Solano County Pothole Report

October 2014

Solano Transportation Authority,

Streets and Roads Pavement and Rehabilitation Report

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Executive Summary

How would you build a street and maintain its pavement? Do you know how your public works department maintains your street? Do you know what they are doing to keep the roads in good condition? Do you understand the financial or technical constraints that they are under to perform this critical work?

Figure 1: Pothole Example

The purpose of this report is to produce a comprehensive description of the condition of Solano County's local streets and roads pavement rehabilitation efforts, and pavement conditions. Timely investment in roadway preservation can save cities millions of tax dollars in long-term maintenance costs. A municipality that spends $1 on timely maintenance to keep a section of roadway in good condition would have to spend $5 to restore the same road if the pavement is allowed to deteriorate to the point where major rehabilitation is necessary. (MTC, 2011) With this in mind, an analysis of Solano County's current roadway investment strategy is appropriate. This report will help to showcase financial shortfalls, which may assist public works staff with project planning and future funding requests.

While the Metropolitan Transportation Commission (MTC) and the California Association of Counties (CSAC) produce statewide and bay area wide local streets and roads annual reports, the broad focus of these reports lack the local detail that speaks to local elected officials and local residents about the state of their local agency's street pavement. For instance, how does Solano County's 10-year $544M and 28-year $2.7 B pavement rehabilitation shortfall compare to the state's 10-year $82.2 B shortfall or the Bay Area's 10-year $12.3B shortfall or 28-year $29.9 B shortfall? These long-term 10-year and 28-year shortfall projections are difficult to understand when a local government council or board is adopting a public works annual capital improvement program and weighing the pros and cons between another street rehabilitation project, a new community park, a fire station, or a water treatment pipeline. Producing a Solano County specific pothole report will help inform decision makers on the fiscal reality of our roadway infrastructure needs and provide city staff and Solano Transportation Authority (STA) staff valuable information to present to the public.

As of June 2014, unincorporated Solano County and its 7 cities are cumulatively investing slightly less than half of the $44M needed annually to maintain local streets and roads with a Pavement Condition Index (PCI) of 60 "fair condition." To reach the higher PCI goal of 75 "good condition", the approved goal in the Solano Comprehensive Transportation Plan, $50M additional funds are needed annually over the next 15 years to reach a 'state of good repair' – two and a half times more than our current investment. Solano County needs a healthy investment in our roadway infrastructure or pavement quality will decline substantially. More money spent now in long-term roadway maintenance can save our communities millions in the future and strengthen our local economy.

The appendix of this report provides a city-specific summary of pavement conditions for past years, present conditions, and projections for future roadway investment needs.

The Solano County Pothole Report is organized into the following chapters.

Why Care about Street Pavement?

General issues, PCI statistics and Images, Worst first vs. Best practices

6.5 Times More Funding Needed to Cost-effectively Maintain Local Streets and Roads

Bay Area vs. Solano County shortfalls by agency, New Technologies & Revenue Sources

Summary and Conclusion

Appendix of Local Agency Handouts Describing Pavement Conditions, Pavement Maps and Finances

Seven cities and the county's pavement investment info

Why Care about Street Pavement?

Your Trips, Your Roads

There are few local infrastructure investments used by almost every citizen, but nearly everyone benefits from local streets and roads (LS&R). From sidewalks and crosswalks, to neighborhood streets and 4-lane boulevards, effective LS&R promote mobility for Solano County residents traveling to their jobs, getting to school, and making local purchases. Every trip begins and ends with local streets and roads and every mode of surface travel relies on the local streets and roads infrastructure. Ignoring these critical facilities can affect quality of life and cost a city more than its roadway system.

Pavement Condition Index (PCI): What it Means & What it is in Solano County

The Pavement Condition Index (PCI) rates the condition of the surface of a road network. The PCI provides a numerical rating for the condition of road segments within the road network, where 0 represents the worst possible condition and 100 represents the best possible condition. The PCI measures two conditions: (1) The type, extent and severity of pavement surface distresses and (2) the smoothness and ride comfort of the road. The classifications used to rate LS&R pavements are shown in table 1 below.

Table 1: Pavement Condition Categories

Very Good-Excellent (PCI = 80-100)	Pavements are newly constructed or resurfaced and have few if any signs of deterioration.
Good (PCI = 70-79)	Pavements require mostly preventive maintenance and have only low levels of distress, such as minor cracks or peeling or flaking off of the top layer of asphalt as a result of water permeation.
Fair (PCI = 60-69)	Pavements at the low end of this range have significant levels of distress and may require a combination of rehabilitation and preventive maintenance to keep them from deteriorating rapidly.
At Risk (PCI = 50-59)	Pavements are deteriorated and require immediate attention including rehabilitative work. Ride quality is significantly inferior better pavement categories.
Poor (PCI = 25-49)	Pavements have extensive amounts of distress and require major rehabilitation or reconstruction. Pavements in this category affect the speed and flow of traffic significantly.
Failed (PCI = 0-24)	Pavements need reconstruction and are extremely rough and difficult to drive on.

(MTC, 2013)

The average condition of the Bay Area's LS&R network, which includes nearly 42,500 lane miles, was 66 as of 2013. This PCI rating places the region's roadway network in the "fair" category. The average condition of Solano County's LS&R network, which includes approximately 3,465 lane miles of roadway, is 65. This score is based on a 3-year moving average:

Table 2: 3 - Year Moving PCI Average

	2011	2012	2013
BENICIA	61	60	59
DIXON	78	77	77
FAIRFIELD	73	73	71
RIO VISTA	47	51	58
SOLANO COUNTY	68	71	75
SUISUN CITY	68	67	62
VACAVILLE	73	70	68
VALLEJO	51	51	49
COUNTYWIDE	**66**	**66**	**65**

Using a three-year average provides a more accurate picture, since not all jurisdictions submit their streets and roads data at the same time, and a single project can cause a significant jump in the annual PCI score for a small city with just a few miles of streets.

What PCI Looks Like

The photos displayed in figure 2 show streets and roads that represent a PCI rating of Excellent/ Good, At-Risk, and Very/Poor Failed. Most of the streets and roads in Solano County fall under the At-Risk (Fair) category. While this condition category may not look so bad on the surface, the costs associated with falling below this threshold can be rather significant.

Figure 2: PCI Rating and Visual Condition

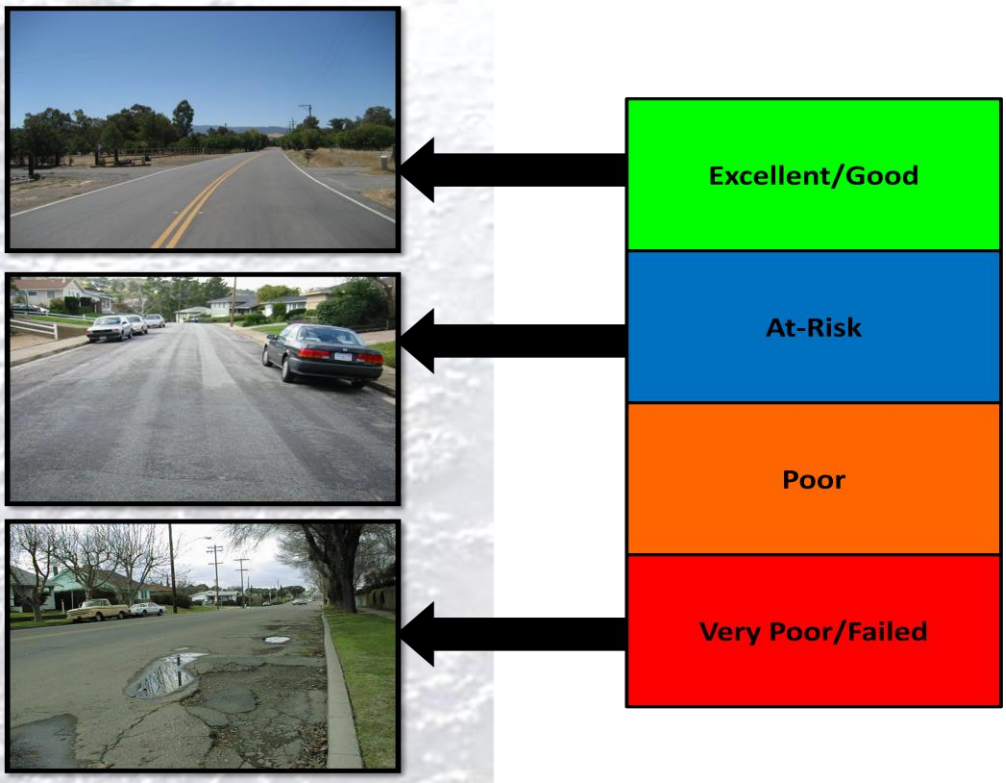
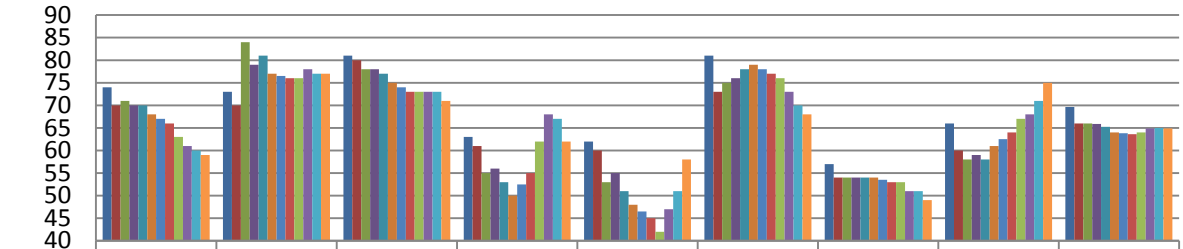


Table 3: Solano County Pavement Condition Index (PCI) from 2001-2013



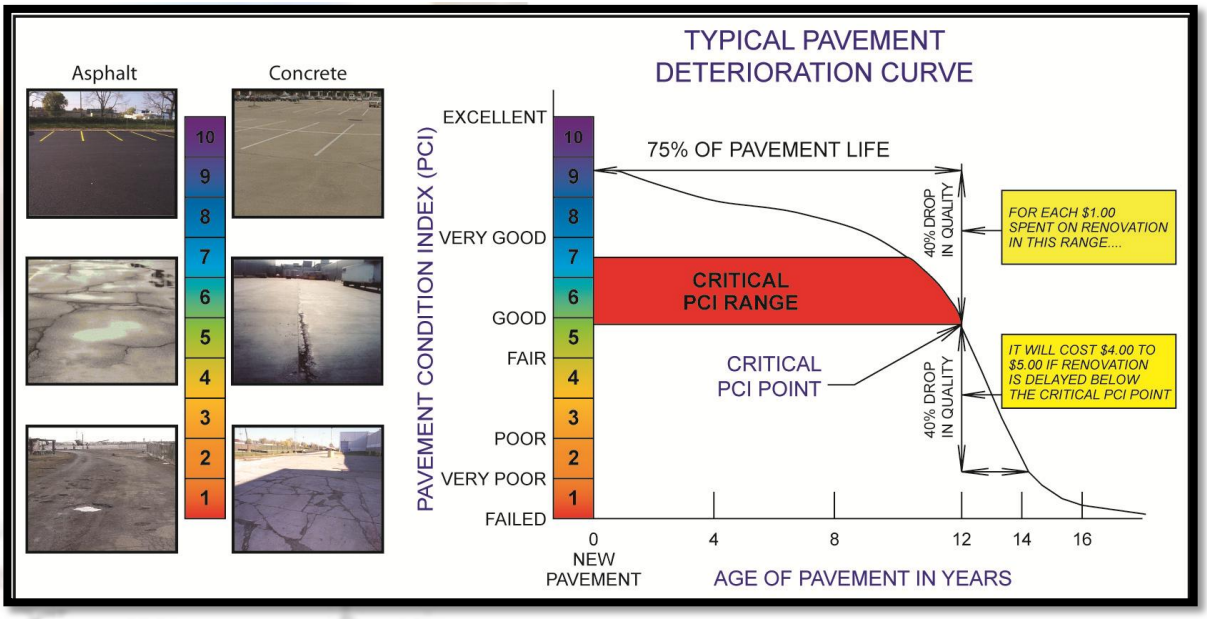
	Benicia	Dixon	Fairfield	Suisun City	Rio Vista	Vacaville	Vallejo	County of Solano	Average
2002	74	73	81	63	62	81	57	66	69.6
2003	70	70	80	61	60	73	54	60	66.0
2004	71	84	78	55	53	75	54	58	66.0
2005	70	79	78	56	55	76	54	59	65.9
2006	70	81	77	53	51	78	54	58	65.3
2007	68	77	75	50	48	79	54	61	64.0
2008	67	77	74	53	47	78	54	63	63.8
2009	66	76	73	55	45	77	53	64	63.6
2010	63	76	73	62	42	76	53	67	64.0
2011	61	78	73	68	47	73	51	68	64.9
2012	60	77	73	67	51	70	51	71	65.0
2013	59	77	71	62	58	68	49	75	64.9

Bad Roads Mean Big Bills

A PCI Score of 65 is considered “fair” (PCI 60-69), and indicates the critical need for maintenance because of the rapid increase in rehabilitation costs that occurs once below this threshold. Once a pavement’s condition rating reaches 60, it will begin to deteriorate rapidly. As shown in Figure 3, a new pavement will deteriorate slowly for the first 12 years of its standard 20 year life span. Without any intervention, the pavement will drop from the fair category to the “failed” category in the next five years. This deterioration holds serious implications for the cost of system preservation. Pavements that are still in good condition (a PCI of 70 or above) can be preventively maintained at a low cost, whereas pavements that need significant rehabilitation or reconstruction require five to 15 times the amount of funding. Thus, a PCI of 65 should be viewed with caution, as it indicates that our local streets and roads are poised on the edge of a maintenance cliff. “Every dollar invested in maintenance saves taxpayers from future repairs that are 10 times more expensive,” said Caltrans Director Malcolm Dougherty.

The cost of repairing roadways is not the only expense that drivers have to consider. A recent report by the Washington-based research and advocacy group TRIP estimated the additional cost of auto repairs and traffic due to bad roads to be $2,200 annually per vehicle. This large expense is largely not quantified when it comes to the costs and benefits of the quality of our roadways.

Figure 3: PCI Condition and Cost of Rehabilitation

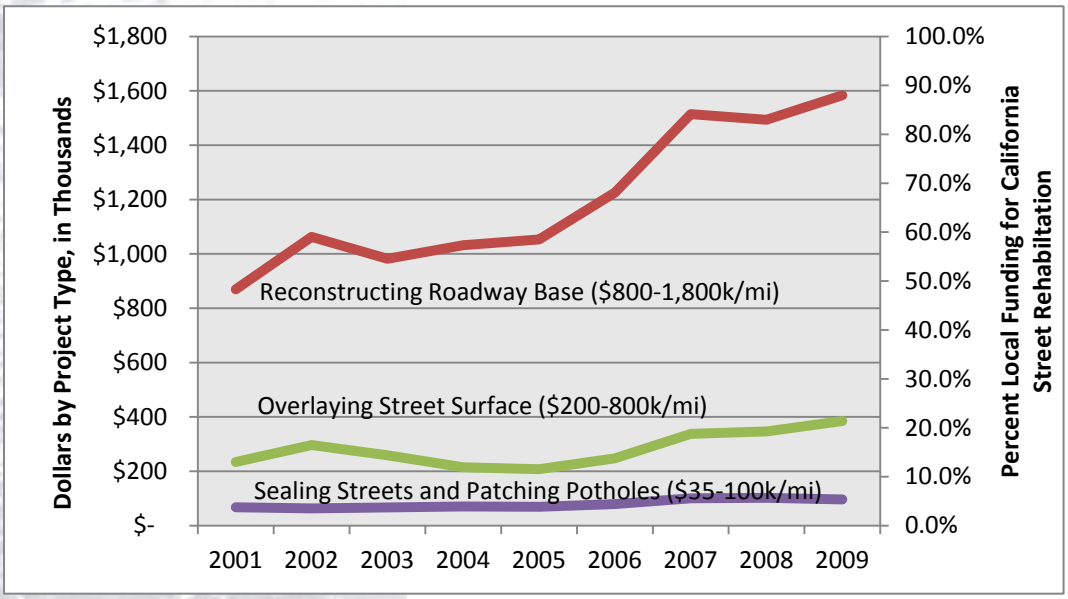


Street Pavement: Local Government Foundations or Credit Cards

By deferring maintenance, cities balloon the cost of street rehabilitation projects, resulting in uncomfortable tradeoffs for cities (e.g., building new community centers vs. repairing failed streets). When cities wait until streets reach critical and expensive maintenance needs, cities must pay for additional labor and materials to rebuild the road, potentially magnifying the cost.

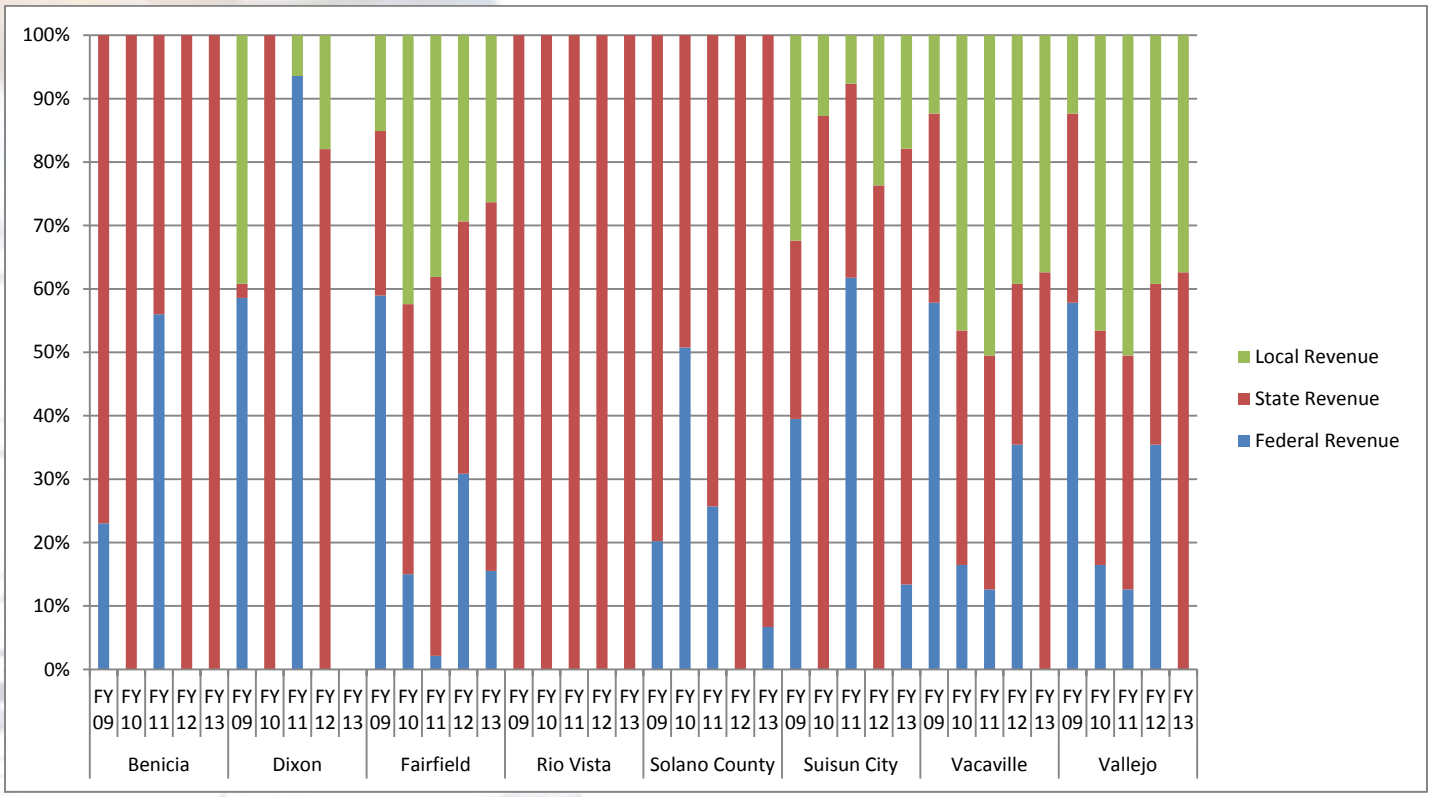
Between 2005 and 2009, California cities paid for a greater number of more expensive street repairs with local funding, not federal or state funds.

Figure 4: Local Funding Is Needed to Pay for an Increasing Number of Expensive California City Street Reconstruction Projects



In Solano County, the investments made between 2009 and 2013 reflect this trend. The chart below illustrates how the majority of city street rehabilitation funding came from state or federal sources. With state and federal sources decreasing, local funding sources may have to make up the difference.

Figure 5: Local, State and Federal Investments by Solano Jurisdictions, from 2009-2013



6.5 Times More Funding Needed to Cost-effectively Maintain Local Streets and Roads in Solano County

On December 5, 2011, MTC released "Final Draft Local Streets and Roads Long-Range Needs/ Revenue Assessment" for the Plan Bay Area Regional Transportation Plan (RTP). MTC estimated how much funding each Bay Area county needs to maintain current conditions or reach a state of good repair.

Table 4: Draft 28-Year Plan Bay Area LS&R Needs and Revenues (Millions)

Draft 28-Year Plan Bay Area LS&R Capital Needs and Revenues (In Millions)							
County	Revenues for Capital Pavement Rehab Needs*	Cost to "Maintain Existing PCI" Scenario	Cost to reach a "State of Good Repair, PCI 75"	Shortfall, "Maintain Existing PCI" Scenario	Shortfall, "State of Good Repair, PCI 75" Scenario	Ratio of "Maintain Existing PCI" Cost to Revenues	"State of Good Repair, PCI 75" Cost to Revenues
Solano	**488**	**2,186**	**3,195**	**1,699**	**2,707**	**4.5**	**6.5**
Napa	219	872	1,516	653	1,297	4.0	6.9
Sonoma	994	2,858	5,018	1,863	4,023	2.9	5.0
Marin	393	1,054	1,506	661	852	2.7	3.8
Santa Clara	3,374	8,817	10,894	5,443	7,519	2.6	3.2
Alameda	2,153	5,332	7,798	3,179	5,650	2.5	3.6
San Mateo	1,368	3,317	3,913	1,950	2,471	2.4	2.9
Contra Costa	2,868	4,863	5,786	1,995	2,871	1.7	2.0
San Francisco	2,299	3,263	4,778	965	2,480	1.4	2.1
REGION	14,156	32,563	44,404	18,407	29,869	2.3	3.1
* Revenues include committed sources such as gas taxes, sales taxes, registration fees and other local revenues							

Some Solano Cities need as much as 19.7 times more funding

Based on MTC's figures, countywide local streets and roads face a funding shortfall over the next 28 years of $1.7 billion to maintain current conditions and $2.7 billion to reach a state of good repair.

Table 5: Draft 28-Year Solano County LS&R Needs and Revenues (in Millions)

Draft 28-Year Solano County LS&R Capital Needs and Revenues (In Millions)							
Solano Agencies	Revenues for Capital Pavement Rehab Needs*	Cost to "Maintain Existing PCI" Scenario	Cost to reach a "State of Good Repair, PCI 75" Scenario	Shortfall, "Maintain Existing PCI" Scenario	Shortfall, "State of Good Repair, PCI 75" Scenario	Ratio of "Maintain Existing PCI" Cost to Revenues	Ratio of "State of Good Repair, PCI 75" Cost to Revenues
Dixon	5.7	100.2	112.2	94.5	106.5	17.6	19.7
Benicia	16.5	137.3	217.0	120.8	200.5	8.3	13.2
Vallejo	60.2	357.9	874.0	297.6	813.8	5.9	14.5
Fairfield	105.9	561.3	664.6	455.3	558.6	5.3	6.3
Vacaville	119.1	515.9	584.0	396.7	464.8	4.3	4.9
Suisun	35.6	116.4	176.7	80.7	141.0	3.3	5.0
Rio Vista	5.6	15.5	61.6	9.9	56.0	2.8	11.0
County	139.1	382.0	504.8	242.9	365.7	2.7	3.6
TOTAL	**487.8**	**2186.4**	**3194.8**	**1698.5**	**2707.0**	**4.5**	**6.5**

Funding Sources for Solano County Roadways

There are a limited number of funding sources that local jurisdictions can access to fund local streets and roads maintenance activities.

As showcased in Figure 5, the majority of funds used for LS&R investments come from state and local sources. Over the past decade the percentage of funds coming from the federal government has declined and the percentage coming from local sources has increased. The federal gas tax was last raised in 1993, nearly 21 years ago. According to the Federal Highway Administration, the purchasing power of the federal gas tax has dropped approximately 30 percent since 1997. This trend is important going forward as local agencies might have to rely on local funding measures for their roadway needs.

Federal (25%)

- Surface Transportation Program (STP) – This funding source has most recently been packaged as part of the OneBayArea Grant (OBAG) program. This program has increased the level of regulation and limited the use of funds, with at least 50% of funds in Solano County going to PDAs or must be used in complete streets projects.
- Federal Stimulus –These one-time funds were available for roadway projects during the recession of 2009-2012. While these funds were a boost to local agencies of federal revenues, they only served to fill the gap that occurred due to a decrease in local and state revenues.

State (44%)

- Prop 1B – This funding source has been used by local agencies to augment their local streets and roads maintenance budgets since it was passed by voters in 2006. A total of approx. $5M was allocated to Solano County jurisdictions for roadway maintenance. According to Caltrans Dept of Finance, nearly all funds have been allocated. This funding source is no longer available for roadway projects.
- Gas Tax – State gas tax revenues are collected by the State and then distributed to local jurisdictions by formula. This is important source of revenue that has held steady due to “Fuel Tax Swap” legislation enacted in 2011.

Local (31%)

- City or County General Fund
- Regional Transportation Impact Fee – Recently enacted by Solano Board of Supervisors with a $1,500 per dwelling unit equivalent. This resource is not guaranteed as it is limited to new development, and funds are allocated to specific projects, not just roadway improvements.
- Local Sales Tax - In order to address the need for more local funding, three cities within Solano County have passed local sales tax measures recently, of which a portion of the funds have been allocated to LS&R maintenance. Vallejo, Fairfield, Vacaville, and Rio Vista all have passed temporary sales tax measures, with only Vallejo and Fairfield currently budgeting a portion of the revenue to LS&R.

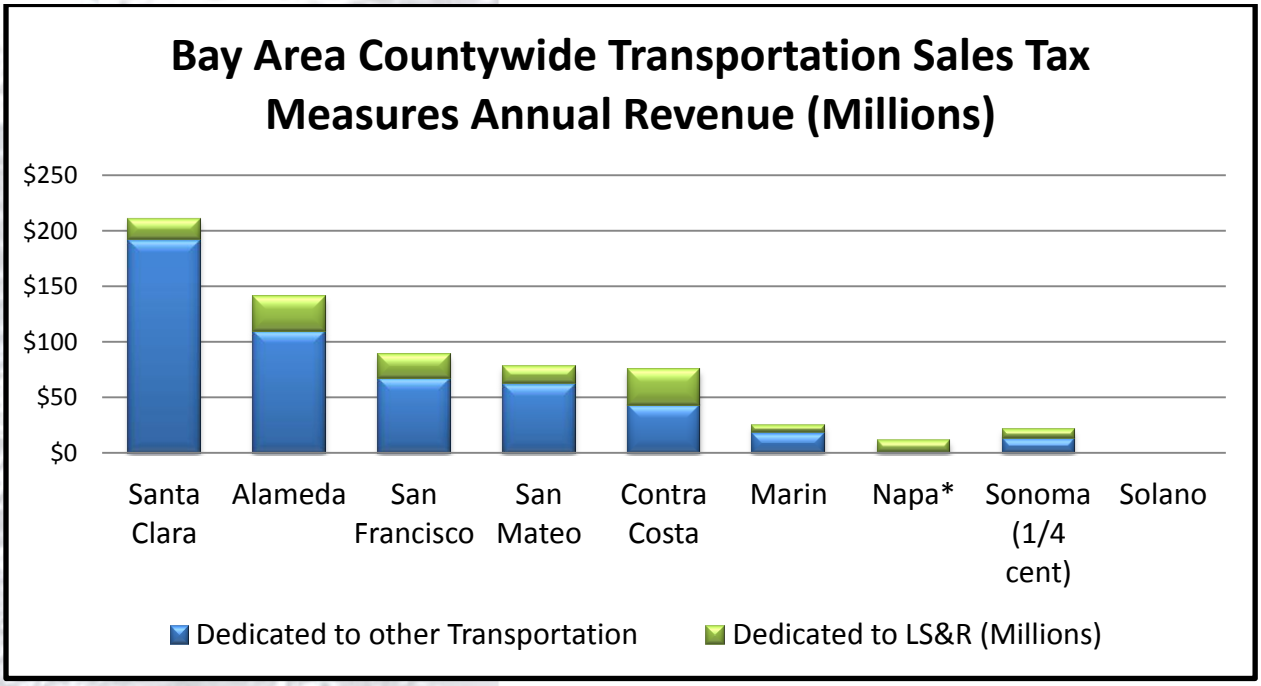
Table 6: Local Jurisdictions with Temp Sales Tax Measures

Municipality	Sales Tax Rate	Annual Budgeted to LS&R
Vallejo	1%	~$2M
Fairfield	1%	~$1M
Vacaville	.25%	N/A
Rio Vista	.75%	N/A

While four of the seven cities within Solano County currently have a sales tax, with some of the funds budgeting for LS&R, there is currently no countywide sales tax devoted to transportation improvements.

A local transportation funding source would help to alleviate some local funding shortfalls and would provide a reliable and steady source of revenue for roadway maintenance needs. In fact, Solano County is the only county within the 9 county San Francisco Bay Area that does not have a local countywide funding source dedicated to transportation improvements and roadway maintenance. Some Bay Area counties have also adopted a fee based on vehicle licensing through the Department of Motor Vehicles that directly funds transportation projects. How much revenue can a countywide funding source provide? Figure 6 and accompanying table 7 show that tens, or even hundreds of millions of dollars are generated annually for transportation projects through local voter-approved sales tax measures. Depending on how the measure was written, many of these local measures have a significant amount of funding dedicated to LS&R maintenance.

Figure 6: Bay Area Countywide Transportation Funding Source Annual Revenue Estimates (Millions)



*Napa's Measure T goes into effect in 2018.

Table 6: Bay Area Countywide Transportation Sales Taxes in Millions (All Counties 1/2% tax rate, except Sonoma)

County	Santa Clara	Alameda	San Francisco	San Mateo	Contra Costa	Marin	Napa*	Sonoma (1/4%)	Solano
Estimated 2014 Revenue	$ 211	$ 141	$ 89	$ 78	$ 75	$ 25	$ 11	$ 21	$ -
Dedicated to LS&R	$ 19	$ 31	$ 22	$ 16	$ 32	$ 7	$ 10	$ 8	$ -
Percentage to LS&R	9%	22%	25%	20%	43%	27%	92%	40%	0%

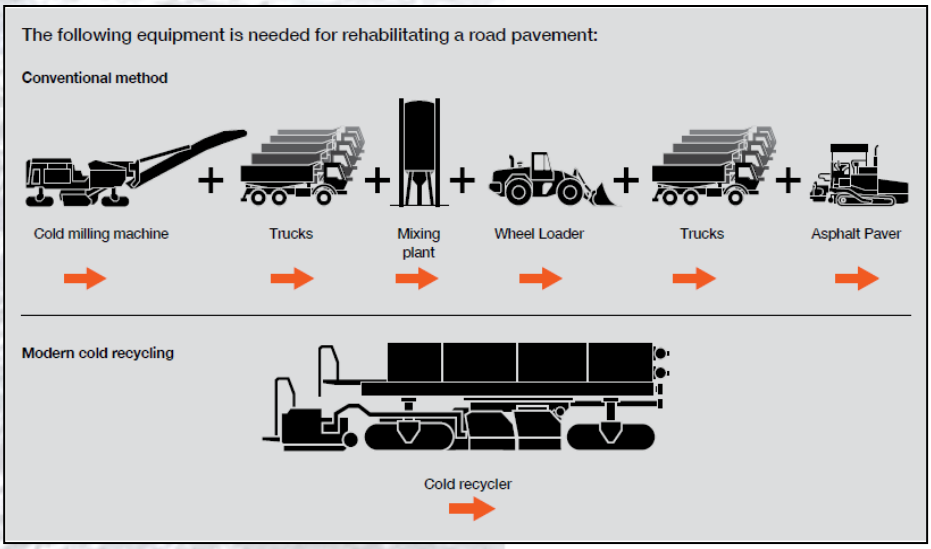
Most of the Bay Area counties have devoted between 20% and 40% of their transportation sales tax revenue to LS&R, with the exception of Santa Clara which dedicates a far lower percentage and Napa dedicating a much higher percentage. Solano County, as the only Bay Area County to not have passed a transportation sales tax measure, is currently not receiving any dedicated LS&R revenue; which has contributed to a higher back-log of roadway maintenance needs that will have to be addressed in future years, at increased cost.

Exploring New Technologies to Save Tax Dollars

New technologies, such as improved chip seal polymer, Cold In-Place Recycling (CIR) and Full Depth Reclamation (FDR) pavement technology can recycle pavement and cut project costs in half. New polymer chip seals can have improved durability and have been shown to extend pavement life 7-12 years over pavements in good condition; 5-7 years on pavements in fair condition; 3-5 years for pavements in poor condition. This declining return on investment for this technology is another reason to address roadway maintenance before costs rise.

Unincorporated Solano County roads have experienced a gradual and steady increase in PCI over the last 7 years, lifting the County's index from 61 to 78. County staff primarily attributes the 3.6% annual average PCI increase to the County's aggressive chip seal program. Every year nearly half of the County's 460 centerline miles of paved roads are physically driven and 40 miles are identified for chip seal. County crews spend about 3 months each spring preparing the selected road segments by digging out failed pavement sections, blade patching, and crack sealing.

Figure 7: Conventional Method vs. CIR (Source: MTC)



Crews have successfully addressed structural distresses in advance of the surface treatment and paid equal attention to maintaining smooth profiles to make the (unincorporated) Solano County chip seal program a great success.

Several Bay Area municipalities already are experimenting with a relatively new technology known as Cold In-Place Recycling (CIR), which eliminates the need for the extraction and processing of raw materials, as well as the transportation and lay-down of finished asphalt-concrete. MTC previously awarded a $2 million grant through its Climate Initiatives Program to help finance a joint CIR demonstration project by Sonoma County and the city of Napa, with the intention of piloting the use of this technology for possible applications elsewhere in the Bay Area. Solano County and its cities can take advantage of available grant opportunities and explore the possibility of implementing CIR technology on its road rehabilitation projects. This process has the potential to save money and resources on roadway reconstruction projects.

Full depth reclamation is a recycling method where all of the existing asphalt pavement is pulverized, combined with underlying materials, and treated with asphalt emulsions and chemical agents such as calcium chloride, portland cement, fly ash and lime, to obtain an improved base. This method has been recommended by the US Department of Transportation for pavements with deep rutting, load-associated cracks, nonload associated thermal cracks, reflection cracks, and pavements with maintenance patches such as spray, skin, pothole, and deep hot mix. It is particularly recommended for pavements having a base or subgrade problem. The engineering costs are low for this method and allow for lower material expense during reconstruction.

Innovative Methods to Maintain or Increase PCI Scores

With state and federal investment in local LS&R decreasing, local agencies are using innovative methods to maintain their pavements. While these methods might be effective, they are not able to bridge the significant funding shortfall.

1. New Growth Communities – Certain cities within Solano County have a healthy growth rate, with new roads and houses being built on an annual basis. These newly constructed roads, with PCI around 100, help to boost the average PCI score for a city overall. There is a serious issue with this approach, as new residential roads only carry a small percentage of a city's traffic. A city's collector and arterial roads carry the bulk of traffic, yet are given the same average PCI weighting as a new residential road, which serves to skew the average PCI score of a city. This only raised the average and does nothing to maintain existing roads.

2. One-Time Funds – The most recent example of one-time funds is the Federal Stimulus that was passed in 2008. These funds helped to make up for a decrease in local streets and roads funding during the economic downturn. The Federal Stimulus assisted in funding projects for approximately two years, but these funds are no longer available.

   Another example of one-time funds is California's Prop 1B transportation bond. This transportation bond was approved by popular statewide vote in 2006 and a portion was allocated to local streets and roads maintenance. Over the course of the bond, Solano County was allocated a total of approximately $5M for LS&R projects. The remainder of the funds are allocated for transit use, and no more Prop 1B funds are available for LS&R projects.

Summary and Conclusion

Whether commuting to work, dropping the kids off at school, or making a quick stop at the grocery store, nearly every trip begins and ends on local roadways. This is arguably one of the most important infrastructure investments a city can make. How and when we invest in our roads can have major implications on future budgets. Spending $1 now on timely maintenance to keep a section of roadway in good condition would cost $5 to restore the same road if the pavement deteriorates to the point of needing major rehabilitation. A quality roadway network promotes the movement of goods and services, which has a positive effect on economic activity.

As of June 2014, Solano County and its 7 cities are cumulatively investing approximately $20M annually in maintaining local streets and roads. In order to achieve an average countywide PCI goal of 60, an additional $24M annually is needed over the next 15 years. This amount is more than twice as much as we are now spending just to maintain local streets and roads in "fair condition." Since the costs of roadway rehabilitation increase substantially when PCI drops below 60 (roads categorized as "at-risk"), having a countywide goal of 60 would poise our roads on the edge of a maintenance cliff. To reach the higher PCI goal of 75, the goal approved in the Solano Comprehensive Transportation Plan, $50M additional funds are needed annually over the next 15 years to reach a 'state of good repair' – two and a half times more than our current investment.

"Strategic investment in infrastructure produces a foundation for long-term growth."

-Roger McNamee

Without a healthy investment in our roadway infrastructure, Solano County will continue its downward trend in pavement quality. This deterioration hinders Solano County from attracting new jobs, housing, tourism, and business investment. More money spent now in long-term roadway maintenance can save Solano County and the seven cities millions in the future and strengthen our local economy.

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Appendix

Local Agency Handouts Describing Pavement Conditions, Pavement Maps, and Finances

Each local agency handout will describe each agency's unique approach to pavement management, including

- Brief introductions to general pavement conditions and issues
- Brief narrative describing the local agency's pavement maintenance and rehabilitation approach
- Current Pavement Condition Maps
- Charts showing the last 5 years of pavement investments
  - Includes non-pavement investments (i.e., curbs and gutters, sidewalks, storm drains, traffic signs, signals and lights)
- Future Pavement and Revenue Needs
- PCI Projection Maps for 2014, 2018, 2023, and 2028 using Current Budget Scenario.
- Budget Scenarios:
  - Current Budget
  - Maintain Current PCI
  - Target PCI 75

15 Year Pavement Cost Projections by Jurisdiction

City of Benicia Pavement Condition

The City of Benicia is responsible for the management, repair, and maintenance of 189 lane miles of pavement, or 552 pavement sections. The table below summarizes the length of the road and 2013 pavement condition index (PCI) by functional class.

Functional Class	Sections	Centerline Miles	Lane Miles	2013 PCI
Arterial	56	17.14	36.57	59
Collector	45	15.44	30.88	75
Residential/Local	451	61.18	122.24	53
Total	**552**	**93.76**	**189.70**	**59 (3 yr avg)**

The PCI is a measurement of pavement grade or condition and ranges from 0 to 100. The average 2013 PCI (based on a 3-year moving average) of the street network of the City is 59. This PCI score is considered "at-risk" and Benicia's PCI has dropped from the previous year two years (61 in 2011 and PCI 60 in 2012). Currently, 26% of the City's pavement area falls under "Excellent or Very Good", 36% falls under "Good or Fair" and 38% falls under "Poor or Failed". Again, compared with previous years, this shows a general trend towards the poorer pavement condition categories. If these are not addressed, the quality of the road network will inevitably decline. In order to correct these deficiencies, a cost-effective funding, maintenance and rehabilitation strategy must be implemented.

