



Inter State Large Navigable Rivers of the United States

REVIEW OF NORTH AMERICAN BASINS: GREAT LAKES AND MISSISSIPPI RIVER

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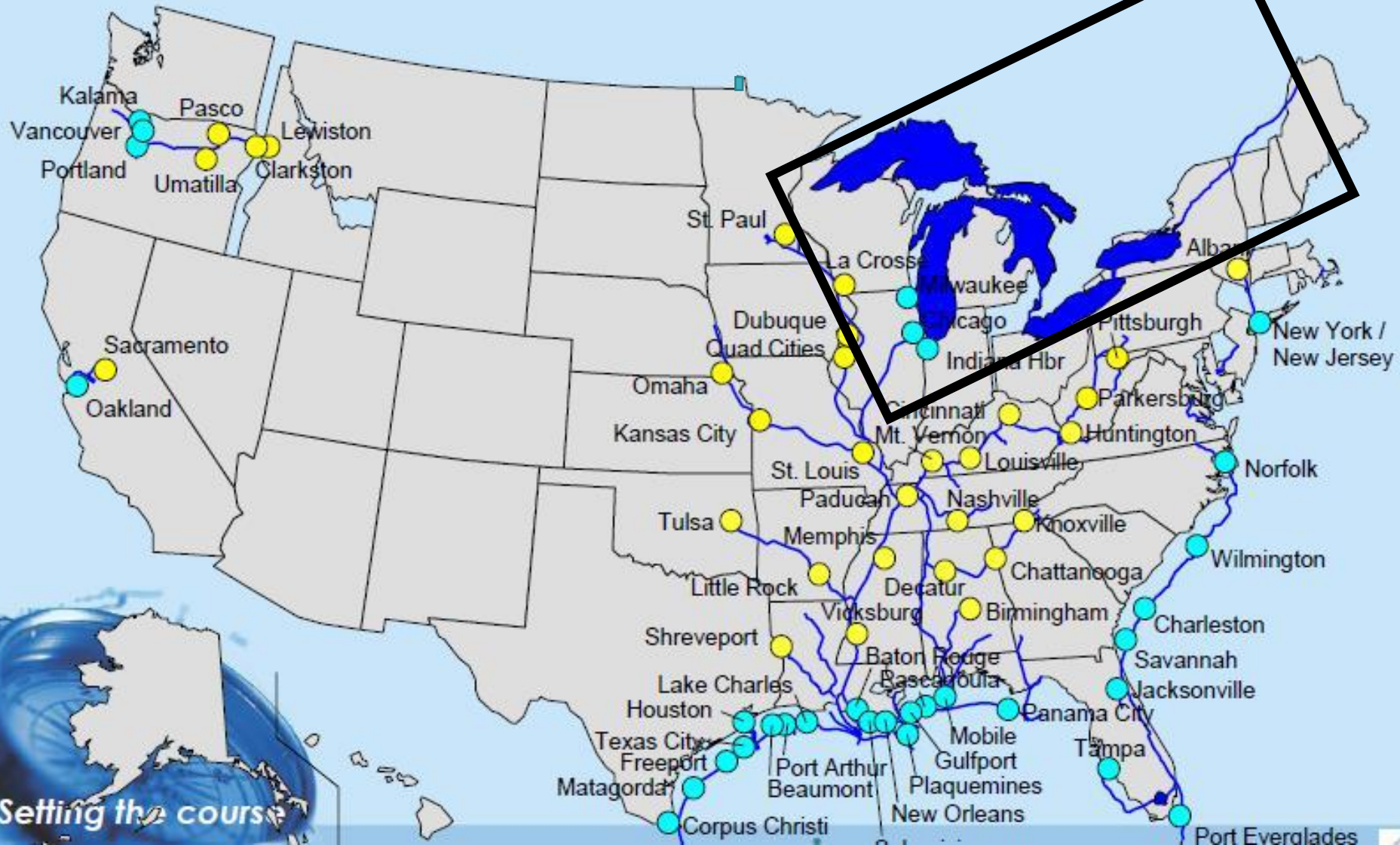
What I want you to learn from this presentation:

- Basins in North America are large in size and in numbers;
- Basins in North America cross state, regional and national boundaries;
- Governance over North American basins ranges widely;
- Sometimes interested stakeholder organizations can have as much influence as governance organizations;

