



Commonwealth
Economics

West Kentucky Regional Riverport Project

Feasibility Analysis

March 2021

Background

- **Timeline of Events**

- **2016:** Community leaders from Ballard, Carlisle, Fulton, and Hickman Counties developed an economic plan that spurred the creation of the **West Kentucky Regional Riverport Authority** (“WKRRRA”).
- **2020:** WKRRRA hired **Commonwealth Economics** to examine the feasibility of developing a riverport along the Mississippi River in Wickliffe-Ballard County, Kentucky (“Project”).

- **Report Approach**

- 1) Conducted a Regional Market Analysis of nearby riverport operations.
- 2) Interviewed businesses to determine required acreage, storage space, and key equipment, as well as the projected annual output and level of employment.
- 3) Developed a preliminary Project scope for a riverport at the Mayfield Creek site.
- 4) Compared the Project’s estimated net revenues to the required capital expense.
- 5) Reviewed additional funding mechanism for the Project.

Regional Market Analysis

Nearby Riverports	Example Products	Facility Acres	Transportation	Annual Tons
Paducah-McCracken	Containers, General Cargo, Fertilizer, Sand, Limestone, Coke	38	I-24, US-60, US-62	500,000
Hickman-Fulton	Grain, Coke, Steel, Fertilizer	10	TennKen Rail Line KY-94, KY-125, KY-166, KY-309	450,000
New Madrid	Milled Rice, Fertilizer, Liquid Nitrogen, Coke, Grain, Rock, Gravel	80	UP Rail Line I-55	850,000
SEMO	Grain, Fertilizer, Liquid Nitrogen, Wood Chips, Salts, Sand	70	On-Site Rail Line I-55, I-57, I-24	1,500,000
Massac-Metropolis	Future (Grain, Liquids)	Future (Dam 52 Site)	Future (TBD)	Future (TBD)
Alexander-Cairo	Future (Containers, Grain, Coal, Liquids)	Future (350)	On-Site Rail Line I-57	Future (TBD)

Wickliffe-Ballard County Advantages

- **Direct Roadway Access to Illinois and Missouri**
 - 10-minute drive to the U.S. 51 Bridge.
 - Only Kentucky city west of Paducah with direct access to other states.
- **Moderate Climate**
 - The location at the confluence would allow the Project to offer year-round services without fear of supply chain interruption due to constant freezing temperatures.
- **Established Business Operations**
 - Wickliffe is already home to a handful of businesses that are fully capable of providing fleeting, repairs, fuel, and groceries that will support tugboat deliveries at the facility.
- **Complimentary Riverport Development**
 - The planned development of a riverport in Cairo, Illinois will complement the products offered at the facility and solidify the confluence as the gateway to southern and northern inland waterways.

Aerial View: Preferred Site (Mayfield Creek)



Mayfield Creek Site Advantages

- 1) Located along 2,000 feet of river frontage at the confluence of the Ohio River and Mississippi River near river mile 950 on the Kentucky side.**
 - Other sites (Willow Creek & Beech Creek) include less advantageous access points along the river.

- 2) Strategic partnership in place with the current landowner, Phoenix Paper, who supports WKRRRA's mission to develop a riverport.**
 - Other sites lack partnerships with neighboring entities.

- 3) Room for the initial development to grow with close to 69 acres.**
 - Other sites are limited to less than 20 acres.

Business Survey Results

Business	Products	Riverport Operations (Identified Need)			Annual Estimates	
		Acres	Storage Facilities	Key Equipment	Output	Employees
Business #1	Clay, Sand, Gravel	3	Dry Indoor: 5,000 Sq Ft	Conveyor System, Weigh Station, Loaders	Clay: 200,000 Tons Gravel: Varies Sand: Varies	10
Business #2	Scrap Metal	3	Outdoor Pad (First Come Basis)	Self-Supply, Road Access	Scrap Metal: 60,000 Tons	7
Business #3	Dry Fertilizer, Liquid Nitrogen	4 - 5	Dry Indoor: 20,800 Sq Ft Tank: 2 Million Gallon	Conveyor System, Pipeline System	Dry: 16,000 Tons Liquid: 18,000 Tons	20
Business #4	Dry Fertilizer	6 - 10	None (Super Retail Storage Facility)	Conveyor System, Crane/Material Handler	Dry: 10,000 Tons	10
Business #5	Salt	3	Outdoor Pad	Conveyor System	Salt: 80,000 Tons	3
Business #6	Grain	4	Grain Tanks	Conveyor System, Dump Pits, Hoppers	Grain: 5-6 million bushels (roughly 130,000 - 160,000 tons)	3
Business #7	Groceries, Supplies, Storage	Less than 1	General: 5,000 Sq Ft	Barge Dock, Ramp	N/A	TBD
Business #8	Groceries, Fleet Service, Fueling Station	10	Gas Tank: 30,000 Gallon	Barge Dock	N/A	Seasonal Part-Time
Business #9	Fleet Service, Potential Operator	Would Expand Their Own Facility	Existing	Existing	N/A	Existing
Business #10	Paper, Pulp (Future)	TBD	Future Potential	Future Potential	Future Potential	Future Potential
Business #11	Carp	Future Potential	Future Potential	Future Potential	Future Potential	Future Potential
TOTAL*	Clay, Sand, Gravel, Grain, Scrap Metal, Dry Fertilizer, Liquid Nitrogen, Salt, Fleet Service, Fueling Station, Groceries, Supplies	27 - 28 Acres	Multiple Buildings: 25,800 Sq Ft Liquid Nitrogen Tank (1) Gas Tank (1) Grain Tanks (TBD) Outdoor Pads (TBD)	Conveyor System, Weigh Station, Loaders, Pipeline System, Crane/Material Handler, Barge Dock, Dump Pits, Hoppers, Road Access	470,000 Tons**	43