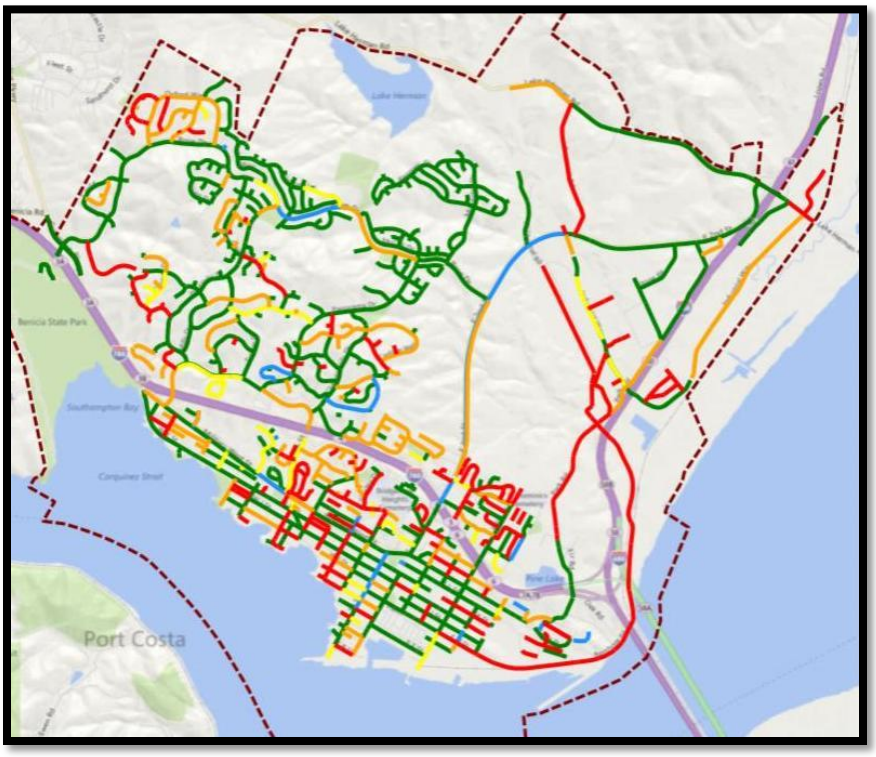
The City has been utilizing crack seals and surface treatments, such as slurry seals, as a means of preventive maintenance when the pavements are in "fair" condition or above. When the pavement condition deteriorates to lower levels, overlays and reconstruction have been performed.

Poor/Failed Pavement Condition

Excellent/Very Good Pavement Condition

Current Pavement Condition Index (PCI) Map

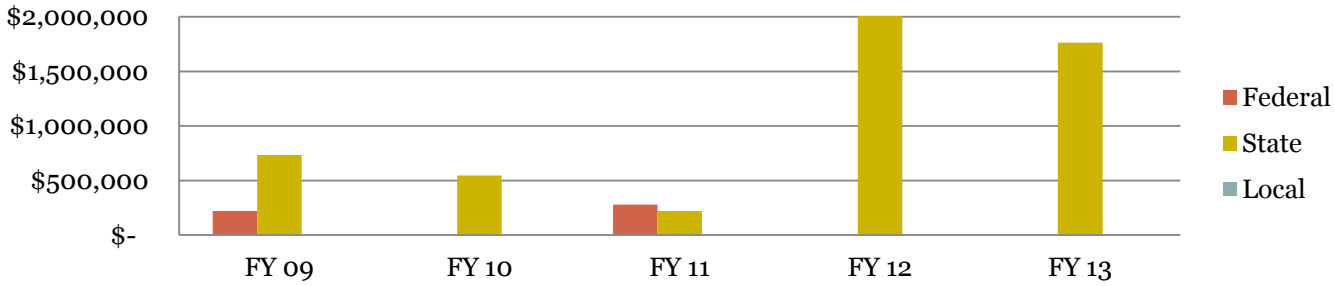
- I - Very Good
- II - Good (non-load)
- III - Good (load-related)
- IV - Poor
- V - Very Poor



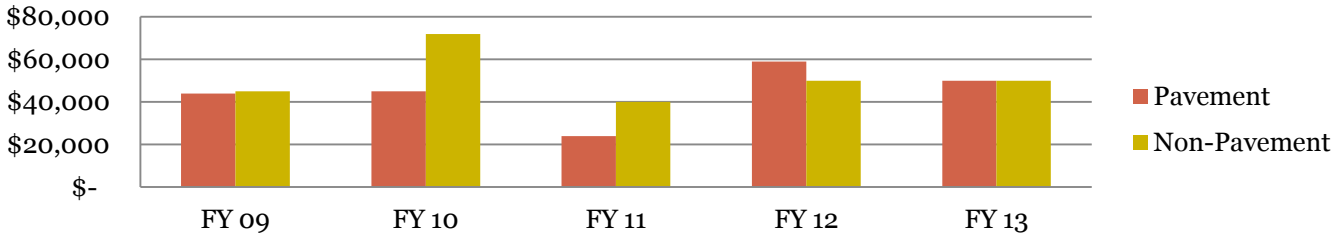
Past Streets and Roads Investments

The current PCI reflects the past investments made in Benicia's streets and roads network. The following charts show 5-year (2009-2013) revenue and expenditure histories for both pavement maintenance and capital projects in Benicia.

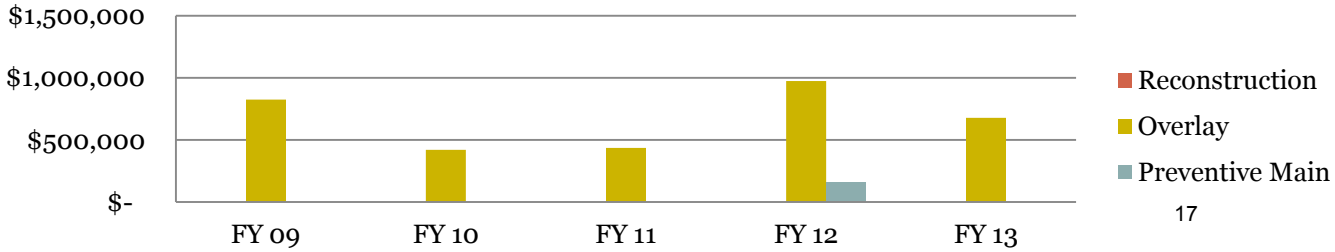
Benicia Total Revenue



Benicia Maintenance Expenditures

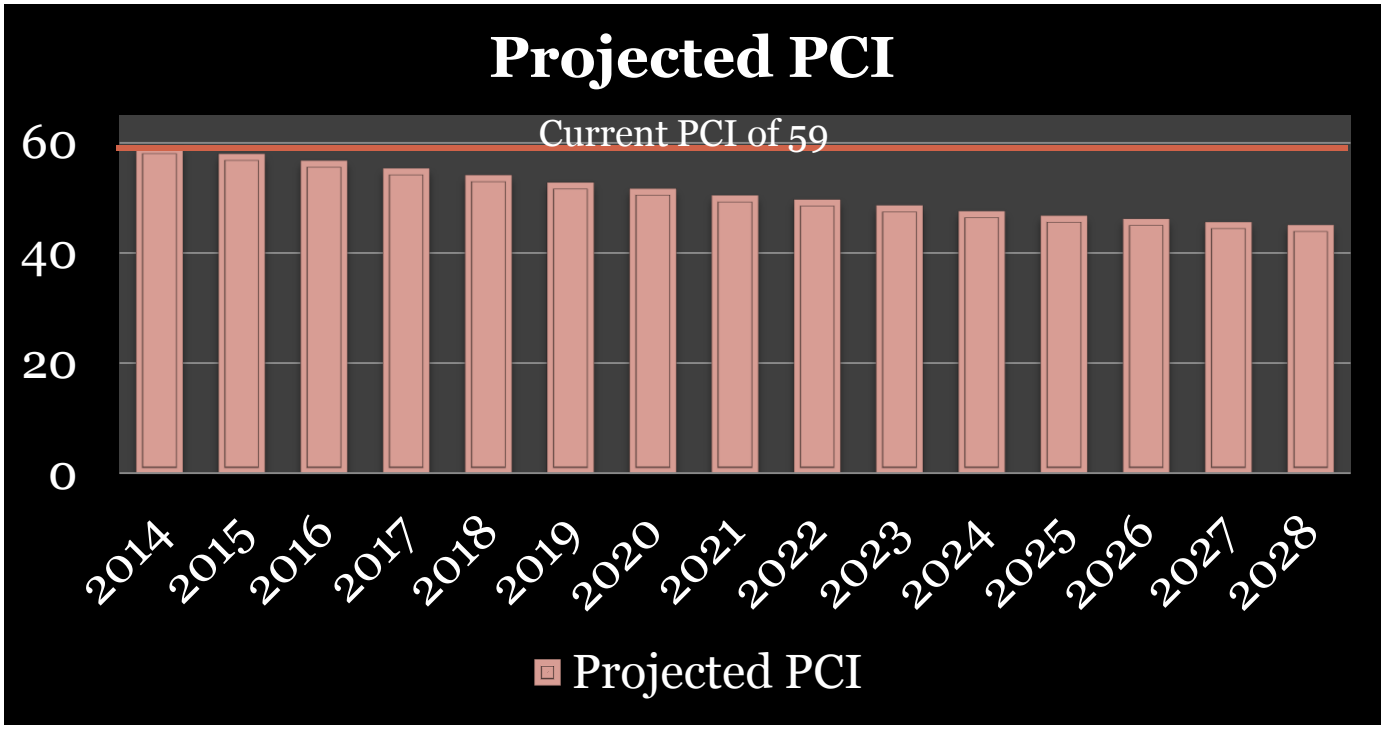


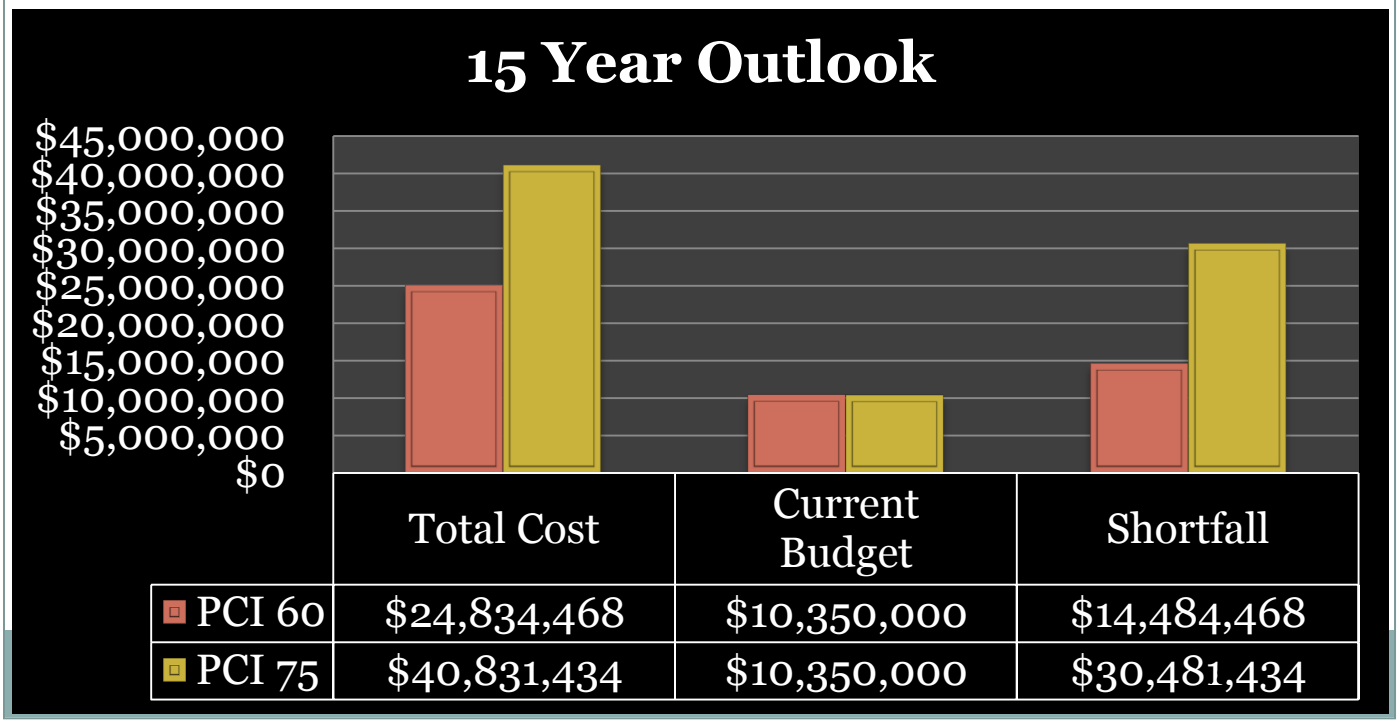
Benicia Capitol Improvement Expenditures



Future Pavement and Revenue Needs

In 2013 Benicia's average PCI was 59, with budget for roadway maintenance of $690,000 per year. If that current level of funding were to be applied through the year 2028 (15 years) the average PCI for the City would drop from it current average rating of 59 (At-Risk) to 45 (Poor). **To maintain an average PCI rating of 60 in the City of Benicia**, approximately $24.8M would need to be spent over the next 15 years. The current budget provides approximately $10.3M over 15 years, leaving a funding shortfall of approximately $14.5M. To reach the higher PCI goal of 75, as stated in the Solano Comprehensive Transportation Plan, $30M more than what is currently being budgeted would need to be invested in Benicia's roads over the next 15 years.





	Total Cost	Current Budget	Shortfall
PCI 60	$24,834,468	$10,350,000	$14,484,468
PCI 75	$40,831,434	$10,350,000	$30,481,434

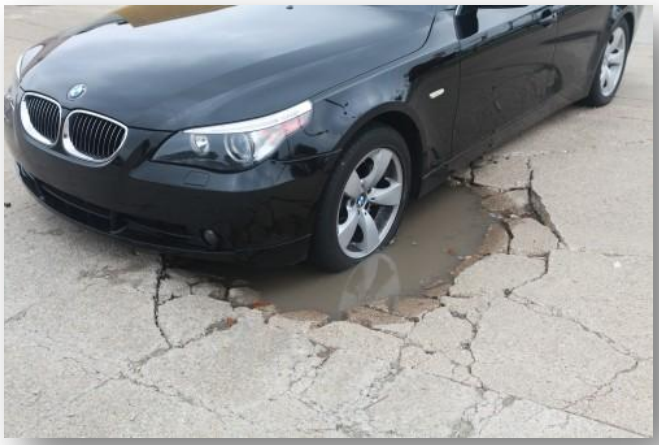
Where Do We Go From Here?

Timely investment in roadway preservation can save cities millions of tax dollars in long-term maintenance costs. A municipality that spends $1 on timely maintenance to keep a section of roadway in good condition would have to spend $5 to restore the same road if the pavement is allowed to deteriorate to the point where major rehabilitation is necessary (MTC, 2011). Pavements that are still in good condition (a PCI of 70 or above) can be preventively maintained at a low cost, whereas pavements that need significant rehabilitation or reconstruction require five to 15 times the amount of funding. Thus, **Benicia's current PCI of 59 should be viewed with caution, as it indicates that its local streets and roads are poised on the edge of a maintenance cliff.**

Benicia is currently on track to invest less than 1/2 of the required $24.8M necessary to maintain the city's average PCI at 60 over the next 15 years. If the city were to raise its average PCI to 75, the goal stated in the Countywide Transportation Plan, then the city would need to invest an additional $30M more than the $10M they are currently on track to spend over the next 15 years.

"Strategic investment in infrastructure produces a foundation for long-term growth."
-Roger McNamee

Without a healthy investment in its roadway infrastructure, the City of Benicia will continue its downward trend in pavement quality. This deterioration has the potential to hinder Benicia from attracting new jobs, housing, tourism, and business investment. More money spent now in long-term roadway maintenance can save Benicia millions in the future and strengthen its local economy.



Potholes can grow into major obstacles if not treated quickly.

Investing in caution signs is a poor substitute for roadway maintenance. *(Sign not located in Benicia)*

SOLONO TRANSPORTATION AUTHORITY

5 Year Local Streets and Roads Budget Info

Fiscal Years 2009 - 2013

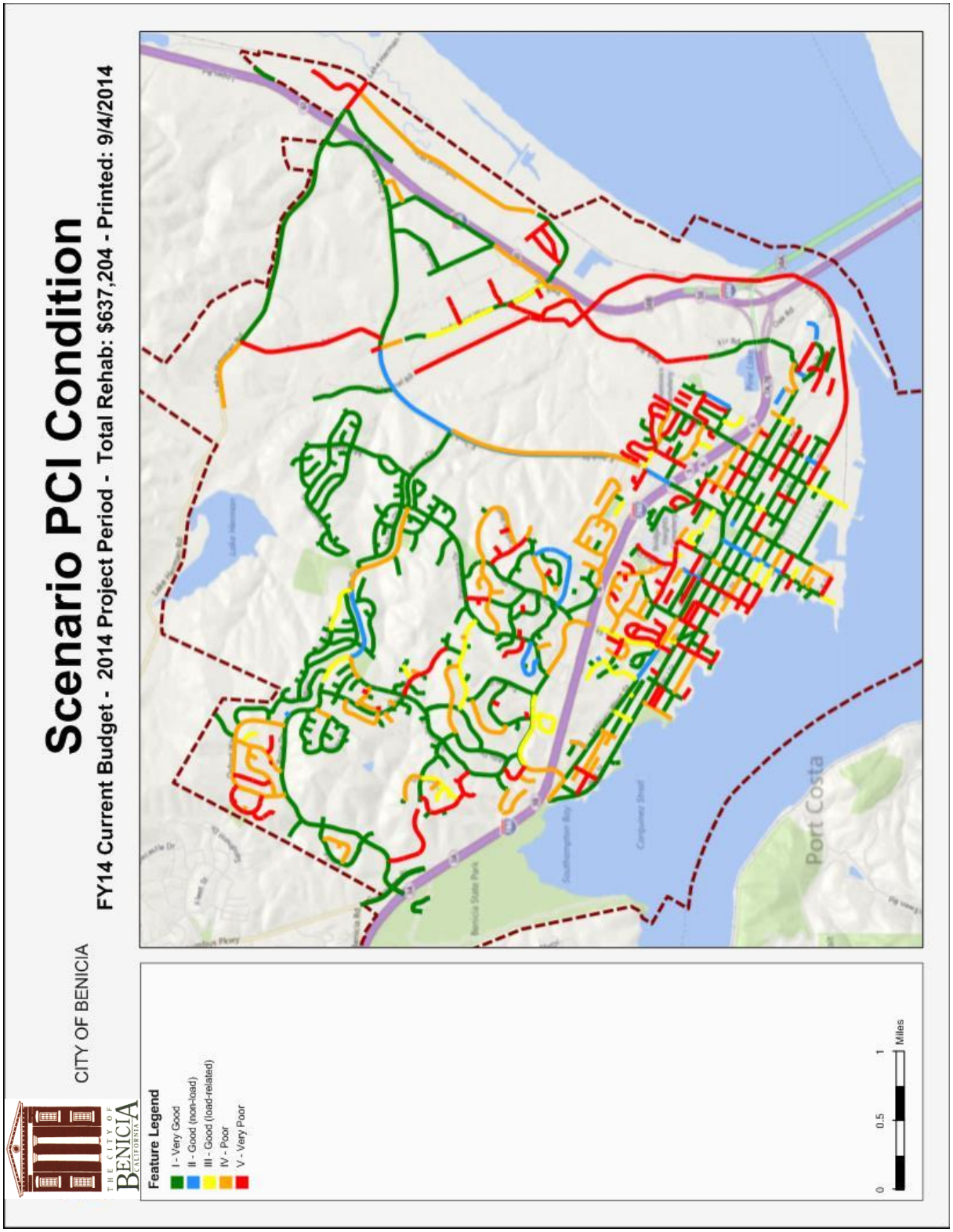
CITY OF BENICIA

REVENUES						
	FY 09	FY 10	FY 11	FY 12	FY 13	TOTAL
Total Revenue						
Federal	$ 220,000	$ -	$ 280,000	$ -		$ 500,000
State	$ 735,000	$ 547,000	$ 220,000	$ 2,096,000	$ 1,764,300	$ 3,598,000
Local						$ -
TOTAL BY FISCAL YEAR	$ 955,000	$ 547,000	$ 500,000	$ 2,096,000	$ 1,764,300	$ 4,098,000

EXPENDITURES						
	FY 09	FY 10	FY 11	FY 12		TOTAL
Maintenance and Operations						
Pavement	$ 44,000	$ 45,000	$ 24,000	$ 59,000	$ 50,000	$ 226,000
Non-Pavement	$ 45,000	$ 72,000	$ 40,000	$ 50,000	$ 50,000	$ 276,000
Capital Improvement Program						
Reconstruction	$ -	$ -	$ -	$ -		$ -
Overlay	$ 826,000	$ 420,000	$ 436,000	$ 976,000	$ 679,300	$ 3,337,300
Preventive Mair	$ -	$ -	$ -	$ 160,000		$ 160,000
Non-Pavement	$ 40,000	$ 10,000	$ 220,000	$ 851,000	$ 985,100	
TOTAL BY FISCAL YEAR	$ 955,000	$ 547,000	$ 500,000	$ 2,096,000	$ 1,764,400	$ 3,999,300

What will Benicia's Streets look like in the Future using Current Budget Scenarios?

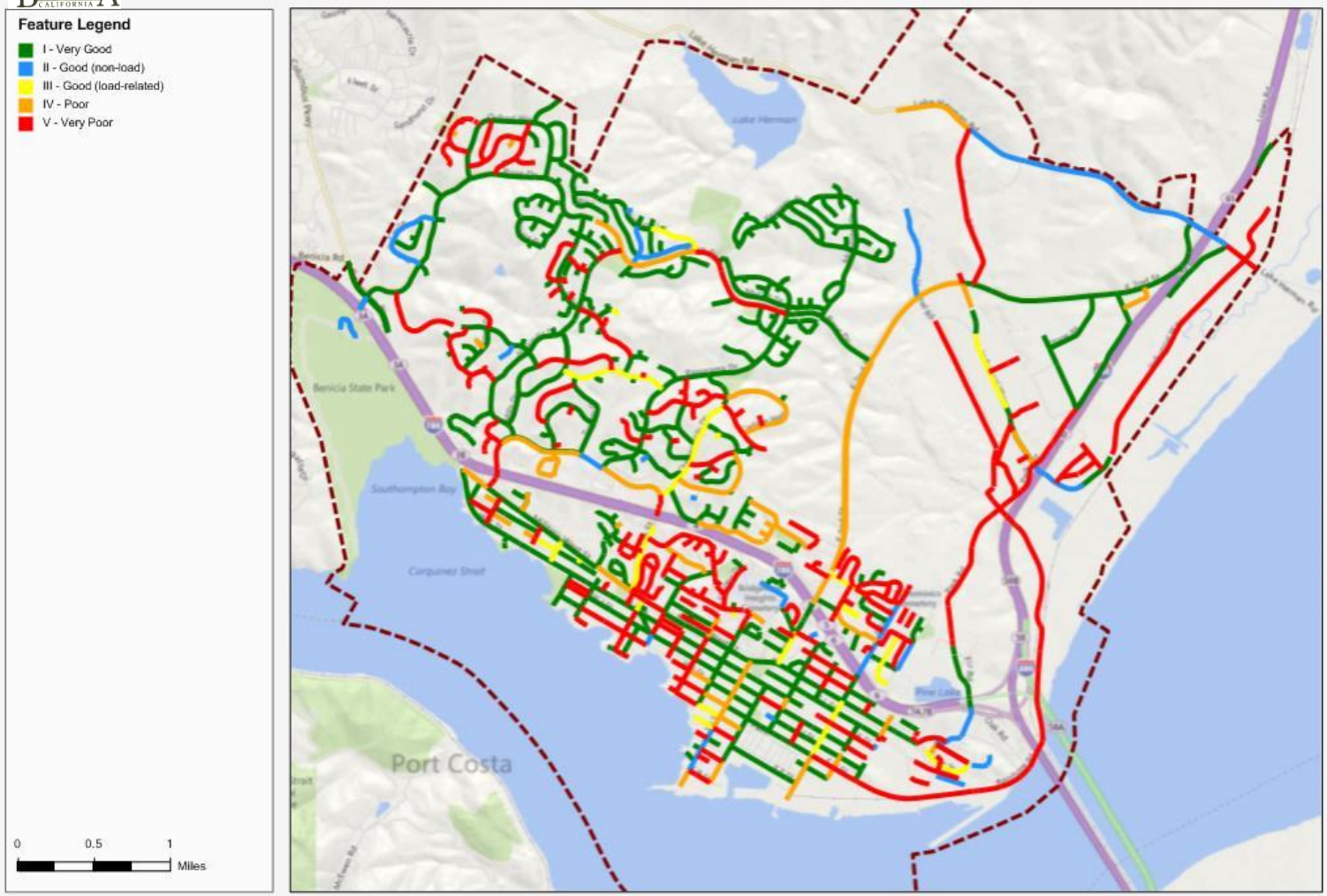
The PCI maps below illustrate what streets currently look like and will look like, using current budget scenarios, today (2014), 4 years out (2018), nine years out (2023) and 14 years out (2028).



CITY OF BENICIA

Scenario PCI Condition

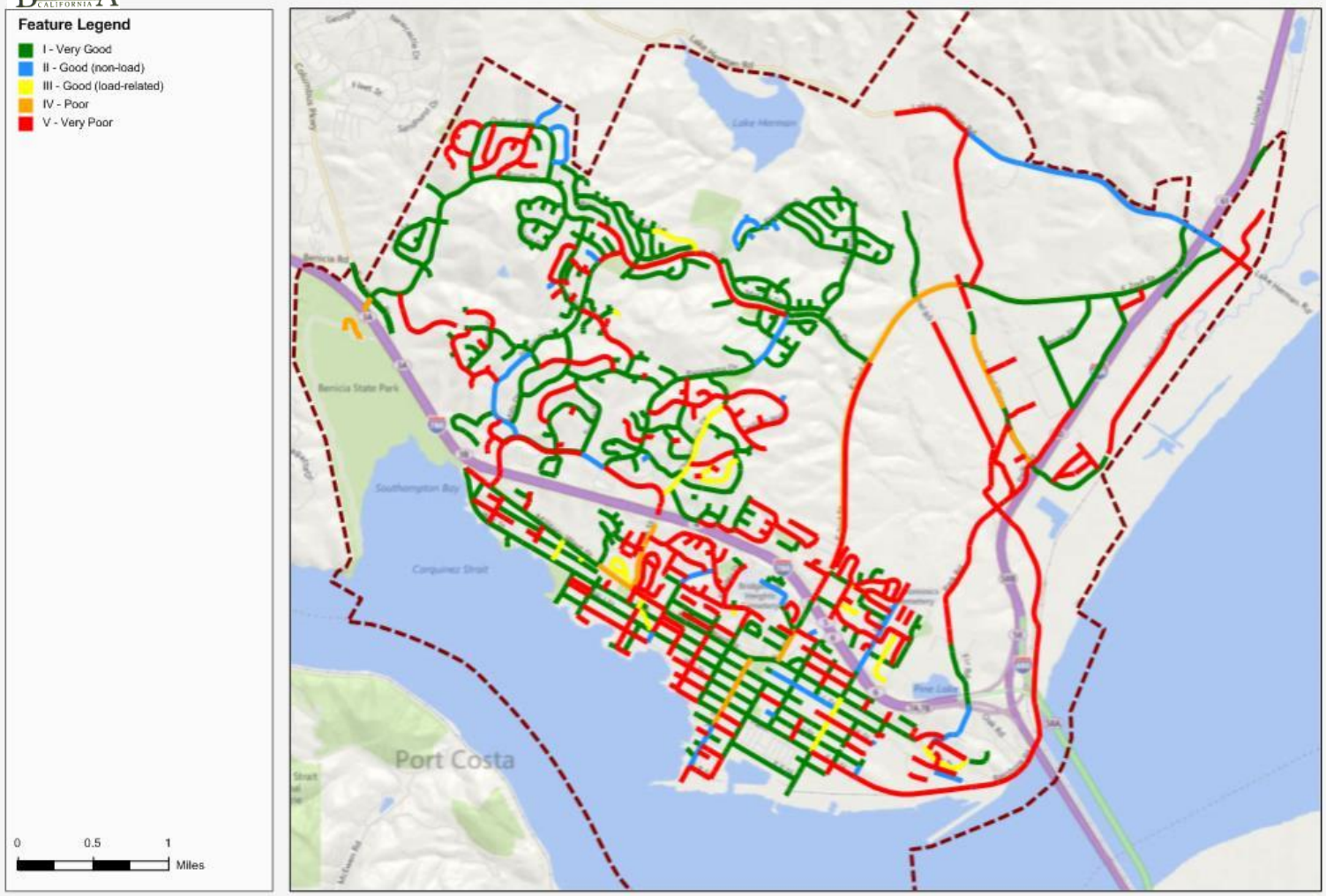
FY14 Current Budget - 2018 Project Period - Total Rehab: $629,953 - Printed: 9/4/2014



CITY OF BENICIA

Scenario PCI Condition

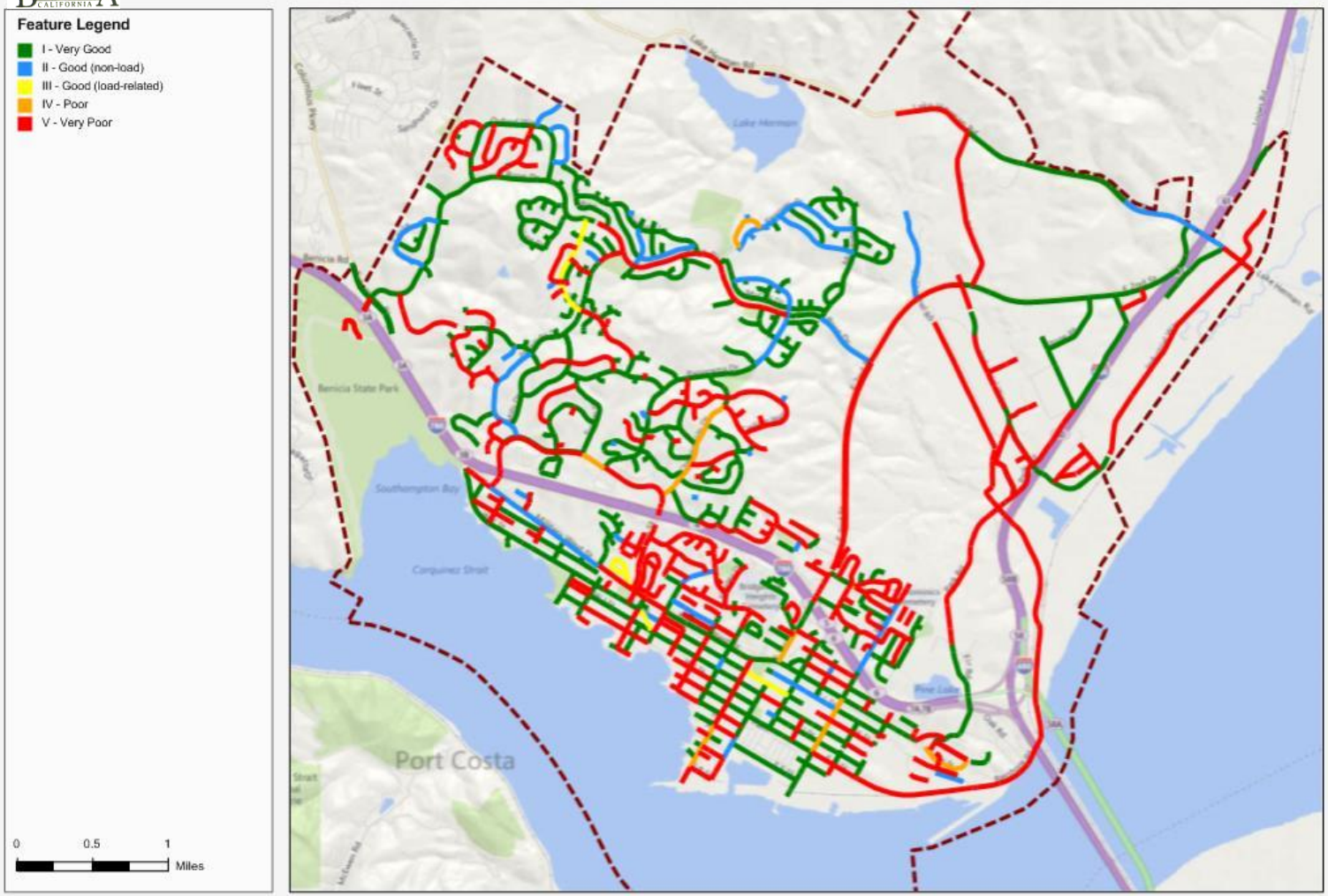
FY14 Current Budget - 2023 Project Period - Total Rehab: $633,419 - Printed: 9/4/2014



CITY OF BENICIA

Scenario PCI Condition

FY14 Current Budget - 2028 Project Period - Total Rehab: $635,500 - Printed: 9/4/2014



City of Dixon

The City of Dixon is responsible for the management, repair, and maintenance of 125 lane miles of pavement, or 288 pavement sections. Table 1 summarizes the length of the road and 2013 pavement condition index (PCI) by functional class.

Table 1

Functional Class	Sections	Centerline Miles	Lane Miles	2013 PCI
Arterial	22	5.55	13.71	75
Collector	68	14.89	30.40	76
Residential/Local	198	40.78	80.52	76
Total	**288**	**62.11**	**124.6**	**77 (3 yr avg)**

The PCI is a measurement of pavement grade or condition and ranges from 0 to 100. The average 2013 PCI (based on a 3-year moving average) of the street network of the City is 77. This network PCI score is considered good, and Dixon's PCI has stayed the same as it was the previous year (PCI 77 in 2012). Currently, 61% of the City's pavement area falls under "Excellent or Very Good", 28% falls under "Good or Fair" and 11% falls under "Poor or Failed". Compared to previous years this shows a general trend of sustaining good pavement condition categories.

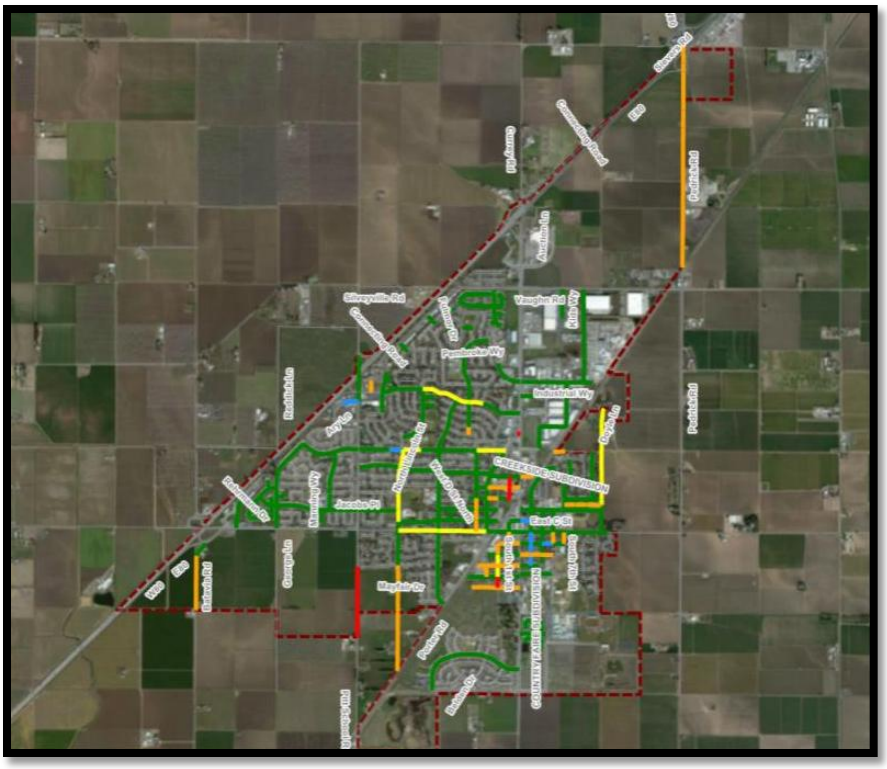
While the City maintains an aggressive preventative maintenance program to address shortfalls in the residential and collector streets, particular focus on arterials will be needed due to the heavy traffic load on its arterial roadways.

Excellent/Very Good Pavement Condition

Poor/Failed Pavement Condition

Current Pavement Condition Index (PCI) Map

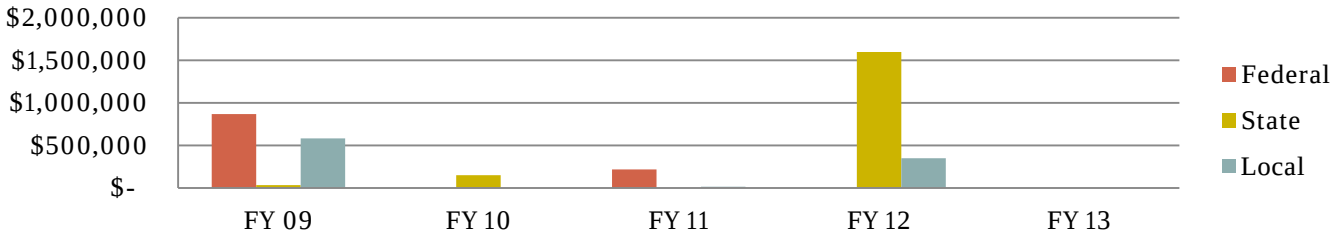
- I - Very Good
- II - Good (non-load)
- III - Good (load-related)
- IV - Poor
- V - Very Poor



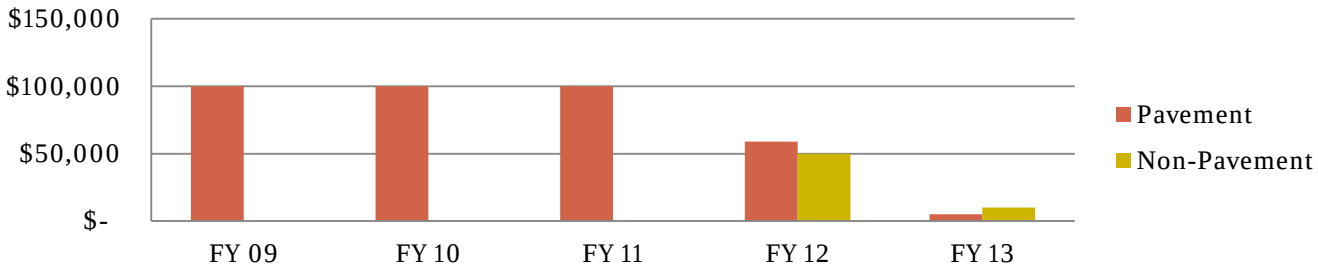
Past Streets and Roads Investments

The current PCI reflects the past investments made in Dixon's streets and roads network. The following charts show 5-year (2009-2013) revenue and expenditure histories for both pavement maintenance and capital projects in Dixon.

