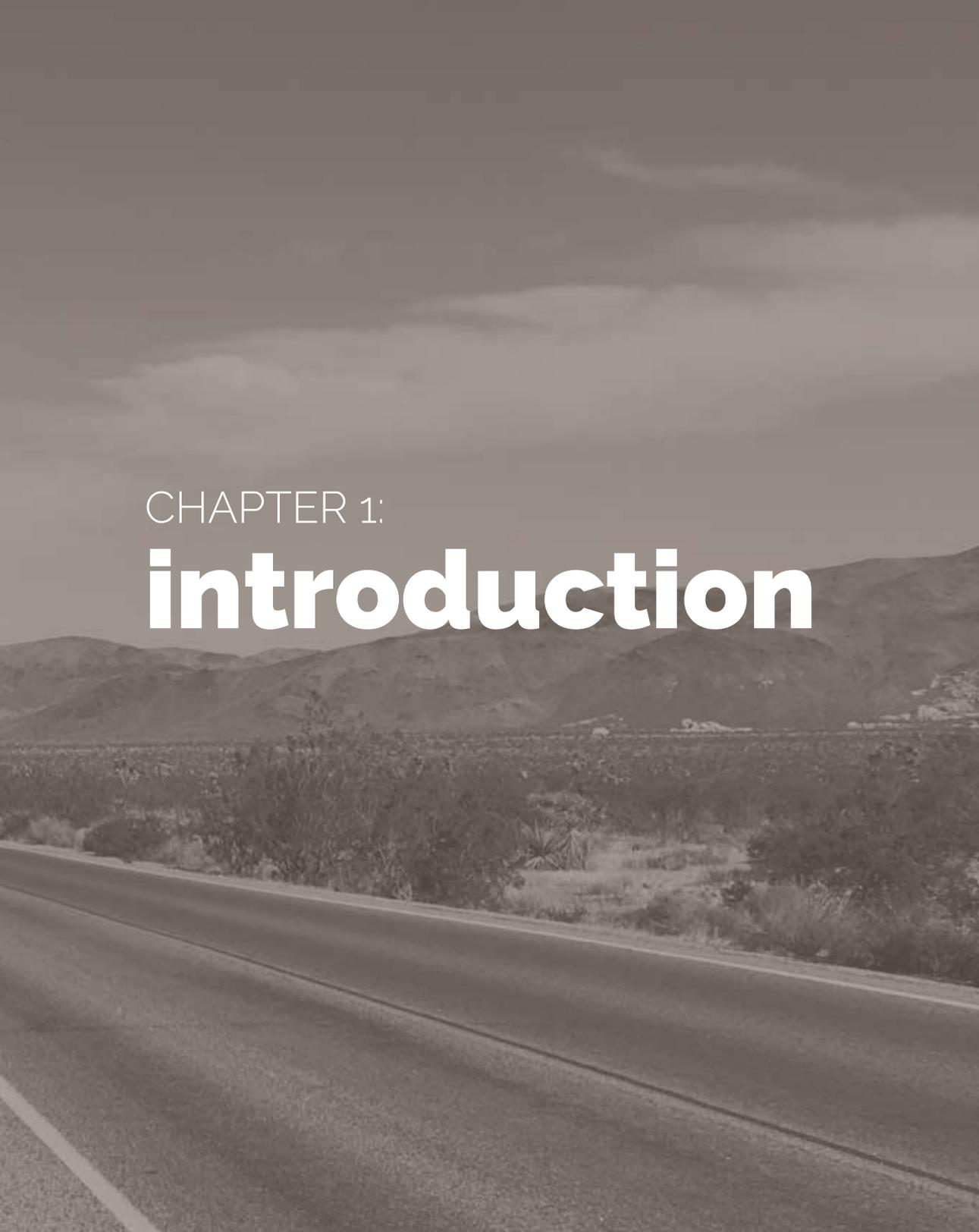
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CHAPTER 1:

# introduction

**IN THIS CHAPTER:**

1. About Morongo Basin
2. Morongo Basin Communities
3. Placemaking & Public Art in the Morongo Basin
4. Goals & Objectives

**Chapter 1** of the Morongo Basin Active Transportation Plan ("the Plan") provides an introduction to the overall purpose and vision of this planning document and what it means for the region.

After taking a brief look at the geographic and demographic characteristics of the communities making up the Morongo Basin, in addition to the local arts community's role in creative placemaking, the chapter discusses the goals and objectives that serve as the premise for this Plan and the County and local agencies' future active transportation planning and implementation efforts.

## 1.1. ABOUT THE MORONGO BASIN

The Morongo Basin is located in San Bernardino County, California. The combined area studied for this Plan includes over 43 square miles; the project area covers two incorporated cities: the Town Yucca Valley and City of Twentynine Palms, and eight unincorporated communities: Morongo Valley, Yucca Valley Area, Pioneertown, Rimrock, Landers, Joshua Tree, Twentynine Palms Area, and Wonder Valley.

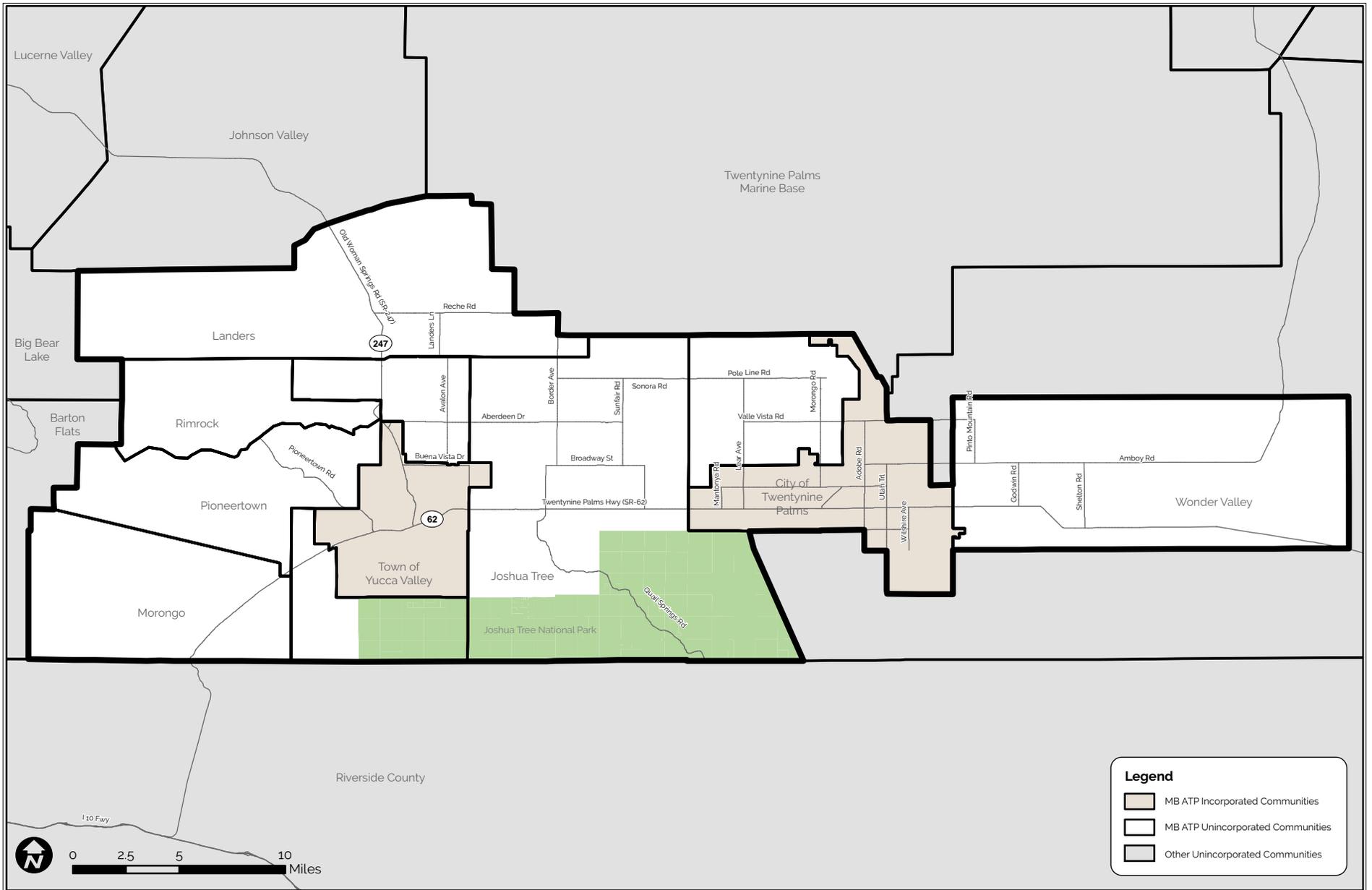
Communities across the Morongo Basin are characterized by their desert environment, low-density land use, and small town character. Residential land uses dominate with commercial and scattered industrial uses. California State Route 62 (SR-62) forms the principle roadway of the Basin, connecting the Morongo Valley, Yucca Valley, Joshua Tree, Twentynine Palms, and Wonder Valley. State Route 247 (SR-247) is the other major roadway, leading from Yucca Valley to Landers and other parts of the Homestead Valley. However, many roads are unpaved or lack additional roadway facilities such as paved shoulders, striping, sidewalks, and curb ramps.

The region's earliest inhabitants included the Serrano and Chemehuevi tribes. Ranchers, miners, and suppliers settled in the region starting in the late 1800s. After World War II, the desert became a popular location for veterans. Freeway development in the 1950s and 1960s opened up opportunities to develop the land for those looking to live in an area filled with natural beauty and rural charm. Today, the region continues to boast a diverse economy including tourism, arts, military, ecotourism, and education industries.

The Morongo Basin is perhaps most well known for its access to Joshua Tree National Park. "While the Joshua Tree area has been inhabited by humans for at least 5,000 years, by the late 1920s, the development of new roads into the desert had brought an influx of land developers and cactus poachers." Designated as a national park in 1994, Joshua Tree National Park spans over 790,000 acres, over 590,00 of which is designated as wilderness (NPS.gov). Today, the park has become a popular site for camping, hiking, equestrian activities, and nature enthusiasts, bringing tourism and economic benefits into the region's local communities.



Figure 1.1.1. Overview & Project Area Map





# 1.2. MORONGO BASIN COMMUNITIES

Data source: American Community Survey 2016 5-year estimates

## TWENTYNINE PALMS (City)



**Twentynine Palms** is home to a 3.9 square mile portion of the Marine Corps Air Ground Combat Center, a military training ground which forms a major focal point and focus of activity within the community. Approximately 15% of the City has been developed. About 80% of land uses are residential, including single-family, multi-family, and rural living uses. Commercial development is located along the corridors of SR-62 and Adobe Road and in the Downtown area. The City also includes several parks and other public spaces maintained for residents.

**25,848**

Total Population

**\$40,888**

Median Household Income

**29.3%**

Vulnerable Population  
(population < 15 and 65+)

**20.1%**

School-Aged Population  
(students enrolled in 12th grade or under)

### MEANS OF TRANSPORTATION TO WORK

Note: 2.4% (other)

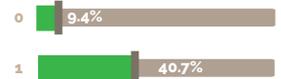
- 13.2%** walk
- 0.8%** bike
- 64.1%** drive
- 12.1%** carpool
- 0.8%** transit
- 6.8%** works from home

### TRAVEL TIME TO WORK



### LOW VEHICLE OWNERSHIP

% of households with 0 or 1 vehicles



## YUCCA VALLEY (Town)



First named and designated as a community in 1949 after the installation of water lines, the **Town of Yucca Valley** was formally incorporated in 1991. SR-62 is home to the Town's commercial core which, under the guidance of the Old Town Specific Plan, is becoming a vibrant destination and main street for the region. Outside of SR-62 the Town is primarily composed of low density and rural residential uses nestled between mountains and hills to the north and south.

**21,362**

Total Population

**\$41,569**

Median Household Income

**39.4%**

Vulnerable Population  
(population < 15 and 65+)

**20.1%**

School-Aged Population  
(students enrolled in 12th grade or under)

### MEANS OF TRANSPORTATION TO WORK

Note: 1.7% (other)

- 2.6%** walk
- 0.6%** bike
- 79.7%** drive
- 6.9%** carpool
- 0.2%** transit
- 8.3%** works from home

### TRAVEL TIME TO WORK



### LOW VEHICLE OWNERSHIP

% of households with 0 or 1 vehicles



### JOSHUA TREE (Unincorporated)



**Joshua Tree** is located near the center of the Morongo Basin region and is centered around SR-62. It is a gateway community to Joshua Tree National Park. Other attractors include the Hi-Desert Airport, Joshua Tree Community Center, and Copper Mountain College. The most prominent land uses are Rural Living, Resource Conservation, and Single Residential with several commercial and institutional land use areas.

**9,696**

Total Population

**\$40,355**

Median Household Income

**36.0%**

Vulnerable Population  
(population < 15 and 65+)

**15.7%**

School-Aged Population  
(students enrolled in 12th grade or under)

**MEANS OF TRANSPORTATION TO WORK**  
Note: 3.5% (other)

**2.8%**  
walk

**0.3%**  
bike

**81.3%**  
drive

**3.8%**  
carpool

**1.8%**  
transit

**6.4%**  
works from home

**TRAVEL TIME TO WORK**



**LOW VEHICLE OWNERSHIP**

% of households with 0 or 1 vehicles



### LANDERS (Unincorporated)

**Landers** is part of the Homestead Valley, located north of Yucca Valley. Rural residential uses with large lots characterize the community.



**3,148**

Total Population

**\$32,442**

Median Household Income

**34.2%**

Vulnerable Population  
(population < 15 and 65+)

**13.6%**

School-Aged Population  
(students enrolled in 12th grade or under)

**MEANS OF TRANSPORTATION TO WORK**  
Note: 3.1% (other)

**0.0%**  
walk

**0.0%**  
bike

**68.6%**  
drive

**17.1%**  
carpool

**0.0%**  
transit

**11.1%**  
works from home

**TRAVEL TIME TO WORK**



**LOW VEHICLE OWNERSHIP**

% of households with 0 or 1 vehicles



### RIMROCK (Unincorporated)

Rimrock is a small community located northwest of Pioneertown. It is primarily composed of rural residential uses.



**702**

Total Population

**\$33,212**

Median Household Income

**40.1%**

Vulnerable Population  
(population < 15 and 65+)

**5.4%**

School-Aged Population  
(students enrolled in 12th grade or under)

**MEANS OF TRANSPORTATION TO WORK**  
Note: 7.3% (other)

**0.0%** walk

**0.0%** bike

**77.9%** drive

**6.0%** carpool

**0.0%** transit

**8.8%** works from home

**TRAVEL TIME TO WORK**



**LOW VEHICLE OWNERSHIP**

% of households with 0 or 1 vehicles



### PIONEERTOWN (Unincorporated)

Pioneertown is located northwest of Yucca Valley. Its Old West-inspired neighborhood center has been the set of many Hollywood movies. Single-family and rural residential uses surround the central portion that contains hotels and restaurants.



**380**

Total Population

**\$40,920**

Median Household Income

**42.6%**

Vulnerable Population  
(population < 15 and 65+)

**5.8%**

School-Aged Population  
(students enrolled in 12th grade or under)

**MEANS OF TRANSPORTATION TO WORK**  
Note: 5.9% (other)

**0.1%** walk

**0.0%** bike

**71.7%** drive

**5.4%** carpool

**0.0%** transit

**16.9%** works from home

**TRAVEL TIME TO WORK**



**LOW VEHICLE OWNERSHIP**

% of households with 0 or 1 vehicles



### MORONGO (Unincorporated)



**Morongo** is a part of Morongo Valley, which covers about 44 square miles and is bounded by the Sawtooth Mountains on the north and the San Bernardino Mountains on the west. It is primarily residential and has attracted a diverse profile of residents including those of retirement age. Some commercial uses are located along SR-62.

**3,044**  
Total Population

**\$36,283**  
Median Household Income

**32.6%**  
Vulnerable Population  
(population < 15 and 65+)

**15.6%**  
School-Aged Population  
(students enrolled in 12th grade or under)

**MEANS OF TRANSPORTATION TO WORK**  
Note: 1.9% (other)

- 4.1%** walk
- 0.0%** bike
- 88.1%** drive
- 2.2%** carpool
- 0.0%** transit
- 3.7%** works from home

**TRAVEL TIME TO WORK**



**LOW VEHICLE OWNERSHIP**



### YUCCA VALLEY AREA (Unincorporated)



**Yucca Valley Area** is an unincorporated community located adjacent to the incorporated Town of Yucca Valley. It is comprised primarily of rural residential uses.



**2,955**  
Total Population

**\$34,662**  
Median Household Income

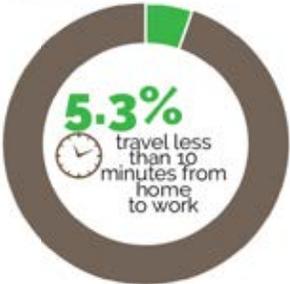
**38.1%**  
Vulnerable Population  
(population < 15 and 65+)

**18.7%**  
School-Aged Population  
(students enrolled in 12th grade or under)

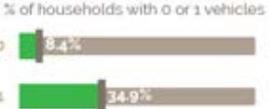
**MEANS OF TRANSPORTATION TO WORK**  
Note: 1.9% (other)

- 0.8%** walk
- 0.0%** bike
- 88.1%** drive
- 2.2%** carpool
- 0.0%** transit
- 3.7%** works from home

**TRAVEL TIME TO WORK**



**LOW VEHICLE OWNERSHIP**



**TWENTYNINE PALMS AREA (Unincorporated)**



Twentynine Palms Area is an unincorporated community located adjacent to the incorporated town of Yucca Valley. It is comprised of rural residential and single family land uses.

**4,643**

Total Population

**\$27,317**

Median Household Income

**28.5%**

Vulnerable Population (population < 15 and 65+)

**14.3%**

School-Aged Population (students enrolled in 12th grade or under)

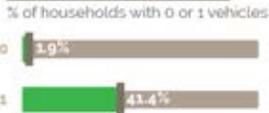
**MEANS OF TRANSPORTATION TO WORK** Note: 1.0% (other)

- 24.4%** walk
- 0.9%** bike
- 47.7%** drive
- 15.0%** carpool
- 0.0%** transit
- 10.2%** works from home

**TRAVEL TIME TO WORK**



**LOW VEHICLE OWNERSHIP**



**WONDER VALLEY (Unincorporated)**

Wonder Valley is located east of Twentynine Palms. It is sparsely settled and populated with rural residential living spaces.



**1,352**

Total Population

**\$19,710**

Median Household Income

**34.0%**

Vulnerable Population (population < 15 and 65+)

**7.7%**

School-Aged Population (students enrolled in 12th grade or under)

**MEANS OF TRANSPORTATION TO WORK** Note: 1.1% (other)

- 0.0%** walk
- 0.0%** bike
- 79.1%** drive
- 2.2%** carpool
- 0.0%** transit
- 17.6%** works from home

**TRAVEL TIME TO WORK**



**LOW VEHICLE OWNERSHIP**



## 1.3. PLACEMAKING & PUBLIC ART IN THE MORONGO BASIN

Placemaking, a term often used by planners and artists, has been one of the most inventive and creative elements to be included within transportation projects across the country.

**The inclusion of local artists and public art initiatives help create unique destinations and tell a story about place and community. In its simplicity, placemaking is a reflection of community identity and the shared values of those that make up the community.**

This collaboration between planners and artists in the placemaking practice has occurred for many decades in the U.S.

