

# Summary of Freight Summit #3

## *Statewide Strategy for Riverport Investment*

September 2021



**KENTUCKY RIVERPORTS, HIGHWAY  
& RAIL FREIGHT STUDY**





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## 1. INTRODUCTION

The Kentucky Transportation Cabinet (KYTC) and Kentucky Cabinet for Economic Development (CED) held the third summit for the *Kentucky Riverports, Highway and Rail Freight Study* during August 31 to September 2, 2021. Titled *Statewide Strategy for Riverport Investment*, the virtual summit provided an opportunity for the project team to engage with port leaders, economic development staff, industry representatives, and other stakeholders to focus on opportunities to leverage the riverports, highways, and rail system to promote economic development.

Seven sessions were held over three days. Sessions were approximately 90 minutes each, and expanded on the following topics:

- Opening Session
- Connecting Ports to Global and Domestic Trade: A Conversation with Inland Barge Operators
- Anticipating the Evolution of Freight Commodities: A Conversation with Corn, Soy, and Aluminum Representatives
- Modeling Scenarios and Riverport Investment Strategies
- Funding Programs: Riverport Capital Improvement Needs
- Economic Development: Advancing our State's Riverports
- Closing Session

The event was publicized via email invitations to key stakeholders and associations, with announcements on the project website<sup>1</sup> and social media. Over 119 participants registered with 90 unique attendees between the seven sessions.

### Report Organization

The following sections describe key content from each session. Recordings and meeting materials are accessible via the study website and KYTC's YouTube channel<sup>2</sup>.

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<sup>1</sup> <https://transportation.ky.gov/MultimodalFreight/Pages/Kentucky-Riverports%2C-Highway-and-Rail-Freight-Study.aspx>

<sup>2</sup> <https://www.youtube.com/playlist?list=PLFou1OwtHzfReFWW7xtcVxtw8SNj7LNiG>

## 2. SESSION 1: OPENING SESSION

Tuesday, August 31, 2021 at 12:00 PM Eastern

**Presenters:** Jimmy McDonald Deputy Project Manager & Senior Freight and Logistics Planner, Metro Analytics  
Mikael Pelfrey Director, KYTC Division of Planning  
Secretary Jim Gray Transportation Secretary, KYTC  
Chandler Duncan Project Manager & Vice President, Metro Analytics

### Presentation Content

Jimmy McDonald, deputy project manager with Metro Analytics for the *Kentucky Riverports, Highway and Rail Freight Study* opened the summit by welcoming all attendees and walking through Zoom tool-tips—showing participants the multiple way to engage through the platform during the course of the summit. All sessions were recorded and are available for viewing online. A total of 54 individuals joined the session.

Mikael Pelfrey, KYTC’s Director of the Division of Planning, welcomed attendees. KYTC conducted a previous study in 2008, which resulted in a dedicated funding pot and advisory board. A video greeting from Secretary Gray played; he thanked participants for taking the time to participate in this important study that will help justify and focus future investments. Secretary Gray will speak at Thursday’s closing session.

“Our ports are critical economic engines that provide high value jobs, move high value cargo, and service the freight needs of our state.”

--Jim Gray

Chandler Duncan, the project manager for the Metro Analytics team, outlined the study tasks (**Figure 1**) and reviewed key findings of the study process to date. Kentucky’s riverports connect the Commonwealth to the national and global economy, carrying over 80 million tons of freight over its waterways, worth over \$18 billion. Forecasts project 18% growth by 2045, with a slight decline in waterborne volumes, with growth in manufacturing, food/beverage, trade/logistics, and aluminum, helping to offset downturns in the coal industry. More than 50% of Kentucky’s freight is in commodities that could be carried by water at some point in its journey. Kentucky currently allocates \$500,000 annually to port funding.

To date, two rounds of virtual summits have occurred. Input from stakeholders and interviews illustrate strong interest in on-the-ground marketing and business intelligence information so the team is putting a strong emphasis on leave-behind materials to add value beyond the study report. Analyses are also ongoing to evaluate infrastructure needs, available funding, and benefit-cost impacts to help prioritize investment scenarios. Key conclusions will be presented at upcoming sessions while technical memoranda, the full study report, and the marketing toolkit will be available later this fall.



Figure 1. Outline of Six Study Tasks

## Question and Answers

After opening remarks, there was an opportunity for questions from attendees.

- **After the passing of the Infrastructure Bill, has the team relooked at the models and impacts of infrastructure improvements?**

The team is definitely looking at the new federal infrastructure bill; the amount is significant, and we are looking at how it will impact opportunities to fund transportation infrastructure at all modal levels. What strategy can the ports attract customers, generate revenues, stimulate jobs and optimizing the available funding?

The bill carries a lot of opportunities which will be addressed in the preferred investment package. It does not define what we can achieve, but what we can invest in. It will be a big part of our conversation about the study's recommendations.

- **Comment from Rich Thoma: \$3 Billion in EDA Funds with application due October 31.**

Rich provided his insights on the upcoming EDA grant opportunity.<sup>3</sup> The American Rescue Plan Act allocated funds to assist communities nationwide in their efforts to build back better by accelerating the economic recovery from the coronavirus pandemic and building local economies that will be resilient to future economic shocks.

He noted that impoverished areas near ports and along waterways promote industrial site selections, promoting workforce and economic development opportunities especially for reuse of former coal-based areas. Recent flooding in Tennessee also presents an opportunity to deploy flood mapper software for areas along the floodplain.

<sup>3</sup> Online at <https://www.eda.gov/funding-opportunities/>

### 3. SESSION 2: CONNECTING PORTS TO GLOBAL AND DOMESTIC TRADE: A CONVERSATION WITH INLAND BARGE OPERATORS

Tuesday, August 31, 2021 at 2:00 PM Eastern

**Presenters:** Ken Eriksen IHS Markit  
Steve Alley Ingram Barge Company (Nashville)

#### Presentation Content

Jimmy McDonald provided session opening remarks and a reminder on Zoom functionality. He introduced the panel—originally intended to be a question-and-answer session with several panelists, but Hurricane Ida changed the plan. There were 65 individuals in this session.

Ken Eriksen introduced Steve Alley, vice president of sales for Ingram Barge Company with 38 years' experience. Ingram is headquartered in Nashville and is the largest dry cargo carrier on the waterway with 4,000 barges and 150 towboats. They've spent \$2 billion over the past 11 years replacing aging assets.

Steve noted what an amazing industry barge operators comprise: we all work together closely, especially in times of need. If there's a breakaway barge, everyone jumps in to help—protecting the cargo and especially the people. Hurricane Ida is no exception—everyone pulls together in rescue and recovery efforts.

#### Question and Answers

For the remainder of the session, Ken moderated questions for Steve.

- **An unfolding challenge for resiliency, how do you see the situation in the Gulf impacting the inland waterway system?**

About five days before the storm hit, Ingram started looking at our floating assets, risk levels, and prioritizing what to shift. Where can we relocate boats safely? What can ride out the storm with minimal crew? With the late change in tracking, Ida didn't give us the 10-14 days of planning we hope to get. Some people say Ida is worse than Katrina; it may be from an industry perspective though we thankfully haven't seen the same scale of devastation for residents. Post-Katrina investments in levies have proven effective.