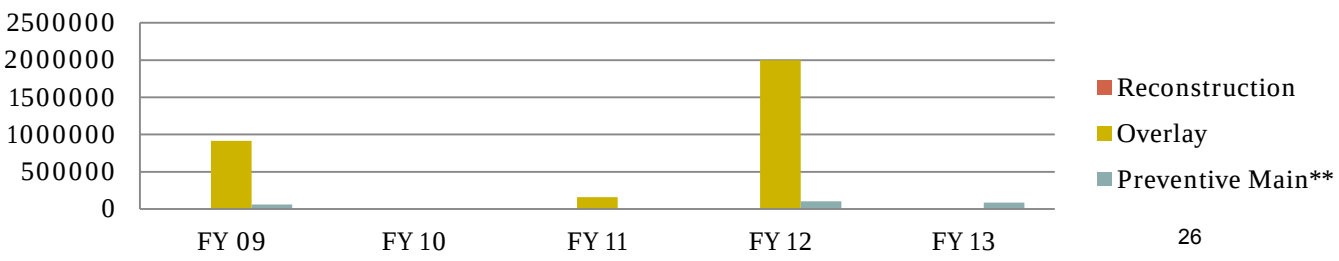
Dixon Total Revenue



Dixon Maintenance Expenditures

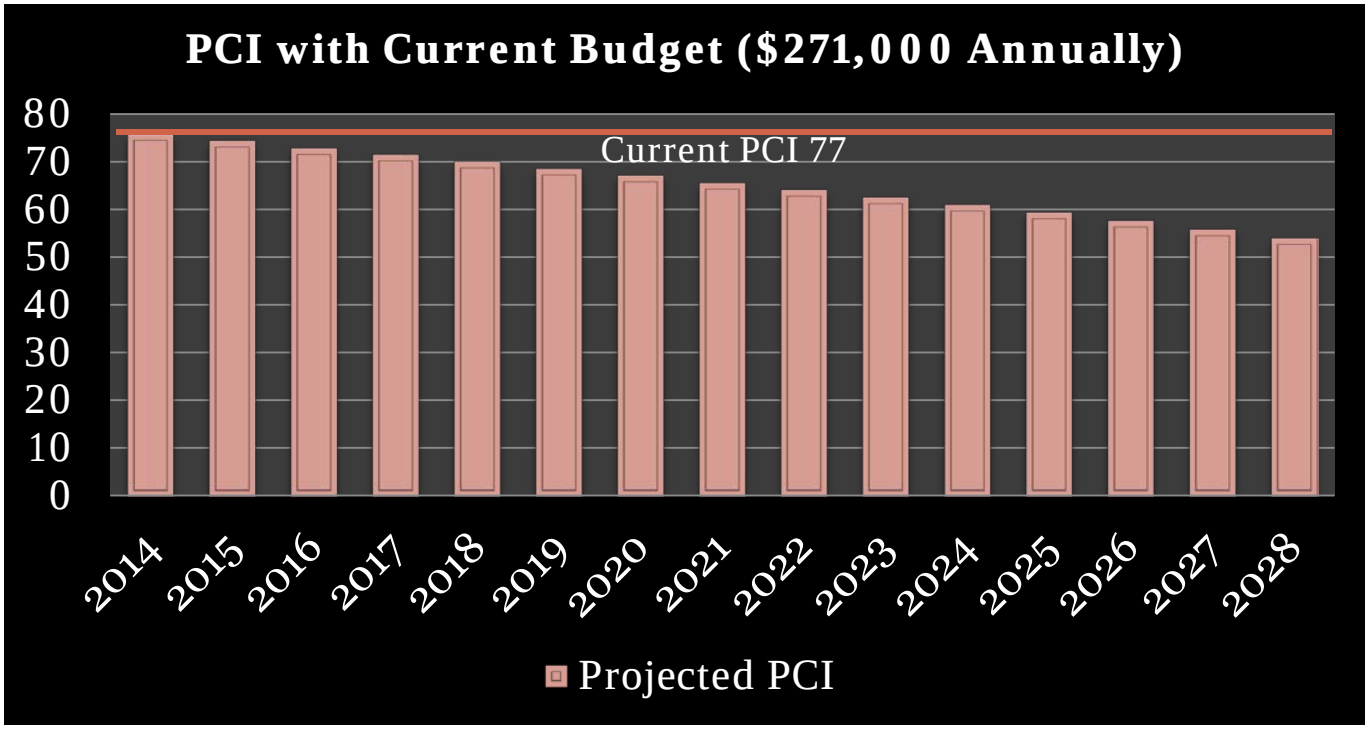


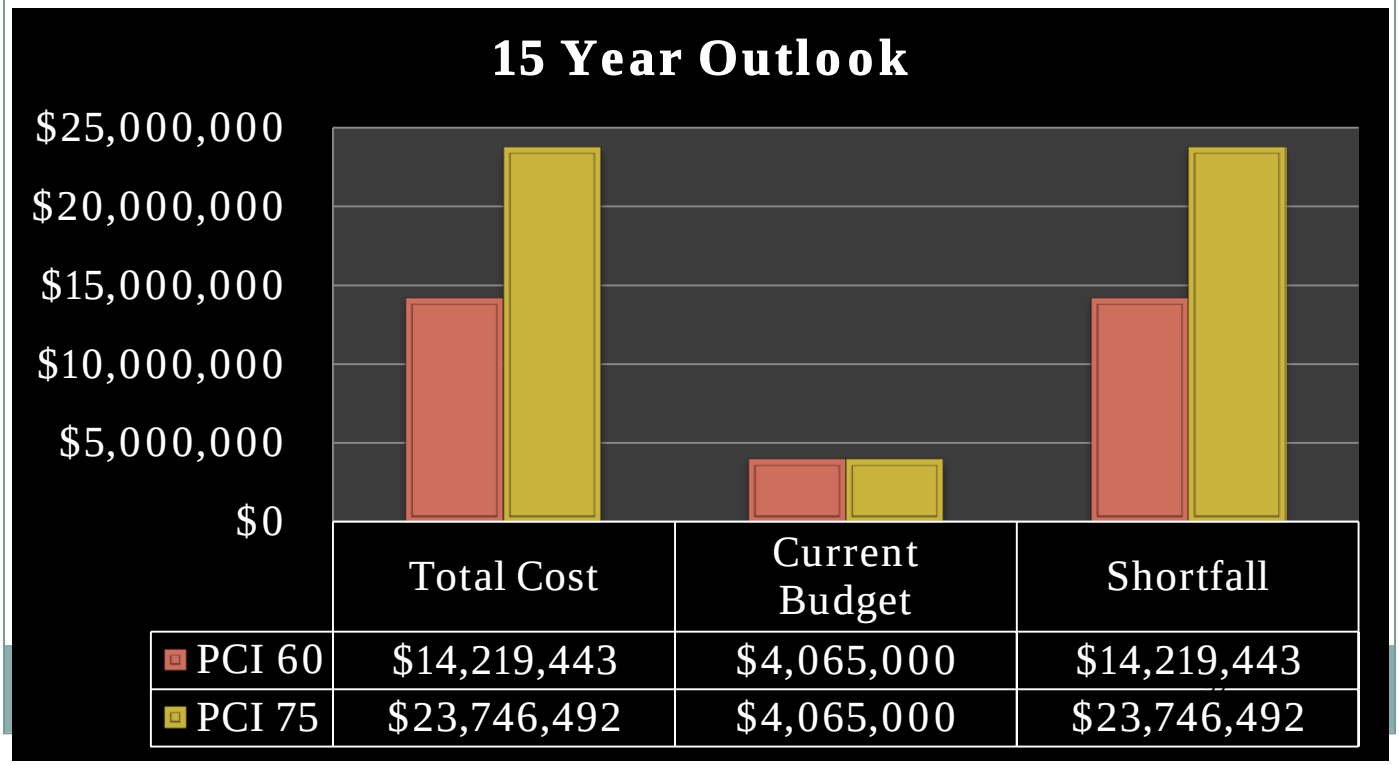
Dixon Capital Improvement Expenditures



Future Pavement and Revenue Needs

In 2013 Dixon's average PCI was 77, with a budget for roadway maintenance of $271,000 per year. If that current level of funding were to be applied through the year 2028 (15 years) the average PCI for the City would drop from its current average rating of 77 (Good) to 54 (At Risk). **To maintain a minimum average PCI rating of 60 in the City of Dixon**, approximately $14M would need to be spent over the next 15 years. The current budget provides $4M over 15 years, leaving a funding shortfall of approximately $10M. To reach the higher PCI goal of 75, as stated in the Solano Comprehensive Transportation Plan, $19M more than what is currently being budgeted would need to be invested in Dixon's roads over the next 15 years.





	Total Cost	Current Budget	Shortfall
PCI 60	$14,219,443	$4,065,000	$14,219,443
PCI 75	$23,746,492	$4,065,000	$23,746,492

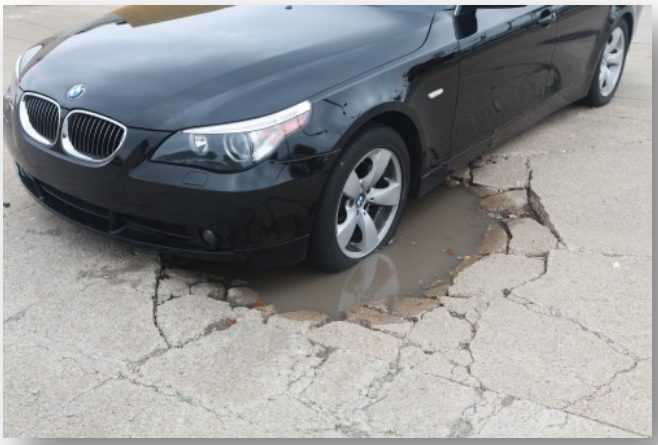
Where Do We Go From Here?

Timely investment in roadway preservation can save cities millions of tax dollars in long-term maintenance costs. A municipality that spends $1 on timely maintenance to keep a section of roadway in good condition would have to spend $5 to restore the same road if the pavement is allowed to deteriorate to the point where major rehabilitation is necessary (MTC, 2011). Pavements that are still in good condition (a PCI of 70 or above) can be preventively maintained at a low cost, whereas pavements that need significant rehabilitation or reconstruction require five to 15 times the amount of funding. Thus, **Dixon's current PCI of 77 should be viewed with an understanding that maintaining this "good" classification will be cheaper in the long-term than maintaining the roads at a lower PCI score.**

Dixon is currently on track to invest less than 1/3rd of the required $14M necessary to keep the city's PCI at 60 over the next 15 years. If the city were to maintain its average PCI to 75, the goal stated in the Countywide Transportation Plan, then the city would need to invest an additional $19M more than the $4M they are currently on track to spend over the next 15 years.

"Strategic investment in infrastructure produces a foundation for long-term growth."
-Roger McNamee

Without a healthy investment in its roadway infrastructure, the City of Dixon will continue its downward trend in pavement quality. This deterioration has the potential to hinder Dixon from attracting new jobs, housing, tourism, and business investment. More money spent now in long-term roadway maintenance can save Dixon millions in the future and strengthen its local economy.



Potholes can grow into major obstacles if not treated quickly.

Investing in caution signs is a poor substitute for roadway maintenance. *(Sign not located in Dixon)*

SOLONO TRANSPORTATION AUTHORITY

5 Year Local Streets and Roads Budget Info

Fiscal Years 2009 - 2013

CITY OF DIXON

REVENUES	FY 09	FY 10	FY 11	FY 12	FY 13	TOTAL
Total Revenue						
Federal	$ 870,000		$ 218,000			$ 1,088,000
State	$ 33,338	$ 150,000		$ 1,600,000		$ 1,783,338
Local	$ 581,891		$ 15,000	$ 350,000		$ 946,891
TOTAL BY FISCAL YEAR	$ 1,485,229	$ 150,000	$ 233,000	$ 1,950,000		$ 3,818,229

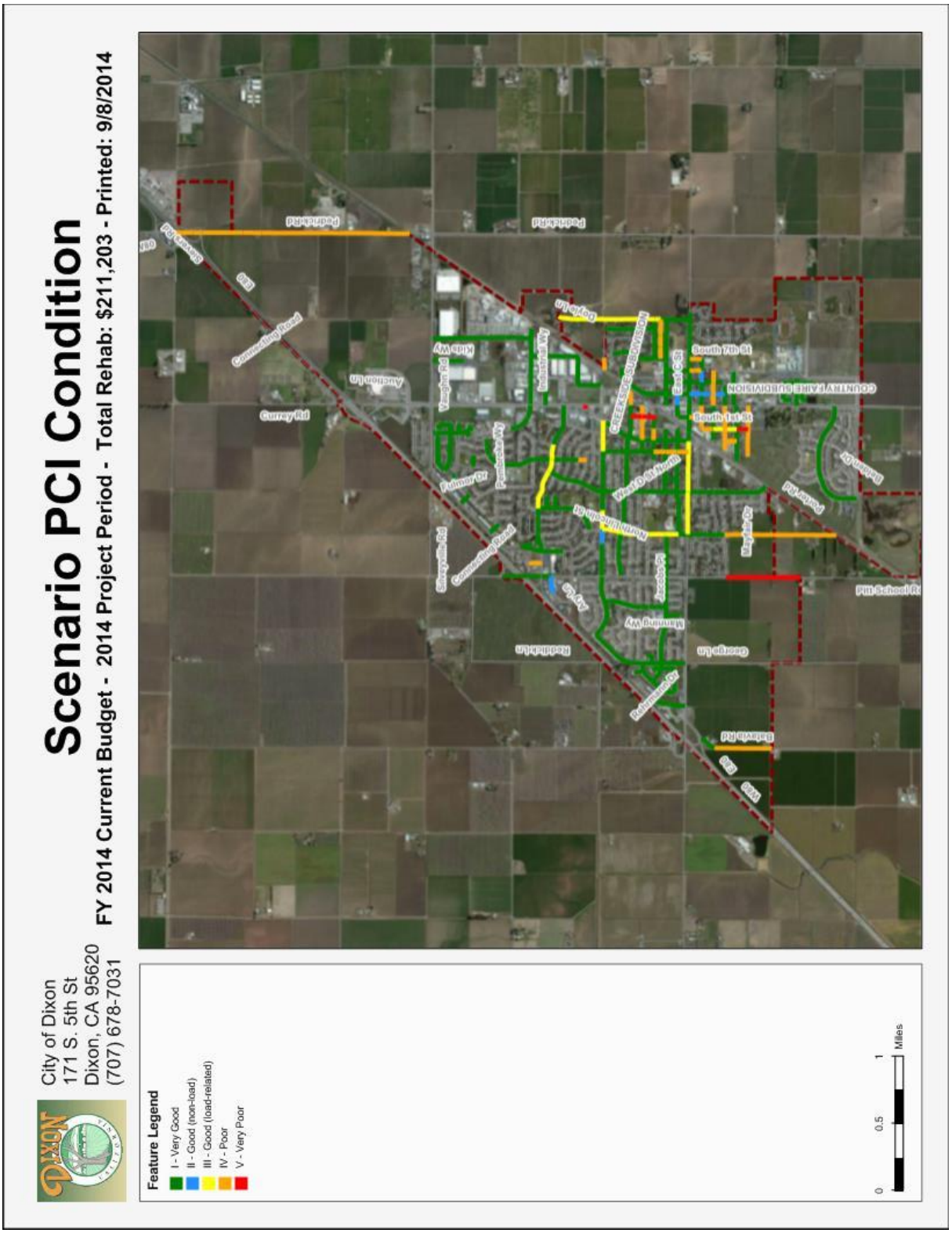
EXPENDITURES	FY 09	FY 10	FY 11	FY 12	FY 13	TOTAL
*Maintenance and Operations**						
Pavement	$ 100,000	$ 100,000	$ 100,000	$ 59,000	$ 5,000	$ 364,000
Non-Pavement	$ -	$ -	$ -	$ 50,000	$ 10,000	$ 60,000
Capital Improvement Program						
Reconstruction						$ -
Overlay	$ 915,229	$ -	$ 158,868	$ 2,000,000		$ 3,074,097
Preventive Main**	$ 60,000			$ 105,000	$ 87,000	$ 252,000
Non-Pavement						
TOTAL BY FISCAL YEAR	$ 1,075,229	$ 100,000	$ 258,868	$ 2,214,000	$ 102,000	$ 3,750,097

* 30% of $362,071 annual maintenance budget

** No Preventive Maintenance work done between FY08-12. Used a 3yr floating average from 2 slurry seal projects from FY07 & FY13

What will Dixon's Streets look like in the Future using Current Budget Scenarios?

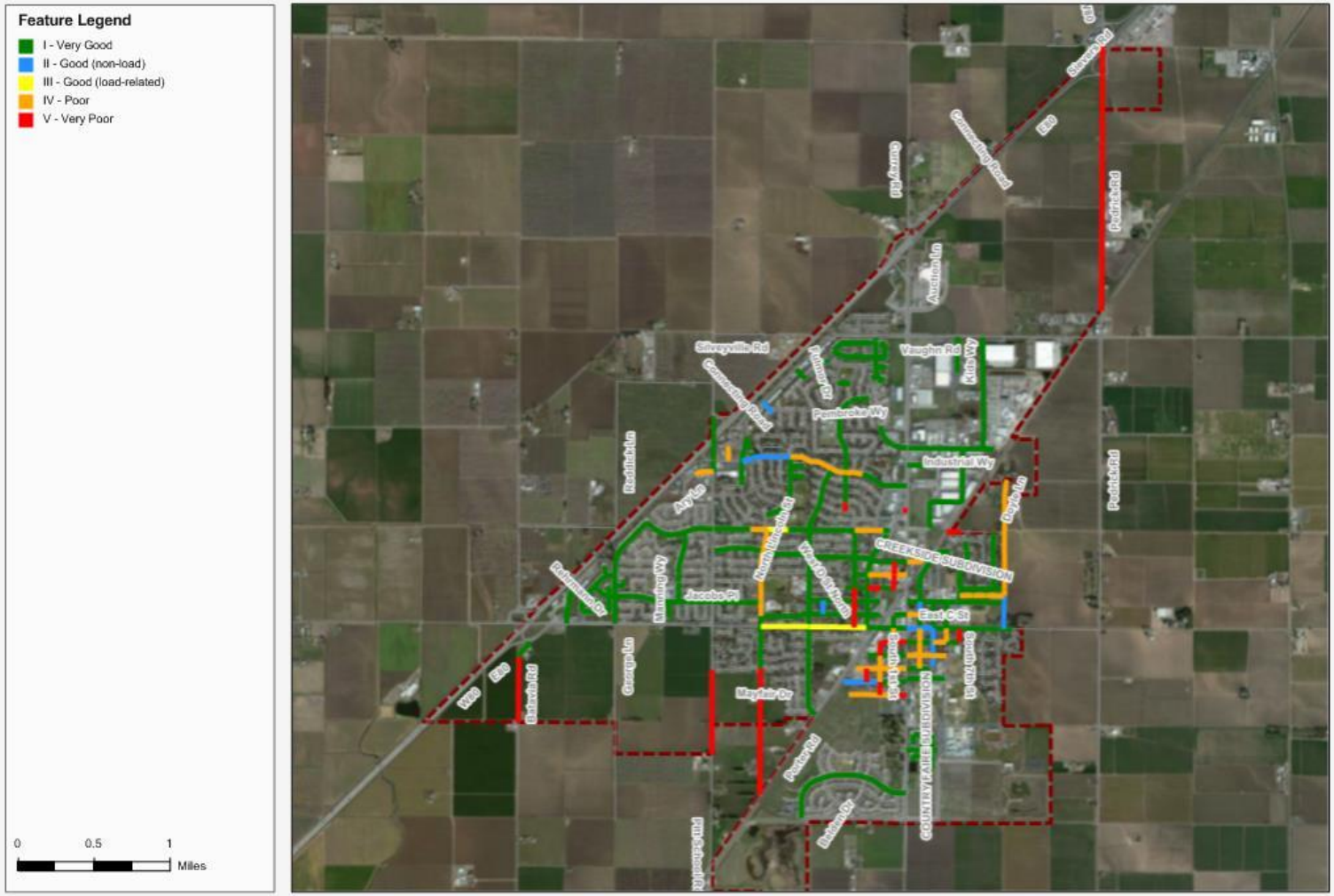
The PCI maps below illustrate what streets currently look like and will look like, using current budget scenarios, today (2014), 4 years out (2018), nine years out (2023) and 14 years out (2028).



City of Dixon
171 S. 5th St
Dixon, CA 95620
(707) 678-7031

Scenario PCI Condition

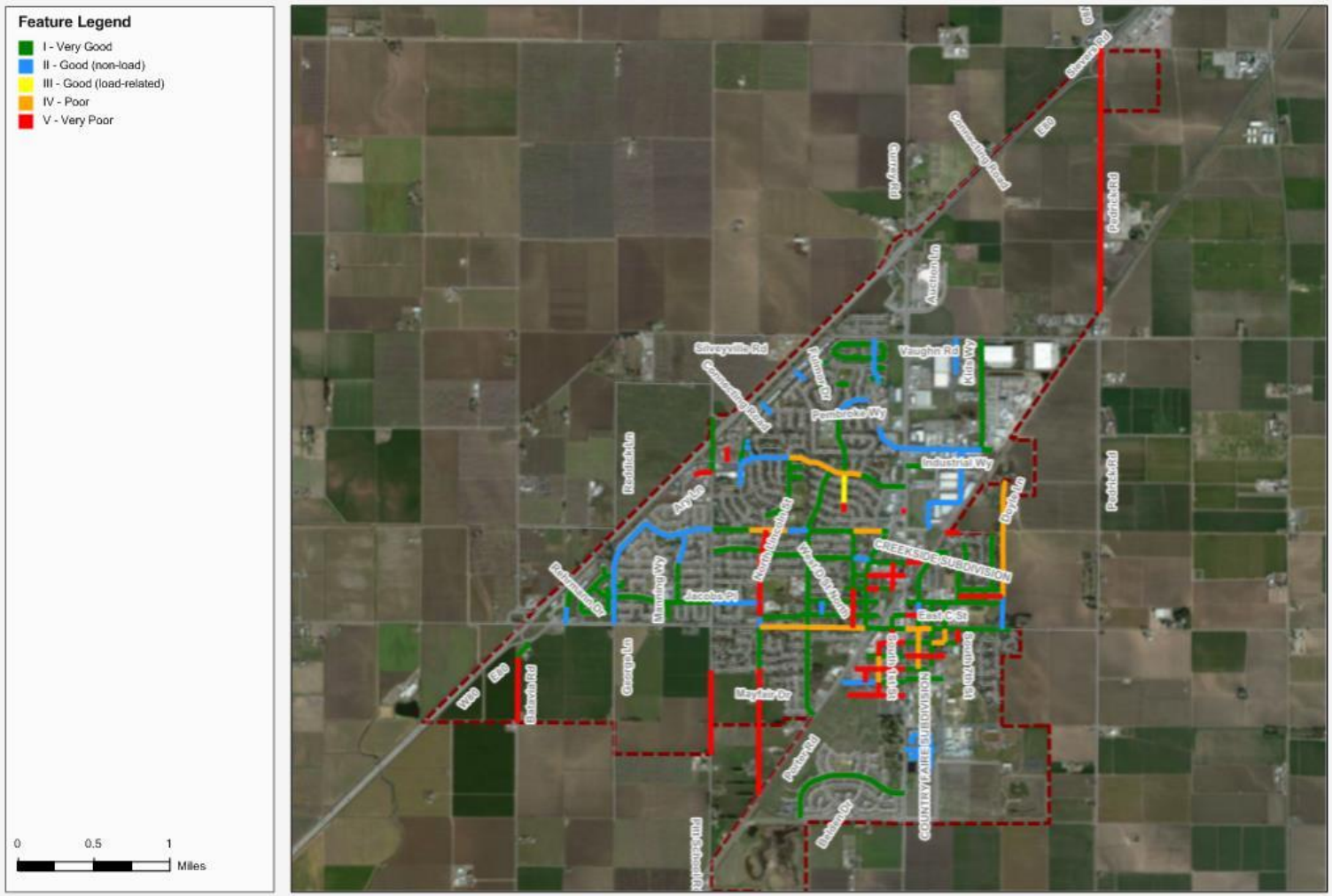
FY 2014 Current Budget - 2018 Project Period - Total Rehab: $208,365 - Printed: 9/8/2014



City of Dixon
171 S. 5th St
Dixon, CA 95620
(707) 678-7031

Scenario PCI Condition

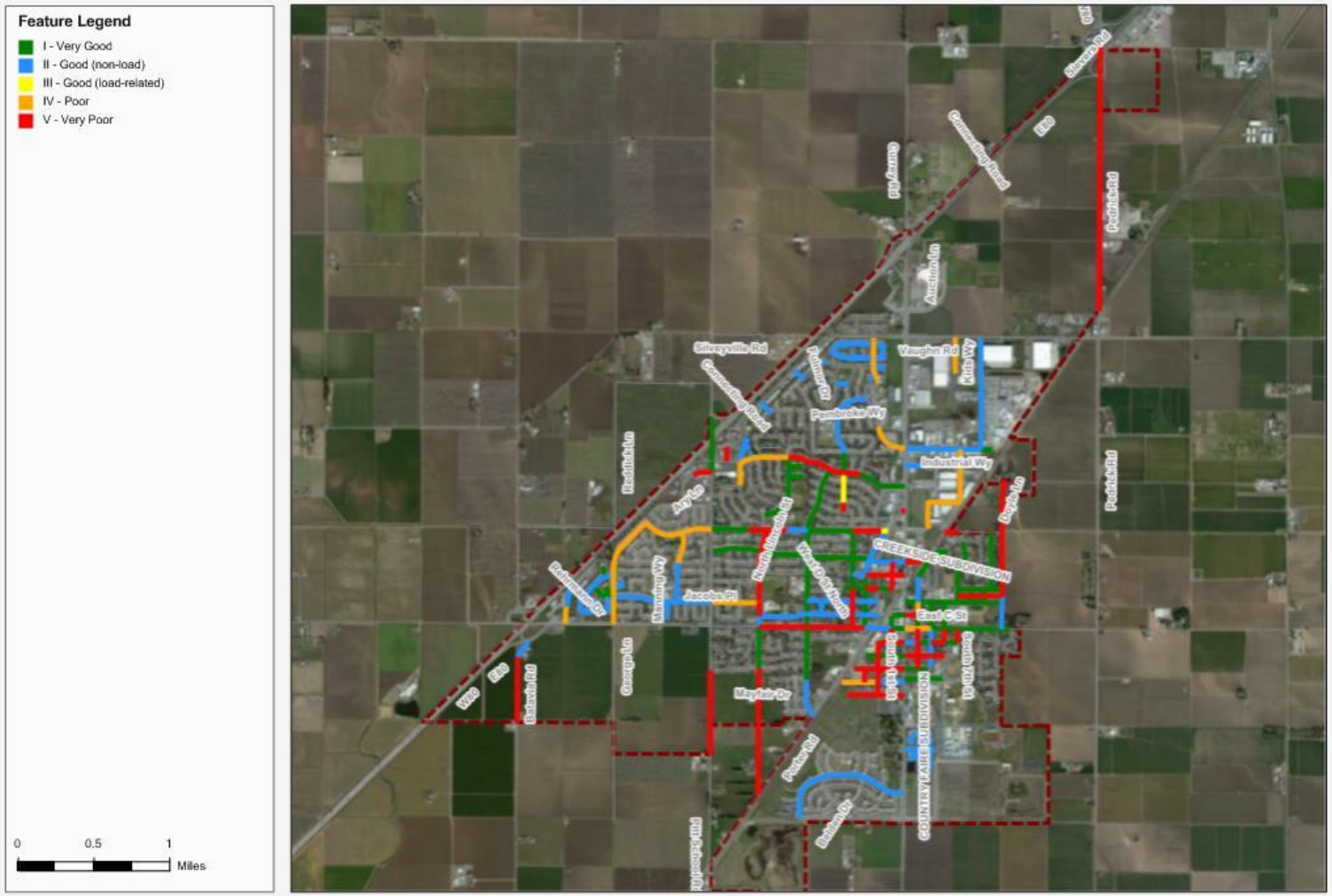
FY 2014 Current Budget - 2023 Project Period - Total Rehab: $209,364 - Printed: 9/8/2014



City of Dixon
171 S. 5th St
Dixon, CA 95620
(707) 678-7031

Scenario PCI Condition

FY 2014 Current Budget - 2028 Project Period - Total Rehab: $210,891 - Printed: 9/8/2014



City of Fairfield

The City of Fairfield is responsible for the management, repair, and maintenance of 713 lane miles of pavement, or 1,640 pavement sections. Table 1 summarizes the length of the road and 2013 pavement condition index (PCI) by functional class.

Table 1

Functional Class	Sections	Centerline Miles	Lane Miles	2013 PCI
Arterial	88	57.8	166.2	69
Collector	122	52.1	124.1	65
Residential/Local	1368	200.94	404.1	69
Other (Parking lot, alleys)	62	12.3	18.6	N/A
Total	**1640**	**323.14**	**713**	**71 (3 yr avg)**

The PCI is a measurement of pavement grade or condition and ranges from 0 to 100. The average 2013 PCI (based on a 3-year moving average) of the street network of the City is 71. This network PCI score is considered good, but Fairfield's PCI fallen from the previous year (PCI 73 in 2012). Currently, 33% of the City's pavement area falls under "Excellent or Very Good", 36% falls under "Good or Fair" and 13% falls under "Poor or Failed". Again, compared with previous years, this shows a consistency in pavement condition categories.

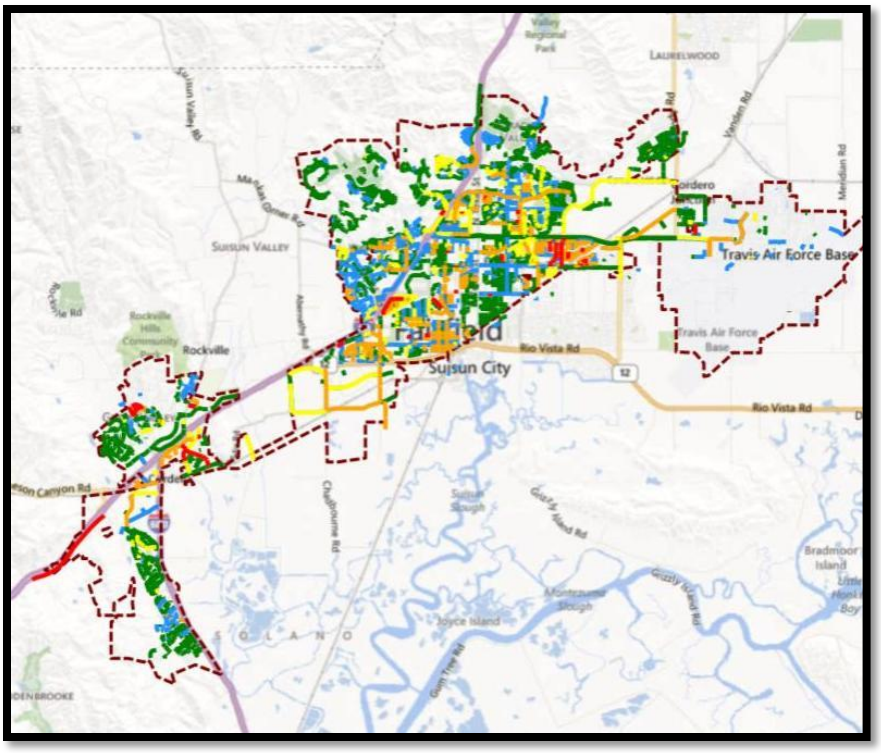
Historically, the City utilizes a program of surface seals and overlays as maintenance and rehabilitation strategies. Surface treatments, such as slurry seals and cape seals, have been usually utilized as a preventive maintenance technique when the pavements are in "Good" condition or above. When the pavement condition deteriorates to lower levels, thin and thick overlays have been performed. Base repairs were typically used as preparation prior to overlays and surface seals as necessary.

Poor/Failed Pavement Condition

Excellent/Very Good Pavement Condition

Current Pavement Condition Index (PCI) Map

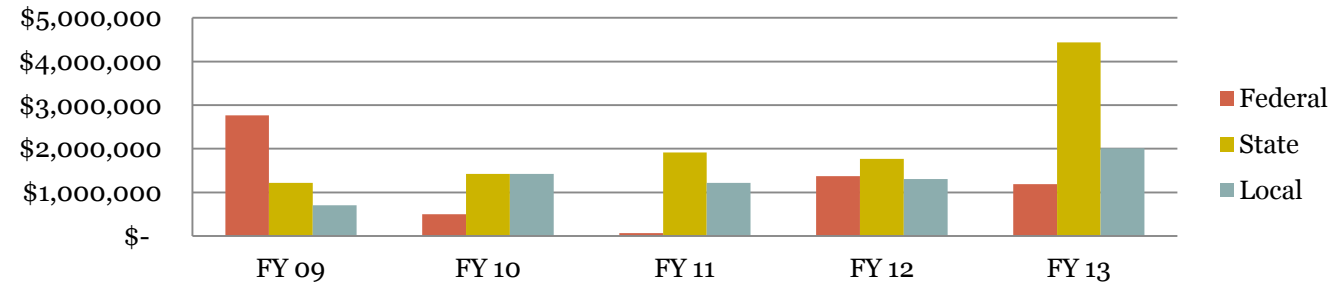
- I - Very Good
- II - Good (non-load)
- III - Good (load-related)
- IV - Poor
- V - Very Poor



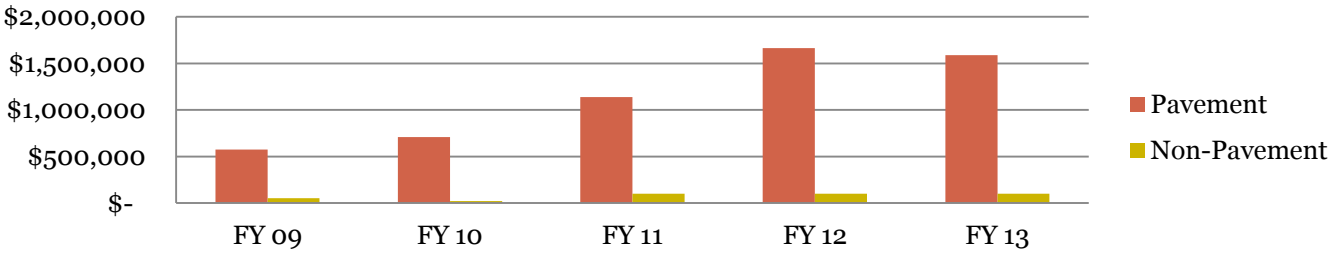
Past Streets and Roads Investments

The current PCI reflects the past investments made in Fairfield's streets and roads network. The following charts show 5-year (2009-2013) revenue and expenditure histories for both pavement maintenance and capital projects in Fairfield.

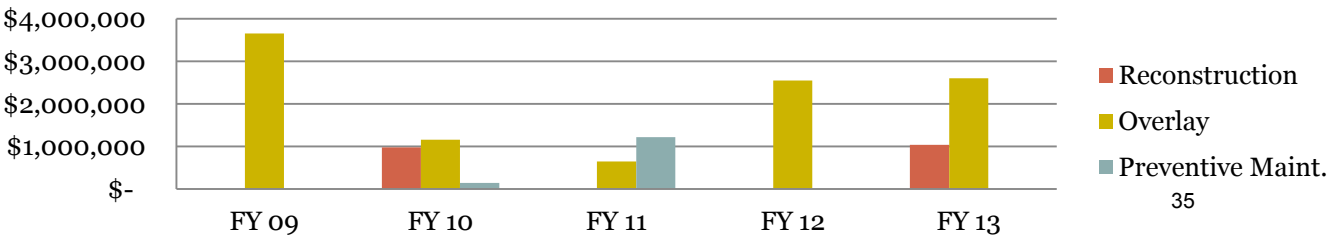
Fairfield Total Revenue



Fairfield Maintenance Expenditures

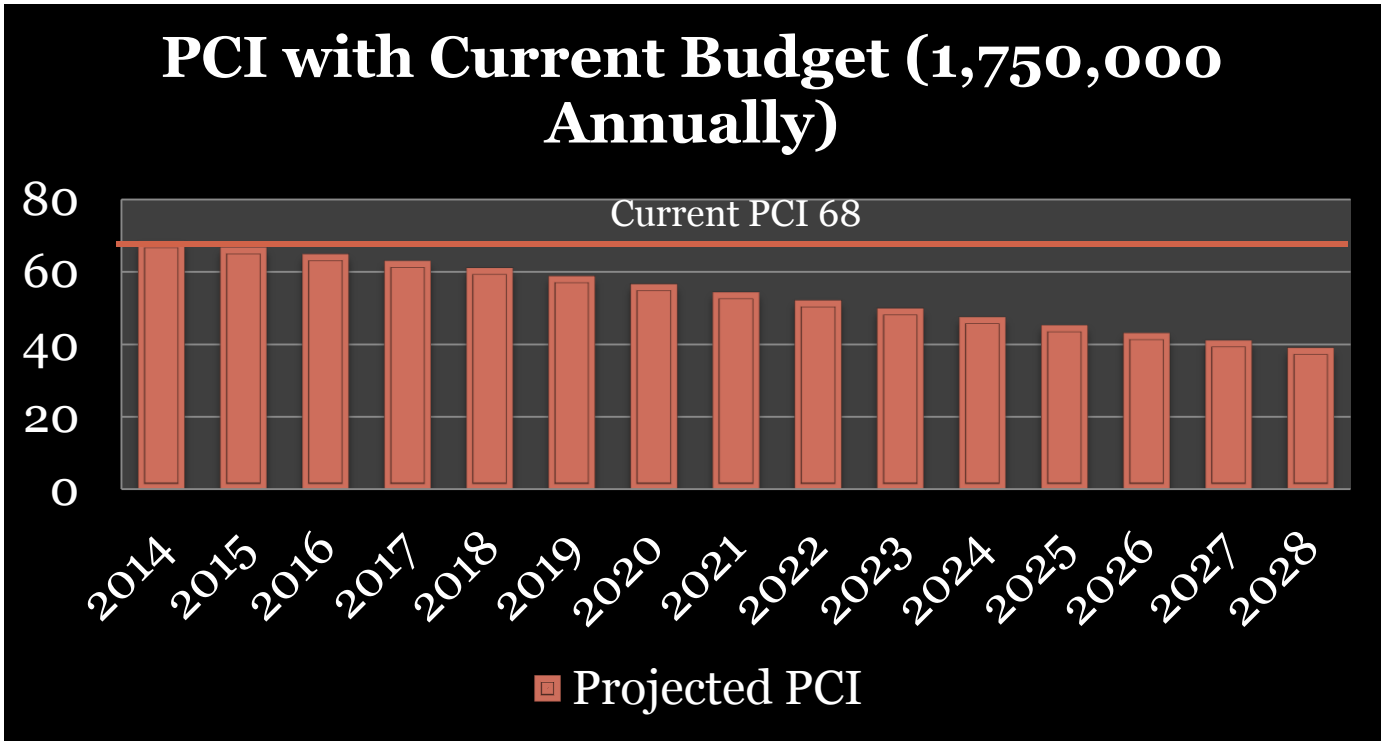


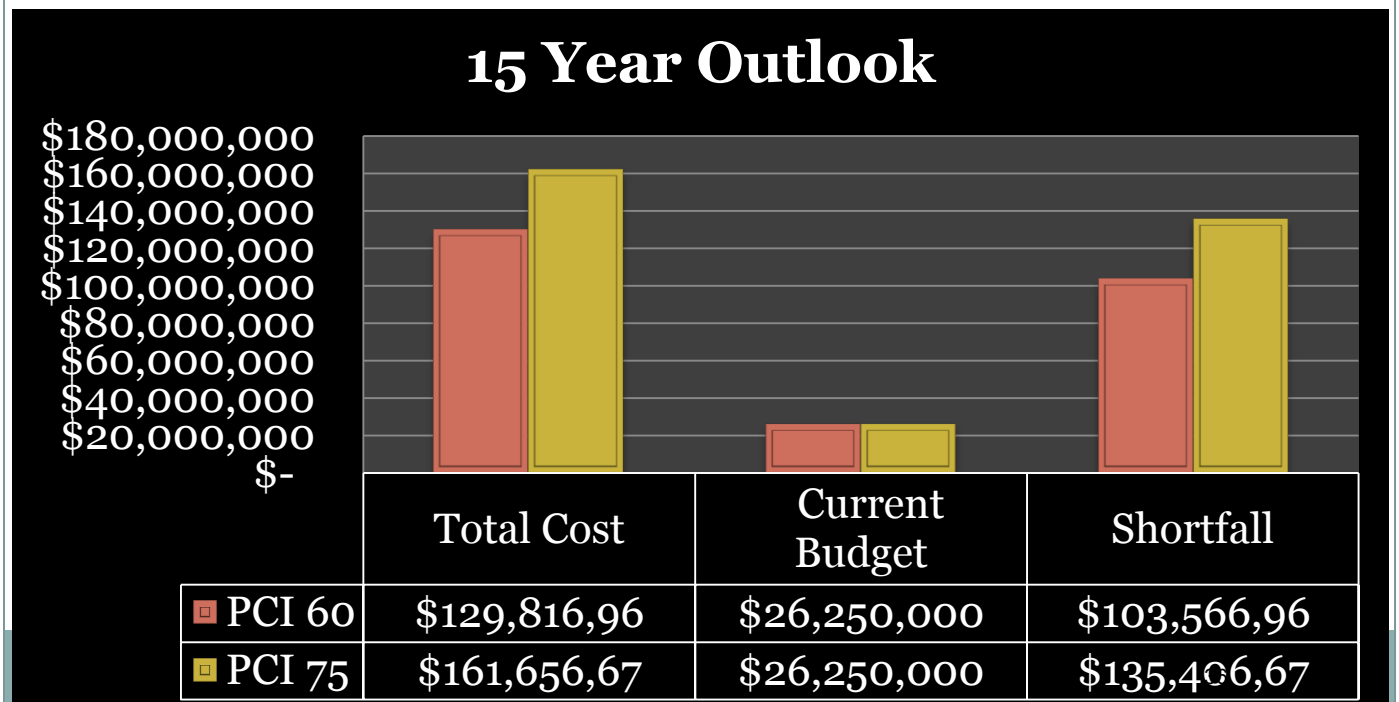
Fairfield Capital Improvement Expenditures



Future Pavement and Revenue Needs

In 2013 Fairfield's PCI was 68 (not 3-year moving average), with a budget for roadway maintenance of $1,750,000 per year. If that current level of funding were to be applied through the year 2028 (15 years) the average PCI for the City would drop from it current average rating of 68 (Good) to 39 (Poor). **To maintain a minimum average PCI rating of 60 in the City of Fairfield**, approximately $140M would need to be spent over the next 15 years. The current budget provides $22.5M over 15 years, leaving a funding shortfall of approximately $117.6M. To reach the higher PCI goal of 75, as stated in the Solano Comprehensive Transportation Plan, $15M more than what is currently being budgeted would need to be invested in Fairfield's roads over the next 15 years.