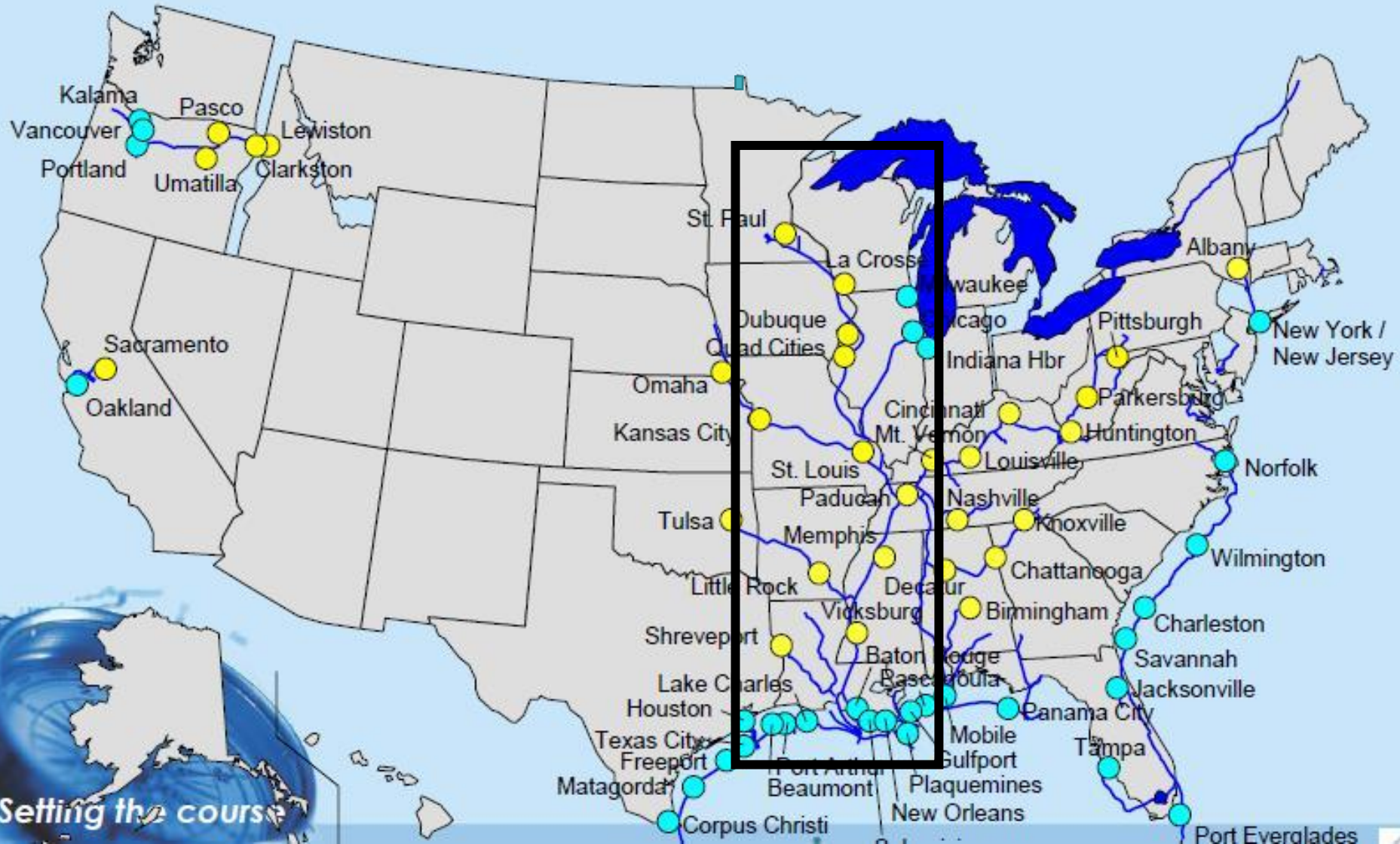


**NORTH AMERICAN BASINS ARE LARGE IN SIZE AND NUMBERS.
ALL OF THEM CROSS JURISDICTIONAL BOUNDARIES.**

GREAT LAKES / SAINT LAWRENCE RIVER

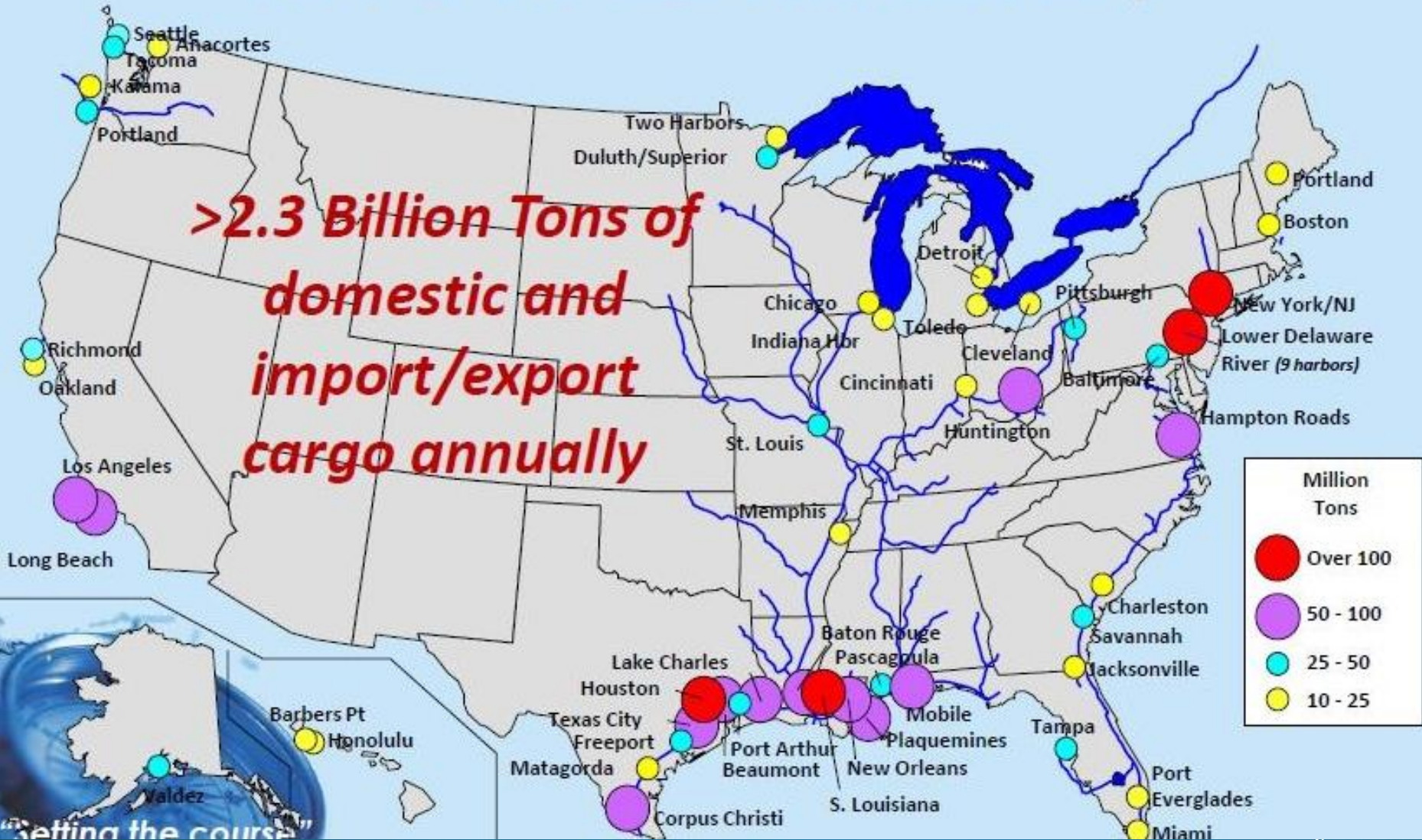


MISSISSIPPI RIVER BASIN



U.S. Ports and Waterways: Vital to our National Economy

**>2.3 Billion Tons of
domestic and
import/export
cargo annually**



GREAT LAKES ST. LAWRENCE RIVER BASIN



Includes: US states of Minnesota, Wisconsin, Illinois, Indiana, Michigan, Ohio, Pennsylvania, New York AND the Canadian provinces of Ontario and Quebec.