As a unique aspect of this Plan, the Project Team included the County's designated non-profit arts council, Arts Connection, and public art consultant Elwood & Associates (EA). By doing so, the project tapped into their knowledge and experience with the thriving local arts community, cultural destinations within the region, and best practices currently

in use by transportation agencies throughout the United States regarding the inclusion of public art-related elements.

The inclusion of artists in re-imagining the visual landscape for transportation users enhances the experience we have of places that are often crowded and filled with delays. In the past, many large national transportation programs included art as a decorative element; today, they are embracing a more holistic approach. Artists are being recognized for bringing a different perspective into focus, and their creative efforts work to enhance important visual cues related to safety and wayfinding. Additionally, public engagement and outreach activities designed by arts organizations and artists for their local communities can help break down historical barriers in the planning process and bring new voices into the conversation.

The Project Team built upon their existing organizational and artistic networks in order to increase opportunities for local residents to share their perspectives

on how the Morongo Basin Active Transportation Plan can serve the community. Placing an emphasis on the inclusion of the local creative community in plan recommendations acknowledges their role in the region. The creative community represents important values shared by many residents who identify as stewards of the land, support land reclamation, are concerned about the type and impact of development, and seek to balance issues related to tourism and quality of life.

As the designated County arts council, Arts Connection has the resources and expertise to oversee the solicitation of and collaboration with individual artists to make impactful art projects that support the goals of the Morongo Basin Active Transportation Plan. The following pages provide a snapshot of the public art-related outreach that was conducted as part of the Plan.



## 1.4. GOALS & OBJECTIVES

This Plan envisions a future where residents and visitors will find walking and biking opportunities that meet their needs and enhance their lifestyles. The following goals and objectives serve to guide the planning and implementation of active transportation improvements in the Morongo Basin.

### 1. IMPROVE SAFETY

Walking and biking can be dangerous, especially in rural areas where many roads are unpaved and lack paved shoulders or sidewalks. The Plan will strive to implement cost-efficient infrastructure that addresses the most urgent safety hazards, responds appropriately to the current environment, and makes residents and visitors more comfortable walking and biking in the region.

### 2. SUPPLY HEALTHY OPTIONS

Walking and biking are great ways of getting exercise while moving about a daily routine. This Plan provides opportunities to help more people to realize the benefits of walking and biking while reinforcing these behaviors with appropriate programming.

### 3. CONNECT PEOPLE TO PLACES

Travel connects people together. The Plan recognizes a human connection is at stake in every trip, helping people get to the places they most want to travel, while also seeking creative opportunities to engage the community and develop a supportive culture for education, arts, and active transportation infrastructure.

### 4. ENHANCE THE LOCAL ENVIRONMENT

The Morongo Basin is known for its beautiful open terrain and clear skies. The Plan helps to maintain the natural environment for future generations while enhancing the ability of people to interact with their surroundings.

### 5. PROMOTE A VIBRANT ECONOMY

The Plan looks for projects that will make the Morongo Basin an attractive place to live and work. It looks to implement contextually-appropriate solutions that will revitalize and enhance the surrounding community.



## SAFETY

**GOAL:** Improve the overall safety of pedestrians and bicyclists within the Morongo Basin region.

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**Objective 1.1.** Reduce bicyclist and pedestrian fatalities and injuries resulting from collisions

**Objective 1.2.** Develop efficient procedures for maintaining pedestrian and bicycle facilities



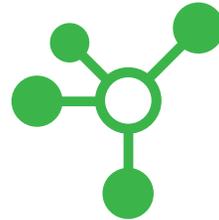
## PUBLIC HEALTH

**GOAL:** Provide opportunities to help people to realize the benefits of walking and biking.

---

**Objective 1.1.** Encourage programs at schools and community centers to teach residents safe and healthy biking and walking habits

**Objective 1.2.** Invest in active transportation facilities that will provide opportunities for exercise and recreation



## CONNECTIVITY

**GOAL:** Help people get to the places they most want to travel and develop a supportive culture for walking and biking.

---

**Objective 1.1.** Invest in active transportation infrastructure that links population centers to regional trails, parks, schools, and transit stations

**Objective 1.2.** Support public art-related projects, open streets events, and programming that encourage walking and biking within the Morongo Basin community



## ENVIRONMENT

**GOAL:** Maintain the natural environment for future generations and enhance the ability of people to interact with their surroundings.

---

**Objective 1.1.** Reduce vehicle emissions and pollution by increasing the number of walking and biking trips

**Objective 1.2.** Maintain and enhance access to local destinations and Joshua Tree National Park

**Objective 1.3.** Utilize Mojave Desert Land Trust's Reading the Landscape when implementing creative placemaking projects and programs



## ECONOMY

**GOAL:** Implement contextually-appropriate solutions that will revitalize and enhance the surrounding community.

---

**Objective 1.1.** Improve accessibility to jobs by walking and biking

**Objective 1.2.** Invest in active transportation facilities that will attract new businesses, promote tourism, and bring economic growth to the region

## THE 6 E's of SRTS

The Plan also addresses walking and biking safety for schools within the region.

Specifically, the Plan evaluated conditions for the nine remaining Morongo Unified School District (MUSD) schools that were not a part of other San Bernardino Safe Routes to School efforts (SBCTA SRTS Plan, Phases I & II).

Safe Routes to School (SRTS) is supported by six key components, often referred to the six E's of SRTS. Together, these components provide a framework for all SRTS efforts and provide a guidance for participants on the type of improvements that can be a part of the project.

**Chapter 4** expands on the different improvement tools and programs that fall under each component.

**Chapter 5** and **Appendix B** details engineering recommendations for local focus area projects, including areas surrounding each school.



### Education

Educational programs in the school community can have a lasting impact, particularly in addressing travel behavior and use of infrastructural improvements. More specifically, education itself can equip students and parents with the knowledge, skills, and confidence to bike and walk to school and other community destinations.



### Encouragement

Encouragement strategies within the SRTS context are often used to foster positive thinking and perceptions towards active transportation trends. These can take place in the form of events, clubs, and activities that inspire walking, bicycling, or carpooling through fun activities or incentives.



### Engineering

SRTS engineering tools are the physical and infrastructural improvements that are used to help create safer and more convenient environments for walking and biking. In particular, these improvement tools can be categorized as pedestrian, bicycle, and/or traffic calming improvements.



### Enforcement

Enforcement efforts can help ensure that the community is creating safe and responsible behaviors on the road and building respect amongst all road users. Focused enforcement on traffic laws surrounding school sites should include controlling vehicle speed, yielding to pedestrians in crosswalks, and proper walking and biking behaviors.



### Evaluation

Evaluation under the SRTS framework utilizes existing school area conditions as a baseline to monitor the progress of any implemented programming and engineering improvements. Continued program evaluation in the future allows for tracking of successes or the ability to modify the Plan in order to achieve desired results.



### Equity

Efforts to support SRTS improvements within low-income communities, communities of color, and beyond should be incorporated throughout the other E's. In doing so, SRTS improvements can help address equity concerns and ensure safe and equitable outcomes for all users.







CHAPTER 2:

# planning process

**IN THIS CHAPTER:**

- 1. Project Management Team**
- 2. Technical Advisory Committee**
- 3. Community & Public Involvement**
- 4. Public Art-Related Outreach & Engagement**

Community input was an essential component of the planning process, and **Chapter 2** describes the process of developing public participation practices with guidance from the Project Management Team and Technical Advisory Committee. Outreach events and activities were planned to seek diverse input across the entire Morongo Basin region. The Plan also conducted public art-related outreach and engagement to seek feedback on potential creative placemaking elements. The input provided during the outreach process informs the analysis and recommendations completed as part of the Plan.

## 2.1 PROJECT MANAGEMENT TEAM

In addition to the consultant team, the Morongo Basin Active Transportation Plan was guided by a Project Management Team (PMT) made of staff representatives from SCAG, San Bernardino County, City of Twentynine Palms, and Town of Yucca Valley. As a regional effort, the PMT provided direction based on varying jurisdictional needs, perspectives, and experience. Monthly PMT meetings were held throughout the Plan development process to track the status of all project efforts, from outreach and data analysis to potential countermeasures and final recommendations.



## 2.2 TECHNICAL ADVISORY COMMITTEE

While the PMT offered jurisdictional guidance on the Plan, a Technical Advisory Committee (TAC) was also formed to include major stakeholders, advocates, and other community members in the overall development of the Plan. The Morongo Basin Active Transportation Plan TAC included partners from the California Department of Transportation (Caltrans), California Highway Patrol (CHP), Safe Routes to School National Partnership, Inland Empire Bike Alliance (IEBA), Mojave Desert Land Trust (MDLT), Morongo Basin Healthcare District (MBHD), Joshua Tree Chamber of Commerce, Copper Mountain College, Morongo Unified School District (MUSD), Marine Corps, National Park Service (NPS), SCAG, San Bernardino County, City of Twentynine Palms, Town of Yucca Valley, and other interested stakeholders. TAC meetings were held on a bi-monthly basis and provided a way for members to offer input and feedback through multiple stages of the project.



## **2.3. COMMUNITY & PUBLIC INVOLVEMENT**

In collaboration with the Project Management Team (PMT), a branding strategy was developed, utilizing the region's color palette to create both a recognizable and representative logo for the project.

With an established identity for the project, project staff then developed additional communication tools (e.g. email, phone number, MailChimp email service, social media accounts) to disseminate information and news throughout the development of the Plan. This included posting reminder notifications for all outreach activities, coordinating logistics, utilizing cross-promotional capabilities through social media with project partners and organizations, and more. The Project Team ensured inclusivity and considered equity across every component of the outreach process through bilingual content and materials and the presence of bilingual staff at every event.

This section summarizes the community outreach and engagement process that occurred during the development of the Morongo Basin Active Transportation Plan.



## COMMUNITY MEETINGS & EVENTS

As a part of the community engagement process, the Project Team coordinated outreach efforts at four community events to allow students, residents, and community members an opportunity to provide input and talk to the Team about the City's Active Transportation efforts.

### Health & Community Resource Fairs

*Twentynine Palms – October 14th, 2017 | Yucca Valley – May 12th, 2018*

The Project Team organized a booth at both the Health & Community Resource Fairs in Twentynine Palms and Yucca Valley. Hosted by the Morongo Basin Health District (MBHD), the Fairs are held in partnership with local government and community organizations to provide free health screenings, activities, and access to local and regional resources. For the Morongo Basin Active Transportation Plan, the two events provided an opportunity for project staff to engage with the local community and discuss how active transportation infrastructure can help – amongst other benefits – improve public health and enhance recreational opportunities. In addition to collecting input through surveys, the project booth included large maps, project information and materials, a kids' coloring corner, and a pop-up gallery of kids' active transportation-related coloring sheets done during the event.

The Team received over 90 completed surveys and engaged with over 120 participants between both Fairs.



## Municipal Advisory Committee (MAC) Meeting

*November 13th, 2017*

In November 2017, project staff introduced the Morongo Basin Active Transportation Plan at the Morongo Basin Municipal Advisory Committee's (MAC) monthly meeting and facilitated a discussion with participants on what it could mean for their community. Around 20 residents, advocates, and other members from areas like Morongo Valley and Landers helped pinpoint specific locations for active transportation improvements and voiced concerns relevant to their own communities. MAC meetings, inclusive of 8-10 community representatives, are an important “forum for the unincorporated areas of Morongo Basin to learn about and comment on issues relevant to the San Bernardino County Board of Supervisors”. Through discussions at this meeting, the Project Team worked with the PMT to expand the Morongo Basin project boundaries to include additional unincorporated communities in the region.





## Water Education Day

March 25th, 2018

Hosted by the Joshua Basin Water District, Water Education Day served as a fun and informational event for the Morongo Basin community by promoting conservation and environmental sustainability - an important part of Complete Streets and active transportation, particularly in the Morongo Basin region.

The Project Team organized a booth at this event to conduct surveys and engage with local participants on active transportation needs and challenges within their communities. Project-branded bike water bottles, sponsored by Third District Supervisor, James Ramos, were given away to event participants when they filled out a project survey. Project staff collected over 45 surveys and engaged with around 60 individuals that day.



## Park2Park Bike Ride

*April 28th, 2018*

The Park 2 Park Bike Ride is an annual partnership effort between the City of Twentynine Palms, Joshua Tree National Park (JTNP) and Marine Corps Air Ground Combat Center Twentynine Palms to provide a scenic cycling event from Knott's Sky Park in Twentynine Palms to Key's View in JTNP and back. As part of the 3rd annual Park 2 Park, project staff rode alongside community members for the entire 52-mile route to evaluate existing conditions from Twentynine Palms to Joshua Tree. This year, the event featured a family fun ride for the first time to encourage families and non-recreational cyclists to participate in a shorter 7.5-mile ride. Project staff set up a pop-up cycle track on Hatch Road, at the start of the route, to demonstrate the impact that a protected bike lane facility can have on the safety of bicyclists along a high-speed roadway. On the day of the Park 2 Park Bike Ride, the event had over 80 registrations with almost 30 family bike riders.

At Knott's Sky Park, community organizations also organized post-ride activities. The Project Team hosted a booth to gather surveys and engage with participants about regional and local active transportation improvements. Other activities included a bicycle rodeo put together by California Highway Patrol (CHP) and booths from the Morongo Basin Healthcare District and National Park Service.

**“With the help of [the Morongo Basin Active Transportation Plan], we can link the entire Morongo Basin with trails -- whether it be hiking, walking, riding bikes and so forth, we want to be able to get through the Morongo Basin.”**

**Randy Council**

**Community Services Director (City of Twentynine Palms)  
Morongo Basin Active Transportation Plan (TAC Member)**



## WALKING SAFETY ASSESSMENTS

As part of the Morongo Basin Active Transportation Plan, the Project Team also focused on how to make the region a safer place for parents and children to walk and bike to school.

To complement the already ongoing **Safe Routes to School (SRTS)** efforts from the San Bernardino County Transportation Authority (SBCTA), Walking Safety Assessments (WSA) were conducted at the nine schools in the Morongo Basin region that were not included in SBCTA's SRTS Phase 1 and 2 Plans. As part of these Plans, SBCTA already identified improvements for the other seven schools within the Morongo Unified School District (MUSD) through similar assessments.

The goal of a WSA is to walk with parents and the community members most familiar with the school area and pinpoint safety concerns that present barriers for students walking and/or biking to school. Specifically for middle and high schools, the Project Team organized workshop activities with the students themselves. With support from MUSD Superintendent Tom Baumgarten, the Project Team worked with principals from all nine schools to schedule WSAs that occurred in February and March 2018.

A WSA, sometimes referred to as a walk audit, is an opportunity for the Project Team to engage directly with each school community. It allows the team to not only hear concerns and input directly from parents, school staff, students, and other community members, but to also experience it in person from the perspective of WSA participants. The WSAs enable school community members to contribute to the SRTS improvement process by sharing their experiences. Residents and community members know the school zone and area better than anyone, making their participation, involvement, and contribution incredibly valuable to the Plan.



Throughout the months of February and March 2018, the Project Team conducted a WSA at each of the nine schools where participants provided comments, concerns, and improvement ideas. The Project Team also observed either morning arrival or afternoon dismissal activities at and surrounding each school site to identify infrastructure or behavior challenges that may be addressed through recommendations in this Plan.

**A list of the nine schools and the day in which each WSA took place can be found on the following page.**

Conditions within the Morongo Basin region present some challenges to the safety of parents and children walking and biking to school. Although pedestrian infrastructure is generally more built out around school areas, issues highlighted during WSAs included high traffic speeds, low-visibility or faded crosswalks, and other barriers to safe pedestrian crossings. School-specific observations and feedback are detailed in the Chapter 6 Local Projects factsheets.

## WSA Objectives

- Experience the surrounding area as a pedestrian and/or bicyclist alongside members of the school community
- Evaluate the safety and quality of the pedestrian and bicycle experiences near schools and within the community
- Identify opportunities for a safer and more walkable and bikeable environment within the school community
- Identify areas of concern that do not allow for a walkable and bikable environment to exist near schools of interest and within the community
- Allow members of the community to provide valuable feedback and identify opportunities for improvement
- Propose recommendations and improvements based on the community's feedback and the Project Team's technical expertise, knowledge, and judgment.

## WSA Process

1. Pre-WSA field observations: Before each WSA begins, the Project Team conducts field observations of the school and surrounding area to identify potential areas of concerns
2. Briefing Workshop: WSA participants are given a brief presentation to orient them with the project and are provided with instructions for the WSA
3. WSA: Participants and the Project Team split into small teams, and walk around the vicinity of the school to areas of concerns
4. Debriefing workshops: Back in the classroom, the Project Team discusses observations and potential solutions with participants



The Project Team coordinated with school principals and/or designated SRTS Liaisons to schedule each school's WSA. Flyers created for each school's scheduled WSAs were then sent to principals for electronic distribution. To further promote each WSA, the Team worked with each school to send out reminders through email blasts, automated phone calls, social media posts, and other outlets.

1. Condor Elementary School | Monday, February 26th \*
2. Black Rock High School | Tuesday, February 27th
3. La Contenta Middle School | Tuesday, February 27th
4. Twentynine Palms Junior High | Wednesday, February 28th
5. Morongo Valley Elementary School | Monday, March 12th
6. Friendly Hills Elementary School | Monday, March 12th
7. Yucca Mesa Elementary School | Tuesday, March 13th
8. Twentynine Palms High School | Tuesday, March 13th
9. Landers Elementary School | Wednesday, March 14th

\* NOTE: Condor Elementary School is located within the Marine Corps Air Ground Combat Center Base (MCAGCC). As such, only individuals who were able to obtain sponsorship through the MCAGCC attended the WSA.



The flyer features the Morongo Basin ATP logo at the top left. The main title is "Upcoming Walking Safety Assessments!!". Below this, a green banner contains the following text: "The Morongo Basin ATP Walking Safety Assessments (WSAs) are just around the corner! Our project staff will be hosting them at nine (9) specific Morongo Unified School District (MUSD) schools (see below). We hope to see you there!"

Below the banner, the flyer explains the goal of a WSA: "The goal of a WSA is to walk with parents and the community members most familiar with the school area and pinpoint safety concerns that present barriers for students walking and/or biking to school. Specifically for middle and high schools, the Morongo Basin ATP Team will be organizing workshop activities with the students themselves. Mark your calendars for the upcoming workshops!"

A "SCHEDULE" section with a calendar icon lists the following events:

<b>Condor ES *</b> February 26th @ 8:45am - 10am <small>* Condor Elementary School is located within the Marine Corps Air Ground Combat Center Base (MCAGCC). As such, only individuals who can obtain sponsorship through the MCAGCC can attend the WSA.</small>	<b>Morongo Valley ES</b> March 12th @ 9am - 10:30am
<b>Black Rock HS</b> February 27th @ 8:38am - 9:22am	<b>Friendly Hills ES</b> March 12th @ 2pm - 3:20pm
<b>La Contenta MS</b> February 27th @ 12pm - 1:30pm	<b>Yucca Mesa ES</b> March 13th @ 9:15am - 10:30am
<b>Twentynine Palms Junior HS</b> February 28th @ 12:20pm - 1:50pm	<b>Twentynine Palms HS</b> March 13th @ 12:50pm - 1:53pm
	<b>Landers ES</b> March 14th @ 9:15am - 10:30am

The bottom of the flyer shows a photograph of people walking on a paved area with parked cars and a green footprint graphic in the corner.

Figure 2.3.1. Walking Safety Assessment Flyer



## PROJECT SURVEY

During the community outreach and engagement process, project staff developed and utilized a project survey to gather data on existing conditions, travel behaviors, and locations for improvement from the Morongo Basin community. In particular, the survey asked responders questions regarding their perception of safety for pedestrians and cyclists, reasons why they do or do not walk or bike, opinions on potential improvements, and current active transportation behaviors. Physical surveys were administered at all project-wide events and the online survey URL was broadcasted across social media, emailed to the project's stakeholder database and all Morongo Basin Active Transportation Plan schools, and handed out on project flyers at all art-focused events. A total of 420 surveys were collected as part of this project effort.