	Total Cost	Current Budget	Shortfall
PCI 60	$129,816,96	$26,250,000	$103,566,96
PCI 75	$161,656,67	$26,250,000	$135,406,67

Where Do We Go From Here?

Timely investment in roadway preservation can save cities millions of tax dollars in long-term maintenance costs. A municipality that spends $1 on timely maintenance to keep a section of roadway in good condition would have to spend $5 to restore the same road if the pavement is allowed to deteriorate to the point where major rehabilitation is necessary (MTC, 2011). Pavements that are still in good condition (a PCI of 70 or above) can be preventively maintained at a low cost, whereas pavements that need significant rehabilitation or reconstruction require five to 15 times the amount of funding. Thus, **Fairfield's current PCI of 68 should be viewed with an understanding that maintaining this "good" classification will be cheaper in the long-term than maintaining the roads at a lower PCI score.**

Fairfield is currently on track to invest approximately 1/5th of the required $130M necessary to keep the city's PCI at 60 over the next 15 years. If the city were to raise its average PCI to 75, the goal stated in the Countywide Transportation Plan, then the city would need to invest an additional $135M more than the $26M they are currently on track to spend over the next 15 years.

"Strategic investment in infrastructure produces a foundation for long-term growth."
-Roger McNamee

Without a healthy investment in its roadway infrastructure, the City of Fairfield will continue its downward trend in pavement quality. This deterioration has the potential to hinder Fairfield from attracting new jobs, housing, tourism, and business investment. More money spent now in long-term roadway maintenance can save Fairfield millions in the future and strengthen its local economy.

Potholes can grow into major obstacles if not treated quickly.

Major roadway failures can affect quality of life within neighborhoods.

SOLANO TRANSPORTATION AUTHORITY
5 Year Local Streets and Roads Budget Info
Fiscal Years 2009 - 2013

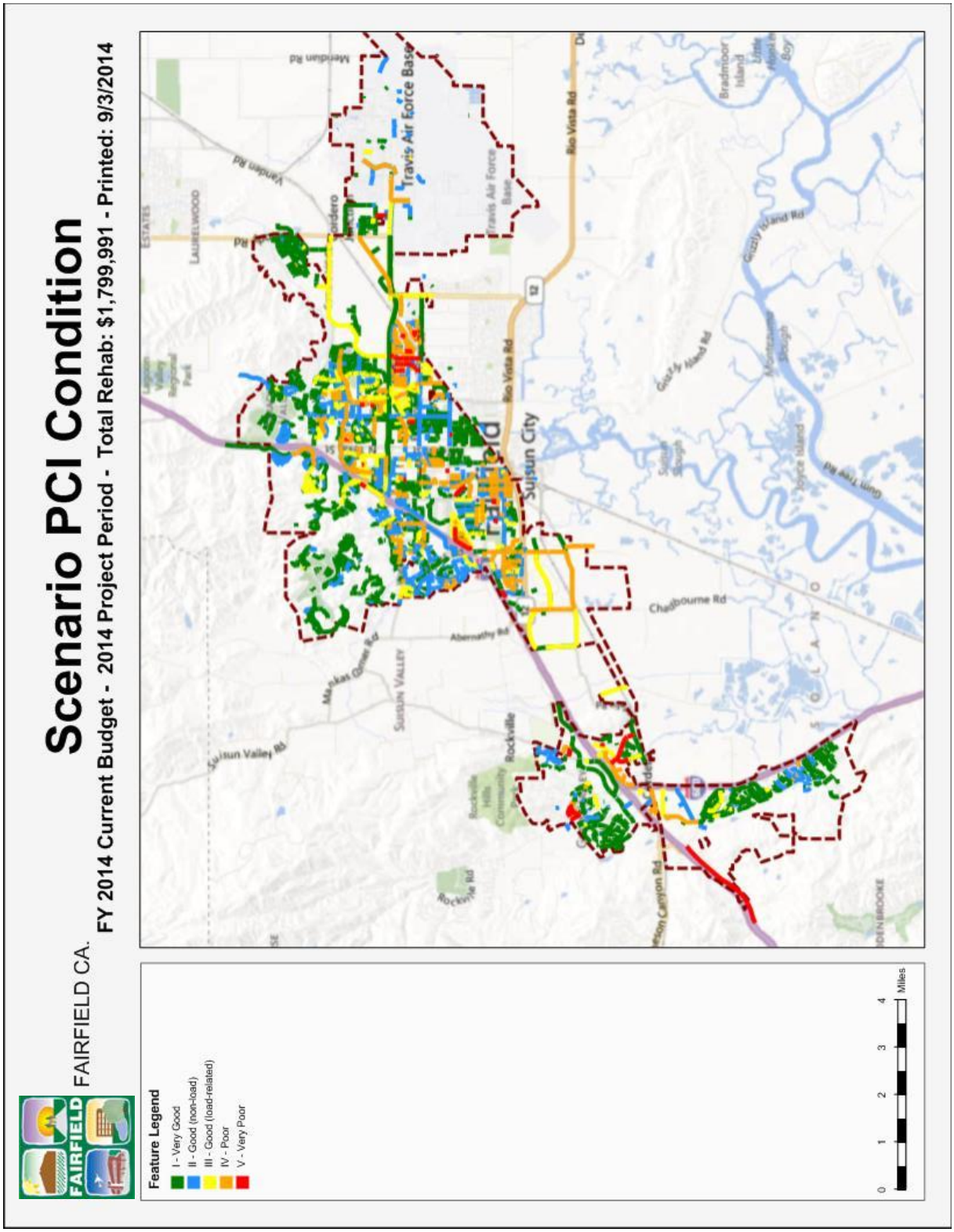
CITY OF FAIRFIELD

REVENUES	FY 09	FY 10	FY 11	FY 12	FY 13	TOTAL
Total Revenue						
Federal	$ 2,766,917	$ 502,905	$ 68,400	$ 1,370,000	$ 2,605,000	$ 7,313,222
State	$ 1,216,828	$ 1,426,426	$ 1,912,733	$ 1,766,000	$ 1,038,000	$ 7,359,987
Local	$ 709,178	$ 1,420,971	$ 1,219,797	$ 1,304,210	$ 2,402,000	$ 7,056,156
TOTAL BY FISCAL YEAR	$ 4,692,923	$ 3,350,302	$ 3,200,930	$ 4,440,210	$ 6,045,000	$ 21,729,365

EXPENDITURES	FY 09	FY 10	FY 11	FY 12	FY 13	TOTAL
Maintenance and Operations						
Pavement	$ 575,000	$ 708,000	$ 1,140,000	$ 1,666,000	$ 1,590,000	$ 5,679,000
Non-Pavement	$ 51,000	$ 20,000	$ 100,000	$ 100,000	$ 100,000	$ 371,000
Capital Improvement Program						
Reconstruction	$ -	$ 982,214	$ -	$ -	$ 1,042,000	$ 2,024,214
Overlay	$ 3,657,116	$ 1,159,931	$ 648,733	$ 2,554,310	$ 2,601,000	$ 10,621,090
Preventive Maint.	$ -	$ 144,069	$ 1,219,797	$ -	$ -	$ 1,363,866
Non-Pavement	$ 409,807	$ 336,088	$ 92,400	$ 119,900	$ 712,000	$ 1,670,195
TOTAL BY FISCAL YEAR	$ 4,692,923	$ 3,350,302	$ 3,200,930	$ 4,440,210	$ 6,045,000	$ 21,729,365

What will Fairfield's Streets look like in the Future using Current Budget Scenarios?

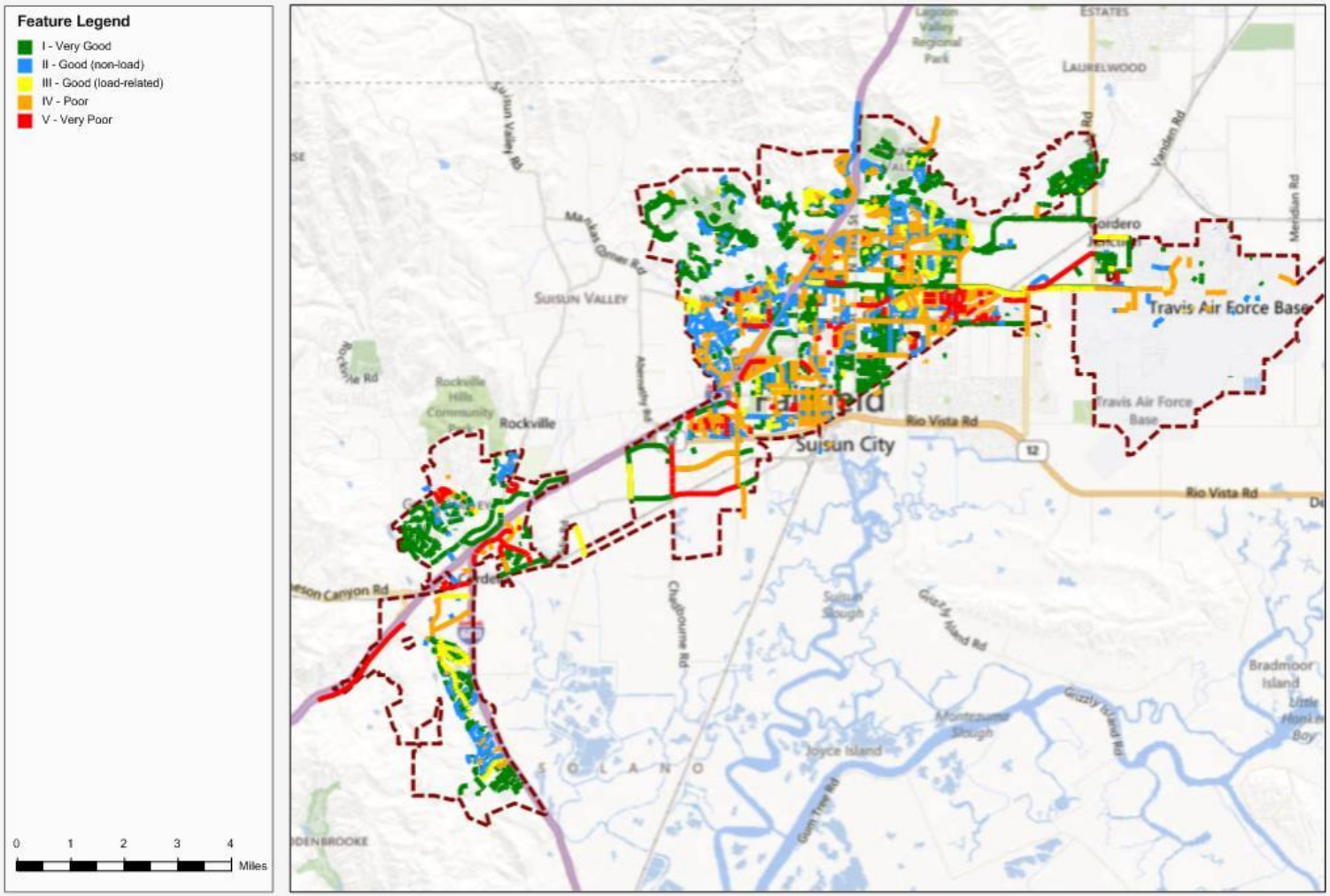
The PCI maps below illustrate what streets currently look like and will look like, using current budget scenarios, today (2014), 4 years out (2018), nine years out (2023) and 14 years out (2028).



FAIRFIELD CA.

Scenario PCI Condition

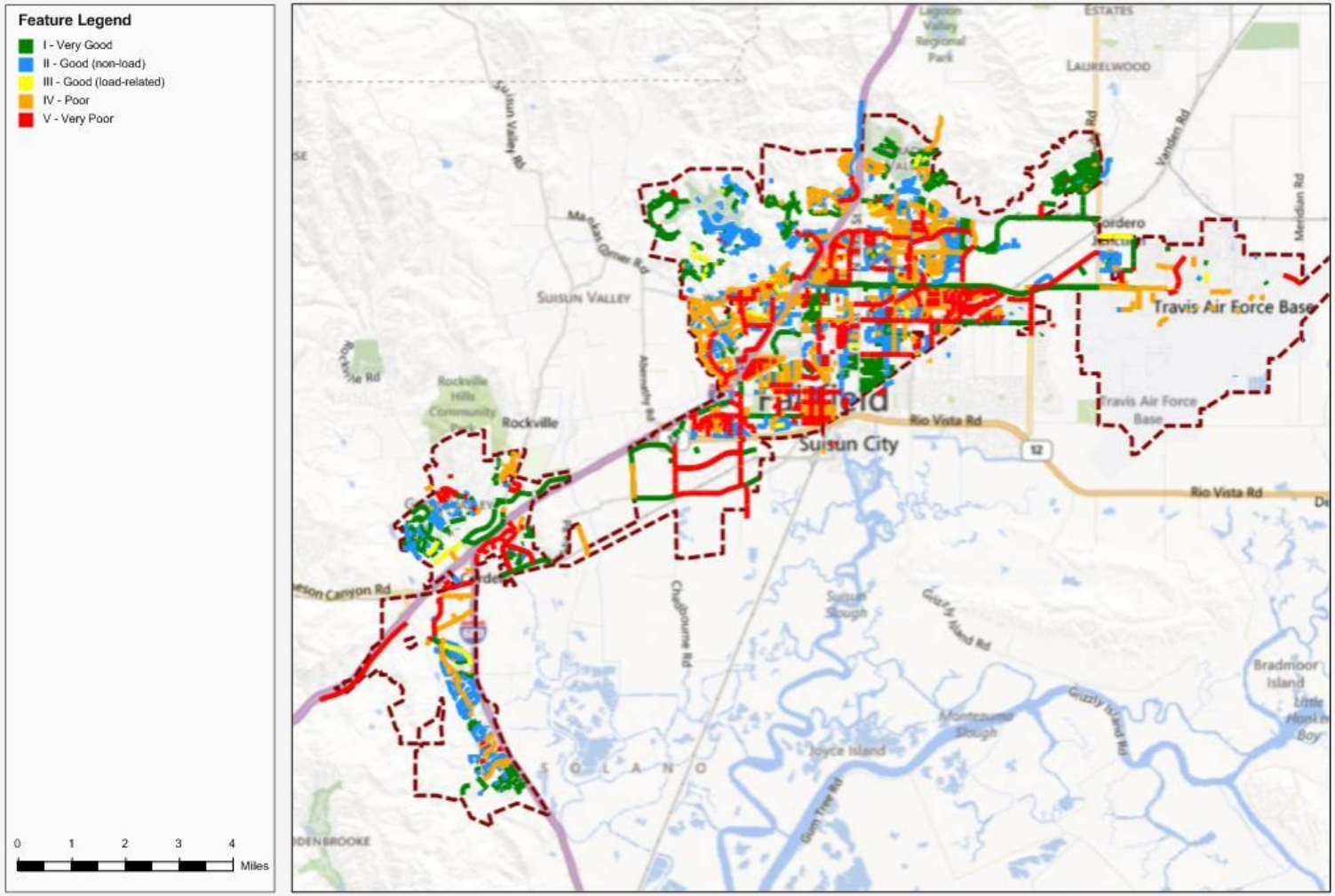
FY 2014 Current Budget - 2018 Project Period - Total Rehab: $1,797,302 - Printed: 9/3/2014



FAIRFIELD CA.

Scenario PCI Condition

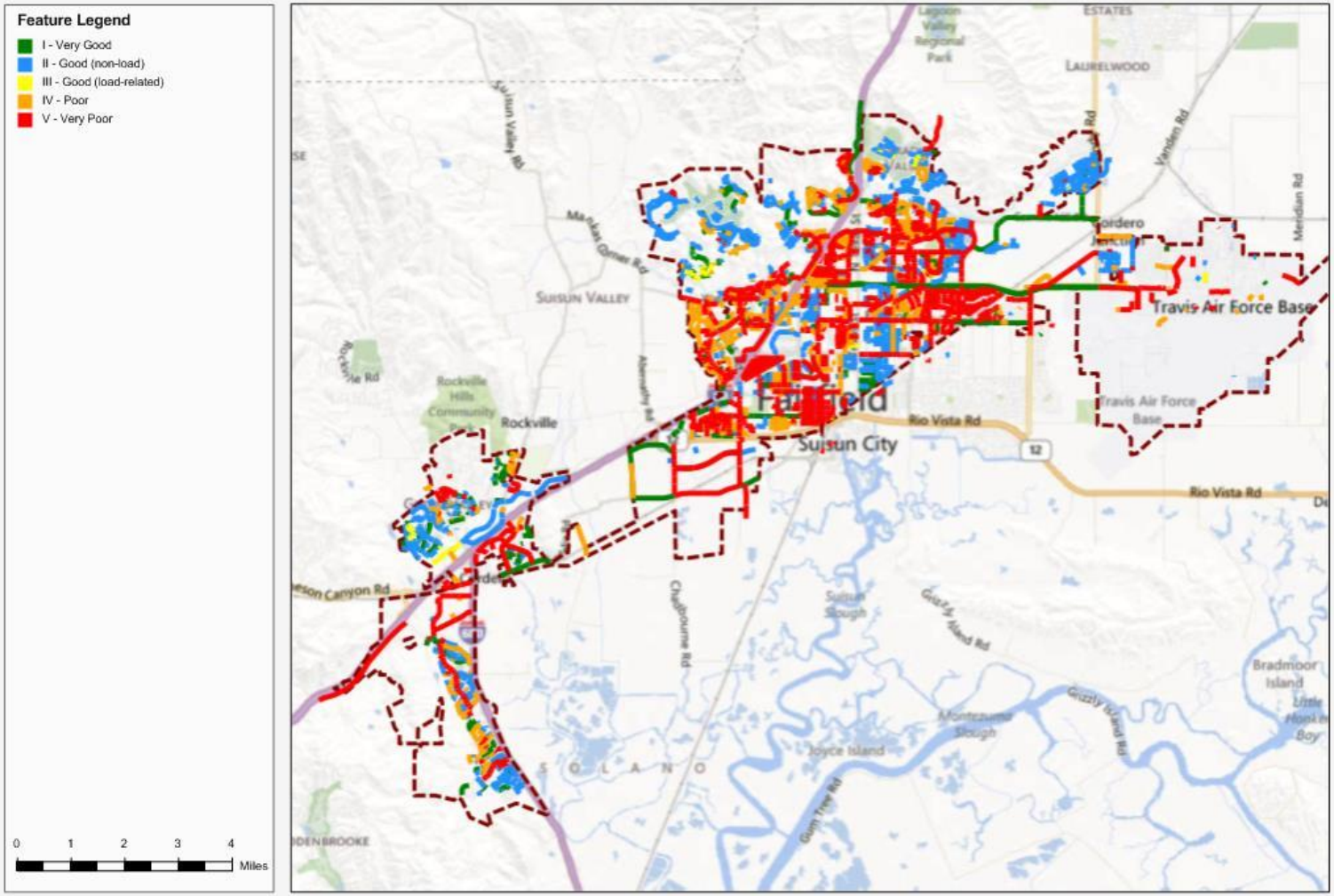
FY 2014 Current Budget - 2023 Project Period - Total Rehab: $1,199,309 - Printed: 9/3/2014



FAIRFIELD CA.

Scenario PCI Condition

FY 2014 Current Budget - 2028 Project Period - Total Rehab: $1,198,365 - Printed: 9/3/2014



City of Rio Vista

The City of Rio Vista is responsible for the management, repair, and maintenance of 46 lane miles of pavement, or 146 pavement sections. Table 1 summarizes the length of the road and 2012 pavement condition index (PCI) by functional class.

Table 1

Functional Class	Sections	Centerline Miles	Lane Miles	2013 PCI
Arterial	7	1.15	2.30	74
Collector	27	8.98	17.97	70
Residential/Local	112	12.81	25.63	48
Total	**146**	**22.94**	**45.89**	**58 (3 yr avg)**

The PCI is a measurement of pavement grade or condition and ranges from 0 to 100. The average 2013 PCI (based on a 3-year moving average) of the street network of the City is 58. Rio Vista's PCI has increased the previous two years average PCI score (PCI 47 in 2011 and 51 in 2012), it is still considered "at-risk." Currently, 39% of the City's pavement area falls under "Excellent or Very Good", 22% falls under "Good or Fair" and 39% falls under "Poor or Failed." Again, compared with previous years, this shows an improvement in pavement condition categories; however deficiencies in the overall network will need to be addressed. If these are not addressed, the quality of the road network will inevitably decline. In order to correct these deficiencies, a cost-effective funding, maintenance and rehabilitation strategy will need to be implemented.

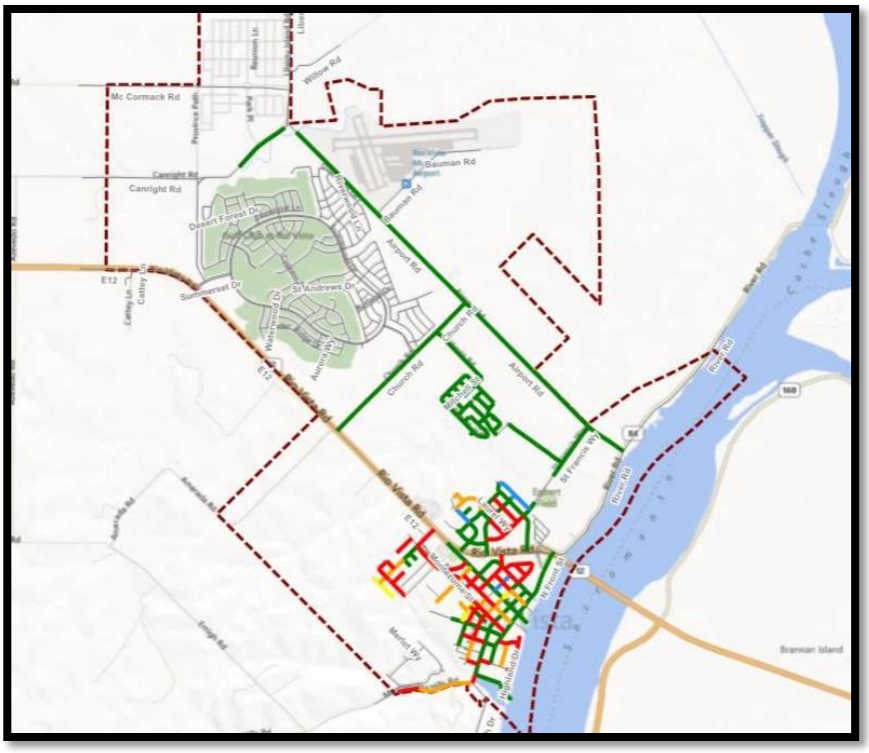
The Rio Vista development, "Trilogy" is a private development, and does not have any affect on the PCI scores in the City of Rio Vista; therefore these new roads which are rated "excellent condition" have not added to the City's PCI score increase.

At-Risk/Poor Pavement Condition

Excellent/Very Good Pavement Condition

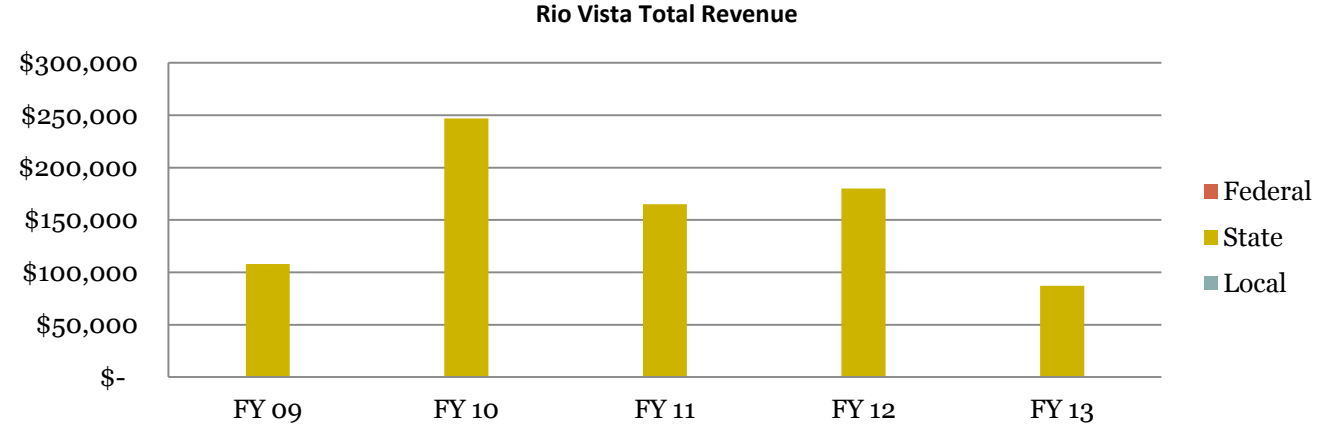
Current Pavement Condition Index (PCI) Map

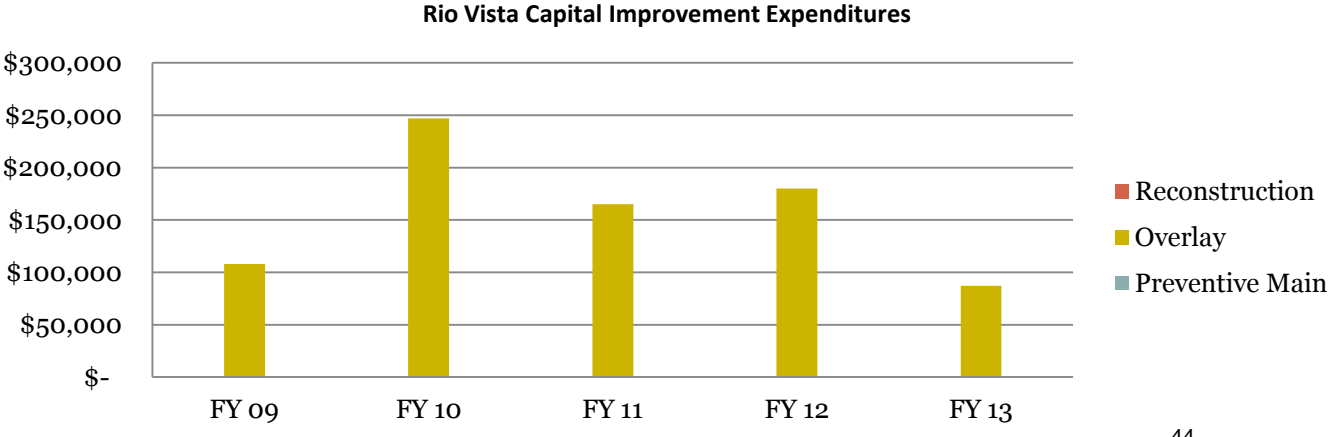
- I - Very Good
- II - Good (non-load)
- III - Good (load-related)
- IV - Poor
- V - Very Poor



Past Streets and Roads Investments

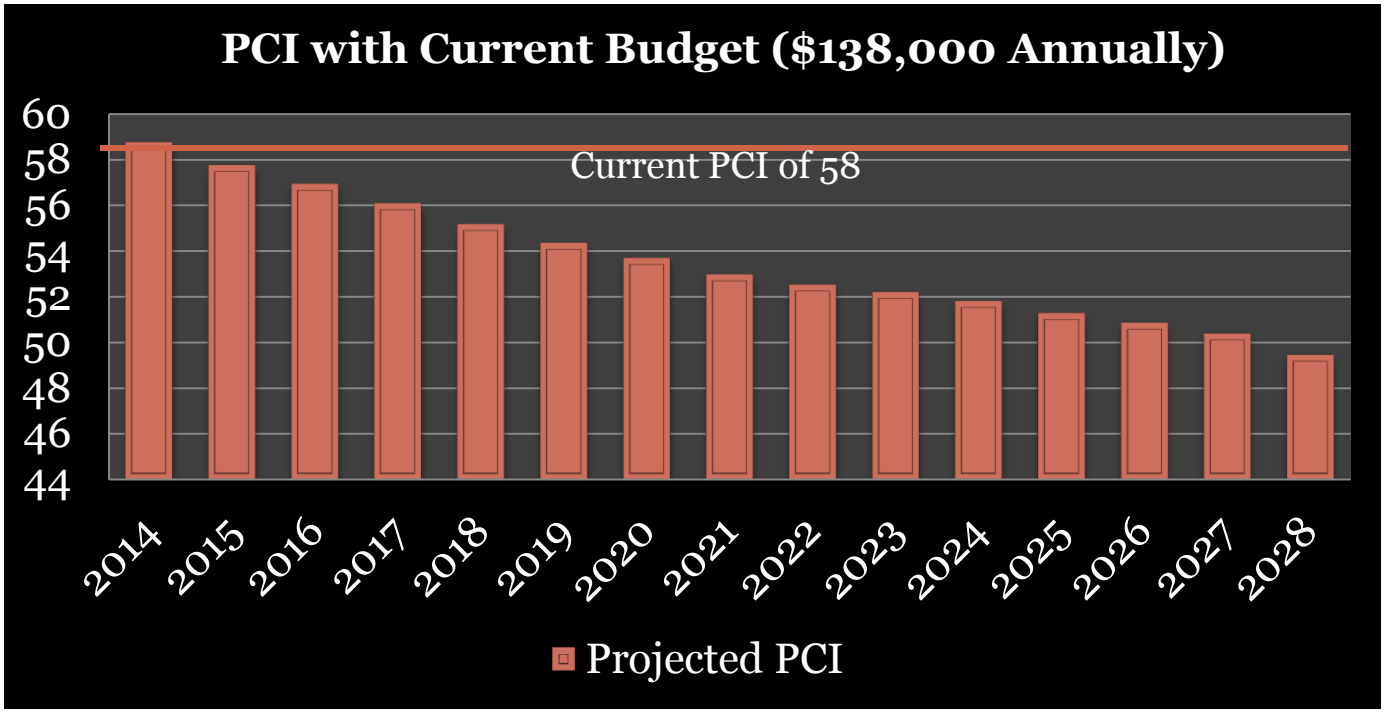
The current PCI reflects the past investments made in Rio Vista's streets and roads network. The following charts show 5-year (2009-2013) revenue and expenditure histories for both pavement maintenance and capital projects in Rio Vista.

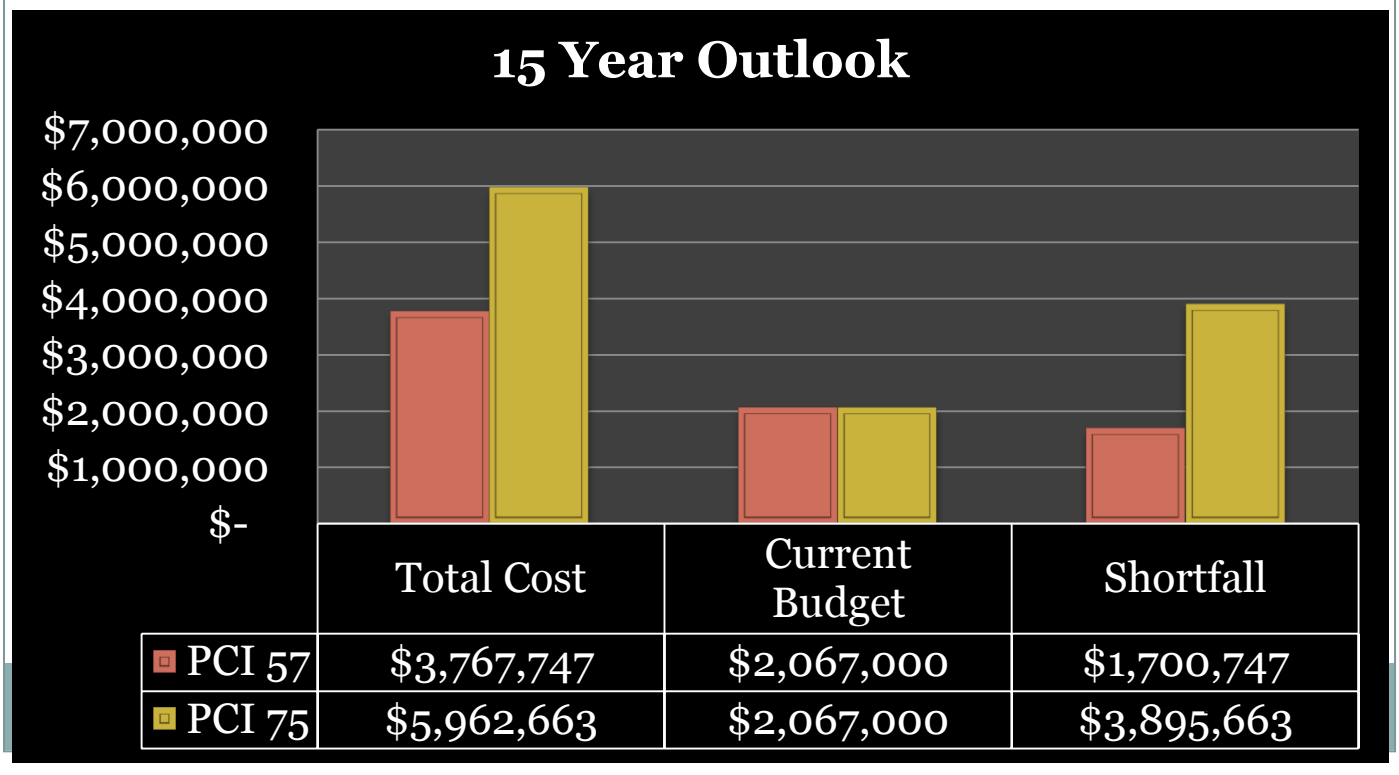




Future Pavement and Revenue Needs

In 2013 Rio Vista's average PCI was 58, with a budget for roadway maintenance of $138,000 per year. If that current level of funding were to be applied through the year 2028 (15 years) the average PCI for the City would drop from it current average rating of 57 (At Risk) to 44 (Poor). **To maintain an average PCI rating of 60 in the City of Rio Vista**, approximately $3.7M would need to be spent over the next 15 years. The current budget provides approximately $2M over 15 years, leaving a funding shortfall of approximately $1.7M. To reach the higher PCI goal of 75, as stated in the Solano Comprehensive Transportation Plan, approximately $4M more than what is currently being budgeted would need to be invested in Fairfield's roads over the next 15 years.





	Total Cost	Current Budget	Shortfall
PCI 57	$3,767,747	$2,067,000	$1,700,747
PCI 75	$5,962,663	$2,067,000	$3,895,663

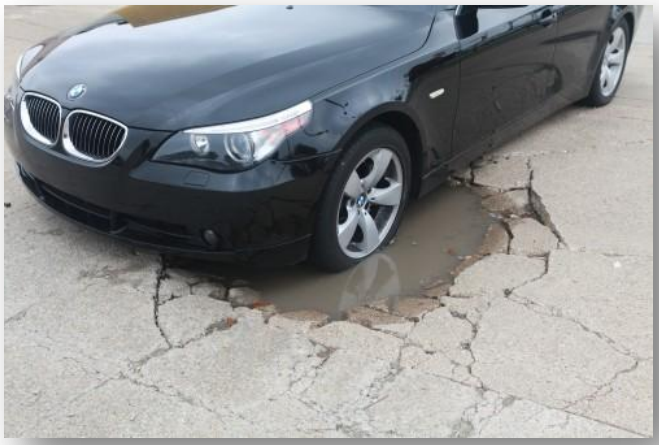
Where Do We Go From Here?

Timely investment in roadway preservation can save cities millions of tax dollars in long-term maintenance costs. A municipality that spends $1 on timely maintenance to keep a section of roadway in good condition would have to spend $5 to restore the same road if the pavement is allowed to deteriorate to the point where major rehabilitation is necessary (MTC, 2011). Pavements that are still in good condition (a PCI of 70 or above) can be preventively maintained at a low cost, whereas pavements that need significant rehabilitation or reconstruction require five to 15 times the amount of funding. Thus, **Rio Vista's current PCI of 58 should be viewed with caution, as it indicates that its local streets and roads are poised on the edge of a maintenance cliff.**

Rio Vista is currently on track to invest less than approximately 1/2 of the required $3.75M necessary to keep the city's PCI at 60 over the next 15 years. If the city were to raise its average PCI to 75, the goal stated in the Countywide Transportation Plan, then the city would need to invest an additional $4M more than the $2M they are currently on track to spend over the next 15 years.

"Strategic investment in infrastructure produces a foundation for long-term growth."
-Roger McNamee

Without a healthy investment in its roadway infrastructure, the City of Rio Vista will continue its downward trend in pavement quality. This deterioration has the potential to hinder Rio Vista from attracting new jobs, housing, tourism, and business investment. More money spent now in long-term roadway maintenance can save Rio Vista millions in the future and strengthen its local economy.



Potholes can grow into major obstacles if not treated quickly.