The Great Lakes Seaway
navigation system extends
2,300 MILES (3,700km)
from the Atlantic Ocean to
Duluth, Minnesota

Cargoes:

Coal
Iron Ore
Grain
Steel
Limestone
Containers
Project Cargo

ASPECTS: GREAT LAKES BASIN

- **One-fifth of all surface freshwater on planet Earth**
- **Waterway flows from west to east**
 - As it flows from its westernmost point in Duluth, Minnesota to the Atlantic Ocean, the waterway drops in elevation approximately 600 feet (182 m).
- **Locks and Channels**
 - Most of the waterway is naturally navigable but public works projects have been carried out by both the U.S. and Canada to construct channels and locks.
- **The Soo Locks**
 - Located at Sault Ste Marie, Michigan. Constructed by the U.S. Army Corps of Engineers to address a 21 foot (7 m) elevation change. 29.5 feet (9 m) deep. The Poe Lock is 1200 feet (366 m) long, 110 feet (34 m) wide, and 32 feet (10 m) deep.
- **St. Lawrence Seaway – Welland Canal Section**
 - Welland Canal was constructed by the Government of Canada and cuts across the Niagara Peninsula between Port Weller and Port Colborne, Ontario, a distance of 27 miles (43.4 km). The canal includes eight locks.
- **St. Lawrence Seaway – Montreal/Lake Ontario Section**
 - Completed in 1959 by the U.S. and Canadian governments. Seven navigation locks – five in Canada and two in the United States. Combined, locks lift or lower ships 243 feet (74 m).

GOVERNANCE and INTERESTS: Great Lakes / Saint Lawrence

- **State/Provincial**
- **US Government**
 - Saint Lawrence Seaway Development Corporation
 - US Army Corps of Engineers
 - US Coast Guard
 - Great Lakes Interagency Task Force
- **Canadian Government**
 - Saint Lawrence Seaway Management Corporation
 - Hydro Canada
 - Transport Canada
- **Transboundary**
 - International Joint Commission
 - Great Lakes Governors Association
 - Great Lakes Commission
 - International Association for Great Lake Research
- **Tribal**



The “Mighty Mississippi” flows through 10 US States.

The Mississippi Watershed covers 31 states and 2 Canadian Provinces.

Mississippi River



- The U.S. inland and intracoastal waterway system handles about 630 million tons of cargo annually, or about 17 percent of all intercity freight by volume
- Commodities include:
 - Coal
 - Petroleum-based products
 - Grains
 - Aggregates
 - Steel
 - Minerals
 - Dry bulks

ASPECTS: MISSISSIPPI RIVER BASIN

- North America's longest and largest river in terms of discharge , and the fifth largest discharge river worldwide;
- Mississippi flows 3,763 kilometers (2,333 miles) from Lake Itasca in northern Minnesota to its delta in southern Louisiana;
- River itself flows through 10 US states;
- Commercial navigation began in 1830s, USACE removed rock from the Des Moines (Iowa) and Rock Island (Illinois) rapids;
- Mississippi River watershed is the 4th largest in the world, extending from Allegheny Mtns to the Rocky Mtns in the west;
- Sub Basins of the Mississippi River watershed include:
 - Ohio River
 - Arkansas Red River
 - Missouri River
 - Mississippi River (trunk)
 - Illinois River

GOVERNANCE and INTERESTS: Mississippi River Basin

- **State**

- The Mississippi River Regional Planning Commission is a Commission of nine counties located along the Mississippi River in Western Wisconsin
- Iowa Office of Systems Planning
- Illinois Waterways Council

- **US Government**

- US Army Corps of Engineers
- National Oceanic & Atmospheric Administration
- US Coast Guard
- US Fish and Wildlife Service
- Great Lakes Interagency Task Force

- **Multi-Jurisdictional**

- Mississippi River Commission (est. 1879)
- Mississippi River Basin Initiative
- Mississippi River/Gulf of Mexico Watershed Nutrient Task Force

GREAT LAKES AND MISSISSIPPI RIVER SYSTEM CHALLENGES

- Aging Infrastructure
- Long term constrained civil works funding trend
- Seasonal and depth constraints of Great Lakes and Inland System
- Multi-jurisdictional considerations – public, local, regional, national...
- Interests may be more than about legal governance – should include influential stakeholders
- Interests are very diverse – environmental/operational/financing/strategic/private/
- Federal agency business lines cross between watershed, civil works, environmental, etc.