



# Strategic Assessment Phase II: Scenario Analysis

*Corvallis Area Metropolitan Planning Organization*

## Executive Summary

The Corvallis Area Metropolitan Planning Organization (CAMPO) completed a planning process called Strategic Assessment, which estimated the travel and emissions likely to result if the region implements its currently adopted plans. Scenario Analysis is the second phase of that process, intended to provide an in-depth analysis of specific land use and transportation policies choices that the region can consider when updating local and regional plans. Through estimating outcomes from these policy choices, both in isolation and in combination relative to current adopted regional plans, the report identifies the value of potential actions across an array of indicators. Using ODOT's Regional Strategic Planning Model (RSPM), the analysis explores the interactions of land use and transportation policies, and highlights the benefits of implementing complementary policies in the CAMPO region. The RSPM enables regions to evaluate the potential effects of policy choices and identify actions needed to meet greenhouse gas reduction targets and other regional planning goals.

Four scenario policy areas were identified by the CAMPO Policy Board and the scenarios were then refined by local planners using realistic funding assumptions. The results reflect the incremental nature of fiscally constrained actions, with the impacts shown in relation to the trend scenario of the 2040 adopted local and regional plans. The results of the analysis are viewed through an evaluation criteria framework consisting of indicators chosen to represent four issue areas of local importance.

### Evaluation Criteria:

- Greenhouse Gas Reduction
- Sustainability
- Public Health
- Equity

CAMPO identified the following four scenario policy areas to be investigated in the analysis:

### Land Use Changes

- Decrease development in central area and direct development to outer areas
- Increase development in central area
- Most new development is concentrated near alternative mode facilities
- New developments in form of mixed use

### Alternative Modes

- Expand transit service
- Expand bicycle & pedestrian facilities

### Parking Fee Changes

- Expand parking fee coverage areas
- Increase parking fees
- Cash-out parking programs

### Transportation Options

- Work based marketing programs
- Home based marketing programs
- Expand Car-sharing
- Telecommuting
- Transit Subsidies



## Findings

The findings show that if the proposed policies are pursued, the region will be better positioned to achieve its long term planning goals. While each of the policy options positively impact the evaluation criteria, impacts are relatively small when testing the individual policies in isolation. Combining supportive policies results in larger impacts on the evaluation criteria. The results range from up to 5% above adopted plans levels when policies are implemented in combination, while individual policies result in smaller changes. This illustrates the importance of combining supportive policies in order to gain the most benefit from investments.

Compact mixed use growth strategies supported by transit service are able to create walkable, bikeable destinations for obtaining goods and services, and can minimize the negative equity impacts of transportation policies that raise household transportation costs. Mixed use development and alternative mode investments are best complemented with supportive parking management and transportation options programs to shift travel to alternative modes. These supportive policies are especially effective and equitable when building upon the region's success in establishing a multi-modal area in central Corvallis, or extending it to other areas. Through enacting combinations of policies investigated in this analysis, the CAMPO region could experience many of the benefits provided by these types of policies.



**Corvallis Area**  
*Metropolitan Planning Organization*



**Oregon Department of Land  
Conservation and Development**

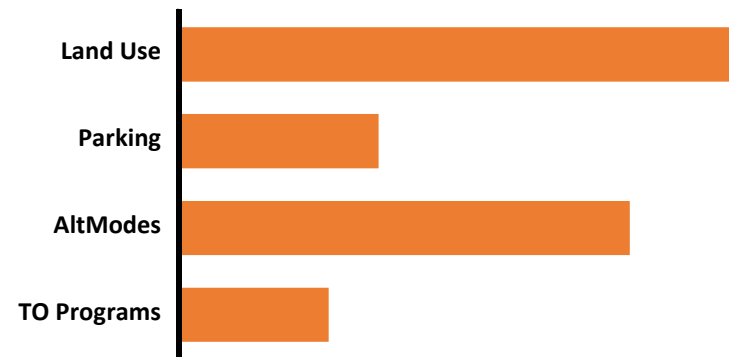
## Policy Considerations for Region

- **Compact mixed use development** reduces the distance that individuals travel to access daily needs.
- Transit enhancements have the greatest impact across each community goal area.
- **Pairing transit investments with mixed use** development results in the largest benefits.
- **Transportation and land use** investments in the city core provides the most benefit to lower income households.
- **Providing alternative modes** of transportation in parking fees areas reduces equity impacts.
- **Transportation Options programs** are most effective when targeted and combined with supportive policies.
- **Parking fees** have a larger benefit on goal areas when paired with residential parking permit programs.
- **Car share, compact mixed use growth, and transit policies** showed the largest reductions in auto ownership; parking policies had the least effect.
- **Scenarios that concentrate growth within the City of Corvallis**, result in a slight increase in benefits across all goal areas.

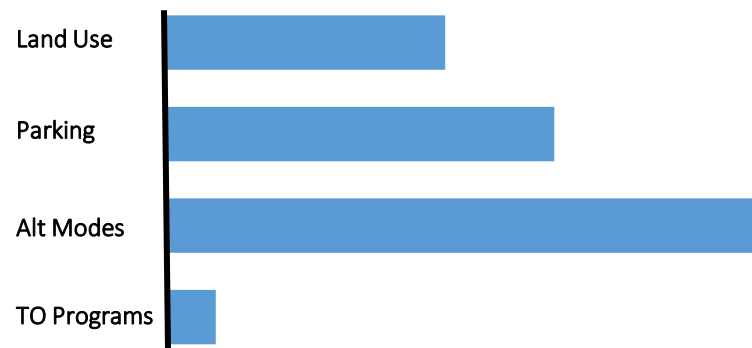
**GHG Reduction** - Reduce GHG Per Capita



