

Blueprint Pathways Summary

To better understand how the land use and transportation decisions we make today will affect the future and to help identify strategies that can remain durable across a range of futures despite changing and disruptive uncertainties, SACOG is undertaking a scenario planning effort, referred to as Pathways, as part of the process for the Blueprint. Pathways will provide the analysis and metrics that will serve as a learning tool for unpacking the many complex and intersecting issues facing the region over the next three decades around housing and land use, transportation management, regional growth, environmental resources, economic development, systemic racial disparities, and climate change and resilience. The three Pathways described below are intended to allow for comparison of a wide range of futures, focusing primarily on how land use pattern and transportation system investments/programs interact to contribute to or detract from the Triple Bottom Line goals endorsed by the SACOG board in the Policy Framework for the Blueprint. These pathways are not constrained to a specific budget to better reflect the region's appetite for transportation investment. The board will ultimately use these pathways to inform a Final Preferred Pathway that will balance the region's mobility needs with the realities of limited future dollars.

Pathway 1: Outward Expansion and Limited Infill

Land Use

- Pathway 1 builds on the land use trends over the last two decades and expands the footprint of the region outwards through significant lower density growth in developing communities and rural residential areas.
- Compared to the other two pathways, this pathway provides the most large-lot single-family and rural residential housing and the least amount of infill growth.
- This pathway will maintain the relative proportion of housing and jobs that the region is adding in infill areas (centers and corridors and established communities) relative to developing communities and rural residential communities. This pathway will use that proportional growth share as a starting point and further expand outward to reflect new transportation investments in outlying areas that would encourage additional growth in developing or greenfield areas.
- Growth in infill areas will largely consist of already approved projects and vacant lots. Developing community and rural residential growth would be oriented around existing developing community specific plans/master plans and in undeveloped lands adjacent to the large auto-oriented transportation investments included in the pathway.

Transportation

- Pathway 1 will provide more emphasis on widening or expanding the regions roads and highways to accommodate the travel needs of the expanded footprint.
- This pathway has less expansion of transit than the other pathways, due to the more dispersed land use pattern. Transit service will focus on coverage rather than frequency.

- Bicycle and pedestrian facilities will focus more on connecting developing communities to existing networks rather than a focused investment on improving existing communities and corridors.
- Expanding roads and highways will be the primary approach to meeting mobility needs with an expanded carpool lane network and wider local arterials. Some carpool lane conversion to priced facilities or higher occupancy limits (HOV 3+) will be expected where demand degrades the performance of the carpool lane.

Pricing

- Fuel taxes have been the primary source of funding for transportation capital improvements and repairs. Given the uncertainty in federal and state fee structure and external forces impact on driving cost such as fleet fuel efficiency, autonomous vehicles, and automobile electrification; all pathways will replace gas tax reliance with a mileage-based fee structure and maintain revenue neutral levels to match today. As part of our work on Pathways, SACOG will conduct additional pricing sensitivity tests for all pathways to understand how these forces may impact transportation costs, fee structures and travel patterns.

Pathway 2: Balanced Infill and Phased Expansion

Land Use

- Pathway 2 uses the key land use metrics from the 2020 MTP/SCS to create a land use forecast updated per current conditions.
- In this pathway, the amount of infill, redevelopment, and housing product type splits will fall somewhere between Pathway 1 and Pathway 3.
- In the 2020 MTP/SCS, roughly 65 percent of new housing and 85 percent of new jobs were located in infill areas (centers and corridors/established communities) and roughly 73 percent of new homes were either small lot single-family or attached products. In Pathway 2, these splits will be carried forward, recognizing that the community type level allocation in the 2025 Blueprint will be updated per current conditions and a new regional growth projection.

Transportation

- This pathway will maintain the transportation project list from the 2020 MTP/SCS and will make updates based on completed or modified projects in local jurisdiction capital improvement programs and planning documents.
- The transportation investment strategies from the 2020 MTP/SCS will be carried forward, other than the project modifications described above.
- New roadways or transportation investments may be included where the growth pattern has shifted since the adoption of the current plan to accommodate changes in the community type level allocation of growth.
- This pathway will focus on bus and rail projects and will increase transit service primarily through increases in vehicle service hours.
- The region's priced High Occupancy Toll Lane network will be more contiguous, addressing more than where demand degrades the performance of HOV lanes.

