



murrieta creek regional trail project

conceptual alignment analysis + recommendations
revised 02.2014

acknowledgements

murrieta creek regional trail project

project partners

The Murrieta Creek Regional Trail project represents a joint effort between the Cities of Lake Elsinore, Murrieta, Temecula, and Wildomar in partnership with the Santa Margarita Group of the San Geronio Chapter of the Sierra Club.



technical assistance

Technical assistance on this project was provided by the National Park Service's Rivers, Trails, and Conservation Assistance (RTCA) program.



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history and background

The cities of Temecula, Murrieta and Lake Elsinore together share a colorful history as iconic Western towns, situated as they are along what was the early settlers' migratory route of the Southern Emigrant Trail. From the start of the war with Mexico, through the Gold Rush years, this trail was the route of choice for a steady stream of immigrants keen to make their fortune in the West.

But with the rise of rail in the 1880s as the preferred form of travel, these southern Californian towns slipped back into their sleepy rhythms for another hundred years, until the arrival of the I-15 in the 1980s. Once again, these three towns found themselves adjacent to an important transportation corridor and the next few decades were marked by rapid growth. The population of Temecula actually quadrupled in size in the twenty years from 1990*. In 2008, the growing town of Wildomar was incorporated midway between Lake Elsinore and Murrieta.

The area's rapid growth presented a challenge for these four cities to maintain a balance in transportation infrastructure that served not just the car, but also more pedestrian and cycle-friendly transportation options. Still they were able, through careful planning and investment, to preserve the essential character of their "Old Towns," which have today become major tourist destinations featuring a wide range of restaurants, businesses and cultural establishments replete with theaters and musical venues.

The cities share not just a common history, but situated as they are along the banks of the Murrieta Creek, also have a physical linkage. Our goal is to take a cue from nature and create a multi-use trail alongside the river that will connect Temecula in the south, to Lake Elsinore in the north, and the cities between. The development of this trail will appeal to many residents, who in addition to the low crime rate and good schools, have been drawn to this area of southwest Riverside County because of the clement weather and opportunities for outdoor living.



The Murrieta Creek corridor provides an readily accessible linkage to the area's natural and cultural resources for local residents.

While city planners are busily retrofitting infrastructure to accommodate local residents' desires for more walkable and bikeable cities, it is a time-consuming and expensive process. A "city-to-city" trail along Murrieta Creek provides a unique opportunity to meet the needs of the community in a way that will not only be a commercial boon to businesses, but will build upon the area's common history and enhance a sense of place for residents and visitors alike.

southern emigrant / butterfield overland trail

Between 1858 and 1861, the Butterfield Overland Stage Company began utilizing the Southern Emigrant Trail in Riverside County as part of its "Ox-Bow Route" to deliver mail, and some passengers, across the country from St. Louis, MO to San Francisco, CA.

* US Census, www.census.gov

While the route was only utilized for a short period of time by the Butterfield Overland Stage Company, its relevance has not been diminished. The National Park Service is in the process of completing a Special Resource Study of the Butterfield Overland Trail to assess its historic significance and feasibility for possible inclusion in the National Historic Trails system.

Locally, this historic trail route closely follows the Murrieta Creek corridor, heading north from Temecula to Murrieta, Wildomar, and Lake Elsinore before eventually continuing on to Corona through Temescal Canyon.

The exact location of the route is difficult to know for certain as little physical evidence remains today of the trail and its associated sites. Regardless, the trail's historic link to the Murrieta Creek corridor presents a tremendous opportunity to preserve, protect, and share the story of the Southern Emigrant / Butterfield Overland Trail through the development of the Murrieta Creek Regional Trail.

With thoughtful signage and creative interpretive programming, the Murrieta Creek Regional Trail can serve a key role in revealing the area's unique and important contributions to the nation's heritage. Indeed, the trail itself can serve potentially as a recreational retracement route of the historic corridor, providing modern users a vicarious experience of the history and conditions prevalent along the trail in the mid- to late- 19th century.

murrieta creek regional trail vision

The vision for the Murrieta Creek Regional Trail is to create a non-motorized, multi-use trail along the river linking the cities of Temecula, Murrieta, Wildomar, and Lake Elsinore that promotes:

Urban Accessibility and Connectivity: using Murrieta Creek as a "stem" and a focal point for connecting cities and other regional trails

Healthy Lifestyles: improving opportunities for physical activity, recreation, and local sites for rejuvenation in the outdoors

Community Economics: a trail system contributing to the financial strength and attractiveness of our communities by enhancing business opportunities, tourism, and property values

Sustainable Development: a trail link offering alternative transportation opportunities, contributing to the health and vitality of the community while connecting the cities and region, thereby enriching lives and communities

Community Partnerships: engaging local planners, non-profits, officials, and residents in developing a plan and establishing ongoing partnerships to help decision makers in the planning, design, development, and construction of a high-quality trail

Awareness and Appreciation for the Outdoors: providing inspiring trail experiences that cultivate an appreciation for nature, natural resources, and cultural heritage. Specific implementation recommendations reflecting these general assumptions have been developed for each city and appear at the end of this document.



Native plants and wildlife still prevail along much of the Murrieta Creek corridor.

planning context

The Santa Margarita River is formed by the joining of two creeks, Temecula Creek and Murrieta Creek, at the head of Temecula Canyon in southwest Riverside County roughly 28 miles northeast from where the river eventually empties into the Pacific Ocean near Camp Pendleton.

Before joining with Temecula Creek and heading to the ocean, Murrieta Creek flows gently from north to south for approximately 13.5 miles along the eastern foothills of the Santa Ana Mountains. Its path flows through, and directly links, the cities of Wildomar, Murrieta and Temecula, supporting a riparian corridor that is in some locations lush with native plants and wildlife while in others managed primarily for flood control purposes.

As with nearly all river basins in southern California, the majority of precipitation occurs during a relatively small portion of the year—traditionally, between November and April—leading to frequent, and sometimes devastating, flood events. Murrieta Creek is no exception. This characteristic flooding cycle has led to flood control measures being implemented along the creek channel from as early as 1939.



Figure 1: Project Regional Map

In 1992, a group of graduate students from the Department of Landscape Architecture at California State Polytechnic University, Pomona (Studio 606) completed a study of management alternatives for the upper Santa Margarita River Watershed. This study emphasized a multi-functional approach to development along Murrieta Creek which integrates recreation and habitat restoration with flood control planning.

Building on these recommendations, in 1996 a second study conducted by Studio 606 graduate students produced a comprehensive report focused solely on the Murrieta Creek corridor titled *Integrated Management Plan for Murrieta Creek*. Specific recommendations were developed as part of this study for how best to integrate flood control, recreation, and habitat and wildlife planning in the development of a Murrieta Creek Greenway concept (see Figure 3). This report served as the basis for local community input on subsequent flood control projects.

A major flood event in 1993 caused significant damages in Murrieta and Temecula, as well as Camp Pendleton. The 1993 flood prompted the authorization of the Army Corps' Feasibility Study for the Murrieta Creek Flood Control / Environmental Restoration and Recreation Project (Murrieta Creek project).

The Final EIS/EIR for the Murrieta Creek project was completed in 2000. The

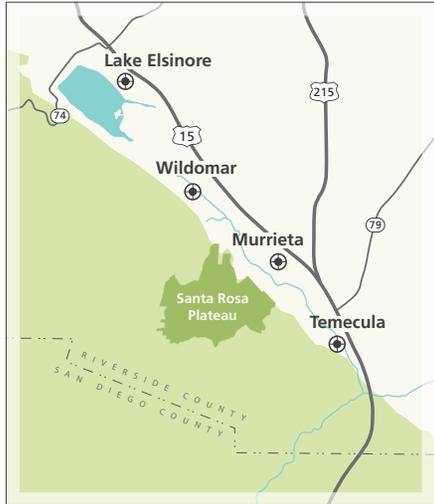


Figure 2: Project Area Map

project proposed a comprehensive three-phased approach to flood control measures, including significant channel improvements through Temecula and much of Murrieta, as well as development of a 270-acre multi-purpose detention basin. Lack of funding resources and competing priorities left this project largely undeveloped since that time (though a small portion of the proposed Phase I channel improvements was completed downstream of Old Town Temecula).

In 2012, a resurgence of interest in the project and local political pressure led to the completion of the Supplemental Environmental Assessment by the Army Corps. This assessment proposed a Modified Phase II Plan for channel improvements that tie into (and largely complete) the Phase I improvements previously constructed. Efforts to move forward with the proposed Murrieta Creek channel improvement plan have rejuvenated interest in planning for and coordinating recreational trail development and enhancement tied to future creek improvement projects.

Presented here is a comprehensive overview of existing opportunities for establishing a regional trail linkage across the entire Murrieta Creek corridor that analyzes potential trail alignment and provides baseline recommendations for next step action items. For the purposes of this project, the Murrieta Creek corridor was divided into 10 sections and examined south to north—following the direction of the Army Corps’ phased development of the Murrieta Creek project.

trail development opportunity

The physical linkage afforded by Murrieta Creek in connecting the region’s major population centers, coupled with the planned development of recreational trails as a component of the creek’s proposed flood control improvement project, represents a significant opportunity to establish a regional multi-use trail alignment across the creek corridor.

Conceptually, such a trail alignment could extend north from Temecula, run through Murrieta and Wildomar, and connect into Lake Elsinore. Although Murrieta Creek itself does not flow into the City of Lake Elsinore, its proximity to the city at its northernmost extent makes inclusion of Lake Elsinore in the overall concept a logical and complementary “anchor point” for such a regional trail linkage.

As conceived, a regional trail across the Murrieta Creek corridor could serve as a main stem from which locally planned and developed city and county trails could connect, thereby expanding the significance and overall impact of each community’s individual recreational resources, both existing and planned (see Figure 4).

And while most of the city and county trail planning efforts to date have identified Murrieta Creek as an opportunity for trail development, no coordinated effort to plan across jurisdictional boundaries looking at shared resources, common linkages and development, and unified “branding” and promotion has been sustained.

In addition, the region’s population has continued to expand over the past several decades. This has placed increased strain on existing natural and recreational resources, as well as planning and development budgets. Coordinated planning and development of a Murrieta Creek Regional Trail across individual city and county boundaries would maximize local investment, increase sustained benefits for all partners, and elevate the profile of individual trail projects seeking funding or currently in development.

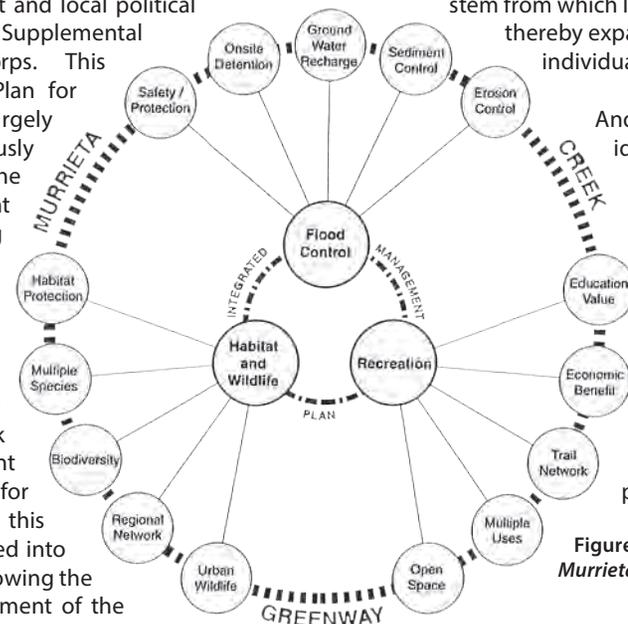


Figure 3: Management Plan Components (Integrated Management Plan for Murrieta Creek, 1992)

murrieta creek trail project

It was with a concept for regional trail development in mind that representatives from the Santa Margarita Group of the San Geronimo Chapter of the Sierra Club first reached out to city parks and planning staff from across the area to learn more about current trail planning efforts. Members of the Santa Margarita Group also assessed potential interest from each city in working on a coordinated effort for regional trail planning and development. From these preliminary discussions, the Santa Margarita Group decided to move forward with an application for technical assistance from the National Park Service’s Rivers, Trails and Conservation Assistance (NPS-RTCA) program.

In October 2012, NPS-RTCA awarded the group a one-year technical assistance grant for work on a Santa Margarita River Watershed-based regional trail planning effort to explore opportunities for cross-jurisdictional trail linkages and coordinated development planning across local agencies.

The project planning area focused on the Murrieta Creek corridor within the Santa Margarita River Watershed as a common link between the cities of Temecula, Murrieta and Wildomar, as well as adjacent lands managed by the County of Riverside and the City of Lake Elsinore.

Through preliminary meetings with a core planning team comprised of city, county and community stakeholders, the following project goals and objectives were established:

Project Goal

Improved coordination and communication between local land managers and area stakeholders facilitating the establishment and development of an interconnected regional trails system, specifically across the Murrieta Creek corridor

Planning Team Objective

Establish a coalition of cooperating partners with a unified vision and commitment to the Murrieta Creek Regional Trail project

Murrieta Creek Trail Map Objective

Develop a trails map which identifies trail planning priorities, connectivity and routing opportunities, and local resources across the Murrieta Creek project area

Partnership Agreement Objective

Develop a general partnership agreement (or similar) to support an ongoing commitment to a coordinated planning and development effort of the Murrieta Creek Regional Trail

Actions / Recommendations Plan Objective

Develop an action plan from project findings and agreements to leverage success in regional trail development and implementation moving forward

Community Engagement Objective

Engage the community in celebrating regional trail planning efforts and raising awareness of, and support for, trail development opportunities through:

- 1) Planned Community Trails Day Events
- 2) Murrieta Creek Trail Logo Development

project planning team

A core group of key city staff and community stakeholders from across the region were assembled to work on the Murrieta Creek Regional Trail project with the assistance of NPS-RTCA staff. The partners who have committed to this coordinated planning and development of a trail alignment along the Murrieta Creek corridor include:

City of Lake Elsinore, Lake, Parks & Recreation
City of Murrieta, Community Services
City of Temecula, Planning Department
City of Wildomar, Community Services
Sierra Club, Santa Margarita Group of the San Geronio Chapter
Wildomar Multi-Use Trails Association



Members of the Murrieta Creek Trail project planning team assessing existing field conditions along the creek corridor.

other partner resource agencies

Beyond the city agencies and community stakeholders who have come together to further the development of the Murrieta Creek Regional Trail, many other partner organizations and agencies are critical to this effort, including but not limited to:

California Department of Fish and Wildlife
Elsinore Murrieta Anza Resource Conservation District
Rancho California Water District
Riverside County Flood Control and Water Conservation District

overview of analysis

The analysis presented in this document was developed based on an extensive inventory of existing conditions; review of city and county trail planning documents, city and county general plans, and current plans and proposals for projects along the creek corridor (e.g. the Murrieta Creek Flood Control / Environmental Restoration and Recreation Project); as well as from input and consultation with representatives and stakeholders from the City of Temecula, City of Murrieta, City of Wildomar, City of Lake Elsinore, and the Sierra Club.

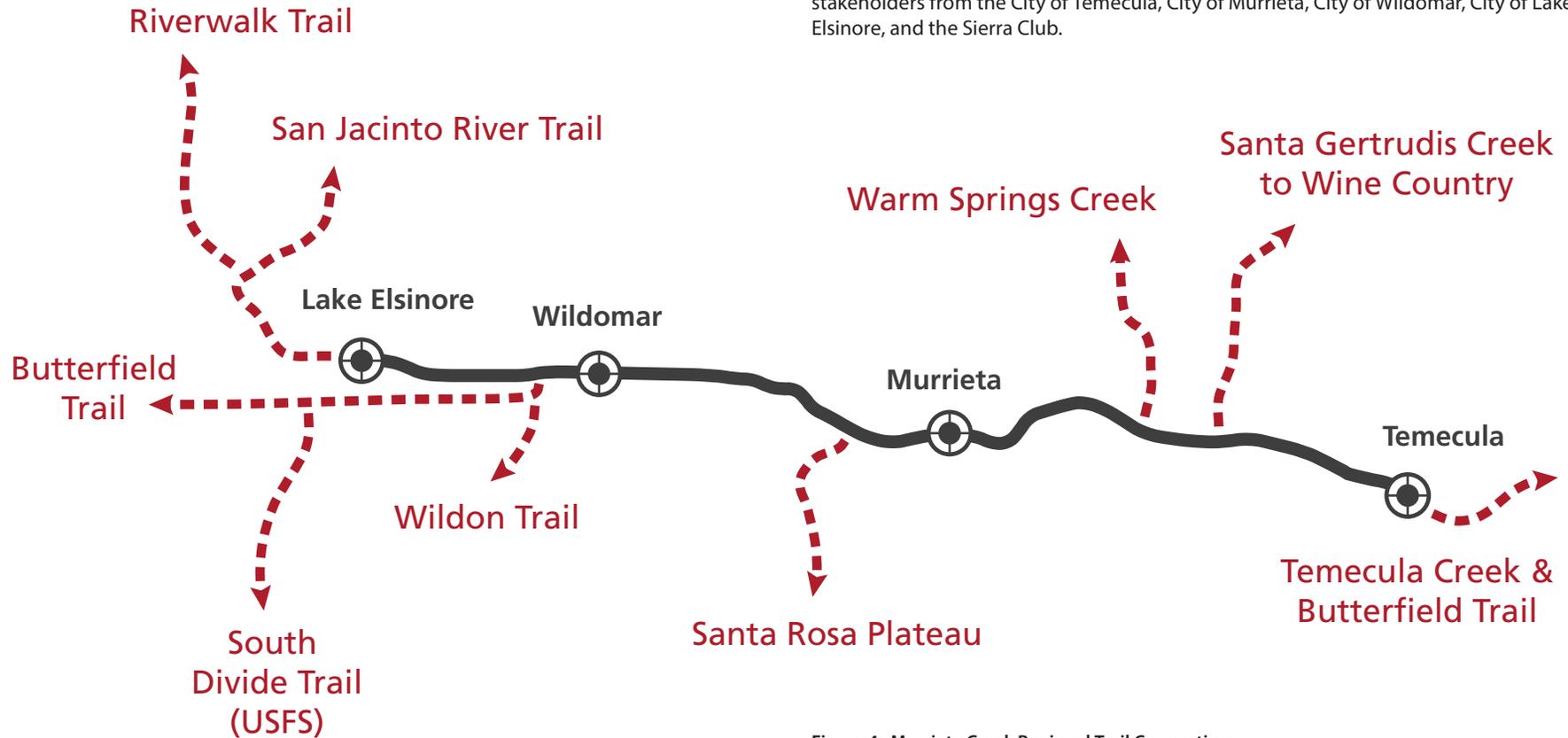


Figure 4: Murrieta Creek Regional Trail Connections

The information depicted on the plan maps represent preliminary concepts developed to help guide the overall planning process and assist in identifying critical recommendations and next step action items only. Exact trail routing and alignment, specific trail features and amenities, and precise locations of trail-related improvement projects will all require further consultation with qualified designers, engineers, landscape architects and community planners in future stages of development.

This report is to be read as a conceptual, working document in which the action items are not yet officially approved and are therefore non-binding. It has also been designed to be read in individual sections without the need to read the entire document, therefore some information and details may repeat.

In addition, the conceptual alignment analysis is based on the following assumptions:

- Phase II, III, and IV of the Army Corps' Murrieta Creek project will be developed and will include a contiguous recreational trail element along each side of the creek's banks
- The cities of Temecula and Murrieta are committed to ensuring that a contiguous and well-planned multi-use recreational trail is included in each phase of the Army Corps' Murrieta Creek project
- The cities of Temecula and Murrieta are committed to working to ensure trail connectivity is not compromised where flood control improvement projects intersect with existing and future-planned roadways and bridges
- The City of Murrieta is committed to developing multi-use trails along the Murrieta Creek corridor that tie into the Army Corps' project and connect into the City of Wildomar's trail network
- The City of Wildomar will continue to work with Riverside County Flood Control to establish formal agreements on the use and maintenance of existing trails along Murrieta Creek within its jurisdiction
- The City of Wildomar is committed to establishing a viable, safe and contiguous trail linkage between the end of the Murrieta Creek corridor (at Wesley St) and leading to the City of Lake Elsinore's Serenity Park (off of Corydon St)
- The City of Lake Elsinore is committed to establishing a trail connection between Serenity Park and its existing Lake Elsinore Levee Trail

- The Sierra Club will continue to garner support from the community and help raise awareness for development of the regional trail, as well as provide targeted support in the completion of recommended tasks
- All project partners and stakeholders will commit to ensuring that future development projects and community planning efforts support the establishment of the Murrieta Creek Regional Trail and do not propose concepts which would inhibit, restrict and/or constrain trail access and circulation
- All project partners and stakeholders will commit to coordinating way-finding, "branding" and promotion of the Murrieta Creek Regional Trail

Specific implementation recommendations reflecting these general assumptions have been developed for each city and appear at the end of this document.

development considerations

trail standards

As a multi-use facility, the Murrieta Creek Regional Trail will attract a variety of users with differing needs and expectations. Design of the trail with regards to width, clearance, surface material, and amenities must consider the needs of the various anticipated trail users in order to maximize both safety and comfort.

While design of the trail is beyond the scope of this planning effort, and will require further consultation with qualified planners, engineers and landscape architects, general trail standards have already been developed by the Riverside County Regional Park and Open Space District which can serve as a guide for city planners and other resource agencies working to implement the trail.

Regional Trail (Urban and Rural)	
Definition	A 10-12' wide stabilized multi-purpose trail. It is designed as an alternate route for pedestrian, jogger, walker, hiker and equestrian use. It is designed to serve as major linkages that interconnect Regional Parks, Open Space Areas, communities and cities.
Location	Usually along the fringe of development projects; roadways (adjacent to or immediately outside of the ultimate road right of way); and may follow streams or watercourses with the approval from the appropriate review agencies.
Typical Easement	20'
Surface	Stabilized Decomposed Granite (DG), 4-6" thick

Trail Development Standards, Riverside County Regional Park and Open Space District (July 2009).

The standards presented here offer a reference for how the development of the Murrieta Creek Regional Trail might generally be considered. Unique on-the-ground conditions and site-specific opportunities and challenges found across the length of the trail corridor, however, will ultimately dictate the particular trail classification and development standards implemented in any given area. In addition, it is recognized that individual design standards from each city and land managing agency may take precedent.