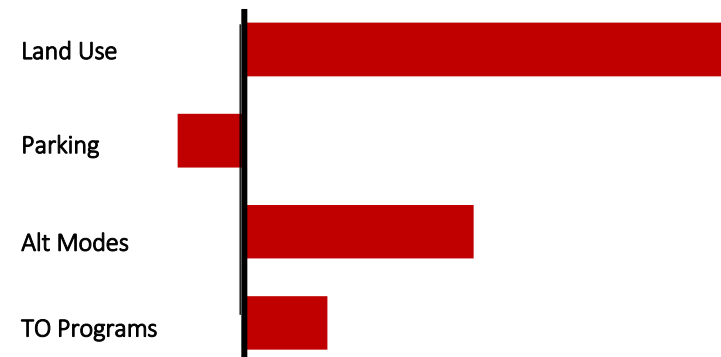
**Public Health** - Reduce Accidents Per Capita



**Sustainability** - Reduce Auto Delay Per Capita



**Equity** - Reduce Low Income Travel Costs



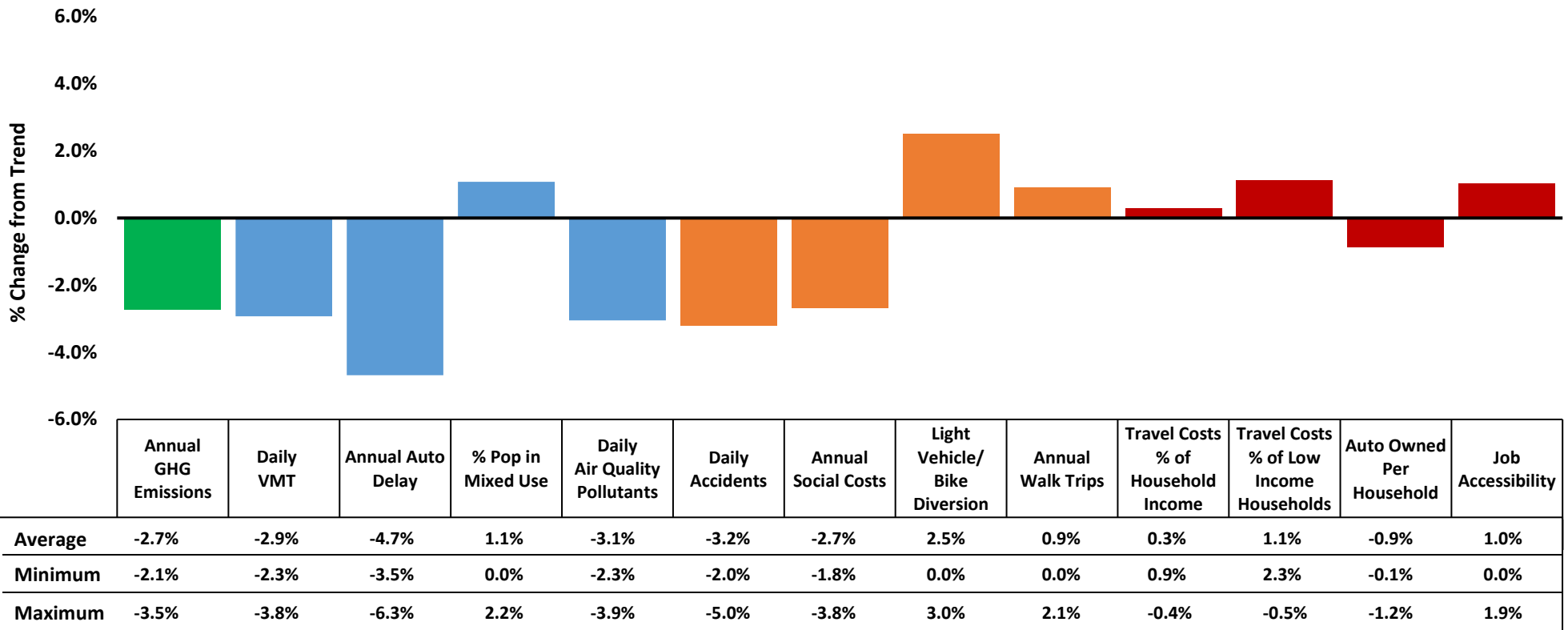
## Maximum Impact of Policies

The charts above show the relative impact of the policies on the evaluation criteria; GHG reduction, Public Health, Sustainability, and Equity. A single representative indicator has been chosen to best represent each evaluation criteria category. The bars show the policy within that category with the most impact (e.g., transit vs. bike policies under alternative modes). These charts identify where each policy category has the most impact in reaching the desired outcome. For example, when considering equity, land use changes do the most for reducing low income travel costs, followed by alternative modes (transit, bikes and car share), and transportation options programs.

## Scenario Bundle Findings

The CAMPO TAC developed five scenario bundles to test the impacts of implementing combined policies. Testing of scenario bundles allows for the synergistic effects of complementary policies to be better understood. The findings demonstrate that impact of each scenario bundle is greater when compared to the impacts of any one policies in isolation, indicating that complementary policies provide greater benefits and that the region can combine complimentary policies to more efficiently achieve its planning goals. The scenario bundles are organized around a land use scenario with various complementary transportation policies applied. Each policy bundle moved the needle in the right direction for each of the evaluation criteria, with the exception of equity. The average impact, including minimum and maximum impact, or the scenario bundles are presented in the chart below. See the final report for more information on specific scenario bundles and associated outcomes.

### Average Impact of Scenario Bundles Relative to 2040 Trend Scenario



\* Average represents the average impact across the five scenarios, minimum is the scenario with the lowest impact, and maximum is the scenario with the greatest impact.