

# FY 2010 RESEARCH PROBLEM STATEMENT

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## TITLE

**PROTECTING FREIGHT MOBILITY INVESTMENTS**

## PROBLEM (Description of need)

Freight is economic activity in motion. Commodities (and labor) flow from location to location to "add value" and either move on to further value-added processing or enter markets as finished goods. These commodities flow via diverse transportation networks to local, regional, national and international destinations. Protecting these multi-billion dollar public and private freight mobility investments is crucial to not only Oregon's but to the nation's economy.

Oregon, Washington, and California are faced with declining revenues and constrained budgets yet each state must protect and enhance its transportation network investment. Impacts to Oregon's freight system are operational (congestion and bottlenecks on its state highway freight routes and national highway system; managing rail system capacity), and infrastructure (deteriorating rail bridges and the need for 286,000-lb rail corridors), and land use issues (right-of-way and at-grade crossings) along its rail freight corridors.

From a land use perspective freight infrastructure has many of the benefits and challenges of industrial lands. In recent years many local jurisdictions have developed land use tools and policies to establish "industrial sanctuaries". The concept of industrial sanctuaries acknowledges that industrial uses have specific economic and material benefits to the community, region, and nation. These uses generally have environmental impacts such as noise, traffic, air quality, noise and vibrations, and light or glare that are not considered compatible with most residential, or light commercial designations. The state's and nation's freight transportation networks (including rail lines and heavy truck routes) provide similar benefits with comparable impacts to industrial uses.

One major difference between industrial lands and the freight system is that freight infrastructure is linear, and may cross jurisdictional boundaries. Additionally, while the owners of, and investors in, industrial lands are primarily private entities, the freight transportation system is often financed with public funds, and owned by public agencies. These public works projects are often expensive to build, and given the time and costs involved, the full use and efficiencies of such facilities should be protected.

Previous studies have focused on project or mode specific analysis for defined solutions for freight movement impacts, such as quiet zones for rail, or the impacts of sound walls on highways. No comprehensive review of land use and operational policies has been conducted that focuses on the preservation of freight capacity. This research is specifically important where local land use decisions and urban growth patterns threaten the state's investments in transportation infrastructure.

## PROPOSED RESEARCH, DEVELOPMENT OR TECHNOLOGY TRANSFER ACTIVITY

### **Truck Corridors and Truck-Only Lanes**

Provide an analysis of truck only lanes and truck corridors in Oregon, Washington, and California to determine if truck only lanes are viable and cost efficient. Under what conditions would it be beneficial to institute truck only lanes? Review the criteria used by WA and CA to categorize a highway as a truck corridor and to implement truck only lanes. Determine if truck only lanes help to alleviate congestion and increase capacity? Are truck only lanes a cost effective way to reduce congestion? If so, where and how have truck only lanes proven beneficial to the freight transportation network? Maintenance of truck only lanes is a significant financial impact. Are other states using alternative construction standards for truck only lanes?

**Preserving Rail Corridors for Future Use**

In some instances a decline in economic activity may jeopardize the short-term viability of an existing rail corridor, however long-term economic growth may result in the need to reestablish rail in the corridor to serve specific industrial operations or to meet trans-loading and rail yard requirements. This research component would explore options for preserving rail corridors for future needs and efforts to prevent their loss to non-rail/non-industrial activities that would prevent future rail service restoration.

**Freight and Land Use**

This research project will develop a set of land use and transportation operational practices that may be implemented through local agency zoning or state law that will protect a state's investment in freight infrastructure. These practices may include land use buffering, minimization of at grade crossings, and the integration of transportation infrastructure as a component of land use plans. The primary focus of practices identified by this project will be to protect the investment the state makes in freight infrastructure.

**BENEFITS**

Increased efficiency and preservation of the state's transportation system including land use guidelines to further protect the state's investment in freight mobility. The state's investment in freight mobility supports economic development and continued regional and national economic competitiveness. State, local and national agencies will be able to use the results of this project to update and modify policies and practices to maximize the economic and social return on this type of public investment.

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