

CITY OF
Marshall
MICHIGAN



2014 Road Report

Background

The 2014 Road Report marks the sixth year that the City of Marshall has published information concerning the local road system. The City of Marshall maintains over 40 miles of roadway under two classifications. The majority of these roads are known as “local” and are generally made up of residential streets. “Major” roads typically have higher traffic volumes and are eligible for state and federal grant money. Figure 1 shows the location of these classifications. There have been no changes to the system since last year.

The City of Marshall has been using a software program called RoadSoft since 2005 to create an asset management database. RoadSoft is a graphically designed integrated roadway management system developed for Michigan's local agency engineers and managers to use in the analysis and reporting of roadway inventory, safety, and conditional data. Roadsoft is provided free of charge from the Local Technical Assistance Program (LTAP).

Methodology and Analysis

One of the goals identified by City Council has been to preserve, rehabilitate, maintain, and expand all city infrastructure assets. Last year the city was able to utilize the Michigan Department of Transportation – Small Urban grant program to complete a project on Hughes Street from S. Marshall Avenue to S. Kalamazoo Avenue and Jones Street from Hughes Street to Circle Drive. The Small Urban grant program pays for 80% of eligible construction cost on eligible major roads. As a correction to the 2013 report, approximately \$408,000 was added to the Major Streets investments in 2013. This was due to the completion of the Mansion Street reconstruction project from Verona Road to N. Kalamazoo in August of 2013 and was included in the 2013 ratings. The 2014 local road investment is from the rehabilitation of Division Street from Mansion Street to Forest Street which was included in this year's ratings. Due to the City's fiscal year beginning in July of each year and the construction season typically spanning the entire summer this report and future road reports expenditures will be reported based on calendar year.

Staff completed the 2014 local road rating in September and the major road rating in October with the help of MDOT and Kalamazoo Area Transportation Study (KATS) (figure 2). The major street system is eligible for Federal aid, and to remain compliant, the system must be rated in this manner every two years. Since the last rating cycle, both of the road systems saw a decrease in the average remaining service life (RSL). **Figure 3 shows the average RSL over the past seven years. The major and local streets system demonstrated an RSL of 2.65 years and 1.76 years respectively.** The goal of both of the road systems is to maintain a RSL of four or better.

Figure 4 shows the past investments that the City of Marshall has made in road infrastructure. Comparing Figure 3 and 4 give a pretty good indication of the impact of dollars spent and corresponding impact on RSL. For example, 2011 and 2012 saw increased spending on the local street system which resulted in a steep increase in the

RSL. Additionally, the RSL may be impacted by factors outside the control of the City like weather.

Major Streets

Figure 5 shows the percentage of miles rated excellent, good, fair and poor as collected over the past eight years for major roads. In the past year, the system has shown an increase in roads rated fair and poor. Like it was stated above, this year, the major street system was rated using the help of outside agencies. This new process may be the cause of some of the observed changes. The City of Marshall continues to utilize the Michigan Department of Transportation Small Urban grant program to fund capital improvements on the major street system, like that accomplished on Mansion Street and Hughes Street in the past few years. The following is a list of prioritized projects which have been proposed in the Capital Improvement Plan:

1. Monroe Street from S. Marshall Avenue to Locust
2. North Drive from N. Kalamazoo Avenue to Brewer Street
3. Eagle Street from Green Street to Mansion Street
4. Jefferson Street from Green Street to Mansion Street
5. North and East Drives from Madison Street to Michigan Avenue

Projects 1 and 2 will be completed during fiscal year 2016 with the help of the Small Urban Program at a cost of \$468,750. The program will pay for 80% of the construction cost.

Local Street

Figure 6 shows the percentage of miles rated excellent, good, fair, and poor as collected over the past eight years for local roads. In general, the system saw increases in the poor rated roads likely due to the harsh 2014 winter and the fragile nature of the road system. Only one project was completed last year which took place on Division Street. The remaining bond revenue of \$467,000 has been planned to be expended on the planned FY 2015 projects listed below. The report recommends the following projects which have been proposed in the Capital Improvement Plan:

Fiscal Year 2015

- N. Madison Street from Michigan Avenue to North Drive
- Maple Street from Washington Street to Montgomery Street
- Washington Street from Maple Street to dead end

Fiscal Year 2016

- W. Green Street from S. Kalamazoo to Dobbins Street
- Arms Street from Fountain Street to Mid-block

Fiscal Year 2017

- Gorham Street and Liggett Road
- Crackfill approximately 7.5 miles of road.