Our first priority is our people. We have one individual with a broken leg, but all other personnel are accounted for. We've had staff working around the clock, coming in from other regions to give the locals a chance to tend to their families and homes. We have been relying on landline telephones, radios, and other old school technology to coordinate, really seeing people pull together.

- **How has it affected upriver shippers?**

We had to declare *force majeure*—no one's coming into the Gulf-area ports for a while. We are probably still a few days out from start to load along upriver ports because there's nowhere to go until we get a handle on the current situation. Our focus is keeping our people safe and protecting our cargo; with the early harvest this year, timing isn't great. Industry-wide, we can recover rapidly, as soon as we get the green light from the Coast Guard and Army Corps.

➤ **How does the industry work with the Coast Guard and Army Corps?**

The collaboration with these agencies has improved over the last few years. Everyone is involved right now: the Coast Guard is in the lead while the Army Corps is checking out infrastructure. Drone technology has been an incredible asset for safe, timely imagery for video inspections, locating personnel, tracking hazardous cargo, etc. Once the river is back to a usable level, we can hit the ground running with floating generators, supplies, and living quarters to mobilize our recovery efforts.

While we try to build resiliency into the industry, each event is unique and inherently reactive. The storm shifting north a few degrees made a huge difference on its impacts. We were lucky; some people are still looking for employees, vessels, etc. Again, it is amazing how well the industry cooperates to pick up the pieces.

➤ **With power outages, long term closures of at least one large grain elevator, and standstills at upriver ports, what happens to the competitiveness of the inland system short term? When the gates reopen, we certainly hope the cargo is still there and hasn't diverted to a competitor or different mode.**

Some things you can plan for—like the increase in exported quarried stones from Kentucky mines. It's paused now. Consistent with national trends, we've struggled to find employees and are trying to incentivize deckhands. People can work in an indoor, air-conditioned warehouse for \$25/hour, compared to being out in the elements. But we work 6 months on/6 months off, and it's a great career if you like it.

We usually have 110,000 employees in Kentucky tied to the inland waterway system. It generates \$1.2 billion in state/local tax revenues. Kentucky has the fourth largest waterway miles in the country. It's inland waterway network and 11 public ports are a huge asset for the Commonwealth with worldwide importance. Crops, chemicals, steel production—it's part of why so many carriers are present in Paducah.

➤ **Why is Paducah so well set up for operations?**

It is a crossroads, right at the confluence of the Upper Mississippi, Lower Mississippi, Ohio, Cumberland, and Tennessee rivers. The Mississippi is massive heading south—like a huge parking lot—with no locks or impediments. Tows can run with 30-40 barges to the south—up to 70 or 80 even—then break down to smaller units heading upriver. On the Ohio, tows typically run 15-20 barges at a time with smaller groupings on the smaller rivers. Ingram has its major repair facility in Paducah, engineering, parts/warehousing, training center, etc.

Combining 2-3 smaller barge sets into a single southbound trip on the Lower Mississippi runs 60,000 tons of cargo—the same scale as a container ship in the Gulf. The scale of waterborne commerce cannot be topped by other modes (**Figure 2**); it removes many trucks from the interstate network, with less congestion, fewer emissions, lower costs, etc.

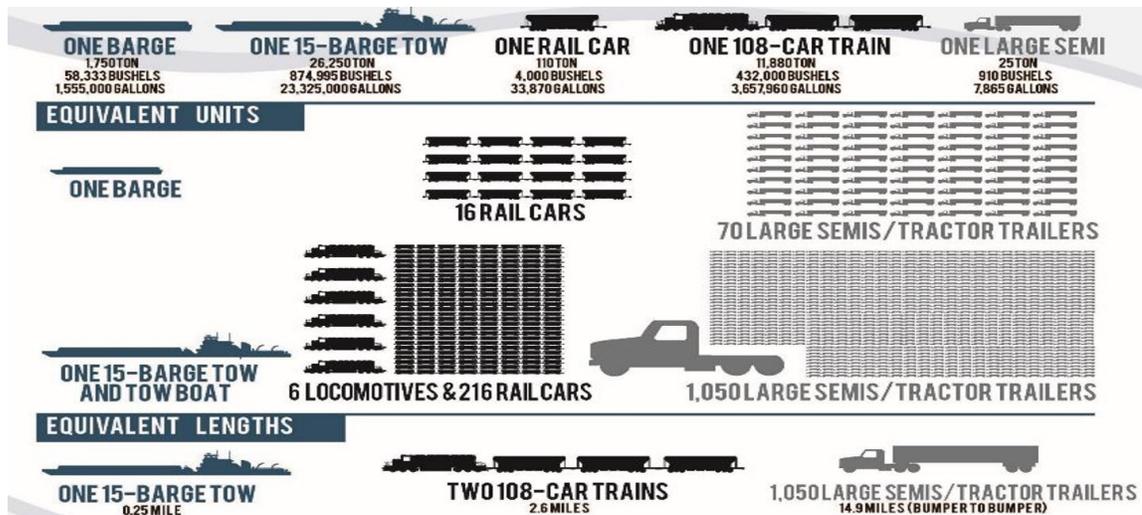


Figure 2. Marine Highway Economies of Scale

- Sustainability is a key topic these days, as we'll discuss further during Wednesday's commodities panel.

Environmental sensitivity is critical to reduce our carbon footprint and improve the future. Liquid transport is also important; barge movements are so much safer than putting hazardous trucks on highways and in residential areas.

- In light of the system's age, where do you think future investment is needed moving forward to keep the system resilient?

Operational locks/dams are critical. While the Ohio River has been a question for years with the declining coal industry, Kentucky has a phenomenal location to attract other commodities to its waterway system. Its public terminals have an advantage over other states with the economic development team in Frankfort. Working together, we can do amazing things for the state. We're one of the few that have developable property available and accessible to public ports.

- What kind of information is important to share between port directors and economic development advocates?

Exactly what we are doing today—bringing port directors and economic development folks into the same conversation. This hasn't happened under previous administrations. Kentucky is well located for access throughout the Midwest. We have developable industrial sites near active, public ports—an advantage over other states in the region. Our opportunities to attract industry have been changing the past few years. I expect areas west of Paducah will be grabbed up in the next 3-5 years.

- What is the missing piece to position ports to capture future opportunities?

Getting money can be a challenge. If I get a contact from someone looking for a logistics solution, I put them in contact with the nearest port director. If our public ports are overwhelmed, it shouldn't be hard to get them more funding.

- **Can you speak to container-on-barge (COB) opportunities as an option to replace commodities that have slowed down, like coal?**

COB is already happening; we are currently changing our business model with Ingram Logistical Solutions focusing on building packages to create logistics solutions. We are moving COB internationally though opportunities are limited with incredibly high container values today. Mostly empty containers move on the river today.

High steel prices are also leading to a reduction in new barges built, with older vessels selling for scrap. There is plenty of horsepower in the industry but the reduction in available barges will likely impact the supply side moving forward.

