The Importance of Waterborne *Building Block* Commodities to the American Economy

The Shallow Draft Inland Waterways System

Including the:

Mississippi River System

Gulf Intracoastal Waterway & Connecting Waterways

Columbia River System

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Maritime Administration
U. S. Department of Transportation
Washington, DC 20590

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Executive Summary

Over the past several years much has been written and much analysis has been done regarding the throughput of the national Inland Waterways System. In this document, the Maritime Administration, assisted by Linare Consulting, provides a fresh look at the *building block* nature of the commodities that rely on our waterway transportation system. By *building block* we mean that the commodities that move on the waterways are of a basic and fundamental nature. Consequently, the economic universe to which these commodities contribute is much broader than standard estimates often provide.

Simply stated, over 650 million tons of commodities move on the inland waterway system of the United States, yet this statistic does not reveal the true nature of the economic contribution that these products provide.

Our analysis indicates that the market value of the coal on the waterways is over $4.9 billion and there are more than 470,000 jobs directly or indirectly associated with this traffic. Grain moving on the system has a value of $9.6 billion and is tied to over 400,000 jobs. Waterborne petroleum and petroleum products are worth over $34 billion, while the value of waterborne chemicals is over $36 billion. The traffic in each of these two commodity groups is directly or indirectly associated with nearly two million jobs.

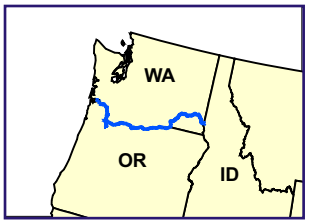
This investigation shows linkages between *building block* waterways traffic and the industries that they serve. It reinforces the concept that the waterway system of the United States is a critical part of a larger economic system that contributes billions of dollars to the economy in the form of value, employment and tax revenue.

Introduction

The shallow draft waterways system of the United States plays a major role in providing freight transportation service to the Nation and its industries and communities. Encompassing 9,000 miles of navigable channels on 23 separate waterways, this system handles over 650 million tons of commodities annually.

Traffic is loaded onto the shallow draft system in thirty-nine and is received in thirty-eight of the fifty states.

The Shallow Draft Inland Waterways System



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There are a variety of commodities, mostly bulk, transported in shallow draft vessels on the waterways. The leading commodity groups are:

Commodity Group	Avg Annual Tons (Millions)	Pct. Of Total
Coal	181	27.8%
Petroleum-based Fuels	125	19.2%
Minerals	109	16.8%
Grains & Agric. Products	85	13.1%
Chemicals Including Fertilizers	65	10.0%
Other	85	13.1%
Total	650	100.0%

Commodities moved on the waterways system are basic products of and inputs to the American economy. They are recognized as fundamental to industry and have been called *building block* commodities.

The Office of Ports & Domestic Shipping of the Maritime Administration, U. S. Department of Transportation, has commissioned Linare Consulting to conduct this research study to investigate the importance of certain waterborne *building block* commodities to the American economy.

In particular, this research project has investigated the following four commodities / commodity groups:

- Coal
- Petroleum & Petroleum Products
- Grains
- Chemicals

The analytic process involved the following steps:

- Computing average annual tons by commodity from U. S. Army Corps of Engineers Data.
- Applying commodity prices to obtain value of commerce (shipped and received) by commodity.
- Adjusting for imports and exports to obtain value of domestic production and consumption.
- Applying the economic analysis technique known as input-output analysis.
- Computing employment and economic output directly and indirectly associated with waterborne traffic.
- Documenting traffic patterns and results of the economic analysis for each commodity group.

Economic analysis was facilitated by use of the IMPLAN economic impact modeling package. IMPLAN uses input-output modeling techniques which trace inter-industry linkages (sales and purchases) among 505 industries which comprise the American economy. In this study IMPLAN was used to provide estimates of jobs, economic output, value added and tax payments directly and indirectly associated with production and consumption of commodities moved by water. More specifics on the analysis are provided in the Appendix.