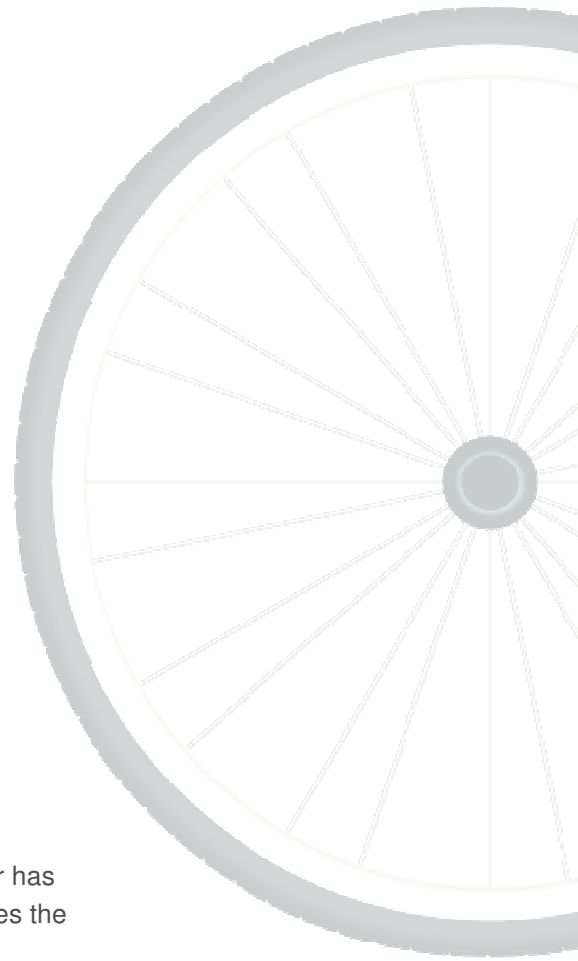




# 4.0 Implementation



## 4.1 Past Expenditures

Since the last update of the Bicycle Transportation Plan, the County of Sutter has leveraged funding to improve some bike facilities. The following table identifies the improvements.

Sutter County Public Works Previous Bike Facility Projects					
Project Name	Year	Project Description	Class	Funding Source	Project Cost
Acacia Ave Bike Lane Phase 2	2005	Bike Lane construction on Acacia Ave from Griffith Lane to Pass Rd	II	\$227,997 Grant from the state Bicycle Transportation Account	\$276,500 +/-
Acacia Ave Bike Lane Phase 1	2001	Bike Lane construction on Acacia Ave from Sutter Commuter Bikeway to Griffith Lane	II	\$116,200 Grant from the Feather River Air Quality Management District	\$140,000 +/-
Sutter Commuter Bikeway	2000	Bike Path construction from Hooper Avenue in Yuba City to Acacia Ave in the town of Sutter	I	\$1,180,566 Grant from the state Proposition 116 Non-Urban Counties Fund	\$916,800 +/-
Lincoln Road Bicycle Lane	1996	Bike Lane construction on Lincoln Rd from George Washington Blvd to Sanborn Rd	II	\$130,000 Grant from the Feather River Air Quality Management District	\$134,600 +/-

# 4.0 Implementation

## 4.2 Cost Estimation

The following table provides conceptual cost estimates for the construction of bikeway facilities in Sutter County. These cost estimates are based on “recent” costs experienced in other California communities. These cost estimates should be used only to develop generalized

construction cost estimates and project prioritization. More detailed estimates should be developed after a feasibility analysis, preliminary engineering.

The second table is the unit costs applied to the proposed miles of bikeway facilities in the plan.

Generalized Unit Costs for Bikeway Facility Construction	
Facility Type	Estimated Cost Per Mile
<b>Class I Multi-use Path</b> <ul style="list-style-type: none"> <li>10-ft. wide, w/ 2-ft. shoulders (does not include land costs, or amenities such as landscaping, lighting, irrigation, etc.)</li> </ul>	\$641,000 +/-
<b>Gravel Based Multi-use Path</b> <ul style="list-style-type: none"> <li>10-ft. wide graded gravel levee road with directional signage</li> </ul>	\$5,000 +/-
<b>Class II Bike Lane</b> <ul style="list-style-type: none"> <li>Striping, marking, and signage only</li> </ul>	\$18,000 +/-
<b>Class II Bike Lane</b> <ul style="list-style-type: none"> <li>Signing, marking, signage and pavement widening</li> </ul>	\$217,000 +/-
<b>Class III Bike Route</b> <ul style="list-style-type: none"> <li>Signing Only</li> </ul>	\$1,800 +/-
<b>Class III Bike Route</b> <ul style="list-style-type: none"> <li>Signing and pavement widening</li> </ul>	\$112,000 +/-
<b>Class III Bike Route</b> <ul style="list-style-type: none"> <li>Signing and Shared Roadway (Sharrows) markings</li> </ul>	\$4,000 +/-
See Appendix E: Basis for Cost Estimates, for a detailed break down of estimated costs	

