

The Galt Greenway

A Landuse Element For
The Future of
This City



The Galt Greenway: A Landuse Element for the Future of this City

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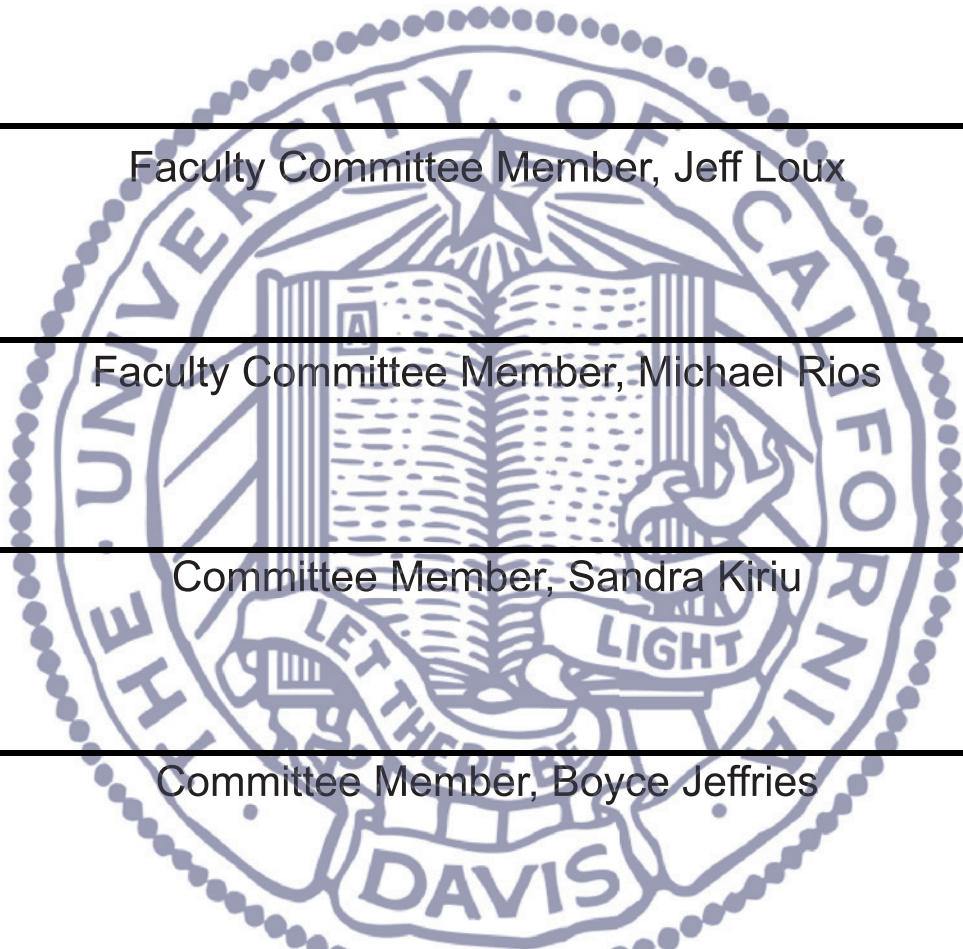
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Dedication

Angelica - You are my strength when I am weak. You pick me up, when I am down. You have given me the greatest gift I could have ever received; Love. As my undergraduate years come to an end, I want you to know that you have made them the best years of my life and I look forward to our future together.

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Abstract



As we look ahead to the future, it is important to start planning for it today. Oil is increasingly becoming an expensive commodity and people are looking for other alternatives. What better way to give them another option, that society and the environment can benefit from, than a greenway network for all to use. A greenway can provide economic, social, health, and ecological benefits that help an entire community.

As the population continues to grow and expand, we must be wise about our development decisions because they will affect the future generations. We have to build stronger trail systems that will give citizens another option besides the vehicle. Greenways are part of the solution to the transportation issues that we are living with today. An investment in a greenway system, is a smart investment in the youth of tomorrow.

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I. Introduction

In the suburban town of Galt, this seemingly low key city is more than what it appears with the title of the “great American little town.” On Tuesdays and Wednesdays, this town becomes a thriving cultural hub. The Galt Market, located just off the main commercial street, is a commerce center where people are able to share, converse, and ultimately creates strong communal bonds.

The Galt Market receives three quarters of a million visitors annually adding to the community’s economic and social diversity in as well as providing vital revenue. The Galt Market is a great representation of what the Galt Greenway could be: a place of connections. The greenway can help this community thrive by inspiring social interaction and civic pride. The greenway would be a place where knowing your neighbor is not just simply an expression, but a way of life. Galt has flourished, and in the process has become an area that has very strong community connections.

A greenway is “a coordinated system of open space that links existing natural and cultural facilities using city streets, railroad right-of-way, utility easements, and natural features such as stream corridors and drainage channels. They help provide corridors for wildlife habitat and also acts as a buffer zone between developments” (Jones). The purpose of greenways is to preserve open space for recreational and ecological motives within the urban environment. Greenways provide the links between schools, parks, wildlife habitat, public gathering spaces and neighborhoods.



Fig. 1.1 Vendor and a customer at the Galt Market.
(www.lodinews.com)

The population in Galt is projected to increase to approximately 50,000 around the year 2030 (Galt General Plan). It is important for the city to start thinking about the future and the importance of open space for its citizens. Preparing for and anticipating this growth by setting aside land and establishing policies that ensure that future generations will have a sufficient amount of open space. This preparation demonstrates a forward thinking that will ensure the success of open space for generations to come (Flink). In this

report, I will discuss steps for the city of Galt to create a productive and valuable greenway. Davis, California will be the most significant case study, showcasing the positives to creating such a greenway. Though these two cities, Galt and Davis, are unique with their own identity, Davis was chosen for its central valley location, closeness in population size, and the existing green belt. The Green belt has flourished throughout the years and is an example of the success the Galt Greenway could achieve.



Fig. 1.2 Southern Pacific Park



II. Comparing Galt and Davis

Location

The city of Galt is located between the major metropolitan areas of Sacramento and Stockton. The closest cities are the city of Elk Grove to the northeast and the city of Lodi to the south (Galt Gen. Plan).

Davis is located in the southeast corner of Yolo County along Interstate 80. The nearest major metropolitan areas are Sacramento to the west and San Francisco to the east. The nearest cities are Woodland to the north, West Sacramento to the west and Dixon to the southwest (Davis General Plan).

While Davis and Galt are separated by approximately 75 miles, they share several common demographics including community size (both populations are under 50,000 permanent residents), physical geography (small community surrounded by agriculture land) and commute distance to the major urban center of Sacramento (approximately 20-25 min.).

Even though they share these critical common themes, the racial and income demographics are different, as are the community values and economic resource base. Despite these differences, Davis provides a promise of what is possible to transform a community through hardscape and landscape.

Comparative Demographics

In 2008, the city of Galt's population was 24, 026 and has increased 23.4% since 2000. The median age of Galt residents is approximately 30 years old. The Caucasian population leads all ethnicities with 59.2% followed by Hispanics with 33.2%. Other races account for 18.6% with two or more races at 5.7%, American Indian 2.3%, Filipino 1.4% and African-American 1.2%. The average household size is 3.2 people and 81.8% Galt residents live in family households (City-data).

The population of Davis was 62,593 in 2008. Of that number, 20,000 to 25,000 are students. Due to the heavy student population, the median age of Davis residents is approximately 25 years-old. Davis contrasts with Galt in that it has a much higher Caucasian population at 65.9% and a more diverse population. The Hispanic population is only 9.6% of the total, while other ethnicities are well represented including Chinese (8%), Black (2.3%), Vietnamese (1.8%), Filipino (1.7%), Japanese (1.6%), Asian Indian (1.5%), American Indian (1.5%), Korean (1.4%), other Asian (1.4%), and other race (9.2%). The average household size in Davis is 2.5 people (City-data).

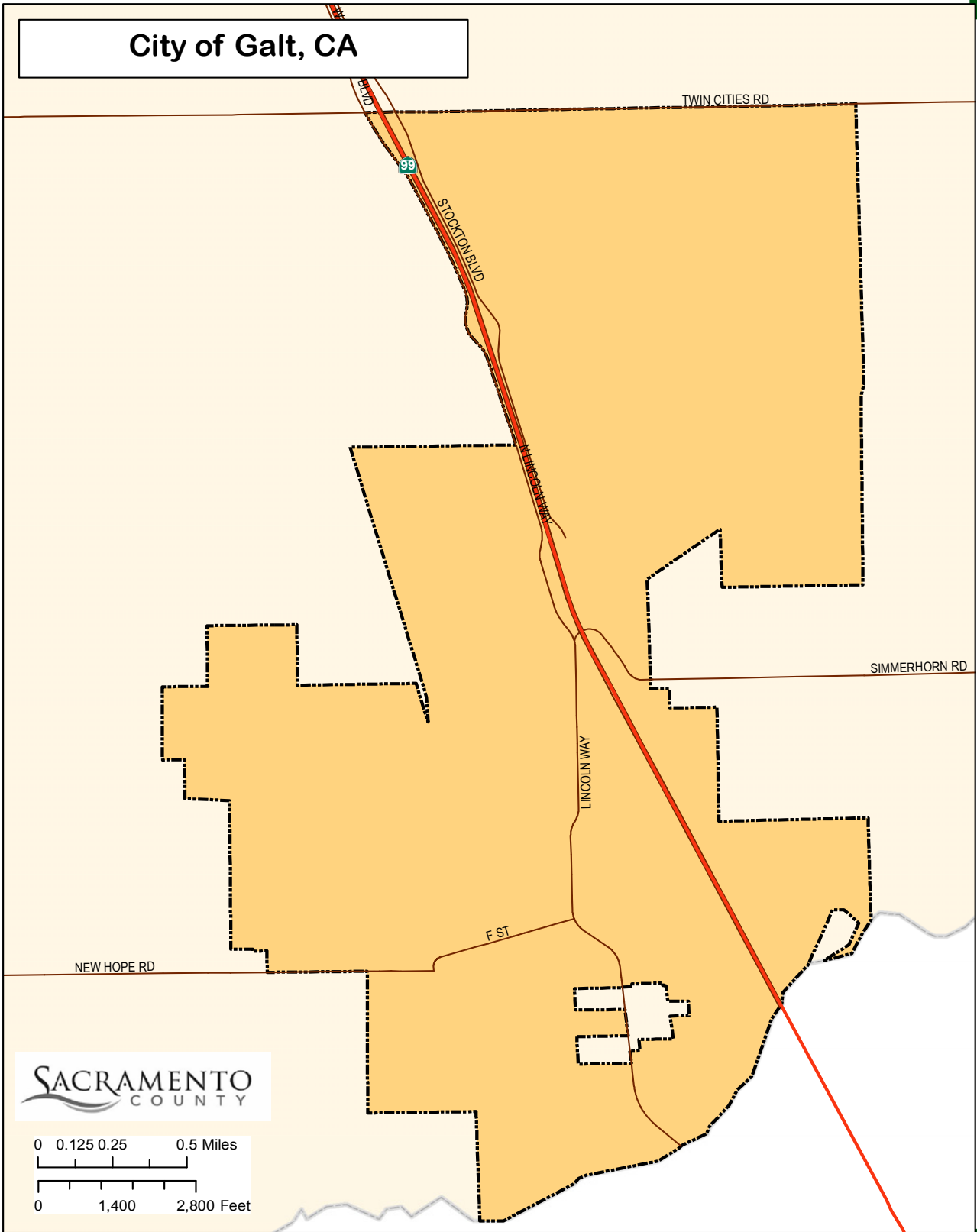


Fig 2.1 Galt City Map
 (www.saccounty.net)



III. General Plan Information



Galt General Plan info

The land-use element in the Galt General Plan states that public land accounts for 14% within the city and open space accounts for 1% within the city based on 2004 statistics. This means that out of the 3100 acres located within the city, public space accounts for 536 acres and open-space (creeks, trails, and open-space corridors) accounts for 16 acres. Public space includes areas set aside as community centers, parks, schools, police and fire stations, institutional facilities, and the wastewater treatment plant. The wastewater treatment plant alone is approximately 297 acres of the total public space, which is 7% of the 18% that accounts for public space. Roads and infrastructure, account for 720 acres or 19% of the land within the city of Galt (Galt Gen.. Plan).

Galt is expected to grow to 44,150 residents by the year 2025 based on local projection. In order to accommodate this new projected growth, the city will need to build an

additional 5,470 housing units bringing the total housing stock to 11,666 units. Currently Galt, has a policy that requires developers to set aside five acres of land for park space per 1,000 people. Why not try something new and establish policies that will set land aside for the greenway and its future growth?

Davis General Plan info

The Davis General Plan states that the greenbelt system is meant to “provide safe and secure linear parkways and connectors to close residences of alternatives to biking or walking on streets” (Davis Gen.. Plan).

The city of Davis General Plan includes a set of policy and standards that will help ensure the success of their green belt system. Perhaps the most influential standard that they set was establishing a policy stating that ten percent of a new residential development must be dedicated to the greenbelt. The city of Davis policies clarify that

greenbelt and parks are separate entities specifically authorized by the Quimby Act. If the developer does not comply with the standards they will be denied permission to develop the area or they will have to pay in lieu fees that will be used for greenbelt acquisition or improvement. The city also requires that new residential development be located near the greenbelt system. In addition to these standards, they have also set size standards and incorporated restoration, storm water drainage, land-use buffers, and wildlife areas into the greenway.

These policies and practices are directly transferable to the City of Galt. The city leadership should review the Davis model to assist in establishment of criteria for a Galt greenway system. The Galt City Council may ultimately determine that ten percent is too aggressive however, Davis provides a starting point to begin discussion.