*Assumes only 1 provider within each category is selected initially.

**Excludes Scrap Metal business given self-reliant business model.

Project Scope (Mayfield Creek)

After careful consideration of the site, business feedback, and input from local stakeholders, our firm worked with WKRRRA to develop an initial scope for the Project that assumes a handful of dry commodity businesses will locate their operations at the Mayfield Creek site. Prospective businesses include companies that want to establish new operations in Kentucky or expand their regional market reach.

- Salt Handling Facility
 - Acres ~ 3
 - Tons (Annually) ~ 80,000
- Clay Handling Facility
 - Acres ~ 3
 - Tons (Annually) ~ 200,000 tons
- Grain Handling Facility
 - Acres ~ 4
 - Tons (Annually) ~ 156,000 tons
- Dry Fertilizer Handling Facility
 - Acres ~ 3
 - Tons (Annually) ~ 30,000 tons
- Scrap Metal Recycling (Seasonal Business)
 - Acres ~ 3
- Future Development
 - Acres ~ 53

Estimated Annual Tons at Full Capacity ~ 466,000

Capital Expense Assumption

Items	Useful Life (Years)	Total Cost	Private Cost Share	WKRRRA Cost Share
Dead Men & Dock	40	\$875,000	\$0	\$875,000
Conveyor Belt System	25	\$2,000,000	\$0	\$2,000,000
Crane/Material Handler	10	\$1,400,000	\$0	\$1,400,000
Dump Pit(s)	10	\$250,000	\$0	\$250,000
General Cargo Dock Improvements	40	\$437,500	\$0	\$437,500
Grain Tank(s)	50	\$2,400,000	\$2,400,000	\$0
Ground Improvements	40	\$100,000	\$0	\$100,000
River Hopper(s)	10	\$250,000	\$0	\$250,000
Lighting (General Areas)	40	\$96,000	\$0	\$96,000
Outdoor Pad(s) (Salt)	20	\$720,000	\$360,000	\$360,000
Road Access Improvements	40	\$150,000	\$0	\$150,000
Security (Cameras, Office, Etc.)	40	\$200,000	\$0	\$200,000
Security Fencing	10	\$200,000	\$0	\$200,000
Skid Steer	5	\$45,000	\$0	\$45,000
Truck Scale Station	10	\$250,000	\$0	\$250,000
Indoor Storage (Fertilizer/Clay)	50	\$6,000,000	\$6,000,000	\$0
Winches	5	\$50,000	\$0	\$50,000
Wheel Loader	10	\$275,000	\$0	\$275,000
Sub-Total		\$15,698,500	\$8,760,000	\$6,938,500
Contingency Funds (7.5%)		\$1,177,388	\$657,000	\$520,388
Total		\$16,875,888	\$9,417,000	\$7,458,888

Project Cost & Financial Assumptions

- **Estimated Project Cost ~ \$16.9 million**
 - WKRRRA (common equipment, infrastructure, etc.) ~ \$7.5 million
 - Private (buildings, in-house equipment, etc.) ~ \$9.4 million
- **Financial Assumptions**
 - WKRRRA uses a commercial loan at 6% over 15 years.
 - WKRRRA will bear the revenue risk as the owner of the Project's infrastructure and equipment.
 - Private businesses that locate at the Project will bear their own risk as the owner and operator of their respective private buildings and facilities.
 - WKRRRA will require a minimum management fee per business, regardless of tons moved, and will require each private business to pay a fixed land lease.
 - Do not consider minimum handling fees or benefits from grants or low-interest loans.
 - Assume 100% of the expected amount of tonnage is moved through the Mayfield Creek site each year.