- **Is the current equipment adequate to handle anticipated demands—timely loading and turnarounds?**

Operationally, we are adjusting some things. Some customers won't accept bids for equipment older than a certain threshold. Whereas we used to run barge tows from New Orleans and make a few drops along the route northbound, now we run "smart runs" straight to Columbus with no interim stops. It puts more pressure on ports to turn around loads quickly, prioritize discharges, work overtime, etc.

- **What are you seeing from a statewide multimodal perspective?**

We are doing business today with many clients we weren't even three years ago: plane parts, refrigerators, etc. Some of these partners are using a just-in-time delivery model and relying on barges as floating warehouses. We're bringing waste paper to Northern Kentucky, offloading it to truck it to Ohio, and turn it into cardboard for Amazon—another new market for river traffic. It could be a huge potential.

- **What about smaller quantities and commodities? Can a barge be competitive?**

Today, you're paying trucks to move small loads but we're starting to see combined loads of different products on a single barge. Manufacturers prefer not to maintain a truck fleet; they would rather get it to the river, load it, and go. If we can reach delivery timelines and a reliability threshold, we can compete and save them a bunch of money—especially if the customer is going to a warehouse anyway. The idea of a floating warehouse is new and concerning to some, but it could make financial sense.

Moving raw rubber from Malaysia to Eddyville via barge to Paducah saved \$1.5 million in transportation costs. Big trucks from auto plants can't fit on flatbed haulers but could move by rail or barge. We are working to change minds and get people thinking outside the box.

- **How do you bring diverse stakeholders—port directors, shippers, economic developers—into the same conversation?**

Everyone has to come together to figure out what you're trying to accomplish. What do you need? What processes are in place and at what price point? Where are you trying to get your product, what modes are available, and who has the tools to connect you? Big companies can take time to change but things that were unheard of yesterday are taking place today. People with a logistical background who are willing to think creatively are making new opportunities. Our industry will not look the same 20 years from now; we won't just be moving bulk cargo A to B.

- **What tools do you see Departments of Transportation using to identify these origin-destination movements? What tools are lacking?**

There's been a fear or protective element when we talk about economic development. We have to lose that mindset—knock down the wall and have open dialogues in Frankfort and along the riverfront to identify opportunities and competitive solutions. Many states aren't there yet; this study is a big step forward.

“Things that were unheard of yesterday are taking place today. People with a logistics background who are willing to think creatively are making new opportunities.”

--Steve Alley, Ingram Barge

With UPS and Amazon, aerospace is one of the Commonwealth's biggest industries. How do we position ourselves to feed it? Most of the products to build Amazon's hub were shipped by river; I expect their products will be too within the next five years. We are already seeing it with paper for their boxes.

- **From a logistics standpoint, do you see commodity shipments from Kentucky to global growth markets becoming more or less competitive with other domestic or foreign suppliers? What can we do to preserve and/or grow these markets?**

I don't believe the world knows what Kentucky has to offer. They need to know we have available resources. We are competitive. We are modern. We are intelligent. Port directors are running day-to-date but have to think globally too. We have a phenomenal interface. The products are here. The opportunity is here. We just need to get the word out.

- **Thinking about Kentucky's different regions, particularly with the downturn in coal, how do you see the eastern areas transforming?**

The western and central regions are more industry friendly with the focus shifting west, likely from Maysville/Ashland and further west. That's where the people are and that's where products are headed. Improvements on one side of the river naturally impact opportunities on the other side: as they say, a rising tide lifts all boats. In some cases, we're seeing—or at least talking about—cargo crossing rivers by barge instead of bridge.

- **What other state examples are recognizing waterways as a key transportation resource for growth in economic development, jobs, and expansion of freight logistics? What should the ports do collectively to achieve the greatest shift in focus and investment from the State?**

Alabama has been doing this for years; Missouri is trying but the river isn't set up for large volumes of traffic. Arkansas is industry-friendly but the Arkansas River is terrible to operate on. Mississippi has been fairly quiet. Indiana has a vibrant program but is tied to a public-private partnership. Kentucky has the biggest opportunity.

We need to work hand-in-hand with the Economic Development team in Frankfort and get an advertising firm on-board to promote state-operated facilities. The revenues should far outweigh the costs. We need to think like a private business, with 11 different profit centers collaborating to make one another more profitable. We need to talk regularly, come up with a marketing plan, then present it to industry representatives worldwide.

- **How can the inland waterway shippers collaborate for the inland waterway markets?**

Reach out to Bill Kinzeler about what Northern Kentucky, Ohio, and Indiana have done through CORVA. It's become a massive entity that links private docks in multiple states to market. The Port at Huntington follows a similar setup.

## 4. SESSION 3: ANTICIPATING THE EVOLUTION OF FREIGHT COMMODITIES: A CONVERSATION WITH CORN, SOY, AND ALUMINUM REPRESENTATIVES

Wednesday, September 1, 2021 at 9:30 AM Eastern

<b>Presenters:</b> Tim Hughes	Kentucky Department of Agriculture
Adam Andrews	Kentucky Corn Growers Association
Jonathan Miller	Soy Transportation Coalition, McClean County Farmer
Mike Keown	Commonwealth Rolled Products

### Presentation Content

This session provided a panel discussion with industry participants to speak on commodity and product flows, as well as how investment in infrastructure—especially Kentucky's riverports as part of a multimodal system—is critical to support growth and improve the competitiveness of Kentucky in global and US markets. The commodity flow outlook for Kentucky's riverports points to sustained growth in the flows of grains, soybeans, and metals, particularly aluminum. The panelists represent these key industries. Jimmy welcomed participants by providing a brief overview of this session's topic, reviewing Zoom how-to's for participants, and allowing the panelists the opportunity to introduce themselves. Throughout the session, 55 individuals attended.

#### Tim Hughes

Tim praised yesterday's sessions and shared his agricultural career background. He emphasized the importance of the river system to agriculture and introduced panelists diving into specific commodities. With a background in farming, he now serves as a community advocate in Frankfort. Tim offered an interactive element of guessing the port locations pictured in his background as he introduced each speaker throughout the session.

#### Adam Andrews

A Tennessee native who has also lived in Kentucky, Adam has represented the Kentucky Corn Growers Association for over 15 years, stating we're the "beef it's what's for dinner" folks, but for corn. Their association serves as the promotion or advocacy arm for farmers. They are directed by a board of farmers that are elected statewide and appoint councilmen to administer funds. They have been longtime members

of the Waterways Council Inc. (WCI)<sup>4</sup> to advocate for river transport, even doing barge tours to raise awareness—doing whatever they can to increase demand for corn. They understand trade is a huge aspect, especially with international contacts. They do trade missions through the US Grains Council.

Adam noted only two places in the country grow white corn: near Evansville, IN and Nebraska. Kentucky produces more than 225 million bushels and most of it stays in the state for livestock, ethanol, bourbon, and food processing with 110 million bushels exported; however, only 31.6 million bushels are exported via the Ohio River, the rest goes to neighboring states to be exported. This is a huge opportunity for Kentucky.