**The results of the project survey are included in Chapter 3's discussion on existing active transportation use and infrastructure and in Appendix E.**



## ONLINE WEBMAP

While the project survey collected data through general questions on existing conditions and travel behaviors, the Project Team also developed an online mapping tool to gather more location-specific feedback. While project-related outreach events were both broad and inclusive, the online project survey and online mapping tool provided a method to reach an even broader community base and allow those who were unable to attend events to provide their input and contribution to the project. A QR code and URL link was included on every event flyer, project material, and school WSA flyer.

The GIS-based application allowed individuals to pinpoint specific locations of concern and record a comment and/or photo. Multiple comments from the public were logged through the application over the project duration. The geospatially-linked feedback provided specific locations for evaluation and development of appropriate mitigation measures.

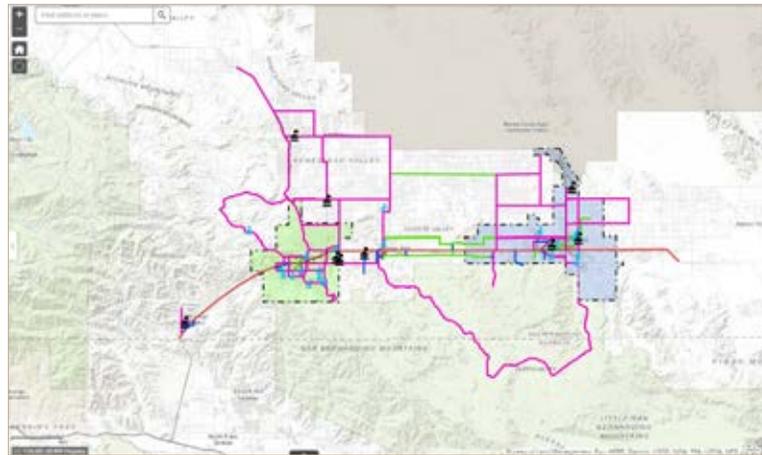


Figure 2.3.2. Project Web Application Image

## 2.4. PUBLIC ART-RELATED OUTREACH & ENGAGEMENT

The Morongo Basin is a unique place with a thriving local artistic community that includes artists and artisans ranging from lifelong learners to internationally known Guggenheim Fellows. It also hosts numerous cultural and arts organizations, which organize a variety of arts, dance, theatre, and music events and festivals that serve local residents and tourists alike throughout the year. The extreme environment is celebrated by the community and often plays a central role in the creative work taking place in the area. This distinct culture has resulted in an extraordinarily rich artistic environment which faces sudden challenges in the midst of rapid growth as more people relocate to this affordable Southern California region. Additionally, the Joshua Tree National Park has seen a rapid increase in visitors, drawing over 2.8 million visitors in 2017, a increase of nearly 340,000 from the year before.

To meet the needs of this growing area, increased infrastructure has emerged as a priority, including transportation and related amenities such as shade structures, bike lanes, sidewalks and lighting. Local artists provide a rich pool of talent to pull from in meeting the region's challenges with creative solutions. As part of the Plan, public-art related outreach and engagement was conducted to discover opportunities for the inclusion of creative placemaking in future projects and programming.



## OUTREACH ACTIVITIES

As part of the public art component associated with this Plan, the Project Team looked to local community groups and cultural events as potential resources for obtaining community feedback and input. In addition, the team discussed how the inclusion of local artists might provide the project with varied visibility and therefore greater feedback to the project.

The Project Team took two different approaches to the Plan's public art-related outreach. The first was to develop opportunities for local artists to be included in developing artworks associated with the goals of the project. A Request for Qualifications (RFQ) was issued to identify a local artist who could create a "zine" that illustrated walking and bicycling safety tips for students; and an artist who could create temporary wayfinding sculptures based on community artworks obtained through outreach activities.

The second element to the public art-related outreach included identifying and attending existing events in the community to discuss the team's cultural asset mapping efforts, conduct project surveys, and provide an overview of the Plan's goals and objectives. The Project Team engaged in conversations related to perceived

safety issues and desired amenities to help promote active transportation efforts. These events included the Twentynine Palms Soap Box Derby and Car Show, Copper Mountain Mesa Community Center, and Arts Connection Annual Conference at Copper Mountain College.

*The San Bernardino County Cultural Asset Map*, launched in 2015, continues to expand through conversations with the community and was used during this Plan's public art-related outreach activities. It is a living, interactive document that provides an overview of the existing cultural landscape within San Bernardino County. The map categories include: associations, institutions, outdoor sites, businesses, performing and visual arts groups and individual, festivals/events.

The process of identifying assets is achieved through staff research, crowdsourcing and community surveys. The accessibility of this information allows local civic and non-profit leaders to identify potential partnerships, encouraging the creation of new relationships and opportunities.

**"Understanding the significant local assets and networks are a building block of community development, and extending that knowledge to arts and culture is vital. Identifying existing local cultural and creative assets can feed into a number of cultural-based revitalization efforts, from regional cultural plans to small cultural districts."**

**The Scenic Route |  
Transportation for America**

## COMMUNITY FEEDBACK

As part of the initial step to the project's public art-related outreach, the Project Team utilized the Morongo Basin Active Transportation Plan Facebook page to engage the public on potential public art infrastructure ideas for the Plan. This included posting images of sample artist-designed amenities like shade structures, lighting elements, artistic crosswalks, benches, bike racks, protected bike lanes, signage, and artworks integrated into roundabouts. These images were printed into a flip book and also used as references when the Project Team engaged with community members at outreach events.

During outreach events, the team used large-scale maps of the region to identify areas of concern. The community expressed pedestrian and bicyclist safety concerns on SR-62 as it continues to be increasingly used as an active transportation corridor. During the time of the outreach activities, there had been several traffic collisions on SR-62 near some of the notable cultural attractions. Numerous people mentioned the lack of safe pedestrian crossings near

Highway 62 Gallery and have vocally requested the County and Caltrans that new crosswalks be installed at the intersection of SR-62 and Sunset Road near the Natural Sisters Cafe.

Through the project's public art-related outreach events, social media activity, and survey results, the community identified three main areas where local artists could contribute to the goals of the Plan.

- Artist-designed Enhanced Visual Crosswalks
- Artist-designed Amenities for Shade and Seating
- Artistically Enhanced Protected Bike Lanes / Paths

**For more information on these elements or artistic enhancements, see Chapter 4's Creative Placemaking and Programming section.**



## SAFE ROUTES TO SCHOOL ZINE

Local artist Matt Adams was selected for the creation of the Morongo Basin Active Transportation Plan Zine. The Zine, conceived as a youth-oriented visual and educational tool, promotes walking and bicycling safety within the region. Matt, a longtime resident of Yucca Valley, has produced several music festival and band posters as part of his professional illustration resume. His playful depictions of the unique flora, fauna and geography of the region made him the ideal local artist for this project.

Building upon Matt's artistic abilities and innately creative ideas, he participated in two Walking Safety Assessments (WSAs) to develop initial concepts for the Zine. These concepts were then translated into a series of sketches and text by Matt to form the basis of the Zine. To ensure that the project remained age-appropriate and depicted accurate existing conditions and ideal improvements as a part of this Plan, the Zine was reviewed by both the Project Team, PMT, and TAC throughout the development process. The final Zine was published online (available through Arts Connection's website and the project's Facebook page) and printed for distribution by the Project Team and artist. Matt Adams participated in WSAs at Twentynine Palms and Yucca Valley Junior High Schools.

**Click the URL below to see the full Morongo Basin Active Transportation Plan Zine by Matt Adams:**

[https://issuu.com/me1022/docs/morongo\\_basin\\_active\\_transportation](https://issuu.com/me1022/docs/morongo_basin_active_transportation)



**Matt J. Adams** is an illustrator who has been hand drawing comics, logos, posters, and album covers for the last 15 years. He works and lives in Yucca Valley, CA with artistic ties to Los Angeles and San Francisco, where he used to reside. Matt worked alongside professional cartoonist and fine artist William Wray as an artist assistant for more than five years, learning valuable drawing and coloring techniques. He also attended the Laguna College of Art and Design for two years as well as learning various art skills and mediums at OCC, PCC and Laney College.

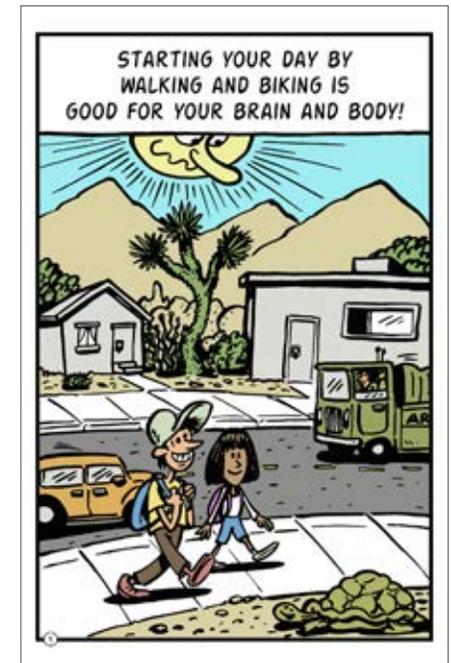
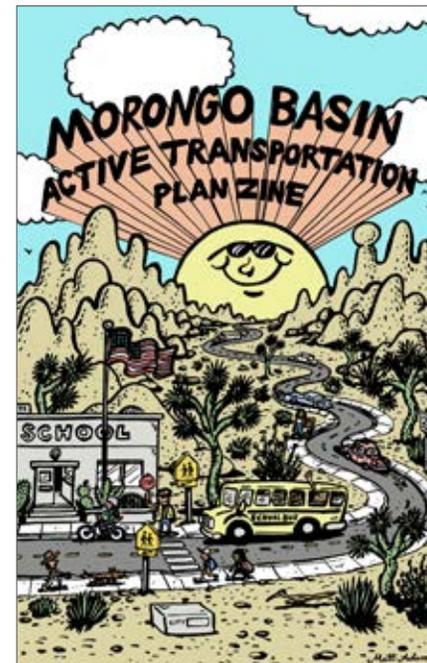


Figure 2.4.1. Morongo Basin Active Transportation Zine (Cover & 1st page). Illustrated by Matt Adams

## TEMPORARY WAYFINDING SCULPTURES

Local artist Joanna Keane Lopez was selected for the design and fabrication of the temporary wayfinding sculptures. This project included the artist developing a community engagement activity that would utilize participant artwork as a part of the wayfinding sculptures and provide time for in-depth engagement about key destinations, safety concerns, and types of public art they might like to see integrated into the Plan. Joanna is a recent resident to Yucca Valley and after having completed her Bachelor of Fine Arts (BFA) degree in Studio Arts at the University of New Mexico. Her 2017 project with T.I.M.E. (Temporary Installations Made for the Environment), was selected as one of the Projects for the Year by Americans for the Arts at their 2018 Public Art in Times of Change conference. With her experience with community and public art, Joanna was a great asset to the project's public art-related outreach.

The design of the wayfinding sculptures was inspired by vernacular roadside signage often constructed and placed by community members in rural areas. Joanna drew from her knowledge of the area, destinations on the Cultural Asset Map, and outreach input for the signs. She conducted four (4) community engagement activities at the Joshua Tree Music Festival, Joshua Tree Farmers Market, Sky Village Outdoor Marketplace, Second Saturday Night Gallery Openings. In Summer of 2018, Joanna installed the two temporary wayfinding sculptures at the following locations:

- Corner of Park Boulevard and SR-62 in Joshua Tree
- Near the 'Welcome to Twentynine Palms' sign on SR-62

Each sign designated a place and the distance from that point to the destination itself.



**Joanna Keane Lopez** is an artist, designer and builder who works with large-scale installation and public art. Originally from Albuquerque, New Mexico, she graduated with a BFA in Studio Art and a second major in Spanish from the University of New Mexico, and now lives in the Morongo Valley. Joanna is a grant recipient of the Fulcrum Fund of The Andy Warhol Foundation for the Visual Arts and the Andrew W. Mellon Foundation and is an alumnus of Land Arts of the American West program.

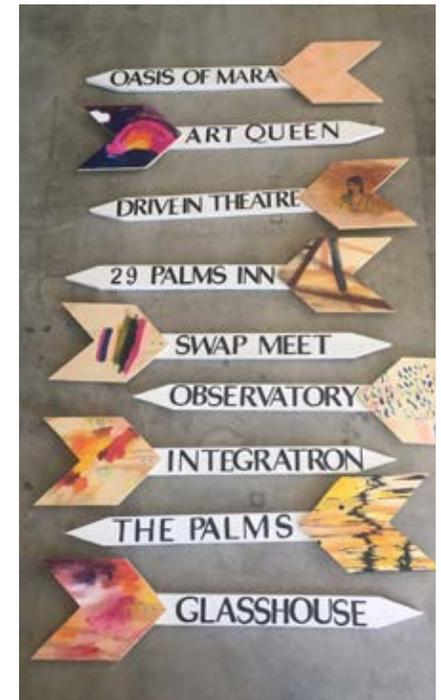
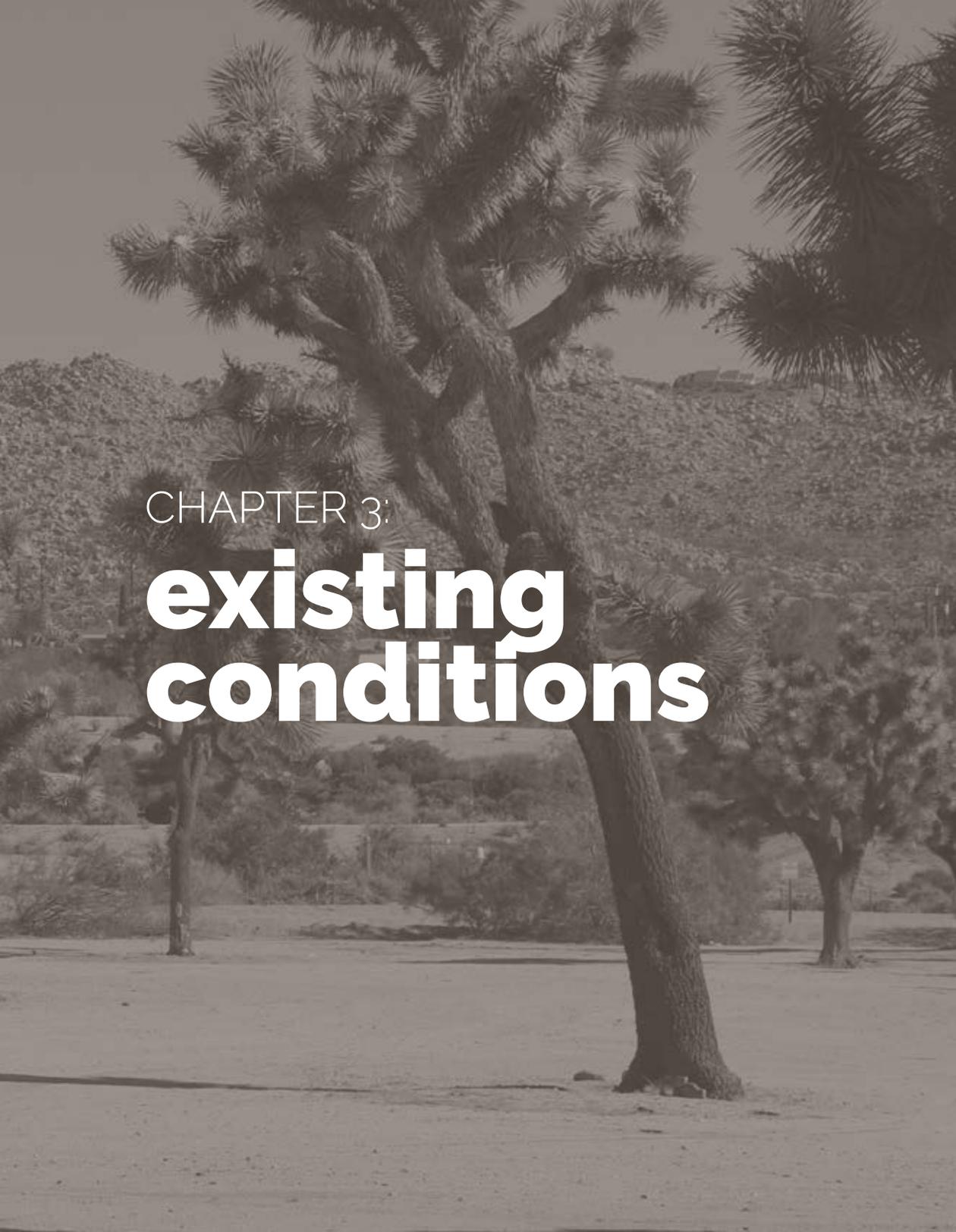


Image 2.4.2. Temporary Wayfinding Sculpture. Designed by Joanna Keane Lopez







CHAPTER 3:

# existing conditions

IN THIS CHAPTER:

1. Existing Plans & Policies
2. Land Use
3. Activity Centers & Destinations
4. Transit Connectivity
5. Health & Environment
6. County Maintained Road System (CMRS)
7. Existing Pedestrian Infrastructure
8. Existing Bicycle Infrastructure
9. Pedestrian & Bicycle Usage
10. Collision Analysis
11. Morongo Basin & the Local Arts Community

**Chapter 3** covers existing conditions, including the existing framework of policies guiding the creation of this document and background information about the communities pertinent to planning for new improvements, such as existing land use, existing pedestrian and bicycle facilities, local activity centers, high collision locations, the County Maintained Road System (CMRS), and the region's thriving local arts community.

## 3.1. EXISTING PLANS & POLICIES

This section summarizes existing plans and policies and highlights areas of overlap with the Morongo Basin Active Transportation Plan. Plans specific to the incorporated and unincorporated communities in the Morongo Basin are detailed first followed by county-wide and regional documents.

### **Yucca Valley General Plan:**

The Town of Yucca Valley General Plan promotes a vision through establishing a set of community values that guide decisionmaking, including maintaining a small town atmosphere, balancing growth, and promoting efficient infrastructure.

The Circulation Element lays out a network-based approach to Complete Streets planning in the Town. The Town specifies that implementation measures shall include:

- Implementing a Trails System, starting with the Parks and Recreation Master Plan (2008)
- Developing a comprehensive bicycle network
- Completing pedestrian infrastructure, as appropriate, to provide safe and accessible pedestrian facilities in high-use area
- Coordinating with the Morongo Basin Transit Authority (MBTA) to provide safe and convenient transit service.

Relevant goals include:

- Policy C 1-2: Pursue funding, including updating the transportation impact mitigation fee program, to assist in implementing the transportation system by expanding its roadway capacity, pedestrian sidewalk facilities, bicycle facilities, and trail facilities
- Policy C 1-7: Encourage development designs that integrate multiple modes of access, including pedestrian, bicycle, and public transportation
- Policy C 1-8: Apply complete street strategies that accommodate pedestrian, bicycle, and transit modes whenever practicable and feasible
- Policy C 1-9: Require sidewalk improvements concurrent with new development where commercial and school uses are planned and where residential densities exceed two units per acre, or as required by the Planning Commission
- Policy C 1-12: Encourage MBTA to implement regional transportation solutions that reduce vehicle miles traveled and greenhouse gas emissions

### **Yucca Valley Parks & Recreation Master Plan:**

This plan recommends a local trail system that enhances recreational opportunities in Yucca Valley, including a map of proposed trails. One

policy item (Policy 16.3) recommended is to "Encourage pedestrian and bicycle linkages between residential and commercial uses by developing and designating both on-road and off-road bicycle trails." Other recommendations include developing trails on public right-of-ways, separating bicyclists from other users, and providing access to future developments by walking and biking. There is also interest in working with the County of San Bernardino for access to the regional trail system and establishing sustainable funding levels for bikeways.