Ultimately, it will be the task of the trail's planners and designers to evaluate the specific opportunities presented within each area to determine a strategy for implementation that meets the needs of all users while maintaining a cohesive and unified trail user experience.

Combination Class I Bikeway / Regional Trail	
Definition	A 10-12' wide paved surface consisting of two striped lanes of equal width AND a 10-12' wide multi-purpose stabilized soft surface trail completely separate from roadways. It is designed as an alternate urban commuter route connecting urban areas and regional park facilities. The paved trail is for exclusive use by bicyclists and pedestrians. The multi-purpose trail is for all users including equestrians.
Location	Usually adjacent to roadways, but located immediately outside the ultimate road right of way.
Typical Easement	30-40'. The trails can be split to place one trail of each type on opposite sides of the roadway with easement width being reduced by approximately half on each side.
Surface	Rubberized Asphalt, 4" thick (paved trail); Stabilized Decomposed Granite (DG), 4-6" thick (soft surface trail)

road crossings

Many sections of the Murrieta Creek Regional Trail will likely require consideration of an at-grade road crossing where bridging or tunneling are not physically and/or economically feasible. Road crossings are inherently site-specific with variations in traffic patterns, volumes, speed, and road conditions all playing a part in the determination of how the crossing should be made.

Generally, safe at-grade crossings will include some type of traffic light or signal that can be activated by trail users. This level of development may not be necessary in all areas, though. Some crossings can be made safe with the addition of a painted crosswalk and/or trail crossing signs placed along the road. Each city will need to determine what level of intervention is necessary for the trail's at-grade crossings on a case-by-case basis working with a traffic or transportation engineer to evaluate existing conditions and characteristics of each site.



Existing conditions vary greatly where at-grade road crossings will be needed along the trail corridor.

signage considerations

A comprehensive suite of signage is one of the hallmarks of a well-established and well-functioning trail system. Such signage plays an key role in ensuring that proper information is provided to users regarding the safe and appropriate use of all facilities.

Planned and implemented correctly, trail signage can help:

- promote usage
- improve trail user circulation

- increase understanding and awareness of surroundings
- facilitate access to resources
- protect sensitive areas
- improve overall trail safety and security

Development of signage for the Murrieta Creek Regional Trail will require a comprehensive planning and design process that is beyond the scope of this project. However, the following guiding principles are provided for consideration:

Standardization: the suite of trail signs should read as a cohesive unit, a consistent visual thread for the trail user, meaning overall design character and aesthetics should relate from sign to sign regardless of the individual type or function of the sign itself

Recognition: trail signs should be easily identifiable, helping to “brand” the trail network they support; this can be a simple matter of displaying trail logos on all signage and/or the development of attractive, interesting and customized graphic design standards

Legibility: in order to achieve their primary purpose of communication, trail signs must provide a high level of “at-a-glance” legibility for users, incorporating fundamental principles of graphic design such as clean layout, recognizable symbols, minimal text, hierarchy of information, legible color schemes, etc.

Clutter and Redundancy: a comprehensive suite of signs should aim to reduce sign clutter and information redundancy by establishing an effective system of information distribution, providing relevant details when needed, and at appropriate locations

Placemaking: trail signs, in all their forms, are the supporting framework from which users draw meaning and understanding of their surroundings; they are the connectors between people and the resource, and should serve to bring the community together at relevant, meaningful locations

trail use guidelines

Due to the nature of multi-use trails, where a single resource is intended to serve a variety of uses, the increased potential for conflict between user groups requires the development and adoption of basic trail user regulations. Such regulations provide guidance for user conduct while on the trail and help ensure overall trail user safety.

EXAMPLE: City of Wildomar Trail Use Guidelines	
1)	Use trails during daylight hours only.
2)	No motorized vehicles are allowed on Trails. Except for Trail Maintenance crews.
3)	NO ALCOHOL ALLOWED ON TRAILS.
4)	NO SMOKING ON TRAILS.
5)	Stay on the Trail at all times.
6)	Dogs must be on a six-foot leash. Use eight foot leash if on horseback. Please remove dog waste from the Trail. Dogs are not allowed off the Trail.
7)	Use the Trails at your own risk. Some parts of the Trails are under construction, so use Trails with caution.
8)	Emergencies Dial 911. Remember the Number of the Trail when entering a Trail head.
9)	Hikers/Bikers must yield to horses at all times. <ul style="list-style-type: none"> Bicycles and other non-motorized wheeled vehicles must yield to pedestrians and horses, unless handicapped. Hikers/Bicyclers must yield to horses crossing a bridge or exiting a tunnel, before you can enter. Horses do not enter the tunnel or cross the bridge while Hikers/Bicyclers are in the tunnel or on the bridge. When overtaking a horse from behind, the cyclist or hiker must ask the horseback rider for permission, before "Passing on their left with caution." Thank them after you pass.
10)	Before you reach active Trail workers STOP, make sure they see or hear you. Wait until they motion you to pass.
11)	Let someone know which off road (Trail number) you are using. Provide a time when you are expected to return. Bring along a cell phone, if you are lost or injured leave your cell phone ON for tracking purposes, this is must in case of an emergency.
12)	Bring water with you at all times. One quart for each hour you are on the Trail.
13)	Open Space Trail use should be a two-person minimum for safety reasons.
14)	Pick up trash, don't leave it behind.
15)	For your safety, keep ALL music players at a low volume and keep an ear open for other Trail users and wild animals.
16)	Know your limits. Five miles out means ten miles total. This can take about two hours on horse or bike, and four or more hours on foot.
17)	Please note: The more we use our Trails, the safer they will become. Crime doesn't like crowds.

Common guidelines for multi-use trails include the following considerations: *

Protocol for yielding right-of-way

- Bicyclists yield to all users, pedestrians yield to equestrians
- Yield to other users when entering and crossing the trail

Protocol for passing other users

- Stay to the right except when passing
- Always look ahead and behind before passing
- Pass slower traffic on their left; yield to oncoming traffic when passing
- Give a clear warning signal before passing—use voice signal, not horn or bell, when passing horses

Courtesy Advisories

- Be courteous to all trail users
- Travel at a reasonable speed in a consistent and predictable manner
- Keep all pets on a short leash
- Respect the rights of adjacent property owners
- Don't be a litterbug, and clean up after your pets
- Move off the trail when stopped to allow others to pass

Prohibitions

- Motorized vehicles are prohibited (except electric wheelchairs)
- Alcoholic beverages and illegal drugs are not permitted on the trail
- Firearms, fireworks, and fires are not permitted on the trail

Safety Advisories

- All trail users should use a light and reflectors after dusk and before dawn (if trail use is permitted at these times)
- Travel no more than two abreast

Operating Hours

- The trail is closed from dusk to dawn

Specific trail use guidelines for the Murrieta Creek Regional Trail will need to be developed as planning efforts continue. Ideally, a uniform set of guidelines will be developed that reflects the individual needs and considerations of each city jurisdiction as well as all other responsible land managing agencies across the trail corridor.

* Adapted from the Rails-to-Trails Conservancy's *Trails for the Twenty-First Century* manual (2001).

future development

Much of the land surrounding the Murrieta Creek Regional Trail corridor, particularly north of the City of Temecula, has yet to be developed. This represents a valuable opportunity to ensure that future development protects and enhances the natural environment in addition to providing flood control measures and recreational amenities. The multi-benefits of such integrated planning helps to create a unique sense of place within the community, greatly increasing opportunities to:

- establish community access to the creek
- protect and enhance native riparian habitat
- improve water quality and conservation efforts
- support wildlife connectivity
- improve public health
- increase property values
- attract businesses
- promote tourism

Concepts for urban creek development were detailed in both the 1992 Studio 606 thesis project entitled *Management Alternatives for the Upper Santa Margarita River Watershed* and the 1996 Studio 606 thesis project entitled *Integrated Management Plan for Murrieta Creek*. Both studies were prepared by graduate students from the Department of Landscape Architecture at California State Polytechnic University, Pomona.

Presented here are a few examples of how future development along the creek frontage might be considered.

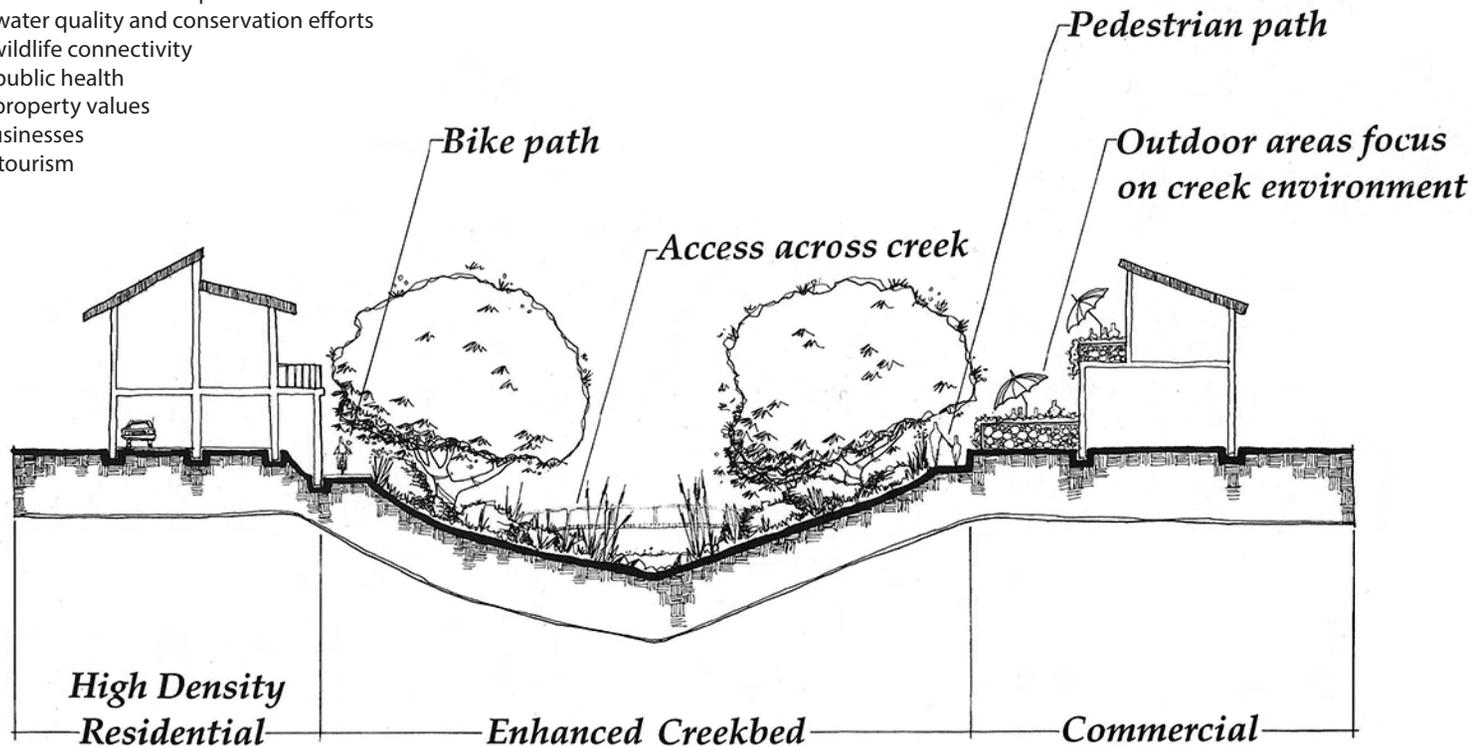


Figure 5: Urban Creek Development Section (*Management Alternatives for the Upper Santa Margarita River Watershed*, 1992)

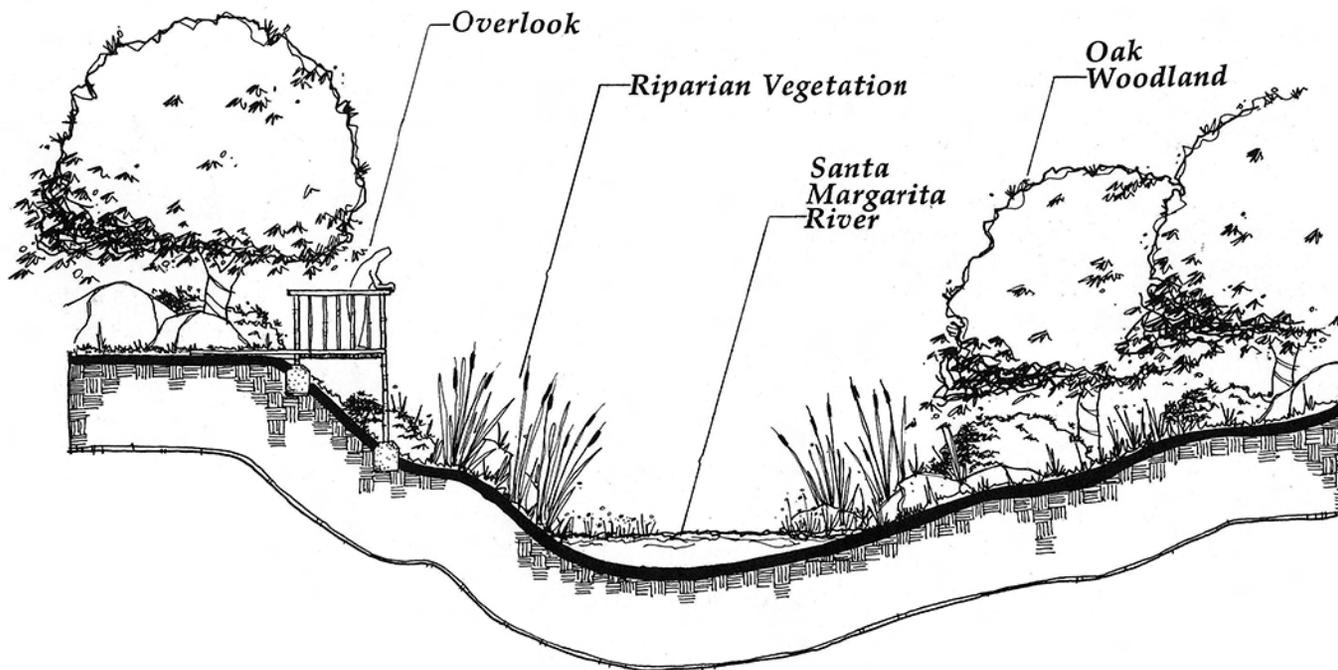


Figure 6: River Trail Overlook Section (*Management Alternatives for the Upper Santa Margarita River Watershed*, 1992)

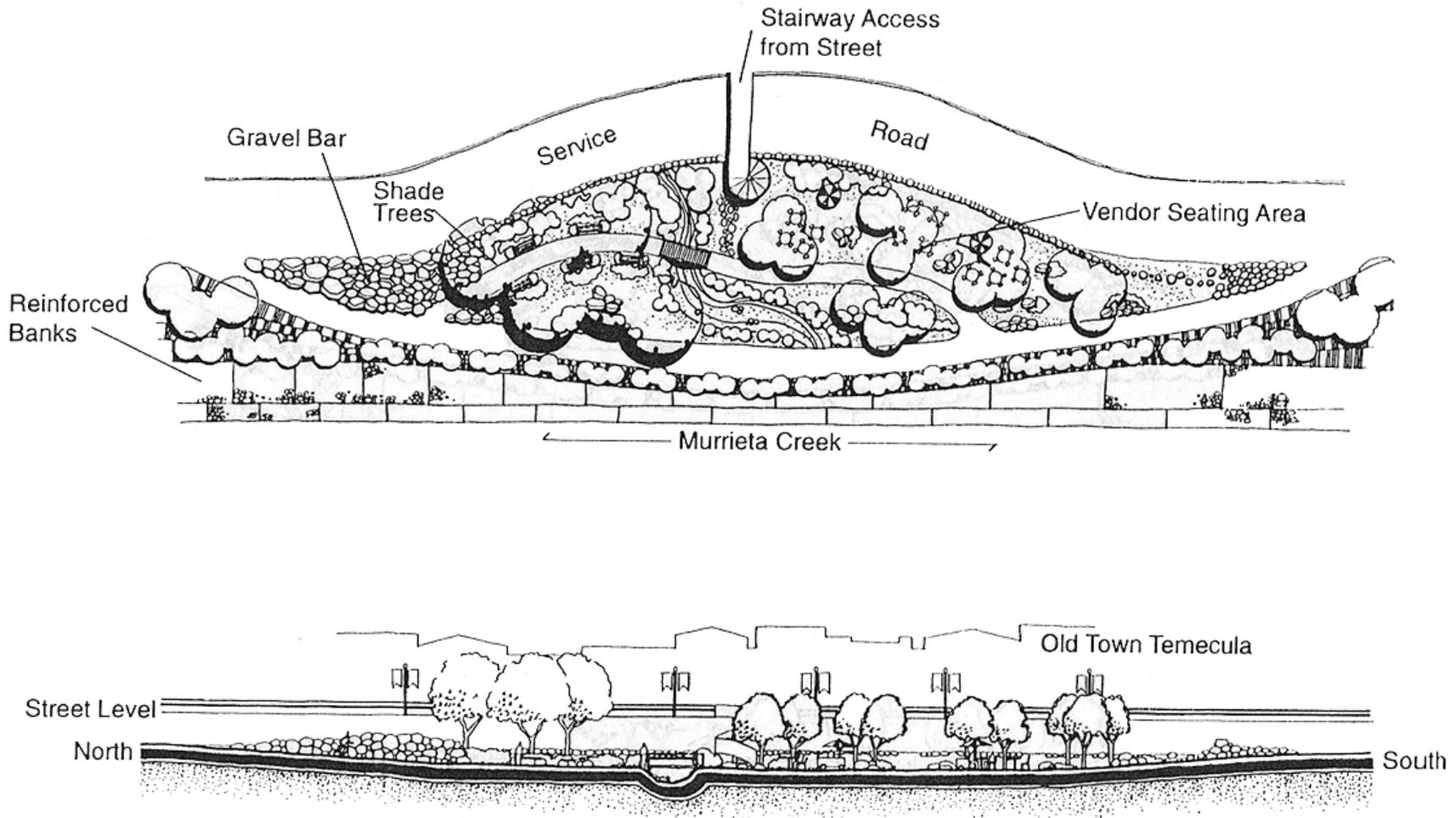


Figure 7: Pocket Park Plan and Section (*Integrated Management Plan for Murrieta Creek, 1992*)

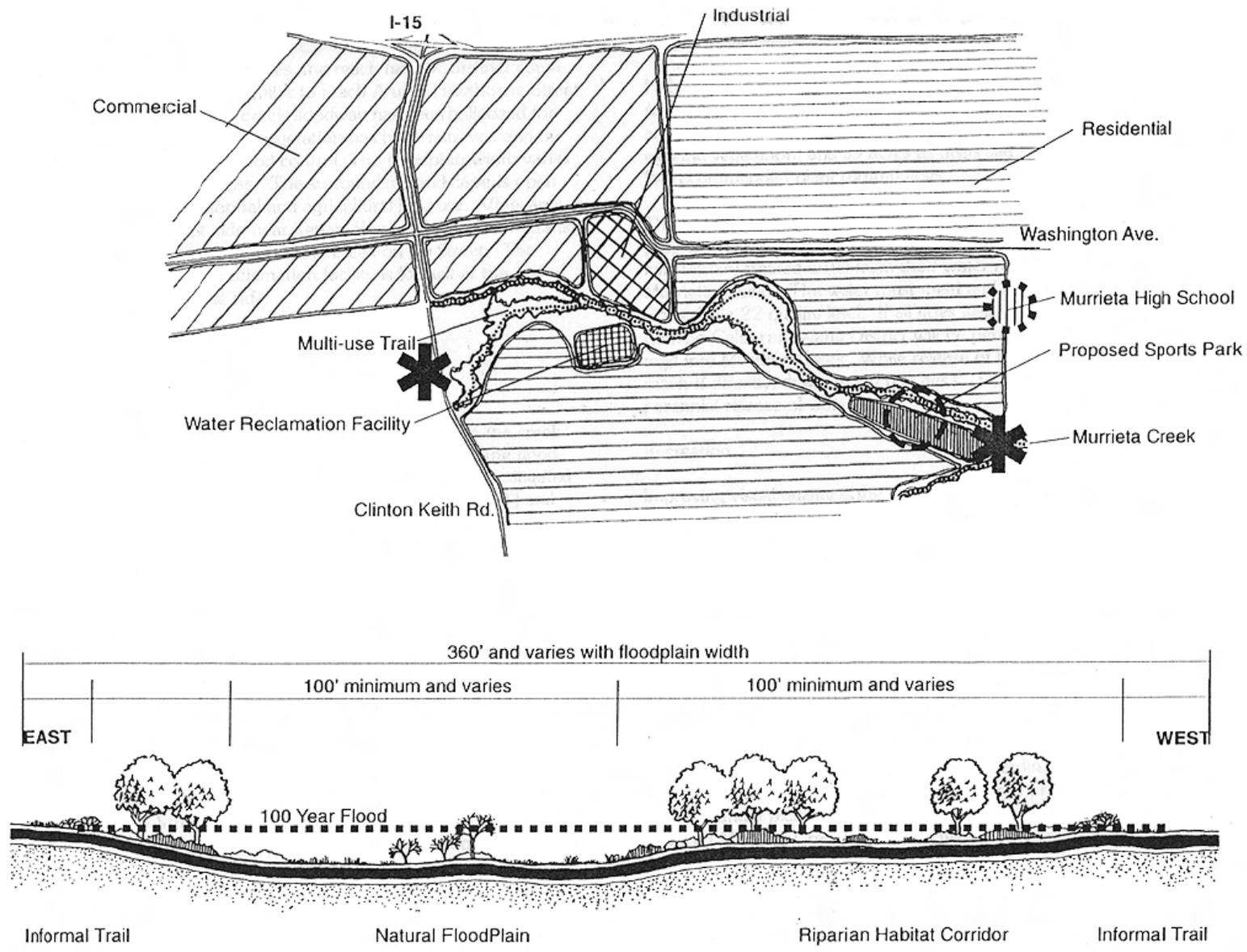


Figure 8: Typical Floodplain Section (*Integrated Management Plan for Murrieta Creek, 1992*)