Adam pointed to another opportunity for Kentucky riverports to capitalize on, noting the recent hog house development in China. This house serves a herd 6 times larger than the US at 416 million head. He noted corn exports increased four times from May 2020 to May 2021 and are projected to be 26 million tons from 2021-2022. Adam reiterated there are a lot of facilities on the other side of the river (other states) that are better equipped to receive grain, so this could be a huge opportunity for the state.

#### Jonathon Miller

Serving on the Soy Transportation Coalition and a McClean County farmer, Jonathon Miller shared insights from his life as a Kentucky farmer. With a 2600-acre farm in Island, KY he understands the importance of Kentucky's transportation system to farmers. He explained they need price competition to improve basis<sup>5</sup> difference locally. Competition is also needed to force local facilities to update facilities to accommodate faster unloading times, he often has to wait in line all day (**Figure 3**) to be able to send grain off.

He has five semis for his three-employee farm. Farmers need access to market with 95% of the world outside of the US. Understanding one barge can take 58 trucks off the road, saving fuel, costs, and emissions, with the heavy load of these products, river transportation is ideal mode for farmers who often operate on small margins.

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<sup>4</sup> <https://waterwayscouncil.org/>

<sup>5</sup> Basis is the difference between the Chicago board of trade and local price the farmers receive.



*Figure 3. Typical Grain Drop-off Queue*

After hearing the first two commodity representatives' views of the riverports, Tim interjected with a couple of questions.

➤ **Please provide the most favorable distance/turn time from the farm?**

Jonathon - The cost estimated to move 1 ton 1 mile by truck is \$5.31 and by barge is 97 cents. Ideally, you want farms and ports as close as you can get. No question barge is cheaper.

Fertilizer is coming in at 250 lb. average per acre each year. It is being trucked in and product is being hauled out. The closer they can get, the less the trucking costs.

Adam - Markets purchase corn at different times of the year. Here we sometimes have to haul 4-5 hours to get it there, whereas Brazil/Argentina have to go 7-8 hours. Our proximity to navigable waterways gives us a huge advantage.

Tim – Back 60-80 years, KY grain was going to the local livestock market. Now, more focus is on grain production than livestock. The grain market changed even 35 years ago. Where lots of grain was formerly going to Alabama and Georgia to feed chickens, it now stays in state. Cattle too, which head west to be finished. Here's an opportunity to grow that sector. The river is a great way to expedite shipment.

Mike Keown

Mike is the CEO of Commonwealth Rolled Products, a company who has served aluminum rolled products over the last 55 years. The riverport system is essential for their supply chain. Mike shared the favorable long-term market dynamics for aluminum (**Figure 4**), pointing to needs from the riverports. One of the biggest changes forecasted is through ABS automotive needs: by 2030 it is expected 570 lbs of rolled

aluminum will be required per auto since it is a strong, lightweight material that is proving great for electric vehicles.

## Favorable Long-Term Aluminum Market Dynamics

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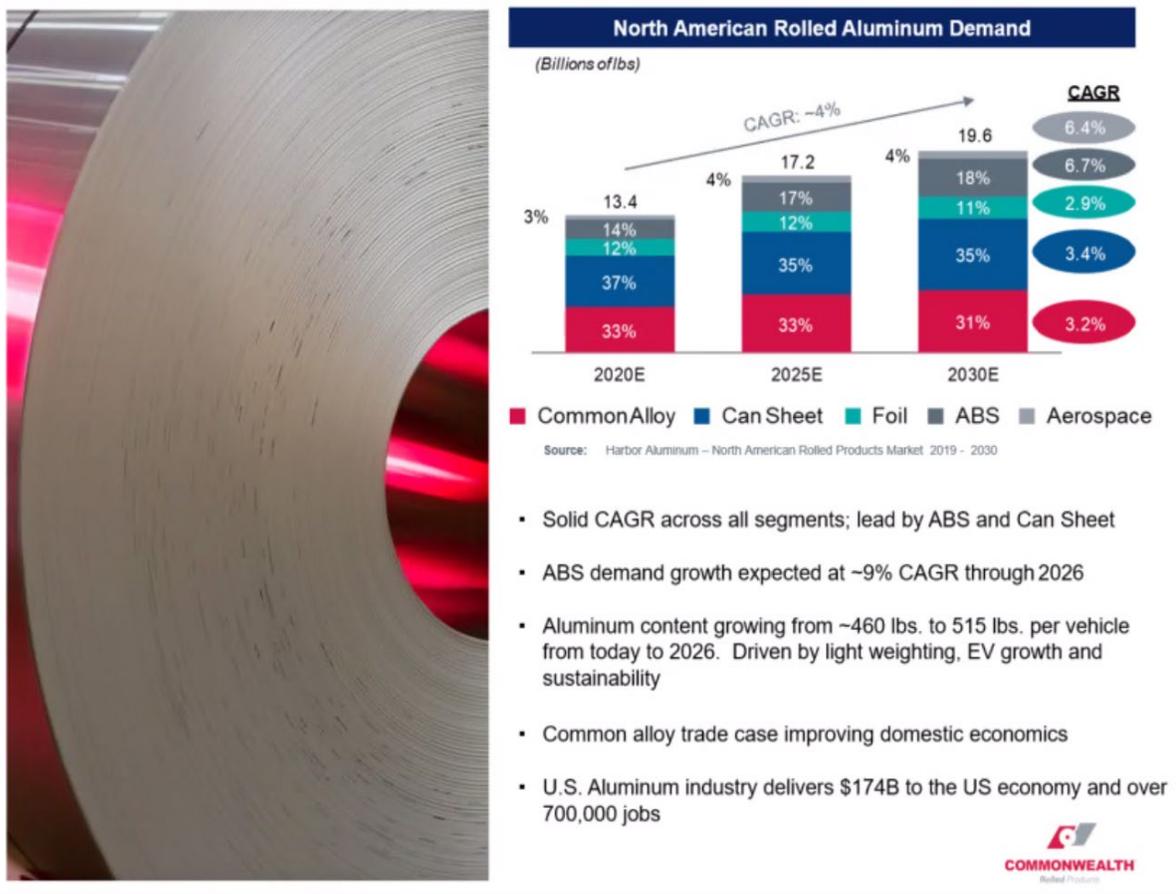


Figure 4. Favorable Long-Term Aluminum Market Dynamics

They are a primary supplier to original equipment manufacturers (OEMs) in the US and global.

