

# Oregon Greenhouse Gas Reduction Toolkit: Strategy Report

## OREGON SUSTAINABLE TRANSPORTATION INITIATIVE



## Parking Management

This report highlights parking management strategies to balance parking supply and demand, minimize parking impacts, and encourage alternative modes of transportation to support greenhouse gas (GHG) reduction goals.



### What is it?

Adjusting the supply of parking in a downtown, corridor or other designated area to accomplish specific planning objectives is often referred to as parking management. Too much parking, particularly surface lots, uses valuable land and can result in widely-spaced and disconnected development patterns. A shortage of parking can result in parking spillover to adjacent areas and may inhibit development, or lead travelers to choose other destinations where parking is more readily available. Furthermore, a lack of parking time limits or enforcement may result in commercial district spaces being occupied by employees, rather than shoppers.

Parking management encompasses a variety of strategies used to influence travel behaviors by managing parking supply and demand. These strategies may include:

- » Implementing and enforcing parking time limits
- » Adopting shared parking provisions
- » Limiting off-street parking supply by decreasing minimum parking standards and instituting parking maximums
- » Providing parking at the “fringe” of a retail or business district rather than the center

Many local governments focus on the off-street parking requirements in their zoning code to determine if the required ratios are resulting in an over- or under-supply of parking. The Proper Parking guidebook<sup>1</sup> provides useful guidelines for recalibrating parking ratios for different land uses in your community to ensure a balance of supply and demand. Parking management strategies are typically most effective in communities with a healthy retail core and/or a viable transportation alternative (transit or biking system, for example).

### How well does it work?

As with many GHG reduction strategies, the effectiveness of parking management will depend on the scale and aggressiveness of the program and how it is bundled with other strategies such as parking pricing and increased transit availability. Managing the supply of parking in a downtown core has been shown to reduce vehicle miles traveled by 5-12 percent<sup>2</sup> (associated GHG reductions were not calculated). The ODOT Toolkit Database<sup>3</sup> shows a relatively low reduction percentage for parking management strategies (0.2%) by the year 2030. However, the Moving Cooler report<sup>4</sup> indicates that the effectiveness of parking management at reducing GHG emissions, while negligible in the short term, increases over time as users adjust to the program.

1 Proper Parking: A Guide to Effectively Managing Parking in Your Community. Oregon Department of Land Conservation and Development, Transportation Growth Management Program and RWC Consulting. April 2013.

2 Climate Smart Communities: Scenarios Project, Strategy Toolbox for the Portland Metropolitan Region. Metro, Portland, Oregon. August 2011.

3 Transportation and Land Use Greenhouse Gas Reduction Toolkit Database, Oregon Department of Transportation, 2011. <http://www.oregon.gov/ODOT/TD/TP/pages/database.aspx>

4 Moving Cooler: An Analysis of Transportation Strategies for Reducing Greenhouse Gas Emissions. Cambridge Systematics, Inc. Urban Land Institute, July 2009.

## How can it benefit my community?

- » Less land devoted to parking means more land available for economic development and public spaces.
- » Successful parking management can help reduce congestion in corridors, central business districts, employment areas and retail centers.
- » Parking management programs will support transit use and other alternative transportation modes such as carpooling, biking and walking.
- » Managed parking can help specific users park close to their destination.

## What does it cost?

The costs of creating a parking management program include up-front planning and implementation, continued administration and operations, and enforcement. Estimated funding required to implement a parking management program will depend on its scale and particular components. As a general rule, the costs of implementing a program will, in the long term, be offset by the savings associated with less land, curb space, construction and maintenance needed for parking facilities.

Expenses associated with not managing the parking supply are often passed on indirectly. Shoppers who must circle to find on-street parking near their destination may not return, hurting businesses, and by extension, city tax revenue. Residential areas, such as those adjacent to universities or central business districts, may suffer from drivers seeking free parking on neighborhood streets. In addition, an oversupply of parking can result in indirect costs related to more impervious surface, stormwater treatment, sprawling land use patterns and reduced efficiency of transit, biking and walking.

## Where has it been used?

- » The City of Hillsboro completed a downtown parking study in 2010 to determine if their required parking standards were appropriate. The study included an assessment of on- and off-street parking supply, peak parking occupancy and occupied building area, and estimated parking demand. Using this information, the city was able to determine where existing parking requirements were too high or too low and adjust them accordingly. Their code now includes parking minimums and maximums, particularly for mixed-uses and areas that are well-served by transit. These areas now have reduced parking standards “...because of the increased availability of alternative modes of travel and in recognition that increased density of residential and pedestrian-oriented commercial uses makes less space available for parking in these areas.”<sup>5</sup> Shared parking is encouraged for all uses and required under certain circumstances. More information is available at: <http://www.ci.hillsboro.or.us/Planning/HTMLzoneVOL2/ZORD2Section137.XI.aspx>
- » The City of Eugene has a downtown parking management program that includes time-limited free parking in designated areas, free parking on evenings and weekends in certain parking structures, and shuttle service between a large parking structure and a nearby arena for events. The city’s website provides more information: <http://eugene-or.gov//index.aspx?NID=778>
- » Olympia, Washington has parking management programs for certain residential areas, the downtown, and the capitol campus area. The programs involve a combination of pricing strategies as well as non-pricing strategies such as enforced time limits and a free shuttle that travels between popular destinations to encourage “park once” behavior and transit use. Read more at: <http://olympiawa.gov/city-services/parking.aspx>.

## Where can I learn more?

- » Proper Parking: A Guide to Effectively Managing Parking in Your Community. (See Footnote #1)
- » Moving Cooler: An Analysis of Transportation Strategies for Reducing Greenhouse Gas Emissions (See Footnote #4)
- » Parking Management Comprehensive Implementation Guide. [http://www.vtppi.org/park\\_man\\_comp.pdf](http://www.vtppi.org/park_man_comp.pdf)
- » Parking Management and Supply: Traveler Response to Transportation System Changes. [http://www.tcrponline.org/bin/doc-distr.cgi/TCRP\\_RPT\\_95c18.pdf?cat\\_id=23&pop\\_mode=false](http://www.tcrponline.org/bin/doc-distr.cgi/TCRP_RPT_95c18.pdf?cat_id=23&pop_mode=false)

*The Toolkit is a component of the Oregon Sustainable Transportation Initiative (OSTI), which was formed to address the requirements of Senate Bill 1059 (2010).*

*For more information, please visit:*

<http://cms.oregon.gov/ODOT/TD/TP/pages/ghgtoolkit.aspx>



<sup>5</sup> Hillsboro Zoning Ordinance No. 1945, Volume II, Section 137, Subsection XI: Minimum and Maximum Off-Street Parking Requirements. Website: <http://www.ci.hillsboro.or.us/Planning/HTMLzoneVOL2/ZORD2Section137.XI.aspx>