Investing in caution signs is a poor substitute for roadway maintenance. *(Sign not located in Rio Vista)*

SOLONO TRANSPORTATION AUTHORITY

5 Year Local Streets and Roads Budget Info

Fiscal Years 2009 - 2013

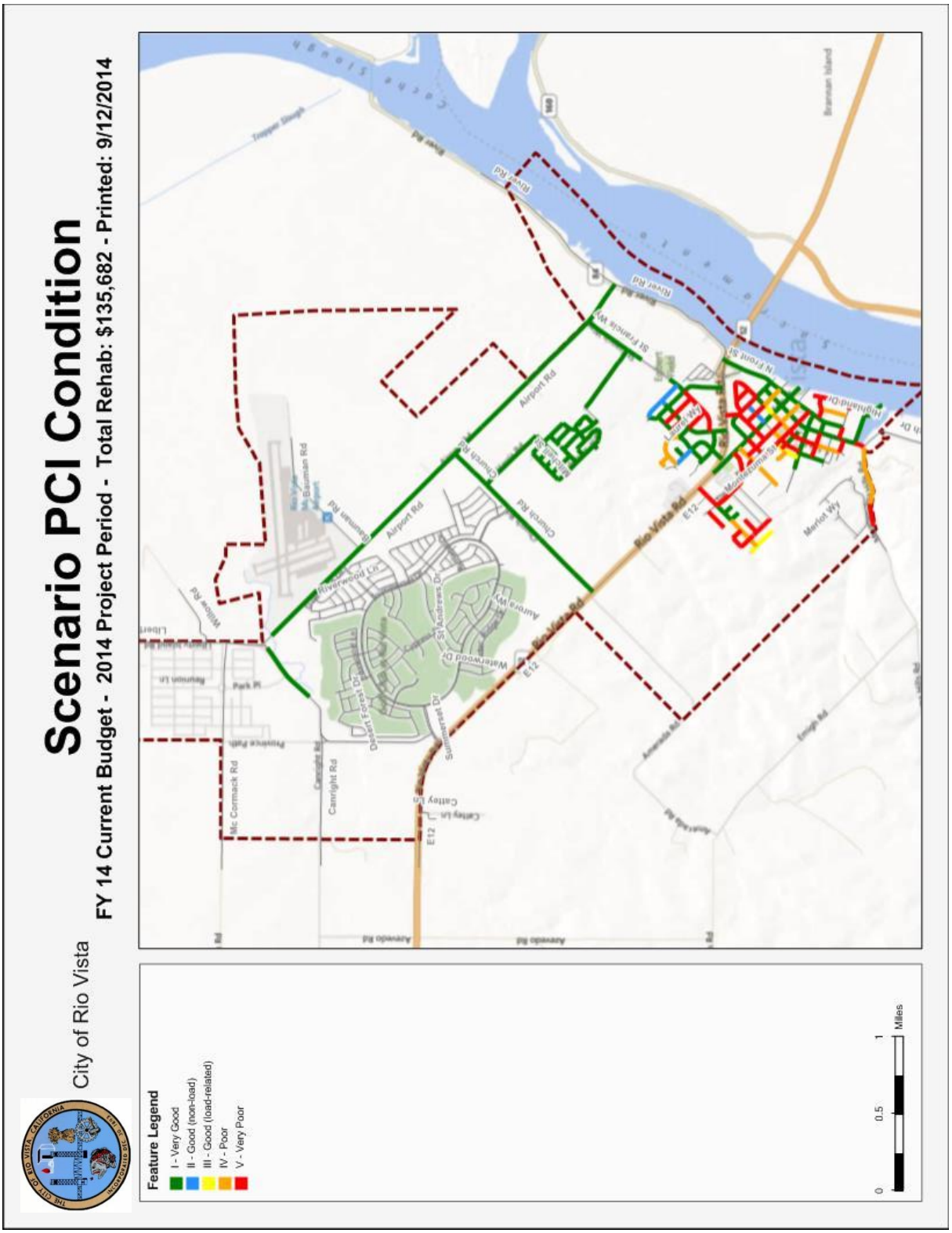
CITY OF RIO VISTA

REVENUES	FY 09	FY 10	FY 11	FY 12	FY 13	TOTAL
Total Revenue						
Federal	$ -	$ -	$ -	$ -		$ -
State	$ 108,000	$ 247,000	$ 165,000	$ 180,000	$ 87,000	$ 787,000
Local	$ -					$ -
TOTAL BY FISCAL YEAR	$ 108,000	$ 247,000	$ 165,000	$ 180,000	$ 87,000	$ 787,000

EXPENDITURES	FY 09	FY 10	FY 11	FY 12	FY 13	TOTAL
Maintenance and Operations						
Pavement	$ -	$ -	$ -	$ -		$ -
Non-Pavement	$ -	$ -	$ -	$ -		$ -
Capital Improvement Program						
Reconstruction	$ -	$ -	$ -	$ -		$ -
Overlay	$ 108,000	$ 247,000	$ 165,000	$ 180,000	$ 87,000	$ 787,000
Preventive Mair	$ -	$ -	$ -	$ -		$ -
Non-Pavement						
TOTAL BY FISCAL YEAR	$ 108,000	$ 247,000	$ 165,000	$ 180,000	$ 87,000	$ 787,000

What will Rio Vista's Streets look like in the Future using Current Budget Scenarios?

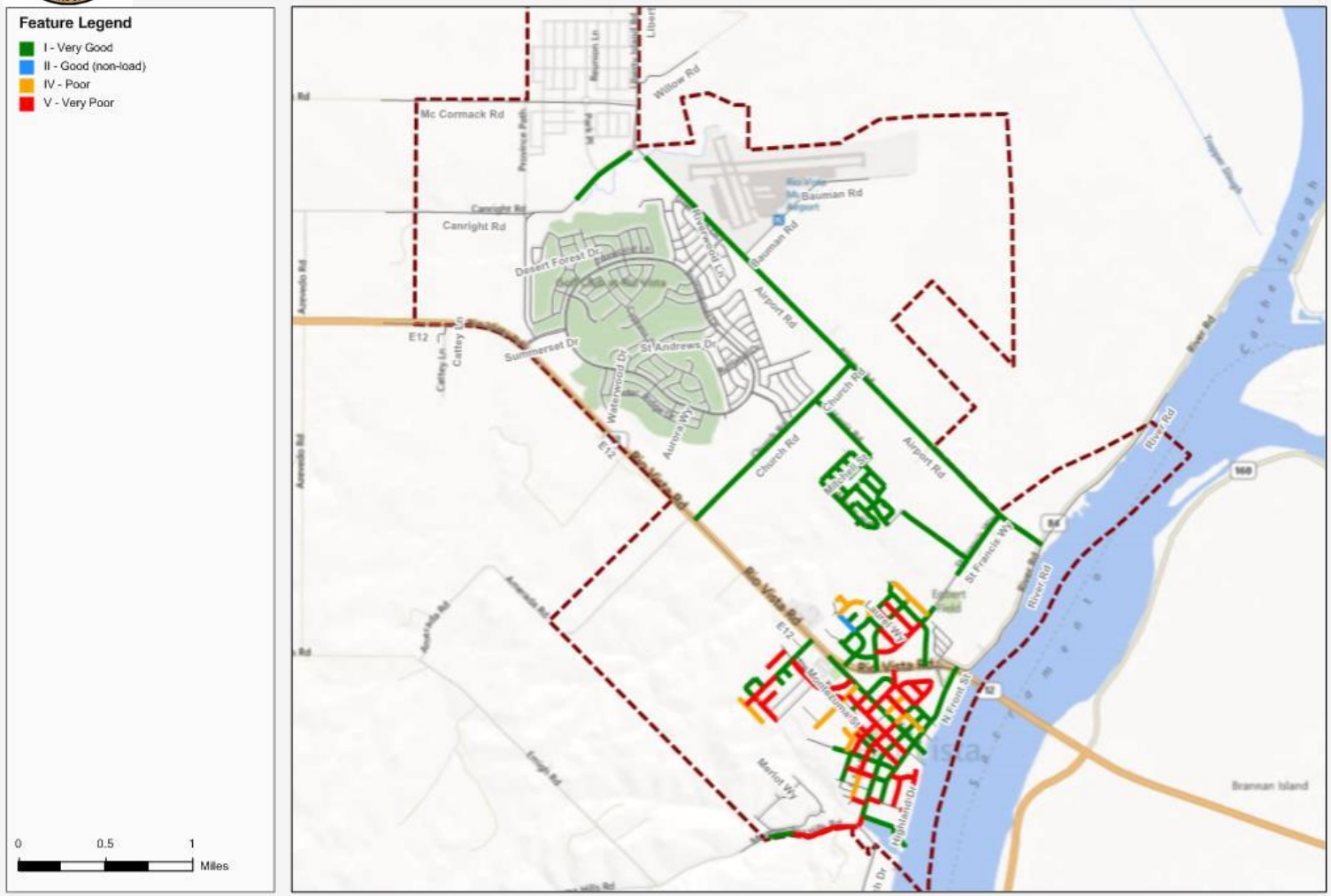
The PCI maps below illustrate what streets currently look like and will look like, using current budget scenarios, today (2014), 4 years out (2018), nine years out (2023) and 14 years out (2028).



City of Rio Vista

Scenario PCI Condition

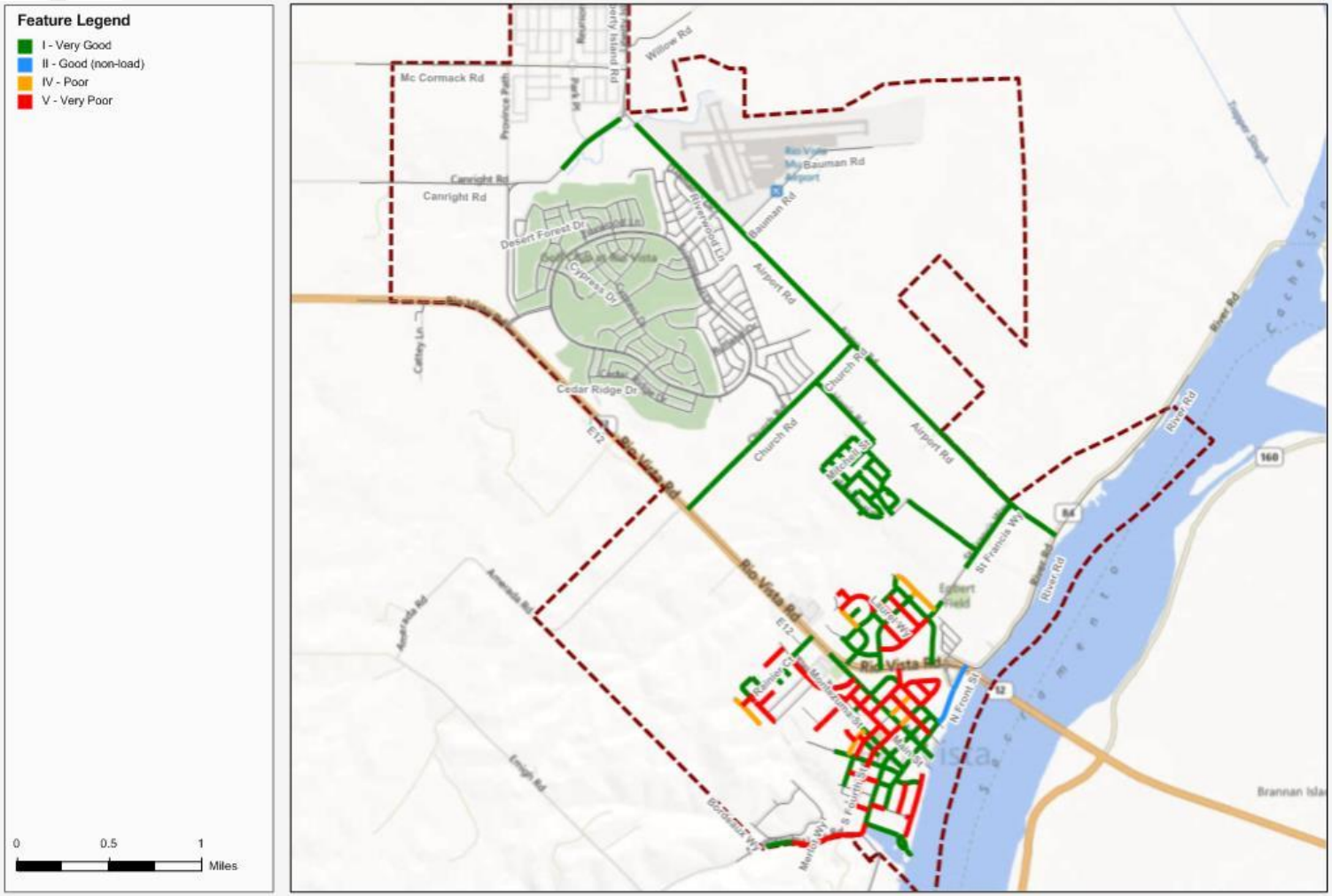
FY 14 Current Budget - 2018 Project Period - Total Rehab: $136,891 - Printed: 9/12/2014



City of Rio Vista

Scenario PCI Condition

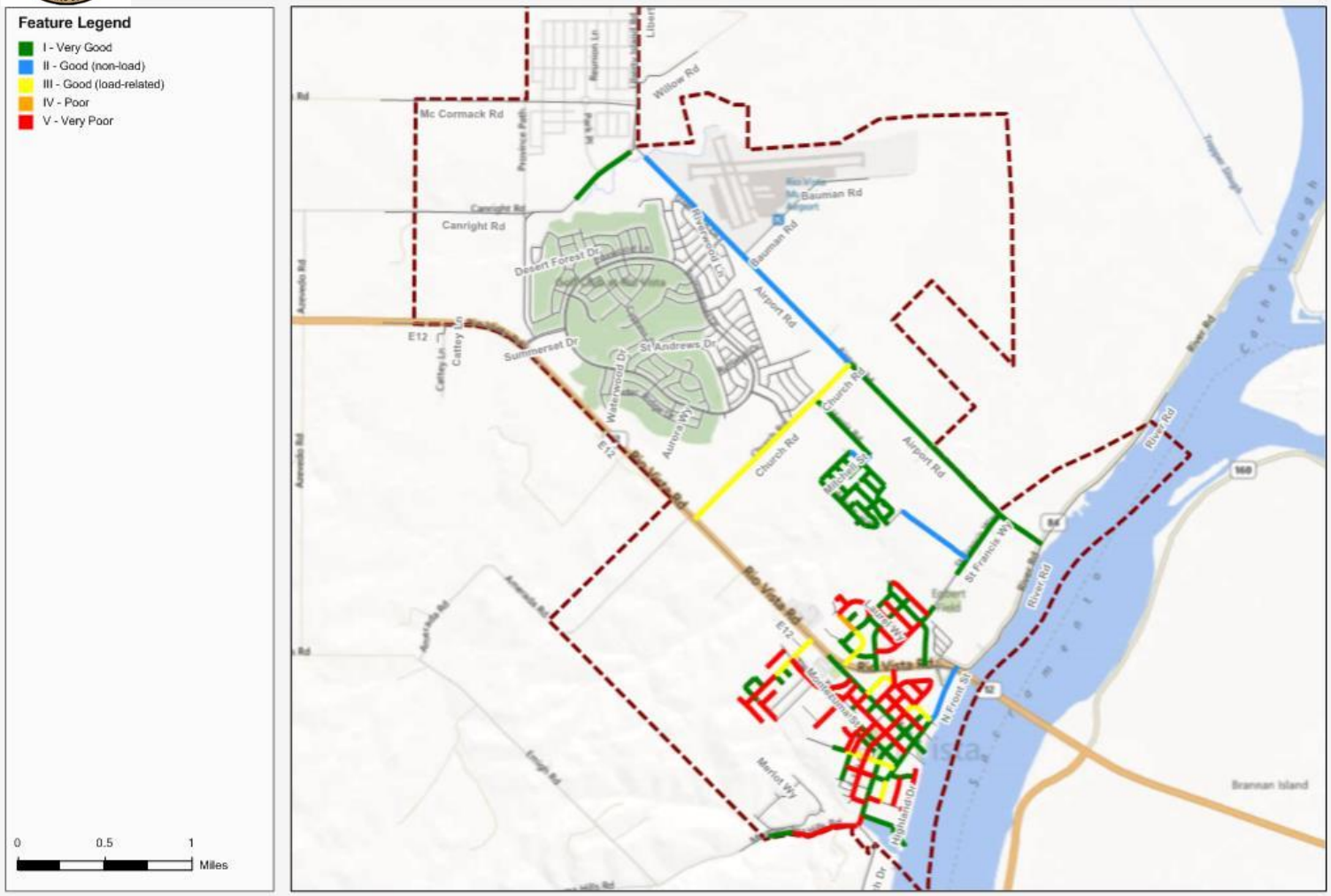
FY 14 Current Budget - 2023 Project Period - Total Rehab: $137,636 - Printed: 9/12/2014



City of Rio Vista

Scenario PCI Condition

FY 14 Current Budget - 2028 Project Period - Total Rehab: $129,085 - Printed: 9/12/2014



Solano County

The County of Solano is responsible for the management, repair, and maintenance of 937 lane miles of pavement, or 685 pavement sections. Table 1 summarizes the length of the road and 2013 pavement condition index (PCI) by functional class.

Table 1

Functional Class	Sections	Centerline Miles	Lane Miles	2013 PCI
Arterial	25	12	28.31	81
Collector	274	209.2	419.19	82
Residential/Local	377	238.9	477.82	71
Other	9	5.53	11.26	N/A*
Total	**685**	**465.63**	**936.58**	**75 (3 yr avg)**

The PCI is a measurement of pavement grade or condition and ranges from 0 to 100. The average 2013 PCI (based on a 3-year moving average) of the street network of the County is 75; actual 2013 PCI is 78. Solano County roads have experienced a gradual and steady increase in PCI over the last 7 years, lifting the County's PCI from 61 to 78 (actual 2013 PCI). County staff primarily attributes the 3.6% annual average PCI increase to the County's aggressive chip seal program. Every year nearly half of the paved roads are physically driven and 40 miles are identified for chip seal in the Capitol Improvement Plan. County crews spend about 3 months each spring preparing the selected road segments by digging out failed pavement sections, blade patching, and crack sealing. Crews have successfully addressed structural distresses in advance of the surface treatment and paid equal attention to maintaining smooth profiles to make the Solano County chip seal program a great success.

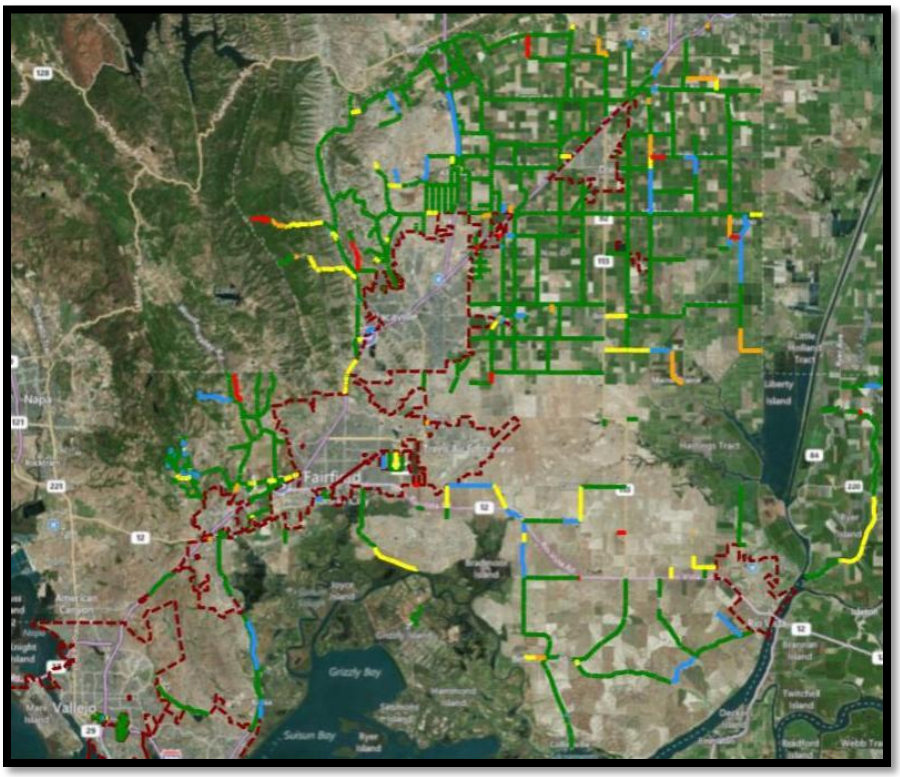
Currently, 48% of the City's pavement area falls under "Excellent or Very Good", 46% falls under "Good or Fair" and 6% falls under "Poor or Failed". Again, compared with previous years, this shows an overall improvement in pavement condition categories.

Poor/Failed Pavement Condition

Excellent/Very Good Pavement Condition

Current Pavement Condition Index (PCI) Map

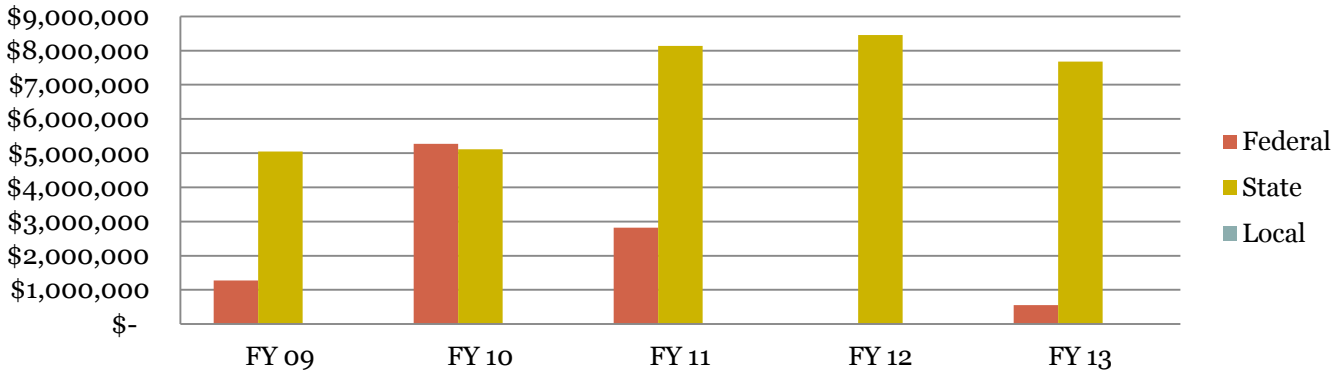
- I - Very Good
- II - Good (non-load)
- III - Good (load-related)
- IV - Poor
- V - Very Poor



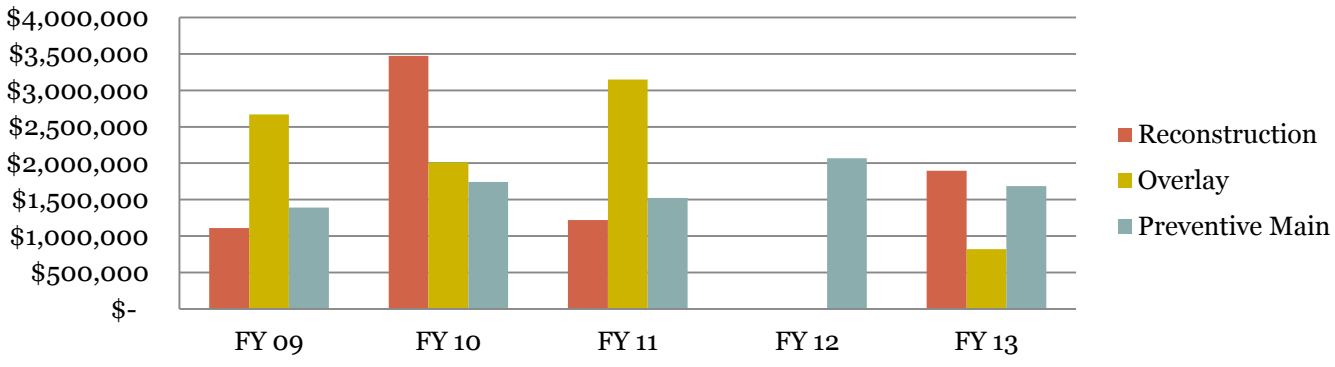
Past Streets and Roads Investments

The current PCI reflects the past investments made in Solano County's streets and roads network. The following charts show 5-year (2009-2013) revenue and expenditure histories for both pavement maintenance and capital projects in the County.

Solano County Total Revenue

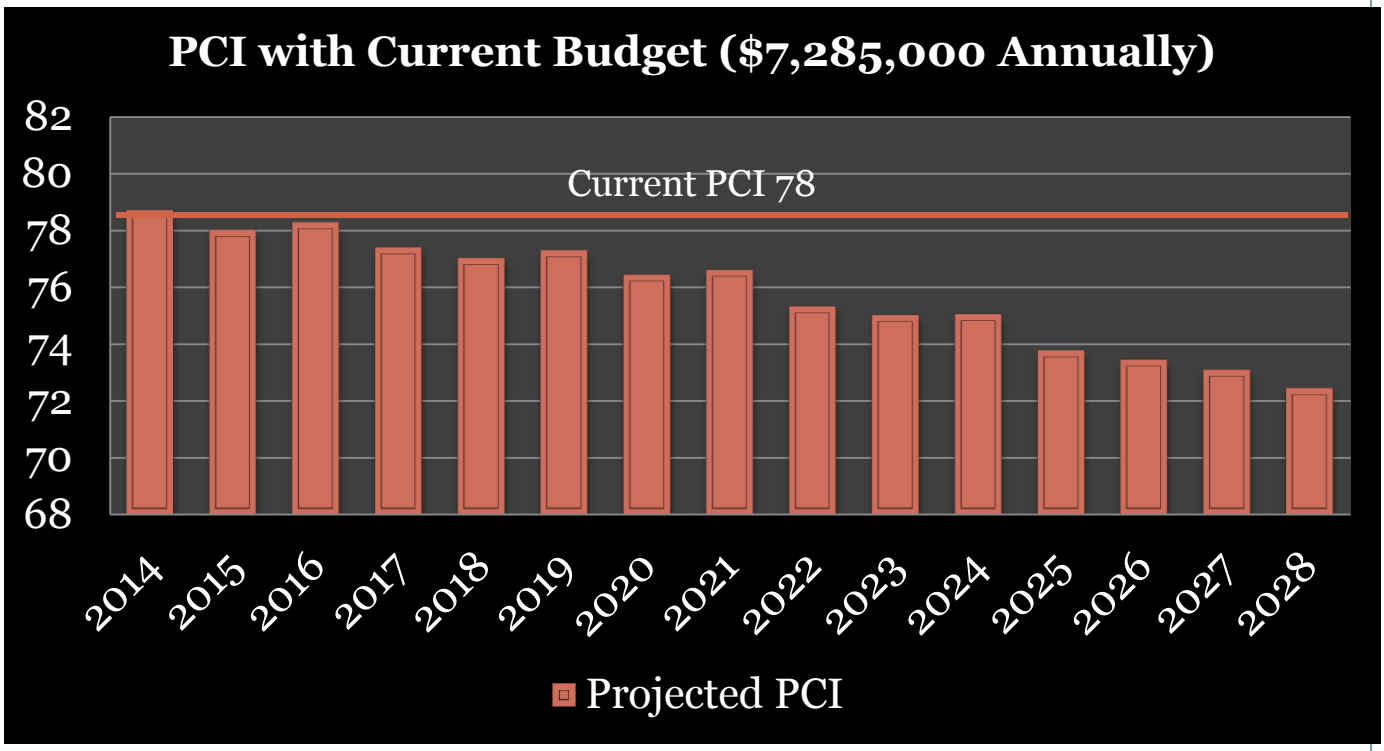


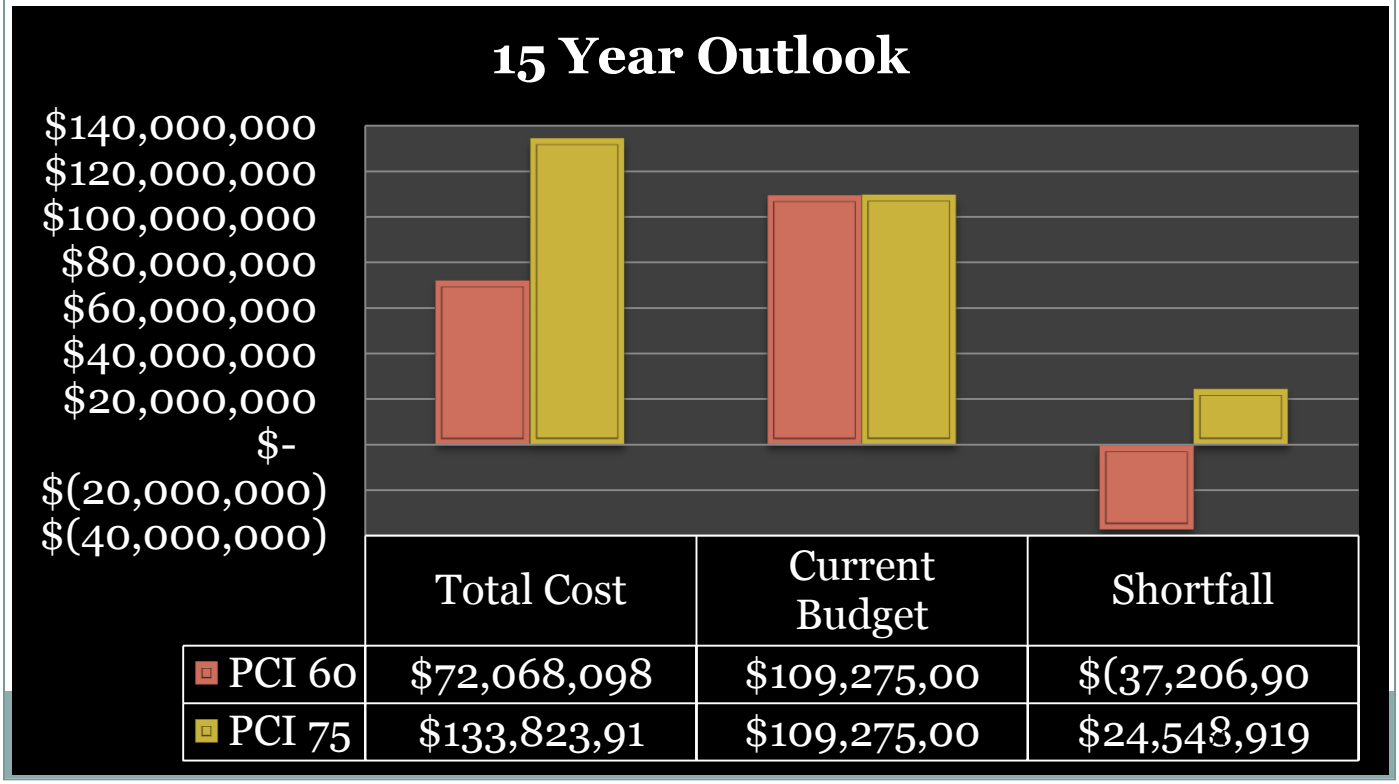
Solano County Capitol Improvement Expenditures



Future Pavement and Revenue Needs

In 2013 Solano County's PCI was 78 (not 3-year average), with a budget for roadway maintenance of $7,285,000 per year. If that current level of funding were to be applied through the year 2028 (15 years) the average PCI for the County would drop from it current average rating of 78 (Good) to 72 (Good). To maintain an average PCI rating of 75 in Solano County approximately $134M would need to be spent over the next 15 years. The current budget provides approximately $109M over 15 years, leaving a funding shortfall of approximately $25M.





	Total Cost	Current Budget	Shortfall
PCI 60	$72,068,098	$109,275,00	$(37,206,90
PCI 75	$133,823,91	$109,275,00	$24,548,919

Where Do We Go From Here?

Timely investment in roadway preservation can save cities millions of tax dollars in long-term maintenance costs. A municipality that spends $1 on timely maintenance to keep a section of roadway in good condition would have to spend $5 to restore the same road if the pavement is allowed to deteriorate to the point where major rehabilitation is necessary (MTC, 2011). Pavements that are still in good condition (a PCI of 70 or above) can be preventively maintained at a low cost, whereas pavements that need significant rehabilitation or reconstruction require five to 15 times the amount of funding. Thus, **Solano County's current PCI of 78 should be viewed with an understanding that maintaining this "good" classification will be cheaper in the long-term than maintaining the roads at a lower PCI score.**

Solano County is currently on track to invest approximately 80% of the required $134M necessary to keep the County's PCI at 75 over the next 15 years. The County needs to invest an additional $25M more than the $109M they are currently on track to spend over the next 15 years.

"Strategic investment in infrastructure produces a foundation for long-term growth."
-Roger McNamee

Without a healthy investment in its roadway infrastructure, Solano County will begin a downward trend in pavement quality. This deterioration has the potential to hinder Solano County from attracting new jobs, housing, tourism, and business investment. More money spent now in long-term roadway maintenance can save Solano County millions in the future and strengthen its local economy.

Potholes can grow into major obstacles if not treated quickly.

Investing in caution signs is a poor substitute for roadway maintenance. *(Sign not located in Solano County)*

SOLONO TRANSPORTATION AUTHORITY

5 Year Local Streets and Roads Budget Info

Fiscal Years 2009 - 2013

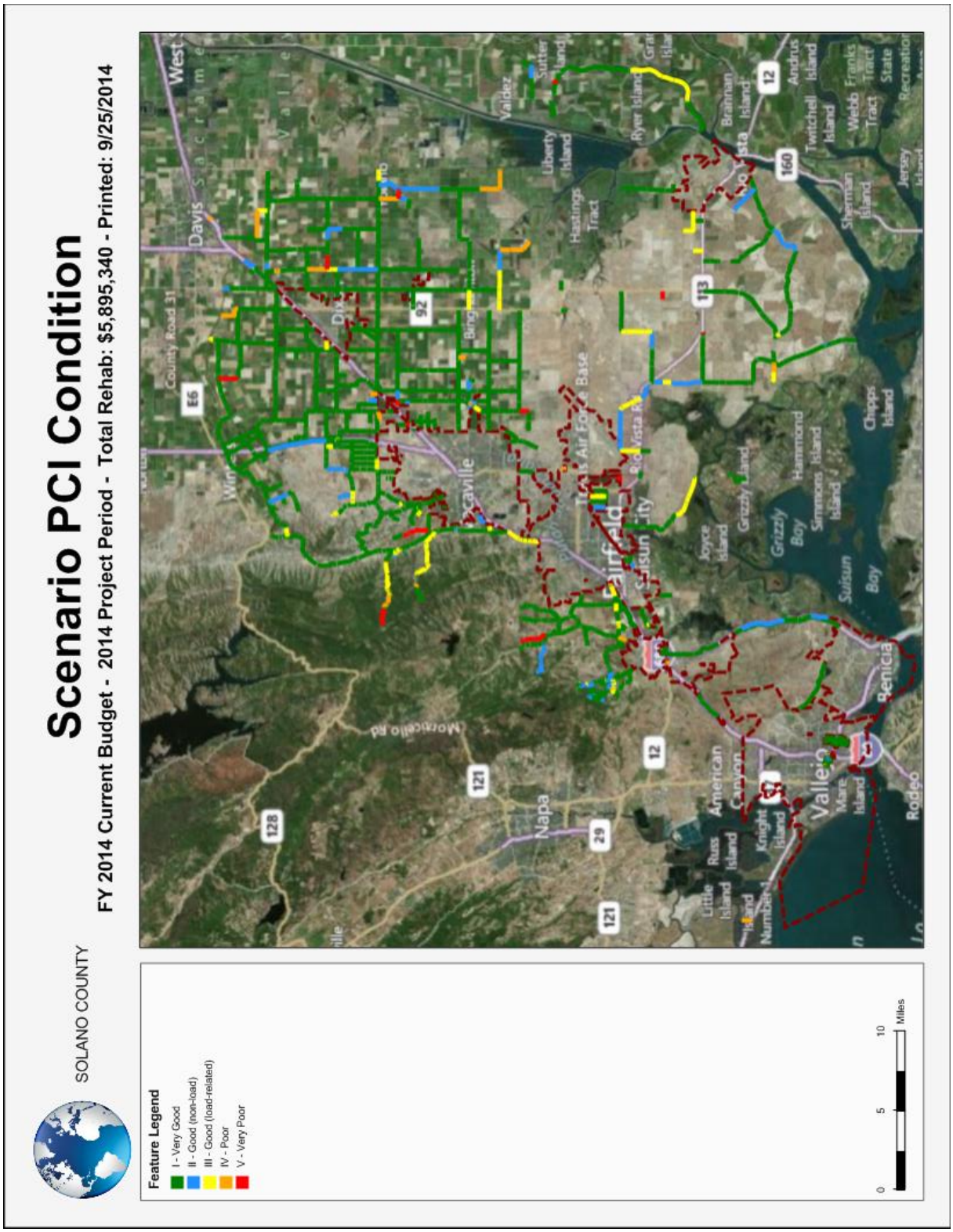
SOLANO COUNTY

REVENUES	FY 09	FY 10	FY 11	FY 12	FY 13	TOTAL
Total Revenue						
Federal	$ 1,279,191	$ 5,271,460	$ 2,815,542		$ 550,000	$ 9,916,193
State	$ 5,042,888	$ 5,112,976	$ 8,136,594	$ 8,452,018	$ 7,681,412	$ 34,425,888
Local	$ -	$ -	$ -	$ -	$ -	$ -
TOTAL BY FISCAL YEAR	$ 6,322,079	$ 10,384,436	$ 10,952,136	$ 8,452,018	$ 8,231,412	$ 44,342,081

EXPENDITURES	FY 09	FY 10	FY 11	FY 12	FY 13	TOTAL
Maintenance and Operations						
Pavement	$ 757,744	$ 456,427	$ 528,802	$ 765,111	$ 610,278	$ 3,118,362
Non-Pavement	$ 3,496,412	$ 3,540,526	$ 2,955,052	$ 2,853,767	$ 3,179,155	$ 16,024,912
Capital Improvement Program						$ -
Reconstruction	$ 1,112,000	$ 3,474,000	$ 1,221,000	$ -	$ 1,895,000	$ 7,702,000
Overlay	$ 2,671,000	$ 2,012,000	$ 3,146,000	$ -	$ 822,000	$ 8,651,000
Preventive Mair	$ 1,391,262	$ 1,743,316	$ 1,522,013	$ 2,067,131	$ 1,687,891	$ 8,411,613
Non-Pavement						$ -
TOTAL BY FISCAL YEAR	$ 9,428,418	$ 11,226,269	$ 9,372,867	$ 5,686,009	$ 8,194,324	$ 43,907,887

What will Solano County's Streets look like in the Future using Current Budget Scenarios?