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Lake Elsinore

Riverside County

Wildomar

Murrieta

lake elsinore
serenity park to lake
elsinore levee

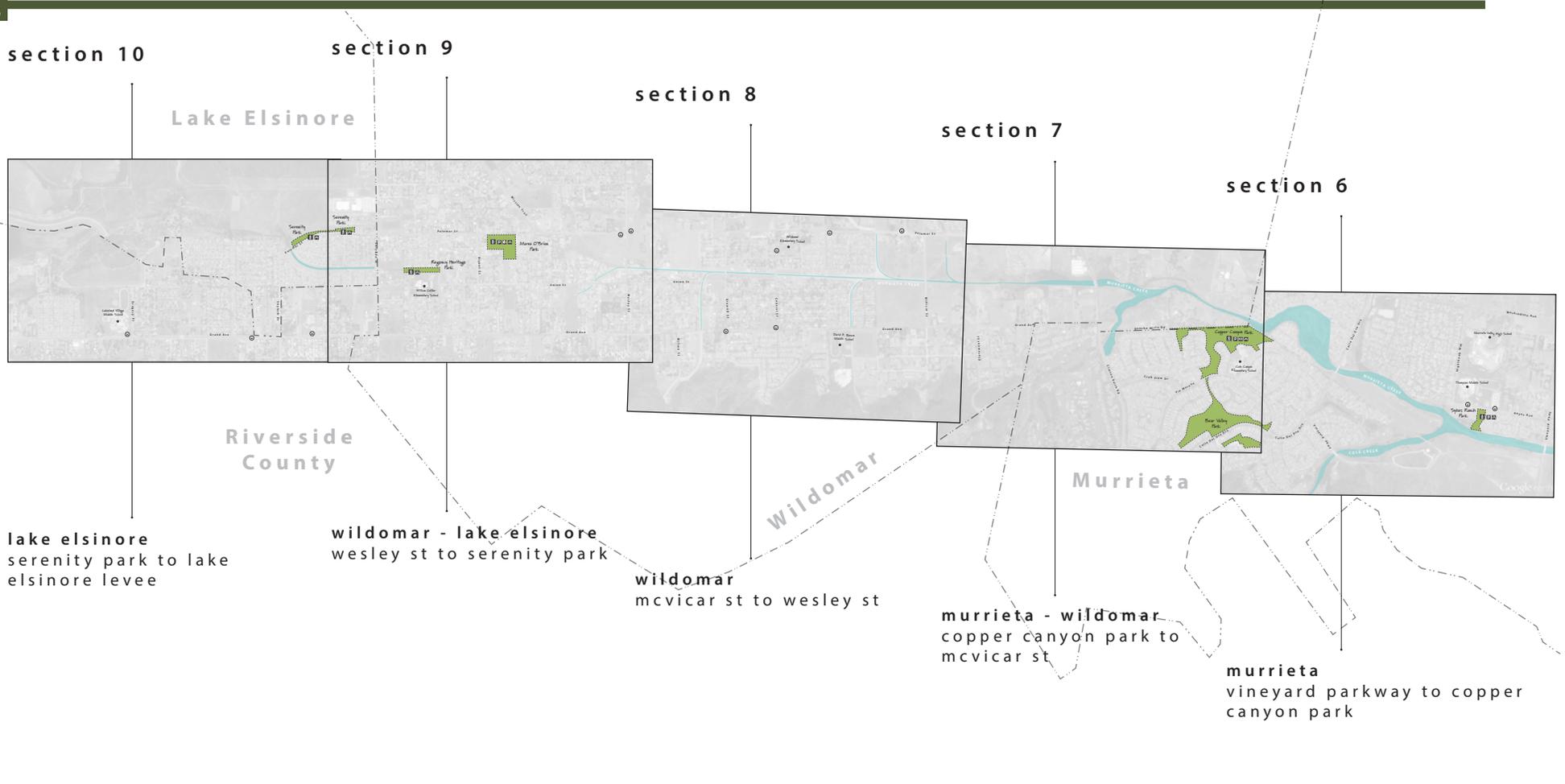
wildomar - lake elsinore
wesley st to serenity park

wildomar
mcvicar st to wesley st

murrieta - wildomar
copper canyon park to
mcvicar st

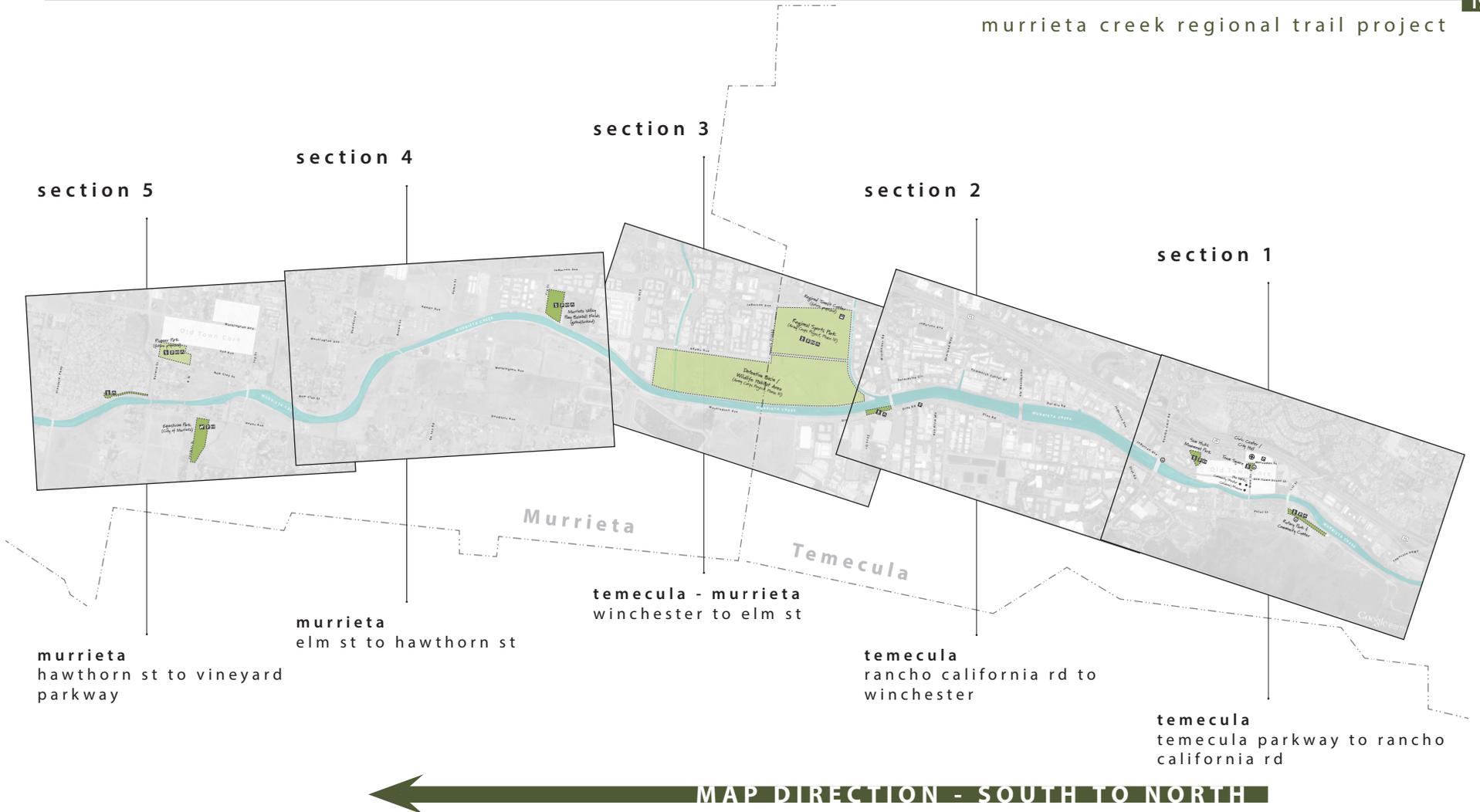
murrieta
vineyard parkway to copper
canyon park

← MAP DIRECTION - SOUTH TO NORTH



section key map

murrieta creek regional trail project



temecula trail sections:

- section 1: temecula parkway to rancho california road
- section 2: rancho california road to winchester road
- section 3: winchester road to elm street

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murrieta trail sections:

- section 3: winchester road to elm street
- section 4: elm street to hawthorn street
- section 5: hawthorn street to vineyard parkway
- section 6: vineyard parkway to copper canyon park
- section 7: copper canyon park to mcvicar street

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wildomar trail sections:

- section 7: copper canyon park to mcvicar street
- section 8: mcvicar street to wesley street
- section 9: wesley street to serenity park

pages 46-57

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lake elsinore trail sections:

- section 9: wesley street to serenity park
- section 10: serenity park to lake elsinore levee trail

pages 54-61

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section 1: temecula parkway to rancho california road

location

Trail Section 1 is located on the east and west sides of Murrieta Creek in the City of Temecula, between Temecula Parkway and Rancho California Road. The trail is part of an **22** Army Corps of Engineers (ACOE) project to widen the channel to prevent future flooding, as occurred in 1993.

length

This segment of trail is approximately 1.3 miles in length on each side of the creek.

existing trail surface

There are short sections of existing trail on both sides of the creek, south of 1st Street. The east side is paved, while the west side consists of decomposed granite (DG). There is also a section of trail consisting of DG on the east side of Murrieta Creek between the creek on Old Town Front Street just south of Rancho California Road. This trail provides access for bicyclists and pedestrians from Rancho California Road to the arch signifying the entrance to Old Town. This trail will remain and run parallel to the future trail to be constructed on both sides of Murrieta Creek.

proposed surface and width

The future trail will be paved on the east side and DG on the west side. Both sides will double as a multi-use trail and Riverside County Flood Control District (RCFCD) maintenance road. It is anticipated the roads will be at least 15' wide on both sides.

points of interest

Old Town Temecula is a tourist destination containing the Civic Center and Town Square, Community Theater, Children's Museum, Rotary Park and Community Center, Sam Hicks Monument and Park, and the Temecula Valley Museum. Old Town Temecula is an up and coming urban downtown, featuring a vibrant streetscape with buildings reminiscent of the 1880's through 1940's time period. The historical look of Old Town is balanced with modernized amenities and services including high density residential, restaurants, boutiques, art galleries, fruit markets, offices, and entertainment-oriented uses. Special events include a Bluegrass Festival, Rod Run, Sidewalk Art Festival, Western Days, and a Saturday Farmer's Market.

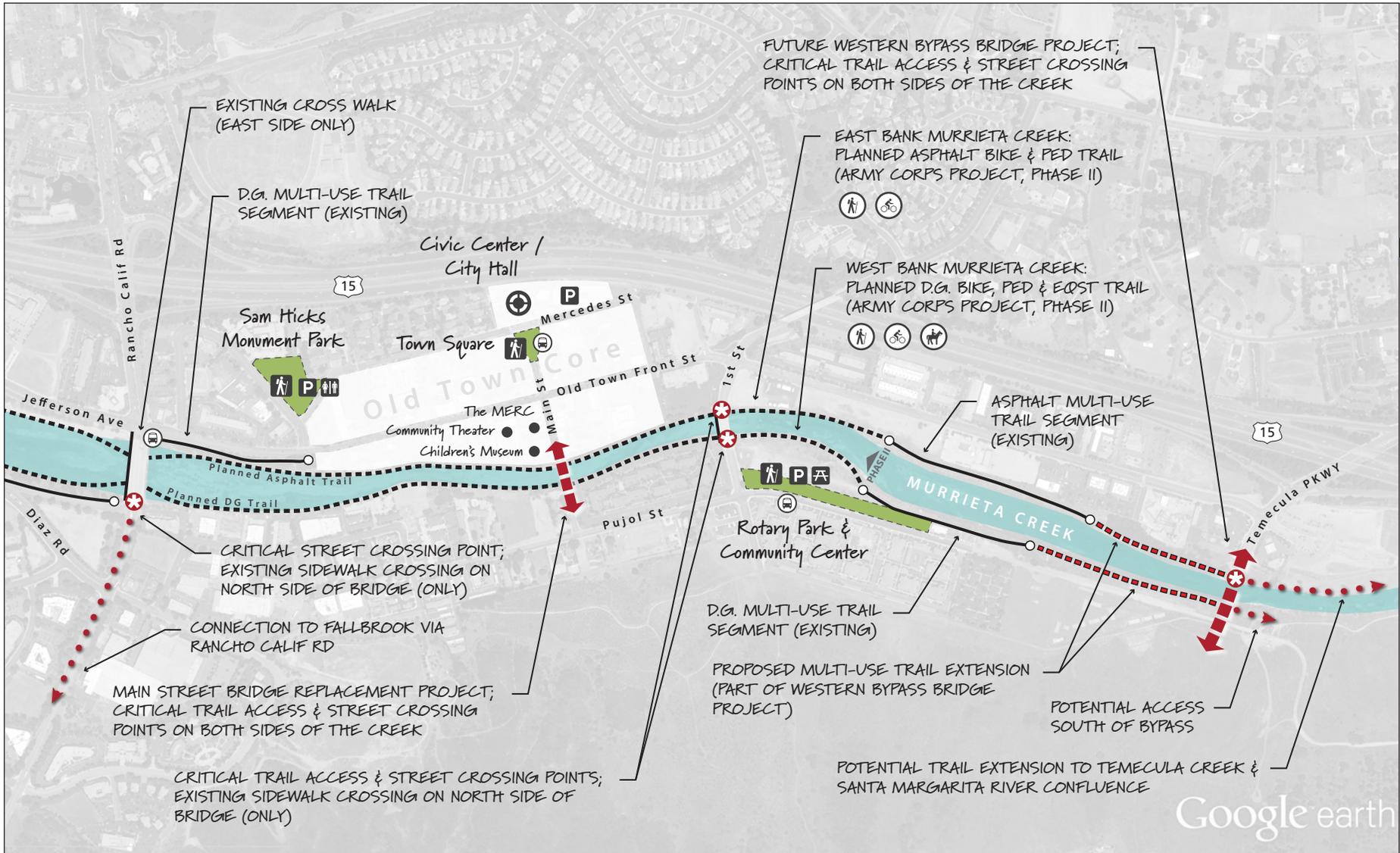
implementation

Construction is dependent on RCFCD and ACOE funding. Riverside County Flood Control District plans were routed to the City of Temecula for review in Fall of 2012. The City's major comments were associated with limited clearance at bridge under-crossings, sidewalk connectivity, and safety associated with mid-block crossings at the at-grade intersections. Other comments were on landscape and irrigation design and maintenance. The subject bridge crossings include First Street, Main Street, and the south side of Rancho California Road.

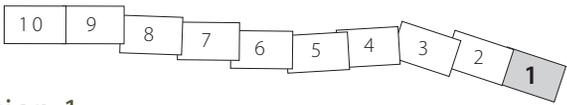
Special consideration must also be given to the southerly extension of the trail on both the east and west sides, and to plan for a trail undercrossing of the western bypass at Temecula Parkway.



Isolated segment of existing DG trail developed along the western levee of Murrieta Creek looking north, lacking formal access points and signage.



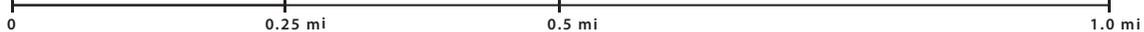
murrieta creek trail conceptual alignment



section 1: temecula parkway to rancho california road

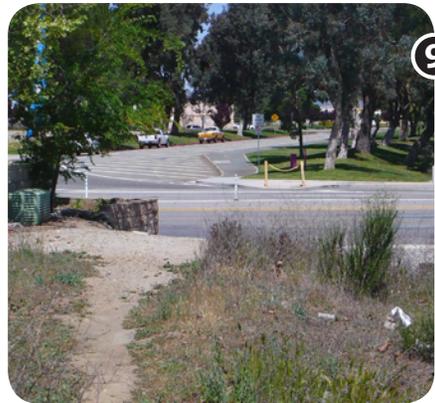
LEGEND

- Trailhead
- Staging Area
- Parking
- Restrooms
- Picnic Area
- Transit Stop
- Key Area
- Existing Park Area
- Planned Park Area
- Existing Trail
- Army Corps Levee Trail (current)
- Army Corps Levee Trail (future)
- City Planned / Proposed Trail
- Potential Trail (conceptual)
- Un-Improved Trail Corridor



NOTE: Map illustrations and trail alignments are conceptual for illustrative/planning purposes only





1. Isolated segment of existing DG trail developed along the western levee of Murrieta Creek looking north, lacking formal access points and signage.
2. Beginning of asphalt surface trail developed along the eastern levee of Murrieta Creek, looking north.
3. Northern end of DG trail looking towards 1st Street bridge.
4. View of the Murrieta Creek corridor looking south beyond future Temecula Parkway bridge.
5. Coastal sage scrub lines the existing trail corridor.

6. Dead end at southern edge of DG trail.
7. 1st Street bridge currently lacks sufficient clearance to establish a trail underpass route.
8. Facilities at Rotary Park, including parking, playgrounds and picnic areas, provide an opportunity to establish a formal trail entry point for users (trailhead).
9. Rancho California Rd lacks safe at-grade crossing for potential trail users along the western bank of Murrieta Creek.
10. Rancho California bridge creates a significant barrier to unimpeded circulation of the trail.



section 1 photo inventory map

section 2: rancho california road to winchester road

location

Trail Section 2 is located on the east and west sides of Murrieta Creek in the City of Temecula between Rancho California and Winchester Roads. Similar to all three trail segments in Temecula, the trail is part of an Army Corps of Engineers (ACOE) project to widen the channel to prevent future flooding, as occurred in 1993.

26

length

This segment of trail is approximately 1.5 miles in length on each side of the creek.

existing trail surface

There is an existing asphalt trail on the west side of Murrieta Creek that connects Rancho California to Winchester Road. This trail will remain and run parallel to the future trail to be constructed on both sides of Murrieta Creek.

proposed surface and width

The future trail will be paved on the east side and decomposed granite (DG) on the west side. Both sides will double as a multi-use trail and Riverside County Flood Control District (RCFCD) maintenance road. It is anticipated these roads will be at least 15' wide.

points of interest

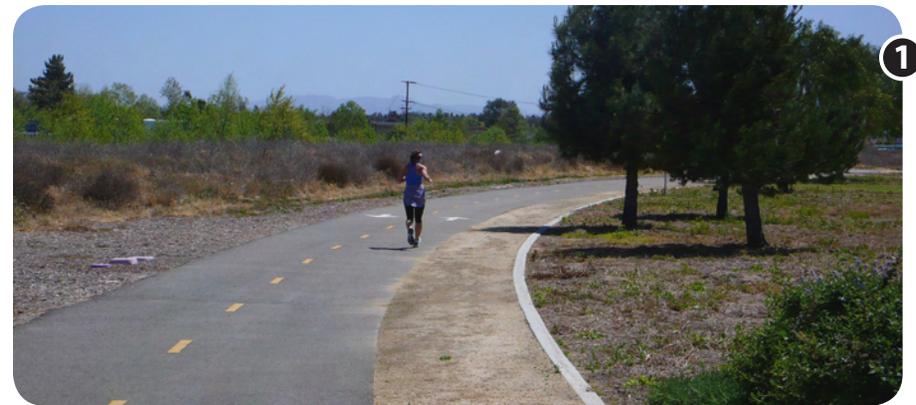
The City is currently working on the Jefferson Avenue Specific Plan, which is a corridor plan for much of City's first commercial development. Jefferson Avenue was once Hwy 395 and was the primary vehicular thoroughfare prior to the construction of Interstate 15. The City incorporated in 1989, and since this time (and prior), this area developed with a mix of light industrial, office, and retail uses. The businesses within this area include both local and corporate owners and tenants that provide needed jobs, services, and products that support the City's and Southwest Riverside County's quality of life.

The City of Temecula understands the importance of preserving Jefferson Avenue's assets and economic vitality. To that end, the City is engaged in a community-based planning process to develop a vision and plan for the area's long term future that promotes livability, mobility, sustainability, and prosperity. Trails along Murrieta Creek factor prominently into the future plans for Jefferson Avenue and the surrounding area.

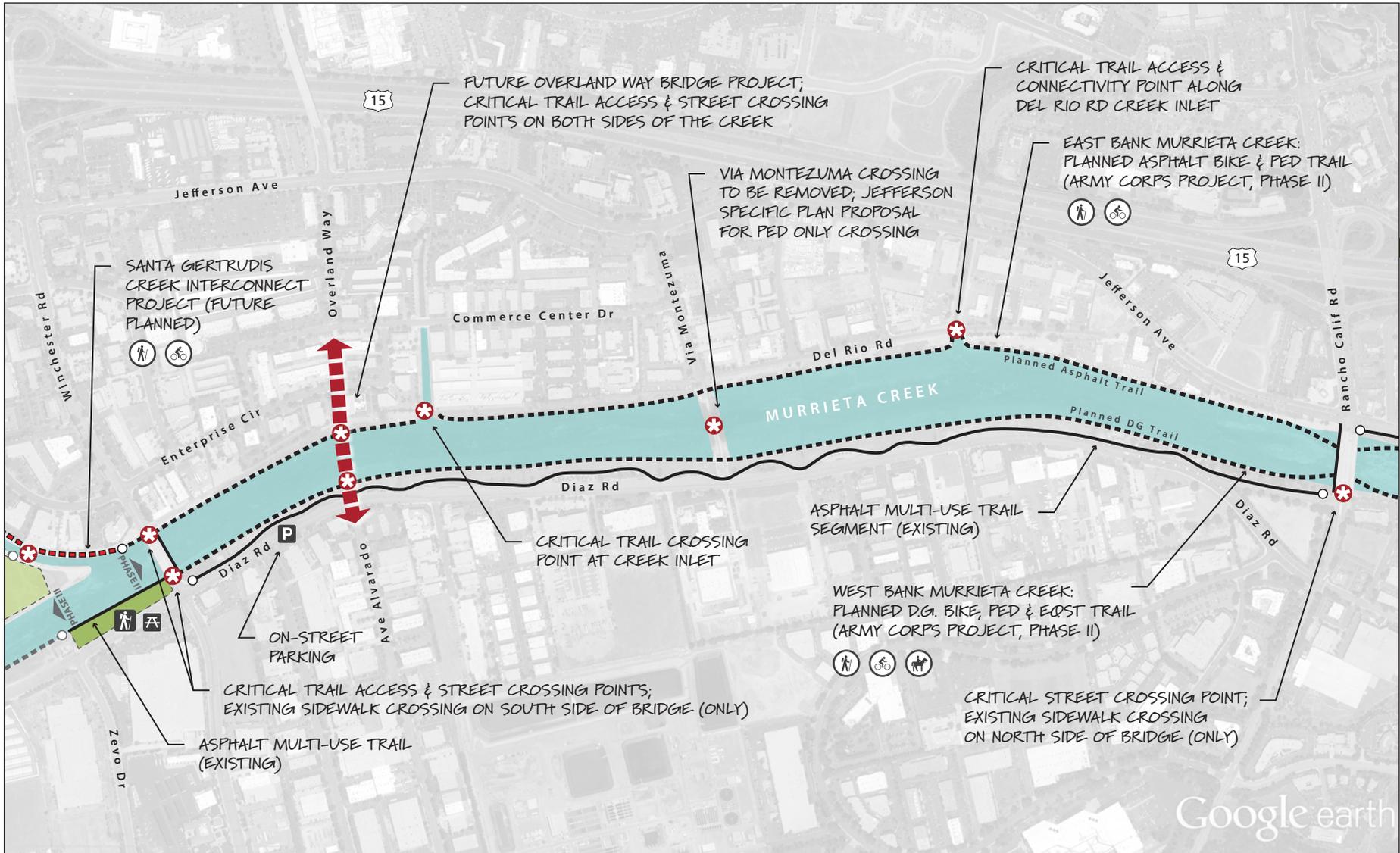
implementation

Similar to Section 1, construction is dependent on RCFCD and ACOE funding. Riverside County Flood Control District plans were routed to the City of Temecula for review in Fall of 2012. The City's major comments were associated with limited clearance at bridge under-crossings, sidewalk connectivity, and safety associated with mid-block crossings at the at-grade intersections at the north side of Rancho California Road, Del Rio Road Creek Inlet, Via Montezuma Low-Flow Crossing, the creek inlet on the east side of the creek south of Overland Way, the future Overland Way bridge project, and Winchester Road crossing.