Pricing

- Fuel taxes have been the primary source of funding for transportation capital improvements and repairs. Given the uncertainty in federal and state fee structure and external forces impact on driving cost such as fleet fuel efficiency, autonomous vehicles, and automobile electrification; all pathways will replace gas tax reliance with a mileage-based fee structure and maintain revenue neutral levels to match today. As part of our work on Pathways, SACOG will conduct additional pricing sensitivity tests for all pathways to understand how these forces may impact transportation costs, fee structures and travel patterns.

Pathway 3: Focused Infill and Limited Expansion

Land Use

- Pathway 3 will explore a future in which the vast majority of future growth occurs in infill areas (centers and corridors and established communities). Growth in developing communities will be limited to areas that are already under construction as of January 2020. This pathway is intended to explore the performance implications of a future that significantly departs from today's land use trends and would not necessarily be bound by requirements of a Sustainable Communities Strategy.
- 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.
- Growth in infill areas will consist of already approved projects, vacant lots, and significant redevelopment of underutilized commercial corridors oriented around the transportation investments included in the pathway.

Transportation

- Investments in road or highway widening or expansion projects will address extreme bottlenecks and congestion. This pathway will prioritize operational and non-single occupancy vehicle solutions to meet the region's mobility needs.
- Transit will focus on high quality and high frequency service in productive corridors rather than coverage. Coverage will be supplemented by on-demand micro transit services, focused on transfers to the high-frequency network at multimodal mobility hubs.
- Bicycle and pedestrian facilities will fully connect existing communities through an integrated bike and trail network.
- This pathway will also include a regional managed lane system with multi-lane express lanes facilities to improve congestion management and transit reliability.

Pricing

- Fuel taxes have been the primary source of funding for transportation capital improvements and repairs. Given the uncertainty in federal and state fee structure and external forces impact on driving cost such as fleet fuel efficiency, autonomous vehicles, and automobile electrification; all pathways will replace gas tax reliance with a mileage-based fee structure and maintain revenue neutral levels to match today. As part of our work on Pathways, SACOG will conduct additional pricing sensitivity tests for all pathways to understand how these forces may impact transportation costs, fee structures and travel patterns.

Major Indicators to Evaluate Performance of Pathways

Example Pathway Performance Indicators		Equity	Economy	Environment
Land Use and Housing Metrics	Share of homes in infill areas (centers and corridors/established communities) vs developing communities/rural residential areas	X	X	X
	Share of homes in locally adopted Green Zones		X	X
	Share of homes that are small lot single family or attached vs large lot or rural residential	X	X	X
	Share of attainable housing units (small lot or attached) in high opportunity areas	X		
Access to Employment Activities	Jobs within 30-minute drive or transit ride of homes		X	X
	Jobs within 30-minute drive or transit ride of homes in environmental justice areas	X	X	X
	Average vehicle miles traveled per worker to jobs centers			X
Road & Highway System	New or Expanded Major Road Lane Miles		X	
	Roadway Investment and maintenance Costs		X	
Safety	Roadway accident frequency and severity	X	X	
Transit System	Transit Weekday Service Hours	X		
	Total number and share of homes near high-frequency transit	X		X
	Total number and share of jobs near high-frequency transit	X	X	X
Travel Choice and Traffic	Share of commute trips by transit, bike or walk to jobs centers	X		X
	Mode share for transit, walking and bicycling	X	X	X
	Vehicle miles traveled in heavy congestion per capita	X	X	X
VMT	Household VMT (total, per capita)	X	X	X
	Roadway VMT (total, per capita)			X
	Congested Household VMT (total, per capita)		X	
	Congested Roadway VMT (total, per capita)		X	
Health & Emissions	Weekday passenger vehicle CO2 emissions			X
	Percent change per capita Green House Gas from 2005			X
	Criteria Pollutants for ambient air quality (PM10, PM2.5, etc.)	X	X	X
	Walk and Bike minutes (total, per capita)	X		X

	Transportation Noise Level Exposure	X		X
--	-------------------------------------	---	--	---