Conceptual Construction Cost Estimate for Proposed Bikeways	
Facility Type	Length and Estimated Cost
Class I Multi-use Path Gravel Base Multi-use Path	7 miles : \$4,500,000 +/- 79 miles: 395,000
Class II Bike Lane w/ widening	19 miles - \$4,100,000 +/-
Class III Bike Route signing only	190 miles - \$342,000

# 4.0 Implementation

## 4.3 Suggested Improvements

Given the economic outlook over the next 5-years from the approval of this document, it is unlikely that County of Sutter's revenues will improve to the point that sufficient revenue will be available to fund bike and pedestrian facility improvements outside of those associated with roadway maintenance / improvements opportunities. Therefore, it is the recommendation of this master plan to consider the following "tiered" improvements looking at the immediate future (next 1-5 years), the future (5-10 years), and distant future (10-15years). See also, Figure 7: Suggested Improvements Exhibit and Figure 8, Improvements Summary Table.

### **TIER A IMPROVEMENTS**

The following suggested Tier A improvements are selected as those that could provide immediate benefit to the most bike riders, and establish a backbone structure for future improvements.

#### ***- Improve the Existing Multi-use Path***

- Widen the paved area to a total 10-ft.
- Provide striping to separate lanes.
- Create at minimum, 2-ft. wide decomposed granite surface shoulder on each side of the paved path.
- Install signage reminding pedestrians and bikes where to walk/bike.
- Mile marker signage.
- Install dog waste stations providing bags and trash cans.
- Install clusters of trees (with irrigation) at intervals along the path in order to introduce shade and visual interest.
- Install summer flowering trees or trees

with colored leaves around auto crossing intersections to bring attention to bike/pedestrian crossing.

#### ***- Construct a Rest / Group Ride Staging Area at the Township Road / Existing Bike Path Intersection (southeast corner)***

This area provides an excellent opportunity to combine Park improvement funding with bike facility improvement grants. The area could include:

- Designated parking utilizing a porous paving surface ("Green" funding opportunities).
- Shade trees and demonstration sustainable landscape.
- Bike group assembly area.
- Picnic tables / BBQ area.
- Bike route map display / kiosk for bike related announcements.

Sponsorship by local bike clubs, the local bike shop, County health department, and others could help defer maintenance costs.

#### ***- Create a Class II Facility for a Short Section of South Butte Road between Acacia Avenue and the Western End of the Residential Area***

Community input identified this route as heavily used by regular bike riders. However, the portion of Acacia Avenue along the residential area was noted as being a conflict point between bikes and cars turning from side streets.

Improvements could include:

- Pavement widening to allow 4-ft. of bike lane / striping and marking.
- Bike lane signage.
- Side street signage warning drivers to lookout for bikes.

## 4.0 Implementation

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### ***- Secure Access Rights to the Levee Road Along the Wadsworth Canal from the Existing Multi-use Path to the Sutter By-pass Levee***

Securing access rights to this levee will establish the second leg of the Multi-use path system. However, before considering an easement the various levee oversight Districts will need to approve proposed plans. Toward that end the County will need to:

- Complete a detailed analysis of the opportunities and constraints associated with constructing a multi-use path along this canal.
- Prepare conceptual plans defining potential improvements.
- Prepare a detailed cost estimate of potential improvements.
- Prepare a phasing plan for implementation.
- Submit plans to the various levee maintenance districts / agencies for approval.

- Negotiate an access easement with the districts / agencies.

### ***- Provide Bike Route Signage On All Proposed Bike Routes from Tudor Road North to the County Border.***

Establishing bike route signage as suggested will provide local and visiting riders with a clearer picture of where the best riding routes are in the most heavily ridden part of the County.