### **Old Town Yucca Valley Specific Plan**

This specific plan was developed with the intent of improving the economic vitality and livability of the Old Town area, which is located around SR-62. The plan envisions Old Town as a pedestrian-friendly "Main Street" and provides for pedestrian-oriented development and measures to enhance pedestrian safety (3.3-Circulation Plan), and pedestrian and bike linkages to other areas of Yucca Valley.

### **Twentynine Palms General Plan:**

The Circulation element of the general plan addresses the movement of people, goods, and

resources through the community. Main goals of the element include providing for alternative forms of transportation and providing a trail system for health and recreational benefits.

Relevant Implementation Policies include:

- Implementation Policy CI-1.3: Develop alternate transportation routes where possible
- Implementation Policy CI-2.3: Construct pedestrian facilities near school sites, along major transportation corridors, in the downtown area, and along open space corridors
- Implementation Policy CI-2.5: Develop bicycle systems to enhance tourism and recreation opportunities

The Recreation Element of the general plan maintains that parks, open spaces, and recreation facilities contribute to the community's economic prosperity while improving health and creating opportunities for social interaction. It provides for a multi-purpose trail network that utilizes natural scenic areas while connecting to popular destinations. Relevant Implementation Policies include:

- Implementation Policy RE-2.3: Require dedication of rights-of-way for Class I off-street trails. Secure a minimum twenty-five (25) foot wide right-of-way for trails, with forty-four (44) to fifty (50) foot optimum. Require trail dedications and improvements from new developments
- Implementation Policy RE-2.8: Provide a comprehensive trails system that provides access, connectivity and circulation throughout the planning area, as well as providing a source for recreation activity
- Implementation Policy RE-2.12: Require bicycle parking facilities and storage for commercial and institutional facilities located along planned bikeway routes

- Implementation Policy RE-2.14: Coordinate with CalTrans on the provision of non-motorized transportation routes, facilities, and enhancements within the SR-62 right-of-way
- Twentynine Palms is working on Project Phoenix, a plan to build affordable housing and a community center in the downtown area of Twentynine Palms that has potential for recreational opportunities

### **Joshua Tree Community Plan**

The Joshua Tree community plan guides the future use and development of land within the community. The plan notes that residents articulate a desire for a more pedestrian-friendly setting in the downtown district, and a desire to improve overall pedestrian and bicycle circulation. Priorities mostly focus on safe routes for crossing and travelling along SR-62 by pedestrians and bicyclists. The following policies designate specific priorities as to active transportation improvements:

- JT/LU 2.2: Integrate pedestrian-friendly walkways and public transit stops into downtown areas and other areas such as schools, hospital and clinics, and shopping areas
- JT/CI 2.1: Provide pedestrian improvements in the downtown area to enhance safety, provide a high quality visitor experience, enhance the character of the area and reduce the need for vehicular travel. Work with Caltrans to provide a pedestrian crossing at Hallee Road and SR-62. Where feasible, separate pedestrian and bicycle traffic from vehicular traffic particularly along SR-62
- JT/CI 2.2: Maintain and improve existing sidewalks, and provide additional sidewalks along main, paved streets in the central district

- JT/CI 2.3: Encourage new commercial developments to provide convenient pedestrian, handicap, and bicycle access, and bicycle parking.
- JT/CI 2.4: Where feasible, establish and coordinate a separate system of bikeway and pedestrian trails connecting residential areas, recreational facilities, activity centers, downtown Joshua Tree and the entrance to the National Park
- JT/CI 2.5: Promote safe and attractive pedestrian and bicycle crossings at logical points on SR-62, and pursue opportunities to separate pedestrian and bicycle traffic from vehicular traffic
- JT/CI 3.6: Provide bicycle lanes adjacent to SR-62 throughout the plan area to separate those uses from highway and vehicular traffic

### **Morongo Valley Community Plan**

Morongo Valley envisions for alternative modes of travel to be provided for by using right-of-way not needed for road construction during road widening and improvements (Policy MV/CI 2.1). Pedestrian improvements should be provided in commercial activity centers (MV/CI 2.2). It seeks the establishment of a plan for the development of a multi-purpose trail system, including separation of pedestrian, bicycle and equestrian traffic from vehicle traffic (MV/OS 3.2).

**Yucca Valley Area, Twentynine Palms Area, Pioneertown, Rimrock, Wonder Valley, and Landers do not currently have active transportation policies or a pedestrian or bicycle network specified.**

### **San Bernardino County-wide Vision:**

Adopted in 2011, the Countywide Vision calls for the collaboration between all sectors in San Bernardino County to work towards creating a healthier San Bernardino County and a more vibrant economy and community over the next 20 years. Part of the Vision includes envisioning San Bernardino as: "A sustainable system of high quality education, community health, public safety, housing, retail, recreation, arts and culture, and infrastructure, in which development complements our natural resources and environment."

The vision statement provides further details through several elements related to jobs, environment, infrastructure, and others. The transportation element emphasizes developing "clean and advanced modes of transportation and infrastructure", while the environment element focuses on protecting natural resources. A "lack of transportation option" was cited as an issue specifically encountered by those living in the Morongo Basin region of San Bernardino County.

### **San Bernardino County Community Transformation Plan 2015 - 2020 (June 2015):**

Following the adoption of the Countywide Vision, the Community Vital Signs Initiative was formed to address strategies to improve wellness in the county. A data-driven policy framework is used to promote programs that improve the health and quality of life in San Bernardino County.

The San Bernardino County Community Transformation Plan – developed by the Community Vital Signs – sets short- and long-term goals and more immediate strategies for several areas, including 'Access to Health and Wellness' and 'Safety'. The "Access to Health and Wellness" strategy seeks to increase the number of residents engaged in active living activities, including increasing options for residents to use active transportation. The "Safety" strategy seeks to improve children's perception of safety at school through partnering with law enforcement at school sites. It also seeks to support "Economy" by supporting wellness in the workforce.

### **San Bernardino County Non-Motorized Transportation Plan (NMTP):**

In 2011, the San Bernardino Association of Governments (SANBAG), now primarily known as the San Bernardino County Transportation Authority (SBCTA), adopted the Non-Motorized Transportation Plan which aims to coordinate and guide the provision of all bicycle and pedestrian related plans, programs, and projects within San Bernardino County. The Plan was most recently revised in June 2018. The NMTP makes proposals for a regional bikeways network and otherwise provides suggestions for active transportation improvements– including both the Town of Yucca Valley and the City of Twentynine Palms.

NMTP Goals include:

- Increased bicycle and pedestrian access  
-Expand bicycle and pedestrian facilities and access within and between neighborhoods, to employment centers, shopping areas, schools, and recreational sites
- Increased travel by cycling and walking -  
Make the bicycle and walking an integral part of daily life in San Bernardino County, particularly (for bicycle) for trips of less than five miles, by implementing and maintaining a bikeway network, providing end-of-trip facilities, improving bicycle/transit integration, encouraging bicycle use, and making bicycling safer and more convenient
- Routine accommodation in transportation and land use planning - Routinely consider bicyclists and pedestrians in the planning and design of land development, roadway, transit, and other transportation facilities, as appropriate to the context of each facility and its surroundings
- Improved bicycle and pedestrian safety  
-Encourage local and statewide policies and practices that improve bicycle and pedestrian safety

The NMTP Local Jurisdiction Plan includes proposals for 46 miles of bikeways in Yucca Valley and 18 miles in Twentynine Palms, and pedestrian improvements (to a more limited extent) as part of SRTS Plan Phase II and the Points of Interest Pedestrian Plan (PIPP). See below.

### **San Bernardino Safe Routes 2 School Strategy (Phase I & II):**

Building on the momentum of the NMTP, the SBCTA Safe Routes to School (SRTS) Strategy aims to address the active transportation needs of San Bernardino County students and school areas.

Phase I of the Strategy identified focus areas that could most benefit from SRTS improvements compared to other areas within the County. This was done by analyzing the relative impacts of SRTS improvements to safety and mode share. Additional analyses were conducted to determine priority schools in these focus areas based on project readiness, geographic distribution, and equity considerations.

Phase II of the Strategy, completed in 2017, focuses on developing and prioritizing more site-specific SRTS infrastructure improvements. Walk audits were conducted across 55 identified San Bernardino County schools to assess active transportation infrastructural needs and concerns and assemble an inventory of site-specific bicyclist and pedestrian network improvements.

### **SANBAG Points of Interest Pedestrian Plan (PIPP):**

The Points of Interest Pedestrian Plan (PIPP) assists local jurisdictions in the identification and prioritization of future pedestrian projects. It supplements the NMTP by identifying pedestrian projects, as the original document primarily focused on bike improvements. It identifies

pedestrian improvements for one location in each member city, including at Desert Hills Plaza Shopping Center in Yucca Valley and Luckie Park in Twentynine Palms.

### **Regional Transportation Plan / Sustainable Community Strategies (RTP/SCS) & SANBAG Countywide Comprehensive Transportation Plan (CTP):**

The Regional Transportation Plan/Sustainable Community Strategies (RTP/SCS) is updated by SCAG every four years. Outlining Southern California's long-range strategy to improve the region's mobility, economy, and sustainability, the RTP/SCS must show how it will reduce transportation GHG emissions in compliance with CA's Senate Bill (SB) 375 and meet air quality standards set forth by the Clean Air Act.

San Bernardino's Countywide Transportation Plan (CTP) is the County's input to the RTP/SCS – "...lay[ing] out a strategy for long-term investment in and management of San Bernardino County's transportation assets." (ES-1). Both the CTP and 2016 RTP/SCS provide a forecast year of 2040.

Relevant Goals of the CTP:

- Improve safety and mobility for all modes of travel in San Bernardino County by residents, businesses, employees, students and visitors.
- Integrate countywide transportation plans and initiatives, to better serve the needs of the county, and to coordinate transportation systems with other counties through the Regional Transportation Plan/Sustainable Communities Strategy.
- Support state, regional, and local environmental

and sustainability goals.

- Reduce vehicle hours traveled.
- Reduce vehicle emissions, both criteria pollutants and GHG emissions.
- Increase the share of people carpooling, bicycling, walking and taking transit.
- Reduce collision rates.

### **Measure I:**

Approved by voters in 1989 and extended in 2004, Measure I is a countywide half-cent sales tax increase used to fund transportation improvements within San Bernardino County. For the Morongo Basin, 70% of revenue collected is apportioned for Local Street Projects, allocated based on population and tax generation.

The Measure I 2010-2040 Strategic Plan – adopted in 2009 by SANBAG – establishes a policy framework that guides the implementation of Measure I projects/programs.

### **Complete Streets Act of 2008**

Assembly Bill (AB) 1358, also known as the Complete Streets Act of 2008, requires local agencies to integrate Complete Streets policies whenever there is a substantive revision to their General Plan, Circulation Element. This is intended to help reduce GHG emissions based on AB 32, the California Global Warming Solutions Act.

## **Morongo Basin Strategic Plan for Culture and the Arts (MBSPCA)**

Future public arts project opportunities will dovetail nicely with the newly developed Morongo Basin Strategic Plan for Culture and Arts (MBSPCA), a living document that emerged out of a cultural planning process which began in 2017. The MBSPCA works to advance the culture and arts of the Morongo Basin while strengthening the economic impact of these treasured resources. It was designed by community leaders from a variety of sectors including, the arts, education, business, local government, the military, and key Joshua Tree National Park staff in partnership with county representatives and Arts Connection and facilitated by the Cultural Planning Group. Implementation of the plan will be community led, although spearheaded by the nonprofit group, Joshua Tree living Arts (JTLA). The plan is focused on the following goals: model and expand cultural equity practices in Morongo Basin's arts and cultural community; build the market for arts and culture; expand arts education for children and lifelong learning in the arts for adults; and increase the economic impact of visitation to Morongo basin by enhancing tourism marketing with arts and culture.

Within these goals, certain strategies have been identified that would work in concert with the goals of the Plan. One example of this would be, "bringing cultural events to a wider audience." Equity, in part, is made possible by access to events; this could include providing wayfinding

signage and improved active transportation infrastructure. Additionally, public art projects funded through transportation resources can also assist in helping to build the market for arts and culture in this region, which has seen a rapid uptick in tourism. Public art works that aid in both wayfinding and increasing the visibility of hidden cultural assets will provide opportunities for artists to advance their careers professionally and financially, while also allowing for cultural and art organizations to expand their audiences increasing economic support in doing so.

The process of public art is collaborative, bringing together the community with the lead artist/artists and engaging all of them in civic dialogue. While the depth of community engagement can vary, it inevitably creates a shared sense of ownership and builds community cohesion.

The MBSPCA also looks to identify ongoing public arts revenue sources, which is a shared goal for the arts community in the region. Having a vibrant public art program has been shown to create multiple community and economic benefits.

**"It reflects and reveals our society, adds meaning to our cities and uniqueness to our communities. Public art humanizes the built environment and invigorates public spaces. It provides an intersection between past, present and future, between disciplines, and between ideas."**

***(American for the Arts Public Arts Network Council: Green Paper)***

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## 3.2. LAND USE

Three jurisdictions designate land uses within the Morongo Basin Active Transportation Plan project area: Twentynine Palms, Yucca Valley, and San Bernardino County. For this reason the standardized SCAG land use designations, which account for all three of these jurisdictions, are used in the accompanying map.

Consistent with the rural character of the Morongo Basin, only 18% of the roughly 760 square miles of land within the project area is currently considered utilized. Utilized land consists of land that is not designated as: Vacant, Unknown, or Under Construction. Utilized land includes areas that appear to be vacant, but are designated as Open Space Recreation.

Historically, the majority of new development in the region has been low density residential. Single family residential and rural residential land uses account for 25% and 54% of the number of utilized land parcels respectively. However, combined these land uses only account for 26% of all utilized land area, primarily due to the size of preserved open space.

More intensely developed areas are found along SR-62 within the communities of Joshua Tree, Twentynine Palms, Yucca Valley, and Morongo Valley. The areas adjacent to SR-62 are typically for commercial and

retail services and act as a buffer between low density housing and the busy highway. Although the majority of growth in the region has been in residential uses, there is an increasing demand for commercial and service oriented land uses that has driven new development along SR-62 and other commercial corridors.

Open space and recreation land uses account for the majority of the utilized land use area within the Morongo Basin. Although Open space and recreation land uses only account for 1% of parcels, they account for 61% of all utilized land. Joshua Tree National Park's border expanding into the project area alone accounts for 10% of the total project area.

Population growth between 2000 and 2016 was 25% in Yucca Valley and 77% in Twentynine Palms according to SCAG's Local Profiles report. These rates are at or above the 25% population growth rate of San Bernardino County during the same period.

