

# Summary

*Making the Land Use, Transportation, Air Quality Connection* (LUTRAQ) is a national demonstration project to develop alternative suburban land use patterns and design standards, and to evaluate their impacts on automobile dependency, mobility, air quality, and energy consumption.

Using the proposed Western Bypass freeway around the Portland, Oregon metropolitan region as a case study, the LUTRAQ project has, to date, successfully identified alternative land use patterns that have significantly less than average reliance on the automobile, and developed transportation modeling procedures to forecast travel behavior associated with these land use patterns.

This report contains a description of the land use, transportation, and demand management elements of the LUTRAQ alternative to the proposed Western Bypass freeway.<sup>1</sup>

The chapter on the land use element of the alternative, which follows, consists of an explanation of the concept of transit-oriented development (TOD), the TOD-based land use plan developed for the study area, and applications of the TOD concept to two illustrative sites. The hallmark of the TOD concept is the focusing of future development around transit stations in mixed use, pedestrian designed environments. Although the TODs proposed in the land use element are moderately dense, the market research conducted for the LUTRAQ study indicates that these densities are no higher than a number of developments already built in the study area. Hence, the real focus of the land use element is the location and design of the moderate density land uses that are expected to occur in the study area anyway.

Chapter 2, focusing on the transportation element of the alternative, outlines improvements proposed for the study area's transportation system, including rail transit and selected highway improvements, all of which are already in the Portland region's approved Regional Transportation Plan. The transportation element also includes express and feeder bus service, demand responsive transit, and a series of bicycle and pedestrian facility improvements.

The LUTRAQ demand management element, which is described in Chapter 3, was developed by the Oregon Department of Transportation (ODOT). It consists of a modest charge for parking at workplaces in the study area, combined with the provision of free transit passes to all employees working in the study area.

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<sup>1</sup> The material in this volume was previously presented in *The LUTRAQ Alternative/Analysis of Alternatives: An Interim Report*, along with travel behavior data on the LUTRAQ alternative, as well as several other alternatives. This data has been replaced with new and more complete information about the travel, air quality, greenhouse gas, and energy consumption consequences of the LUTRAQ and other alternatives. The new data is presented in 1000 Friends of Oregon, *Making the Land Use, Transportation, Air Quality Connection*, Vol. 5, *Analysis of Alternatives* (Portland, Oregon, 1996).

Together, these three elements—transit/pedestrian oriented land uses, transit/bicycle/pedestrian improvements, and transportation demand management—represent a strategy to accommodate projected growth, improve quality of life, and allow for continued economic vitality.