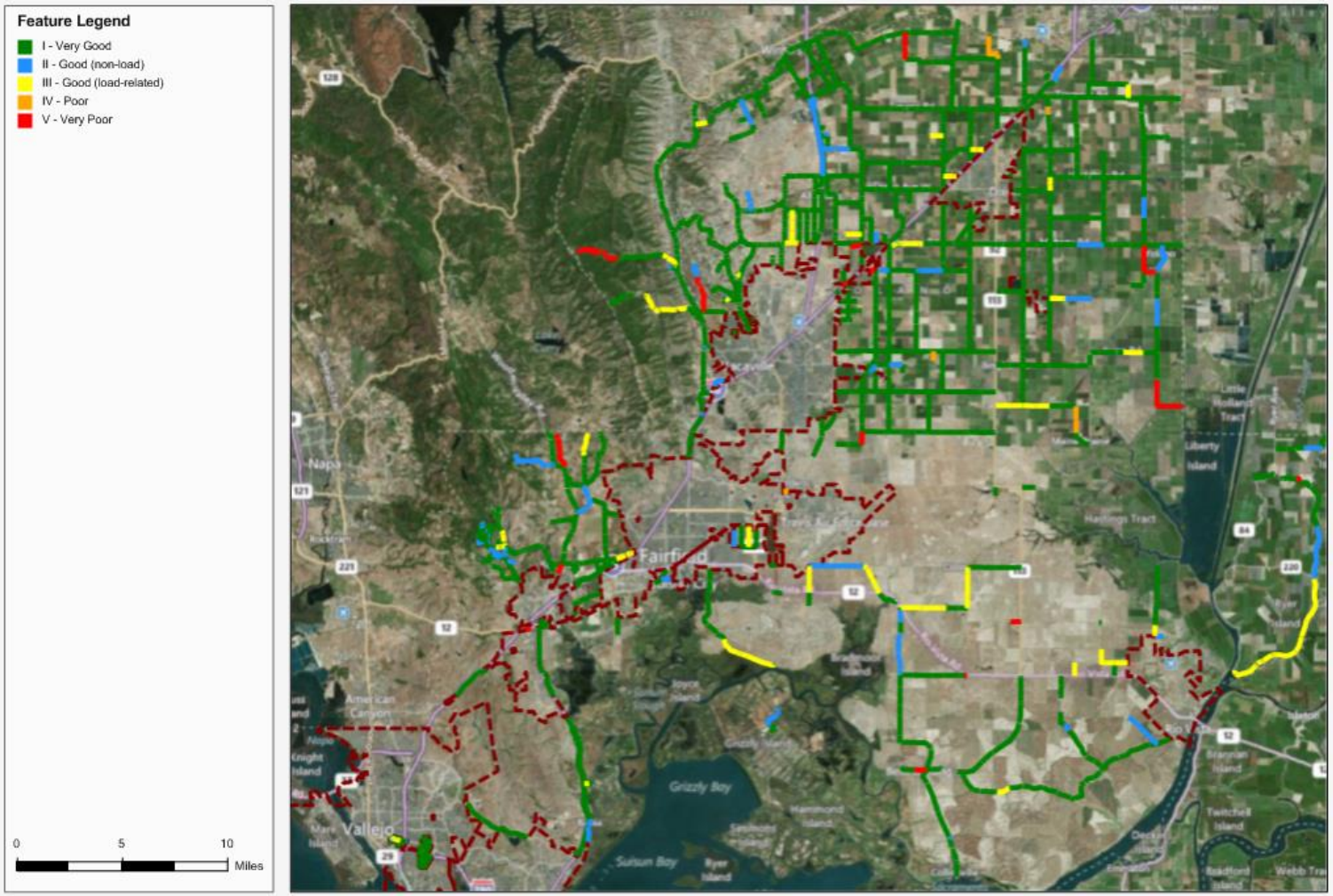
The PCI maps below illustrate what streets currently look like and will look like, using current budget scenarios, today (2014), 4 years out (2018), nine years out (2023) and 14 years out (2028).



SOLANO COUNTY

Scenario PCI Condition

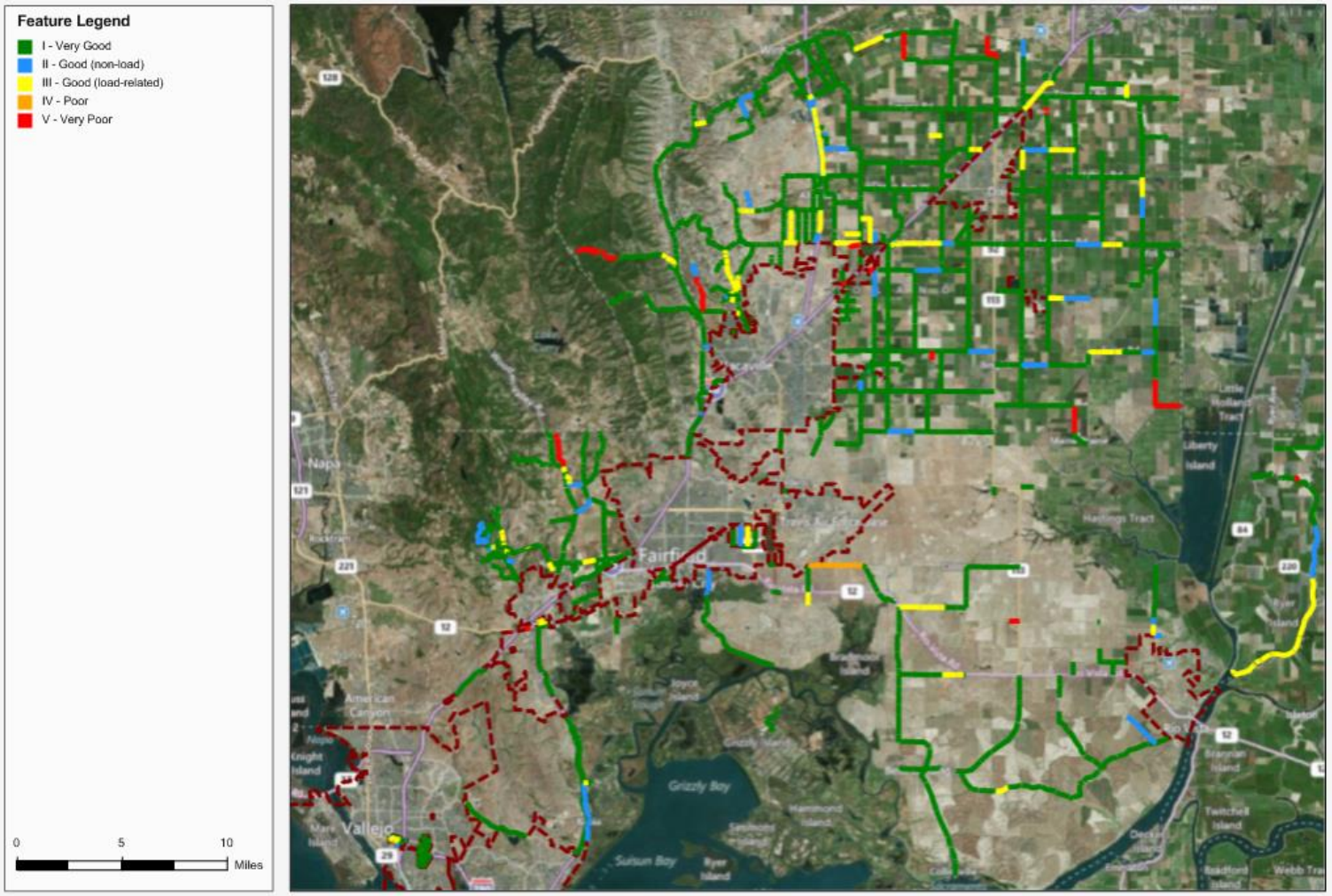
FY 2014 Current Budget - 2018 Project Period - Total Rehab: $5,755,092 - Printed: 9/4/2014



SOLANO COUNTY

Scenario PCI Condition

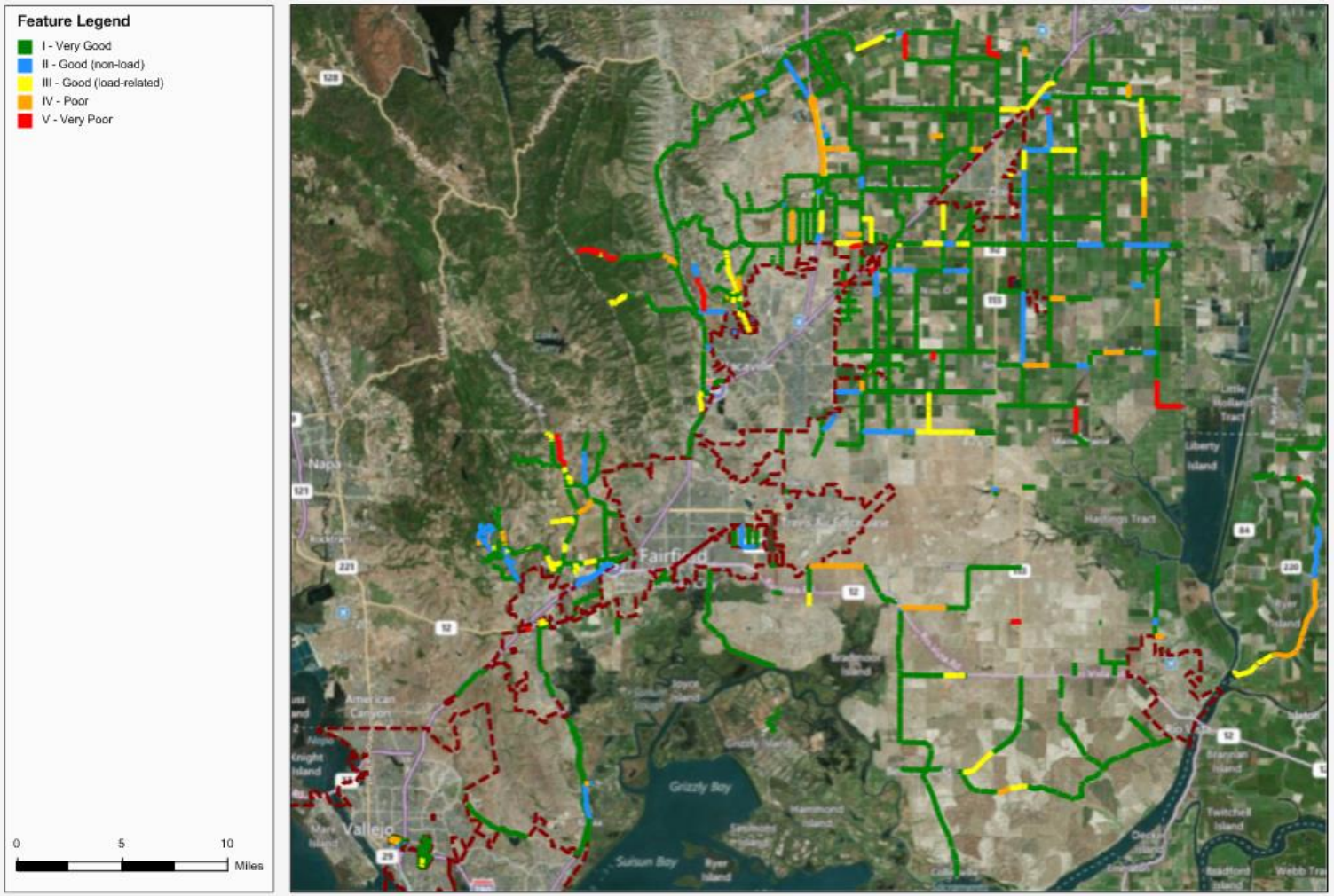
FY 2014 Current Budget - 2023 Project Period - Total Rehab: $5,732,404 - Printed: 9/4/2014



SOLANO COUNTY

Scenario PCI Condition

FY 2014 Current Budget - 2028 Project Period - Total Rehab: $5,875,994 - Printed: 9/4/2014



City of Suisun City

The City of Suisun City is responsible for the management, repair, and maintenance of 152 lane miles of pavement, or 512 pavement sections. Table 1 summarizes the length of the road and 2013 pavement condition index (PCI) by functional class.

Table 1

Functional Class	Sections	Centerline Miles	Lane Miles	2013 PCI
Arterial	18	6.44	13.85	67
Collector	199	37.63	72.29	57
Residential/Local	295	34	66.07	53
Total	**512**	**78.07**	**152**	**62 (3 yr avg)**

The PCI is a measurement of pavement grade or condition and ranges from 0 to 100. The average 2013 PCI (based on a 3-year moving average) of the street network of the City is 62. While this network PCI score is considered "fair", Suisun's average PCI has dropped the previous two years (PCI 68 in 2011 and PCI 65 in 2012). Currently, 36% of the City's pavement area falls under "Excellent or Very Good", 35% falls under "Good or Fair" and 29% falls under "Poor or Failed".

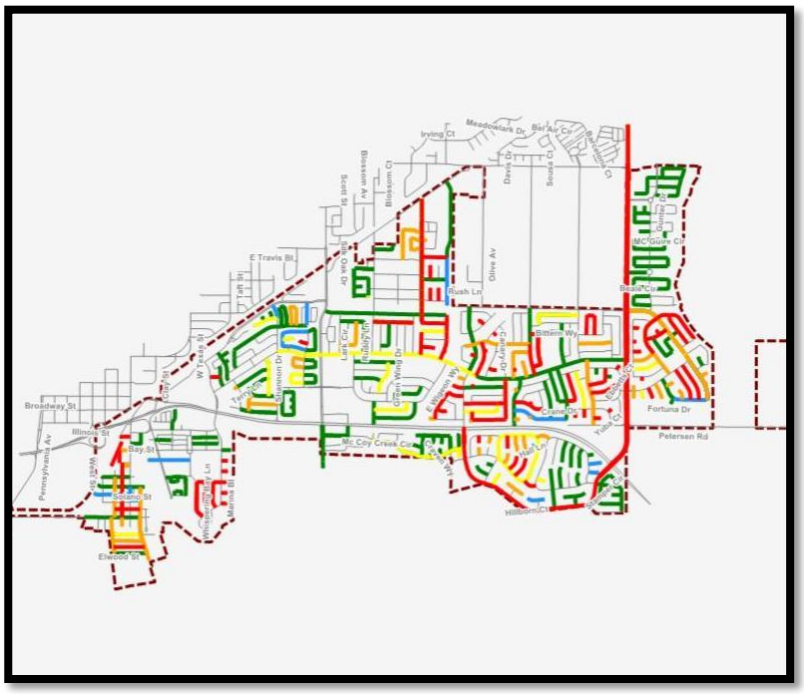
According to MTC's 2013 Regional Pavement Summary, Suisun City recently experienced a rather large 9 point PCI drop from 2012 to 2013, going from 65 to 56. This drop can be explained by a complete re-inspection of all of its streets and full update of its Pavement Management Program (PMP). This work was completed by a consultant thanks to funding from MTC's Pavement Management Technical Assistance Program (P-TAP). Inspections for the previous four years were performed by City staff. Due to the subjective nature of visual pavement assessments and the passage of time, the consultant's PCIs were notably lower than the City's PCIs of the previous four years. Also 32 of the pavement network's segments were either combined or deleted, between 2011-2013. These factors resulted in a notably lower PCI score in the PMP than the previous year, while according to the hired consultant, the actual PCI drop is closer 2 points. Suisun City will continue to work with MTC to address this discrepancy.

Poor/Failed Pavement Condition

Excellent/Very Good Pavement Condition

Current Pavement Condition Index (PCI) Map

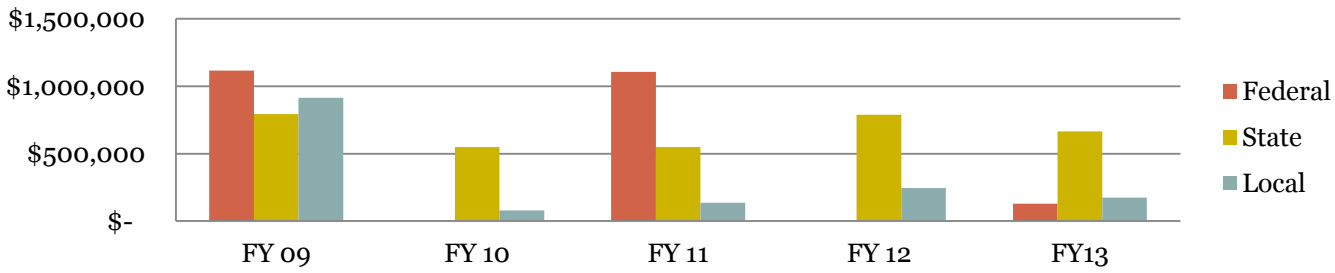
- I - Very Good
- II - Good (non-load)
- III - Good (load-related)
- IV - Poor
- V - Very Poor



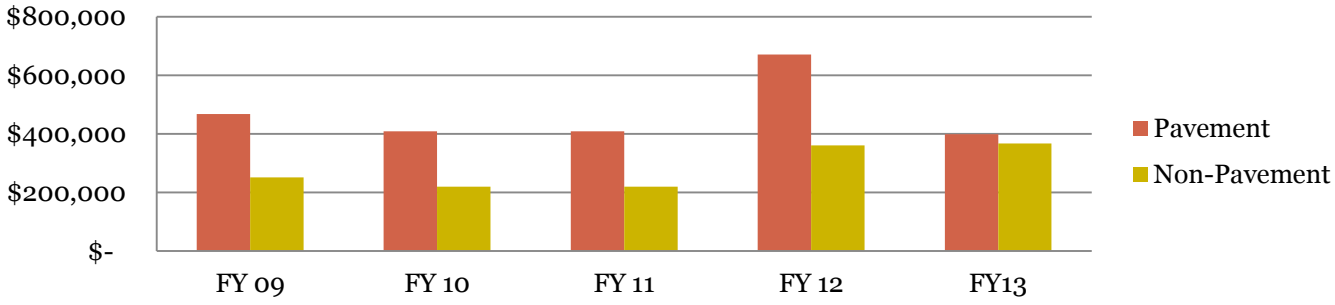
Past Streets and Roads Investments

The current PCI reflects the past investments made in Suisun's streets and roads network. The following charts show 5-year (2009-2013) revenue and expenditure histories for both pavement maintenance and capital projects in Suisun.

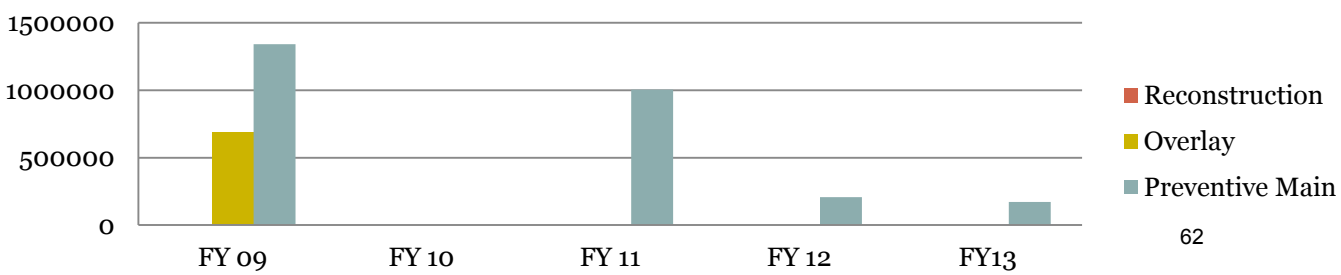
Suisun Total Revenue



Suisun Maintenance Expenditures

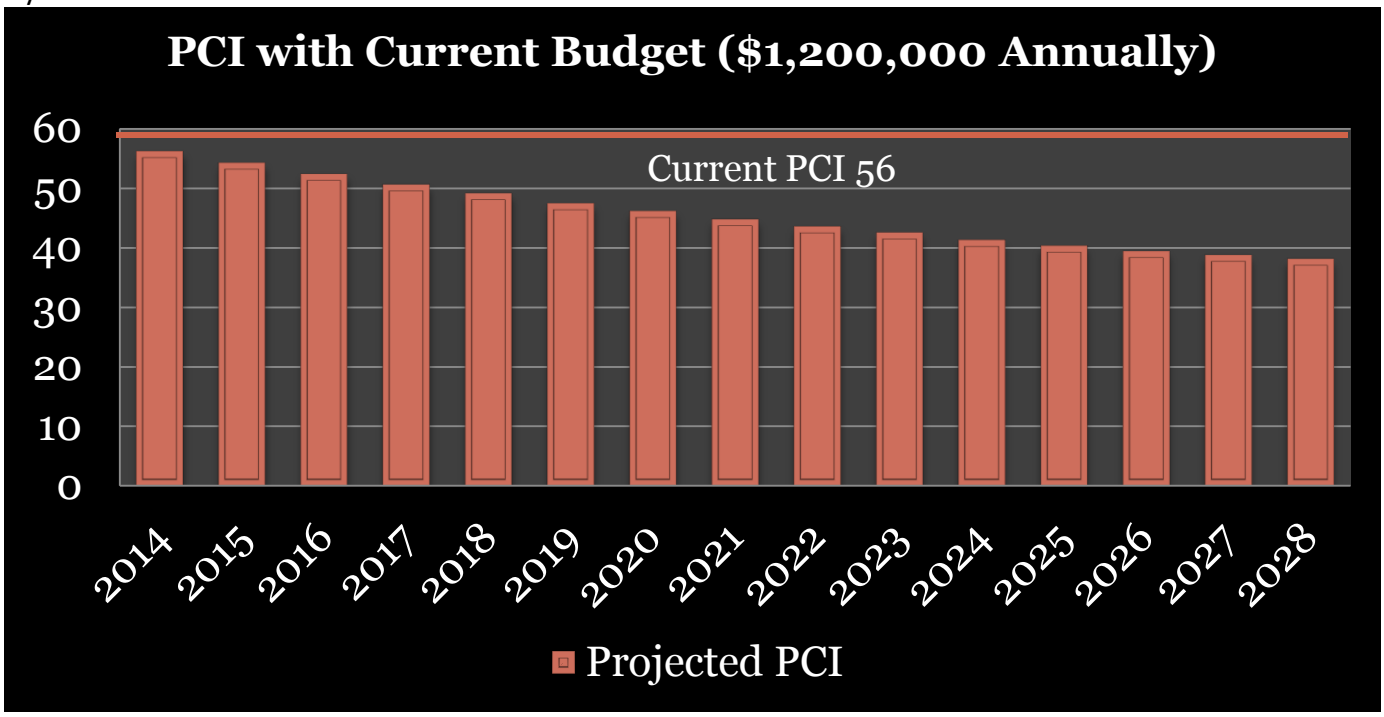


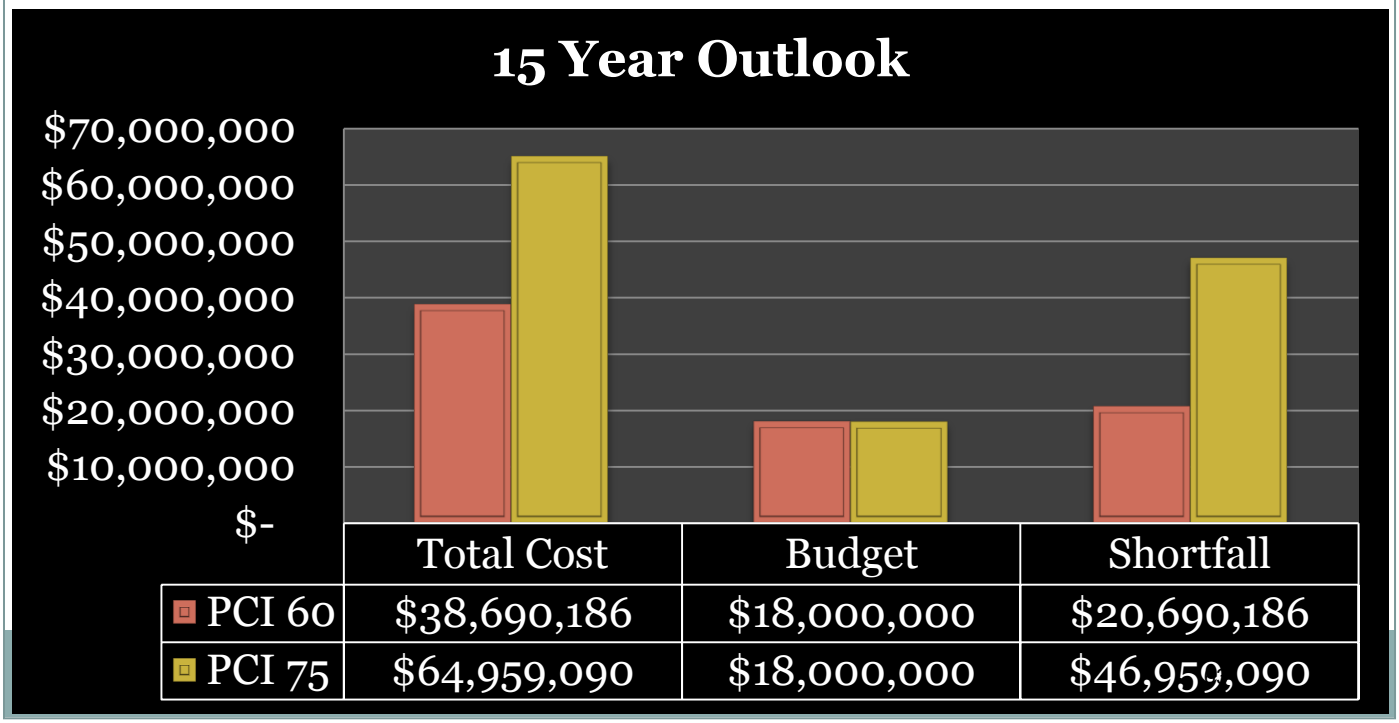
Suisun Capital Improvement Expenditures



Future Pavement and Revenue Needs

In 2013 Suisun City's PCI was 56 (not 3-year average), with a budget for roadway maintenance of $1,200,000 per year. If that current level of funding were to be applied through the year 2028 (15 years) the average PCI for the City would drop from it current average rating of 56 (At-Risk) to 38 (Poor). **To maintain a minimum average PCI rating of 60 in the City of Suisun City**, approximately $38.7M would need to be spent over the next 15 years. The current budget provides approximately $18M over 15 years, leaving a funding shortfall of approximately $20.7M. To reach the higher PCI goal of 75, as stated in the Solano Comprehensive Transportation Plan, approximately $47M more than what is currently being budgeted would need to be invested in Suisun City's roads over the next 15 years.





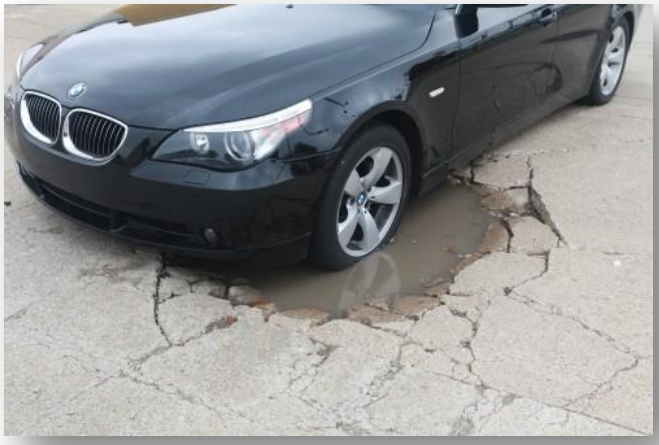
Where Do We Go From Here?

Timely investment in roadway preservation can save cities millions of tax dollars in long-term maintenance costs. A municipality that spends $1 on timely maintenance to keep a section of roadway in good condition would have to spend $5 to restore the same road if the pavement is allowed to deteriorate to the point where major rehabilitation is necessary (MTC, 2011). Pavements that are still in good condition (a PCI of 70 or above) can be preventively maintained at a low cost, whereas pavements that need significant rehabilitation or reconstruction require five to 15 times the amount of funding. Thus, **Suisun City's current PCI of 62 should be viewed with caution, as it indicates that its local streets and roads are poised on the edge of a maintenance cliff.**

Since last year, the projected 15-year cost of Suisun City to maintain its roads has increase substantially due to lower PCI scores. Suisun City is currently on track to invest approximately 1/2 of the required $38M necessary to maintain the city's PCI at 60 over the next 15 years. If the city were to raise its average PCI to 75, the goal stated in the Countywide Transportation Plan, then the city would need to invest an additional $47M more than the $18M they are currently on track to spend over the next 15 years.

"Strategic investment in infrastructure produces a foundation for long-term growth."
-Roger McNamee

Without a healthy investment in its roadway infrastructure, the City of Suisun City will continue its downward trend in pavement quality. This deterioration has the potential to hinder Suisun City from attracting new jobs, housing, tourism, and business investment. More money spent now in long-term roadway maintenance can save Suisun City millions in the future and strengthen its local economy.



Potholes can grow into major obstacles if not treated quickly.

Investing in caution signs is a poor substitute for roadway maintenance. *(Sign not located in Suisun City)*

SOLONO TRANSPORTATION AUTHORITY
5 Year Local Streets and Roads Budget Info
Fiscal Years 2008 - 2013

CITY OF SUISUN CITY

REVENUES

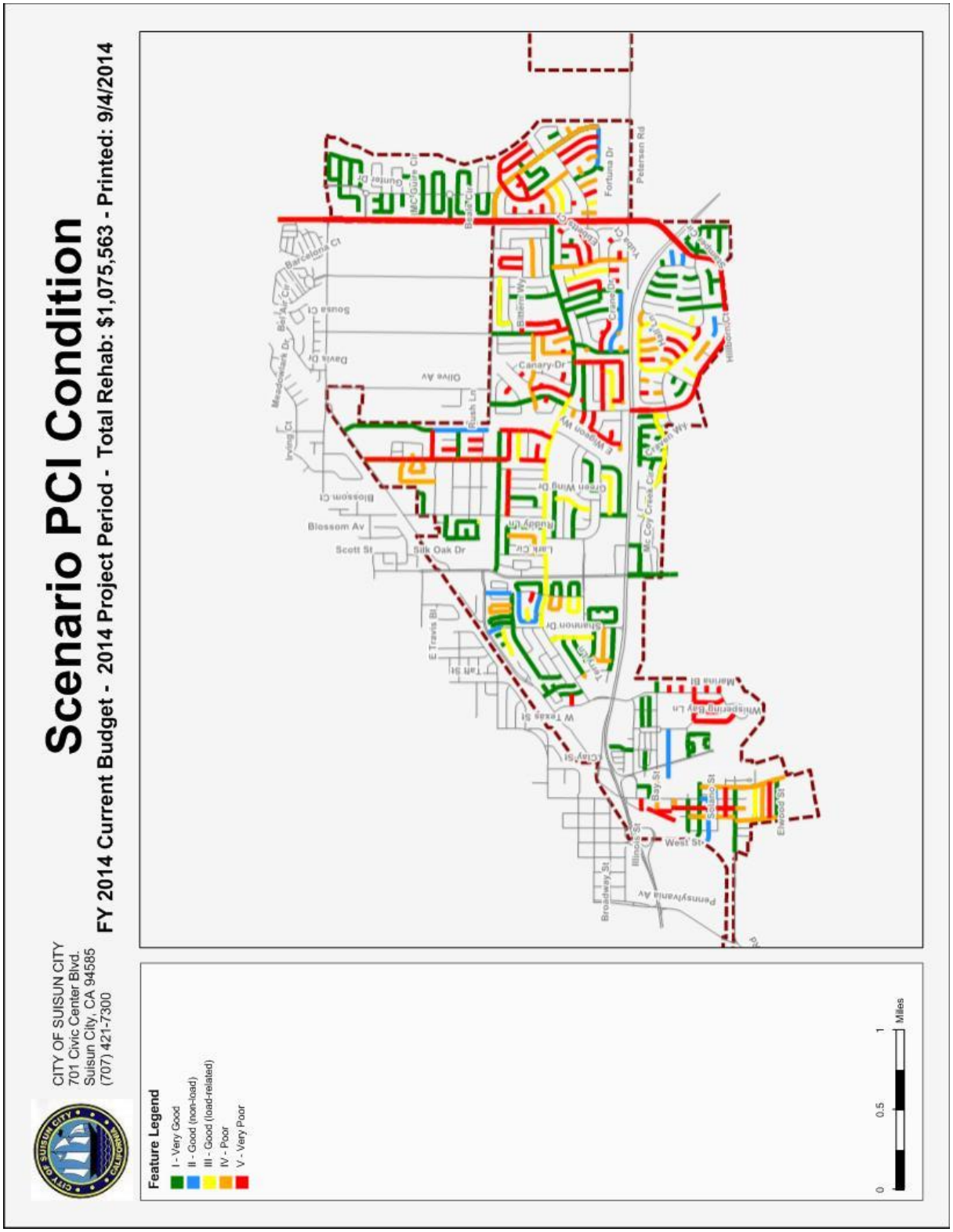
	FY 09	FY 10	FY 11	FY 12	FY13	TOTAL
Total Revenue						
Federal	$ 1,115,960	$ -	$ 1,107,000	$ -	$ 129,669	$ 2,352,629
State	$ 794,124	$ 548,600	$ 548,600	$ 788,200	$ 665,600	$ 3,345,124
Local	$ 915,098	$ 80,000	$ 137,000	$ 244,700	$ 173,200	$ 1,549,998
TOTAL BY FISCAL YEAR	$ 2,825,182	$ 628,600	$ 1,792,600	$ 1,032,900	$ 968,469	$ 7,247,751

EXPENDITURES

	FY 09	FY 10	FY 11	FY 12	FY13	TOTAL
Maintenance and Operations						
Pavement	$ 468,138	$ 408,590	$ 408,590	$ 671,385	$ 399,326	$ 2,356,029
Non-Pavement	$ 252,138	$ 220,010	$ 220,010	$ 361,515	$ 367,152	$ 1,420,825
Capital Improvement Program						
Reconstruction					$ -	
Overlay	$ 687,304				$ -	$ 687,304
Preventive Mair	$ 1,341,297		$ 1,005,300	$ 206,999	$ 172,366	$ 2,725,962
Non-Pavement	$ 69,000		$ 328,500	$ 49,500	$ 129,700	$ 576,700
TOTAL BY FISCAL YEAR	$ 2,817,877	$ 628,600	$ 1,962,400	$ 1,289,399	$ 1,068,544	$ 7,766,820

What will Suisun City's Streets look like in the Future using Current Budget Scenarios?

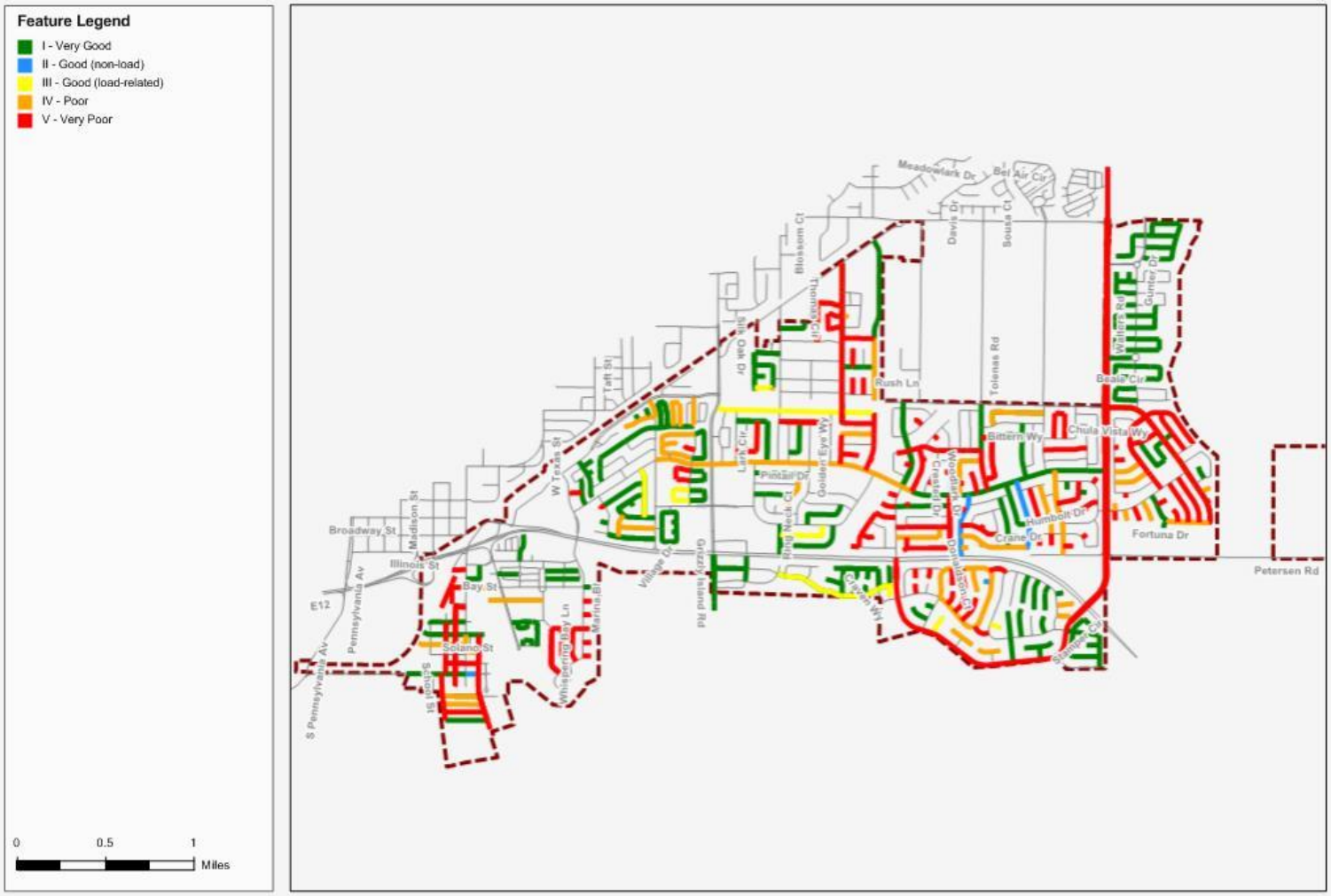
The PCI maps below illustrate what streets currently look like and will look like, using current budget scenarios, today (2014), 4 years out (2018), nine years out (2023) and 14 years out (2028).