Figure 3.2.1. Morongo Basin Land Use

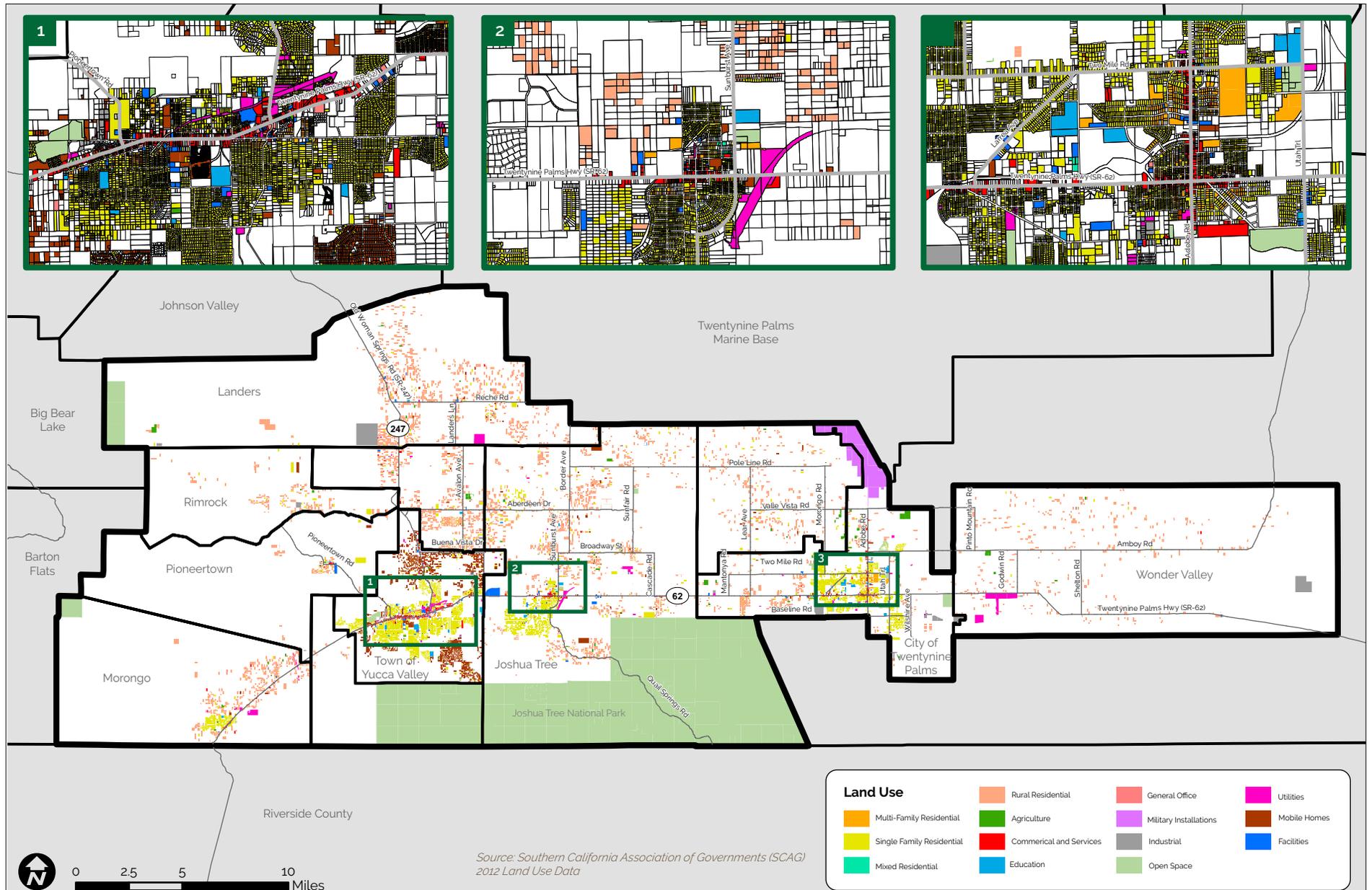


Figure 3.2.2. City of Twentynine Palms: Land Use

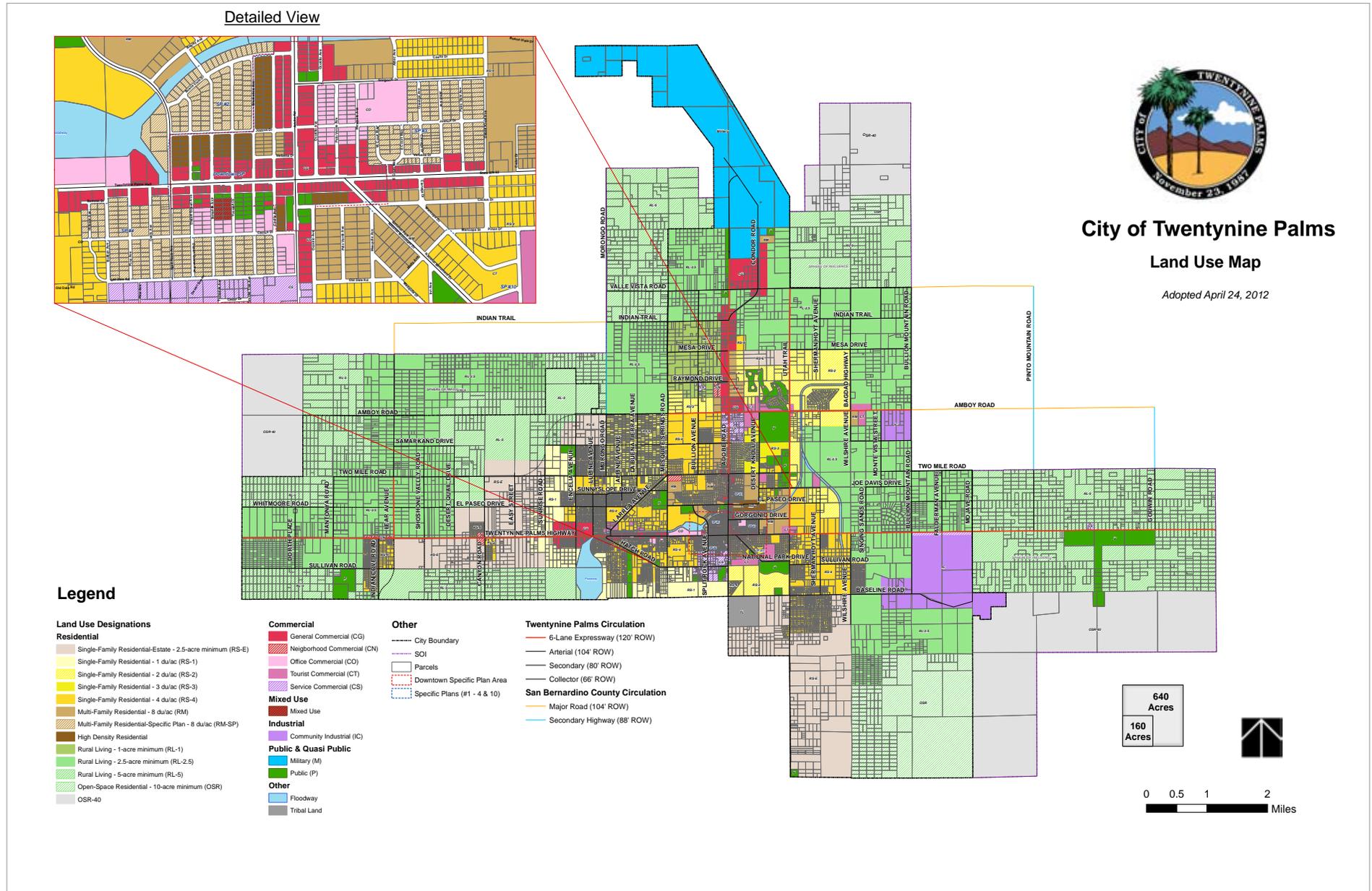
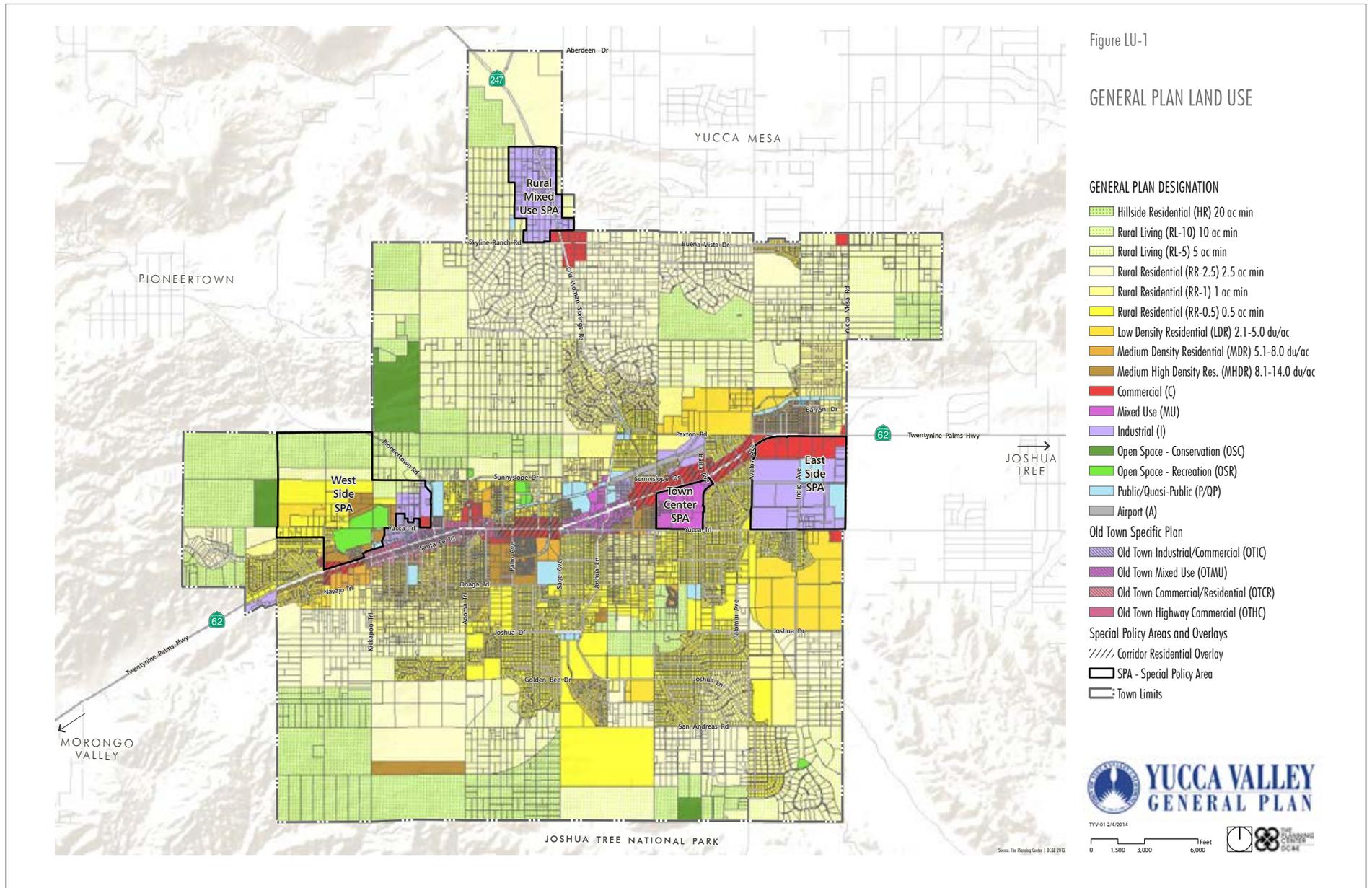


Figure 3.2.3. Town of Yucca Valley: Land Use



## 3.3. ACTIVITY CENTERS & DESTINATIONS

Identifying activity centers and destinations is vital to developing an active transportation network that suits the needs of pedestrians, cyclists, and transit users. Activity centers are defined as a community's major employers, office buildings, industrial sites, government sites, retail centers, hospitals, major attractions colleges, schools or open space.

### Origins

Creating connections between origins and destinations ensures that users are able to reach their destinations reliably and safely. As noted in the Land Use section, Low density housing is one of the most prominent land uses in the region. While housing and population density is spread out and sparse, there are clusters of residential uses that result in relatively higher density neighborhoods and generally have higher rates of walking, biking, and using public transit to get to work. The highest rate of walking, biking, and transit ridership to get to and from work occurs near Yucca Valley Town Hall and Community Center. Other high active transportation areas include Joshua Tree Community Center and Knotts Sky Park.

### Schools

There are 17 public school within the Morongo Basin, 10 of which were a part of the Safe Routes to School efforts for this Plan. Of the 17 public schools, one is a preschool, 11 are elementary schools, two are intermediate schools, and three are high schools. During the 2017-2018 school year there were over 8,000 students enrolled in 17 schools. Schools are especially significant destinations because they generally have high rates of walking, biking, and transit use.

### Commercial and Entertainment Centers

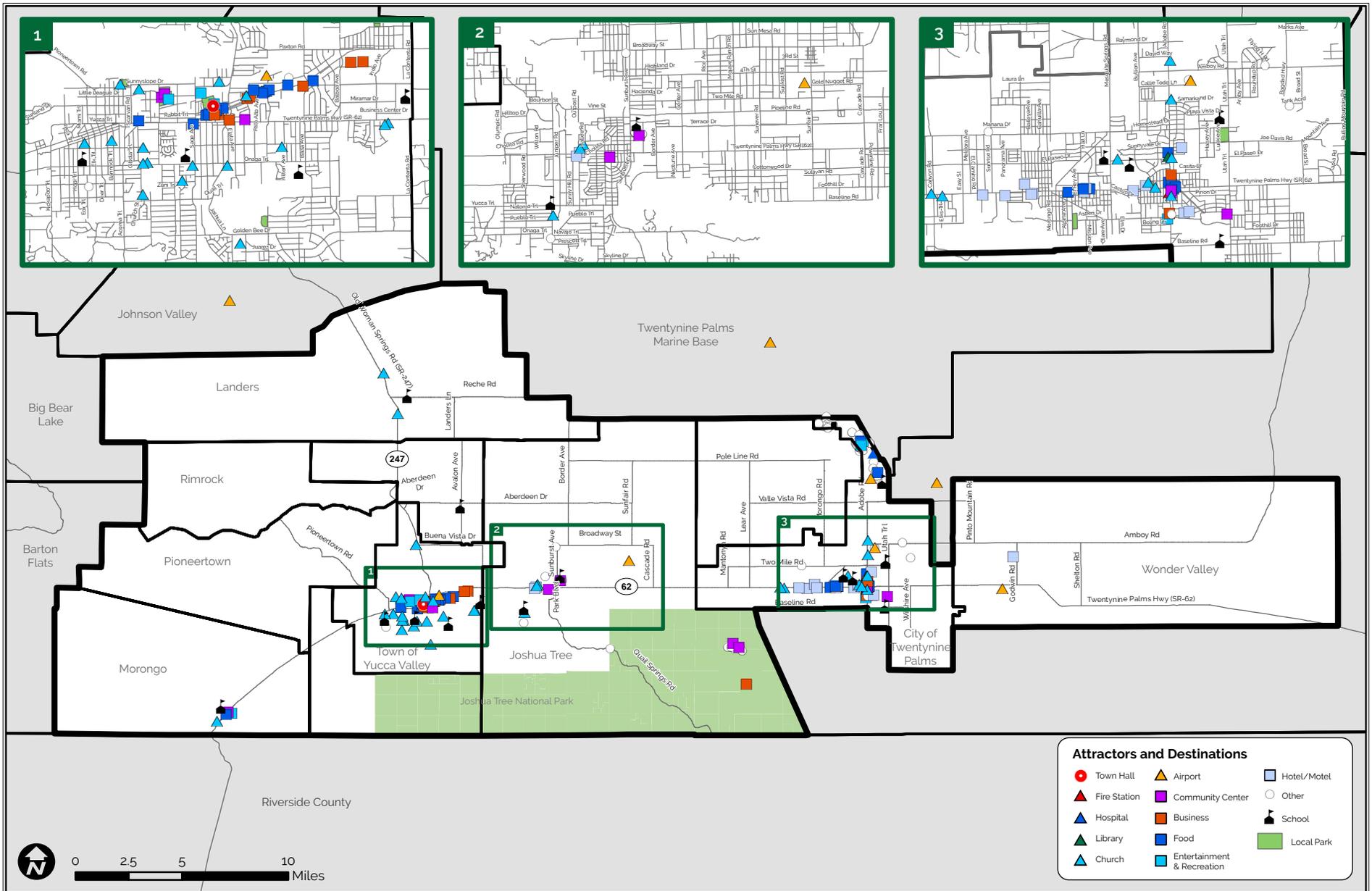
Commercial centers are largely located along key corridors throughout the Morongo Basin including SR-62 and Adobe Road and SR-62 and Joshua Lane. These locations also serve as job and entertainment centers within each community as well as areas of regional significance for commercial activities.

### Recreation

Local parks are located throughout the Morongo Basin including baseball fields, skate parks, and BMX parks, in addition to community parks. These locations are often adjacent to community centers, schools, and other civic uses.

The project area has two entrances to Joshua Tree National Park that served a combined 430,000 visitors according to 2017 National Park Service traffic counts. The park's total visitors reached a new high of 2.5 million visitors in 2016, an increase of 500,000 visitors from the previous year.

Figure 3.3.1. Activity Centers & Destinations



## 3.4. TRANSIT CONNECTIVITY

The Morongo Basin Transportation Authority (MBTA) provides local weekday and weekend transit service throughout the Morongo Basin from Twentynine Palms to Morongo Valley. MBTA also provides regional connecting service to Palm Springs International Airport on weekdays and weekends. MBTA operates 8 local and regional bus lines that travel through most communities within the Morongo Basin and manages the RoadRunner Shuttle service from the Joshua Tree community into the National Park. The routes are as follows:

- Route 1 – Yucca Valley – Twentynine Palms
- Route 3A - Twentynine Palms Marine Base
- Route 3B - Twentynine Palms Neighborhood
- Route 7A - North Yucca Valley
- Route 7B - South Yucca Valley
- Route 12 - Yucca Valley - Palm Springs
- Route - 15 MCAGCC - Palm Springs
- Route 21 - Landers - Yucca Valley
- RoadRunner Shuttle Service - Twentynine Palms, Joshua Tree National Park

Several key nodes within the transit network include the transit centers located in Twentynine Palms and Yucca Valley, SR-62 near Joshua Tree,

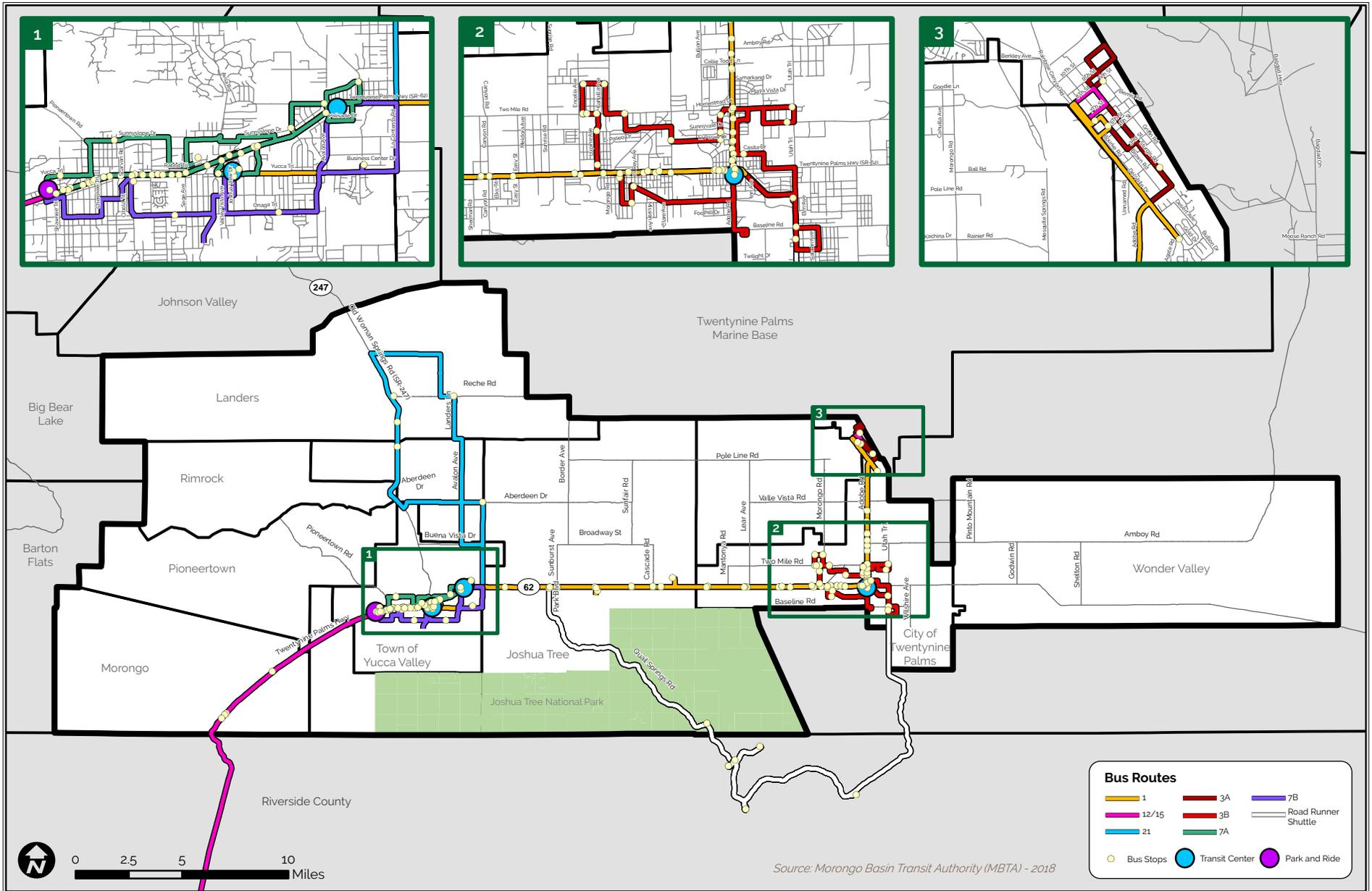
Copper Mountain College, and Marine Corps Air Ground Combat Center Twentynine Palms.

There are three transit stations within the Morongo Basin: Twentynine Palms Transit Center, Yucca Valley Transit Center, and the Walmart Shopping Center. Each of these transit centers serves multiple bus lines that help to directly or indirectly connect riders to the entire region.

Public transportation plays an important role for Morongo Basin residents with limited access to personal vehicles. Students with a Copper Mountain College ID receive a reduced fare. MBTA provides Ready Ride, an origin to destination service primarily for seniors and disabled passengers. Additionally, buses are allowed to deviate from their fixed routes by rider request, pending approval and with regard to distance.

To better serve first and last mile connections, MBTA buses are equipped with bicycle racks that allow riders to safely travel with their bicycle. This essentially expands the transit-shed, the distances and area of which people are willing to walk or bike to transit.

Figure 3.4.1. MBTA Bus Stops & Routes



- **Route 1 – Yucca Valley – Twentynine Palms**

Fixed Route Bus Service providing a Monday through Sunday schedule serving the Marine corp base and Twentynine Palms Transit Center, Walmart Center, and Yucca Valley Park and Ride Station.

- **Route 3A - Twentynine Palms Marine Base**

Fixed Route Bus Service providing a Monday through Sunday schedule serving the Marine corp base and Twentynine Palms Transit Center. The route provides improved frequency by shortening the route to provide better access to and from the Marine Corps Air Ground Combat Center Twentynine Palms.

- **Route 3B - Twentynine Palms Neighborhood**

Fixed Route Bus Service providing a Monday through Sunday schedule serving the Twentynine Palms neighborhood connecting to all schools in the city, the Twentynine Palms Theater, and Twentynine Palms Senior Center.

- **Route 7A - North Yucca Valley**

Fixed Route Bus Service providing a Monday through Sunday schedule serving the Yucca Valley neighborhood north of SR-62. This route connects to the Yucca Valley Transit Center, Yucca Valley Airport, Yucca Valley Townhall, and Yucca Valley Library.