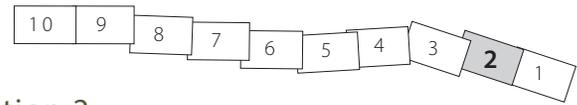
Special consideration must also be given to the northerly extension of the trail on both the east and west sides, and on the south side of Santa Gertrudis Creek, which flows into Murrieta Creek just north of Winchester Road. The City of Temecula has a future year Capital Improvements Project (CIP) for the Santa Gertrudis Creek Multi-Use Trail Interconnect. There is an existing trail on the south side of Santa Gertrudis Creek east of the subject area that ends at Ynez Road. This CIP project will connect to the existing asphalt trail along Diaz Road, and to the future Murrieta Creek Regional Trail. This interconnect will provide a critical Class I trail linkage in the City, allowing residents to travel north-south along Murrieta Creek on the west side of the City and east-west along Santa Gertrudis Creek on the north side of the City. This trail will connect major residential and population centers in the City with Old Town and the Jefferson Avenue commercial area.



Existing asphalt surface multi-use trail running adjacent Diaz Rd between Winchester Rd and Rancho California Rd will offer a parallel route to the DG surface levee trail proposed as part of the Army Corps' Murrieta Creek Phase II project.



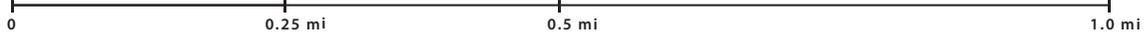
murrieta creek trail conceptual alignment



section 2:
rancho california road to winchester road

LEGEND

- | | | |
|--------------|--------------------|----------------------------------|
| Trailhead | Transit Stop | Army Corps Levee Trail (current) |
| Staging Area | Key Area | Army Corps Levee Trail (future) |
| Parking | Existing Park Area | City Planned / Proposed Trail |
| Restrooms | Planned Park Area | Potential Trail (conceptual) |
| Picnic Area | Existing Trail | Un-Improved Trail Corridor |

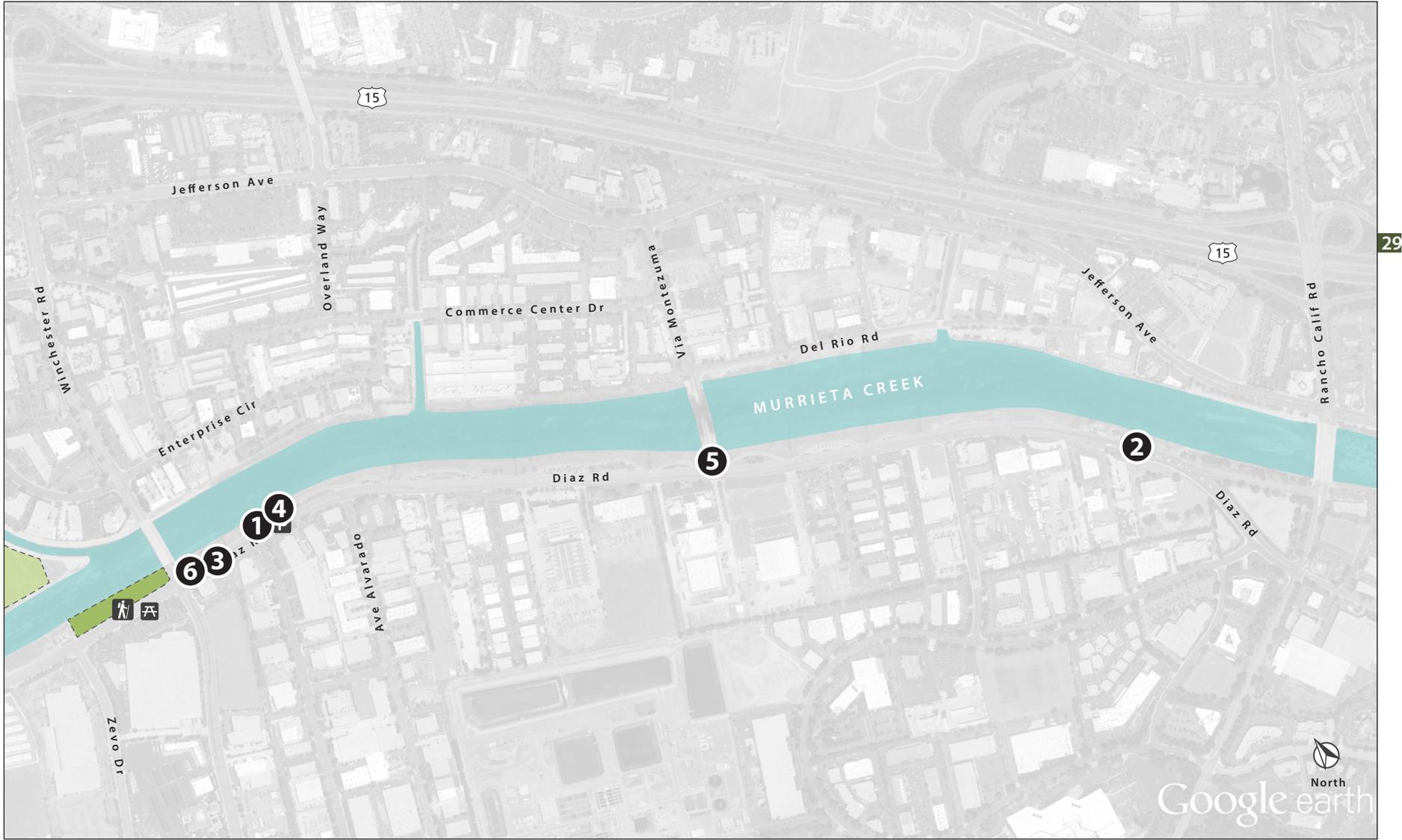


NOTE: Map illustrations and trail alignments are conceptual for illustrative/planning purposes only



1. Existing asphalt surface multi-use trail running adjacent Diaz Rd between Winchester Rd and Rancho California Rd will offer a parallel route to the DG surface levee trail proposed as part of the Army Corps' Murrieta Creek Phase II project.
2. View of the meandering trail look north near its intersection at Rancho California Rd; street parking is not available near this portion of the trail, making access an issue.
3. Near where the trail intersects with Winchester Rd street parking is available, though traffic conditions are generally busy.
4. Existing interpretive displays provide information on local habitat, water conservation efforts, and other topics to trail users.

5. View looking east across Murrieta Creek at a flooded section of Via Montezuma, crossing to be removed.
6. Winchester Rd bridge currently provides a pedestrian path on its southern side only, limiting circulation and access for future trail users at this point if a adequate trail underpass is not developed as part of the Army Corps' project.



section 2 photo inventory map

section 3: winchester road to elm street

location

Trail Section 3 is located on the east and west sides of Murrieta Creek in the City of Temecula between Winchester Road and the City of Temecula's northern boundary with the City of Murrieta (at Cherry Street). Similar to all three trail segments in Temecula, the trail is part of an Army Corps of Engineers (ACOE) project to widen the channel to prevent future flooding, as occurred in 1993.

30

length

This segment of trail is approximately 0.7 miles in length on each side of the creek.

existing trail surface

There is a short segment of existing asphalt trail on the west side of Murrieta Creek just north of Winchester Road. This trail will be extended as part of the proposed future trail to be constructed on the west side of Murrieta Creek in Phase III of the ACOE's project plans. On the east side of Murrieta Creek, the trail will run through a proposed detention basin and regional sports park on Riverside County Flood Control District (RCFCD) property.

proposed surface and width

The future trail surface is undetermined at this time, but both sides will double as a multi-use trail and RCFCD maintenance road. It is anticipated the roads will be at least 15' wide on both sides.

points of interest

The east side of this segment area consists of property owned by RCFCD. Plans for this area include a detention basin/wildlife habitat area, and a regional sports park to include baseball diamonds and soccer fields. Property along Jefferson Avenue has also been identified as a potential site for a Regional Transit Center. Sports fields and a transit center in this location would complement a future regional trail network along Murrieta Creek connecting the Cities of Temecula, Murrieta, Wildomar, and Lake Elsinore.



Existing DG surface multi-use trail adjacent the river provides a connector between Phase II and Phase III of the Army Corps' proposed Murrieta Creek project.

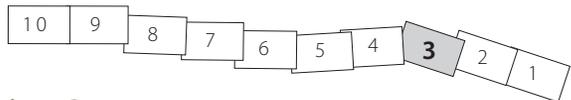
implementation

Similar to Sections 1 and 2, construction is dependent on RCFCD and ACOE funding. Riverside County Flood Control District plans were routed to the City of Temecula for review in Fall of 2012. The City's major comments were associated with limited clearance at bridge under-crossings, sidewalk connectivity, and safety associated with mid-block crossings at the at-grade intersections at the north side of Winchester Road, across Santa Gertrudis Creek, and at the creek inlet just south of Elm Street.

Special consideration must be given to the Santa Gertrudis Creek Multi-Use Trail Interconnect. There is an existing trail on the south side of Santa Gertrudis Creek east of the subject area that ends at Ynez Road. This Capital Improvements Project (CIP) will connect to the existing asphalt trail along Diaz Road, and to the future Murrieta Creek Regional Trail. This interconnect will provide a critical Class I trail linkage in the City, allowing residents to travel north-south along Murrieta Creek on the west side of the City and east-west along Santa Gertrudis Creek on the north side of the City. At some point, the trail needs to transition from the south side of Santa Gertrudis Creek to the north side, either via a future bridge project or at the Winchester Road/Jefferson Avenue signalized intersection.



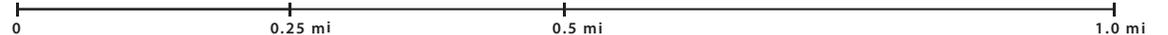
murrieta creek trail conceptual alignment



section 3:
winchester road to elm street

LEGEND

- | | | |
|--------------|--------------------|----------------------------------|
| Trailhead | Transit Stop | Army Corps Levee Trail (current) |
| Staging Area | Key Area | Army Corps Levee Trail (future) |
| Parking | Existing Park Area | City Planned / Proposed Trail |
| Restrooms | Planned Park Area | Potential Trail (conceptual) |
| Picnic Area | Existing Trail | Un-Improved Trail Corridor |



NOTE: Map illustrations and trail alignments are conceptual for illustrative/planning purposes only



1. Existing DG surface multi-use trail adjacent the river provides a connector between Phase II and Phase III of the Army Corps' proposed Murrieta Creek project.
2. The DG trail runs along the backside of an existing park space located at the corner of Diaz Rd and Winchester Rd.
3. The existing park space offers some amenities such as seating and a shade structure which could be developed into a potential trailhead area for users, though parking is limited to the street.
4. View looking north at the end of the developed segment of trail.
5. View of the confluence area of Murrieta Creek and Santa Gertrudis Creek where a proposed detention basin and wildlife habitat area are to be developed as part of Phase III of the Army Corps' Murrieta Creek project.
6. View looking south near Cherry St where a proposed regional park is to be developed as part of Phase III of the Army Corps' Murrieta Creek project.



section 3 photo inventory map

section 4: elm street to hawthorn street

location

Trail Section 4 is located in the City of Murrieta and runs along the east and west sides of Murrieta Creek from Elm Street to Hawthorn Street. The trail is part of a future-planned Army Corps of Engineers (ACOE) project to extend flood protection measures north from the City of Temecula up to Vineyard Parkway in the City of Murrieta.

34

length

This segment of the trail is approximately 2.0 miles in length on each side of the creek.

existing trail surface

There are no developed trails in this section of the creek corridor, though informal trails have been established by users across much of the area.

proposed surface and width

The proposed recreational multi-use trail will consist of a decomposed granite (DG) surface and be at least 15' wide when developed.

points of interest

Much of the area surrounding the creek corridor in this section remains undeveloped. Some residential and light industrial areas exist but not on the scale as in most other sections of the trail corridor, providing users an open area with excellent views of the surrounding mountains. This section also includes the Murrieta Valley Pony Baseball Fields, an important community recreational amenity.

Under construction is the Guava Street Bridge project which, when complete, will provide access across the creek corridor and allow for the removal of the Washington Avenue crossing. The City is working to ensure that trail user access and connectivity is not negatively impacted by these projects.

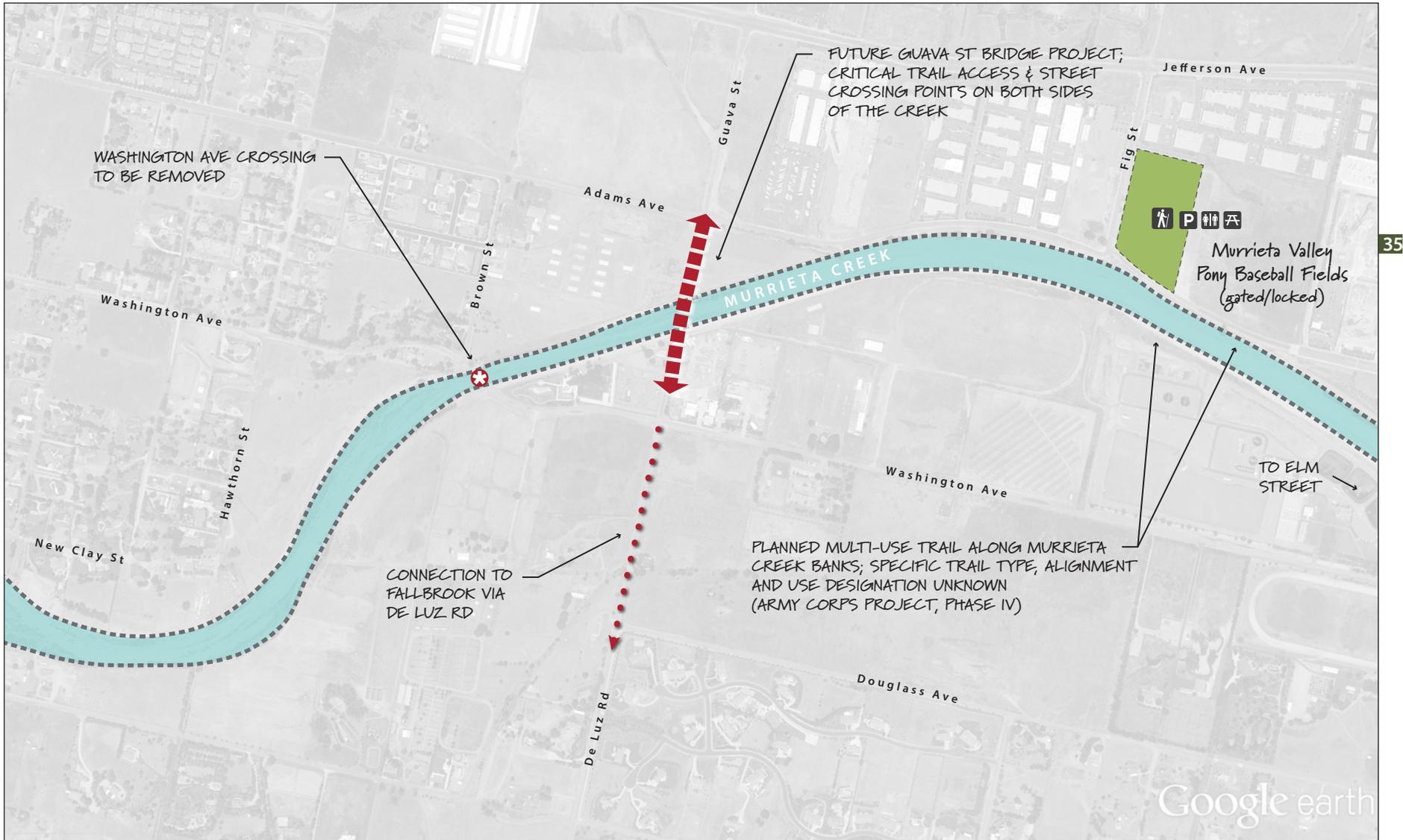
Section 4 offers a unique opportunity for the development of interpretive exhibits and programming related to the Southern Emigrant / Butterfield Overland Trail, where the area's rural character can help provide visitor's a vicarious experience of the landscape as it appeared in the mid- to late- 19th century.

implementation

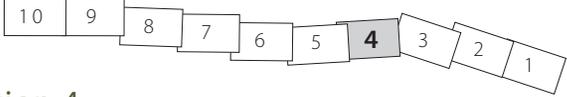
The trail, as it passes through Murrieta, is already designated as a multi-use trail in the City's Trails Master Plan and many parts are currently open to the public. The completion of the trail in this section is dependant on the ACOE project that runs from Cherry St. north to Vineyard Parkway. This portion of the ACOE plan represents the final phase of the project and is not currently funded. The City will need to obtain necessary use agreements from the Riverside County Flood Control District (RCFCD) prior to allowing recreational access in this section of the creek corridor.



View of the Washington Ave bridge across Murrieta Creek at Brown St (to be removed once Guava St bridge is complete).



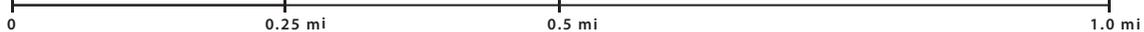
murrieta creek trail conceptual alignment



section 4:
elm street to hawthorn street

LEGEND

- Trailhead
- Staging Area
- Parking
- Restrooms
- Picnic Area
- Transit Stop
- Key Area
- Existing Park Area
- Planned Park Area
- Existing Trail
- Army Corps Levee Trail (current)
- Army Corps Levee Trail (future)
- City Planned / Proposed Trail
- Potential Trail (conceptual)
- Un-Improved Trail Corridor



NOTE: Map illustrations and trail alignments are conceptual for illustrative/planning purposes only



2

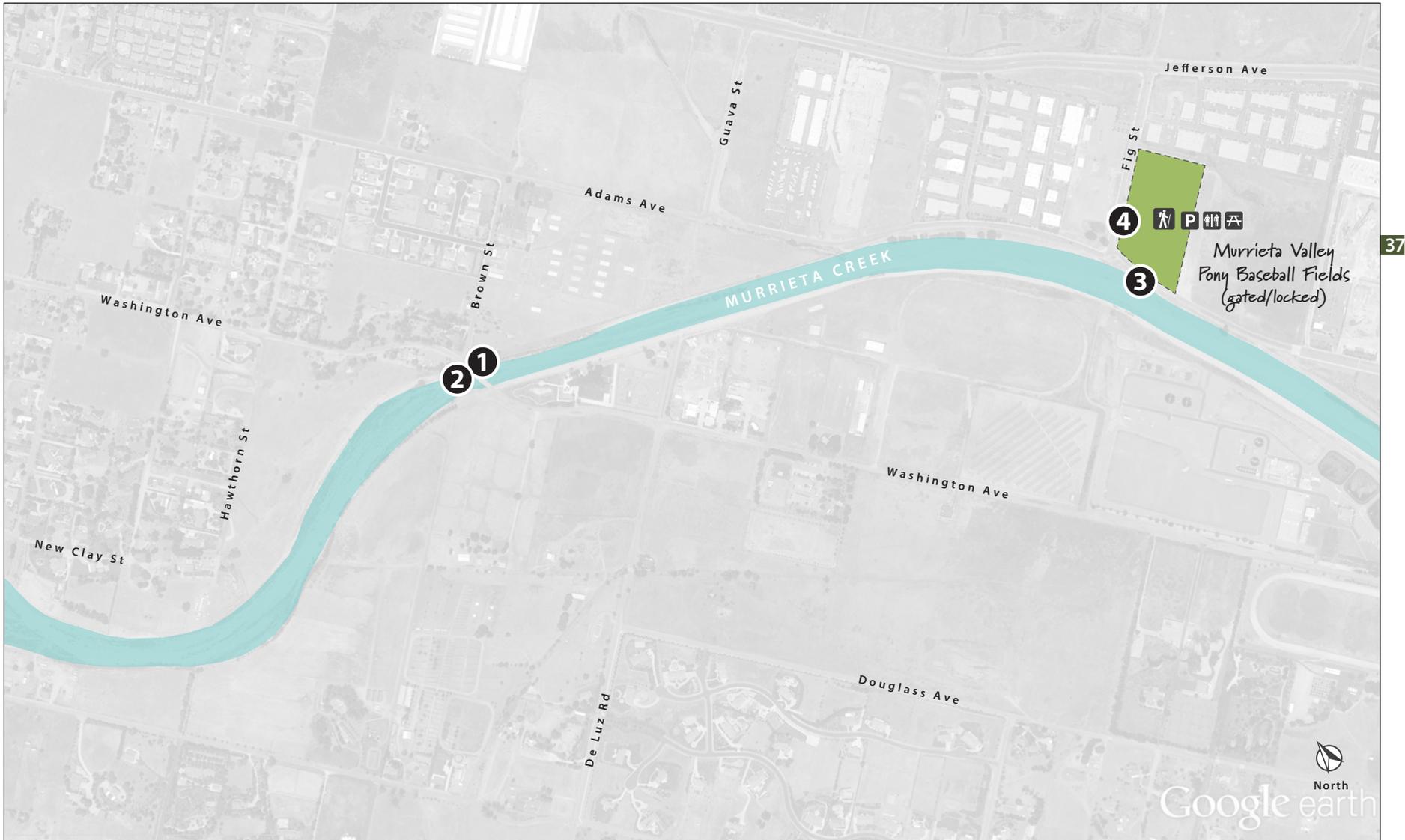


3



4

1. View of the Washington Ave bridge across Murrieta Creek at Brown St (to be removed once Guava St bridge is complete).
2. View of Murrieta Creek looking west towards the mountains of the Santa Rosa Plateau.
3. For a good portion of this segment, Murrieta Creek resembles a sandy wash, informal trails and crossings can be found throughout the corridor.
4. The Murrieta Valley Pony Baseball fields represent a potential opportunity to establish a trailhead access/entry point for trail users; a joint use agreement would need to be negotiated as all facilities at the fields are paid for and maintained by MVPB.



section 4 photo inventory map

section 5: hawthorn street to vineyard parkway

location

Trail Section 5 is located in the City of Murrieta and runs along the east and west sides of Murrieta Creek from Hawthorn St to Vineyard Parkway. The trail is part of a future-planned Army Corps of Engineers (ACOE) project to extend flood protection measures north from the City of Temecula up to Vineyard Parkway in the City of Murrieta.

