

Infrastructure & Development Opportunities

Identifying infrastructure needed to support the recognized market growth opportunities - and logical places for development

In addition to the millions of dollars in benefits derived from flood protection, recreation, clean water supply and multiple other uses, river navigation benefits are critical to the economic position of Missouri. In 2008, the economic impact of the Missouri port industry was calculated at nearly \$640 Million per year – and that was prior to identification of additional freight for the Missouri River.

70% of Missouri's economy is within a 30 minute drive of the Missouri & Mississippi rivers.¹

Missouri has the 4th most diverse economy in the U.S.¹

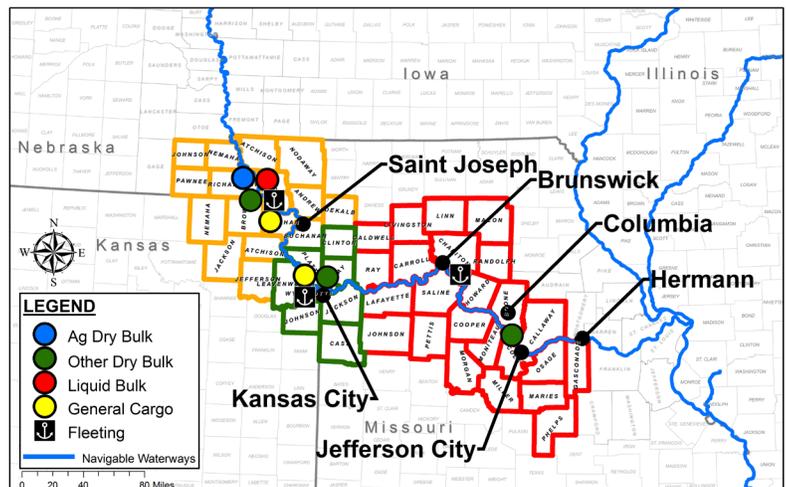
Missouri has the 2nd and 3rd largest rail hubs, the 3rd largest inland port, & the 7th largest highway system.¹

Supporting Missouri River waterborne market potential can result in millions of dollars in transportation savings over truck or rail. Add to that the jobs and related economic impacts associated with freight development; It all translates to competitive advantage for Missouri.

Infrastructure Required to Move More Freight on the River

Moving freight on the river requires several types of civil infrastructure:

- Docks for loading and unloading barges
- Fleeting areas on the river to “park” barges
- Road and rail connections to get freight to and from the river
- Specialized equipment such as cranes and conveyors
- Storage areas - depending on the specific commodities or freight being moved. Additional service and operational support including fueling, towing support, barge cleaning, and shipyard services.



There are currently **79 facilities** that exhibit some port infrastructure along the Missouri River. Of these facilities, 29 are currently conducting some freight activity; 30 are inactive, and 20 others have undetermined operational status.

The decline in commercial freight movement has negatively impacted marine terminal condition and capability in all commodities, particularly in non-agricultural segments. The good news is there is projected market demand, and there are locations where investment appears to make sense.

Markets:	Current Status of Infrastructure to Support Identified Markets
Sand & gravel	Currently supported and operational
Agricultural & related dry bulk	Can be handled at some locations Capacity needs to be increased to meet the potential market Minor attention required at other locations
Liquid freight	Facilities are in significant state of disrepair
General cargo	Few facilities with suitable marine infrastructure
Support Services:	
Towing operational support	Minimal availability
Cleaning facilities	None
Fuel service	Limited availability
Shipyards / repair facilities	None
Fleeting	Limited availability

Developing Infrastructure to Meet the Market Opportunities

- **Bulk grain facility capacity is substantial** in most shipping regions for potential volumes with the **exception of NW Missouri** where capacity is marginal.
- Inside storage capability for **Other Dry Bulk Commodities** has capacity in only the Central Missouri market region. The potential market volumes can support development in the **NW Missouri** and **Kansas City** regions.
- **Open storage capability can complement existing terminals** handling or be developed with inside storage capability; Open storage improvements are applicable to almost **every non-agricultural bulk handling or general cargo** terminal depending on the specific market. The potential market volumes can support development in the **NW Missouri** and in the **Central Missouri** regions.
- **Liquid terminal facilities** are purpose built and **have long development lead times** for specific markets. Liquid terminal development will occur through long-term commercial relationships. The most favorable location for such development would be in the **NW Missouri region**.
- **General cargo facilities have versatility and flexibility** and with sufficient crane capacity **handle most types of dry cargo**. The **NW Missouri** and **Kansas City** regions could both be developed to meet demand for general cargo facilities.
- **Barge fleeting infrastructure is required** for expected increased barge activity. Fleeting is insufficient in **almost all commercial centers** of projected activity. All three market regions will need to develop additional fleeting capacity to meet the potential demand.

Investing in Development Opportunities

Achieving the development of sustainable freight movement on the Missouri River will require that a variety of stakeholders make investment. Money and other resources will be needed for infrastructure, equipment, loan programs, perhaps for tax abatements, and other efforts to assist freight growth on the waterway. The sources of this money will certainly include the private sector. Arguably, it should also include the public sector – if for no other reason than the many public benefits of waterborne movements. It is long recognized by many that the waterways are a key component of economic development.