- **In terms of transportation, how many trucks per day move through Commonwealth Rolled Products? How is barging most beneficial—raw material delivery or distributing finished product?**

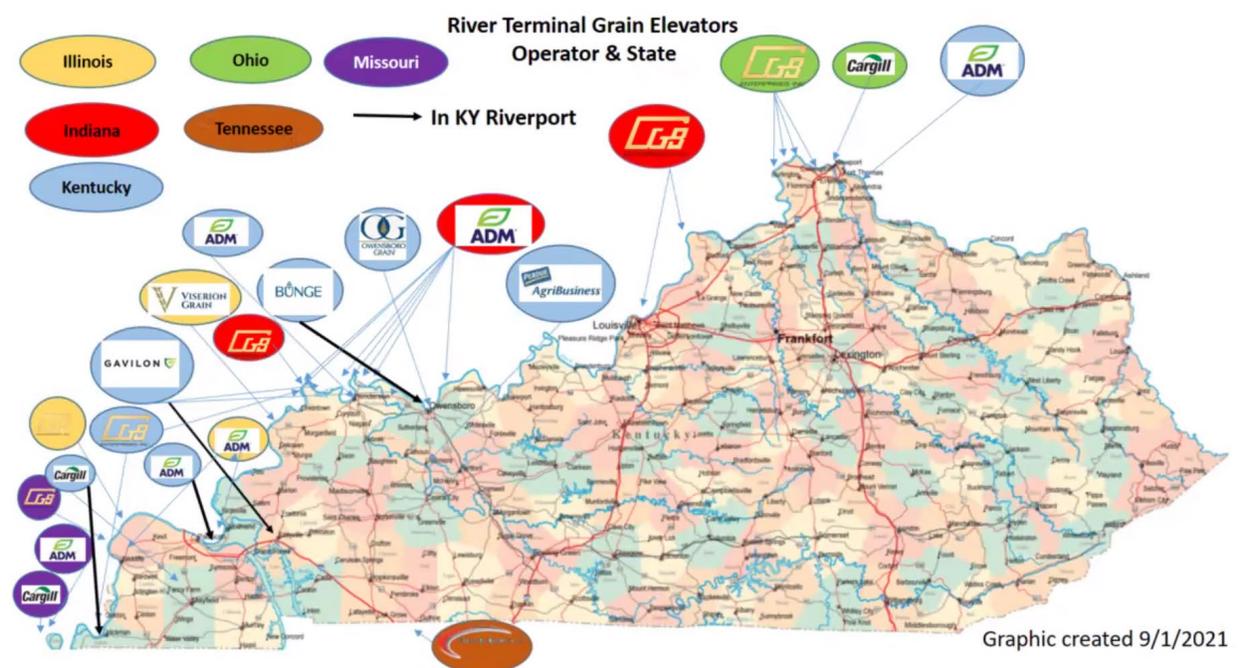
Currently, we don't export a lot via river, but it does bring raw materials. Kentucky has a large aluminum manufacturing presence—one of few smelters left is in Kentucky. Finished product is moved primarily via truck with a limited amount via rail.

Ports help us keep a global competitive advantage. We're a very attractive destination, traders can distribute across channels. We are heavily dependent on a strong truck, rail, and port warehouse system.

Tim Hughes

Tim represents the Kentucky Department of Agriculture, which connects interested parties with grant opportunities and marketing of products around the world. They supplement other external organizations by pointing to technical expertise and tools, linking farmers with financial assistance, providing networking opportunities, and assisting with market research.

He shared a map (**Figure 5**) of the river terminal grain elevators color coded by state, indicating where the national and international companies are going. He reiterated that the world doesn't know what Kentucky has to offer. The map shows how dependent Kentucky is on the river; most grain crosses to other states to get on the river so there's opportunity for our riverports, even as a collective effort.



*Figure 5. River Terminal Grain Elevators*

The 2017 LAND (linking agriculture for network development) series linked farmers with manufacturers since 70,000 jobs in KY manufacturing rely on raw products. The goal was to determine what we can do better to meet the needs of the plants. Distilling has been a huge success recently. Tim noted 100 years ago soybeans weren't grown in KY and they are now a leading commodity. This takes work and ingenuity and a big part of today's conversation.

Question and Answers

While some questions were interjected throughout, there was an opportunity for open questions following each commodity representatives intro.

- **What are the reasons the corn is sent out of state for export (proximity to nearest port, cost, road network, etc.)?**

Our facilities aren't as large; other states are more appropriately sized to accept the product.

- **Question for Mike Keown, are you seeing any of your clients looking for aluminum produced from greener/lower carbon emission producers?**

Yes, and increasing over the past few years. As OEM's, producers and consumers are looking for more sustainable supply chains and products, this is clearly part of the equation. Greenhouse gases and carbon emissions are part of the overall Life Cycle Assessment and the attractiveness of aluminum in the value chain.

Absolutely, Europe has been leading sustainability over the last decade and the US has picked up over the last five years it has been ramping up in the automotive industry and is here to stay. Customers are asking for greener-produced aluminum, so we buy and consume a lot coming from Russia, Canada, and Iceland by barge. Most of our smelters are coal based.

- **Mike, With the projected growth of ABS and increased weight of aluminum in vehicles, do you see KY opportunities for new industrial developments for the state?**

Yes, because of attractiveness of raw materials, ready shipping via water or rail, and consumers of raw material; our central location in North America is poised to become an epicenter of scrap, raw material, and finished goods.

- **Adam noted there are containerization opportunities across the state.**

- **Jonathon Miller described increases in yield per acre over recent years, what is the outlook for coming years with technology and farm practices improving, or what is the projected max and when does ag production get to a maximum for considering future transport and storage capacity needs?**

- Every five years, the US Census of Agriculture put out a report,

**Figure 6** was shared to show the steady rise.<sup>6</sup> It's phenomenal to see the better crop management, genetics, and production system. Even farmers that haven't invested in land improvements are seeing improved production through better seeds and chemicals. Fungicides have gone a long way to help increase yields.

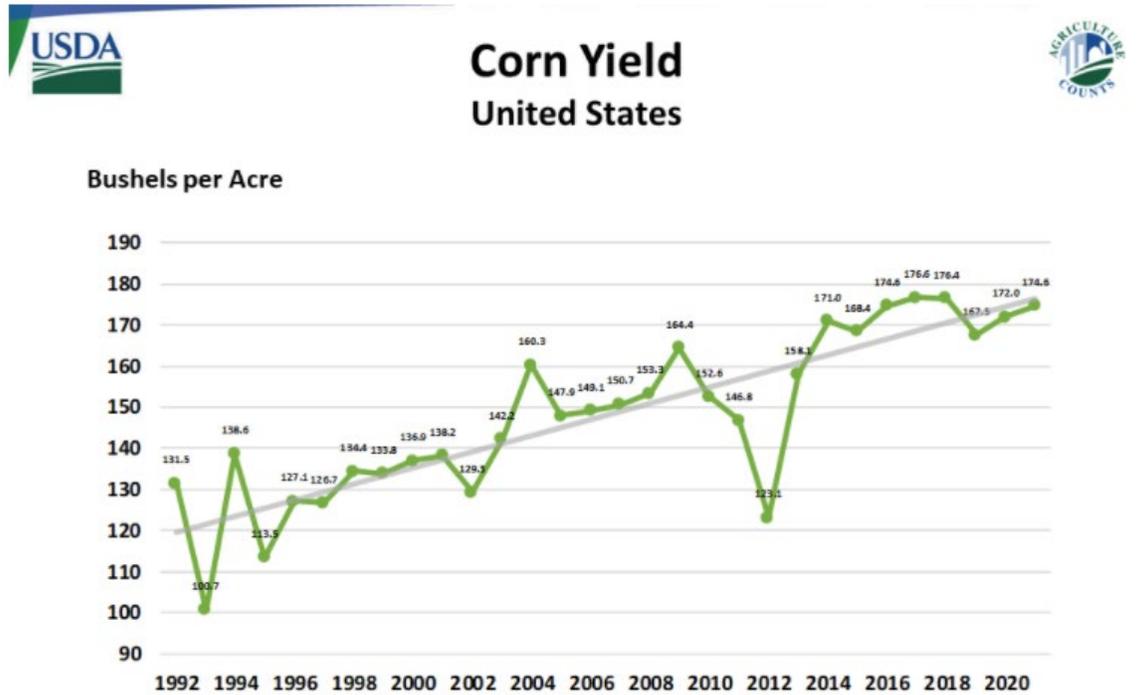
The 2012 drought was discussed, remembering discussions with the biggest soy buyer about how bad production was with the drought. Buyers were getting nervous. While prices were high for consumers, that added money back into farmers' pockets to upgrade equipment, fertilizer, buy irrigation equipment, etc. The extra money invests in the next decade with lower prices and improved production.