38

length

This segment of the trail is approximately 1.75 miles in length on each side of the creek.

existing trail surface

There are no developed trails in this section of the creek corridor, though informal trails have been established by users across much of the area.

proposed surface and width

The proposed recreational multi-use trail will consist of a decomposed granite (DG) surface and be at least 15' wide when developed.

points of interest

Historic Downtown Murrieta is within walking distance from the creek and contains many historic points of interest including the Old School House, Grain Mill, Pioneer Park (in design), Murrieta City Hall, and the Equestrian Park. The Equestrian Park also serves as a trailhead for the trail and includes trailer parking, restrooms, and wash racks.

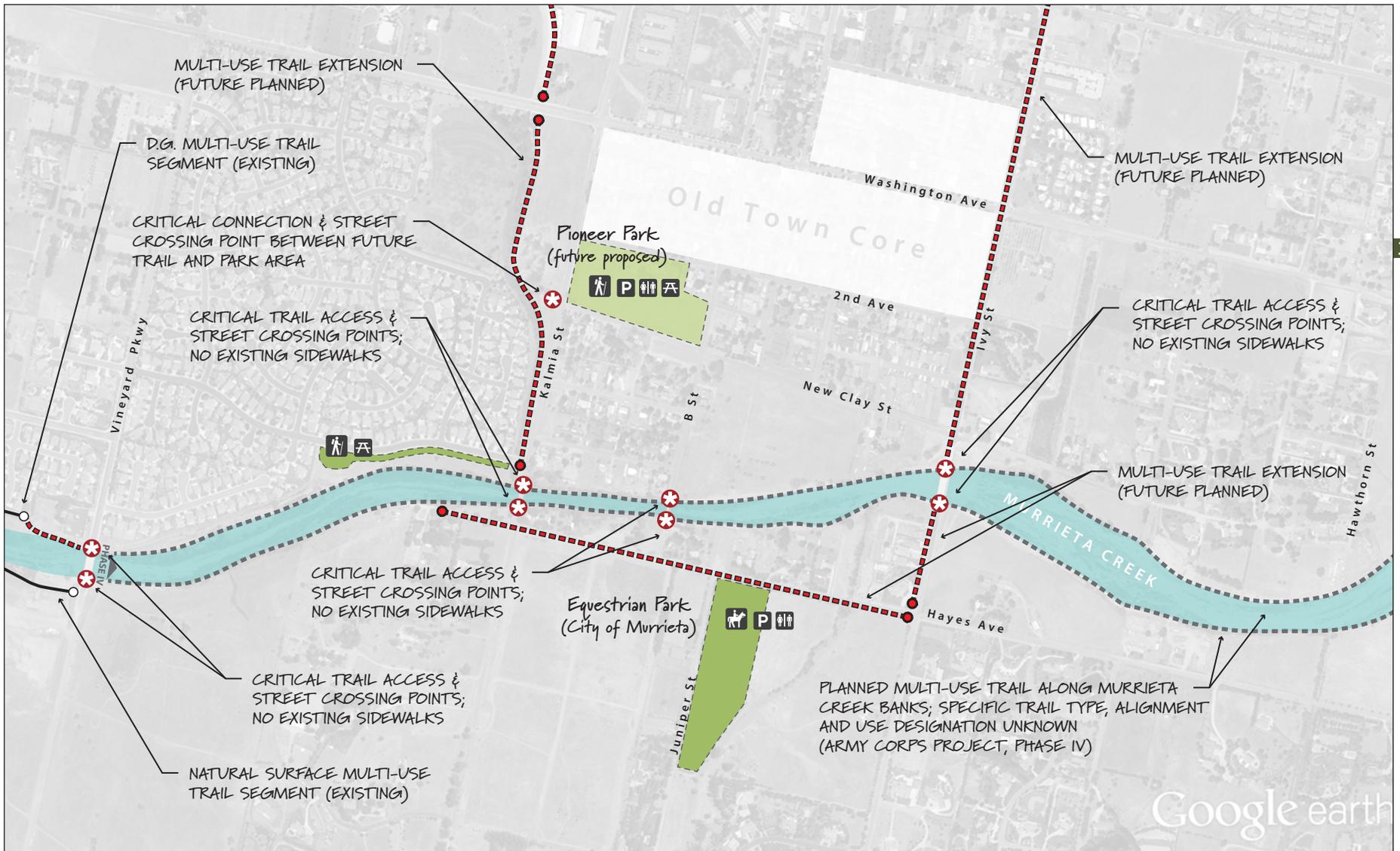
In addition, several planned multi-use trails will provide additional connectivity and access to the area's resources for users of the trail.

implementation

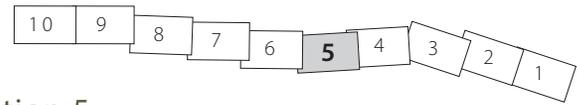
The trail, as it passes through Murrieta, is already designated as a multi-use trail in the City's Trails Master Plan and many parts are currently open to the public. The completion of the trail in this section is dependant on the ACOE project that runs from Cherry St. north to Vineyard Parkway. This portion of the ACOE plan represents the final phase of the project and is not currently funded. The City will need to obtain necessary use agreements from the Riverside County Flood Control District (RCFCD) prior to allowing recreational access in this section of the creek corridor.



Informal natural surface trail along Murrieta Creek near Vineyard Pkwy where future proposed levee trail will be developed.



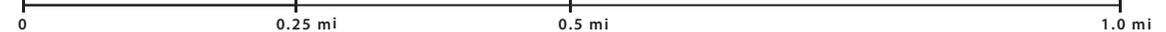
murrieta creek trail conceptual alignment



section 5:
hawthorn street to vineyard parkway

LEGEND

- | | | |
|--------------|--------------------|----------------------------------|
| Trailhead | Transit Stop | Army Corps Levee Trail (current) |
| Staging Area | Key Area | Army Corps Levee Trail (future) |
| Parking | Existing Park Area | City Planned / Proposed Trail |
| Restrooms | Planned Park Area | Potential Trail (conceptual) |
| Picnic Area | Existing Trail | Un-Improved Trail Corridor |



NOTE: Map illustrations and trail alignments are conceptual for illustrative/planning purposes only



1. Informal natural surface trail along Murrieta Creek near Vineyard Pkwy where future proposed levee trail will be developed.
2. Ivy Street bridge currently lacks sufficient clearance to establish a trail underpass route; enhanced at-grade bridge crossing could provide adequate connectivity for future trail users.
3. View of Kalmia St as it crosses Murrieta Creek.
4. Small greenbelt adjacent Murrieta Creek just off of Kalmia could represent a potential trailhead opportunity, though the side street (Estancia) is gated off to vehicular access and the park appears to be semi-private open space for residents.

5. View of the old mill tower looking south across the site of the proposed Pioneer Park development.
6. The Murrieta Equestrian Park represents one of the few equestrian staging area opportunities for Murrieta Creek Trail users.
7. The B St bridge would need to be re-designed to provide adequate crossing for trail users (both at grade and undercrossing).
8. View looking north along Hayes Ave where a city-planned multi-use trail link to the Murrieta Creek corridor is proposed to be developed.



section 5 photo inventory map

section 6: vineyard parkway to copper canyon park

location

Trail Section 6 is located in the City of Murrieta and runs along the east side of Murrieta Creek from Vineyard Parkway to the City's northern boundary with the City of Wildomar at Copper Canyon Park.

42

length

This segment of the trail is approximately 1.5 miles in length on the east side of the creek.

existing trail surface

Several segments of multi-use trail exist on both the east and west side of Murrieta Creek. Existing trail segments consist of decomposed granite (DG) surfaces and are a minimum of 12' wide.

proposed surface and width

The proposed recreational multi-use trail will consist of a decomposed granite (DG) surface and be at least 12' wide.

points of interest

Directly west of the creek corridor in this section is the Santa Rosa Plateau, a key regional destination. Access to the Plateau is available from the Murrieta Creek corridor at both Copper Canyon Park (via the Cole Canyon Trail) and from trails heading out from the crossing of Murrieta Creek and Vineyard Parkway.

Two key trailhead locations are found in this section of the trail corridor—Sykes Ranch Park and Copper Canyon Park. Sykes Ranch Park is located at the former site of Skyes Ranch, a founding member of Murrieta Valley, and provides a direct connection for both Thompson Middle School and Murrieta Valley High School to the creek. Copper Canyon Park is a fully developed park with established facilities that include parking, restrooms, water, picnic areas, ball fields, and trails (including those leading to the Plateau).

Trail connectivity in this area between the City of Murrieta and the City of Wildomar is dependant upon the development of a multi-use bridge connector across Murrieta Creek into Copper Canyon Park.

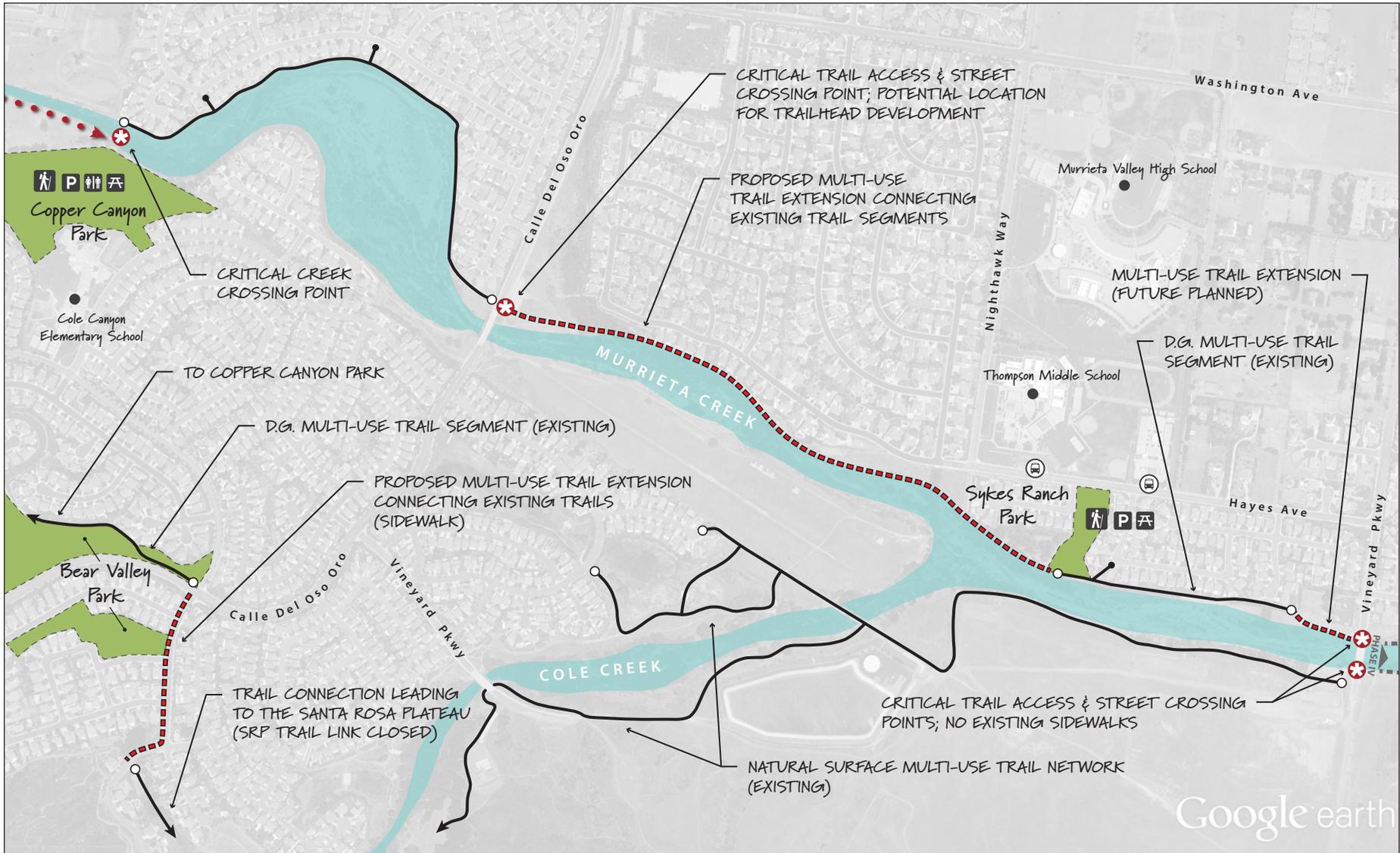
implementation

Much of this section of the trail is complete. With the recent acquisition of the Bear Creek Airport, the City now has the ability to develop a continuous trail link along the east side of Murrieta Creek. The completion of the final segments of the trail in this area will be accomplished through conditions of future development and City Capital Improvement Projects (CIP).

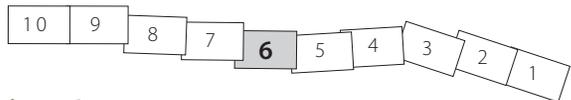
The installation of a foot bridge connecting the trail on the east side of Murrieta Creek into Copper Canyon Park is one of the last major obstacles to the trail's connectivity in this section. This is not part of the City's current CIP funding. Other resources will need to be identified to complete this component of the trail.



Existing network of multi-use DG trails provide access to additional recreational opportunities for Murrieta Creek trail users, including potential access to nearby Santa Rosa Plateau.



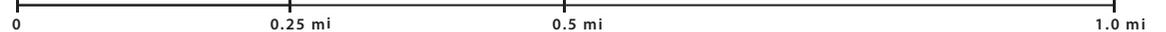
murrieta creek trail conceptual alignment



section 6:
vineyard parkway to copper canyon park

LEGEND

- Trailhead
- Staging Area
- Army Corps Levee Trail (current)
- Transit Stop
- Key Area
- Army Corps Levee Trail (future)
- City Planned / Proposed Trail
- Parking
- Existing Park Area
- Potential Trail (conceptual)
- Restrooms
- Planned Park Area
- Un-Improved Trail Corridor
- Picnic Area
- Existing Trail

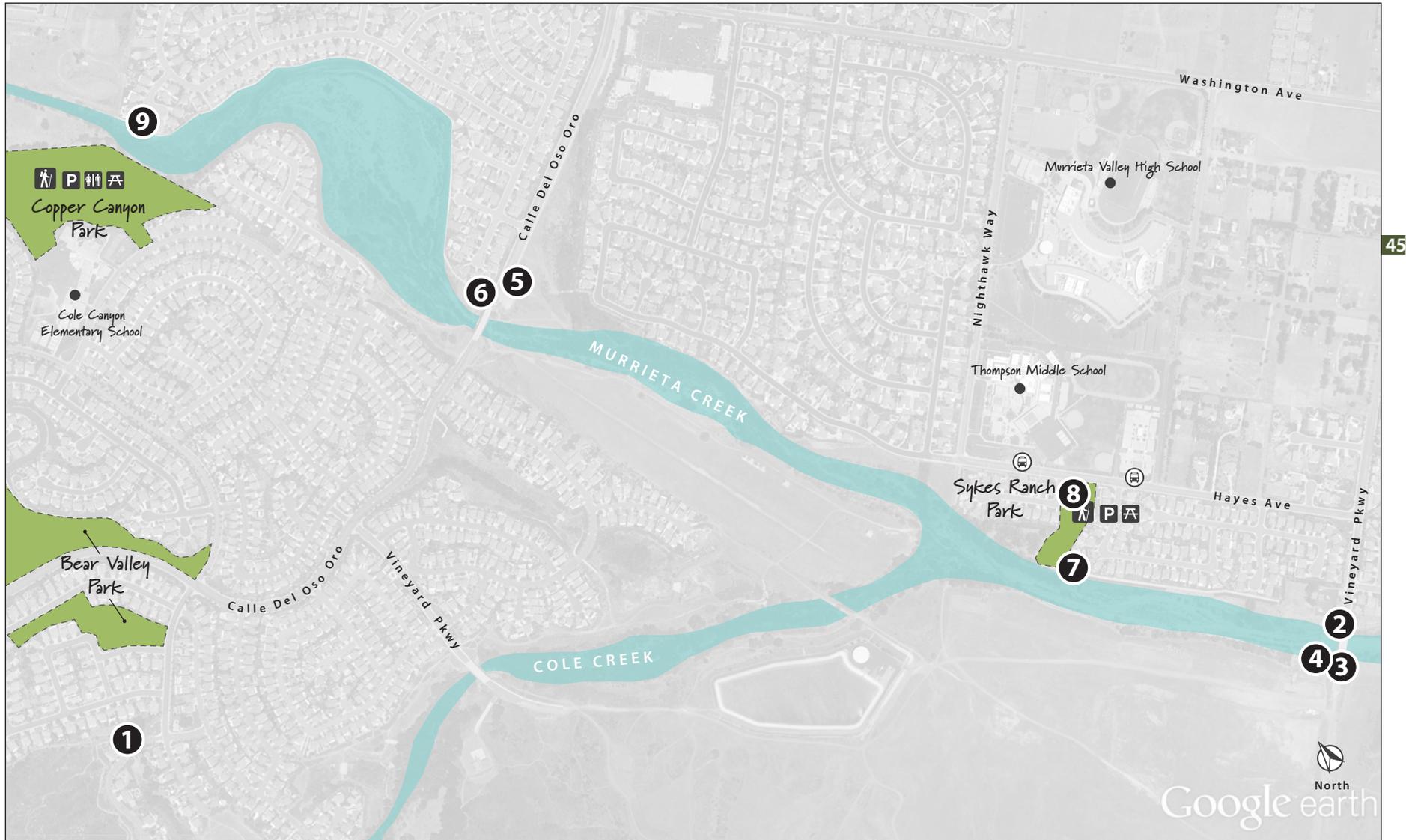


NOTE: Map illustrations and trail alignments are conceptual for illustrative/planning purposes only



1. Existing network of multi-use DG trails provide access to additional recreational opportunities for Murrieta Creek trail users, including potential access to nearby Santa Rosa Plateau.
2. Vineyard Pkwy bridge appears to provide sufficient clearance to establish a trail underpass route.
3. Access to existing trail network is blocked to vehicles and is not clearly signed as being open to the public.
4. View of existing natural surface trails along Murrieta Creek corridor looking north from Vineyard Pkwy bridge..

5. Undeveloped area on the southeast side of Calle Del Oso Oro bridge could be developed as a trail access point.
6. End point of existing DG trail would need to be enhanced to maintain connectivity across Calle Del Oso Oro or under the bridge.
7. Existing DG trail segment runs along Murrieta Creek corridor to the end of Sykes Park.
8. Facilities at Sykes Ranch Park, including parking and playgrounds, provide an opportunity to establish a formal trail entry point for users (trailhead).
9. Critical creek crossing point from existing DG trail segment into Copper Canyon Park.



section 6 photo inventory map

section 7: copper canyon park to mcvicar street

location

46 Trail Section 7 crosses from the City of Murrieta into the City of Wildomar at Copper Canyon Park. The trail connects Copper Canyon Park to an existing creek trail entrance point located on Clinton Keith Road about 0.9 miles west of Interstate 15. From here, an existing segment of trail along the west side of the Murrieta Creek corridor continues north to McVicar Street.

length

The trail length is approximately 0.6 miles connecting Copper Canyon Park to the existing creek trail entrance point at Clinton Keith Road. Once on the trail, the segment from Clinton Keith Road north to McVicar Street is about 0.7 miles.

existing trail surface

Rancho Mirlo Road is an unpaved dirt road. Clinton Keith Road currently has dirt shoulders with a future-planned multi-use trail connecting Grand Avenue to the creek trail entrance. A traffic signal with cross walk is located at the Clinton Keith Road and Grand Avenue intersection.