Existing Bikeways

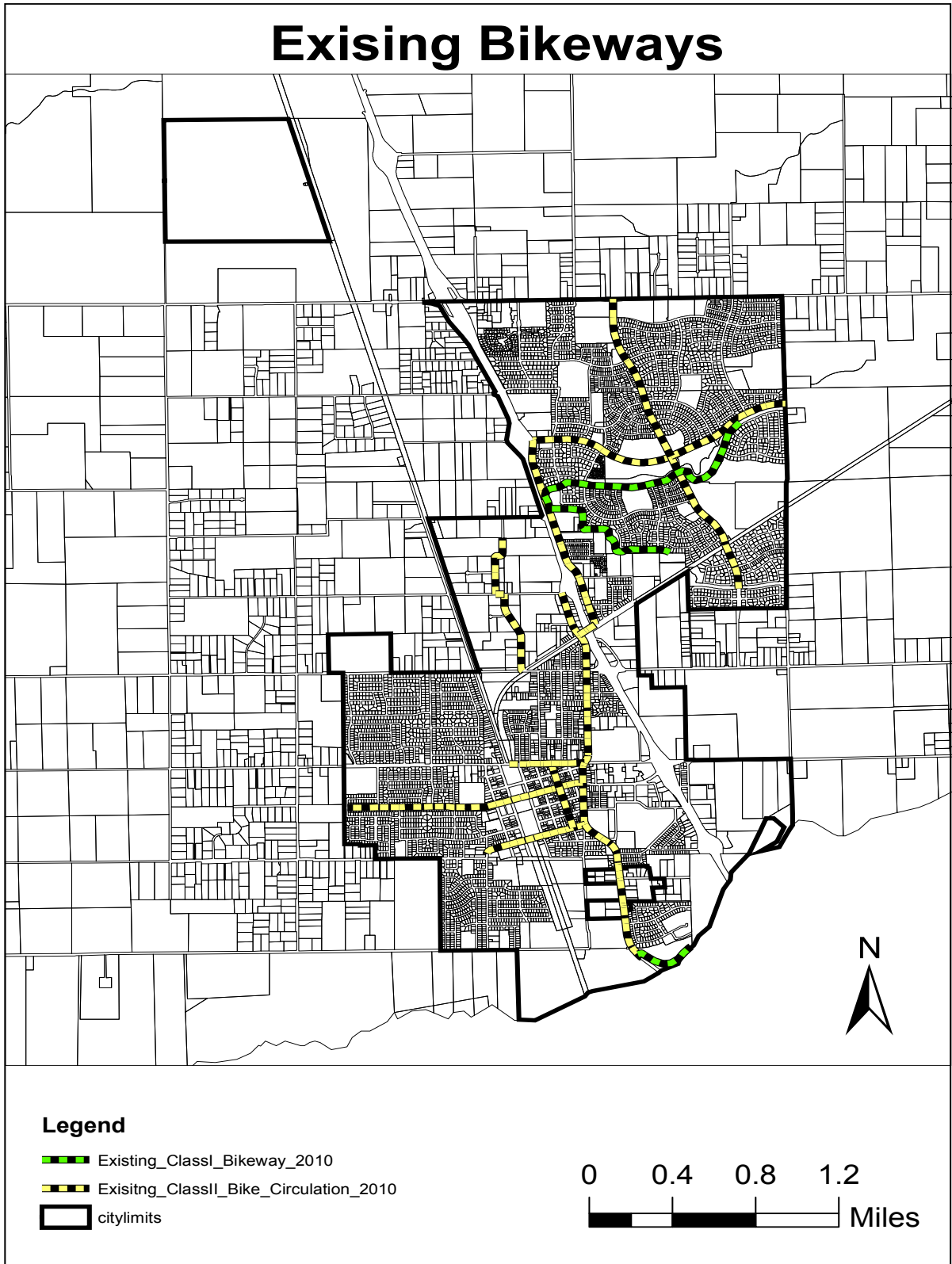


Fig. 3.1 Existing Bikeways

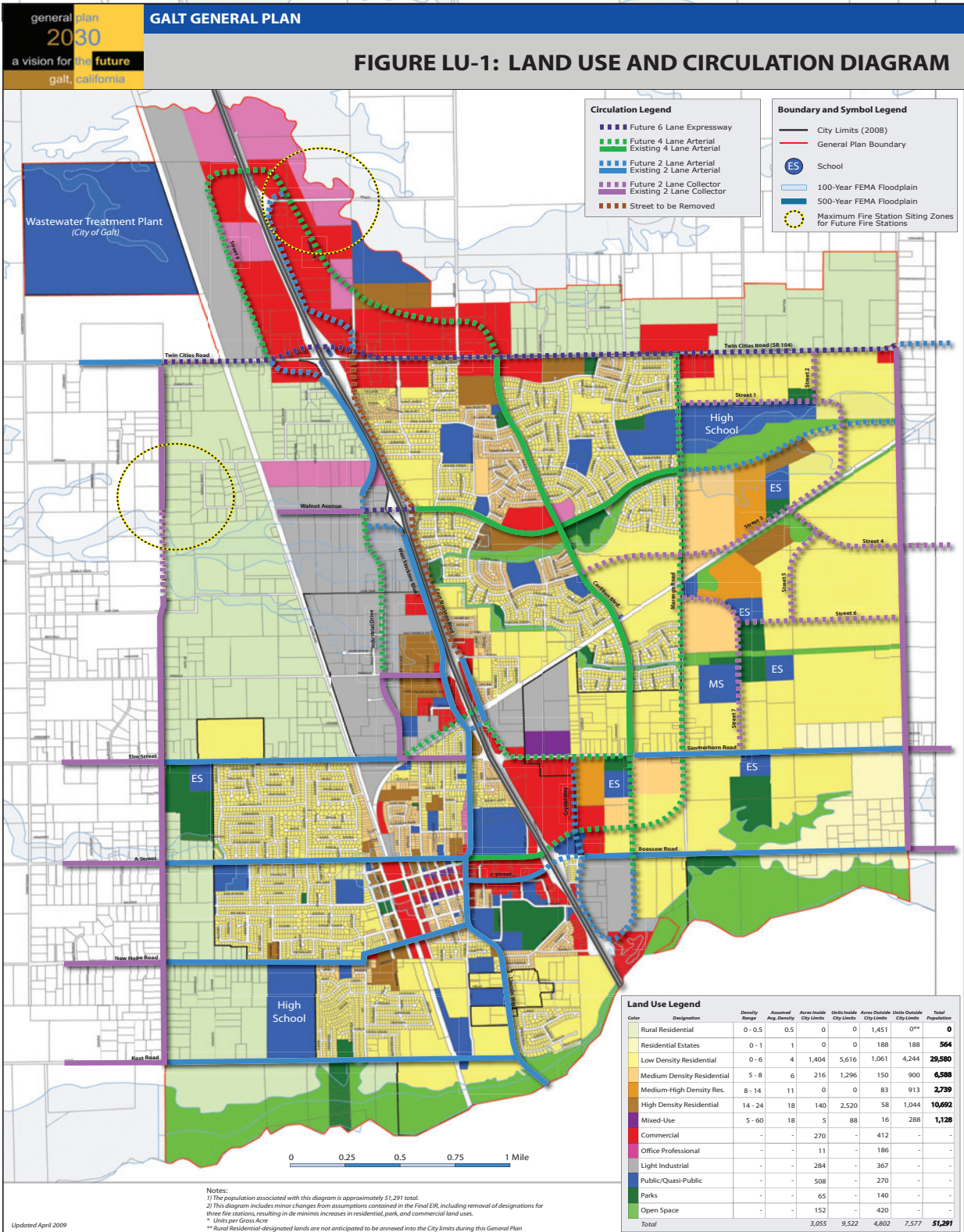


Fig. 3.2 Galt General Plan 2030
(City of Galt)



IV. Benefits of a Greenway

Economic Values of a Greenway

Developers might initially argue that the greenway represents an economic burden and disadvantages them financially, the experiences of other agencies demonstrates that greenways actually improve property values and enhance communities. When given a choice, tenants and homeowners prefer living near a greenway and will pay more to live in those desirable locations. In a recent study, “walking and biking paths” ranked third of 39 features that homeowners found important (Hopkins).

The principal is similar to the value that is enhanced when a property is close to parks and schools. In addition, companies exploring a location to site their businesses often seek property that is near recreational facilities and with pleasant physical spaces. The greenway can provide bicycle paths, which can be an alternative to driving to work for employees. Some employers will actually donate money to help with the management and maintenance of the greenway (cite). Tourists and visitors are also drawn to open space areas and green belts for recreation



Fig. 4.1 Trail Intersection

Fig. 4.2 Ecological Diversity of a Greenway



and environmental activities because of scenic beauty and the cleanliness and sense of wealth it provides. Providing this type of attraction to employers will help the local economy thrive.

Ecological Values of Greenways

The land use planning associated with establishment of greenways ultimately benefits the environment. Restoring streams and wetlands, creating new wildfire habitat through landscaping with native and climate

appropriate plants, converting existing streets to green streets by reducing the use of non-porous material, appropriate street landscaping and promoting other modes of transportation are all examples of smart ecological land use (Wheeler). The plants along the greenway are able to sequester carbon, reduce runoff, filter water and promote groundwater recharge. In addition to helping the environment, these strategies also help prevent runoff and erosion, reduce the heat island effect and help improve water quality for local residents (Wheeler).

Because Galt is a highly visible agricultural community with fertile soil and access to water, it is important to help preserve the agriculture land that surrounds Galt. One way to preserve the land is through an Urban Agriculture Transition Area (UATA). The purpose of this area is to act as a buffer between development and the farmers. In the city of Davis, the UATA is considered to be part of the greenbelt by many residents although it is not recognized as part of it in the general plan. This space can act as a drainage channel in the winter as well as an ecological corridor and trail for the residents (Davis Gen.. Plan).

Social Values of Greenways

Green spaces improve the social interaction of a community's residents. A recent survey conducted by Anne Brunette, the property management coordinator for parks and general services for the city of Davis, revealed that walking was the most popular

activity among Davis residents who responded to the survey. This principal can easily transcend to Galt because walking is a leisurely activity that can be enjoyed by all ages and cultures. Mrs. Brunette mentioned that walking and biking were the top two activities attributed to the greenbelt (Brunette). Walking denotes a sense of safety and pride in a community, while promoting healthy living for the city's citizens.

Neighborhoods space that do not interact and are isolated from each other are more likely to be interested in community issues as a whole. Therefore, trail planning can help connect neighborhoods to parks and schools. These neighborhoods should be brought to the table to help with the planning



Fig. 4.3 Neighborhood Access

Fig. 4.4 Greenway Access to Parks



and design process. This will help set up relationships within the community moreover, establish a shared sense of ownership (Trail Planning).

Health Benefits Associated with Greenways

The promotion of health is built into the greenways. It is important to not understate the importance of the greenways and the role they play in the lifestyle of a person's life. If a child is taught to ride a bike to school from a young age because the community is safe, clean, and balanced with the

environment, it will promote healthy living choices throughout that child's life. The mind-set of the child towards the health and fitness will happen simultaneously while they are exercising.

These ideals are becoming more important everyday as we live in a nation where the child obesity is at an all-time high of 17 percent nation-wide (CDC web site). Between 1976-2008 childhood obesity increased from 5 to 18.1 percent in young adolescents from ages 12-19 (CDC). In adults the rate is much higher at a staggering 33.8 percent (CDC). Being overweight can lead to health problems such as

diabetes, cardiovascular disease and certain types of cancer (CDC). It is crucial to provide facilities, such as the stated for the greenway, to the residents in order to help promote and sustain a healthier lifestyle. In order for people to take advantage of these systems in place, they must have access to them therefore, placement is critical. Accessibility then becomes the critical factor in determining whether or not people will use the greenway. During the planning stages of the project, it

is a priority to have some part of the greenway that is within a 5 minute walking distance from residents. Pursuing this project with this mind-set can also help generate funds though health promotion grants like the ones given by Kaiser Permanente Thrive Program.



Fig. 4.5 Promoting a Healthy Lifestyle



V. Analysis of Galt

Agriculture

Agriculture is the predominant land-use surrounding Galt and is controlled by the Sacramento County Gen.... plan and zoning ordinance. Dry Creek is located south of the city and is designated as recreational open-space that also constitutes a barrier to the city from the agriculture lands of San Joaquin County (Galt Gen..... Plan).

Watershed

There are several creeks that run through Galt including, Dry Creek and Deadman Gulch. Dry Creek is the bigger of the two and serves as the dividing line between Sacramento and San Joaquin County. Dry creek has water throughout the year and has riparian vegetation along its edges. This vegetation helps create habitat for local wildlife. Deadman Gulch, on the other hand, is more of a collection creek for agriculture and urban runoff. During the winter, most runoff from the rain goes into these creeks and

are used as flood control.

Rail Road Tracks in Galt Region

There are currently two rail lines that run through the city of Galt. Both of the lines are owned and operated by Union Pacific. The north/south rail that runs most heavily utilized, averaging twenty-seven freight and passenger trains per day. This line is currently being reviewed by the California High Speed Rail Authority as a possible corridor that can link Sacramento to Southern California. Although this can be an opportunity to promote Transit Oriented Development and improve mass transit in the city, it should not be a deterrent to the greenway. There is plenty of under utilized space on both the east and west side of the track. The rail right of way provides enough space to construct a greenway corridor. There should be careful planning that includes proper safety precautions including, fencing and landscaping. (Galt Gen..... Plan).

Fig. 5.1 Existing Rail Road Tracks



The second rail line travels northeast from Galt. This track is used much less frequently; about once a day. This rail line was built to allow slow trains to switch on to it, and allow faster trains to bypass them on the main track. It is particularly important because it connects the historic part of town to the new development located across from Highway 99. It is possible that this will be abandoned sometime in the near future. If this should happen, or Galt takes the initiative to negotiate with Union Pacific to abandon it, the track could be a golden opportunity for the core of the

greenway.

Existing Parks/Open Space

Within the city, there are currently twelve recreational parks inside the city limits. The largest parks in the city are the sports complex located next to the Galt Market and the Community Park located in the center of the northeast development. There are six parks located in the northeast part of town and in the historic south part of the city as well. There is a new park that is in the first phase of development located on the

west side of the city which is estimated to be about forty acres. This park will also include a community center and a sports complex to accommodate football, baseball, softball, soccer, basketball, and tennis.

Existing Public Space

As of today, there are ten public schools and three private schools in Galt. In addition, there are five elementary schools, two middle schools, two high schools and one continuation high school for the public. As for the private schools, they range from elementary to middle school. There is one cemetery, post office, police and fire station in town. Furthermore, there is a community recreational pool located across from the Galt market. There are also two major shopping centers separated by Highway 99-, one for each part of town.