Image courtesy of New Age Designs

## 4.0 Implementation

### **TIER B IMPROVEMENTS**

The following suggested Tier B improvements build-off of the structure established by first tier improvements. These improvements are considered longer term and would likely not be considered between this update and the next unless a major funding source is available.

***- Construct Multi-use Path Improvements Associated with the Wadsworth Canal Section***

***- Improve all proposed Class II facilities as population demand expands the need between residential areas, schools and employment.***

***- Design and Install Bike Wayfinding Signage along Key Routes***

Wayfinding signage will give the network structure by establishing destinations and distances between key points. Route

signage could include, but is not limited to:

- Various Sutter Butte Loop Routes
- Connections to suggested Sutter By-pass crossings.
- Loop routes from the urbanized area around Yuba City to the south and to the north.

***- Secure Access Rights to All Levee Roads Associated with Multi-use Paths***

***- Install Bike Route Signage for all remaining Routes South of Tudor Road***

***- Improve Multi-use Path along the Sutter By-pass Levee Access Road from the Wadsworth Canal Path to the existing Class I Bike Path.***

***- Improve Multi-use Path across the Old Highway 20 Bridge Between West Butte Road and the Western Side of the Sutter By-pass***



Image courtesy of New Age Designs

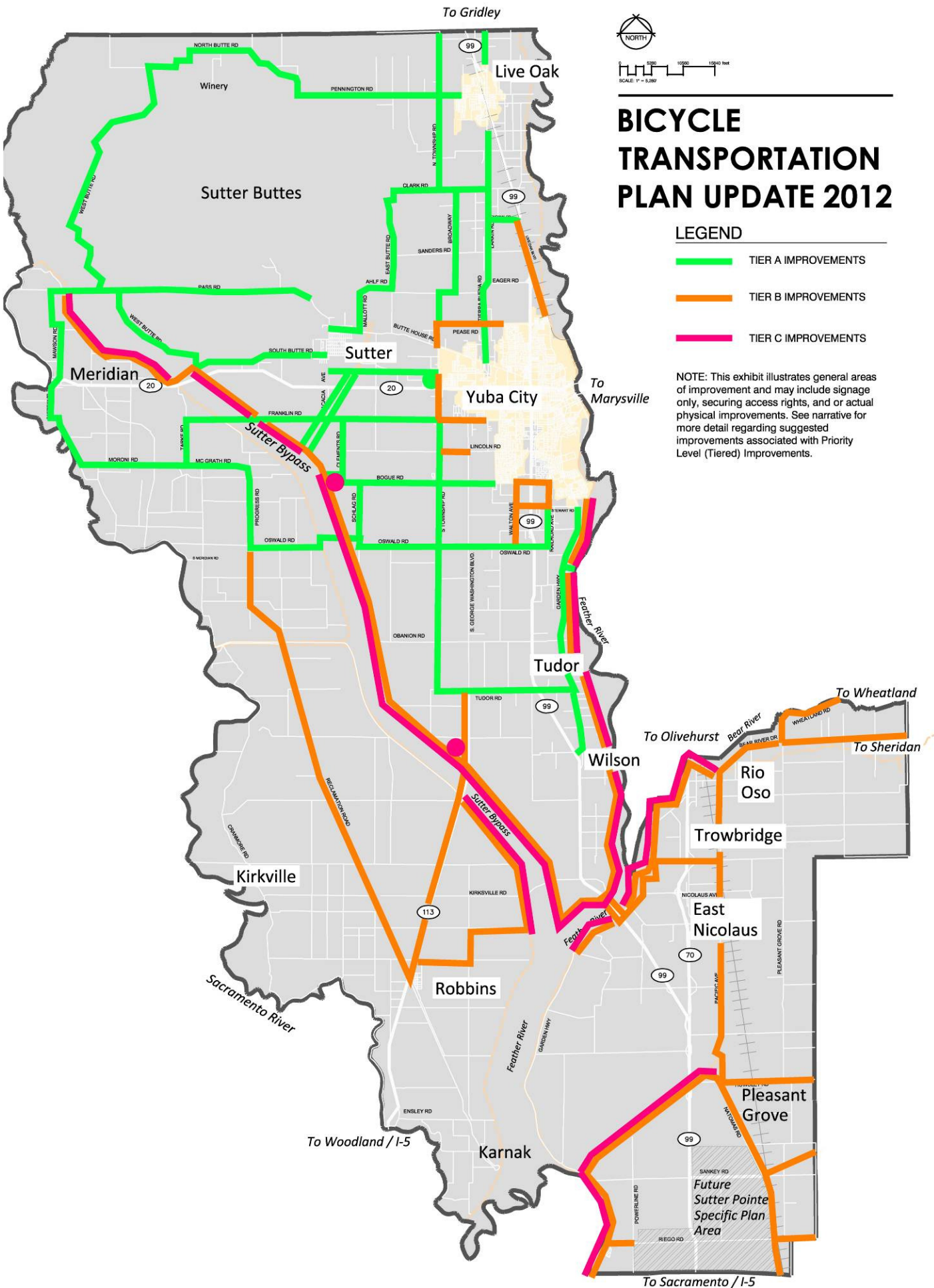


Figure 7: Suggested Improvements

<b>PRIORITY</b>	<b>TEIR A IMPROVEMENTS</b>	<b>Class I</b>	<b>Class II</b>	<b>Class III</b>	<b>Other</b>
1A	<i>Improve the Existing Multi-use Path</i>	X			
2A	<i>Construct a Rest / Group Ride Staging Area at the Township Road / Existing Bike Path Intersection (southeast corner)</i>	X			X
3A	<i>Create a Class II Facility for a Short Section of South Butte Road between Acacia Avenue and the Western End of the Residential Area</i>		X		
4A	<i>Secure Access Rights to the Levee Road Along the Wadsworth Canal from the Existing Multi-use Path to the Sutter By-pass Levee</i>	X		X	X
5A	<i>Provide Bike Route Signage On All Proposed Bike Routes from Tudor Road North to the County Border.</i>			X	
	<b>TEIR B IMPROVEMENTS</b>				
1B	<i>Construct Multi-use Path Improvements Associated with the Wadsworth Canal Section</i>	X			
2B	<i>Improve all proposed Class II facilities as population demand expands the need between residential areas, schools and employment.</i>		X		