The first 0.4 miles of existing trail along Murrieta Creek north of Clinton Keith Road consists of unimproved, natural surface material with loose rock requiring careful footing. Approaching the McVicar Street crossing, the dirt trail surface conditions improve with more consistent footing.

proposed surface and width

A 10' wide multi-use trail and an adjacent 5' wide concrete sidewalk is planned on both sides of Clinton Keith Road. The dirt trail along Murrieta Creek varies with an approximate width of 15 feet.

points of interest

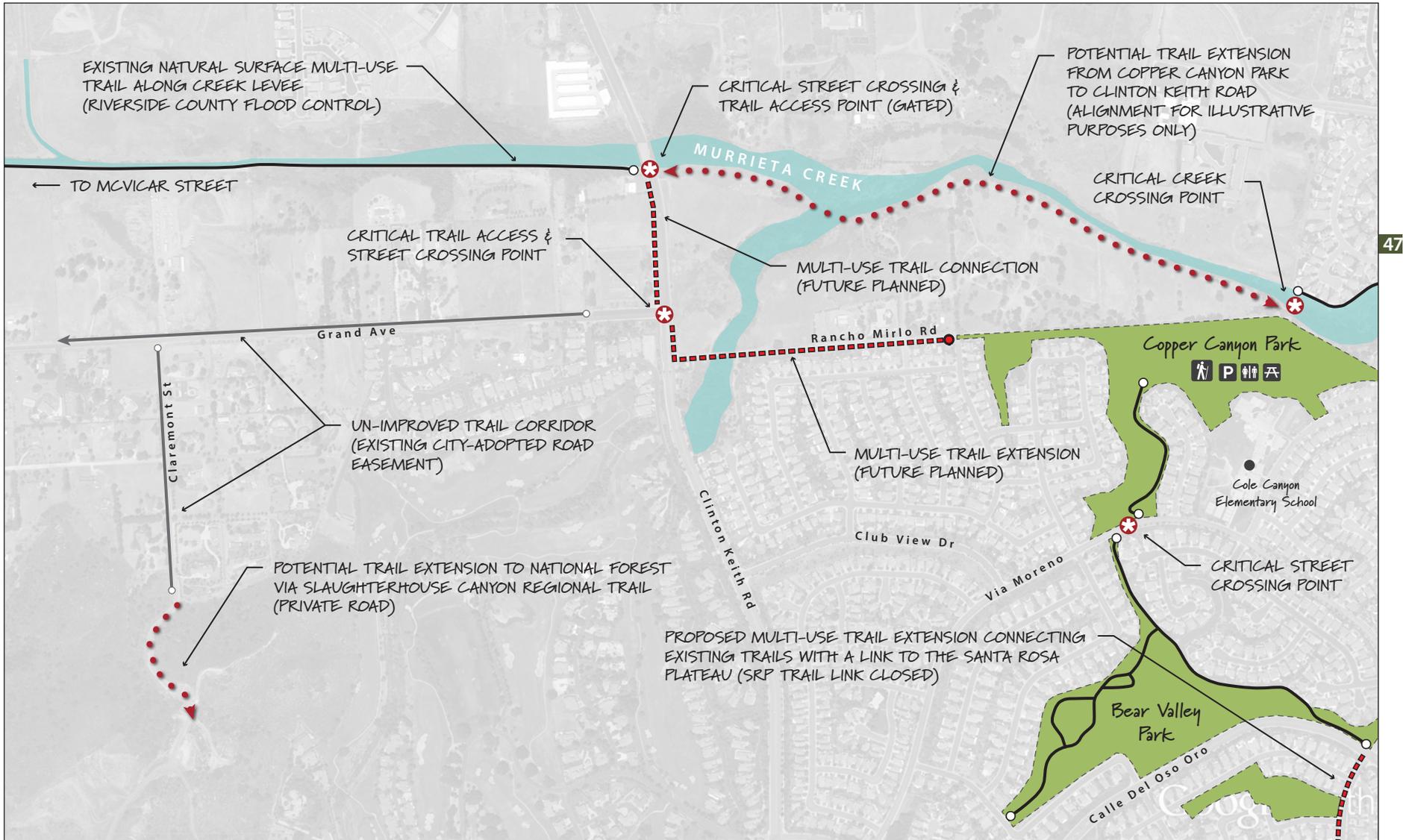
The segment of trail along Murrieta Creek just north of Clinton Keith Road runs under a thick tree canopy, providing trail users with shade and offering an opportunity for bird watching. Approximately 3 miles west on Clinton Keith Road is the main entrance and parking for the Santa Rosa Plateau. Traveling northerly along Grand Avenue offers further access to local single track hiking trails and future connection points to the Murrieta Creek trail. In addition, bus transit stops are located along Grand Avenue and Palomar Street providing public transportation to/from the Murrieta Creek corridor.

implementation

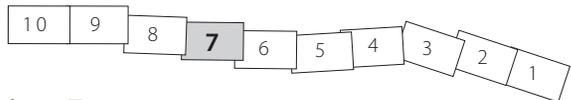
Trail and sidewalk improvements along Clinton Keith Road and Grand Avenue are not currently part of the City's 5-year Capital Improvement Program (CIP). Grant funding or Development Impact Fees are identified as potential fund sources to complete these improvements. Areas of the trail within lands managed by the Riverside County Flood Control District (RCFCD) require the City to obtain necessary use agreements prior to allowing recreational access.



Copper Canyon Park provides an ideal trailhead location for Murrieta Creek Trail users with amenities such as parking, restrooms, playgrounds, picnic areas and other regional trail connections.



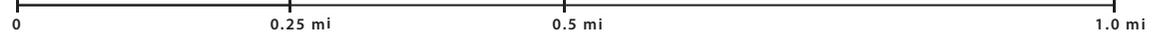
murrieta creek trail conceptual alignment



section 7:
copper canyon park to mcvicar street

LEGEND

- | | | |
|--------------|--------------------|----------------------------------|
| Trailhead | Transit Stop | Army Corps Levee Trail (current) |
| Staging Area | Key Area | Army Corps Levee Trail (future) |
| Parking | Existing Park Area | City Planned / Proposed Trail |
| Restrooms | Planned Park Area | Potential Trail (conceptual) |
| Picnic Area | Existing Trail | Un-Improved Trail Corridor |



NOTE: Map illustrations and trail alignments are conceptual for illustrative/planning purposes only



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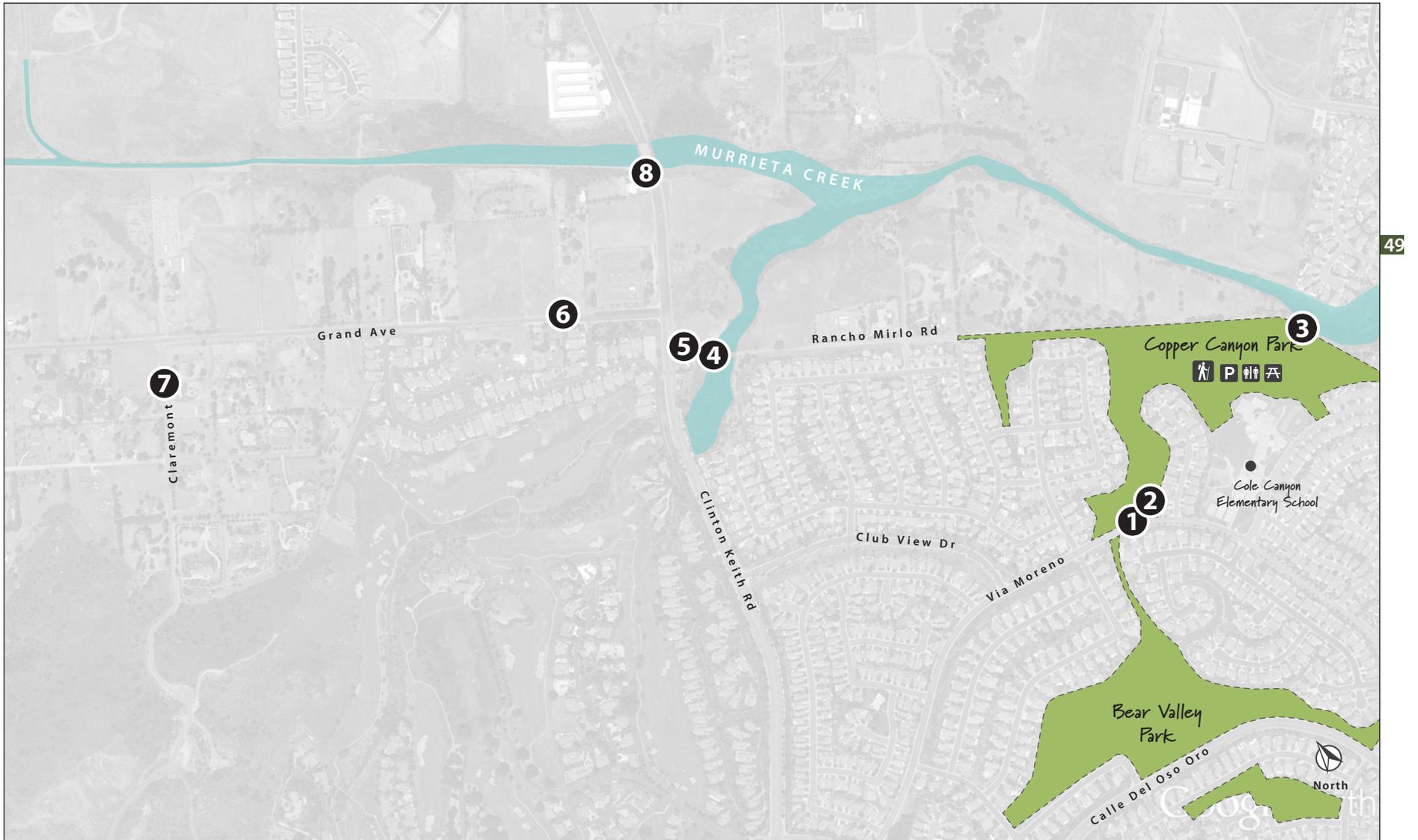
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1. Copper Canyon Park provides an ideal trailhead location for Murrieta Creek Trail users with amenities such as parking, restrooms, playgrounds, picnic areas and other regional trail connections.
2. Existing signage can be expanded to include information on new trails as they are developed.
3. Looking east across Murrieta Creek where key bridging is needed to connect into an existing DG path.
4. An easement and trail development along Rancho Mirlo Rd can help connect Copper Canyon Park to proposed Wildomar city trails and an existing trail along Murrieta Creek.

5. The Grand Ave and Clinton Keith Rd intersection would need enhancement to provide safe crossing for trail users.
6. Unimproved trail corridor along Grand Ave.
7. Some potential regional trail connections may be inhibited by private access roads like this along Claremont St.
8. Existing natural surface multi-use trail along the western levee of Murrieta Creek in Wildomar at its entry point near Clinton Keith Rd.



section 7 photo inventory map

section 8: mcvicar street to wesley street

location

50 Trail Section 8 is located along Murrieta Creek between McVicar Street and Wesley Street in the City of Wildomar. An existing segment of trail runs along the west side of the Murrieta Creek corridor, utilizing Riverside County Flood Control District (RCFCD) channel maintenance roads. An existing steel frame bridge facilitates trail user access across one of the main creek inlets in this area. Trail access along the creek's east side currently is not provided.

Primary trail entrance points are located at both McVicar Street and Wesley Street where the creek and roads intersect (roughly a quarter mile southwesterly of Palomar Street). Additional access points are located where the creek crosses Central Street, Gruwell Street, and at a creek inlet on Union Street.

length

The trail length is approximately 1.5 miles in length on each side of the creek.

existing trail surface

The natural surface trail along the west side of Murrieta Creek varies with an approximate width of 15 feet, serving also as an RCFCD maintenance road.

proposed surface and width

Trail surface and width to remain unchanged (i.e. an unimproved trail corridor meeting any RCFCD maintenance road requirements).

points of interest

This section of the Murrieta Creek trail offers a flat, uniform trail surface that is well-used by walkers and joggers. Grand Avenue provides further access to local single track hiking trails and future connection points to the Murrieta Creek trail. Bus transit stops are located along Grand Avenue and Palomar Street providing public transportation to/from the Murrieta Creek corridor.

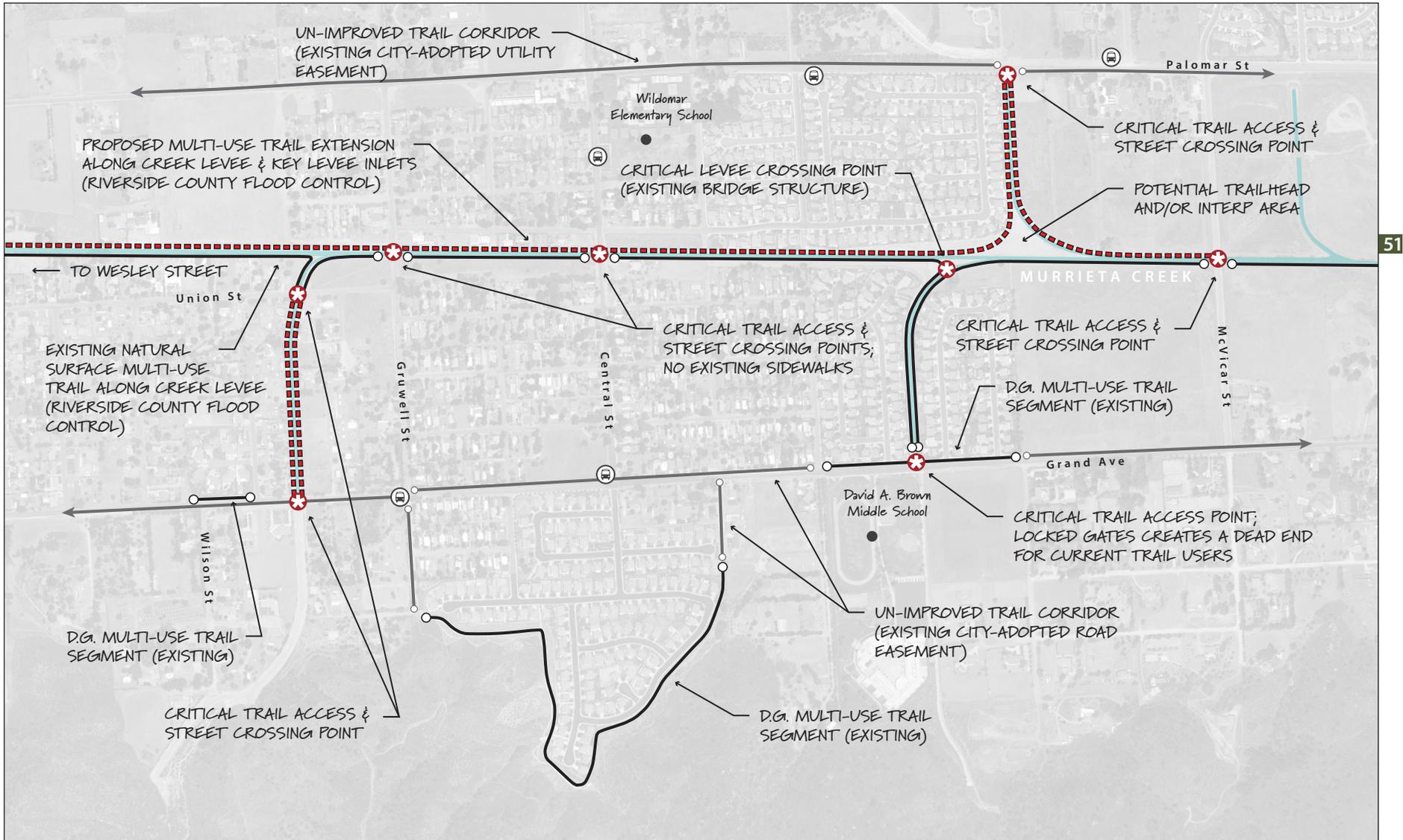


Existing steel frame bridge across Murrieta Creek provides convenient access across concrete lined creek inlet.

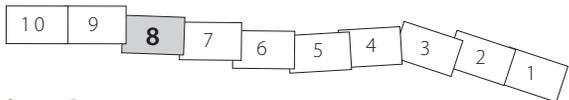
In addition, the historic Wildomar bell is located at the Wildomar Elementary School at Central Avenue and Palomar Street. The historic Wildomar cemetery is located at Gruwell and Palomar Street. Future plans for the area include development of an “old town” area with pedestrian-friendly amenities on Palomar Street between Central and Gruwell, further complementing this area’s appeal.

implementation

Access along the eastern side of the creek channel and mid-trail access points from Grand Avenue and Palomar Street require minor improvements, as well as the City to obtain necessary use agreements with RCFCD. Grant funding or Development Impact Fees are identified as potential fund sources to complete these improvements.



murrieta creek trail conceptual alignment



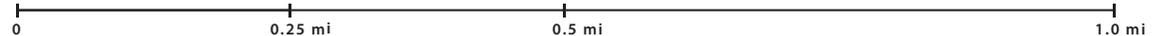
section 8:
mcvicar street to wesley street

LEGEND

- | | | |
|--------------|--------------------|----------------------------------|
| Trailhead | Transit Stop | Army Corps Levee Trail (current) |
| Staging Area | Key Area | Army Corps Levee Trail (future) |
| Parking | Existing Park Area | City Planned / Proposed Trail |
| Restrooms | Planned Park Area | Potential Trail (conceptual) |
| Picnic Area | Existing Trail | Un-Improved Trail Corridor |



North



NOTE: Map illustrations and trail alignments are conceptual for illustrative/planning purposes only



1. Existing steel frame bridge across Murrieta Creek provides convenient access across concrete lined creek inlet.
2. Looking west at trail entry point off of McVicar St.
3. Access to the eastern side of the Murrieta Creek levee is restricted by gates.
4. Looking west across Union St to concrete lined creek inlet; locked gates inhibit key trail connectors between Grand Ave and the Murrieta Creek corridor.
5. Locked gates where creek inlet meets Grand Ave create a "dead end" for trail users who follow the existing natural surface trail from the Murrieta Creek corridor.
6. Existing segment of DG multi-use trail along a portion of Grand Ave.
7. Gruwell St creek crossing lacks formal street crossings for trail users.
8. Central St creek crossing lacks formal street crossings for trail users.
9. Existing shade structure at trail entry point off of western end of Gruwell St.



section 8 photo inventory map

section 9: wesley street to serenity park

location

54 Trail Section 9 leaves the Murrieta Creek corridor at Wesley Street. From the existing trail access point at Wesley Street, there are several potential options to extend the trail to the City of Wildomar's northern boundary with the City of Lake Elsinore (at Corydon Street) and on to Serenity Park. Two planned regional trail corridors along Palomar Street and Grand Avenue would divert trail users roughly a quarter mile either north (Palomar St) or south (Grand Ave) from the access point at Wesley Street. A potential trail connector along Union Street would maintain the same basic alignment northerly from Wesley Street.

These trail routing options are not mutually-exclusive and each has its benefits and draw-backs. For example, Grand Avenue is the furthest route from the creek corridor and represents the most heavily-trafficked option yet would provide a potential link to the historic Butterfield Overland Trail. A Palomar Street linkage would facilitate access to Marna O'Brien Park but, again, takes trail users along a busy roadway with a difficult-to-negotiate interchange at Mission Trail. A Union Street connector would keep trail users off busy streets and facilitate access to Regency Heritage Park but would require routing the trail through an existing neighborhood with potentially limited right-of-way access.

length

The trail length is approximately 1.5 miles but varies depending on which route option is developed. The Palomar Street and Union Street options provide the most direct links to Serenity Park north of Corydon Street.

existing trail surface

There is only one short segment of existing trail developed in this area, a decomposed granite (DG) trail along Grand Ave.

proposed surface and width

A 10' wide multi-use trail and an adjacent 5' wide concrete sidewalk is planned for both Palomar Street and Union Street. Palomar Street is planned to function as an Arterial and Union Street is a local residential street.

points of interest

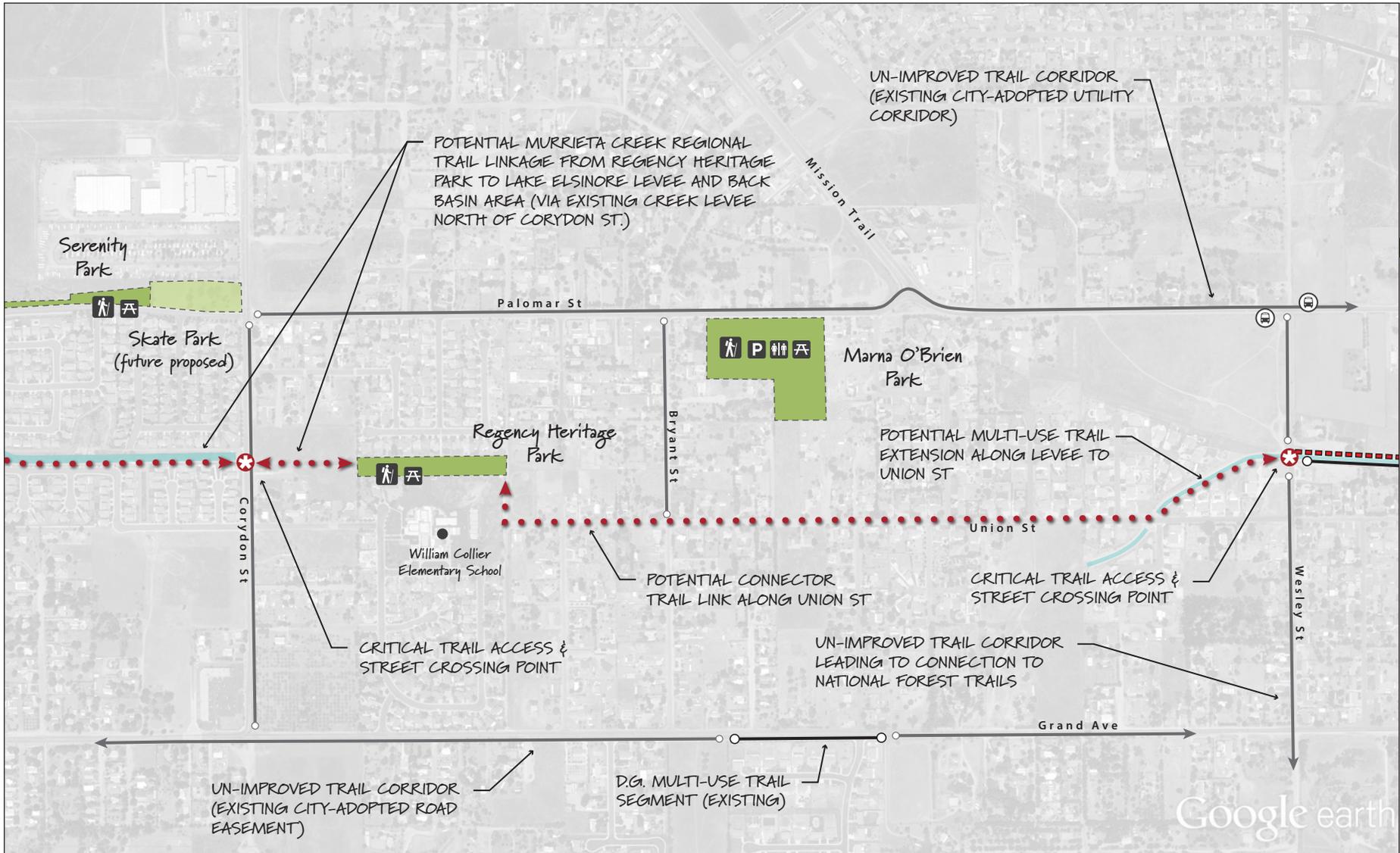
This section of the trail offers access to three local parks—Marna O'Brien Park, Regency Heritage Park, and Serenity Park. Bus transit stops are located along Grand Avenue and Palomar Street providing public transportation to/from the Murrieta Creek corridor. Grand Avenue represents an important connection to the historic Butterfield Overland Trail.

implementation

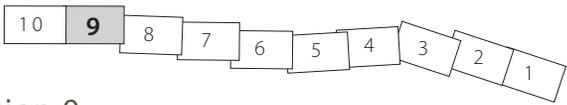
Design plans for Palomar Street commenced in 2013. Construction funding has not been secured. Improvements to Union Street are not currently included in the City's 5-year Capital Improvement Program (CIP). Grant funding or Development Impact Fees are identified as potential fund sources to complete these improvements. Areas of the trail within lands managed by the Riverside County Flood Control District (RCFCD) require the City to obtain necessary use agreements prior to allowing recreational access.



