



Land Use & Natural Resources Committee

Meeting Date: April 6, 2023

Agenda Item No. 4

2025 Blueprint Pathways: Pavement Cost Estimates

Information

Prepared by: Sam Shelton

Attachments: Yes

Approved by: Clint Holtzen

Referring Committee: Not Applicable

1. Issue:

The purpose of this item is to provide an overview how the 2025 Blueprint Pathways land use assumptions in combination with pavement deterioration and cost data provide a long-term look at future pavement maintenance and rehabilitation costs.

2. Recommendation:

That the committee participate in the staff presentation by engaging in a conversation about the Pathway findings related to long-term pavement maintenance and rehabilitation costs, including policy implications and regional priorities for developing a 2025 Blueprint that advances the Triple Bottom Line goals for equity, economy, and environment.

3. Background/Analysis:

SACOG is undertaking an update to its long-range transportation and land use plan, the 2025 Blueprint. For each Blueprint update, SACOG prepares a forecast of regional growth in population, employment, and households. The Blueprint must make a set of assumptions around the amount, location, and nature of that growth through 2050. To assist with these discussions, SACOG is developing three Pathways for future growth including Pathway 1: Outward Expansion and Limited Infill; Pathway 2: Balance Infill and Phased Expansion; and Pathway 3: Focused Infill and Limited Expansion.

- Pathway 1: Outward Expansion and Limited Infill explores a future where the majority of future growth occurs via expansion outward in greenfield developing communities. It will provide the most large-lot single-family and rural residential housing and the least amount of infill growth.
- Pathway 2: Balanced Infill and Phased Expansion explores a future where some growth is accommodated via outward expansion, but most growth will occur in infill areas through revitalization of existing communities. The spatial distribution and housing product types in this pathway most resemble the adopted 2020 MTP/SCS, updated per current conditions.
- Pathway 3: Focused Infill and Limited Expansion explores a future where the vast majority of growth occurs in infill areas with expansion only occurring in greenfield developing communities that were already under construction in 2022. Compared to the other two pathways, this pathway provides the most new small-lot and attached housing and the most amount of growth through infill and

redevelopment.

The board will ultimately use these pathways to inform the Final Preferred Pathway that will balance the region's mobility needs with the realities of limited future dollars.

In March 2023, SACOG staff reviewed how [Pathway land use assumptions](#) outline diverging futures for the geographic distribution and the type of growth the region may experience between now and 2050. Between March and June, SACOG staff will present how each pathway performs across a series of metrics. This month, staff is presenting the committee with a review of future pavement maintenance and rehabilitation costs across distinct future pathways.

4. Discussion/Analysis:

It is most cost-effective to preserve and maintain roads in good condition before they deteriorate or fail and require more extensive rehabilitation or reconstruction. Today, our region's public works and transportation staff fight an uphill battle with constrained funding sources to maintain what we have. At the same time, they are also expected to expand the system as the region grows and find funds to maintain those new miles of roadway.

As part of this item in April, staff will lead a discussion of the challenges of maintaining what we have while exploring the maintenance costs of each Blueprint Pathway's expanded roadway system. This evaluation will include a review of the current state of roads and highways in the region, including existing maintenance needs, as well as a look ahead to future costs as they relate to the land use pathways presented to the committee in March.

Below are some of the key policy topics staff will discuss with the committee based on an evaluation of regional pavement conditions and future growth. Staff is seeking committee member reactions, questions, and direction to guide future policy conversations about prioritizing system maintenance investments at both the regional and local scales for the 2025 Blueprint.