Fiscal Year 2018

N. Liberty from Michigan Avenue to Forest Street

Locust Street

Recommendation

The Roadsoft is designed to predict the impacts of certain funding levels if maintained over a span of time. Figure 7 shows the anticipated RSL for the next ten years if no investment was made versus an \$80,000 annual investment on the major street system. Figure 8 shows the anticipated RSL on the local street system if no investment was made compared to the impacts of a variety of different financial investments being made over the next ten years.

Staff's recommendation is that the funding levels in the major streets system continue to fluctuate in order to provide matching resources toward MDOT small urban program grants. Typically, this requires \$132,000 in matching funds biannually. Staff also recommends that the funding level in the local street system be increased to \$250,000 over the next ten years due to the rising cost of construction.

If you have any questions about this information, please feel free to contact me by e-mail at cfedders@cityofmarshall.com or by telephone at (269) 781-3985.

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Figure 1:
City of Marshall - 2014 Road Report - Road Classification

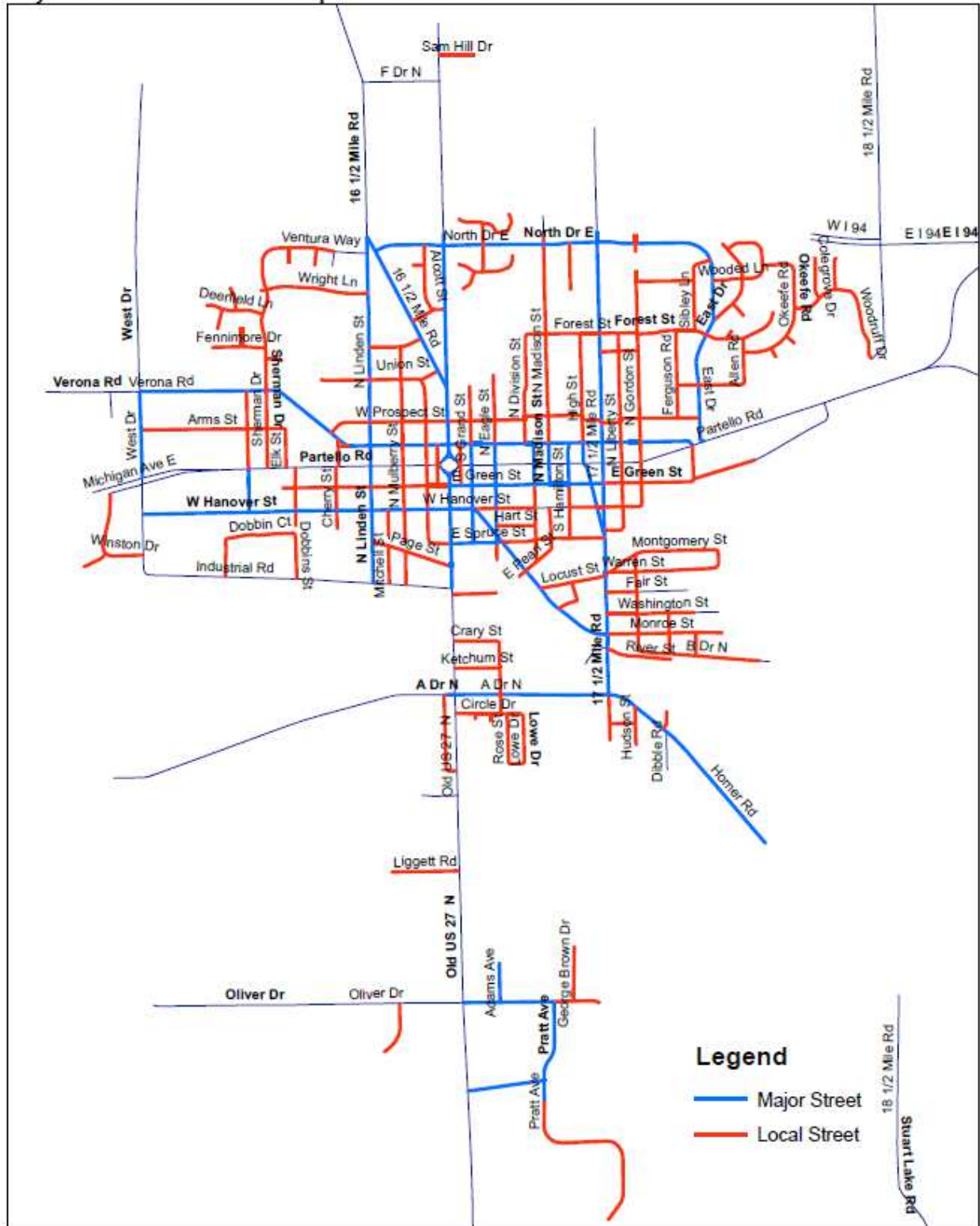


Figure 3: Observed RSL

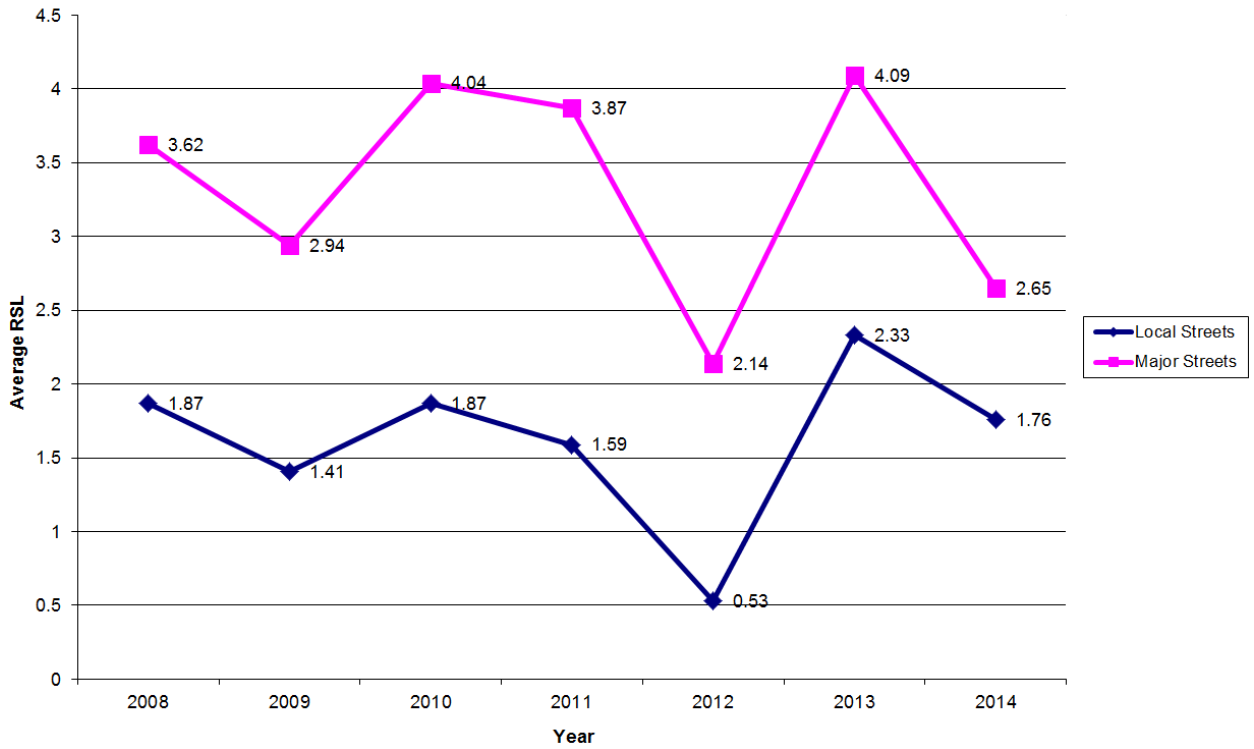


Figure 4: Past Investment
(does not include new road construction)