Creek channel continues west across Wesley St providing a potential opportunity to extend trail down to Union St.



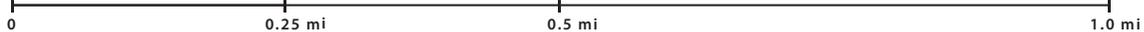
murrieta creek trail conceptual alignment



section 9: wesley street to serenity park

LEGEND

- Trailhead
- Transit Stop
- Army Corps Levee Trail (current)
- Staging Area
- Key Area
- Army Corps Levee Trail (future)
- Parking
- Existing Park Area
- City Planned / Proposed Trail
- Restrooms
- Planned Park Area
- Potential Trail (conceptual)
- Picnic Area
- Existing Trail
- Un-Improved Trail Corridor

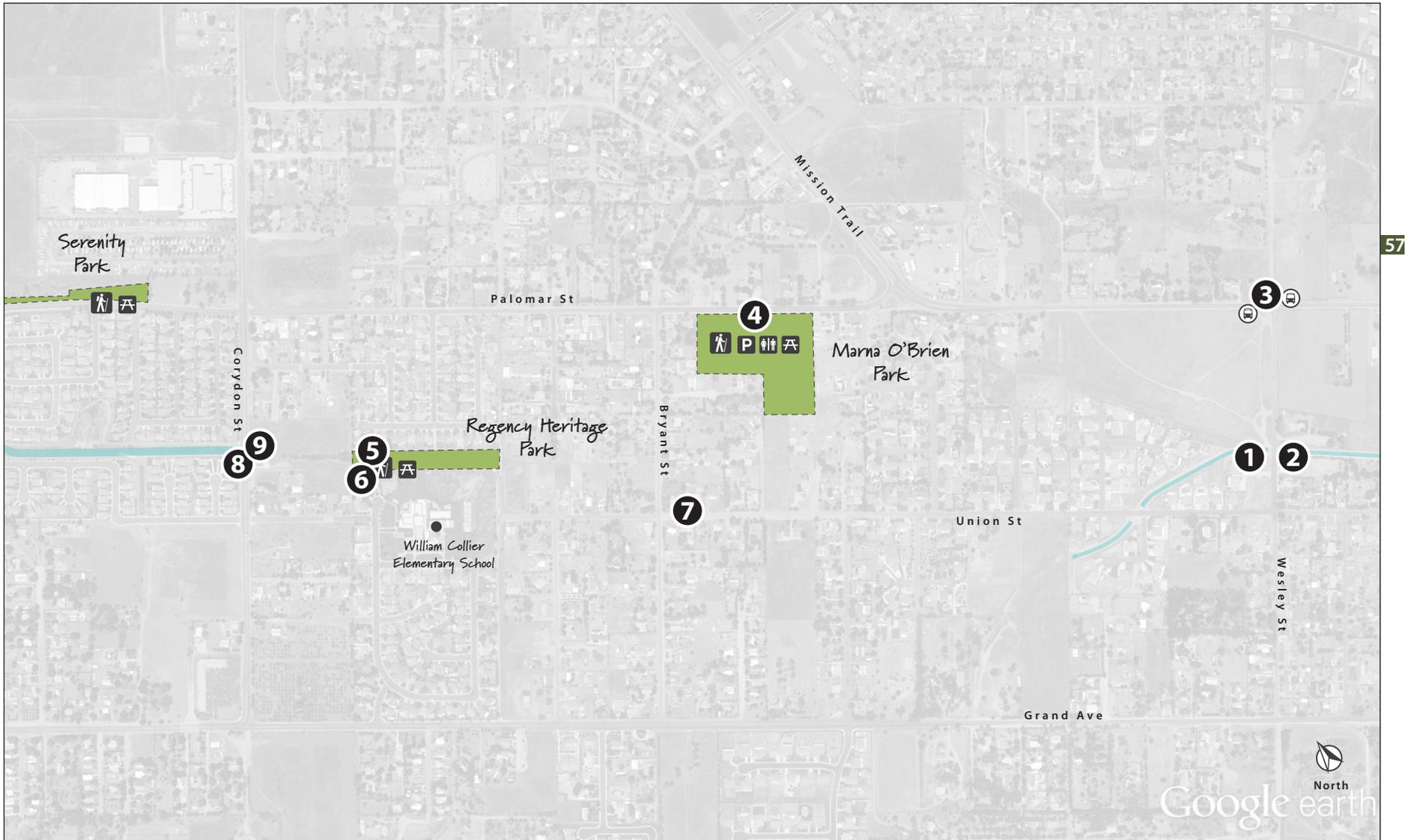


NOTE: Map illustrations and trail alignments are conceptual for illustrative/planning purposes only



1. Creek channel continues west across Wesley St providing a potential opportunity to extend trail down to Union St.
2. Entry point of creek trail at Wesley St looking east.
3. Nearby transit stops provide alternative transportation options for accessing the regional trail corridor if linkages are provided where appropriate.
4. Once re-opened, Marna O'Brien Park will provide a potential trail access point for trail users that includes parking, restrooms and playground areas.

5. Regency Heritage Park could potentially provide a linkage between Union St and Corydon St
6. Current access to Regency Heritage Park is via locked gate off of Trailwood Ct adjacent William Collier Elementary School.
7. While not ideal, a trail connection following Union St could provide a better, more direct option than either Palomar St or Grand Ave.
8. Locked gates to flood control channel on northside of Corydon St.
9. Looking across open field off of Corydon St towards Regency Heritage Park.



section 9 photo inventory map

section 10: serenity park to lake elsinore levee trail

location

Trail Section 10 is located in the City of Lake Elsinore from its southern boundary with the City of Wildomar at Corydon Street to the Lake Elsinore Levee Trail. Serenity Park provides a natural connector for the trail between the two cities, whether it is extended from the park's southern boundary at the intersection of Corydon Street and Palomar Street or is aligned along the existing creek levee into the park's northern edge.

58

length

This segment of the trail is approximately 1.0 miles in length from Serenity Park to the Lake Elsinore Levee Trail.

existing trail surface

The existing earthen levee trail was constructed across the lake in 1995 to reduce the size of the water surface and minimize evaporation. The levee also helps provide flood protection for the City's East Lake District. It is a 3 mile multi-use sand & gravel trail providing access for pedestrians, bicyclists, and occasional equestrian use.

proposed surface and width

The proposed recreational multi-use trail will consist of DG and be at least 15' wide, connecting the existing Lake Elsinore Levee Trail to Serenity Park.

points of interest

Lake Elsinore is a recreation destination with the slogan of *Dream Extreme*. The East Lake District is uniquely defined by its proximity to the lake and home of several of the extreme sport activities within the City. Key recreational facilities for these sports are Skylark Field Airstrip, the Glider Launch Field, and the Lake Elsinore Motocross Park. The lake's inlet channel hosts club and pro tournaments, and the Diamond Stadium (just north of this section) is home to the Lake Elsinore Storm minor league baseball team.

Historic Downtown Main Street reflects a rich and colorful history dating back to 1888. A stroll down Main Street with its antique shops, fine dining, novelty stores, museum and vintage street lamps takes visitors back to a time reminiscent of the early 1900s.



View looking north from Serenity Park over Lake Elsinore open space where many informal trails intersect and connect into the lake levee trail.

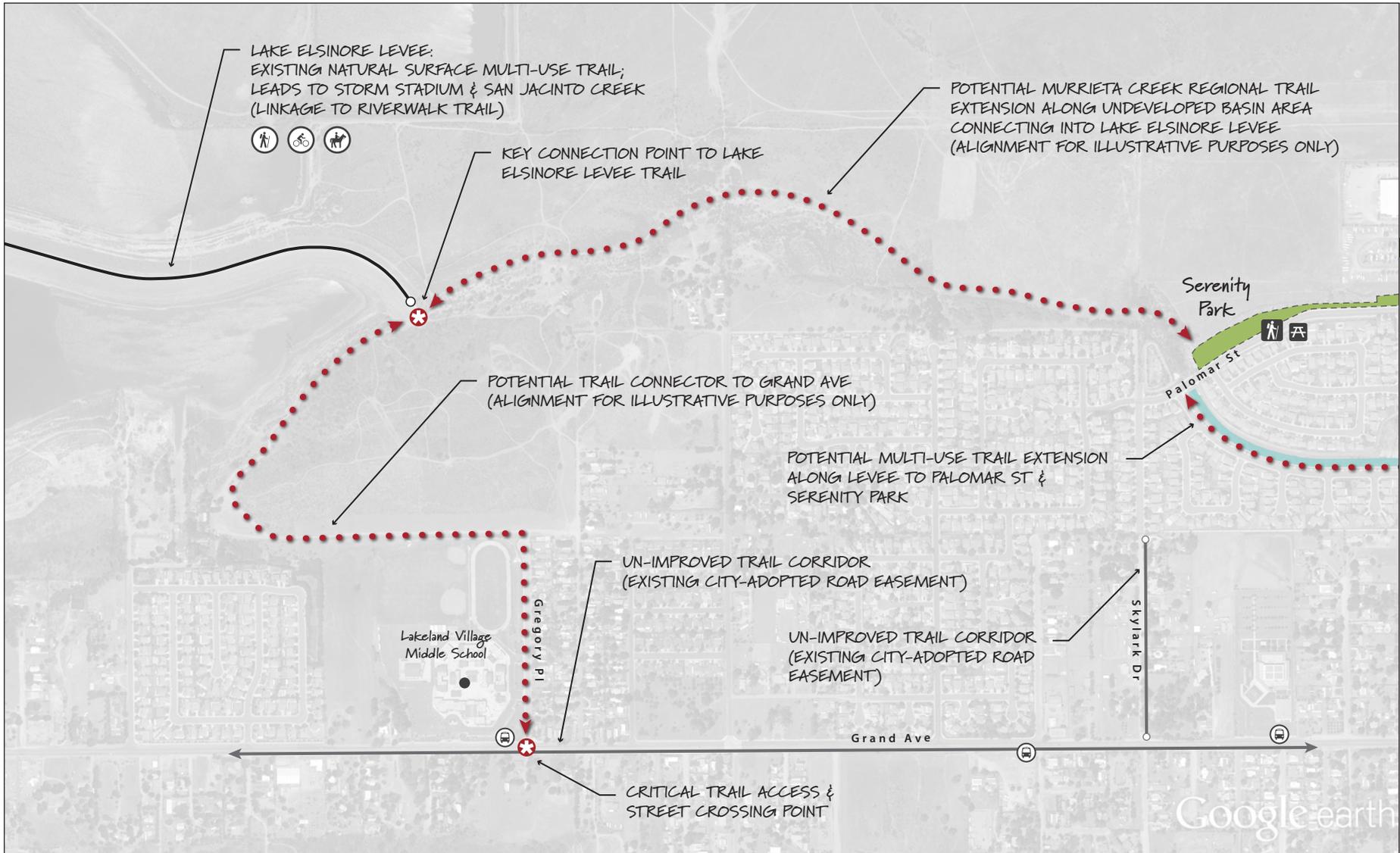
Signature special events in the City include Lucas Oil Off-Road Racing, the Warrior Dash and Survivor Mud Run, Unity 5K/10K Run-Walk, Kids Fishing Derby, and Winterfest on Downtown Main Street.

The connection of the Murrieta Creek trail to the Lake Elsinore Levee Trail offers users an extension into Old Town Lake Elsinore and the City's abundant recreational activities, building on existing opportunities for jogging, hiking, bicycling, horseback riding, birding, and more.

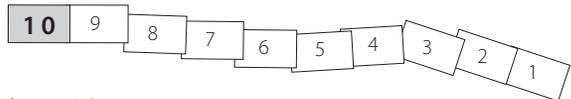
implementation

The East Lake District is primarily governed by the approved East Lake Specific Plan and its amendments. An existing goal states, "The City shall support land use applications whose designs address and implement the circulation plan and trail systems identified in the Specific Plan."

The most significant challenge is the lack of funding to support trail development. Grant funding is a potential source for these improvements.



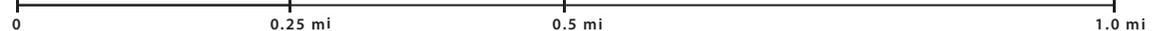
murrieta creek trail conceptual alignment



section 10:
serenity park to lake elsinore levee trail

LEGEND

- | | | |
|--------------|--------------------|----------------------------------|
| Trailhead | Transit Stop | Army Corps Levee Trail (current) |
| Staging Area | Key Area | Army Corps Levee Trail (future) |
| Parking | Existing Park Area | City Planned / Proposed Trail |
| Restrooms | Planned Park Area | Potential Trail (conceptual) |
| Picnic Area | Existing Trail | Un-Improved Trail Corridor |



NOTE: Map illustrations and trail alignments are conceptual for illustrative/planning purposes only



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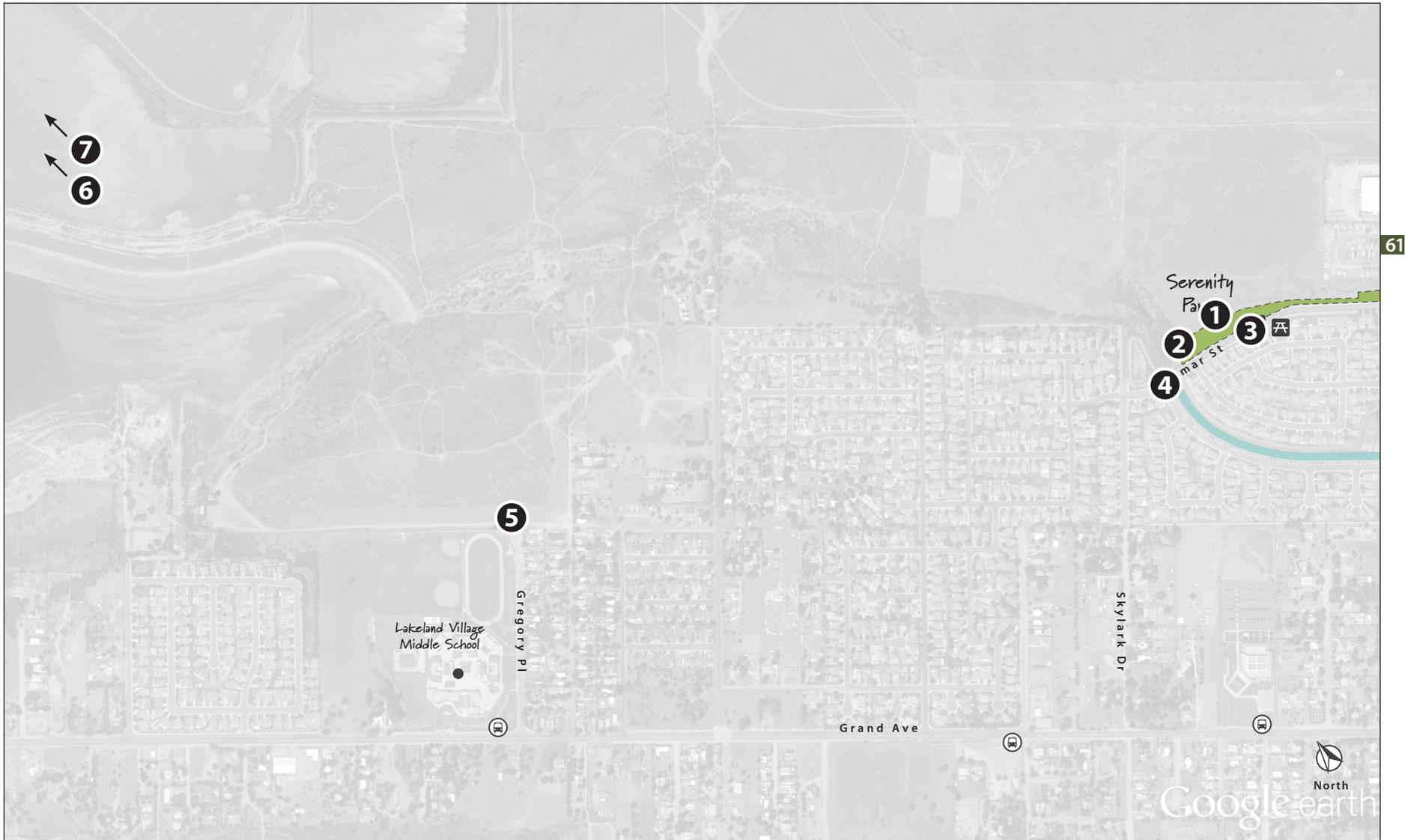
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1. View looking north from Serenity Park over Lake Elsinore open space where many informal trails intersect and connect into the lake levee trail.
2. Break in the fence from Serenity Park indicates where non-sanctioned trails intersect with the park.
3. Facilities at Serenity Park, including picnic and playground areas, provide an opportunity to establish a formal trail entry point for users, though parking is street only.

4. From Palomar St, looking south into flood control channel which connects off of Corydon St.
5. Access road behind Lakeland Village Middle School wraps around Rome Hill and connects into the lake levee trail.
6. The Lake Elsinore levee trail provides significant hiking and biking opportunities for trail users.
7. The Lake Elsinore levee trail continues on to the Lake Elsinore Diamond, a potential significant "anchor" point for the northern terminus of the regional Murrieta Creek Trail.



section 10 photo inventory map

general recommendations

1. Cities of Temecula, Murrieta, Wildomar, and Lake Elsinore work collaboratively to develop a multi-agency agreement with Riverside County Flood Control to obtain recommended access and maintenance agreements across the Murrieta Creek corridor	Priority first step to provide contiguous trail link across creek corridor. Specific segments noted in individual city recommendations.	0-6 MONTHS
2. Develop Murrieta Creek Regional Trail logo to “brand” trail and provide uniform markings across regional jurisdictions (suitable for use in trail signage, markers, brochures, etc.)	Development of logo to involve local community, possibly via a logo contest coordinated by Murrieta Creek Regional Trail project community partners.	1-2 YRS
3. Cities of Temecula, Murrieta, Wildomar, and Lake Elsinore work collaboratively to develop appropriate trail use designations for interim unimproved trail links	Necessary to ensure consistent trail use guidelines and interim development standards across regional jurisdictions.	1-2 YRS
4. Cities of Temecula, Murrieta, Wildomar, and Lake Elsinore work collaboratively to develop consistent and appropriate signalized street crossing strategies suitable for multi-use trail users at all major intersections where at-grade crossings will be required	Necessary to ensure safe and consistent street crossings for all trail users. Specific crossings noted in individual city recommendations.	3-10 YRS
5. Project partners continue to identify and explore opportunities to connect the Murrieta Creek Regional Trail to other existing and future-planned trail networks	Example priority trail connections include: Santa Rosa Plateau, Santa Gertrudis Creek Interconnect, Lake Elsinore Riverwalk, etc.	ON-GOING

NOTATIONS

- Noted timeframes for specific Murrieta Creek Regional Trail recommendations are based upon reasonable expectations of current planning conditions.
- For the purposes of this planning document, timeframes are presumed to begin at or near the start of fiscal year 2014 (July).
- Recommendations for specific Trailheads presume the development or existence of trail user support amenities / facilities such as off-street parking, restrooms, water, signage, information kiosks, etc.
- Recommendations for trail Access Points do not presume the development or existence of trail user support amenities / facilities other than parking (off-street preferred).