- **Route 7B - South Yucca Valley**

Fixed Route Bus Service providing a Monday through Sunday schedule serving the Yucca Valley neighborhood South of SR-62. This route connects to the Yucca Valley Transit Center, Yucca Valley Elementary, Onaga Elementary, Yucca Valley High School, and Yucca Valley Library.

- **Route 12 - Yucca Valley - Palm Springs**

Fixed Route Bus Service providing a Monday through Sunday schedule serving the the entire Morongo Basin by providing regional connection from the Yucca Valley Transit Center and the Park and Ride location to Palm Springs International Airport . This route has limited departures from each station, excluding any service during the afternoon.

- **Route - 15 MCAGCC - Palm Springs**

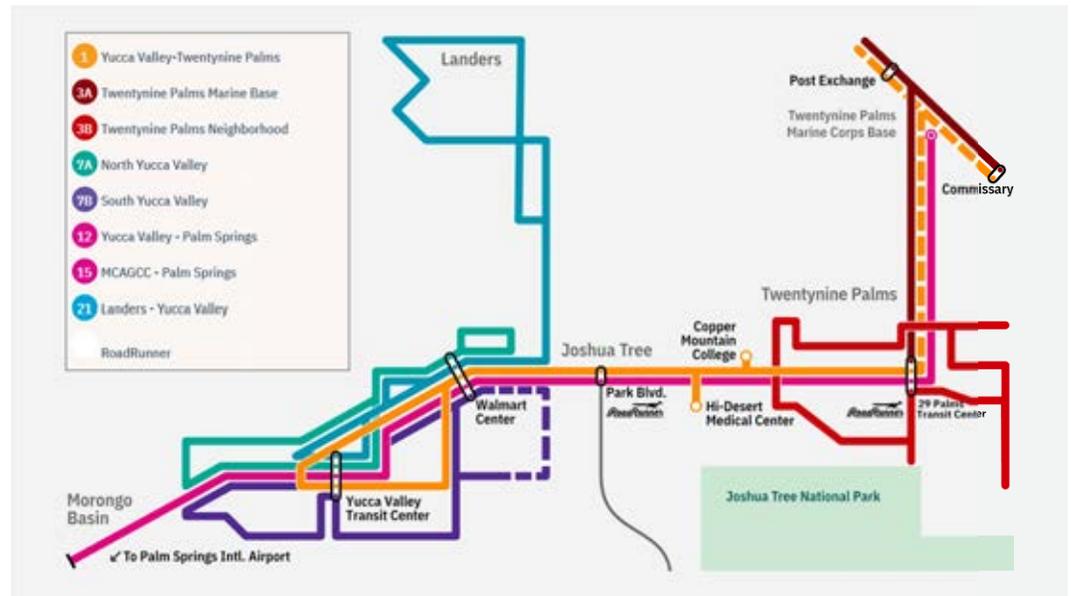
Fixed Route Bus Service providing a Friday through Sunday schedule serving the Marine Corps Air Ground Combat Center and Palm Springs. The limited weekend run of the busline provides is most suited for recreation trips to the Coachella Valley due to limited frequency and length of trip.

- **Route 21 - Landers - Yucca Valley**

Fixed Route Bus Service providing a Monday through Sunday schedule providing connections between Landers and Yucca Valley, connecting to the major destinations along SR-62.

- **RoadRunner Shuttle Service**

The roadrunner shuttle service is a pilot shuttle program that connects Joshua Tree and Twentynine Palms to several trailheads within Joshua Tree National Park. Trial periods are scheduled to run Winter 2018 thru Spring 2019.



### 3.5. HEALTH & ENVIRONMENT

**A community’s transportation network has the potential to encourage and facilitate healthy behaviors for all residents when it is designed to accommodate active transportation.**

Providing residents with connections to local and regional destinations enables opportunities to exercise by walking and biking for recreation, and provide connections to local destinations including schools, parks, and retail and entertainment opportunities.

Active transportation can play an important role in reducing the rate of obesity and other chronic conditions such as diabetes and cardiovascular disease resulting from increasingly sedentary lifestyles.

As noted in the 2017 San Bernardino Community Indicators Report (SBCIR), which analyzes a number of wellness indicators throughout the County,

**“A sedentary lifestyle and being overweight are among the primary risk factors for many health problems and premature death. Maintaining a healthy body weight may have positive impacts on physical and mental health, as well as reduce healthcare costs.”**

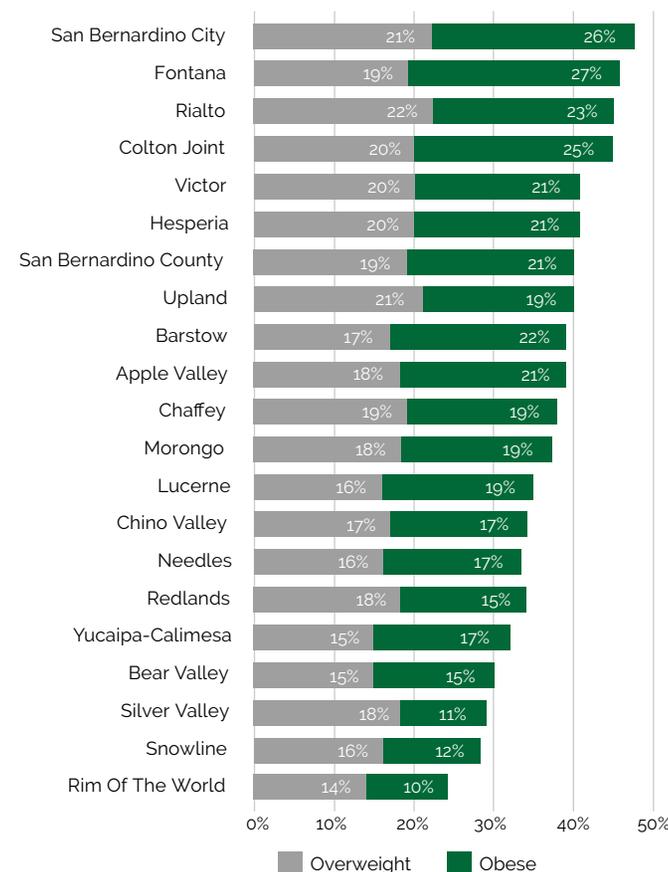
The SBCIR reports that 2 out of 5 students in the County are considered overweight

or obese. This level is consistent among students enrolled at schools part of the Morongo Unified School District with 18 percent of students considered overweight and 19 percent of students considered obese.

Of adults residing in San Bernardino County, 27 percent are considered overweight and 41 percent are considered obese. Compared to the overall California rates the County’s obesity rate is .4 percent less, however, the County’s overweight rate is 6.7 percent greater (SBCIR).

Chronic diseases such as diabetes, high blood pressure, and cardiovascular disease are largely preventable conditions, yet “contribute to approximately 70 percent of fatalities in the United States each year and account for about 75 percent of the nation’s health-related costs” according to the Center for Disease Control and Prevention (CDC). Within San Bernardino County the long-term trend for diabetes prevalence and deaths is on the rise despite short term declines. According to the SBCIR, deaths due to diabetes increased slightly from 32.4 in 2014 to 32.9 in 2015, but the longer-term trend is more severe, increasing 8 percent since 2006.

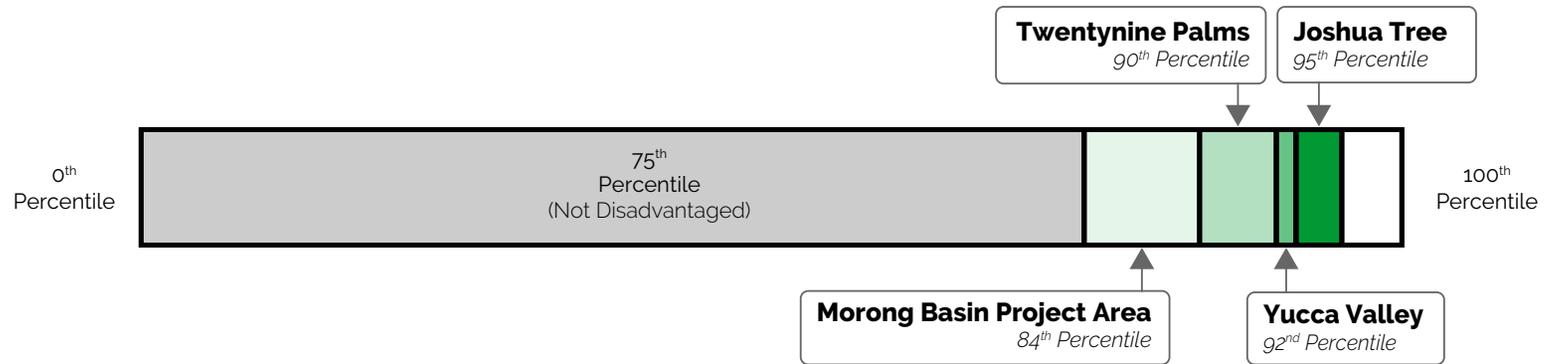
Figure 3.4.2. Percentage of Students with Unhealthy Body Composition by School District (San Bernardino County, 2016)



Source: California Department of Education Physical Fitness Test (<http://data1.cde.ca.gov/dataquest/>)

Figure 3.4.3. CalEnviroScreen 3.0 Heart Attack Emergency Department Visits (per 10,000 people by select Morongo Basin communities, 2011-2013)

**6 out of the 10 Morongo Basin Project Area Communities rank above the 75th percentile for prevalence of heart disease**



Furthermore, in 2015, 30.5 percent of adults in San Bernardino County had high blood pressure, a six percent increase from the previous year. San Bernardino County ranks highest among all counties compared in the SBCIR. In contrast, fatalities resulting from stroke have decreased 23 percent since 2006.

Data from CalEnviroScreen further demonstrates significant health complications among residents living in the Morongo Basin. CalEnviroScreen 3.0 is an index developed by the California Environmental Protection Agency (CalEPA) that utilizes environmental and socio-economic data to determine the most disadvantaged census tracts in California.

CalEnviroScreen 3.0 data shows that the overall project area ranks at the 40th percentile for most disadvantaged areas in California. Although the Morongo Basin project area is not generally considered as disadvantaged, or above the 75th

percentile of all census tracts, several individual factors are above that disadvantaged threshold. In line with the results from the SBCIR, the average rate of hospital visits related to cardiovascular disease within the project area ranks at the 84th percentile among all census tracts in California.

Poor air quality conditions can also lead to negative outcome. Ozone levels within the project area rank at the 94th percentile and peak as high as 98th percentile. As one of the main components of smog, ozone results largely from vehicle emissions and factories. Ozone levels are highest during afternoons and in areas with high heat or sun exposure. According to CalEPA, exposure to ozone may increase lung irritation and worsen chronic health conditions such as asthma. Children and the elderly are more susceptible to the negative effects of exposure to ozone. Although ozone levels in the Morongo Basin project area are high, the

instances of hospital visits related to asthma remain at the 46th percentile, below the level considered disadvantaged. The levels peak in the communities of Joshua Tree and Yucca Valley high rank above the 60th percentile.

Overall project area levels for the remaining exposure indicators remain below the 75th percentile disadvantaged threshold. However, some communities rank high for presence of drinking water contaminants, cleanup sites, and solid waste facilities.

Increasing physical activity opportunities and encouraging a less sedentary lifestyle through developing a safe active transportation network can help improve the overall health and well-being of Morongo Basin residents while contributing to developing a healthy environment.

## **3.6. COUNTY MAINTAINED ROAD SYSTEM (CMRS)**

In San Bernardino County, the County Department of Public Works Transportation Division performs routine maintenance, roadway improvements, and other operations on streets included within the County Maintained Road System (CMRS). If a road is not in the CMRS, the County is prohibited by law from spending County roadway funds on that street. As such, the County would not be able to apply for funding, match for any grant funds, or perform any maintenance on non-CMRS roads within the County. This, in turn, impacts the recommended on-street bicycle and pedestrian improvements for the Morongo Basin Active Transportation Plan.

**All recommended projects, as part of the Morongo Basin Active Transportation Plan, are within Caltrans, County, City of Twentynine Palms, and/or Town of Yucca Valley jurisdictions. This allows the respective agency or agencies to apply for the appropriate grant funding for project implementation.**

## 3.7. EXISTING PEDESTRIAN INFRASTRUCTURE

Due to the rural nature of Morongo Basin, there is a general lack of pedestrian infrastructure throughout the region. Around key areas, including schools, parks, commercial centers, and new development, pedestrian infrastructure has improved over time to better facilitate pedestrian activity within the region. Where these areas meet with older and more rural neighborhoods pedestrian infrastructure tends to end abruptly, resulting in large gaps in pedestrian infrastructure between these areas. Pedestrian infrastructure can be classified into five pedestrian infrastructure typologies that generally capture the diverse levels of existing pedestrian infrastructure throughout the region.

## PEDESTRIAN INFRASTRUCTURE TYPOLOGIES

### State Route-62 and Commercial Development Corridors

State Route 62 (SR-62) and commercial development corridors (Adobe Road) have expedited pedestrian infrastructure enhancements as these corridors appeal to an increasing flux of tourism traffic and local vitality. Throughout the region sidewalk coverage is largely proximal to the SR-62 and Adobe Road downtown commercial corridors. Sidewalk gaps exist since not all business fronts have been improved, which are typically found on the fringe area of the downtown corridors along SR-62 and Adobe Road. Curb ramps of varying standards are present within the region. In areas experiencing modernizing development ADA compliant curb ramps are present, but not ubiquitous. Overall sidewalk width within this typology ranges from 6' to 10'. The quality of the sidewalk alternates between new, as a result of commercial development, and aged concrete and asphalt.

Infrastructure improvements have been made beyond sidewalks to facilitate tourism and commercial activity, including marked crosswalks, signalized intersections, and pedestrian flashing beacons. Along SR-62 and commercial development corridors there are white marked transverse line crosswalks present at signalized intersections. Painted crosswalks of any kind are not present at stop controlled intersections. Furthermore, a majority of signalized intersections are found along SR-62, which provides pedestrian phasing to enhance crossing accessibility. At some intersections additional pedestrian features have been implemented to enhance crossings where signalized intersections are not installed; pedestrian flashing beacons with pedestrian activation are present within the region as well as refuge islands.



*SR-62 and Dumosa Avenue; Yucca Valley*



*SR-62 and Tamarisk Avenue; Twentynine Palms*



*SR-62 and Morongo; Pedestrian Hybrid Beacon*



*Adobe Road and El Paseo Drive; Twentynine Palms*

## School Areas

School areas within Morongo Basin are generally more developed than other parts of the pedestrian infrastructure network, often within a 600' distance from school boundaries. Streets that are immediately adjacent to school grounds typically include sidewalks (4' – 8' in width), sidepaths that are typically 8' wide, ADA compliant curb ramps, high visibility crosswalks (continental, transverse, and diagonal lines), signage in compliance with MUTCD CA Part 7 guidelines, and speed feedback signs.

In Twentynine Palms, a sidepath network along portions of El Paseo Drive, Two Mile Road, Bagley Avenue, and Utah Trail connects multiple schools and residential neighborhoods. Similar infrastructure exists along Sunburst Avenue in Joshua Tree.

Feedback and observations recorded from conducted Walking Safety Assessments highlighted issues related to high traffic speeds, motorist behaviors, and faded crosswalks or pavement markings.



*Onaga Trail & Sage Avenue (Yucca Valley)*



*Twentynine Palms Junior High School Sidepath (Twentynine Palms)*



*Black Rock High School Sidewalk (Yucca Valley)*



*Mesquite Springs & El Paseo Drive (Twentynine Palms)*



### **New Development**

As the region experiences an influx in new development, a response to population demands, the enhancements of pedestrian infrastructure features have improved in tandem. The "New development" typology within Morongo Basin is characteristic of residential housing developments and business areas that install new sidewalk and curb ramps. Communities within Yucca Valley and Twentynine Palms both are host to these treatment enhancements. If new development occurs within an already established area, sidewalk spot treatments are common.



### **Older Residential Neighborhoods**

A large proportion of the developed land within Morongo Basin falls in-line with the "Older Residential Neighborhoods" typology. Paved roads are common with minimal paved shoulders available; parking is available along the side of the road in the dirt area between the road and the property line. Throughout the region these areas generally lack sidewalk and curb ramp coverage but provide space for pedestrians in the paved/unpaved shoulder right-of-way. Pavement markings and stop signs are typical control mechanisms for vehicular traffic; however, these intersections are void of marked crosswalks for pedestrians.



### **Rural Residential Areas**

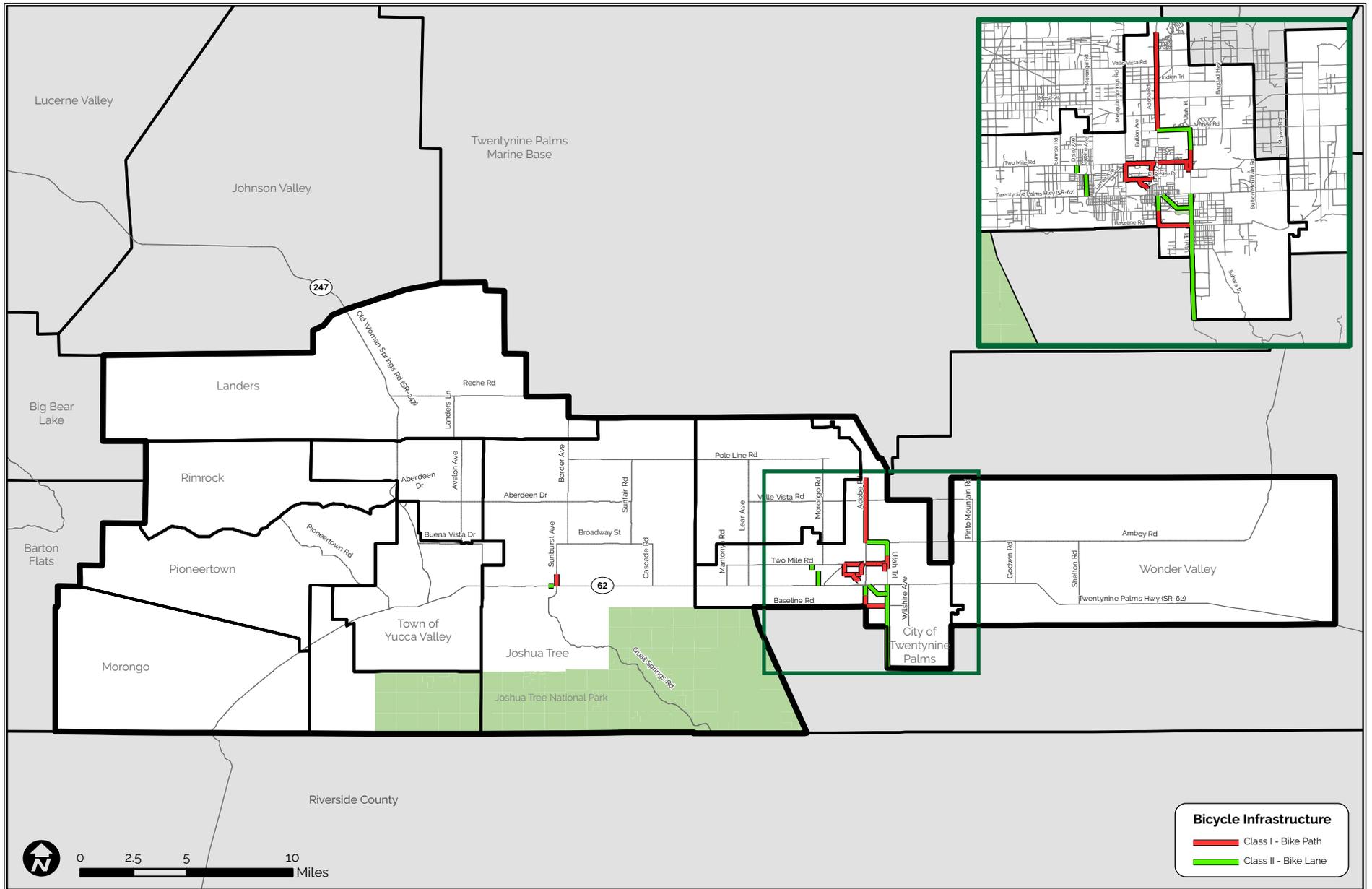
In Rural Residential Areas where development is limited to sparse residential housing there is often minimal to no pedestrian infrastructure features present. Typical to these areas is low and secluded development with dirt roads connecting to a single paved roadway; these areas are notably farther away from SR-62. Pedestrian shoulders are located along roadways (paved or unpaved) and long stretches of vacant land are common.