CITY OF SUISUN CITY
701 Civic Center Blvd.
Suisun City, CA 94585
(707) 421-7300

Scenario PCI Condition

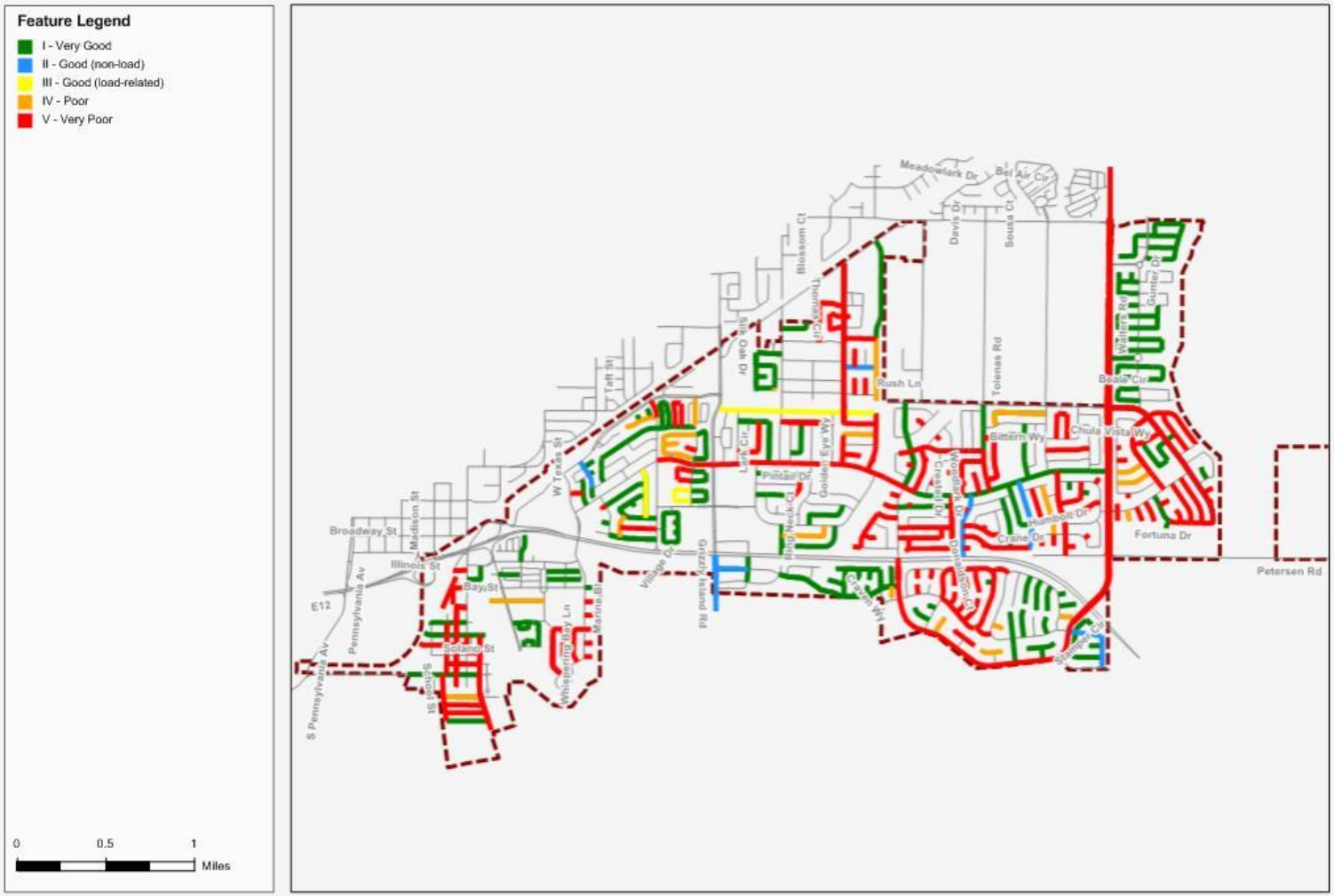
FY 2014 Current Budget - 2018 Project Period - Total Rehab: $1,078,562 - Printed: 9/4/2014



CITY OF SUISUN CITY
701 Civic Center Blvd.
Suisun City, CA 94585
(707) 421-7300

Scenario PCI Condition

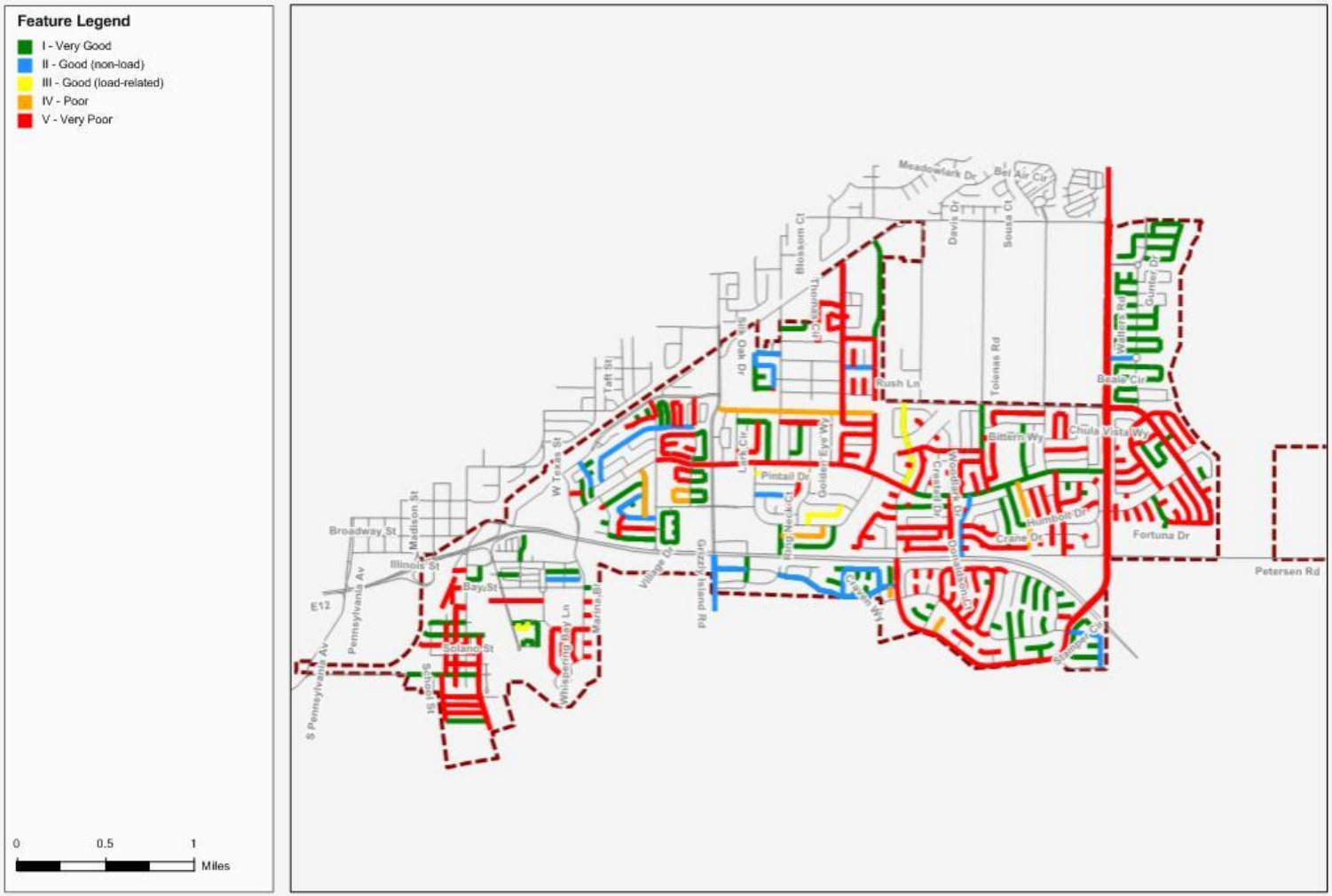
FY 2014 Current Budget - 2023 Project Period - Total Rehab: $1,078,965 - Printed: 9/4/2014



CITY OF SUISUN CITY
701 Civic Center Blvd.
Suisun City, CA 94585
(707) 421-7300

Scenario PCI Condition

FY 2014 Current Budget - 2028 Project Period - Total Rehab: $1,079,348 - Printed: 9/4/2014



City of Vacaville

The City of Vacaville is responsible for the management, repair, and maintenance of 581 lane miles of pavement, or 1602 pavement sections. Table 1 summarizes the length of the road and 2013 pavement condition index (PCI) by functional class.

Table 1

Functional Class	Sections	Centerline Miles	Lane Miles	2013 PCI
Arterial	115	37.3	124.03	76
Collector	255	68.65	140.23	68
Residential/Local	1232	158.5	317.63	66
Total	**1602**	**264.5**	**581.8**	**68 (3 yr avg)**

The PCI is a measurement of pavement grade or condition and ranges from 0 to 100. The average 2013 PCI (based on a 3-year moving average) of the street network of the City is 68. While this network PCI score is considered good, Vacaville's PCI has dropped the previous two years (PCI 73 in 2011 and PCI 69 in 2012). Currently, 29% of the City's pavement area falls under "Excellent or Very Good", 50% falls under "Good or Fair" and 21% falls under "Poor or Failed". Again, compared with previous years, this shows a slow decline in pavement condition categories. As far as functional class, arterials are in better condition than collectors and residential roads, which is preferable since they carry the bulk of the traffic and loading; however collectors are next in line

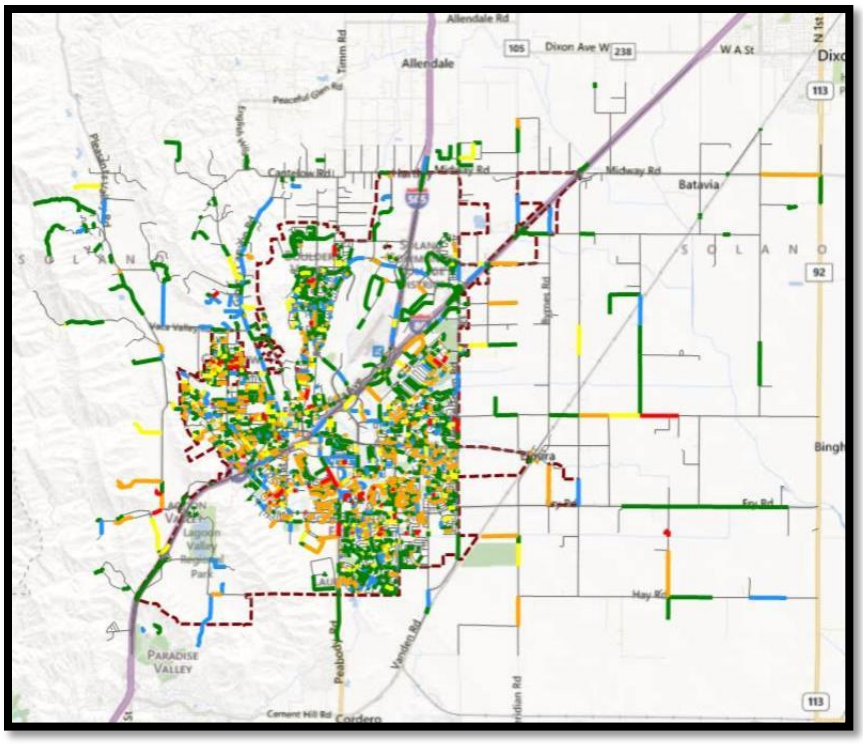
The City of Vacaville has an aggressive pavement management program, wherein all residential and collector streets slurry sealed every 5 to 7 years. Due to the economic downturn and reallocation of gas tax funding, the last slurry seal was performed in 2008. 2014 marks the restart of this important program with 6,610000 square feet of streets being resurfaced.

Fair/At-Risk Pavement Condition

Excellent/Very Good Pavement Condition

Current Pavement Condition Index (PCI) Map

- I - Very Good
- II - Good (non-load)
- III - Good (load-related)
- IV - Poor
- V - Very Poor

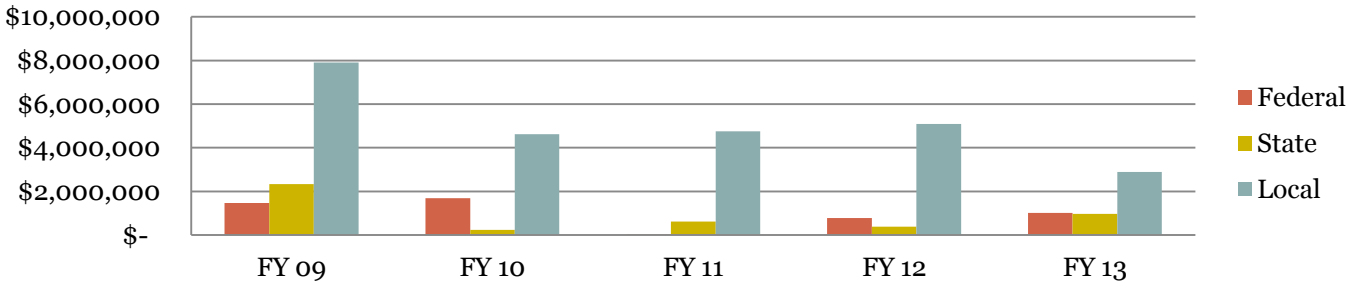


Past Streets and Roads Investments

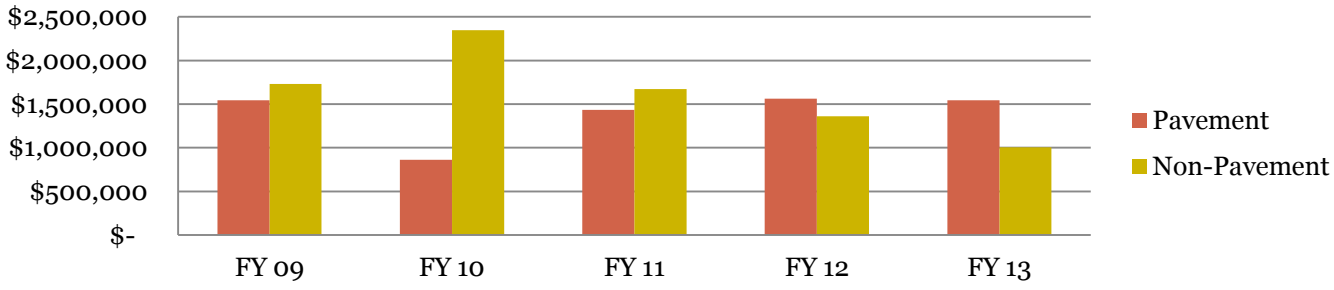
The current PCI reflects the past investments made in Vacaville's streets and roads network. The following charts show 5-year (2009-2013) revenue and expenditure histories for both pavement maintenance and capital projects in Vacaville.

*This data is non-typical, as local general fund and gas tax was diverted away from street maintenance in this 5-yuear period due to the economic downturn.

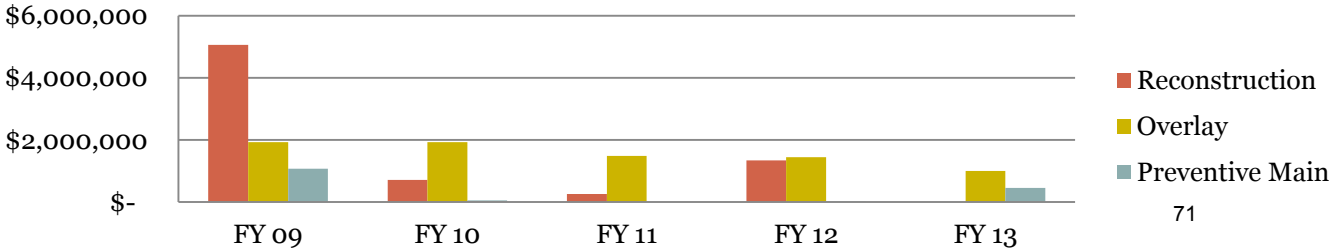
Vacaville Total Revenue



Vacaville Maintenance Expenditures

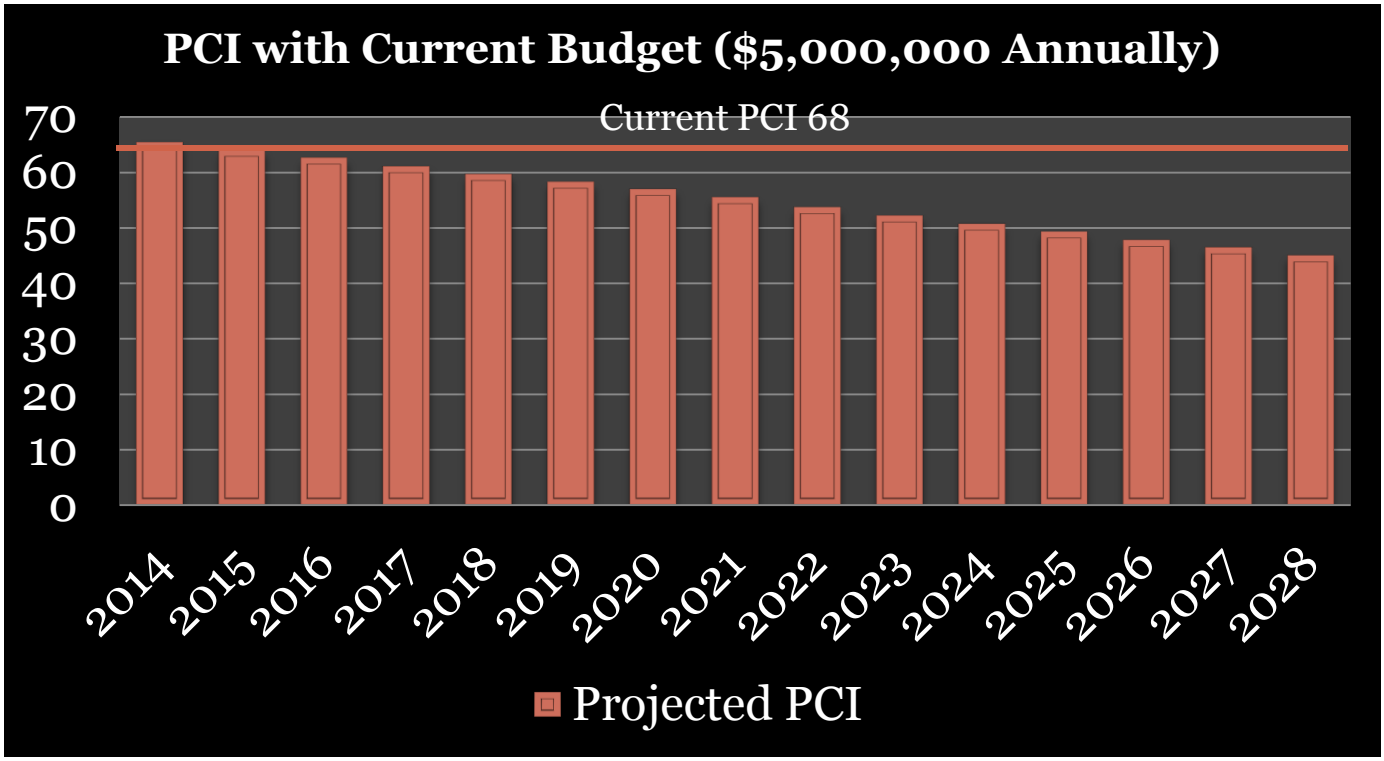


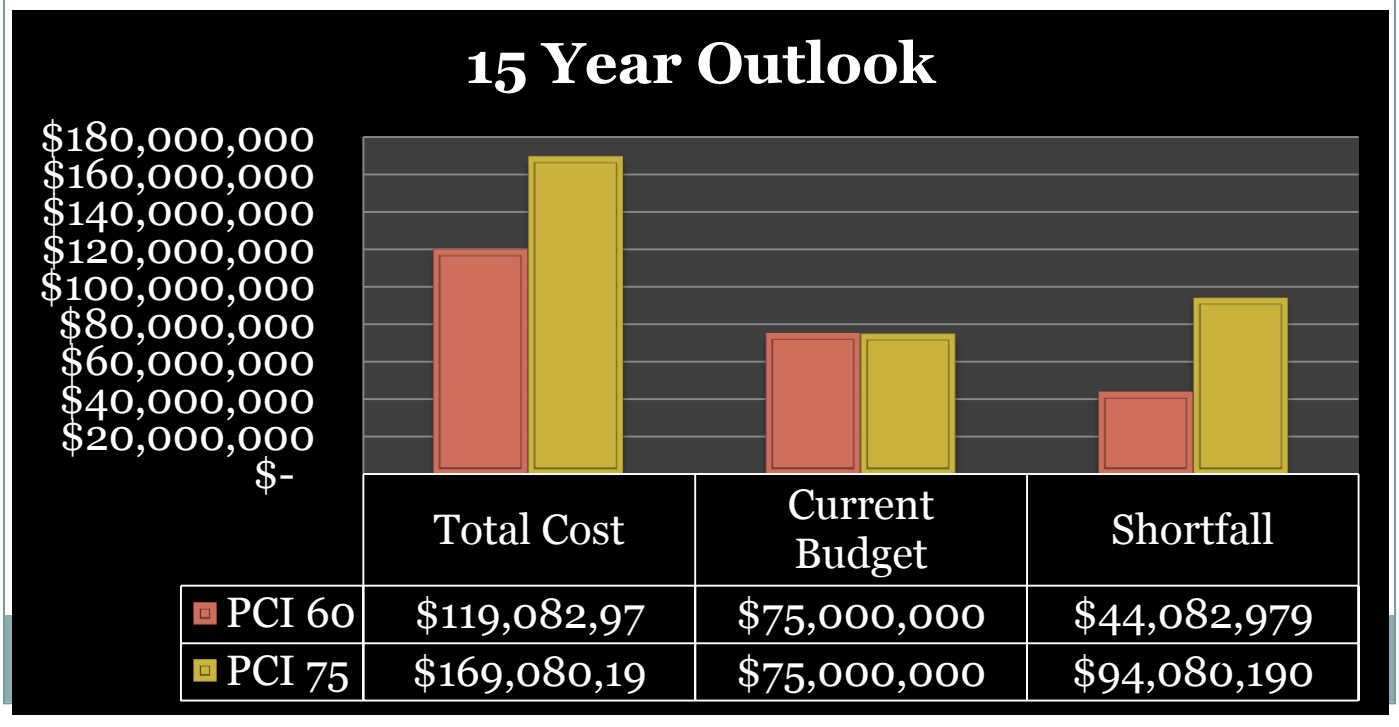
Vacaville Capital Improvement Expenditures



Future Pavement and Revenue Needs

In 2013, Vacaville's current PCI score was 65 (not 3-year average), with a current budget of $5,000,000 per year. If that current level of funding were to be applied through the year 2028 (15 years) the average PCI for the City would drop from it current rating of 65 (Fair) to 44 (At Risk). **To maintain a minimum average PCI rating of 60 in the City of Vacaville**, approximately $119M would need to be spent over the next 15 years. The current budget provides approximately $75M over 15 years, leaving a funding shortfall of approximately $44M. To reach the higher PCI goal of 75, as stated in the Solano Comprehensive Transportation Plan, $94M more than what is currently being budgeted would need to be invested in Vacaville's roads over the next 15 years.





	Total Cost	Current Budget	Shortfall
PCI 60	$119,082,97	$75,000,000	$44,082,979
PCI 75	$169,080,19	$75,000,000	$94,080,190

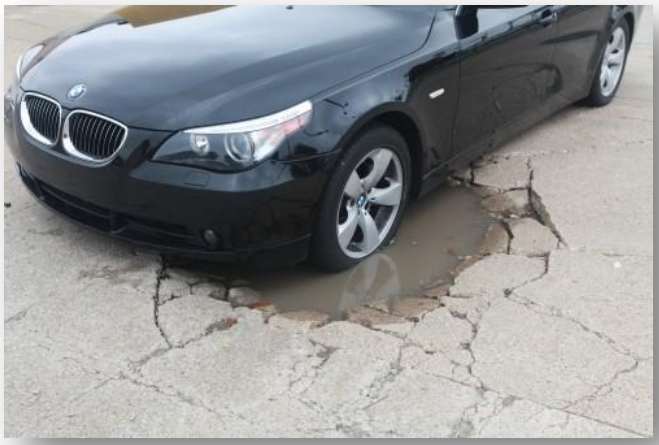
Where Do We Go From Here?

Timely investment in roadway preservation can save cities millions of tax dollars in long-term maintenance costs. A municipality that spends $1 on timely maintenance to keep a section of roadway in good condition would have to spend $5 to restore the same road if the pavement is allowed to deteriorate to the point where major rehabilitation is necessary (MTC, 2011). Pavements that are still in good condition (a PCI of 70 or above) can be preventively maintained at a low cost, whereas pavements that need significant rehabilitation or reconstruction require five to 15 times the amount of funding. Thus, **Vacaville's current PCI of 68 should be viewed with caution, as it indicates that its local streets and roads are poised on the edge of a maintenance cliff.**

Vacaville is currently on track to invest approximately 2/3 of the required $119M necessary to keep the city's PCI at 60 over the next 15 years. If the city were to raise its average PCI to 75, the goal stated in the Countywide Transportation Plan, then the city would need to invest an additional $94M more than the $75M they are currently on track to spend over the next 15 years.

"Strategic investment in infrastructure produces a foundation for long-term growth."
-Roger McNamee

Without a healthy investment in its roadway infrastructure, the City of Vacaville will continue its downward trend in pavement quality. This deterioration has the potential to hinder Vacaville from attracting new jobs, housing, tourism, and business investment. More money spent now in long-term roadway maintenance can save Vacaville millions in the future and strengthen its local economy.



Potholes can grow into major obstacles if not treated quickly. *(Pothole not located in Vacaville)

Investing in caution signs is a poor substitute for roadway maintenance. *(Sign not located in Vacaville)

SOLONO TRANSPORTATION AUTHORITY
5 Year Local Streets and Roads Budget Info
Fiscal Years 2009 - 2013

CITY OF VACAVILLE

REVENUES

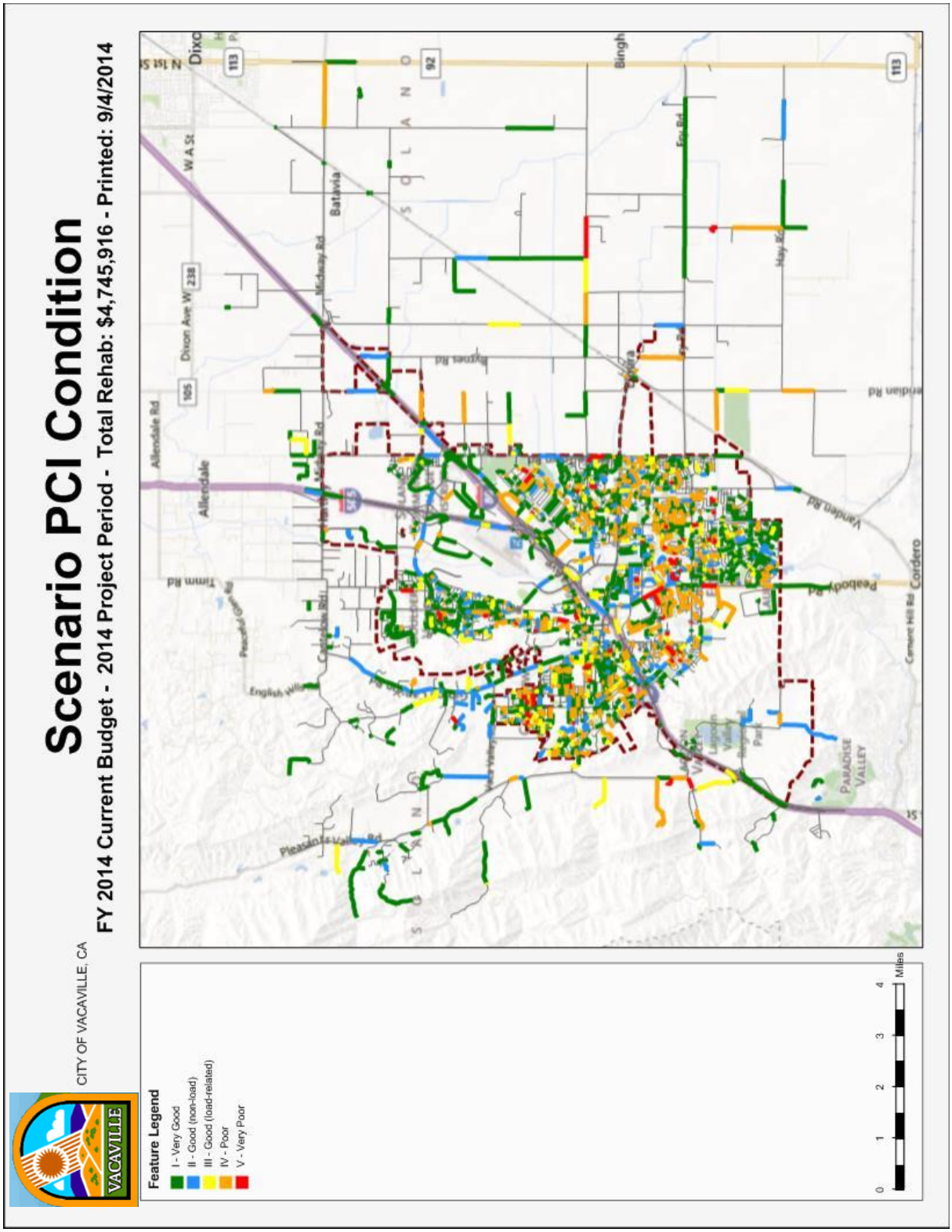
	FY 09	FY 10	FY 11	FY 12	FY 13	TOTAL
Total Revenue						
Federal	$ 1,476,572	$ 1,694,685	$ 32,276	$ 778,858	$ 1,011,712	$ 4,994,103
State	$ 2,336,282	$ 239,454	$ 613,951	$ 378,379	$ 966,274	$ 4,534,340
Local	$ 7,913,527	$ 4,618,464	$ 4,755,164	$ 5,088,043	$ 2,893,216	$ 25,268,414
TOTAL BY FISCAL YEAR	$ 11,726,381	$ 6,552,603	$ 5,401,392	$ 6,245,280	$ 4,871,202	$ 34,796,857

EXPENDITURES

	FY 09	FY 10	FY 11	FY 12	FY 13	TOTAL
Maintenance and Operations						
Pavement	$ 1,544,225	$ 861,174	$ 1,433,935	$ 1,563,577	$ 1,545,638	$ 6,948,548
Non-Pavement	$ 1,733,056	$ 2,348,719	$ 1,673,247	$ 1,362,771	$ 1,005,046	$ 8,122,839
Capital Improvement Program						
Reconstruction	$ 5,068,112	$ 717,983	$ 258,949	$ 1,339,585	$ -	$ 7,384,630
Overlay	$ 1,930,305	$ 1,932,050	$ 1,489,642	$ 1,441,825	$ 998,709	$ 7,792,531
Preventive Main	$ 1,072,118	$ 53,869	$ -	$ 12,768	$ 451,940	$ 1,590,694
Non-Pavement	$ 378,566	$ 638,808	$ 545,618	$ 524,754	$ 869,869	$ 2,957,616
TOTAL BY FISCAL YEAR	$ 11,726,381	$ 6,552,603	$ 5,401,392	$ 6,245,280	$ 4,871,202	$ 34,796,857

What will Vacaville's Streets look like in the Future using Current Budget Scenarios?

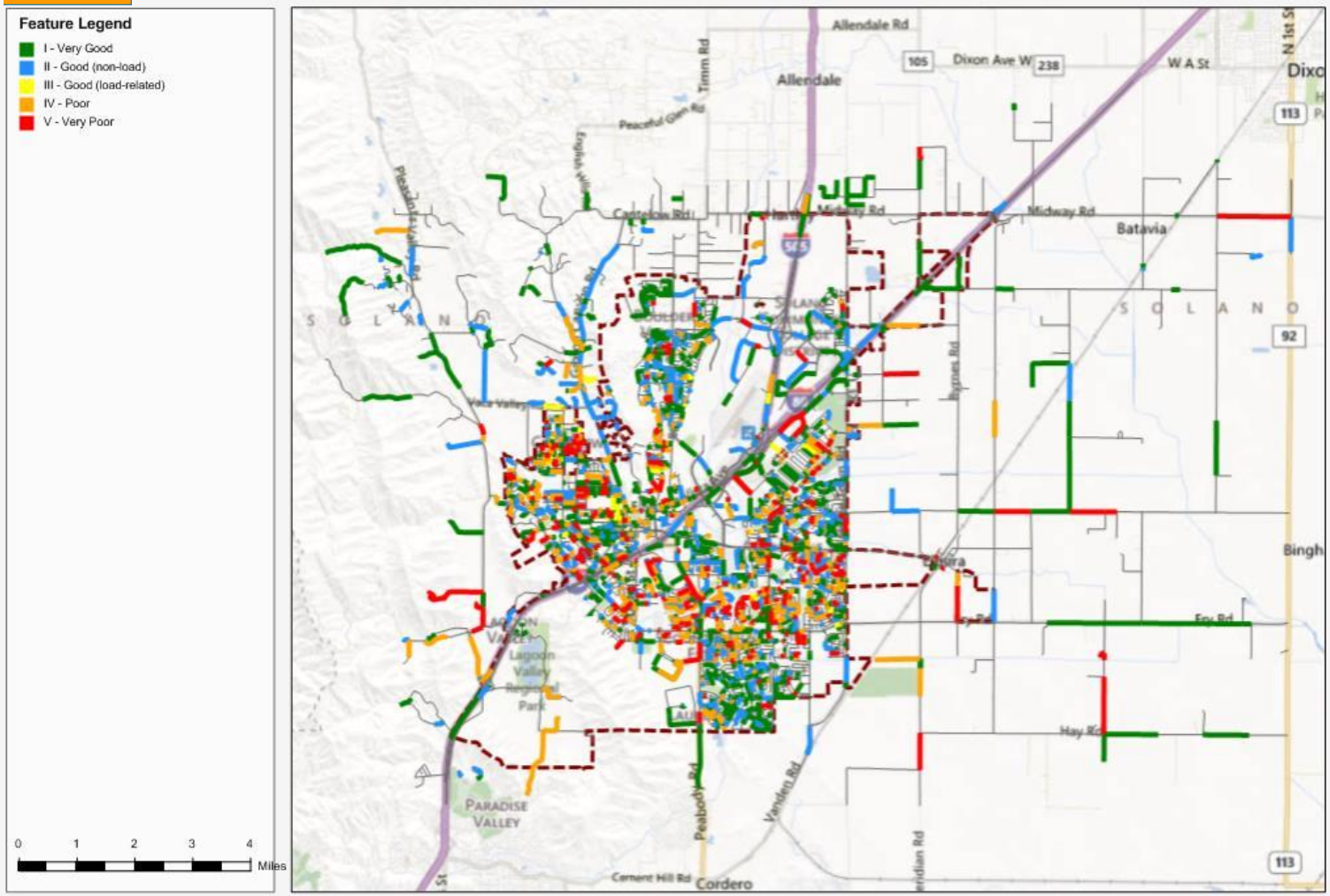
The PCI maps below illustrate what streets currently look like and will look like, using current budget scenarios, today (2014), 4 years out (2018), nine years out (2023) and 14 years out (2028).



CITY OF VACAVILLE, CA

Scenario PCI Condition

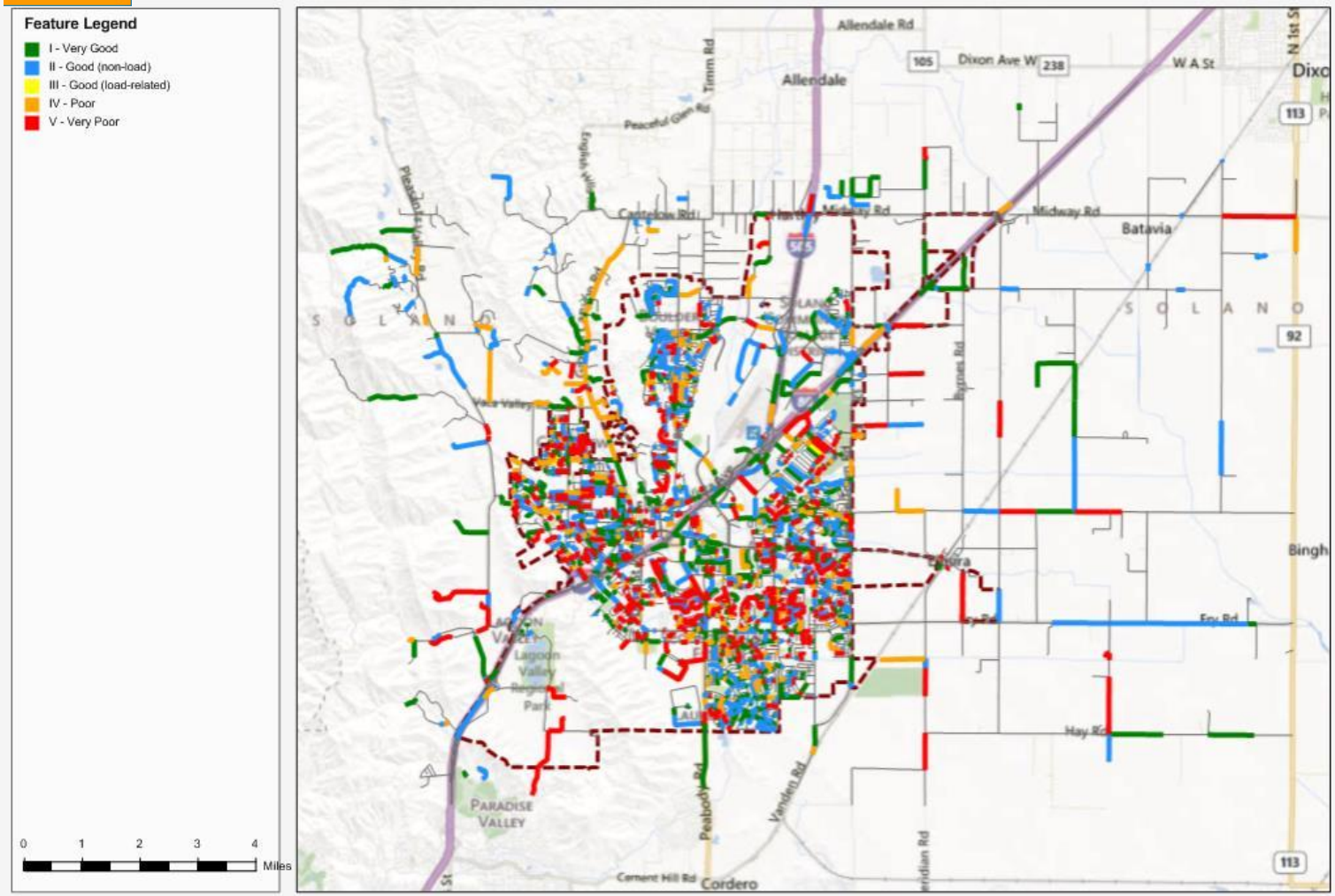
FY 2014 Current Budget - 2018 Project Period - Total Rehab: $4,748,793 - Printed: 9/4/2014



CITY OF VACAVILLE, CA

Scenario PCI Condition

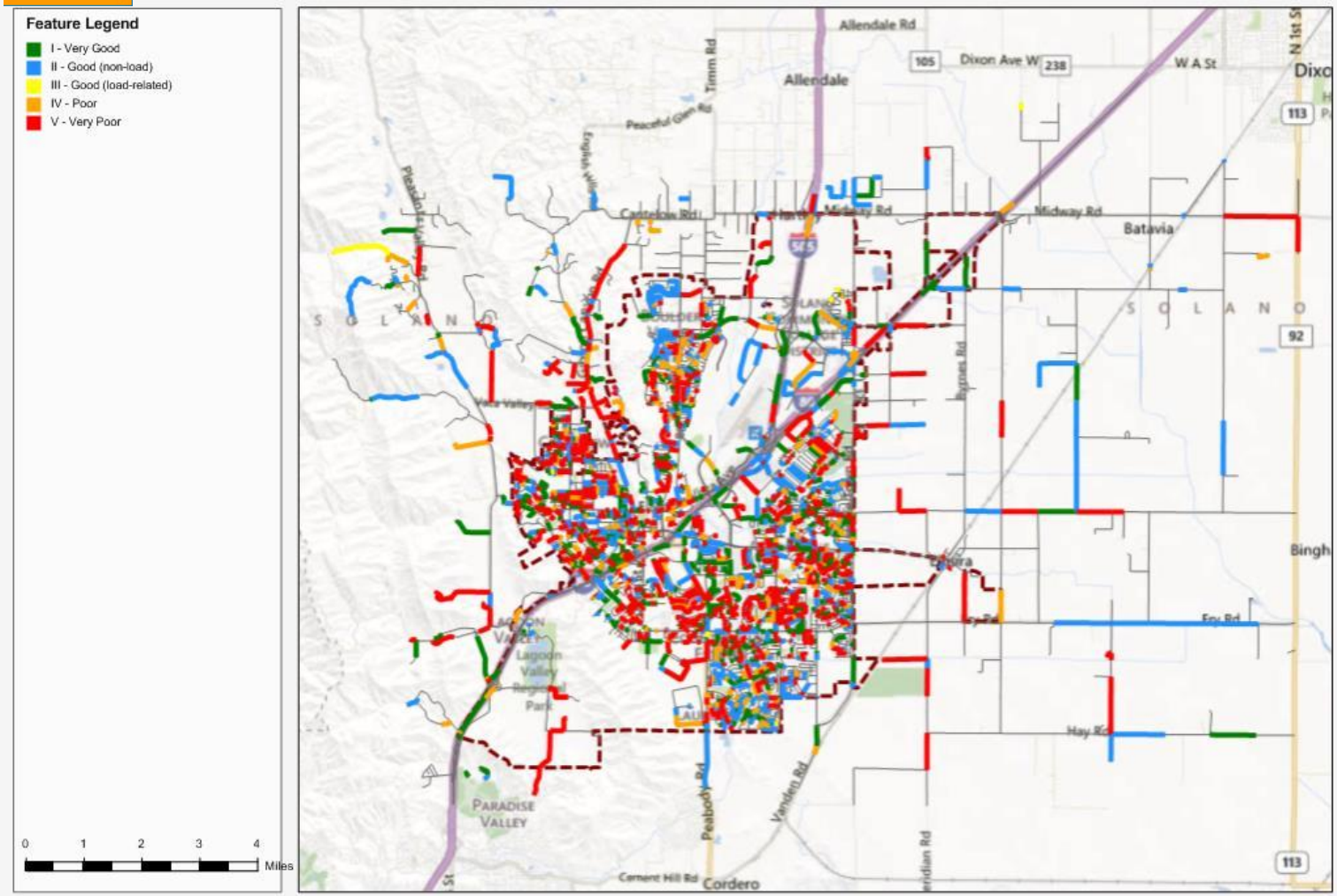
FY 2014 Current Budget - 2023 Project Period - Total Rehab: $4,749,554 - Printed: 9/4/2014



CITY OF VACAVILLE, CA

Scenario PCI Condition

FY 2014 Current Budget - 2028 Project Period - Total Rehab: $4,748,362 - Printed: 9/4/2014



City of Vallejo

The City of Vallejo is responsible for the management, repair, and maintenance of 714 lane miles of pavement, or 2067 pavement sections. Table 1 summarizes the length of the road and 2013 pavement condition index (PCI) by functional class.