Existing Bike Trails

The city of Galt adopted “the Galt bicycle transportation plan” in May 2002 in order to establish a safe and interconnected bikeway system (Galt Gen..... plan). Galt currently has about 9180 lineal feet of Class I bikeway and 10,750 lineal fee of class II bikeways (Galt Gen..... plan). The current class II bikeway is in the northeast development and runs along minor arterials, parallel to California State Route 99. In the south section of the city, the bikeways run along Lincoln Avenue and west along C Street. There are also some minor sections located in downtown and in the industrial area. The class I bikeways run



Fig. 5.2 Existing Trail

along Deadman Gulch in the northeast development and a small section of Dry Creek located near the San Joaquin County boundary to the south. The only link between the north and south developments is along a two-lane street without designated lanes for bikes and a small sidewalk for pedestrians.

Existing Park, Public and Open Space

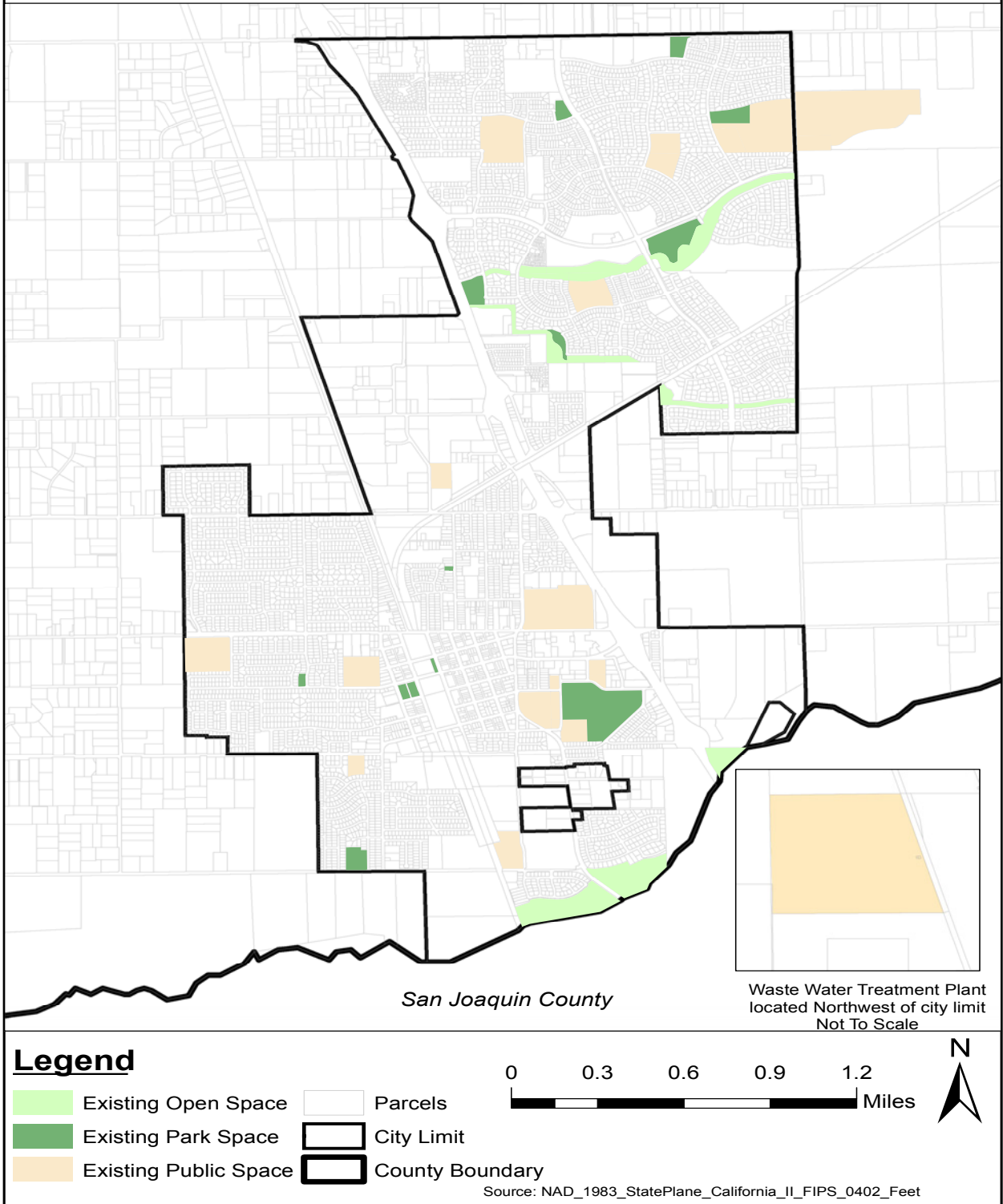


Fig. 5.3 Existing Park, Public and Open Space Map

Combined 5 Min. Walking Boundary

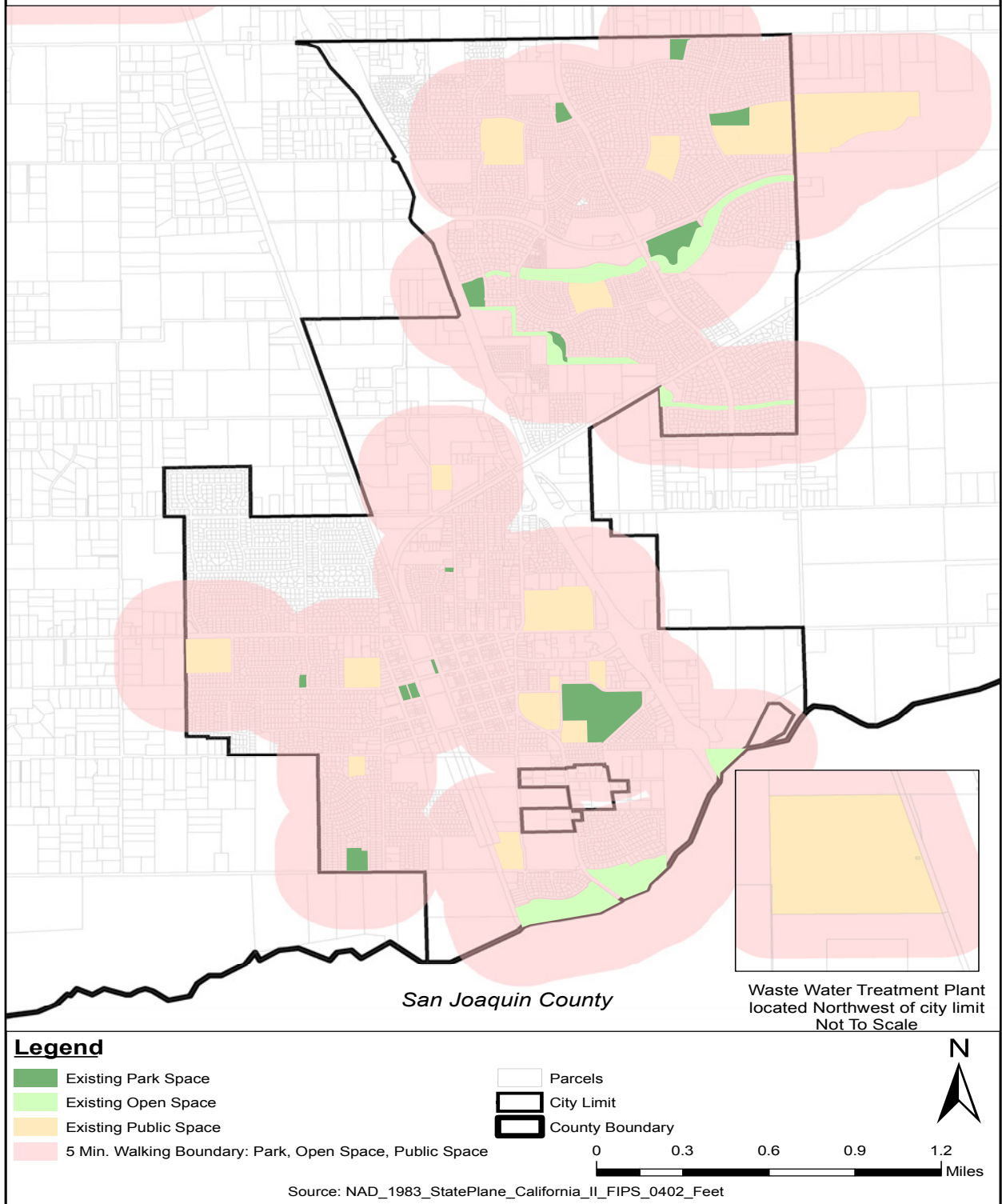


Fig. 5.4 Existing 5 Min.. Boundary Map



VI. Opportunities

According to the City of Galt General Plan, the City's open space and park space will grow along with its population as projected through 2030. Acquisition of additional open space is particularly important along Dry Creek in order to help preserve the ecology of the area. This area can greatly benefit the community and provide plenty of trails for local residents. The seldom used railroad track that runs northeast is another golden opportunity. Since there is minimal use on this track, there can be a proposal to abandon it. If this were to happen, it could provide the best possible space to link the both parts of town with one another. Funding can also come from abandoning the railroad because other cities can purchase the rights to the railroad crossing so that they can build one in their city (Brunette).

The greenway will require infill development which can help the city. This is a great opportunity to beautify the existing development and therefore,

raise values and stewardship. Perhaps, the easiest opportunity that the city has is anticipating future development and remodeling; making sure that new development complies with the greenway plan. There is also remodeling that will be done in order to prepare and support future growth. Ensuring that any remodeling complies with the greenway plan is important. Presently, there is a freeway over cross that is being rebuilt and it will have bike lanes and sidewalks for pedestrians.



VII. Constraints



There are several obstacles that must be overcome in order to make the greenway a successful project. A connection between the north and south part of Galt, currently separated by a major highway must be created in order to unite the community. Linking the neighborhoods in the community will require adequate Highway crossings for pedestrians and bicyclists. Acquiring land is another issue that must be resolved. This includes private property owners in addition to the rail road. It is important to bring these parties on board and notify them, before the public, of the intentions of the project. Including them in the process, and hearing their concerns, will encourage them to cooperate.

Finally, the biggest constraint for this small city is funding. With the recent economic crisis and massive budget cuts that have affected all counties and jurisdictions in California, money for these kind of projects has become scarce. It is important to think creatively

about funding for the project. There will be limited money, if any, comes from local government. Therefore, the city must look at different alternative resources that can help make this project a reality.



VIII. The Galt Greenway



The Galt Greenway is composed of four elements: the Green Vine, Galt Loop, Green Nodes and the Creekside Trail. These four are spread throughout the city and help unify it. These elements will be using the bike classification method to differentiate them. The classification method is:

Class I - A non-motorized facility, paved or unpaved, physically separated from motorized vehicular traffic by an open space or barrier. Also called Bicycle Path, Bike Trail, Non-motorized Trail, Multi-purpose Trail or some combination thereof.

Class II - A portion of a roadway that is designated by striping, signing and pavement markings for the preferential or exclusive use of bicyclists. Most often these are done in couplets, each one being one way and adjacent to the outside through travel lane. Also called Bicycle Lanes.

Class III - A segment of road designated by the jurisdiction having authority, with appropriate directional and informational markers, but without striping, signing and pavement markings for the preferential or exclusive use of bicyclists also called, Bicycle Routes.

Galt Loop

In order to create an effective greenway in Galt, connectivity is key. In order to achieve this goal, the Galt Loop must be created. The loop is important because it is the boundary of the greenway and will enable users to access the city. The loop (Class III Trail) will run along the edge of town on Cherokee Road, Sargent Road and Twin Cities Road. The southern portion of the loop is a Class I trail that will follow Dry Creek. The loop will also help provide access at the regional level by instituting routes along major roads to places like the Cosumnes River Preserve (located to the West).

Green Vine

The greenway in Galt will depend heavily on the Green Vine. The Green Vine runs along the rail road tracks and will connect the north and south developments of town. The green vine will be the corridor that will be the essential back bone of the greenway. As the central corridor it will be the main access point to the greenway system. It will be a Class 1 trail that has a 10 foot minimum trail to accommodate several users and keep them away from vehicular traffic.

The Green vine should be landscaped in accordance with the local climate and meet water efficiency standards. This space should also be used for educational purposes such as teaching children about local wildlife and vegetation. The agency in charge of the Green vine should be responsible for educational signs throughout the corridor. They should create a program

with local schools in order to provide an outdoor learning environment where teachers can take the students out to learn.

Green Nodes

Green nodes are important for the greenway system because they are the central gathering locations that users will be visiting. Having schools, parks, and public spaces in close proximity to the greenway system can be a way to help garner support for the project. Offering a safe alternative to driving from one location to another will increase the existing one percent of residents that bike to work. Showing parents that their children can get to schools or parks safely will make them more open to the possibility of allowing their children to ride their bikes or walk.

These green nodes will be located where large areas of users are expected. Since high numbers are expected at these gathering spaces then there should be multiple paths that arrive at

these locations.

Green Streets

Green streets are connectors that provide multiple routes to local destinations. They are intended to carry moderate levels of traffic and need to balance vehicle traffic with the safety of bicyclist and pedestrians. This is also a great opportunity to create scenic views of the city. Pedestrians and local citizens will denote these vistas as iconic landmarks of the city, making Galt more memorable while creating a cash flow for tourism. (Calthorpe). Streets should be designed to be iconic locations that the community can resonate with (Calthorpe).

The green streets implemented into the plan will consist of class II and III bike routes in addition to expanded sidewalks for pedestrians. These streets should be appropriately landscaped to provide aesthetic appeal as well as promote beautification of the city.