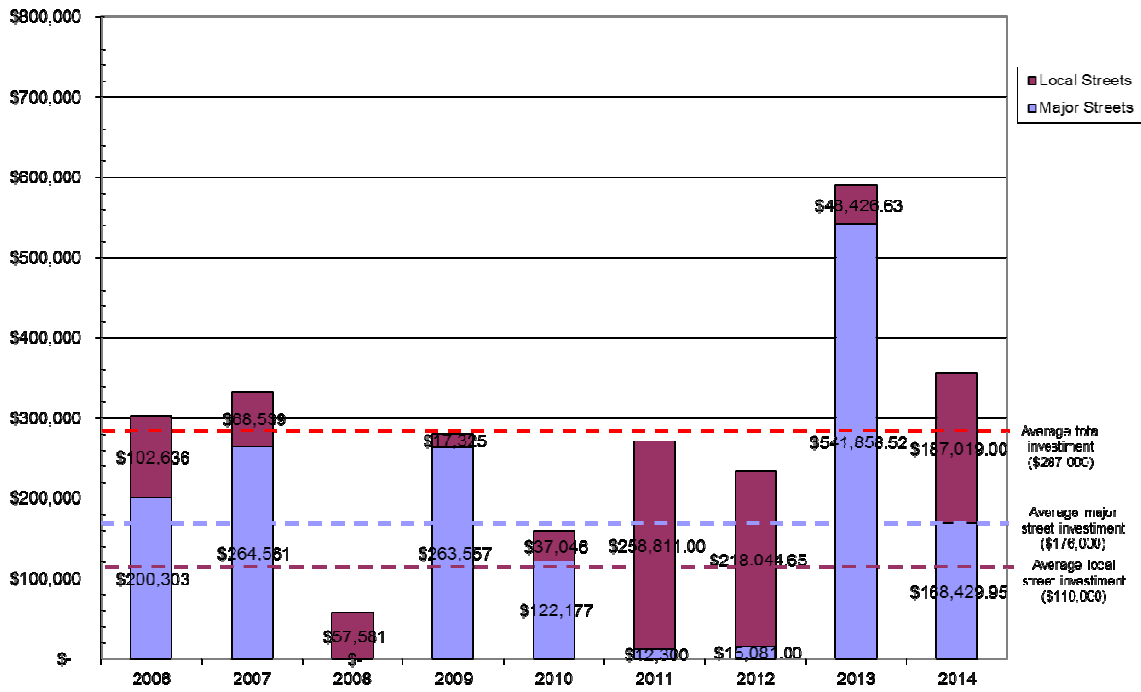


Figure 5: Major Street System Condition