TRAIL RECOMMENDATIONS

64

1. Determine property ownership/agency responsibility for trail alignment south of Temecula Pkwy to Temecula Creek/Santa Margarita River	Planning will complete this task and work with the applicant of the Village West Specific Plan, which is forthcoming.	3-10 YRS
2. Work with the applicant of the Village West Specific Plan to extend the Murrieta Creek Regional Trail south under Temecula Pkwy bypass on west side (approx. 0.25-0.5mi)	Planning will complete this task and work with the applicant of the Village West Specific Plan, which is forthcoming.	3-10 YRS
3. Explore the possibility of Temecula extending the Murrieta Creek Regional Trail south under Temecula Pkwy bypass to connect with Temecula Creek on east side	Planning will complete this task as part of the Multi Use Trail and Bikeways Master Plan Update, which is in process. If possible, this will be identified as a future years CIP Project and preliminary design will be completed similar to the Santa Gertrudis Creek Interconnect.	10+ YRS
4. Identify and develop an interim trail connection from Rotary Park north to Rancho California Rd on west side of creek	Short-term strategy to provide connectivity while levee trail is under development.	1-2 YRS
5. Obtain an access and maintenance agreement with Riverside County Flood Control from Winchester Rd north to Cherry St		1-2 YRS
6. Install interim single-track trail link from Winchester Rd north to Cherry St		1-2 YRS
7. Ensure levee trail type, alignment, and use designation for Phases III & IV of the Murrieta Creek Regional Trail is compatible and consistent with Phase II trail design and development	Planning will complete this task as part of the Multi Use Trail and Bikeways Master Plan Update, and when reviewing Flood Control Construction Plans.	10+ YRS
8. Coordinate with the Santa Gertrudis Creek Interconnect project to establish / ensure a trail connection with Murrieta Creek Regional Trail at creek confluence	Key linkage between adjacent regional trail networks.	3-10 YRS

TRAILHEAD / ACCESS POINT DEVELOPMENT

9. Explore options/opportunities to develop trailhead(s) for the Murrieta Creek Regional Trail within the City	Planning will complete this task as part of the Multi Use Trail and Bikeways Master Plan Update, which is in process.	3-10 YRS
10. Establish Rotary Park as the first trailhead for the Murrieta Creek Regional Trail	Planning will work with the appropriate departments to sign and formalize an agreement.	1-2 YRS
11. Identify trail-adjacent parking opportunities where on-street parking is limited	Planning will complete this task as part of the Multi Use Trail and Bikeways Master Plan Update, which is in process and will include trail-adjacent parking opportunities.	3-10 YRS

BRIDGES AND ROAD CROSSINGS

12. WESTERN BYPASS Identify appropriate location for crossing the western bypass south to provide access to Temecula Creek	Planning will complete this task and work with the applicant of the Village West Specific Plan, which is forthcoming.	3-10 YRS
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13. 1st STREET Provide adequate and safe trail access and connectivity across bridge (at grade or underpass) on both sides of Murrieta Creek	Planning and Public Works will complete this task when reviewing plans from Flood Control. This task is in progress.	10+ YRS
14. MAIN STREET Provide adequate and safe trail access and connectivity across bridge (at grade or underpass) on both sides of Murrieta Creek	Planning and Public Works will complete this task when reviewing plans from Flood Control. This task is in progress.	3-10 YRS
15. MAIN STREET Ensure bridge design includes a dedicated non-motorized transportation lane for trail users	Bridge design includes a 10' right of way on both sides.	✓ COMPLETE
16. RANCHO CALIFORNIA RD Provide adequate and safe trail access across Rancho California Rd (at grade or underpass) on both sides of Murrieta Creek	Planning and Public Works will complete this task when reviewing plans from Flood Control. This task is in progress.	10+ YRS
17. CREEK CHANNEL INLETS (east side) Install pedestrian bridges across creek inlets on east side of creek channel (x2), if necessary depending on final levee trail design		1-2 YRS
18. OVERLAND WAY BRIDGE Provide adequate and safe trail access and connectivity across bridge (at grade or underpass) on both sides of Murrieta Creek	Planning and Public Works will complete this task when reviewing plans from Flood Control. This task is in progress.	10+ YRS
19. OVERLAND WAY BRIDGE Ensure bridge design includes a dedicated non-motorized transportation lane for trail users	Planning and Public Works will complete this task when reviewing plans from Flood Control. This task is in progress.	10+ YRS
20. WINCHESTER ROAD BRIDGE Provide adequate and safe trail access and connectivity across bridge (at grade or underpass) on both side of Murrieta Creek	Planning and Public Works will complete this task when reviewing plans from Flood Control. This task is in progress.	10+ YRS
21. SANTA GERTRUDIS CREEK CROSSING Ensure Santa Gertrudis Creek trail extension includes a multi-use bridge connection to Murrieta Creek Regional Trail	Planning will complete this task as part of the Multi Use Trail and Bikeways Master Plan Update, which is in process. The Santa Gertrudis Creek Interconnect design does not currently include a crossing/bridge connection.	3-10 YRS

TRAIL RECOMMENDATIONS

1. Ensure levee trail type, alignment, and use designation for Phases III & IV of the Murrieta Creek Regional Trail is compatible and consistent with Phase II trail design and development	Based on funding of Army Corps' Murrieta Creek levee project.	10+ YRS
2. Obtain an access and maintenance agreement with Riverside County Flood Control from Cherry St north to Vineyard Pkwy	City to verify property ownership to confirm where access and maintenance agreement is needed.	1-2 YRS
3. Install interim single-track trail link from Cherry St north to Vineyard Pkwy		1-2 YRS
4. Ensure future-planned trail development along Ivy St, Hayes Ave, and Kalmia St ties into Murrieta Creek Regional Trail and adjacent resources (e.g. Equestrian Park, Old Town, Pioneer Park, etc.)	Based on future development.	10+ YRS
5. Install interim single-track trail link on east side of Murrieta Creek from Vineyard Pkwy north to Calle Del Oso Oro (extends existing multi-use trail segment at Sykes Ranch)	Short-term strategy to provide connectivity while levee trail is under development. City owns property rights.	1-2 YRS
6. Develop multi-use trail link from Vineyard Pkwy north to Calle Del Oso Oro, converting interim trail consistent with city's Master Plan	Currently in conditions placed on local development for the completion of this segment. "Bear Creek Airport" property conditioned as park/open space. No current funding for the trail completion.	3-10 YRS
7. Establish / install an interim trail connection between Copper Canyon Park and Clinton Keith Road along Rancho Mirlo Rd	Completion of developed multi-use trail link for this section dependant on future development and final alignment of Rancho Mirlo Rd.	1-2 YRS
8. Coordinate with the Santa Rosa Plateau to re-establish trail connection to Plateau from Copper Canyon / Bear Valley	Santa Rosa Plateau currently seeking grant funding to re-grade eroded trail segments on their property	3-10 YRS

TRAILHEAD / ACCESS POINT DEVELOPMENT

9. Explore options/opportunities to develop trailhead(s) for the Murrieta Creek Regional Trail within the city		3-10 YRS
10. Establish Equestrian Park as an equestrian trailhead for the Murrieta Creek Regional Trail	Park facilities already established (includes parking, restrooms, and horse staging area). Trail link to Murrieta Creek needed, as noted in #4 above.	✓ COMPLETE
11. Explore potential for establishing a trailhead/trail access site where Murrieta Creek intersects with Calle Del Oso Oro	On list of trailheads to be reviewed annually.	3-10 YRS
12. Establish Copper Canyon Park as a trailhead for the Murrieta Creek Regional Trail	Park facilities already established (includes parking, restrooms, picnic areas, trails, and athletic fields). Bridge link to existing Murrieta Creek Regional Trail segment needed, as noted in #20 below.	✓ COMPLETE

BRIDGES AND ROAD CROSSINGS

13. GUAVA STREET BRIDGE Provide adequate and safe trail access and connectivity across Guava St (at grade or underpass) on both sides of Murrieta Creek	Under development. Based on depth of Murrieta Creek, this will most likely have to be an at-grade crossing.	3-10 YRS
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14. IVY STREET CROSSING Provide adequate and safe trail access and connectivity across Ivy St (at grade or underpass) on both sides of Murrieta Creek	Dependant on funding of project and overall design of what streets will cross Murrieta Creek. Based on depth of Murrieta Creek, this will most likely have to be an at-grade crossing.	10+ YRS
15. IVY STREET CROSSING Ensure bridge design includes a dedicated non-motorized transportation lane for trail users	Already in design.	✓ COMPLETE
16. B STREET CROSSING Provide adequate and safe trail access and connectivity across B St on both sides of Murrieta Creek	Current proposal calls for the removal of B Street Bridge.	10+ YRS
17. KALMIA STREET CROSSING Provide adequate and safe trail access and connectivity across Kalmia St on both sides of Murrieta Creek	Current proposal calls for the removal of Kalmia Street Bridge.	10+ YRS
18. VINEYARD PARKWAY CROSSING Provide adequate and safe trail access and connectivity across Vineyard Pkwy (at grade or underpass) on both sides of Murrieta Creek	Based on depth of Murrieta Creek, this will most likely have to be an at-grade crossing.	10+ YRS
19. CALLE DEL OSO ORO CROSSING Provide adequate and safe trail access and connectivity across Calle Del Oso Oro (at grade or underpass) on east side of Murrieta Creek	No funding in current CIP.	10+ YRS
20. COPPER CANYON PARK BRIDGE Develop and install a multi-use bridge connector across Murrieta Creek linking Copper Canyon Park to existing trail segment	No funding in current CIP.	10+ YRS

TRAIL RECOMMENDATIONS

1. Obtain an access and maintenance agreement with Riverside County Flood Control from end of existing trail across Copper Canyon Park north to Clinton Keith Rd		1-2 YRS
2. Install interim single-track trail link from end of existing trail across Copper Canyon Park north to Clinton Keith Rd		1-2 YRS
3. Establish / install trail connection between Grand Ave and Murrieta Creek along north side of Clinton Keith Rd	Segment is included in a larger grant-funded project to improved pedestrian and cycling facilities along Grand Ave.	1-2 YRS
4. Confirm / obtain an access and maintenance agreement with Riverside County Flood Control from Clinton Keith Rd north to Wesley St to allow public access / use of levee for recreational purposes		1-2 YRS
5. Explore opportunity to develop recreational multi-use trail extension north of Wesley St to Union St along existing channel levee; obtain access and maintenance agreement from Riverside County Flood Control as needed		1-2 YRS
6. Explore opportunity to develop recreational multi-use trail alignment along east side of Union St between proposed levee trail extension and Corydon St connecting into Regency Heritage Park		3-10 YRS

TRAILHEAD / ACCESS POINT DEVELOPMENT

7. Explore options/opportunities to develop trailhead(s) for the Murrieta Creek Regional Trail within the city		3-10 YRS
8. Develop a formal trailhead off of McVicar St for the Murrieta Creek Regional Trail		3-10 YRS
9. Establish Regency Heritage Park as a trailhead for the Murrieta Creek Regional Trail		3-10 YRS

BRIDGES AND ROAD CROSSINGS

10. CLINTON KEITH ROAD Provide adequate and safe trail access and connectivity across Clinton Keith Rd on both sides of Murrieta Creek		1-2 YRS
11. MCVICAR STREET CROSSING Provide adequate and safe trail access and connectivity across McVicar St on both sides of Murrieta Creek		1-2 YRS
12. CENTRAL STREET CROSSING Provide adequate and safe trail access and connectivity across Central St on both sides of Murrieta Creek		1-2 YRS

<p>13. GRUWELL STREET CROSSING Provide adequate and safe trail access and connectivity across Gruwell St on both sides of Murrieta Creek</p>		<p>1-2 YRS</p>
<p>14. UNION STREET CROSSING Provide adequate and safe trail access and connectivity across Union St on both sides of Murrieta Creek</p>		<p>1-2 YRS</p>
<p>15. WESLEY STREET CROSSING Provide adequate and safe trail access and connectivity across Wesley St on both sides of Murrieta Creek</p>		<p>1-2 YRS</p>
<p>16. CREEK CHANNEL PEDESTRIAN BRIDGES Explore opportunities to install additional multi-use trail bridges across main stem of creek to better facilitate trail connectivity and circulation</p>		<p>3-10 YRS</p>
<p>17. CORYDON STREET CROSSING Provide adequate and safe trail access and connectivity across Corydon St at intersection with creek channel</p>		<p>3-10 YRS</p>

TRAIL RECOMMENDATIONS

1.	Explore opportunity to develop recreational multi-use trail alignment north of Corydon St to Palomar St along existing channel levee; obtain access and maintenance agreement from Riverside County Flood Control as needed		1-2 YRS
2.	Determine property ownership / agency responsibility for potential trail alignment between Serenity Park and western terminus of Lake Elsinore Levee Trail	City has developed a property boundary map for this section.	✓ COMPLETE
3.	Obtain easements and/or MOUs and agreements with property owners to install interim single-track trail link from Serenity Park north to Lake Elsinore Levee via Como St		1-2 YRS
4.	Develop preliminary concept for regional multi-use trail extension / connection from Serenity Park north to Lake Elsinore Levee Trail	Funding needed to pursue project. Currently unfunded.	3-10 YRS
5.	Establish easements and/or MOUs and agreements to facilitate extension of regional trail link from Serenity Park north to Lake Elsinore Levee Trail	Funding needed to pursue project. Currently unfunded.	3-10 YRS
6.	Identify opportunities to connect Murrieta Creek Regional Trail to the City's Riverwalk trail		10+ YRS

TRAILHEAD / ACCESS POINT DEVELOPMENT

7.	Explore options/opportunities to develop trailhead(s) for the Murrieta Creek Regional Trail within the city		3-10 YRS
8.	Establish Serenity Park as a trailhead for the Murrieta Creek Regional Trail	Funding needed to pursue project. Currently unfunded.	3-10 YRS

BRIDGES AND ROAD CROSSINGS

9.	CORYDON STREET CROSSING Provide adequate and safe trail access and connectivity across Corydon St at intersection with creek channel		3-10 YRS
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appendix: summary of infrastructure costs

murrieta creek regional trail project

Infrastructure	Description	Median	Average	Minimum Low	Maximum High	Cost Unit	Number of Sources (Observations)
Bicycle Parking	Bicycle Locker	\$2,140	\$2,090	\$1,280	\$2,680	Each	4 (5)
Bicycle Parking	Bicycle Rack	\$540	\$660	\$64	\$3,610	Each	19 (21)
Bikeway	Bicycle Lane	\$89,470	\$133,170	\$5,360	\$536,680	Mile	6 (6)
Bikeway	Concrete Bicycle Path	\$182,870	\$179,340	\$91,420	\$343,700	Mile	2 (6)
Bikeway	Signed Bicycle Route	\$27,240	\$25,070	\$5,360	\$64,330	Mile	3 (6)
Bikeway	Signed Bicycle Route with Improvements	\$241,230	\$239,440	\$42,890	\$536,070	Mile	1 (6)
Bollard	Bollard	\$650	\$730	\$62	\$4,130	Each	28 (42)
Chicanes	Chicane	\$8,050	\$9,960	\$2,140	\$25,730	Each	8 (9)
Crosswalk	High Visibility Crosswalk	\$3,070	\$2,540	\$600	\$5,710	Each	4(4)
Crosswalk	Striped Crosswalk	\$340	\$770	\$110	\$2,090	Each	8 (8)
Crosswalk	Striped Crosswalk	\$5.87	\$8.51	\$1.03	\$26	Linear Foot	12 (48)
Crosswalk	Striped Crosswalk	\$6.32	\$7.38	\$1.06	\$31	Square Foot	5 (15)
Curb/Gutter	Curb	\$18	\$21	\$1.05	\$110	Linear Foot	16 (68)
Curb/Gutter	Curb and Gutter	\$20	\$21	\$1.05	\$120	Linear Foot	16 (108)
Curb/Gutter	Gutter	\$23	\$23	\$10	\$78	Linear Foot	4 (4)

From *Costs for Pedestrian and Bicyclist Infrastructure Improvements: A Resource for Researchers, Engineers, Planners, and the General Public* (UNC Highway Safety Research Center for the Federal Highway Administration, October 2013).

Infrastructure	Description	Median	Average	Minimum Low	Maximum High	Cost Unit	Number of Sources (Observations)
Curb Extension	Curb Extension/ Choker/ Bulb-Out	\$10,150	\$13,000	\$1,070	\$41,170	Each	19(28)
Curb Ramp	Truncated Dome/Detectable Warning	\$37	\$42	\$6.18	\$260	Square Foot	9 (15)
Curb Ramp	Wheelchair Ramp	\$740	\$810	\$89	\$3,600	Each	16 (31)
Curb Ramp	Wheelchair Ramp	\$12	\$12	\$3.37	\$76	Square Foot	10 (43)
Diverter	Diverter	\$22,790	\$26,040	\$10,000	\$51,460	Each	5 (6)
Diverter	Partial/Semi Diverter	\$15,000	\$15,060	\$5,000	\$35,000	Each	3 (4)
Fence/Gate	Fence	\$120	\$130	\$17	\$370	Linear Foot	7 (7)
Fence/Gate	Gate	\$510	\$910	\$330	\$1,710	Each	5 (5)
Flashing Beacon	Flashing Beacon	\$5,170	\$10,010	\$360	\$59,100	Each	16 (25)
Flashing Beacon	RRFB	\$14,160	\$22,250	\$4,520	\$52,310	Each	3 (4)
Gateway	Gateway Sign	\$350	\$340	\$130	\$520	Each	3 (4)
Gateway	Structure	\$15,350	\$22,750	\$5,000	\$64,330	Each	5 (6)
Pedestrian Hybrid Beacon	Pedestrian Hybrid Beacon	\$51,460	\$57,680	\$21,440	\$128,660	Each	9 (9)
Island	Median Island	\$10,460	\$13,520	\$2,140	\$41,170	Each	17 (19)
Island	Median Island	\$9.80	\$10	\$2.28	\$26	Square Foot	6 (15)
Lighting	In-pavement Lighting	\$18,250	\$17,620	\$6,480	\$40,000	Total	4 (4)
Lighting	Streetlight	\$3,600	\$4,880	\$310	\$13,900	Each	12 (17)
Median	Median	\$6.00	\$7.26	\$1.86	\$44	Square Foot	9 (30)
Overpass/ Underpass	Wooden Bridge	\$122,610	\$124,670	\$91,010	\$165,710	Each	1 (8)
Overpass/ Underpass	Pre-Fab Steel Bridge	\$191,400	\$206,290	\$41,850	\$653,840	Each	5 (5)
Path	Boardwalk	\$1,957,040	\$2,219,470	\$789,390	\$4,288,520	Mile	5 (5)
Path	Multi-Use Trail - Paved	\$261,000	\$481,140	\$64,710	\$4,288,520	Mile	11 (42)
Path	Multi-Use Trail - Unpaved	\$83,870	\$121,390	\$29,520	\$412,720	Mile	3 (7)

Infrastructure	Description	Median	Average	Minimum Low	Maximum High	Cost Unit	Number of Sources (Observations)
Pavement Marking	Advance Stop/Yield Line	\$380	\$320	\$77	\$570	Each	3 (5)
Pavement Marking	Advance Stop/Yield Line	\$10	\$10	\$4.46	\$100	Square Foot	1 (4)
Pavement Marking	Island Marking	\$1.49	\$1.94	\$0.41	\$11	Square Foot	1 (4)
Pavement Marking	Painted Curb/Sidewalk	\$1.21	\$3.40	\$0.44	\$12	Square Foot	4 (5)
Pavement Marking	Painted Curb/Sidewalk	\$2.57	\$3.06	\$1.05	\$10	Linear Foot	2 (5)
Pavement Marking Symbol	Pedestrian Crossing	\$310	\$360	\$240	\$1,240	Each	4 (6)
Pavement Marking Symbol	Shared Lane/Bicycle Marking	\$160	\$180	\$22	\$600	Each	15 (39)
Pavement Marking Symbol	School Crossing	\$520	\$470	\$100	\$1,150	Each	4 (18)
Signal	Audible Pedestrian Signal	\$810	\$800	\$550	\$990	Each	4 (4)
Signal	Countdown Timer Module	\$600	\$740	\$190	\$1,930	Each	14 (18)
Signal	Pedestrian Signal	\$980	\$1,480	\$130	\$10,000	Each	22 (33)
Signal	Signal Face	\$490	\$430	\$130	\$800	Each	3 (6)
Signal	Signal Head	\$570	\$550	\$100	\$1,450	Each	12 (26)
Signal	Signal Pedestal	\$640	\$800	\$490	\$1,160	Each	3 (5)
Pedestrian/Bike Detection	Furnish and Install Pedestrian Detector	\$180	\$390	\$68	\$1,330	Each	7 (14)
Pedestrian/Bike Detection	Push Button	\$230	\$350	\$61	\$2,510	Each	22 (34)
Railing	Pedestrian Rail	\$95	\$100	\$7.20	\$690	Linear Foot	29 (83)
Raised Crossing	Raised Crosswalk	\$7,110	\$8,170	\$1,290	\$30,880	Each	14 (14)
Raised Crossing	Raised Intersection	\$59,160	\$50,540	\$12,500	\$114,150	Each	5 (5)
Roundabout/Traffic Circle	Roundabout/Traffic Circle	\$27,190	\$85,370	\$5,000	\$523,080	Each	11 (14)

Infrastructure	Description	Median	Average	Minimum Low	Maximum High	Cost Unit	Number of Sources (Observations)
Sidewalk	Asphalt Paved Shoulder	\$5.81	\$5.56	\$2.96	\$7.65	Square Foot	1 (4)
Sidewalk	Asphalt Sidewalk	\$16	\$35	\$6.02	\$150	Linear Foot	7 (11)
Sidewalk	Brick Sidewalk	\$60	\$60	\$12	\$160	Linear Foot	9 (9)
Sidewalk	Concrete Paved Shoulder	\$6.10	\$6.64	\$2.79	\$58	Square Foot	1 (11)
Sidewalk	Concrete Sidewalk	\$27	\$32	\$2.09	\$410	Linear Foot	46 (164)
Sidewalk	Concrete Sidewalk - Patterned	\$38	\$36	\$11	\$170	Linear Foot	4 (5)
Sidewalk	Concrete Sidewalk - Stamped	\$45	\$45	\$4.66	\$160	Linear Foot	12 (17)
Sidewalk	Concrete Sidewalk + Curb	\$170	\$150	\$23	\$230	Linear Foot	4 (7)
Sidewalk	Sidewalk	\$34	\$45	\$14	\$150	Linear Foot	17 (24)
Sidewalk	Sidewalk Pavers	\$70	\$80	\$54	\$200	Linear Foot	3 (4)
Sign	Stop/Yield Signs	\$220	\$300	\$210	\$560	Each	4 (4)
Speed Trailer	Speed Trailer	\$9,480	\$9,510	\$7,000	\$12,410	Each	6 (6)
Speed Bump/Hump /Cushion/Table	Speed Hump	\$2,130	\$2,640	\$690	\$6,860	Each	14 (14)
Speed Bump/Hump /Cushion/Table	Speed Bump	\$1,670	\$1,550	\$540	\$2,300	Each	4 (4)
Speed Bump/Hump /Cushion/Table	Speed Table	\$2,090	\$2,400	\$2,000	\$4,180	Each	5 (5)
Street Furniture	Street Trees	\$460	\$430	\$54	\$940	Each	7(7)
Street Furniture	Bench	\$1,660	\$1,550	\$220	\$5,750	Each	15 (17)
Street Furniture	Bus Shelter	\$11,490	\$11,560	\$5,230	\$41,850	Each	4 (4)
Street Furniture	Trash/Recycling Receptacle	\$1,330	\$1,420	\$310	\$3,220	Each	12 (13)