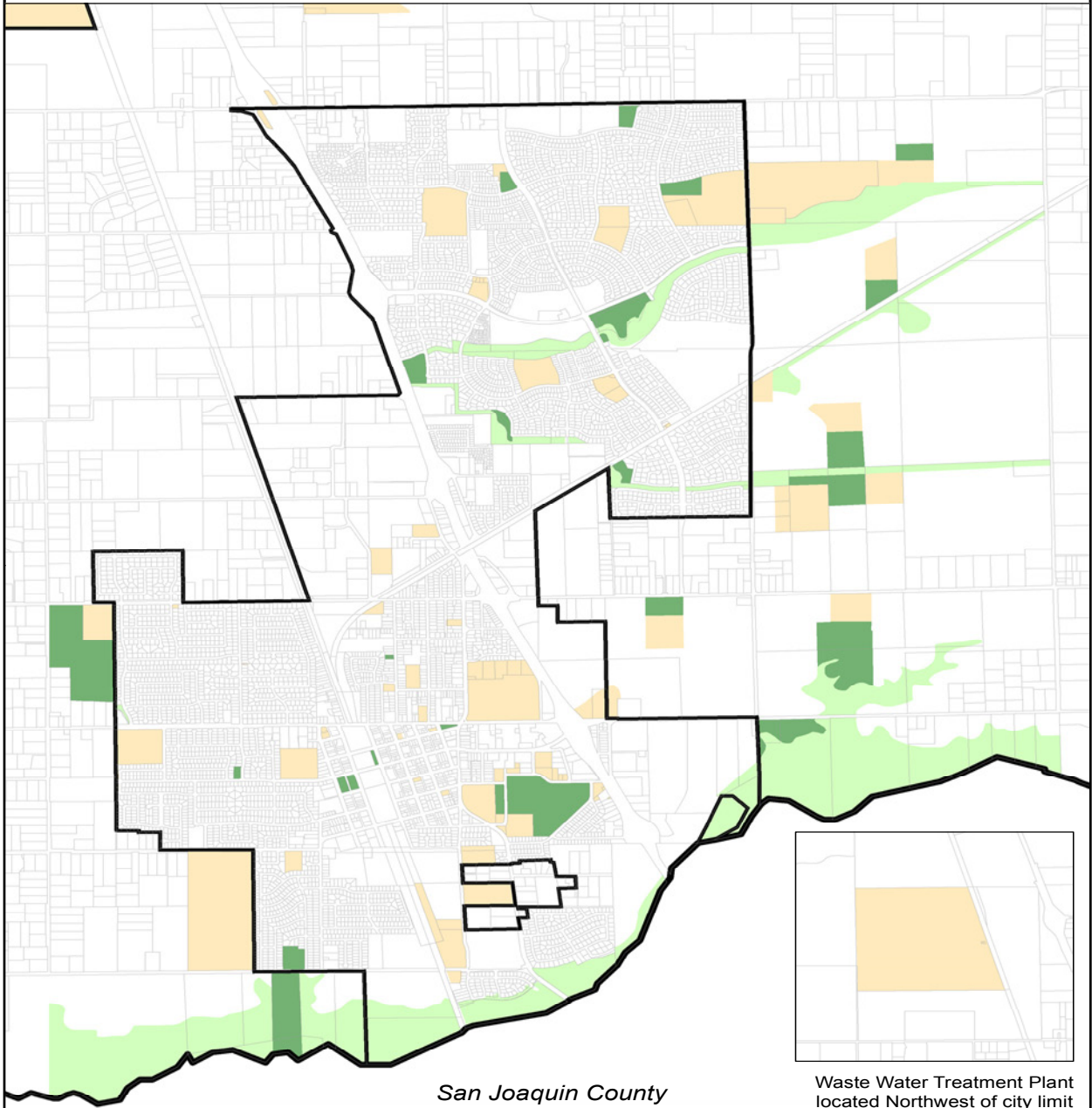
Creekside Trail

This trail will be composed of a Class I bike trail. This trail will primarily run along Dry Creek, Deadman Gulch, and other areas that could be potentially used as a swale to collect run off during winter. These trails will be available to both pedestrians and bicyclists. There will be several trails throughout the open space that help connect the trail to the rest of the city.

Alternative 1

Alternative 1 is meant to reach out to the areas that have little or no access to the greenway. This area is zoned as rural suburban. This alternative proposes that a trail along the rail road is built to link the city to the waster water treatment plant. This will also go through future commercial areas and give them access to the greenways.




Park, Open and Public Space in 2030

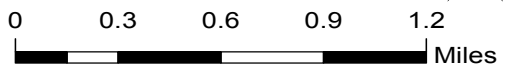


San Joaquin County

Waste Water Treatment Plant located Northwest of city limit
Not To Scale

Legend

-  Parcels
-  City Limit
-  County Boundary
-  Park Space 2030
-  Open Space 2030
-  Public Space 2030

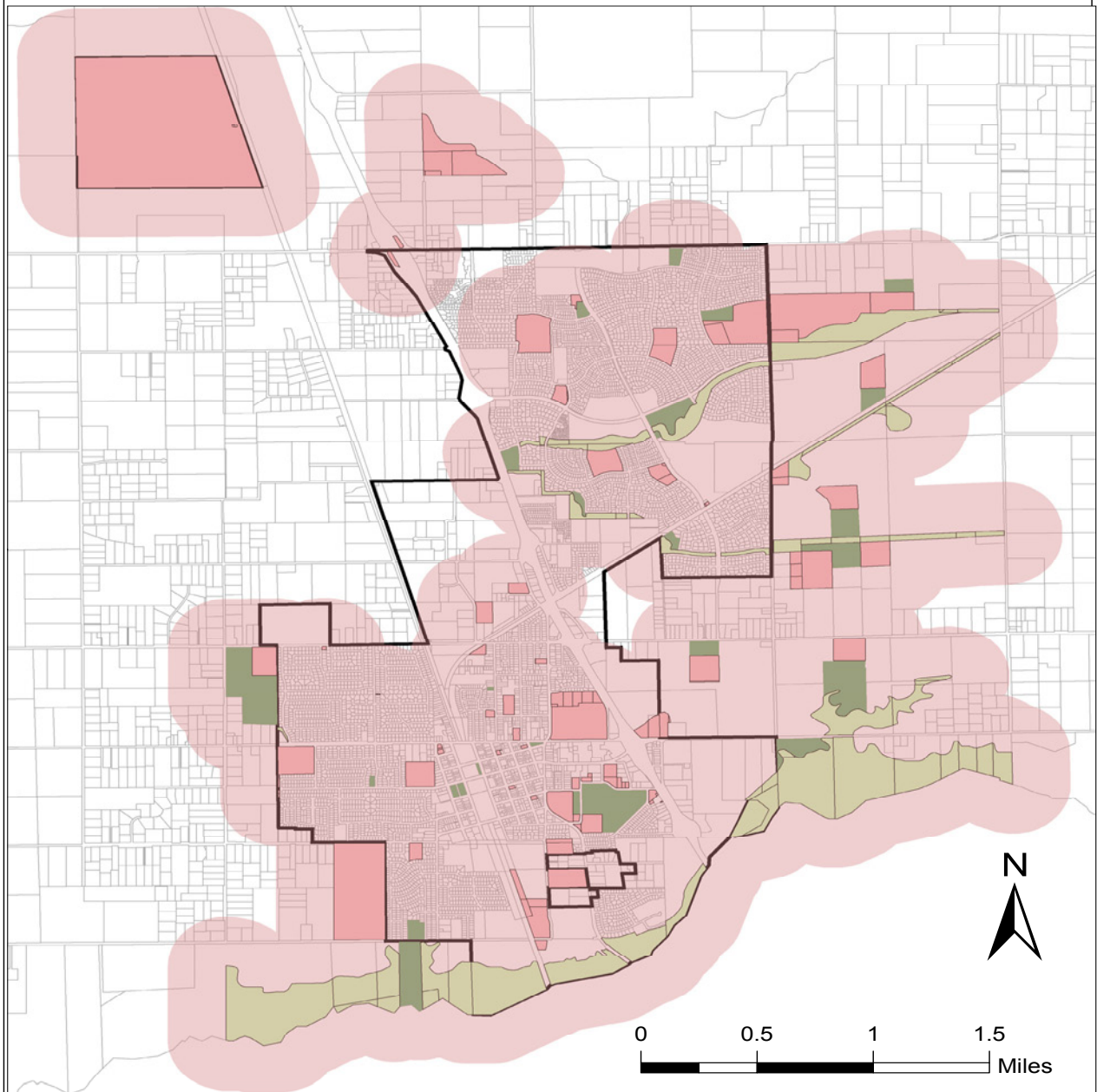


Source: NAD_1983_StatePlane_California_II_FIPS_0402_Feet



Fig. 8.1 Park, Open and Public Space in 2030

5 Min. Walk Boundary 2030



Legend

- Public Space 2030
- Open Space 2030
- Park Space 2030
- 5 Min. Boundary Walk: Park, Open Space, Public Space
- Parcels
- City Limit