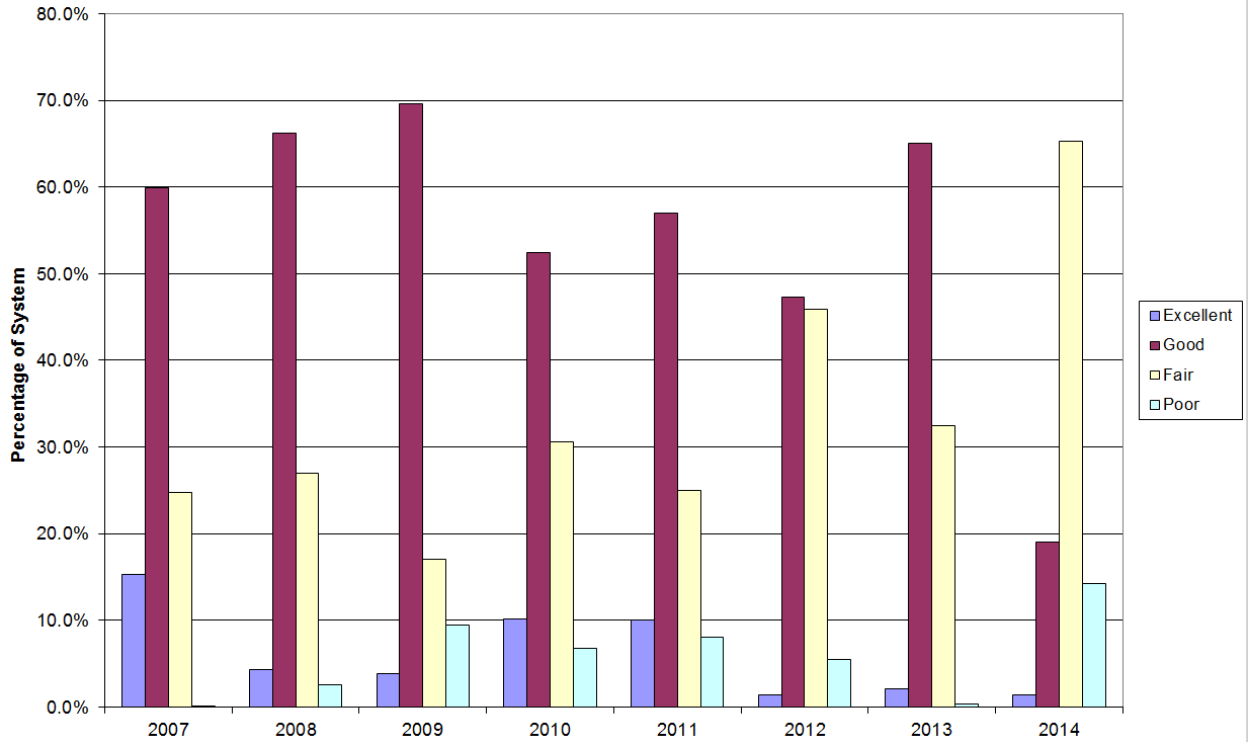


Figure 6: Local Street System Condition

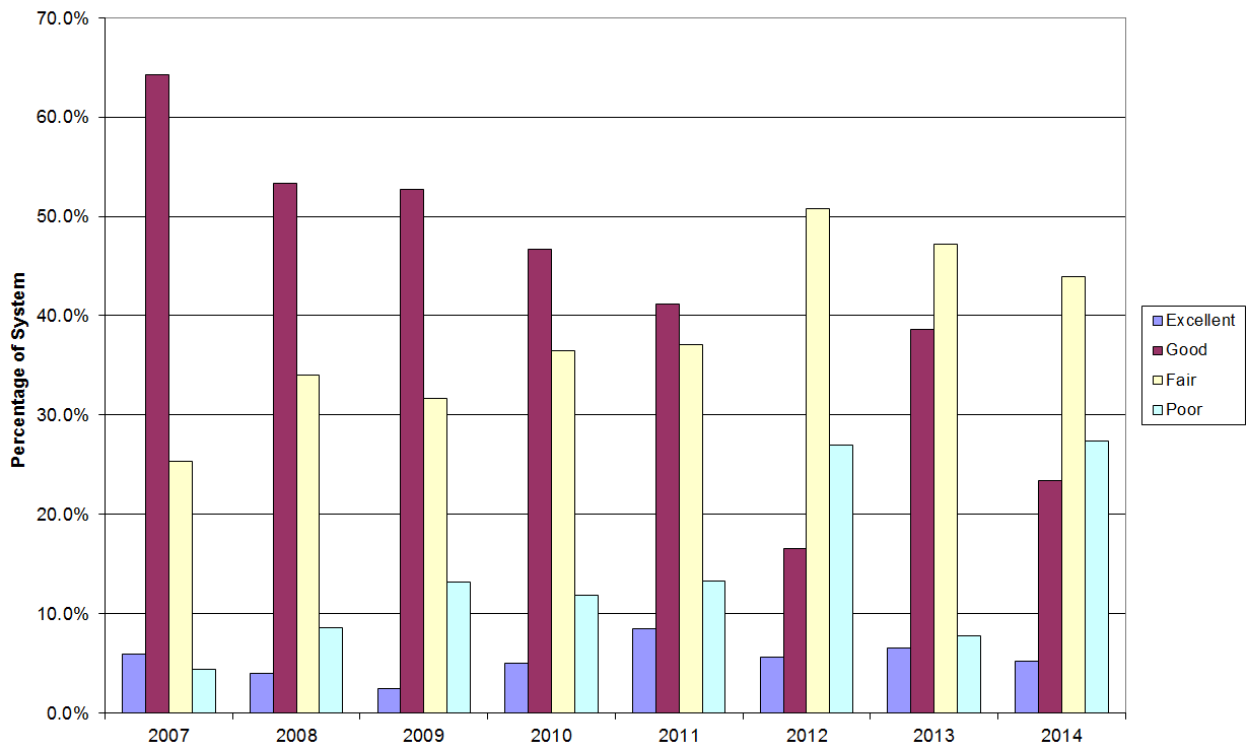


