

Project Title: Intermodal Optimization for Economically Viable Integration of Surface and Waterborne Freight Transport

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Project Summary:

Economically Competitive Intermodal Integration of Surface and Waterborne Freight Transport Assets:

Currently, U.S. economy is reenergizing its domestic manufacturing infrastructure and continuing sustainable growth in agriculture commodities and other products destined for export. In the US and around the globe the efficient delivery of goods and services is a key factor in economically competitive markets and quality of life. From 1960s-1990s timely capital investments were made in transportation infrastructure (e.g., the US Interstate and national highway systems, freight rail system, airport hubs, coastal ports). This efficient freight transportation network in North America led to a global competitive edge for many decades. Locks and dams on the inland waterways are past or near their 50-yr design life. Currently, these transportation infrastructure systems are aging, not being expanded and modernized at a rate comparable to those of other global competitors, and in addition economic competitiveness is diminishing. Global supply chain and inventory management system stakeholders (e.g., Walmart), global manufacturing industries (e.g., Caterpillar), and freight logistics companies depend on a smooth seamless flow of freight through interconnecting shipping ports, airports, rails, and roads. These modes operate independently in the US with no operational integration, except some rail and road intermodal transport terminals. One freight mobility area for economically competitive markets that can benefit tremendously from intermodal integration is the efficient freight transport through seamless connectivity among surface transport (rail for long-haul and road for short-haul trucks), inland waterways, and marine ports.