We only see this trend line going up, and not maxing out, with opportunities like ethanol demand and protein diets increasing in Asia, this is an opportunity for farmers and industry along the river—like Kentucky riverports.

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<sup>6</sup> [https://www.nass.usda.gov/Charts\\_and\\_Maps/Field\\_Crops/cornnyld.php](https://www.nass.usda.gov/Charts_and_Maps/Field_Crops/cornnyld.php)

Corn: Yield by Year, US



United States Department of Agriculture  
National Agricultural Statistics Service

August 12, 2021

Figure 6. USDA Corn Yield in the US by Year

## 5. SESSION 4: MODELING SCENARIOS AND RIVERPORT INVESTMENT STRATEGIES

Wednesday, September 1, 2021 at 12:00 PM Eastern

**Presenters:** Chandler Duncan Vice President & Project Manager, Metro Analytics  
Noel Comeaux Technical Advisor, Metro Analytics

### Presentation Content

In the Modeling Scenarios and Investment Strategies Session, Metro Analytics study team members Noel Comeaux and Chandler Duncan described the ports' investment needs, categorized the planned investment strategies, listed potential funding sources based on the needs, and forecasted market demand at the 11 public riverports. There were a total of 51 attendees.

Noel Comeaux opened with his background in the maritime industry, specifically the marine highway program. Chandler shared his experience in multimodal transportation planning and investment, leading into today's discussion of how to consider investments in the individual ports while taking into consideration the larger perspective of the state and national economy. This broader view allows a wider range of funding

sources to be considered to realize system-wide benefits and competition against neighboring states. What is shared in this session will be wrapped up into the final report and marketing toolkit for the ports to further utilize.

The team first developed an understanding of the ports' needs and costs. This information was realized through strategic interviews with the ports and market forecasts. To date we have identified approximately 15 projects by cargo type, which amounts to nearly \$200 million in needs over the next five years. The needs were broken into three categories with increasing investment needs: 1) preserve existing assets through maintenance type projects, 2) activities needed to optimize performance and efficiency, and 3) larger projects to preserve and enhance their market position—this could be through attracting modal share, rerouting additional tonnage to use KY riverports at lower costs, or improved access than competing ports and yielding a considerable net gain to the size of Kentucky's riverport economy and the efficiency of the overall US economy.

When developing the investment strategies, these needs were considered along with the benefits and impacts of each, which could include the ongoing use of the ports and preservation benefits, savings that could be realized by the port operators or users, and modal efficiency through attracting new users to ports from less efficient, competing alternatives. Benefits could also have wider impacts than just at the ports themselves: they could include drawing jobs to the communities, business sales, and GDP which could all impact the larger state or national economy. The different strategies were compared by taking the present value (in 2019 dollars) of the benefits and costs of each project to determine the benefit-cost ratio (BCR) in accordance with U.S. Department of Transportation (Maritime Administration) guidance for grant applications and Benefit-Cost Analysis (BCA). These were broken down into ranges to correspond with the three different project needs as summarized in **Figure 7**.

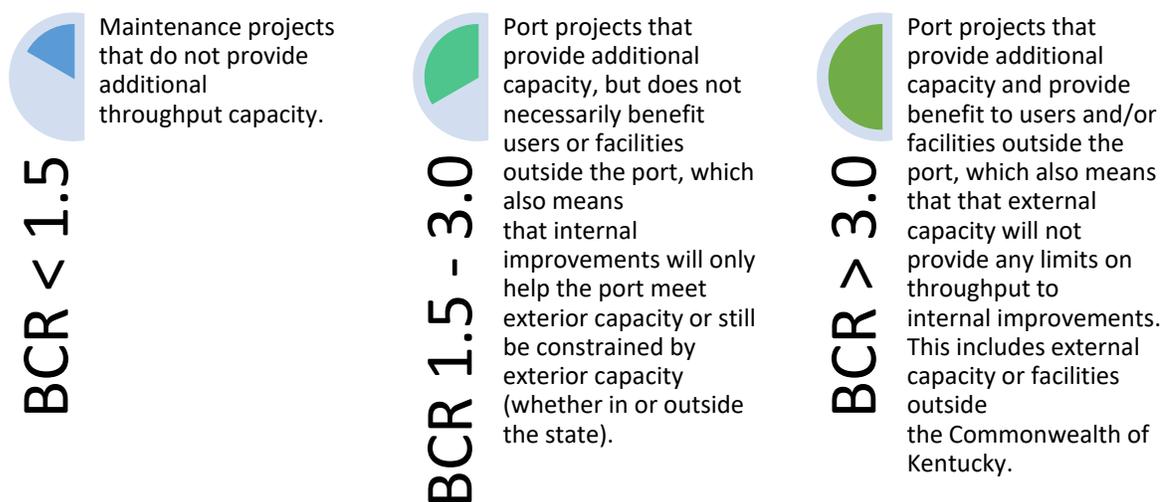


Figure 7. BCR Ranges per Port Project Type

Project alternatives were considered using TRANSEARCH data (2018 base year with 2045 forecast horizon) to understand commodity origin and destinations and to help demonstrate benefits from a national perspective. This information helped identify practical potential for modal diversions from other modes (such as rail and truck) to water by commodity/cargo type. The existing multimodal network is shown in **Figure 8** with the forecast scenarios for all riverports by mode illustrated in **Figure 9**.