Key Policy Issues:

- Our current regional network of roads and highways is deteriorating faster than we can keep up with the growing costs of maintaining those facilities. While there is variation across the region, with roadways in some jurisdictions fairing better than others, this general trend in deterioration is concerning. Overall, the region's roadway conditions at a county level fell from "good" or "fair" ratings to "at risk" or "poor" ratings between 2008 and 2020 based on Pavement Condition Index (PCI) scores compiled for the region. Pavement Condition Index is a common measurement of pavement condition that provides a snapshot of the pavement health of a particular roadway. A roadway's PCI is measured on a scale of 0 to 100, where 100 represents a newly paved road and scores below 25 mean a roadway is in a failed condition. The declining conditions of our roadways today are a strong signal for the challenges the region will continue to face in the coming decades.
- Poor to fair pavement conditions today, combined with system expansion in the future can result in significant additional costs for some jurisdictions looking to add additional roadway capacity to accommodate new growth areas. In some circumstances an outward growth trajectory that brings new and expanded roads into service can increase maintenance costs by up to three times that of a future that focuses more on infill or limited outward development.
- The current 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy includes a local

roadway maintenance total budget of \$6.4 billion which already falls short by between \$400 to \$500 million per year of projected needs. Funding at the current plan's level may slow deterioration of the region's pavement conditions on average but is insufficient to turn the corner on improving the conditions of the region's roadway network.

- The region needs nearly double the maintenance and rehabilitation investment compared to what SACOG estimated would be available in the 2020 MTP/SCS to improve the condition of local roadway pavement to a state of good repair where only the most cost-effective treatments would be required to maintain the system over time.
- The expansion of the roadway system into flood or fire prone areas to accommodate new growth comes with additional risk and potential costs particularly for more rural communities in unincorporated parts of the region. Approaches to providing roadway improvements in these areas for the purposes of improving emergency response and evacuation planning should be considered carefully when those improvements also facilitate additional housing or job growth that could expose more people and property to the risks of flood or fire events.
- Growth and investment in infill areas can increase the utilization of existing roadways, thus adding to the wear and tear on these facilities that may already be declining due to limited maintenance funding today. It will be important to consider how growth within the current developed footprint in the region will affect existing communities, particularly those communities that are particularly vulnerable following decades of underinvestment.

As noted above, staff will dive deeper into these topics at the committee's April meeting with more detail on SACOG's evaluation of the region's existing roadway conditions and these conditions may change over time and under the different growth patterns described in the Blueprint Pathways. For initial reference, the table on the following page includes estimated current pavement conditions by jurisdiction using data SACOG collected or extrapolated from recent local pavement surveys.

While this month's analysis is focused on pavement conditions and repair costs, in future months, staff will provide performance metric results related to air quality, transportation, public health, and many others.

Sacramento Region, Current Pavement Conditions

Jurisdiction	Pavement Condition Index	
City of Auburn	61	At Risk
City of Citrus Heights	53	At Risk
City of Colfax	50	Poor
City of Davis	57	At Risk
City of Elk Grove	77	Good
City of Folsom	75	Good
City of Galt	79	Good
City of Isleton*	61	At Risk
City of Lincoln	75	Good
City of Live Oak*	71	Good
City of Loomis	62	At Risk
City of Marysville*	50	Poor
City of Placerville*	50	Poor
City of Rancho Cordova	68	At Risk
City of Rocklin	78	Good
City of Roseville*	71	Good
City of Sacramento	59	At Risk
City of West Sacramento	55	At Risk
City of Wheatland	55	At Risk
City of Winters*	61	At Risk
City of Woodland	70	Good
City of Yuba	65	At Risk
County of El Dorado	67	At Risk
County of Placer	70	Good
County of Sacramento	48	Poor
County of Sutter*	50	Poor
County of Yolo	50	Poor
County of Yuba*	61	At Risk

*Survey Data from 2020 when 2023 StreetSaver data was not available

5. Fiscal Impact/Grant Information:

Pathways are one component of the 2025 Blueprint Plan Update. The Blueprint is funded by a combination of sources including Federal Metropolitan Planning funds, state Sustainable Communities Formula Program Funds, and Transportation Development Act-Local Transportation Funds. The Placer County Transportation Planning Agency and El Dorado County Transportation Commission also provide some funding to SACOG to support development of the Blueprint to assist with the planning activities, data development, and analysis that is necessary to ensure coordination and consistency between the regional plan and the county-level Regional Transportation Plans.