Fig. 8.2 2030 Spaces - 5 Min.. Boundary Map

The Galt Loop

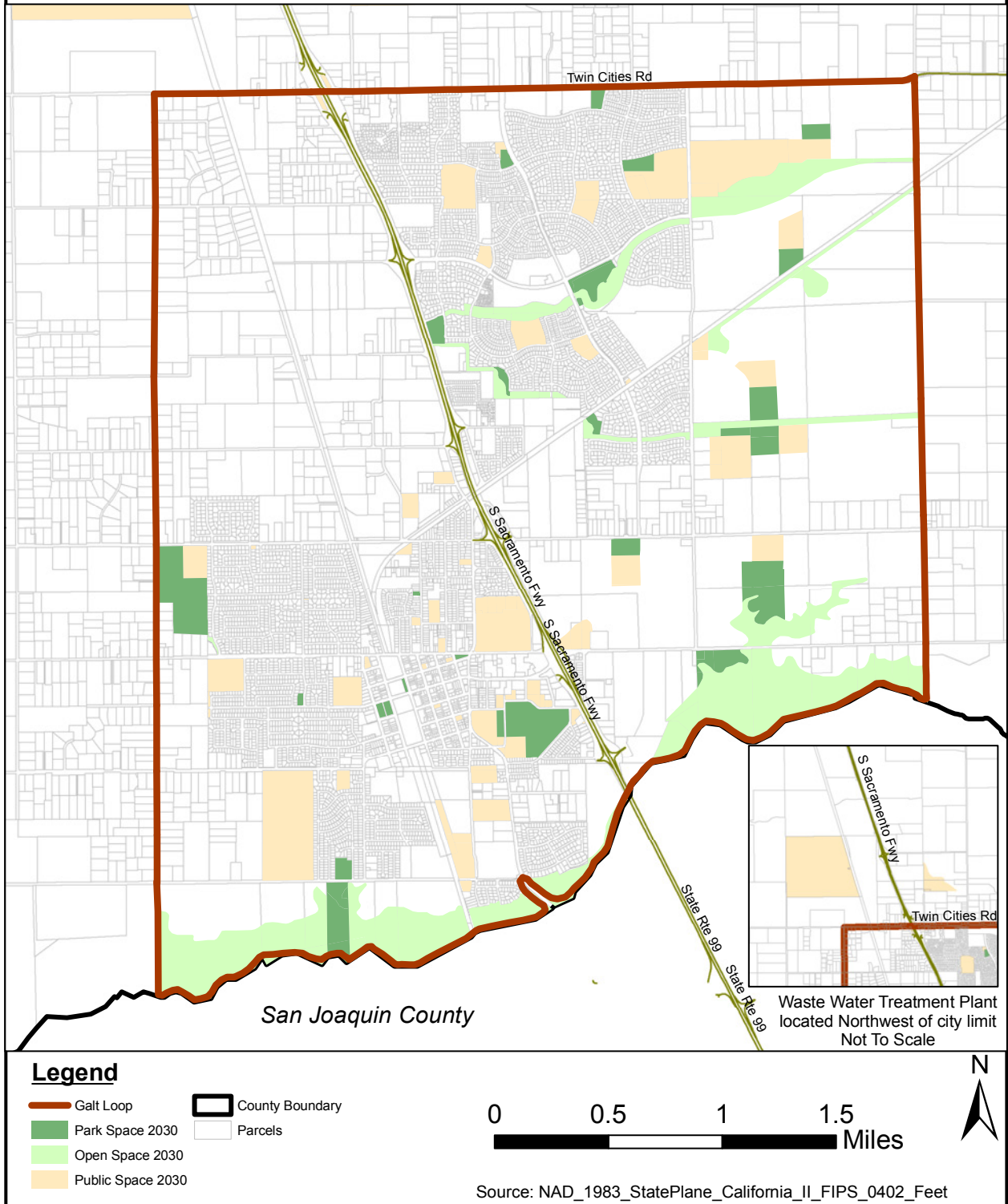


Fig. 8.3 The Galt Loop

Galt Loop- 5 Min Boundary

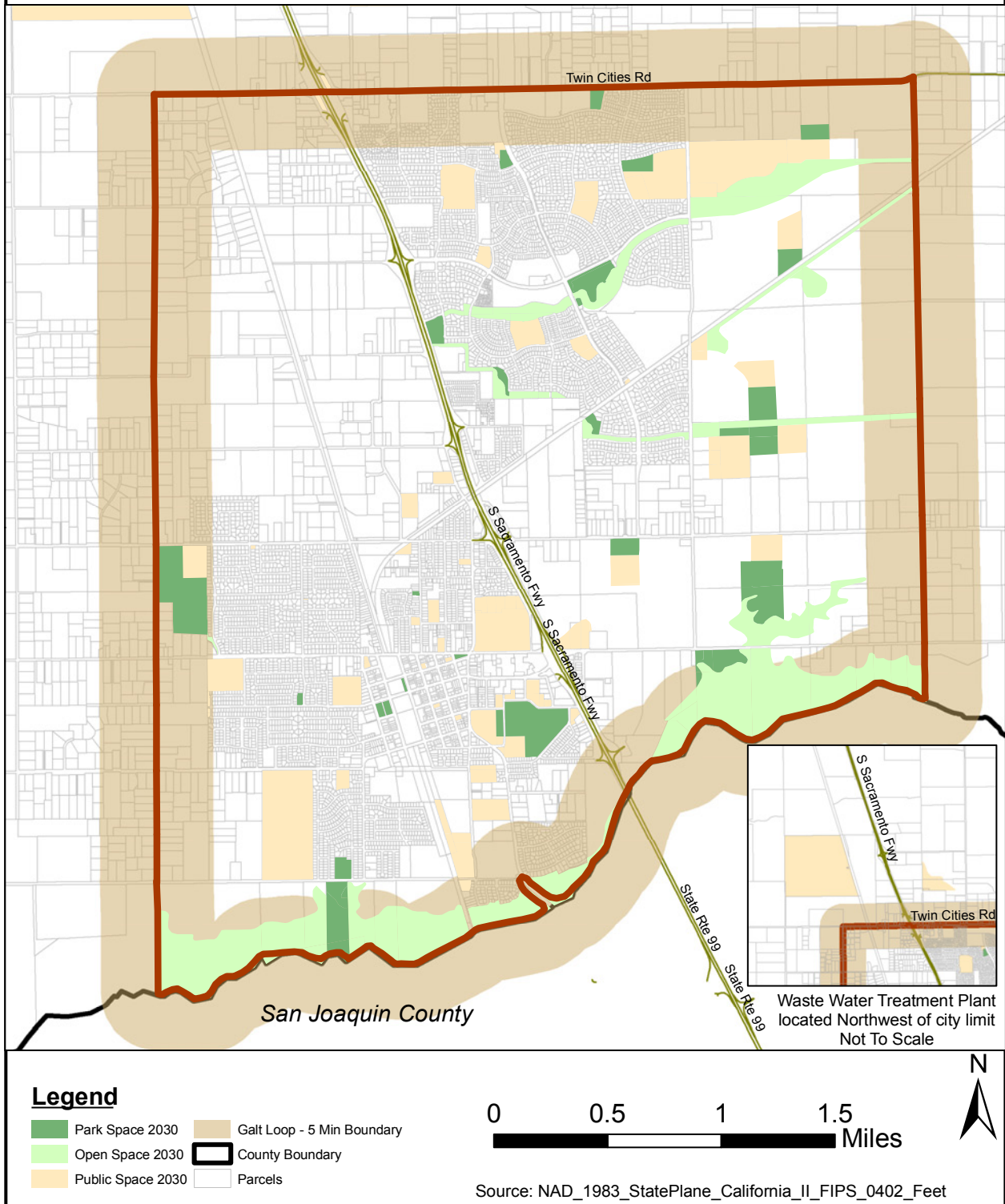


Fig. 8.4 The Galt Loop - 5 Min. Boundary Map

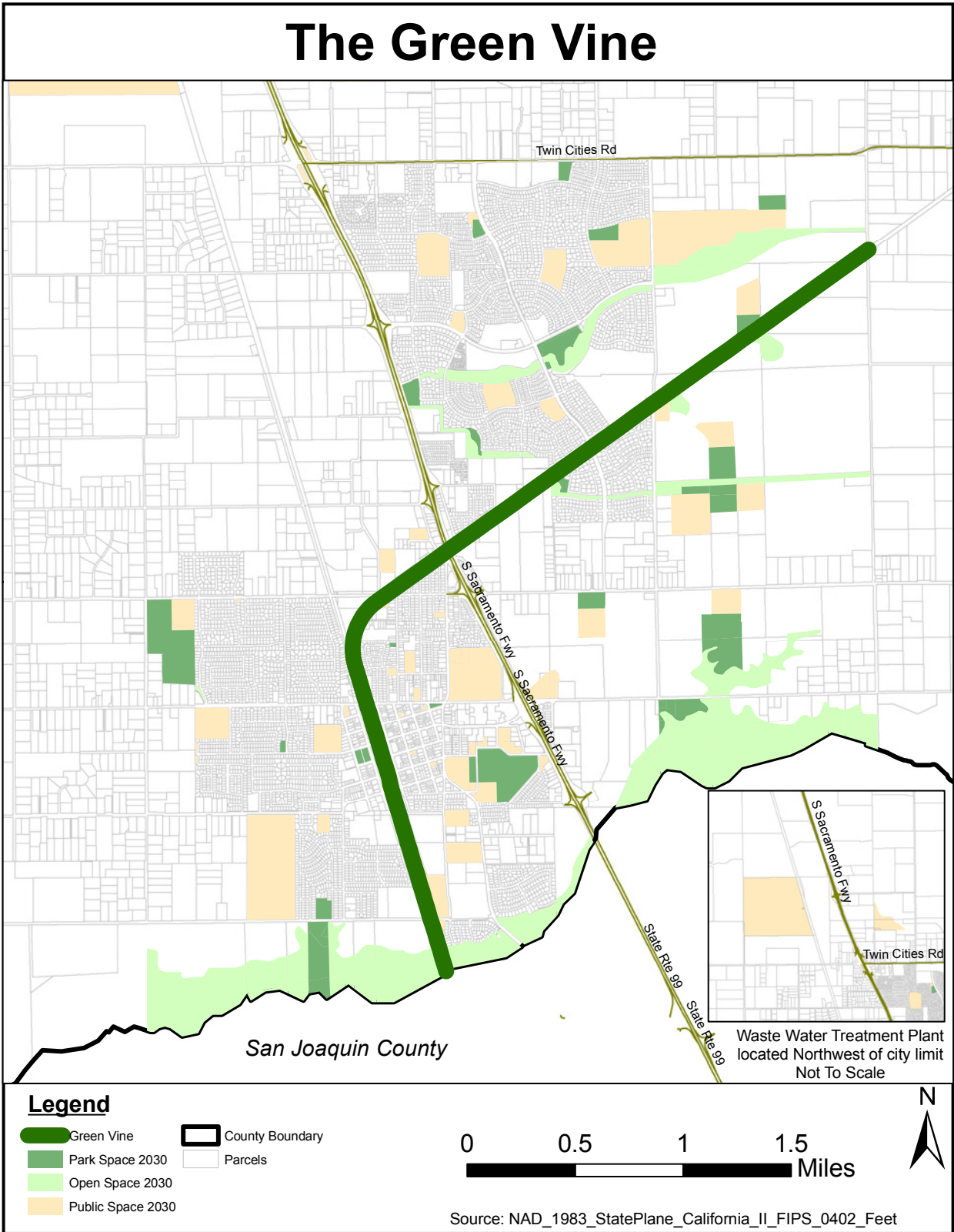


Fig. 8.5 The Green Vine

The Green Vine - 5 Min Boundary

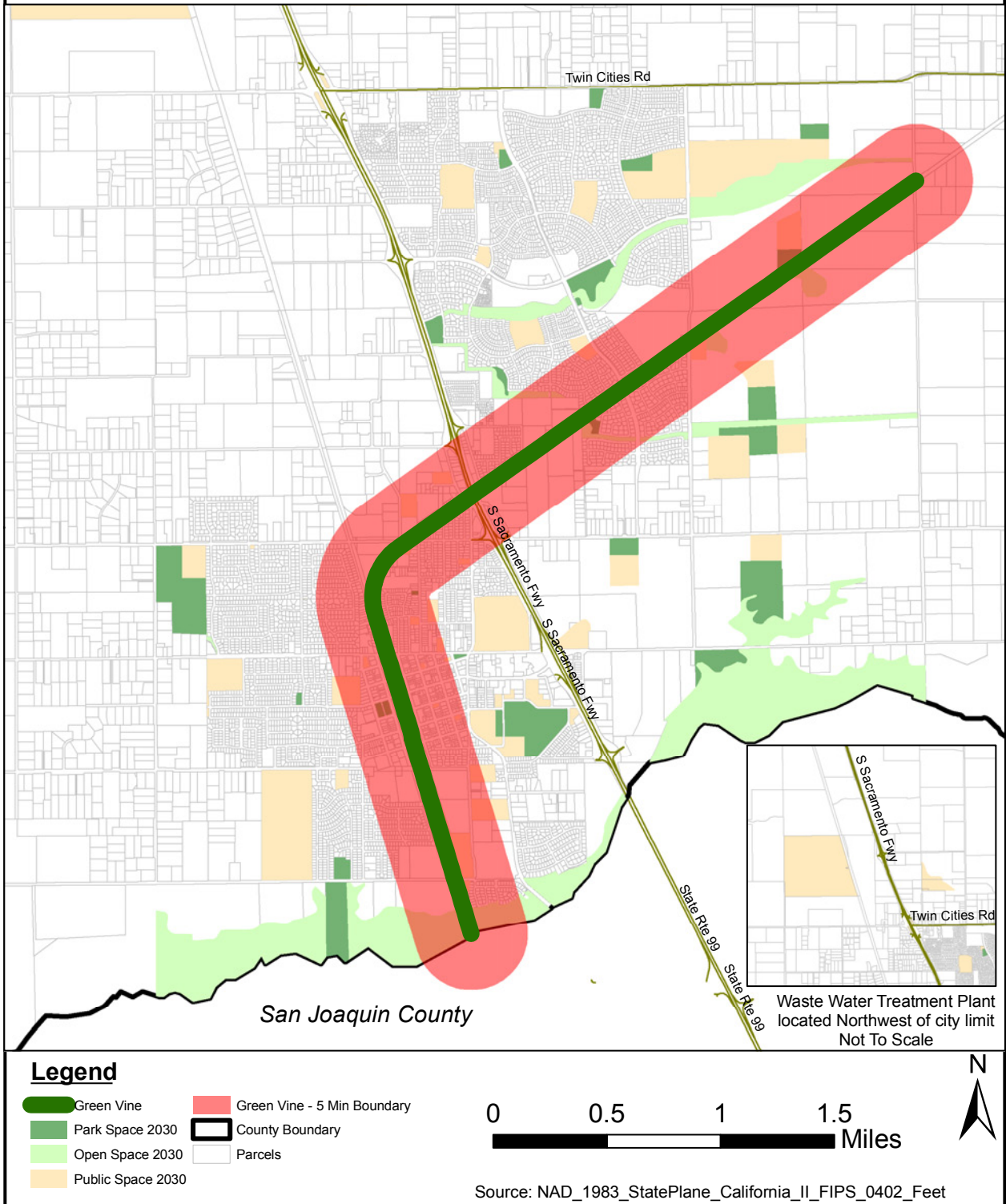


Fig. 8.6 The Green Vine - 5 Min.. Boundary Map

Creekside Trail

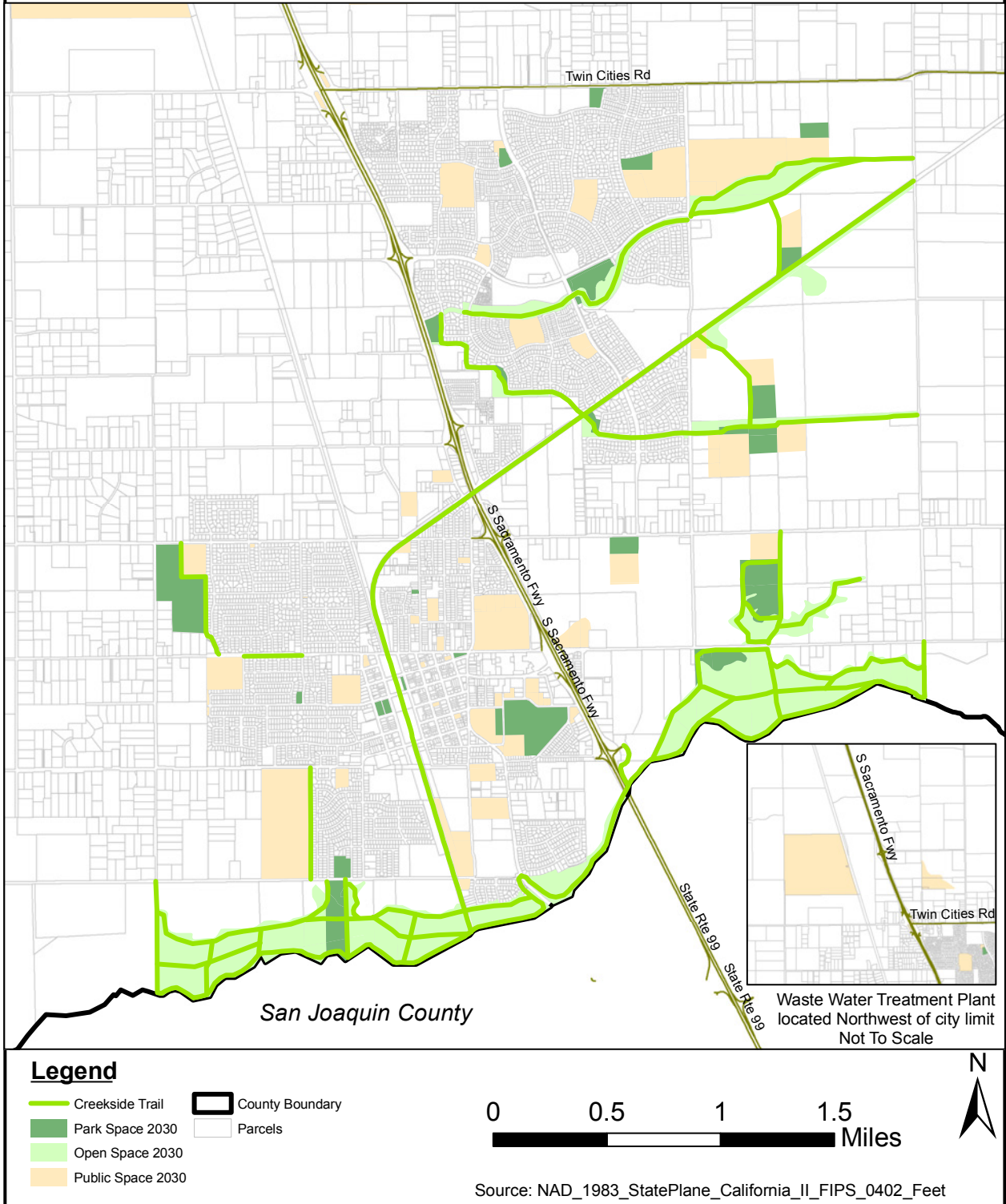


Fig. 8.7 Creekside Trail

Creekside Trail - 5 Min Boundary

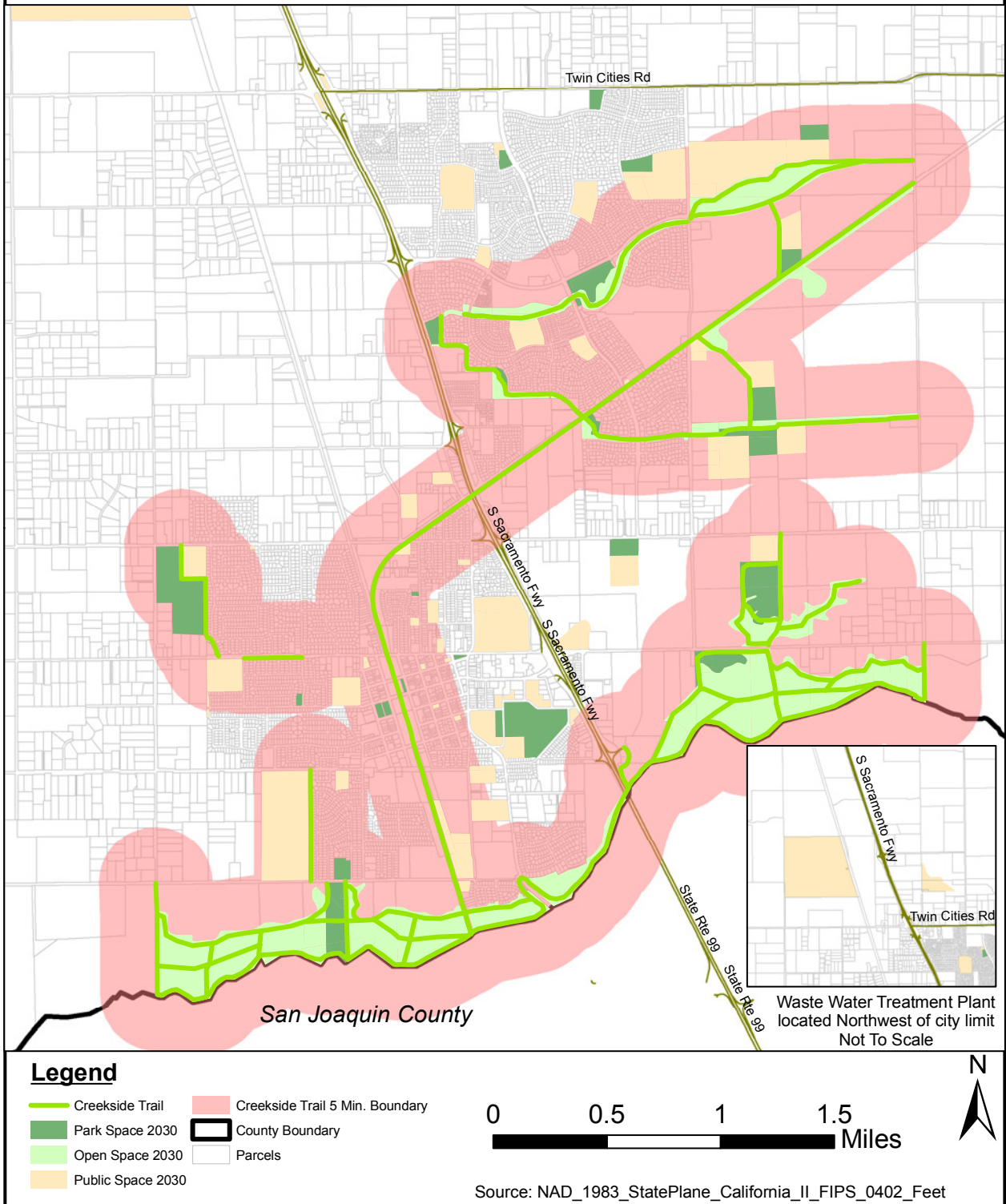


Fig. 8.8 Creekside Trail - 5 Min.. Boundary Map

Green Streets

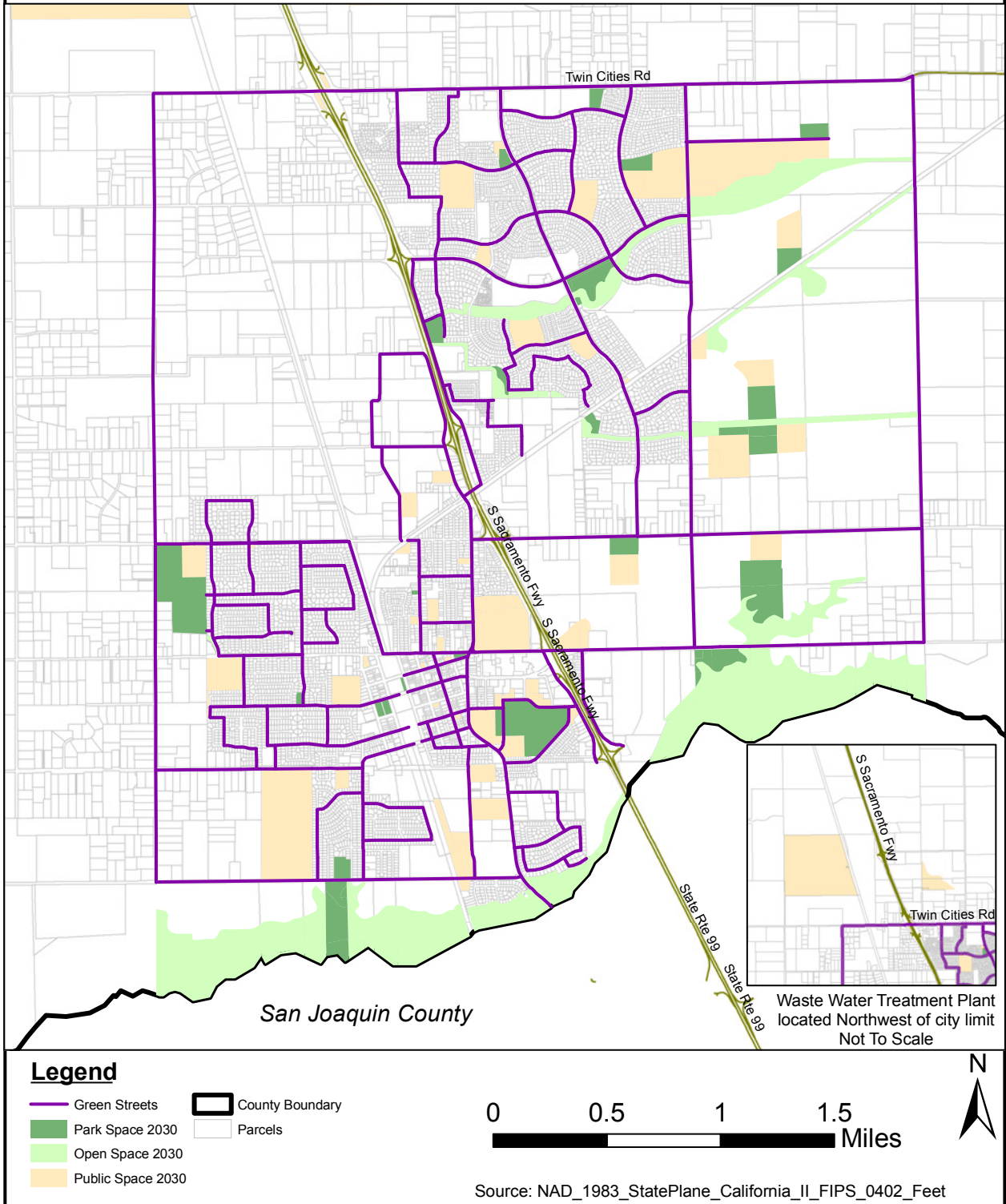


Fig. 8.9 Green Streets

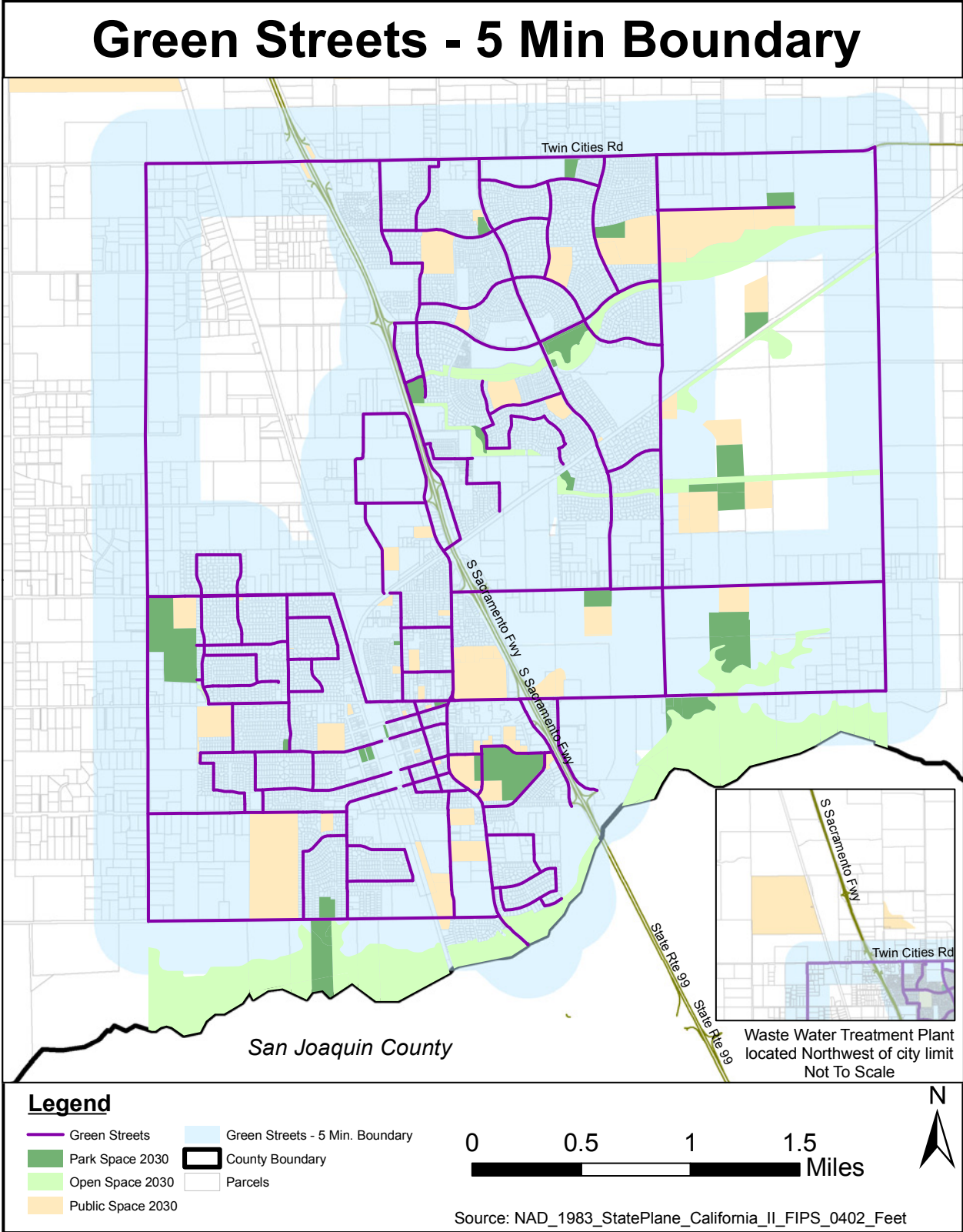


Fig. 8.10 Green Streets - 5 Min.. Boundary Map

Alternative 1

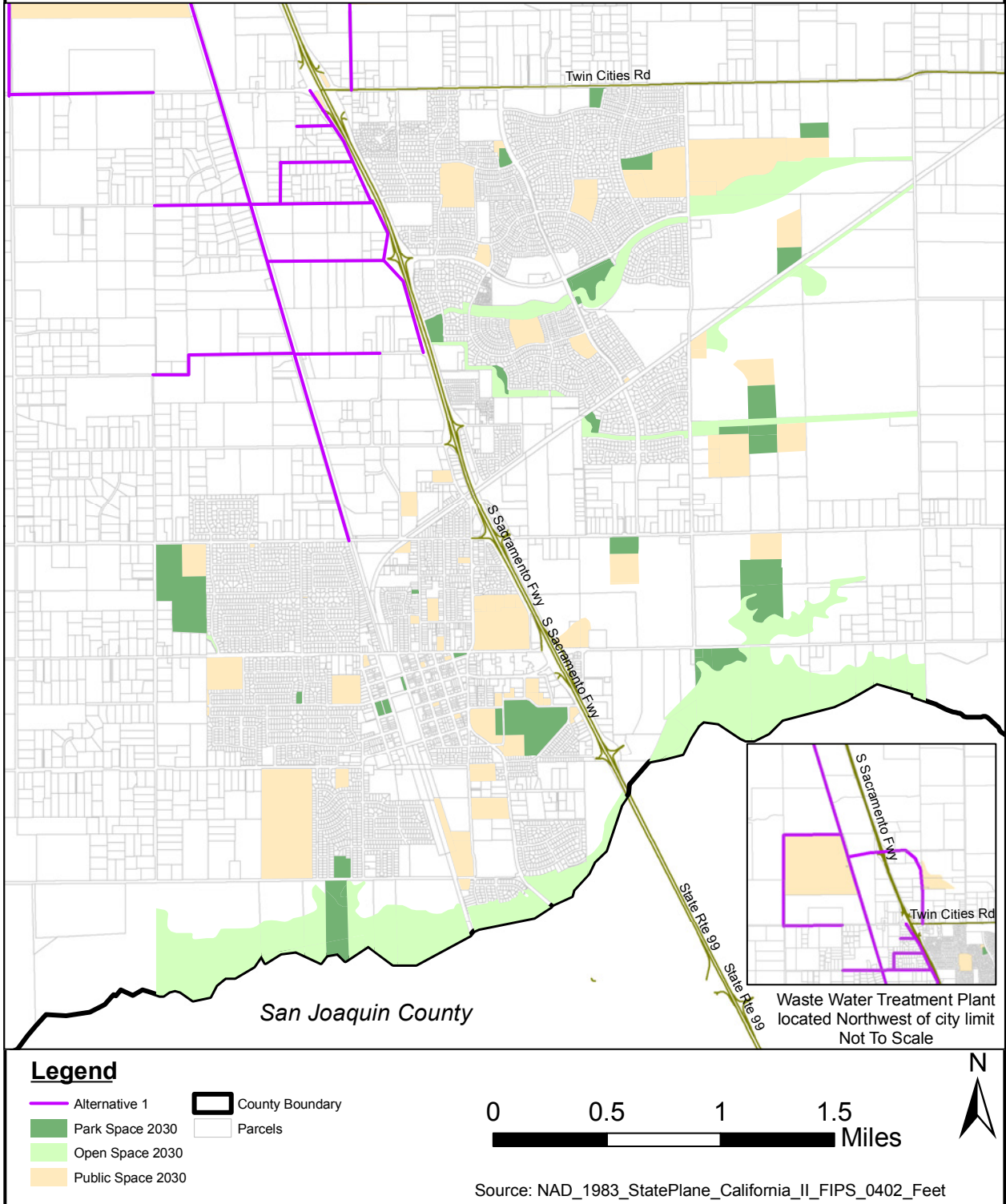


Fig. 8.11 Alternative 1

Alternative 1 - 5 Min Boundary

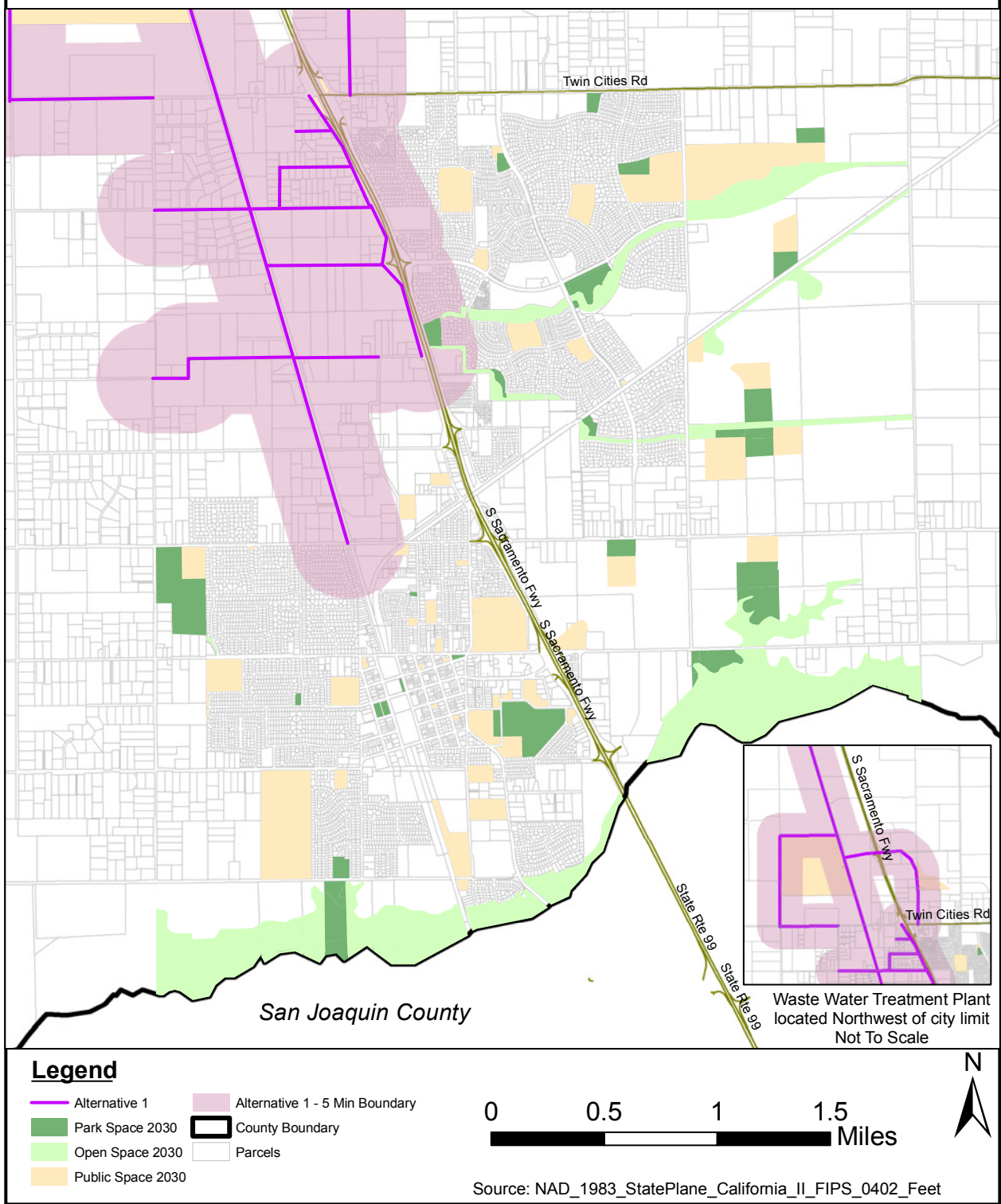


Fig. 8.12 Alternative 1 - 5 Min.. Boundary Map

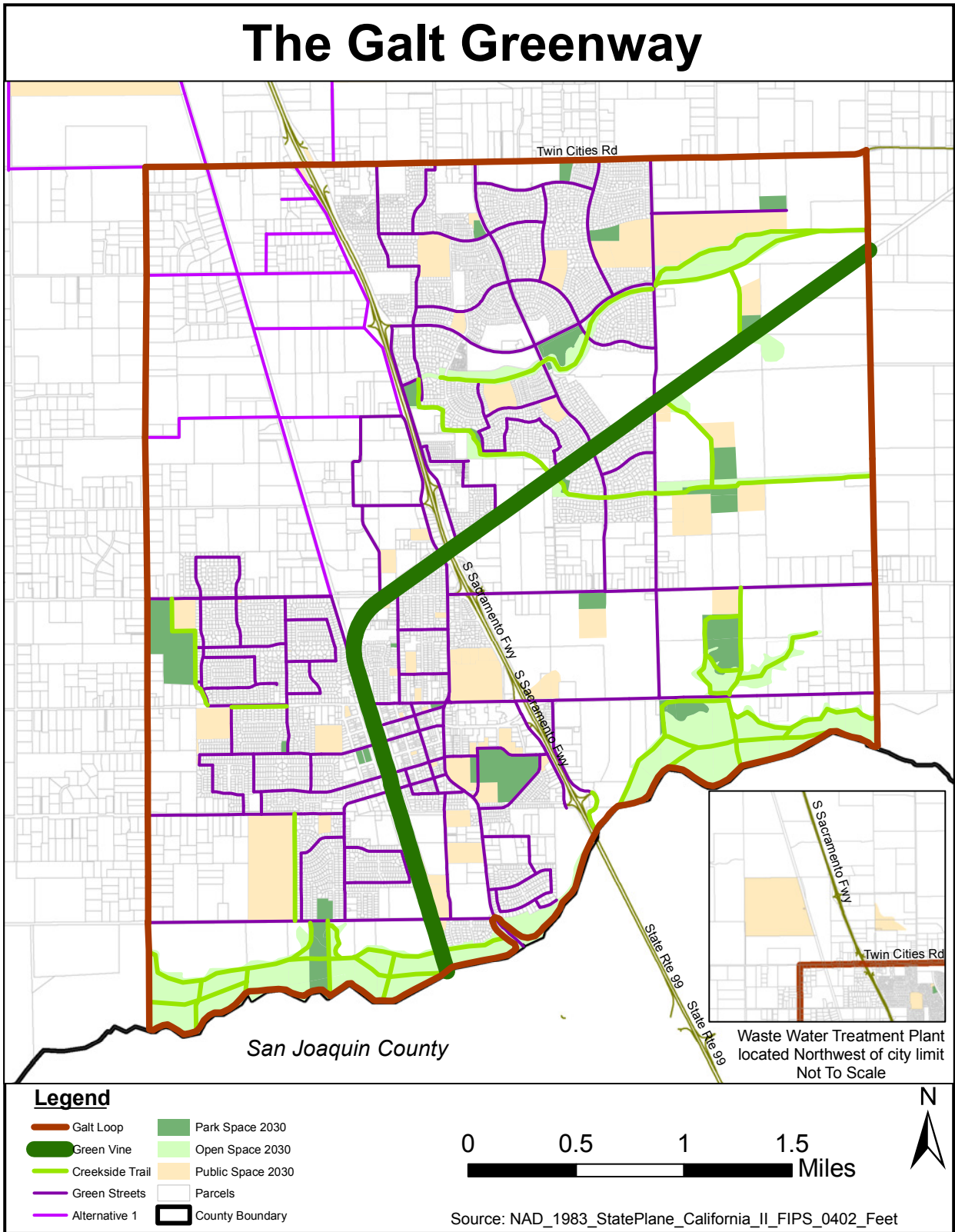


Fig. 8.13 The Galt Greenway

Combined 5 Min Boundary

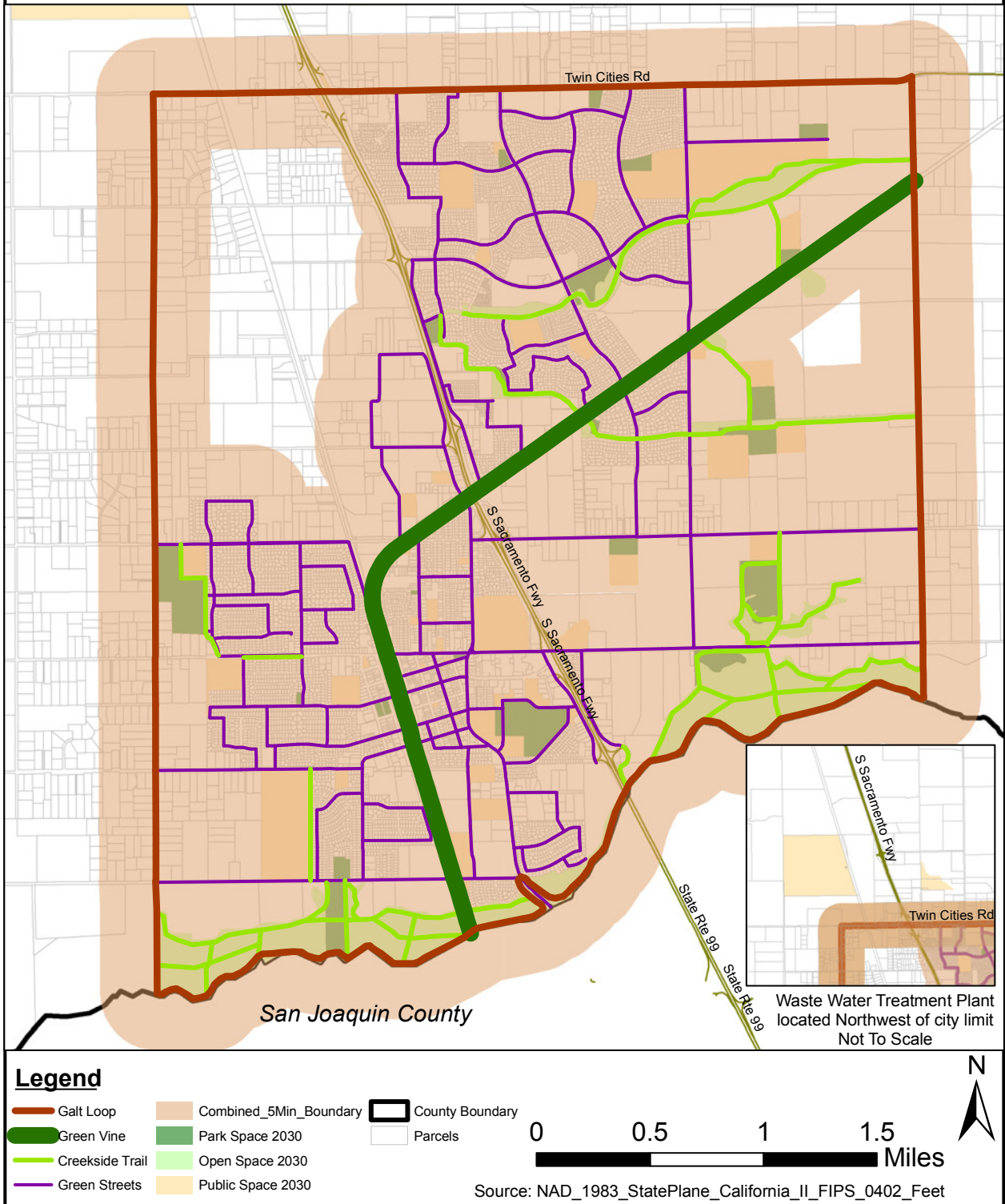