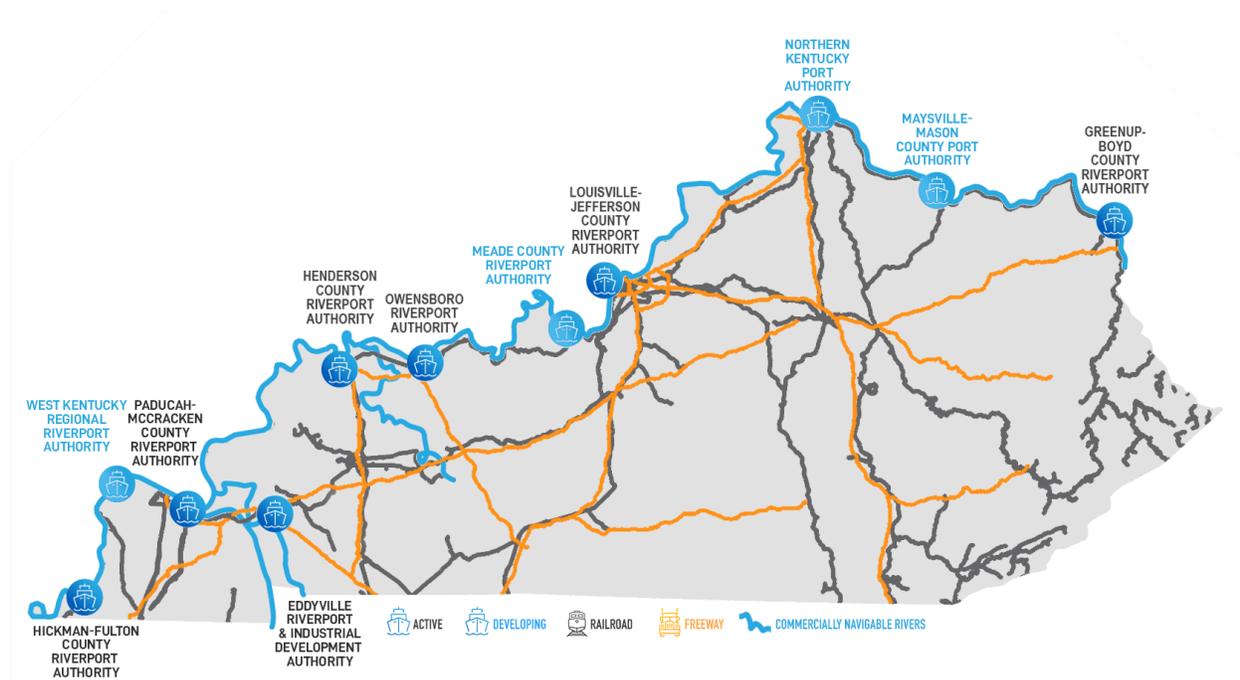


Figure 8. Existing Multimodal Network

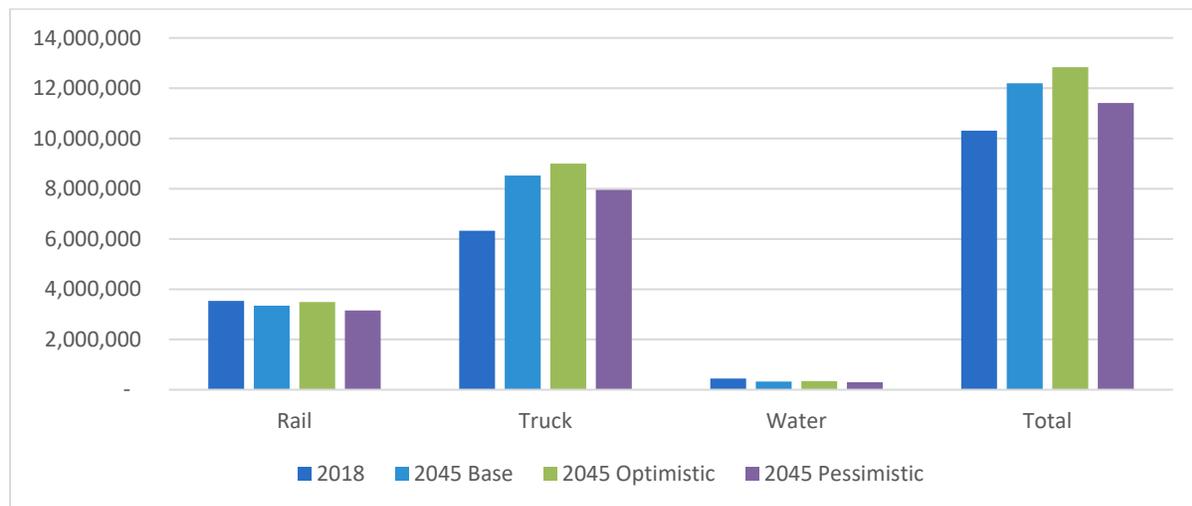


Figure 9. Freight Forecast Scenarios in 2045 by Mode for All Riverports

The current funding needs by infrastructure type over the next five years are summarized in **Table 1**. This table breaks down the investment scenarios by the three different need types (maintenance, optimization, and expanded market position). Maintenance type projects could include roofing repairs, fund studies, light fixtures, etc. Optimization projects could include improving equipment, adding warehouse space, new technology, or even land acquisition. Projects that would enable the ports to capture new market positions could include larger scale investments such as new rail terminals or on-site rail improvements, land development, improved truck access, or new and expanded marine docks to improve ports' capacity. While \$196 million seems like a large investment, there are many funding opportunities available.

*Table 1. All Riverports Current Funding Needs by Infrastructure Type*

Infrastructure Type	Business as Usual (Mntce/No Growth)	Optimize Port Efficiency	Preserve/Capture Market Position	Total
<b>Equipment</b>	\$ 5,224,850.00	\$ 45,523,809.50	\$ 3,300,000.00	\$ 54,048,659.50
<b>Highway Access</b>	\$ -		\$ 1,659,500.00	\$ 1,659,500.00
<b>Land Acquisition &amp; Development</b>	\$ 1,700,000.00	\$ 8,310,000.00	\$ 53,635,000.00	\$ 63,645,000.00
<b>Other (Planning, Engineering, Economic Studies, etc.)</b>	\$ 925,000.00			\$ 925,000.00
<b>Rail Access</b>	\$ 155,000.00		\$ 16,256,000.00	\$ 16,411,000.00
<b>Security &amp; Technology</b>	\$ 30,000.00	\$ 630,000.00		\$ 660,000.00
<b>Warehousing</b>	\$ 3,124,000.00	\$ 17,821,000.00	\$ 9,600,000.00	\$ 30,545,000.00
<b>Waterfront Infrastructure</b>	\$ 4,737,395.00	\$ 9,800,000.00	\$ 13,811,000.00	\$ 28,348,395.00
<b>Grand Total</b>	\$ 15,896,245.00	\$ 82,084,809.50	\$ 98,261,500.00	\$ 196,242,554.50

**Figure 10** breaks these needs down by riverport, showing that each port has different needs, but there are areas of overlap to apply to identify where a larger return on investment (ROI) could be realized and more funding sources could be considered.