### 3.8. EXISTING BICYCLE INFRASTRUCTURE

The installation of bicycle infrastructure throughout the Morongo Basin is guided by San Bernardino County long range planning documents, such as the Non-Motorized Transportation Plan (NMTP), for the unincorporated areas within the Morongo Basin, and the independent municipalities (Yucca Valley and Twentynine Palms) who develop circulation plans. Existing infrastructure is currently incomplete within each area of the region while the region as a whole, is also void of regional connection.



Figure 3.8.1. Existing Bicycle Facilities



## BICYCLE INFRASTRUCTURE TYPOLOGIES



### Class I – Bike Path

The region is host to select corridors with existing Class I – Bike Paths, an off-street paved path separated from vehicular traffic. A majority of Class I – Bike Paths are located within the eastern portion of the region (Twentynine Palms). These facilities are characteristic of paved asphalt paths either immediately adjacent to the roadway curb or partially buffered by a variable dirt section; width is typically 8’–12’. Signage is often found along the start of each segment (D11-1 MUTCD CA). Roadways with existing Bike Paths offer connections between residential areas, school sites, and major corridors (i.e. Two Mile Road, Baseline Road, El Paseo Drive, and Mesquite Springs).

The unincorporated San Bernardino Area of Joshua Tree is host to one Class I – Bike Path along the eastern side of Sunburst Avenue, extending from SR-62 north 0.53 miles. This path is separated from the roadway by a dirt section; the width is 8’. Aside from these noted paths no other Class I – Bike Paths are present within the Morongo Basin.



### Class II – Bike Lane

Morongo Basin as a whole does not have complete Class II – Bike Lane coverage. Twentynine Palms does have existing Class II – Bike Lanes sporadically across the city, including a roadway stripe and signage in most situations. These facilities are characteristic of on-street shared roadway sections. Roadways within Twentynine Palms that have existing Bike Lanes are: Amboy Road, National Park Drive, Utah Trail, Mojave Avenue, and Encelia Drive.

In most cases across the region, a shoulder stripe is present. However, since these shoulders lack 1) acceptable shoulder width continuity to support bicyclist, 2) well maintained existing pavement conditions, 3) pavement markings/signage, and 4) appropriate separation between motor vehicles traveling at high speeds – they cannot be classified as existing Class II – Bike Lanes. Examples of these incomplete roadways include: SR-62 (across the region), SR-247 (Yucca Valley - Landers), Pioneertown Road (Pioneertown), Park Boulevard (Joshua Tree), Alta Loma Drive (Joshua Tree – Yucca Valley), and Onaga Trail (Yucca Valley). Overall incorporated municipalities' Circulation Plans (Yucca Valley and Twentynine Palms) and unincorporated areas of San Bernardino (Joshua Tree, Morongo, etc.) with proposed Class II facilities.



### Class III – Bike Route

Existing Class III – Bike Routes do not exist at present within the Morongo Basin. However, Class III are planned for and found within the represented municipalities' Circulation Plans (Yucca Valley and Twentynine Palms) and SBCTA Non-Motorized Transportation Planning document for unincorporated areas (Morongo and Joshua Tree).



Image 3.8.1: Bicyclists at Knott's Sky Park in Twentynine Palms during the 2018 Park 2 Park Bike Ride

## 3.9. PEDESTRIAN & BICYCLE USAGE

### PROJECT SURVEY RESULTS

The project survey includes questions regarding the locations that people live and work, their walking and bicycling habits and ideals, and the demographics of the survey participants. Surveys were distributed at community events and through stakeholder eBlasts, social media, and to Morongo Basin Active Transportation Plan participating schools.

Approximately 40% and 32% of survey participants live and work in Yucca Valley, respectively. Joshua Tree was the second most common area listed as a residence with 26%. While Joshua Tree and Twentynine Palms accounted for roughly 30% of participants' location of work, 28% did not work within Morongo Basin (Figure 3.7.1).

Several questions in the survey attempted to gauge how commonly and for what purpose respondents use active transportation as a mode of travel. Typical of rural and desert settings, the primary mode of travel is by way of car. Of the 417 survey participants, roughly 53% indicated that they never walk and 61% never bike to a specific destination, while only 25% walk and 17% bike to a destination at least once a week (Figure 3.7.1). Though more than half of participants never walk or bike to a destination, approximately 86% indicated that they walk and 82% bike for exercise or to improve their health. Additionally, 61% of participants walked and 80% of participants biked for run, recreation, or enjoyment (Figure 3.7.3). This is also reflected by the roughly 53% of respondents who noted that they are most likely to walk to and 46% are most likely to bike to trails and parks. Similarly, 50% and 43% were most likely to walk and bike, respectively, to the residences of neighbors and friends.

Survey participants also had the opportunity to specify the primary reasons why they don't walk or bike more often. The top reasons why participants don't walk more often were because distances are too far (51%), heat or extreme weather (46%), and street or intersection design (42%). Respondents indicated that they did not bike more often because of street or roadway design (49%), vehicles traveling too fast at (38%), and

heat or extreme weather (27.3%). In both instances, weather conditions and current roadways in the Morongo Basin region play an important part in dissuading people from walking and biking more.

In being able to identify primary reasons for not walking or biking more, survey respondents were likewise asked what would help encourage them to walk or bike more. Respondents most favorably indicated the addition of more parks and trails (43%), the implementation of safer pedestrian crossings (42%), and the need for additional sidewalks (41%). To bike more, respondents simply indicated the need for more bikeway facilities, including more protected bike lanes (52%), bike lanes (49%), and off-road bike trails (31%).

Lastly, feedback received by survey participants included an indication of specific corridors or intersections that could benefit from active transportation improvements. **Corridors and intersections for pedestrian improvements that were most frequently referenced were:**

#### Streets / Corridors:

- SR-62
- Adobe Road
- Park Avenue
- Sage Avenue
- SR-247
- Yucca Trail
- Two Mile Road
- Utah Trail

#### Intersections:

- SR-62 & Adobe Road
- SR-62 & Park Avenue
- SR-62 & Sage Avenue
- SR-62 & SR-247
- SR-62 & Sunset Drive

#### **Corridors for bicycle improvements that were most frequently referenced were:**

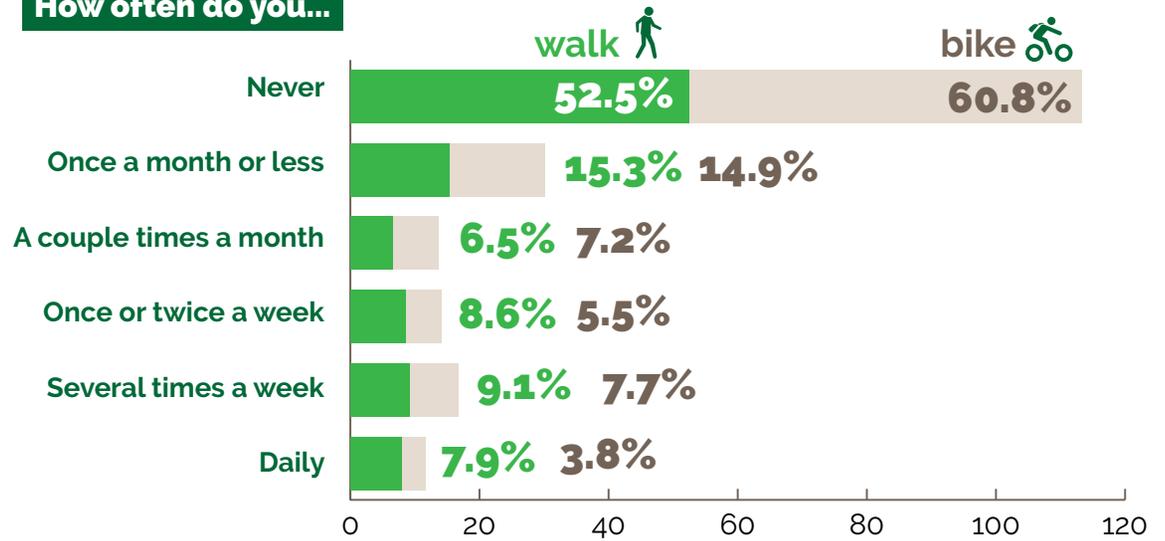
- SR-62
- Palomar Avenue
- Yucca Trail
- Alta Loma Drive

Figure 3.9.1. Project Survey Results Summary

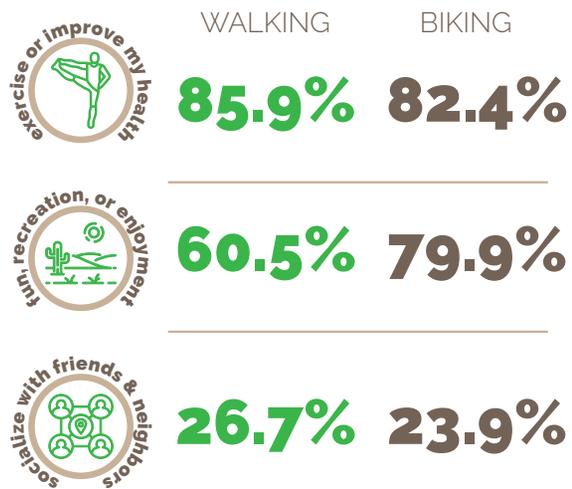
### Which community do you...

	LIVE	WORK
<b>Yucca Valley</b>	39.8%	32.0%
<b>Joshua Tree</b>	26.1%	15.0%
<b>Twentynine Palms</b>	14.1%	14.8%
<b>Landers</b>	11.3%	4.6%
<b>Morongo Valley</b>	5.8%	2.4%
<b>Pioneertown</b>	0.7%	0.2%
<b>None</b>	1.7%	27.4%
<b>Other</b>	0.5%	3.4%

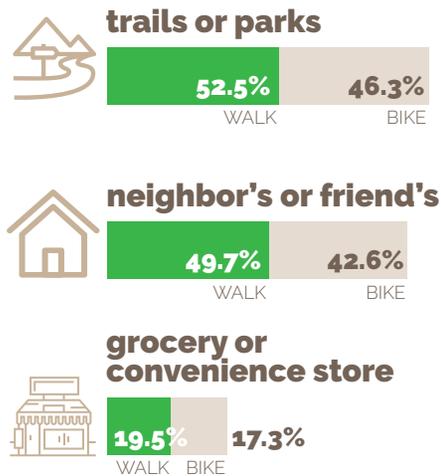
### How often do you...



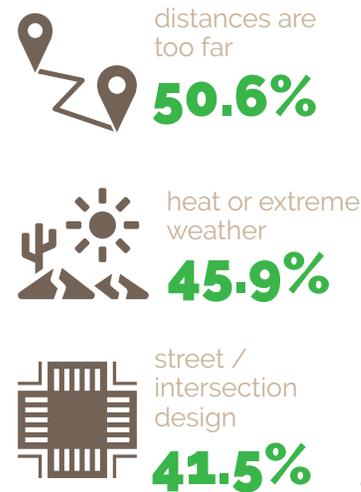
### Top 3 reasons for walking / biking in the Morongo Basin region



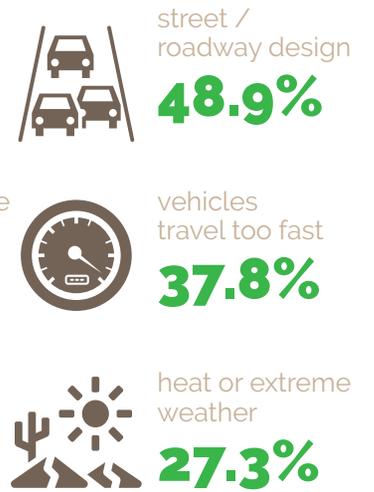
### What places are you most likely to walk or bike to...



### Top 3 reasons for not walking more



### Top 3 reasons for not biking more



## 3.10. COLLISION ANALYSIS

Analysis of historical collision data is critical in determining the implementation of specific countermeasures to increase pedestrian and bicyclist safety. Collision data from January 2013 to December 2017 (provisional for 2016 and later dataset) was obtained through the Traffic Injury Mapping System (TIMS) for Morongo Basin. A total of 55 collisions involved a pedestrian while only 12 involved a bicyclist. A total of six collisions were improperly geocoded, one of which involved a bicyclist. Based on the collision data within the time frame, pedestrians are 4.5 times more likely to be involved in a collision than bicyclists. 56% and 36% of all pedestrian-involved and bicyclist-involved collisions occurred on SR-62, respectively. SR-62 connects cities and unincorporated areas within Morongo Basin, making it a frequently traveled highway. It also passes through tourist, commercial, and retail centers, which is where most collisions occurred as seen in Figure 3.7.1. Of the 67 collisions, 75% occurred within 250 feet of an intersection.

The top five intersections based on collision frequency include:

1. SR-62 & Park Boulevard
2. SR-62 & Park Avenue
3. SR-62 & Veterans Way
4. SR-62 & Hallee Road
5. SR-62 & Tamarisk Avenue

64 of the 67 collisions occurred within Morongo Valley, Yucca Valley, Joshua Tree, and Twentynine Palms. The distribution of these collisions can be seen in Figures 3.7.2 through 3.7.3. Within Yucca Valley, most collisions occurred along Twentynine Palms Highway (SR-62) or Yucca Trail. Within Joshua Tree, multiple collisions occurred at the intersection of SR-62 & Park Boulevard and SR-62 & White Feather Road. Within Twentynine Palms, most collisions occurred along SR-62 and Adobe Road.

Figure 3.10.1. Bicycle & Pedestrian-related Collision Heat Map

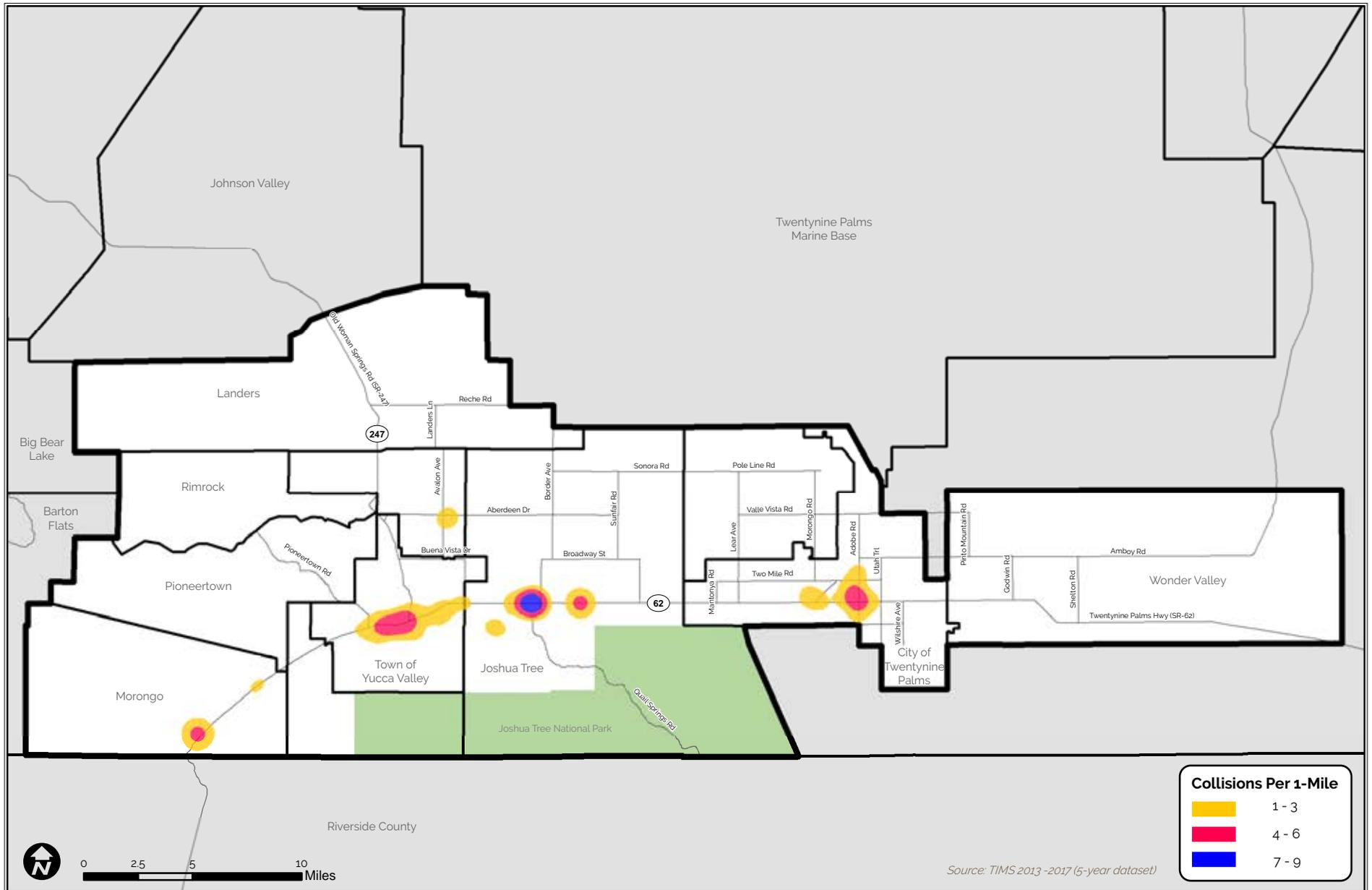


Figure 3.10.2. Bicycle & Pedestrian-related Collision Points (Twentynine Palms)