Table 1

Functional Class	Sections	Centerline Miles	Lane Miles	2013 PCI
Arterial	170	49	157.31	65
Collector	240	50.46	117.64	50
Residential/Local	1657	220.52	439.57	40
Total	**2067**	**320**	**714.5**	**49 (3 yr avg)**

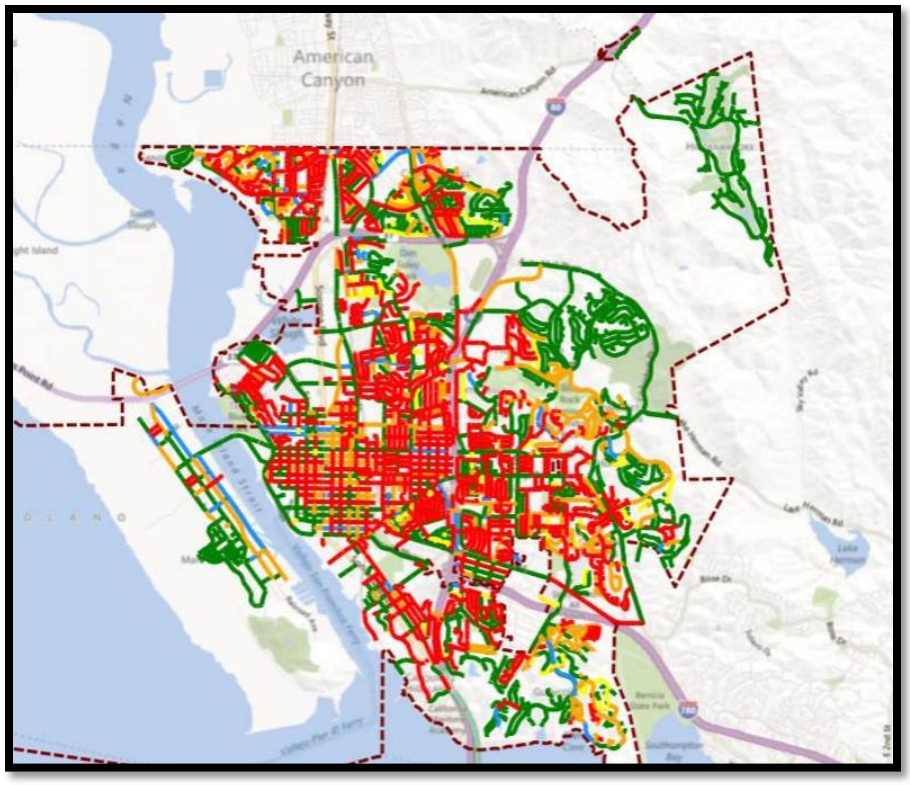
The PCI is a measurement of pavement grade or condition and ranges from 0 to 100. The average 2013 PCI (based on a 3-year moving average) of the street network of the City is 49. Vallejo's average PCI has dropped since last year (PCI 51 in 2012), and is considered "at-risk" and is very close to poor. Currently, 22% of the City's pavement area falls under "Excellent or Very Good", 29% falls under "Good or Fair" and 49% falls under "Poor or Failed". Again, compared with previous years, this shows a general trend towards the poorer pavement condition categories. If these are not addressed, the quality of the road network will inevitably decline. In order to correct these deficiencies, a cost-effective funding, maintenance and rehabilitation strategy must be implemented.

Poor/Failed Pavement Condition

Excellent/Very Good Pavement Condition

Current Pavement Condition Index (PCI) Map

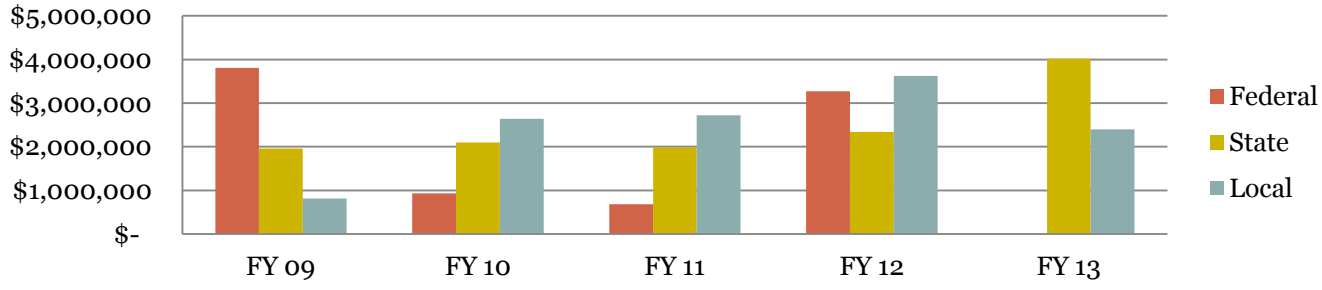
- I - Very Good
- II - Good (non-load)
- III - Good (load-related)
- IV - Poor
- V - Very Poor



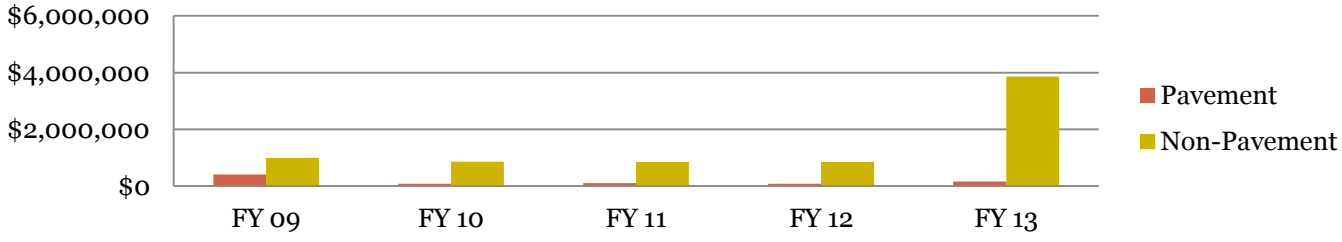
Past Streets and Roads Investments

The current PCI reflects the past investments made in Vallejo's streets and roads network. The following charts show 5-year (2009-2013) revenue and expenditure histories for both pavement maintenance and capital projects in Vallejo.

Vallejo Total Revenue



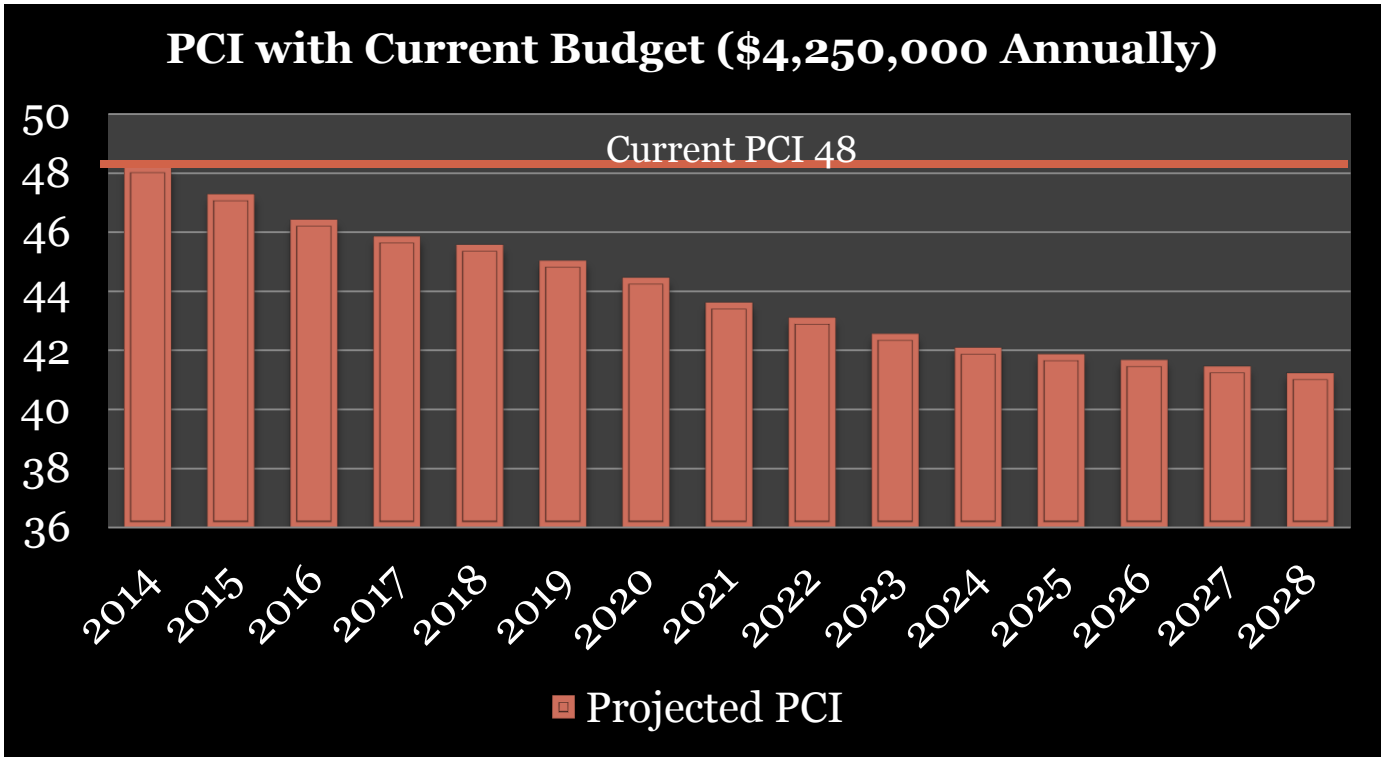
Vallejo Maintenance Expenditures

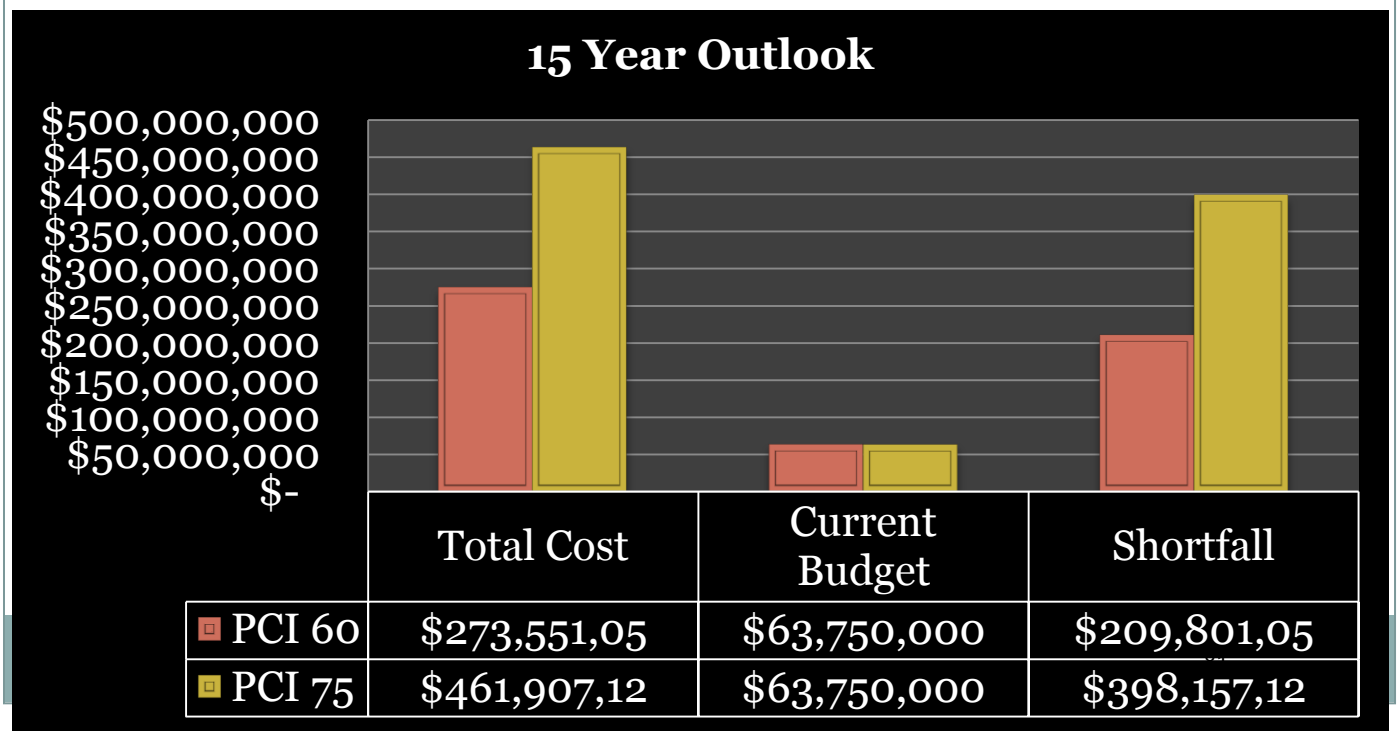


Vallejo Capital Improvement Expenditures

Future Pavement and Revenue Needs

In 2013 Vallejo's current PCI was 48 (not 3-year moving average), with a budget for roadway maintenance of $4,250,000 per year. If that current level of funding were to be applied through the year 2028 (15 years) the average PCI for the City would drop from it current average rating of 48 (Poor) to 41 (Poor). **To maintain an average PCI rating of 60 in the City of Vallejo**, approximately $273M would need to be spent over the next 15 years. The current budget provides approximately $64M over 15 years, leaving a funding shortfall of approximately $209M. To reach the higher PCI goal of 75, as stated in the Solano Comprehensive Transportation Plan, $398M more than what is currently being budgeted would need to be invested in Fairfield's roads over the next 15 years.





	Total Cost	Current Budget	Shortfall
PCI 60	$273,551,05	$63,750,000	$209,801,05
PCI 75	$461,907,12	$63,750,000	$398,157,12

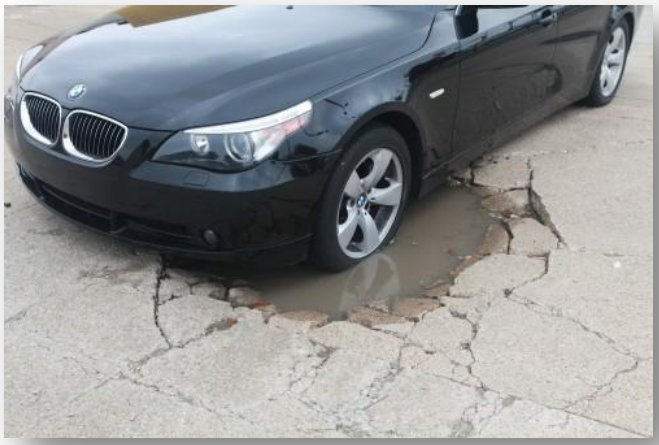
Where Do We Go From Here?

Timely investment in roadway preservation can save cities millions of tax dollars in long-term maintenance costs. A municipality that spends $1 on timely maintenance to keep a section of roadway in good condition would have to spend $5 to restore the same road if the pavement is allowed to deteriorate to the point where major rehabilitation is necessary (MTC, 2011). Pavements that are still in good condition (a PCI of 70 or above) can be preventively maintained at a low cost, whereas pavements that need significant rehabilitation or reconstruction require five to 15 times the amount of funding. Thus, **Vallejo's current PCI of 48 should be viewed with caution, as it indicates that its local streets and roads are poised on the edge of a maintenance cliff.**

Vallejo is currently on track to invest approximately 1/4 of the required $273M necessary to maintain the city's PCI at 60 (Fair) over the next 15 years. If the city were to raise its average PCI to 75, the goal stated in the Countywide Transportation Plan, then the city would need to invest an additional $398M more than the $64M they are currently on track to spend over the next 15 years.

"Strategic investment in infrastructure produces a foundation for long-term growth."
-Roger McNamee

Without a healthy investment in its roadway infrastructure, the City of Vallejo will continue its downward trend in pavement quality. This deterioration has the potential to hinder Vallejo from attracting new jobs, housing, tourism, and business investment. More money spent now in long-term roadway maintenance can save Vallejo millions in the future and strengthen its local economy.



Potholes can grow into major obstacles if not treated quickly.

Investing in caution signs is a poor substitute for roadway maintenance. *(Sign not located in Vallejo.)*

SOLONO TRANSPORTATION AUTHORITY

5 Year Local Streets and Roads Budget Info

Fiscal Years 2009 - 2013

CITY OF VALLEJO

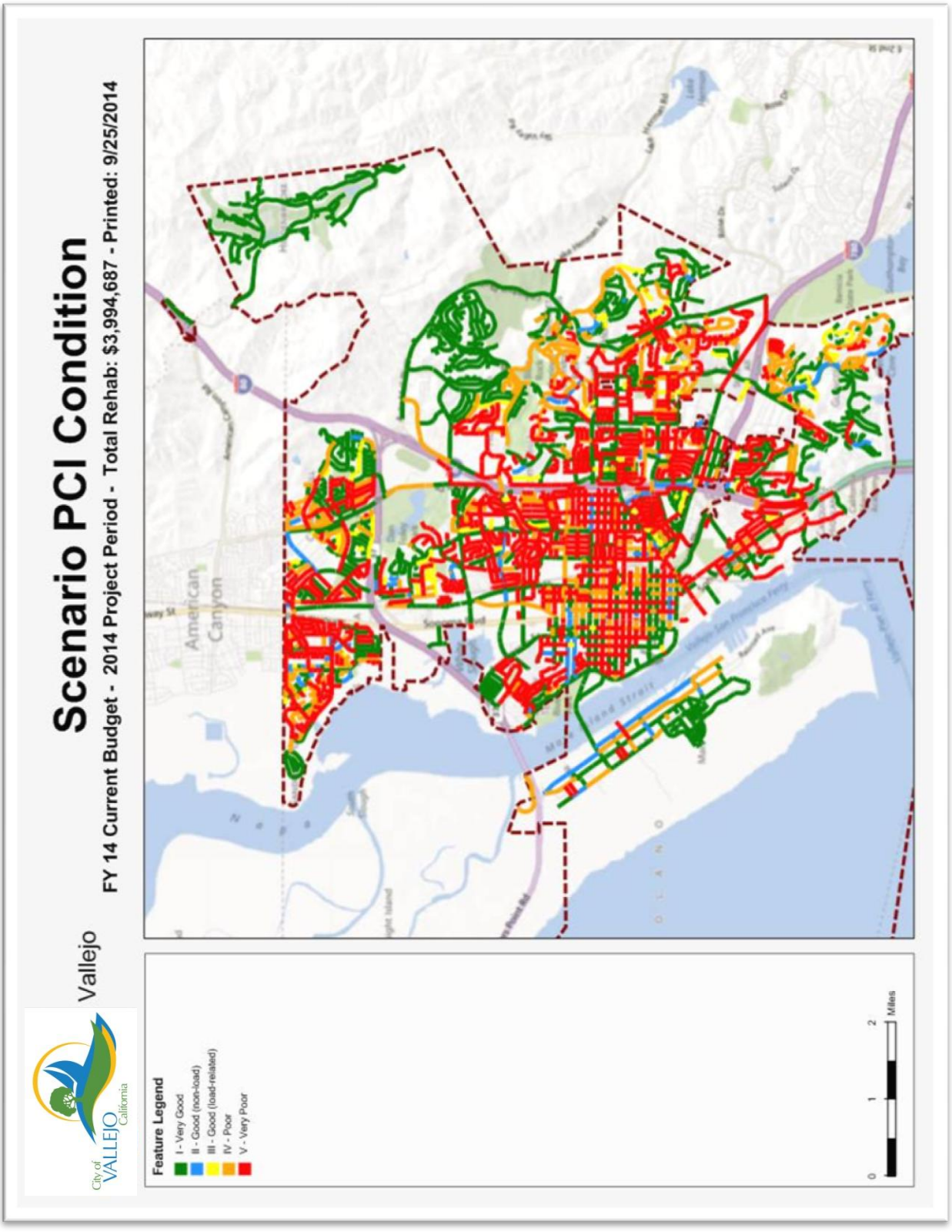
REVENUES	FY 09	FY 10	FY 11	FY 12	FY 13	TOTAL
Total Revenue						
Federal	$ 3,807,700	$ 935,000	$ 680,045	$ 3,272,000	$ -	$ 8,694,745
State	$ 1,962,514	$ 2,099,886	$ 1,990,375	$ 2,342,060	$ 4,017,769	$ 12,412,604
Local	$ 814,037	$ 2,643,729	$ 2,723,899	$ 3,621,039	$ 2,400,000	$ 12,202,704
TOTAL BY FISCAL YEAR	$ 6,584,251	$ 5,678,615	$ 5,394,319	$ 9,235,099	$ 6,417,769	$ 33,310,053

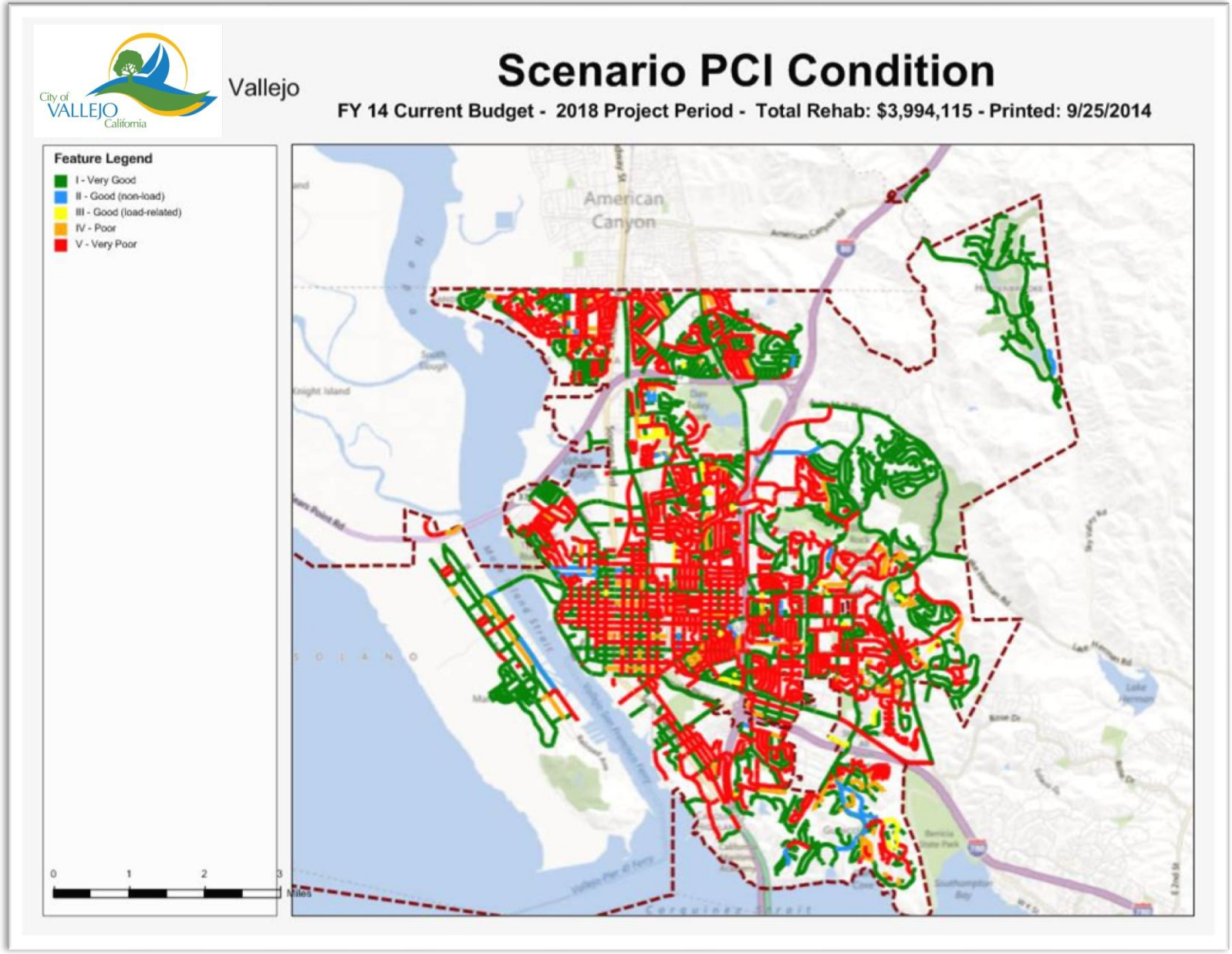
EXPENDITURES	FY 09	FY 10	FY 11	FY 12	FY 13	TOTAL
Maintenance and Operations						
Pavement	$411,690	$85,000	$100,000	$85,000	$159,751	$ 841,441
Non-Pavement	$991,500	$855,000	$845,000	$844,000	$3,858,018	$ 7,393,518
Capital Improvement Program						
Reconstruction	$ 2,787,700	$ 281,765	$ -	$ -	$ 700,000	$ 3,769,465
Overlay	$ 1,577,537	$ 1,046,700	$ 1,711,096	$ 2,692,330	$ 642,603	$ 7,670,266
Preventive Mair	$ -	$ -	$ -	$ 2,508,250		$ 2,508,250
Non-Pavement					$ 1,057,397	
TOTAL BY FISCAL YEAR	$ 5,768,427	$ 2,268,465	$ 2,656,096	$ 6,129,580	$ 5,360,372	$ 22,182,940

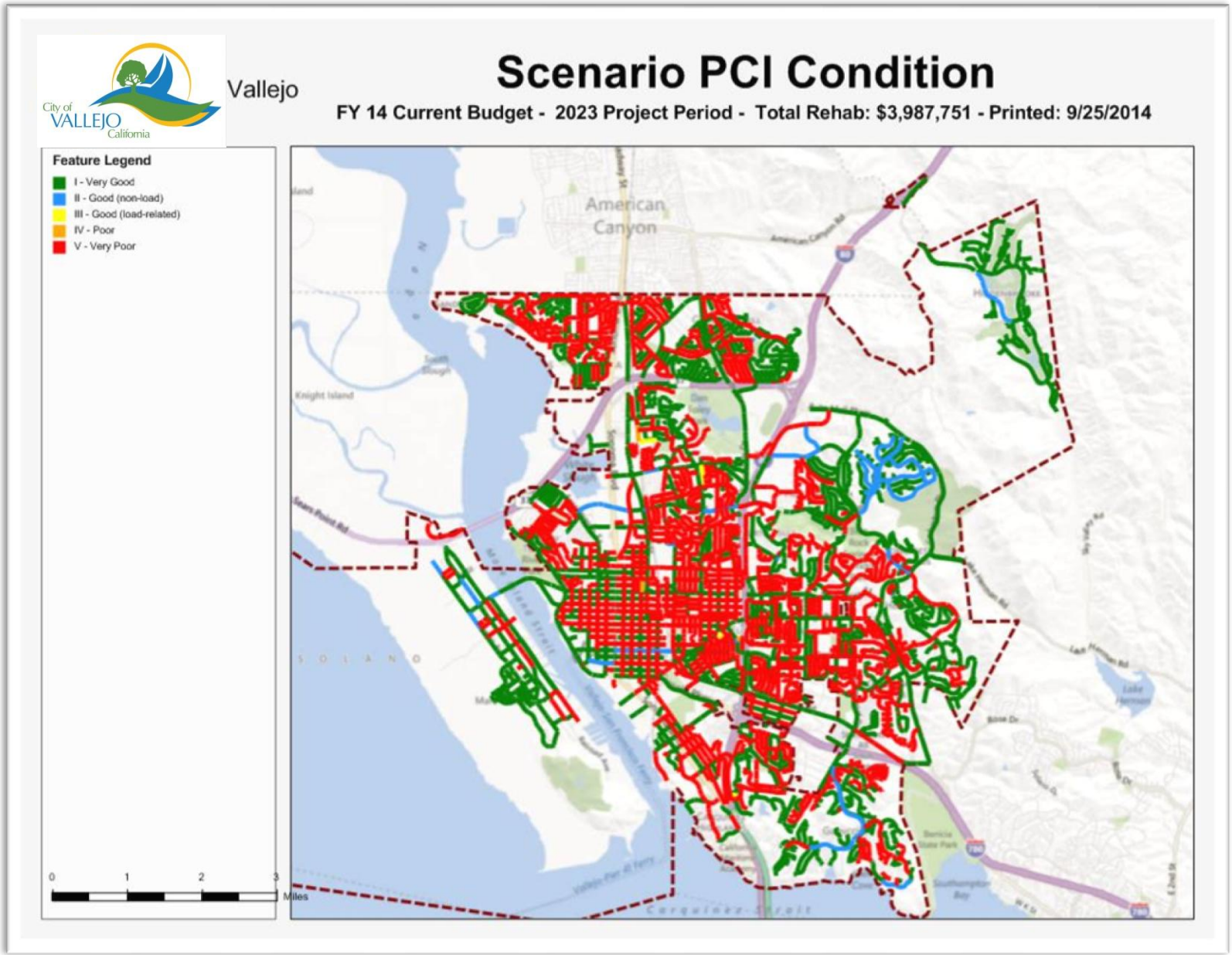
SUMMARY						
TOTAL REVENUES	$ 6,584,251	$ 5,678,615	$ 5,394,319	$ 9,235,099	$ 6,417,769	$ 33,310,053
TOTAL EXPENSE	$ 5,768,427	$ 2,268,465	$ 2,656,096	$ 6,129,580	$ 5,360,372	$ 22,182,940
DIFFERENCE	$ 815,824	$ 3,410,150	$ 2,738,223	$ 3,105,519	$ 1,057,397	$ 11,127,113

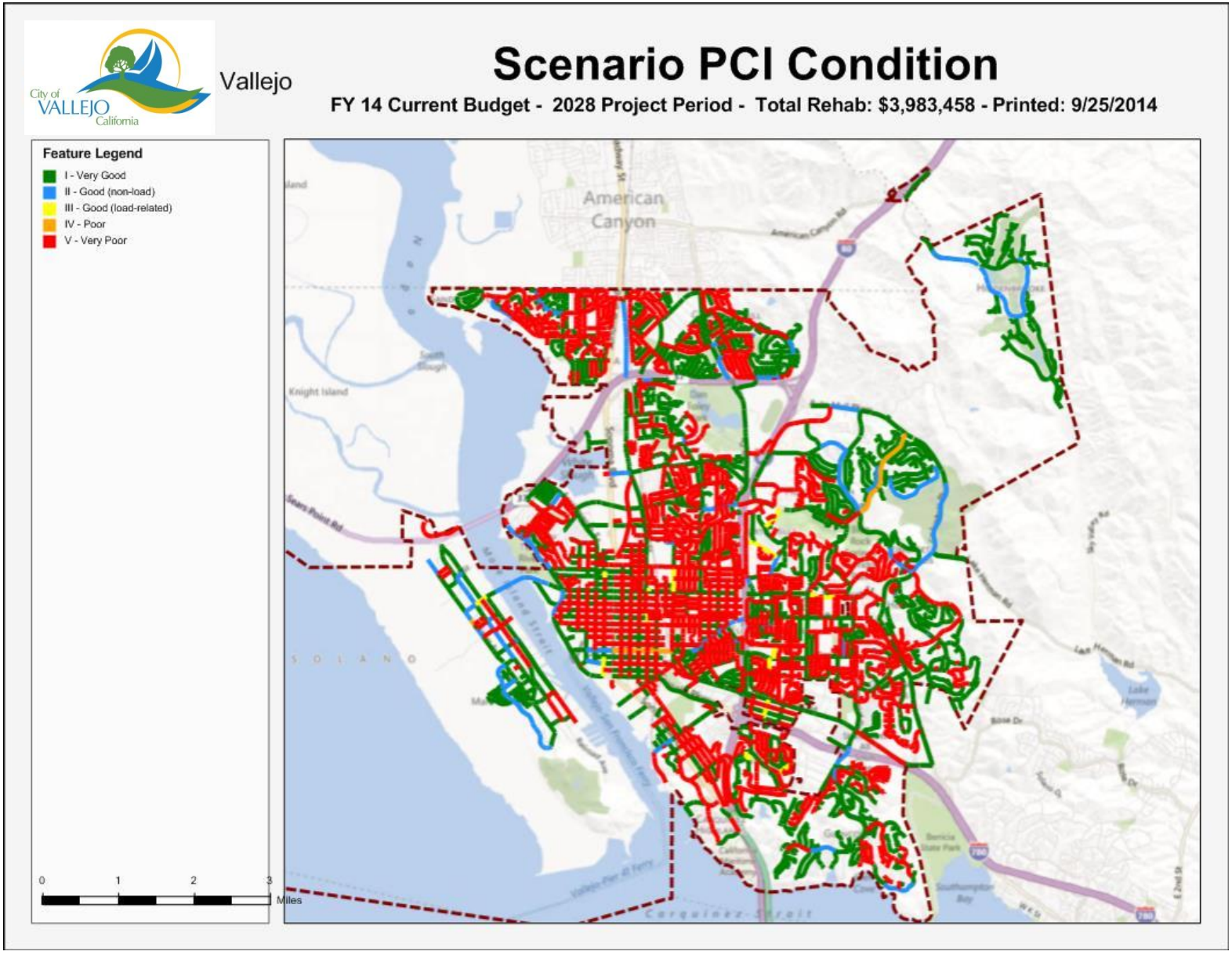
What will Vallejo's Streets look like in the Future using Current Budget Scenarios?

The PCI maps below illustrate what streets currently look like and will look like, using current budget scenarios, today (2014), 4 years out (2018), nine years out (2023) and 14 years out (2028).




Vallejo
Scenario PCI Condition
FY 14 Current Budget - 2018 Project Period - Total Rehab: $3,994,115 - Printed: 9/25/2014
Feature Legend
I - Very Good
II - Good (non-load)
III - Good (load-related)
IV - Poor
V - Very Poor
0
1
2
3
Miles
American Canyon


Vallejo
Scenario PCI Condition
FY 14 Current Budget - 2023 Project Period - Total Rehab: $3,987,751 - Printed: 9/25/2014
Feature Legend
I - Very Good
II - Good (non-load)
III - Good (load-related)
IV - Poor
V - Very Poor
American Canyon
Knight Island
SOLANO
0
1
2
3
Miles


Vallejo
Scenario PCI Condition
FY 14 Current Budget - 2028 Project Period - Total Rehab: $3,983,458 - Printed: 9/25/2014
Feature Legend
I - Very Good
II - Good (non-load)
III - Good (load-related)
IV - Poor
V - Very Poor
American Canyon
Knight Island
SOLANO
0
1
2
3
Miles

15 year pavement cost projections (2014 to 2028)

9/17/2014

	2014, 15-year Needs			2028, current budget results			2028, PCI of 60		2028, cost effective conditions	
		Needs (unlimited money)			Current Budget		Maintian PCI at 60		PCI 75	
Agency	PCI 2013	Needs	Deferred	PCI 2028	Cost	Deferred	Cost	Deferred	Cost	Deferred
Benicia	58	$ 49,771,088	$ 17,563,675	44	$ 10,350,000	$ 65,931,838	$ 24,834,468	$ 44,123,270	$ 40,831,434	$ 17,524,329
Dixon	76	$ 23,625,919	$ 5,543,770	56	$ 4,065,000	$ 30,431,006	$ 14,219,443	$ 34,591,773	$ 23,746,492	$ 13,327,526
Fairfield	68	$ 192,512,541	$ 67,608,611	39	$ 26,250,000	$ 297,512,980	$ 129,816,962	$ 135,070,378	$ 161,656,678	$ 71,663,485
Rio Vista	58	$ 8,008,413	$ 3,657,695	44	$ 2,067,000	$ 6,602,621	$ 3,767,747	$ 4,994,321	$ 5,962,663	$ 2,070,118
Suisun	56	$ 60,720,711	$ 24,716,118	47	$ 18,000,000	$ 88,625,992	$ 38,690,186	$ 64,754,759	$ 64,959,090	$ 26,205,009
Vacaville	69	$ 183,760,909	$ 38,210,247	52	$ 75,000,000	$ 180,424,152	$ 119,082,979	$ 127,897,261	$ 169,080,190	$ 43,883,072
Vallejo	47	$ 523,009,729	$ 330,850,661	41	$ 63,750,000	$ 646,297,600	$ 273,551,051	$ 578,983,039	$ 461,907,128	$ 94,558,146
County	77	$ 201,434,130	$ 21,703,930	67	$ 109,275,000	$ 129,104,553	$ 72,068,098	$ 234,030,689	$ 133,823,919	$ 37,740,609
Countywide	65	$ 1,242,843,440	$ 509,854,708	49	$ 308,757,000	$ 1,444,930,741	$ 676,030,934	$ 1,224,445,490	$ 1,061,967,594	$ 306,972,294

		Current Budget	Maintain PCI at 60		PCI 75	
	Annual Needs (unlimited money)	Per Year	More $/yr	ROI by 2028	More $/yr	ROI by 2028
Benicia	$ 3,318,073	$ 690,000	$ 965,631	$ 7,324,100	$ 2,032,096	$ 17,926,075
Dixon	$ 1,575,061	$ 271,000	$ 676,963	$ (14,315,210)	$ 1,312,099	$ (2,578,012)
Fairfield	$ 12,834,169	$ 1,750,000	$ 6,904,464	$ 58,875,640	$ 9,027,112	$ 90,442,817
Rio Vista	$ 533,894	$ 137,800	$ 113,383	$ (92,447)	$ 259,711	$ 636,840
Suisun	$ 4,048,047	$ 1,200,000	$ 1,379,346	$ 3,181,047	$ 3,130,606	$ 15,461,893
Vacaville	$ 12,250,727	$ 5,000,000	$ 2,938,865	$ 8,443,912	$ 6,272,013	$ 42,460,890
Vallejo	$ 34,867,315	$ 4,250,000	$ 13,986,737	$ (142,486,490)	$ 26,543,809	$ 153,582,326
County	$ 13,428,942	$ 7,285,000	$ (2,480,460)	$ (67,719,234)	$ 1,636,595	$ 66,815,025
Countywide	$ 82,856,229	$ 20,583,800	$ 24,484,929	$ (146,788,683)	$ 50,214,040	$ 384,747,853

Example, Benicia ROI by 2027 for PCI 75

Deferred 2027 Current		$ 65,931,838	
Deferred 2027 PCI 75	-	$ 17,524,329	
Reduced Deferred Costs		$ 48,407,509	(Benefit)
Cost PCI 75		$ 40,831,434	
Cost 2027 Current	-	$ 10,350,000	
Additional Investment		$ 30,481,434	(Cost)
Reduced Deferred Costs		$ 48,407,509	
Additional Investment	-	$ 30,481,434	
		$ 17,926,075	(BCA)

By investing $29M more, Benicia saves $48M, for an ROI of $17.9M.

"Every trip begins and ends with local streets and roads"