Figure 7: Major - RSL

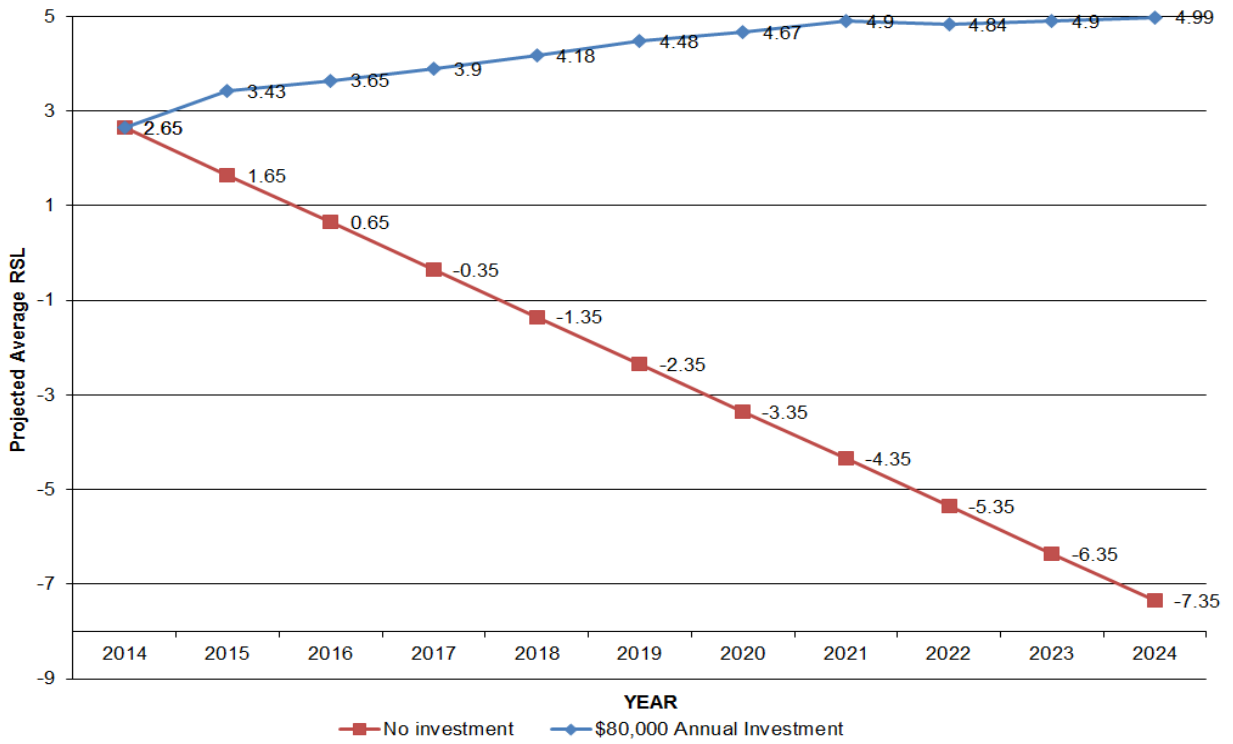


Figure 8: Local - RSL