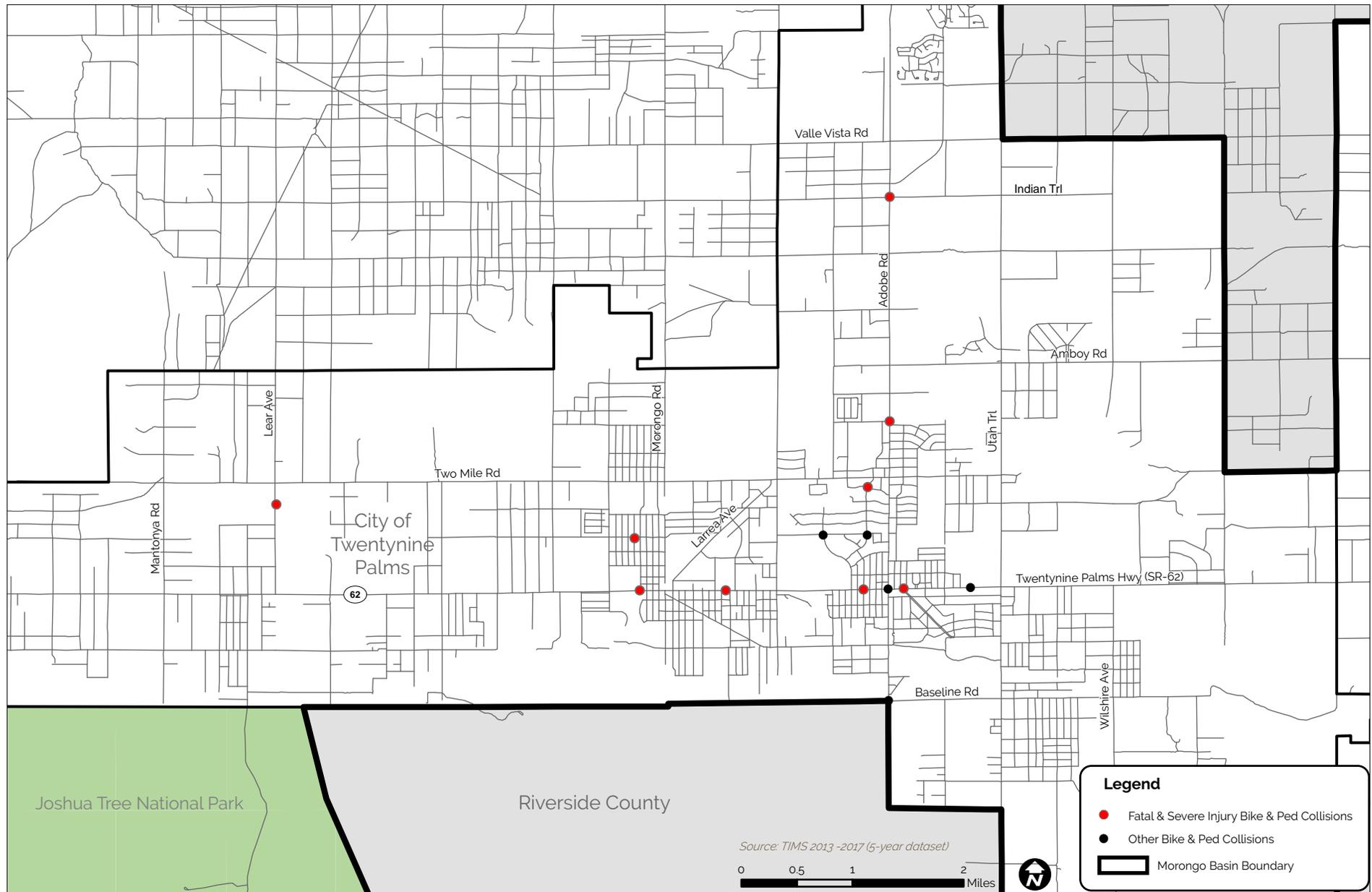


Figure 3.10.3. Bicycle & Pedestrian-related Collision Points (Yucca Valley)

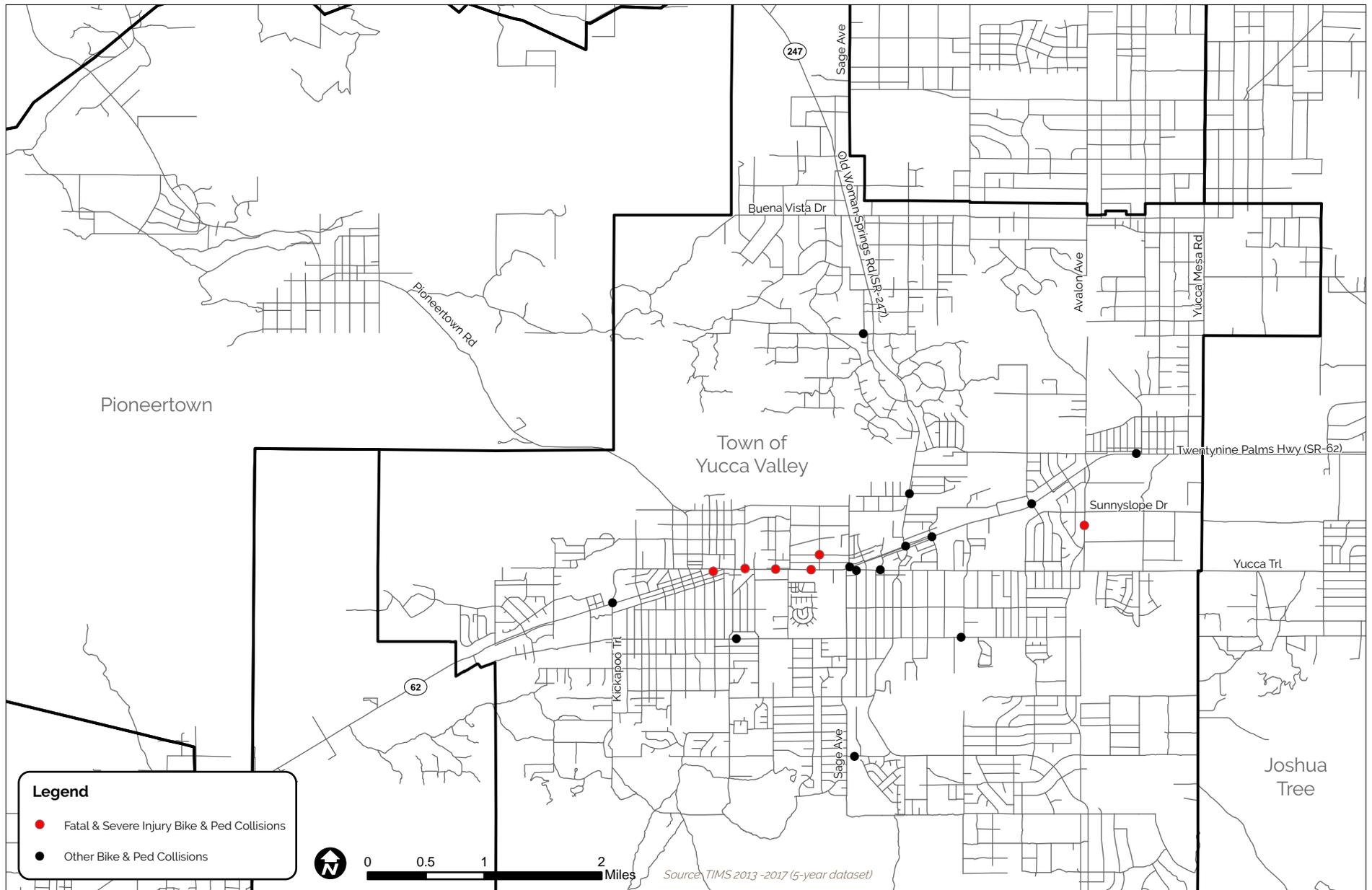


Figure 3.10.4. Bicycle & Pedestrian-related Collision Points (Joshua Tree)



## COLLISIONS BY SEVERITY

50% of bicycle-involved collisions and 44% of pedestrian-involved collisions included a fatality or a severe injury as seen in Figures 3.7.4 and 3.7.5.

## COLLISIONS BY PRIMARY COLLISION FACTOR (PCF VIOLATION CATEGORY)

The primary collision factors for bicyclist-involved collisions were distributed across multiple violation categories as seen in Figure 3.8.7. The "Wrong Side of Road" PCF accounts for 17% of bicyclist-involved collisions, "Unsafe Speed" 17%, "Traffic Signals & Signs" (indicating unclear or poorly maintained signals and signs), "Automobile ROW" (indicating a violation of an automobile right of way) for 17%, and "Driving or Bicycling Under the Influence" for 8%.

The top PCF for pedestrian-involved collisions was "Pedestrian Violation" followed by "Pedestrian ROW". The "Pedestrian Violation" category implies that the pedestrian violated a motor vehicle's right of way. The "Pedestrian ROW" category indicates the pedestrian's right of way was violated by another mode of travel (bicycle or motor vehicle). 88% of the fatal & severe injury pedestrian-involved collisions were due to "Pedestrian Violation".

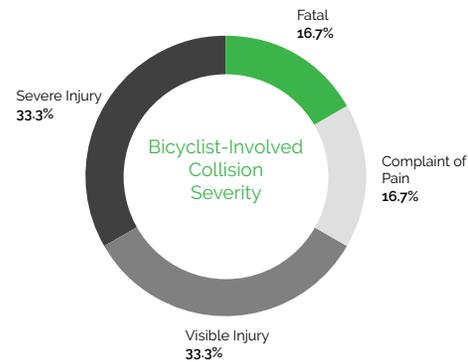


Figure 3.10.5. Bicyclist-Involved Collisions by Severity

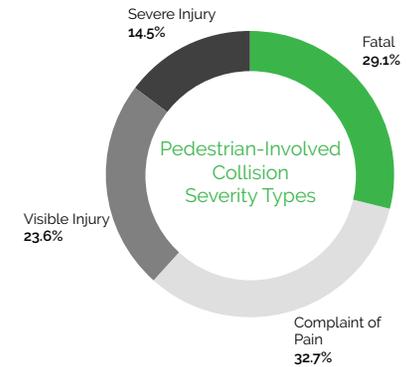


Figure 3.10.6. Pedestrian-Involved Collisions by Severity

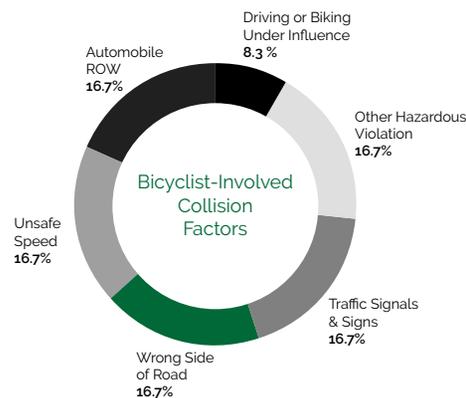


Figure 3.10.7. Bicycle-Involved Collision Factors

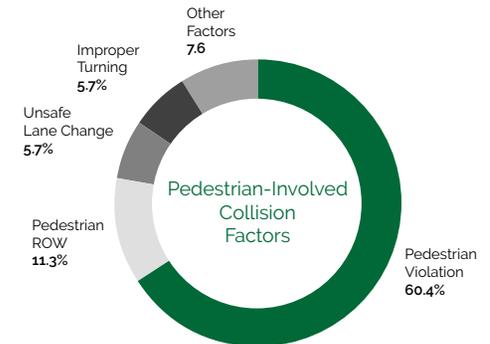


Figure 3.10.8. Pedestrian-Involved Collision Factors

## COLLISIONS BY CRASH TYPE

Table 3.10.1. Bicyclist-Involved Collision Types

CRASH TYPE	COUNT	PERCENT	FATAL / SEV. INJURY COUNT	FATAL / SEV. INJURY PERCENT
Broadside	5	42%	2	33%
Other	3	25%	2	33%
Head-On	2	17%	0	0%
Rear-End	1	8%	1	17%
Sideswipe	1	8%	1	17%
Vehicle / Pedestrian	0	0%	0	0%
Hit Object	0	0%	0	0%
Overtaken	0	0%	0	0%

Table 3.10.2. Pedestrian-Involved Collision Types

CRASH TYPE	COUNT	PERCENT	FATAL / SEV. INJURY COUNT	FATAL / SEV. INJURY PERCENT
Vehicle/ Pedestrian	49	91%	23	100%
Broadside	2	4%	0	0%
Sideswipe	2	4%	0	0%
Overtaken	1	2%	0	0%
Hit Object	0	0%	0	0%
Head-On	0	0%	0	0%
Rear-End	0	0%	0	0%
Other	0	0%	0	0%

## COLLISIONS BY LIGHTING TYPE AND TIME OF DAY

83% of the bicyclist-involved collisions occurred between 3:00 PM and 9:00 PM while 58% of pedestrian-involved collisions occurred between 5:00 PM and 12:00 AM. Morongo Basin is primary rural area and roughly 35% of collisions occur where no street lights exist (Figures 3.7.10 and 3.7.11), which helps to explain the high frequency of collisions in the evening.

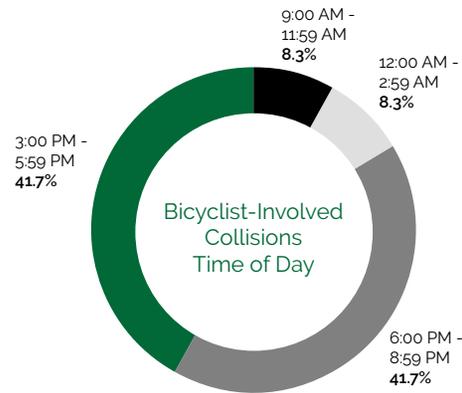


Figure 3.10.9. Bicyclist-Involved Collisions: Time of Day

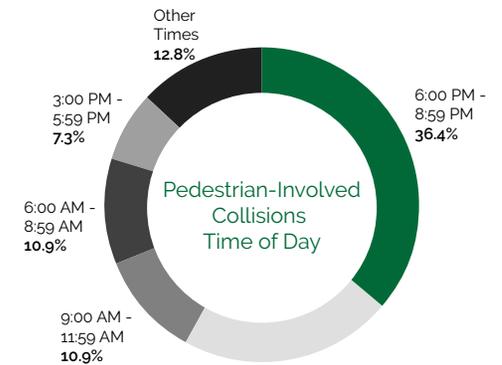


Figure 3.10.10. Pedestrian-Involved Collisions: Time of Day

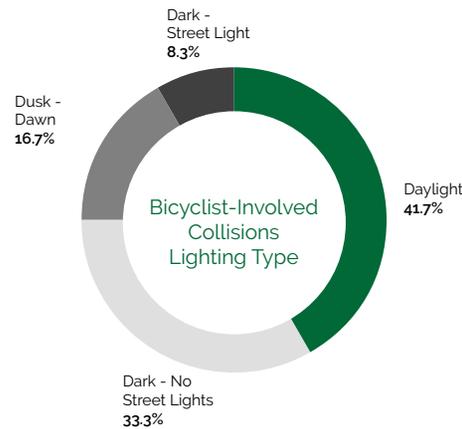


Figure 3.10.11. Bicycle-Involved Collisions: Lighting Type

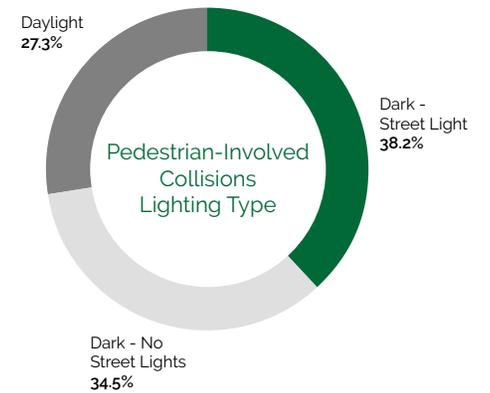


Figure 3.10.12. Pedestrian-Involved Collisions: Lighting Type

## PEDESTRIAN-INVOLVED COLLISIONS BY PEDESTRIAN ACTION

80% of pedestrian-involved collisions occurred because the pedestrian was crossing outside of a crosswalk or was using the shoulder of a road. Of the collisions occurring due to the pedestrian not using the crosswalk, 15 resulted in a fatal or severe injury.

Table 3.10.3. Pedestrian Action of Pedestrian-Involved Collisions

PEDESTRIAN ACTION	COUNT	PERCENT	FATAL / SEV. INJURY COUNT	FATAL / SEV. INJURY PERCENT
Crossing Not at Crosswalk	23	41%	<b>15</b>	<b>63%</b>
In Road, Using Shoulder	18	39%	<b>7</b>	<b>29%</b>
Using Intersection Crosswalk	10	18%	<b>1</b>	<b>4%</b>
Not in Road	3	5%	<b>1</b>	<b>4%</b>
Using Mid-block Crosswalk	0	0%	<b>0</b>	<b>0%</b>

## 3.11. MORONGO BASIN & THE LOCAL ARTS COMMUNITY

**Cross sector collaboration plays a critical role in the region.** Many artists are finding themselves in leadership positions, bringing attention to educational, social justice, veterans and environmental issues. They are integral to the fabric of the community, and existing organizations both recognize and support the role that they have taken on. For example, the Mojave Desert Land Trust, an organization whose mission is to protect the Mojave Desert ecosystem and its scenic and cultural resource values, have worked with individual artists and other agencies to develop a set of artist guidelines known as “Reading The Landscape”. The guidelines provides information to artists on how to work responsibly within the desert landscape, <https://www.mdlt.org/discover-learn/reading-the-landscape/>.

Arts Connection, The Arts Council of San Bernardino County, plays a key role in coordinating efforts between local government and the community. Established in 2014 as a nonprofit organization, Arts Connection was designated by the San Bernardino County Board of Supervisors to act as the state and local partner to the California Arts Council. Over the last four years of grant-funded projects, cultural planning efforts, and annual conferences, Arts Connection has built relationships with a wide array of community partners in various sectors within the Morongo Basin and has acted as a liaison between the County government and the local arts community.

Arts Connection recently worked with the Cultural Planning Group and the San Bernardino County Land Use Services Department to bring together 20 arts and civic leaders in the development of the Morongo Basin Strategic Plan for Culture & Arts (MBSPCA). These leaders represented arts, educational, civic, military, and environmental organizations. Together, they strived to envision a model of equitable arts education and programming accessible to all residents, support structures for artists and organizations to make programming sustainable, while also increasing economic opportunities in the region. Some of the participating agencies included Mojave Desert Land Trust, Joshua Tree National Park, Copper Mountain College, Mil-Tree, Joshua Tree Music Festival, the cities of Twentynine Palms and Yucca Valley, Basinwide Foundation, BoxoPROJECTS, Project Sheba, and Harrison House Music & Arts, Taylor Junction, Theatre 29, and Joshua Tree Living Arts among others.

The Morongo Basin has a long and storied history with artists drawn to the natural beauty and vast expanses of the desert landscape, which offers both the space and quietude for creative reflection and production. The area continues to attract creatives, and has become a destination for cultural producers as well as patrons. Supporting this growing population are a variety of existing organizations that provide infrastructure for the arts community and help to champion local, national and international artists in the region. Below is a partial list highlighting a handful of these organizations:

- **The Morongo Basin Cultural Arts Center (MBCAC)**— Their mission is to inspire and enliven the community through the arts, and to enhance the cultural and economic health of the region. They have a cooperative gallery space, curate four offsite “Art in Public Places” venues, and organize the annual HWY 62 open Studio Art Tours
- **Joshua Tree Living Arts (JTLA)** -- is dedicated to strengthening the community through the arts. They provide arts and music education, sponsor special projects, and partner closely with other nonprofits in the region to build capacity and increase accessibility to arts programming for the community at large. They are also the lead organization in the implementation of the MBSPCA.
- **Yucca Valley Visual and Performing Arts Center** -- a new 15,000+ square foot arts facility and annex of the Hi-Desert Cultural Center which hosts a gallery, dance studio, rehearsal space, offices, and outdoor sites for sculpture and installations.
- **Noah Purifoy Foundation (NPF), Outdoor Desert Art Museum** -- NPF’s mission is to preserve and maintain the 10 acre site Noah Purifoy developed in Joshua Tree, California as a permanent cultural center and sculpture park open to the public; to promote public recognition and appreciation for the values that Noah Purifoy’s work as artist and educator has embodied; and to pursue these goals in a manner that protects Noah Purifoy’s contribution as an artist and educator.
- **High Desert Test Sites** is a non-profit organization that supports intimate and immersive experiences and exchanges between artists, critical thinkers, and general audiences – challenging all to expand their definition of art to take on new areas of relevancy. Programs include guides to the high desert’s cultural test sites, immersive excursions, solo projects, workshops, publications, and residencies.

For a complete list of organizations and other cultural assets please visit, <https://artsconnections.maps.arcgis.com/apps/webappviewer/index.html?id=798b1fd44c2d4270a1f79e750d30efe2>.