3B	<i>Secure Access Rights to All Levee Roads Associated with Multi-use Paths</i>	X			
4B	<i>Install Bike Route Signage for all remaining Routes South of Tudor Road</i>			X	
5B	<i>Design and Install Bike Wayfinding Signage along Key Routes</i>	X		X	
6B	<i>Improve Multi-use Path along the Sutter By-pass Levee Access Road from the Wadsworth Canal Path to the existing Class I Bike Path.</i>	X			
7B	<i>Improve Multi-use Path across the Old Highway 20 Bridge Between West Butte Road and the Western Side of the Sutter By-pass</i>	X			
	<b>TEIR C IMPROVEMENTS</b>				
1C	<i>Improve Multi-use Path along the Sutter By-pass Levee Access Roads from the Wadsworth Canal Path north to South Butte Road</i>	X			
2C	<i>Improve the Multi-use Path Along the Western Levee Access Road Roughly Between Highway 20 and Pass Road</i>	X			
3C	<i>Improve the Multi-use Path Along the Feather River Levee Access Road Between State Route 99 and the Yuba City Connection</i>	X			
4C	<i>Improve the Multi-use Path Along the Feather River Levee Access Road North Between Yuba City Connection and the County Border</i>	X			
5C	<i>Improve the Multi-use Path Along the Bear River Levee Access Road (south side)</i>	X			

Figure 8: Summary Priorities Table



## 4.0 Implementation

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### **TIER C IMPROVEMENTS**

The following Tier C Improvements are considered very long term and are discussed here to establish a phasing direction to consider in the future.

***- Improve Multi-use Path along the Sutter By-pass Levee Access Roads from the Wadsworth Canal Path north to South Butte Road***

***- Improve the Multi-use Path Along the Western Levee Access Road Roughly Between Highway 20 and Pass Road***

***- Improve the Multi-use Path Along the Feather River Levee Access Road Between State Route 99 and the Yuba City Connection***

***- Improve the Multi-use Path Along the Feather River Levee Access Road (west side), Between Yuba City Connection and the North County Border***

***- Improve the Multi-use Path Along the Bear River Levee Access Road (south side)***

***- Improve the Multi-use Path Along the Cross Canal Levee Access Road from the South County Border (Garden Highway to the east side of the Sutter Pointe Specific Plan Area)***

The following Section 5 describes funding opportunities that can be utilized to implement bike facility improvements.