Estimated Pro Forma & Cash Flow

West Kentucky Regional Riverport Project - Phase I Estimated Pro Forma & Cash Flow (Annual)	
<u>Estimated Revenues</u>	
Handling Fees	\$ 1,908,000
Net Land Lease Revenue	\$ 265,000
Management Fees	\$ 149,000
Total	\$ 2,322,000
<u>Estimated Expenses</u>	
Employee Compensation (Wages, Benefits, Taxes, etc.)	\$ (400,636)
Management Cost	\$ (100,000)
Maintenance Cost	\$ (202,410)
Insurance Cost	\$ (150,000)
Total	\$ (853,046)
Net Operating Revenue / Loss	\$ 1,468,954
MINUS: WKRRRA Financing Cost (15 Years; 6% Interest Rate)	\$ (755,308)
Net Positive / Negative Cash Flow (Income)	\$ 713,646
Debt-Service Coverage Ratio	194%

Net Revenue vs. Debt Service

- **Model Results**

- Considered assumptions provided by WKRRRA and private business feedback to generate an operating pro forma estimate for the Project.
- Our model estimates **positive net revenues**, generating a combined **debt service coverage ratio of approximately 1.9x**.

- **Timing**

- The first year will likely result in fewer revenues, and may require payments to be pushed out further, generating capitalized interest and resulting in a slightly higher annual payment.

- **Opportunity to Lower Risk**

- Convert handling revenues from “general revenues” to “contractually obligated revenues” by incorporating guaranteed minimum payments into each business contract. This should result in less perceived “risk” in the model and, in turn, better interest rates and more favorable coverage requirements.

Additional Funding Mechanisms

WKRRRA intends to pursue additional funding mechanisms in order to minimize the cost of capital. Potential supplemental funding options for the Project may be available through one or more of the following programs:

- **United States Department of Agriculture Loan Programs**
 - Provides guarantees on commercial loans to projects in rural areas, which reduces the overall cost burden by allowing banks to offer better terms and rates.
- **United States Department of Transportation BUILD Grant Program**
 - In 2020, the program provided grants between \$1 million and \$25 million to projects that support rural transportation systems. Kentucky funding was capped at up to \$100 million.

Additional Funding Mechanisms

- **Kentucky Agriculture Development Fund**
 - Ability for Counties to pull together and use Tobacco Master Settlement Agreement payments to match a potential low-interest loan or grant from the state agriculture board.
- **Delta Regional Authority**
 - Offers grant funding, often below \$1 million, to support the purchase of specific equipment that will indirectly spur economic development.
- **Kentucky Riverport Improvement Fund**
 - Kentucky's version of the DRA program with awards often below \$500,000.
- **Any additional Federal, State, and/or Local opportunities that may become available for WKRRRA to consider as another cost saving mechanism.**

Key Takeaways

- **Unique Advantages**

- Existing partnership with Phoenix Paper (Landowner).
- Room for growth opportunities following the initial development (69 Acres).
- *Other amenities:* direct roadway access to other states, existing riverport services industry, close to zero weather-related supply chain interruptions, 2,000 feet of river frontage, above-average existing workforce, etc.

- **Significant Business Interest**

- Business survey results indicate that up to six companies are highly motivated to establish or grow operations at the Project site in 2021 and 2022.
- *Primary commodities:* salt, grain, fertilizer, clay, and scrap metal.
- Private user minimum usage guarantees will provide credit support to the public portions of the Project in addition to their investment in their privately owned components.

- **Financially Feasible**

- Project cash flow estimates are promising under a strictly commercial environment.
- Additional funding mechanisms could significantly reduce the overall cost of funds.
- Public sector entities have several options at their disposal to facilitate the financing or to lend credit support to the Project.

Recommended Next Steps

- **Identify Potential Lenders**
 - Work with lenders to better understand financing requirements, while also pursuing the possibility of generating additional lending benefits through a loan guarantee.
- **Solidify Project Site Plans and Business Partnerships / Lease Agreements**
 - Will increase comfort levels with lenders and allow for greater accuracy regarding pro forma projections.
- **Pursue State and Federal Funding Programs**
 - Consider pursuing and combining USDA loans, BUILD grants, Delta Regional Authority grants, Kentucky Riverport Improvement Fund grants, Kentucky Agriculture Development Fund grants, and other funding options that may become available to reduce cost of capital.
- **Continue to Fine-Tune Project Costs and Operating Projections**
 - Lenders will need assurances regarding Project design, construction costs, timing, working capital requirements, sources of revenue, and operating expenses.

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