State Programs

Missouri has historically provided significant financial investment in all of its transportation modes, including ports and waterways. MoDOT is obviously a champion of the Missouri River and has the drive and commitment to continue to support the stakeholders. Numerous other state agencies are also very supportive and appear to be solid allies moving forward. However, Missouri is facing many of the same fiscal challenges as other states. In the atmosphere of critical prioritization, it is important that policymakers recognize that the availability of waterborne transportation has a definite impact on the overall cost of transporting goods in and through Missouri. Costs will rise and the state's competitive position will suffer if the Missouri River is not a viable option. One suggestion put forth by the stakeholders is that the state explore the potential for establishing a guaranteed minimum amount of freight on the river. Such an "Essential Water Service" program might operate similar to the US DOT federally subsidized Essential Air Service. Need and justification for such a program can come in part from the reality that federal support from the Coast Guard and the Corps of Engineers is heavily dependent on meeting or exceeding minimum activity levels.

Private and Public Investment

The private sector and the market forces that drive it will figure out where to spend resources. Certainly private investment can be encouraged and leveraged with public participation.

Federal Programs

The America's Marine Highway program may be able to benefit Missouri freight movements, and there is potential for the creation of an infrastructure bank. There may also be additional TIGER grant money in the near future. While federal money is not guaranteed, there is obvious momentum building on the national level toward the recognition that waterborne freight is a key to U.S. economic success. *Successfully obtaining federal funding generally requires that specific projects are well defined and supported.*

Local Investment

In addition to private funds and state and federal programs, many local governments have provided seed money for port and waterways development. Successful examples include the Tulsa Port of Catoosa in Oklahoma and the Owensboro Riverport Authority in Kentucky, to name a few. Both of these were initially funded by local government and have since become meaningful and productive economic engines for their communities.

Regardless of how continued freight development occurs in Missouri, there will be investment required, and much of it from the private sector – but with a committed group of public and private stakeholders working together and leading the way, the benefits will far exceed the costs.

Missouri River Market Node Development

St. Joseph, MO

The St. Joseph, MO area is an attractive northwest regional location for growth oriented new business and existing companies seeking an all modal competitive environment. Unique to the region is the **existing marine terminal** owned by the St. Joseph Regional Port Authority. The Port has **excellent proximity to markets** for wind energy components or other OD/OW opportunity. In addition, it could be responsive to emerging markets such as ethanol and DDGS. The region and stockyards area is an **agricultural gateway** with numerous grain elevators and agribusiness processors.



Current Infrastructure

- Existing publicly owned marine terminal with 14 acres for cargo development, including 8 acres of improved open storage
- All modal competitive environment with adjacent rail spur and nearby interstate
- Regional bulk grain silo storage with waterside loading connectivity

Operating and Infrastructure Needs

- Barge fleet capacity
- General cargo material handling capability
- Other dry bulk inside storage and material handling system
- Support additional water connectivity of existing bulk grain storage
- Increase in regional water accessible bulk grain capacity

Initial Market Opportunities	Tons Shiftable to Water Transportation	What's Needed?
Other Dry Bulk – Inside Storage	110,000	Inside bulk storage facility & material handling equipment.
General Cargo	20,000	Suitable crane capability
Liquid Bulk	113,100	Liquid terminal capacity
Total	243,100	

Additional information regarding the St. Joseph Regional Port Authority can be found at:

<http://www.missouriports.org/stjoseph.html>

3003 Frederick Avenue

St. Joseph, MO 64506

Phone: 816.364.4110

Missouri River Market Node Development

Kansas City, MO

The greater Kansas City region has a vibrant logistics network of highways, rail and water access opportunity. The bi-state region of Kansas City, MO & KS, made up of nine adjoining counties, has a population of approximately 1.7 million. As a commercial center and attractive environment for competitive transportation options, **adding water transportation capability to the modal options is extremely important.**



Current Infrastructure

- Network of highways, rail and water access
- Waterfront is lined with private industry development that has been available for water transportation for decades
- River Mile 357 to 358 RDB and Sugar Creek may have potential for a multi-purpose terminal

Operating and Infrastructure Needs

- Barge fleeting capacity
- Terminal for other dry bulk with inside and outside storage and material handling system
- General cargo facility and material handling capability

Initial Market Opportunities	Tons Shiftable to Water Transportation	What's Needed?
Other Dry Bulk – Inside Storage	166,900	Marine terminal facility with inside and outside bulk storage. Material handling system.
General Cargo	70,000	Suitable crane capability and marine terminal facility
Total	236,900	

Additional information regarding the Port Authority of Kansas City can be found at:

<http://www.kcportauthority.com>

Port Authority of Kansas City, MO

300 Wyandotte, Suite 100

Kansas City, MO 64105

Phone: (816) 559.3750

Missouri River Market Node Development

Jefferson City & Columbia, MO

The Jefferson City, MO area, especially in combination with the Columbia area, represents a central Missouri region well placed between the Kansas City and St. Louis metropolitan areas. In Jefferson City, the active rail service is on the south side of the river, and therefore, all transportation modes do not fully serve the ample property available around the existing marine development. The same is true for the Howard Cooper



Regional Port west of Columbia. However, the unique qualities found in the region include very good roads connecting several major highways, along with rail service from a Class I rail network.

Current Infrastructure

- Network of highways, rail and water access
- Marine terminal development
- Bulk capacity
- Dry Cargo warehousing
- Cranes and bulk material handling equipment
- Fleet and tug capability

Infrastructure Needs

- Other dry bulk outside storage area

Initial Market Opportunities	Tons Shiftable to Water Transportation	What's Needed?
Other Dry Bulk – Inside Storage	114,000	Suitable outside storage capacity at existing marine terminals
Total	114,000	