Fig. 8.14 The Galt Greenway - 5 Min.. Boundary Map



IX. Implementation Strategy



1. Developing a Plan

The first task that must be accomplished when developing a plan is to generate a clear set of goals for the project. The second task is to explore all other options for locations, routes, and development of the Greenway (Flink). There are five goals that should be considered for the project and they are: human goals, environmental goals, implementation goals, long-term management goals, and economic goals (Flink).

Human goals help determine the purpose of the Greenway, those affected, and how it should be developed to accommodate the city's need. Environmental goals help constitute how the greenway will protect, restore, and enhance water quality, vegetation, wildlife, air and other natural resources. Implementation goals establish who will be responsible for the construction and completion of the Greenway. Long-term management goals will determine who will manage the Greenway after

development. Economic goals give the city an idea of the cost for development and maintenance.

Once these are completed, the conceptual and designing phase can begin. Through community planning events such as charettes, the public and all other parties involved can voice their opinions and come to a general consensus. After the opinions are recorded and taken into consideration, a master plan should be created and presented to the community.

There must be alternatives in case there is any resistance from property owners, local organizations and local government. If there is, then it is crucial to work with these groups and come up with a solution. After all, it is a comprehensive effort that must have majority support from the parties involved.

2. Partnerships

Partnerships can help form the sentiment for the project from the beginning of the planning process. Having a committed group or individuals can prove to be the lifeline for the project if there is opposition to it. Setting up a citizens advisory committee is one way that the project can start instituting its importance in the community by providing a group that locals can contact about their questions. The citizens advisory committee can help organize publicity and help inform the public about the project.

In addition to these groups, the greenway must reach out for both, public and private support from the community. There are also other agencies that can help the greenway such as local, state, and federal. Within these agencies, there are departments that can assist with the project such as; Parks and Recreation, Dept.. of Transportation and Department of Fish and Game (Flink). At the federal level, there are several agencies that can be involved. For instance, the EPA, US Army Corps of Engineers and National Park Service (Flink). These agencies and partners that can provide crucial support for the success of the project.



Fig. 9.1 Pedestrian and Bike I-80 Overpass

3. Public Support

For this project to be successful, community involvement and approval is essential. Citizen involvement helps build stewardship and a sense of pride in the project. This sense of ownership on this project will help assure that this project will eventually be a reality. Incorporating the public is a necessity for this project to be successful and live to its full potential because it helps add a sense of civic pride that is crucial for the survival of this project (Jones). If the community does not support the project, the project will slowly deteriorate and the city will potentially lose money, creating future dilemmas.

It is important to talk to adjacent landowners before presenting the idea to the public. Landowners tend to be more opposed to the plan if they read about it in the media compared to a personal visit before presenting it to the public. Landowners are usually concerned with three things when it comes to their property; crime, property

value, and liability (Flink). It is important to talk to them and make them aware that there is little crime committed on greenways. Property value will increase due to the proximity between their land and the greenways. Finally, there must be negotiations between the city and the landowner revolving around liability.

4. Media

In order to promote the greenway, the city must take advantage of the media available. This includes newspapers, posters, flyers, brochures and a web site (Flink). This is a great way to endorse the greenway throughout the community. This will also alert them to any events relating to the greenway. This can include design charrettes, contests, community build days, and fundraisers (Little). Using the internet can also be a resourceful way to advertise the greenway. For example, building a web site or incorporating it into the city of Galt's web site can be one way of doing this. Another way can be reaching out to different areas like the bicycle map

Fig. 9.2 Bike Path Next to Commercial Center



department at Google maps.

sales go to the greenway project.

5. Funding

There are several ways to raise funds for greenways which include but are not limited to, organizing events, seeking corporate partners, applying for grants, being creative, private funds and taxes. Organizing events such as music festivals can quickly help the city of Galt raise money for the cause. By seeking corporate partners, the companies are establishing that they want to be involved in community participation. One example of this can be, a grocery store or restaurants that hold a fundraising day where a percentage of their

Fortunately, there are several grants that are available to cities that want to construct greenways and trail systems such as the “Rivers, Trails and Conservation Assistance Program” offered by the National Park Service (Railstotrails.org). Others include the Safe Routes to School Grant and the Urban Greening Grant (McPhearson). Galt can also raise funds by having a silent auction. For example, one of these items can include an autographed memorabilia by Stephanie Brown Trafton, the Olympic gold medalist. There can also be private donations

from citizens who want to personally see this project succeed and are willing to invest in the future of preservation of the environment in their hometown. Finally, bonds can be passed by the residents if they are willing to invest personally in the project, or they can pass a measure to raise taxes in order to help raise funds.

6. Trail Users

When designing a trail, it is critical to think about the users. Since there are a variety of users, it is important to bring them all to the table to discuss a comprehensive solution. These users can include, but are not limited to: Walkers, joggers, bikers, in-line skaters, mountain bikers, bicyclist, equestrian, and people with disabilities (Flink). These users require unique trail considerations and perhaps separate trails. Partnerships with local active organizations that represent specific groups is important in order to create a comprehensive trail that will accommodate all groups.

7. Trail Management

When constructing a greenway, it is important to think ahead and decide who will manage the trail. There are several agencies that come to mind such as local, county, state, and federal. Some other options include nonprofit organizations, public-private partnerships, regional authority, public-public partnerships or a private company or association (Trails 21st). It is preferred that this task be left to one organization



Fig. 9.3 Trail Information Booth

in order to have a comprehensive and homogenous look throughout the greenway. However, a group of agencies could be the ideal option if the

trail runs through several jurisdictions. Communication is key, in order for this collaborative system to work.

8. Trail Safety

Designing for Trail safety will help prevent any security problems. Research has shown that crime is less likely to occur in a park or greenway than most other places but it is still important to design with safety in mind. Building long and straight corridors with no sharp turns can help make it easier for police or residence to patrol. By creating these long-straight corridors, the line of sight is extended and therefore, will act as a deterrent for crime. Landscaping is also a component of safety design. Planting should be designed to have small and short vegetation next to the trail and progressively get bigger the further away from the trail. Lighting is another component if the trail is designed for nighttime use. Installing night lights along the trail and parks as well as in parking lots will make the area more secure. Finally, proper signage can help make

the users aware of any areas of caution (Flink).

9. Anticipating Future Development

It is important to anticipate future development when creating a greenway. An informed decision can save the city thousands of taxpayer dollars if they can prepare for future development and population growth. This also ties into trail use because it is crucial to anticipate the number of trail users. This means predicting present levels of use, as well as, future use. This preparation will assure that the trail will be used by future generations and that maintenance will be kept to a manageable level.

10. Maximizing Trail Potential

In order to maximize the trails potential it is important to create events that will attract the public. Some of these events can include: a trail-athalon, a bicycle parade, a race competition, treasure hunts, nature walks, and demonstration garden competitions

Fig. 9.4 Pedestrian Undercrossing



(Flink). Since the public will be out at the greenway during these events, it is important to take advantage of the educational opportunities. This can be accomplished by placing signs throughout the greenway that inform the public of the benefits of specific plants used in the greenway. For example, using native and drought tolerant plants throughout the trail will give local residents an idea of which plants they can use in their homes. This education promotion can be extended to the wildlife that lives in that area. One example of this is choosing plant species that will attract ladybugs which in turn, help

control aphid populations (UC Davis).



X. Phases of the Galt Greenway

Galt is one of the smaller cities in Sacramento County therefore, it has limited resources. These limited resources and funds will restrict the project and prevent it from being constructed in a single phase and therefore, adequate planning must be done. It is important to have several phases so that the project can be completed according to the resources available. There should be four phases for this project.

The first phase will emphasize on new development and the core of the greenway, the Vine. It is easier to work with new development because the project starts off with a clean slate of land and therefore, can incorporate the greenway by design. The vine is also part of the first phase because it is the heart of the greenway. It will be the primary connection between the north and south parts of town. Establishing this core will set the precedent and allow for later construction to follow according to the phases.

The second phase is infill development and creating safe routes to schools, parks, and public gathering spaces. This is when the (class 1) should be constructed to give residents more pedestrian friendly trails. In addition to the (class 1), there will also need to be a focus on the green streets that are most likely to be used. By completing these routes and connecting them to the green vine, it will significantly increase usage.



Fig. 10.1 Trail Overpass

The third phase is to fill in the missing links/connections between isolated neighborhoods and the greenway. This will be the second part of the converting roads to green streets. This will give the local residents

increased access to the greenway and they will be able to access the parks, schools and public spaces.

The fourth phase is to complete the loop around the edge of the city and allow for regional connections. Completing the loop will require widening the roads to include a bike lane and shoulder along the streets that is wide enough for pedestrians to safely use. It is also important to designate which routes should be currently used as regional links and build in a manner that will allow for future regional connections .



Fig.10.2 Regional Connecting Trail

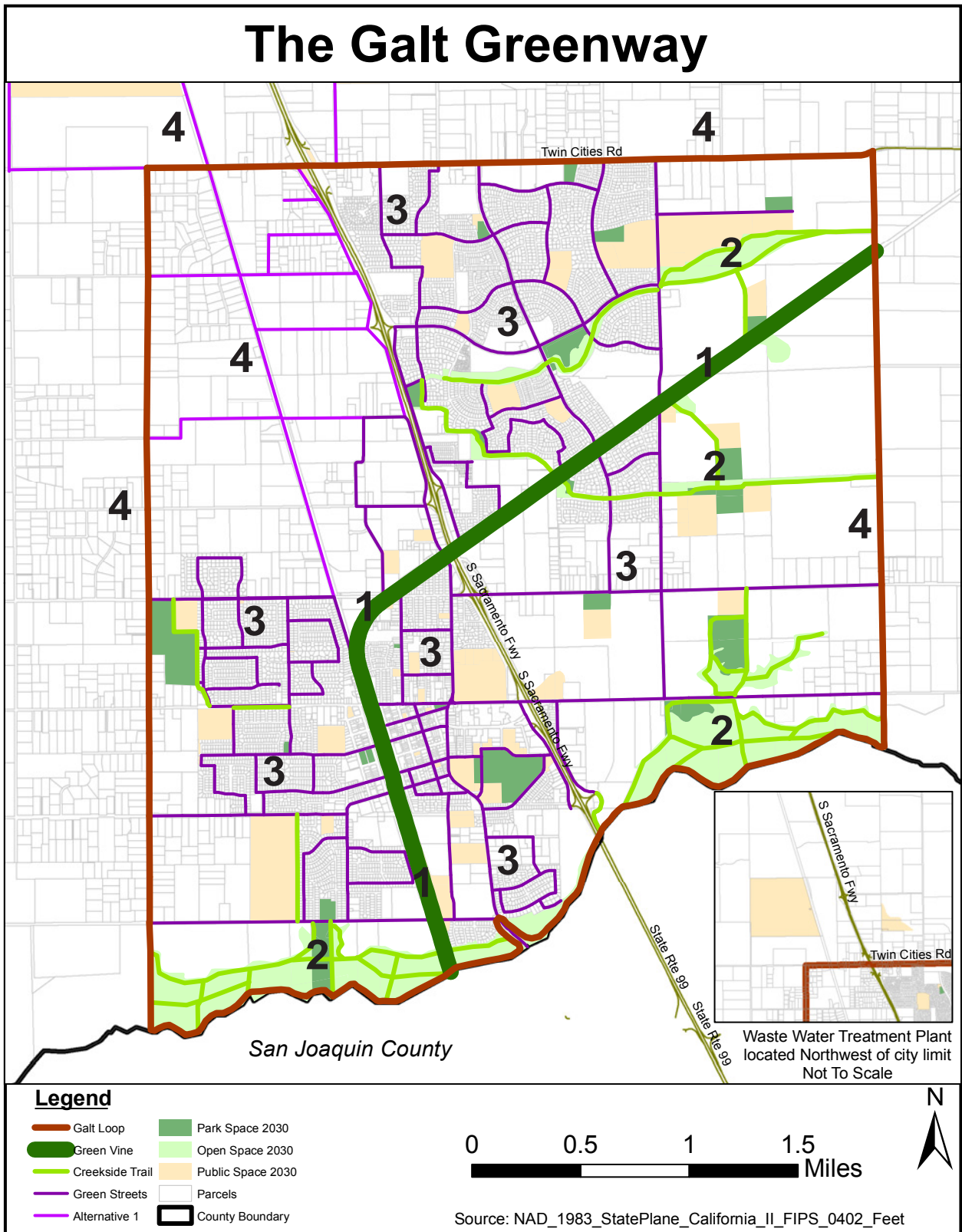


Fig. 10.3 Greenway Phase Map



XI. Conclusion



Through this report, we have come to understand that Galt is headed in the right direction in preserving and setting land aside for public use. This is a great start by the city government. They can look to the city of Davis for inspiration and get an idea of what the Galt Greenway can become. With the Loop, the Green Vine, Creekside Trail, Green Streets, Green Nodes, and the alternative option, Galt can provide its citizens a trail system that is accessible to all. By adequately planning ahead for the greenway, it shows the level of commitment to improving health and quality of life for this small city. This investment in the community will help establish a general consensus of the identity of this community: A place for connections.

References

Bondurant, Julie, and Laura Thompson. Trail Planning for California communities. Point Arena, Ca.: Solano Press Books, 2009.

Flink, Charles A., Kristen Olka, and Robert M. Searns. Trails for the Twenty-First Century: Planning, Design, and Management Manual for Multi-Use Trails. Washington, DC: Island Press, 2001

Little, Charles E., Greenways for America. Baltimore: The Johns Hopkins University Press, 1990.

Flink, Charles A., and Robert M. Searns. Greenways: A Guide to Planning, Design, and Development. Washington DC: Island Press, 1993.

Calthorpe, Peter, The Next American Metropolis: Ecology, Community and the American Dream. New York: Princeton Architectural Press, 1993.

Jones, Stan. The Davis Greenways: A Conceptual Plan for Open Space and Wildlife Habitat for the city of Davis, California. Center for Design Research. University of California, Davis. 1989

Wheeler, Stephen M. "Planning for sustainability." 2009. Local Planning: Contemporary Principles and Practice. ICMA. Washington DC.

Galt (Calif.). *Galt General Plan, 2030*. Sacramento, Calif.: Mintier Harnish, 2010. Print.

Davis (Calif.). *City of Davis General Plan*. Davis, Calif.: City of Davis, 2001. Print..

“Childhood Over Weight and Obesity” and “Adult Obesity” *Centers for Disease Control and Prevention*. 31 Mar. 2010. Web. 21 May 2010. <<http://www.cdc.gov>>.

Home Page, County of Sacramento, California, USA. Web. 13 Apr. 2010. <<http://saccounty>.

net>.

Brunette, Anne. Personal interview. 21 May 2010.

City-Data: Galt. Web. 15 Apr. 2010. <<http://citydata.com>>.

City-Data: Davis. Web. 15 Apr. 2010. <<http://citydata.com>>.

Brunette, Anne. Personal interview. 21 May 2101.

“City Data Recovery Conversion Logger at Citydata.com.” City Data Hotel

Entertainment Restaurant at Citydata.com. Web. 15 Apr. 2010. <<http://citydata.com>>.

Davis (Calif.). City of Davis General Plan. Davis, Calif.: City of Davis, 2001. Print.

Galt (Calif.). Galt General Plan, 2030. Sacramento, Calif.: Mintier Harnish, 2010. Print.

Home Page, County of Sacramento, California, USA. Web. 13 Apr. 2010. <<http://saccounty.net>>.

Rails-to-Trails Conservancy:: Creating a Nationwide Network of Trails from Former Rail Lines:: Building Healthier Places for Healthier People. Web. 10 May 2010. <<http://railstotrails.org>>.

UC Davis. Arboretum Allstars. UC Davis. Print.

McPhearson, Greg. Presentation. May 7 2010.

Cal Atlas. The GeoSpatial Cleraing House. web. www.calatlas.ca.gov/