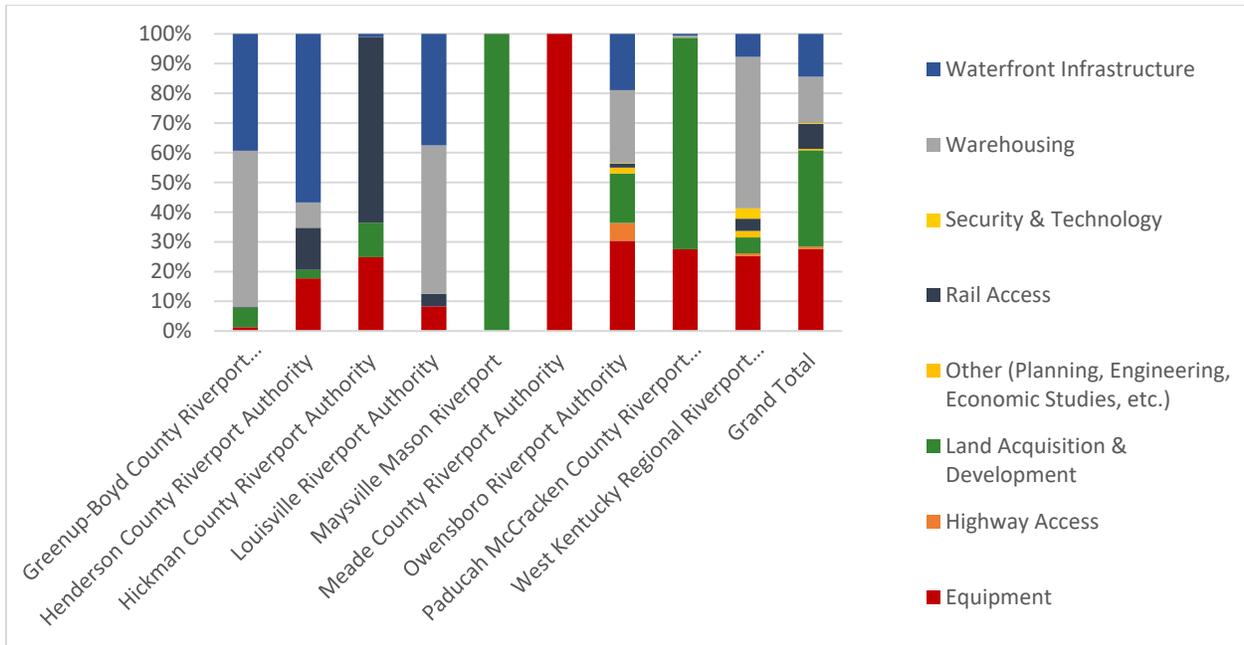


Figure 10. All Needs by Riverport

Possible sources to fund these needs by project type are identified in **Table 2**. These federal funding sources combined have a total of \$417 billion available; assuming Kentucky wins only 1%, that is over \$400 million, which is nearly double the needs of the riverports. While a funding gap currently exists, there are a wealth of funding opportunities available for the ports to collectively capitalize on.

*Table 2. Possible Federal Funding Source by Project Type*

Type	Program	Funding
<b>Infrastructure</b>	ATCMTDP	\$ 12,000,000.00
	BUILD	\$ 900,000,000.00
	Farm Storage	\$ 500,000.00
	INFRA	\$ 856,000,000.00
	Marine Highway	\$ 7,000,000.00
	Passenger Ferry	\$ 33,000,000.00
	PIDP	\$ 292,730,000.00
	RRIF	\$ 35,000,000,000.00
	Transp Alts Set Aside	\$ 850,000,000.00
	WIFIA	\$ 5,000,000.00
<b>Economic Development</b>	Econ Dev Assistance	\$ 3,000,000.00
	Planning Grant	\$ 300,000.00
	APRA-E	\$ 500,000.00
<b>Resiliency</b>	Disaster Loan Assistance	\$ 200,000.00
	Emergency Relief	\$ 1,000,000.00
	HSGP	\$ 1,095,000,000.00
	PSGP	\$ 100,000,000.00
	SaTC	\$ 1,200,000.00
	TSGP	\$ 88,000,000.00
<b>Environment</b>	Clean Diesel	\$ 4,000,000.00
	Coastal Program	\$ 500,000.00
	CMAQ	\$ 2,500,000,000.00
	Endangered Species	\$ 99,999.00
	Marine Debris	\$ 2,500,000.00
	Pollution Prevention	\$ 500,000.00
	SRA	\$ 260,000.00
	Targeted Airshed	\$ 4,000,000.00
	Wetland Program Development Grants	\$ 300,000.00

Looking at the ports' needs and average benefit-cost ratio, **Table 3** shows that as more money is invested, there is a larger opportunity for return on investment, which is key to capturing funds through federal grant opportunities.

*Table 3. Average BCR for Port Need Types*

Needs Category	Avg BCR	Subtotal
Preserve/New Mkt Position	2.6	\$ 98,261,500.00
Optimize Port Efficiency	1.7	\$ 82,084,809.50
Business as Usual	0.6	\$ 15,896,245.00
<b>Average BCR/Total Investment</b>	<b>1.2</b>	<b>\$ 196,242,554.50</b>

The best investment strategy is to consider public-private partnerships for monies beyond federal funding. This will help the ports quickly achieve their goals of building resiliency, increasing capacity, and improving safety. It's essential to not wait for the market to change or things to fall apart (rust), and instead be strategic, move ahead, and plan for the future now.

### Question and Answers

A question-and-answer session followed the teams' presentation.

- **Why are rail investments or a portion thereof (\$16M) only contemplated for port expansion and not for port efficiency improvements (column 2).**

This is what was provided to us by the port authorities, it can be changed. If there is an investment that it really going to make a port more competitive and also make it more efficient, then it could be classified in the higher category (preserve/capture market position). This is also looking at the scale of investment.

- **Noel, are the possible federal funding sources annual amounts? Or other time period?**

Looking at 5-year needs compared to annual amounts, every other year there is a federal funding handbook<sup>7</sup> that is directed at the maritime industry to show how to capture funds that may not be explicitly for riverports.

- **Missing the expanded big picture that you will not get from the port director. Did you consider the Soo Locks & Ocean Class Motorized?**

Not at this time, focused on specific port needs.

- **As we look at future improved state funding, has it looked to see how potential funding could go as federal match?**

<sup>7</sup> Online at <https://www.cmts.gov/topics/infrastructure>

No, but we could consider that in the final report. It is not just about getting federal dollars, but how we could leverage state dollars or even public-private partnerships to capitalize on these and how can we make that grow for the investment strategy.

- **Public-private partnerships, I've seen in the marine highway program a strong relationship between stakeholders and shippers to develop potential opportunities to move freight to our inland waterways.**

In this afternoon's session, we will talk more on state and local funds needed for federal funds and the potential infrastructure bill.

- **Have you considered the headhaul/backhaul imbalances and the type of equipment that may move cargo into ports and out of the ports synergistically? There tends to be a disconnect and a consequent imbalance both in cargo and in service equipment e.g., barge types, etc.**

It will be considered; it has been conceptually considered so far.

- **Steve mentioned workforce shortfalls on yesterday's session, was additional workforce identified as a need or fed into one of the analysis buckets?**

Additional workforce is not in analysis buckets, but more a result of the investment. The investment package methodology looks at capital improvements, not at workforce or operation type things. We haven't seen transportation investment scenarios consider this before but would be interesting to consider how to attract and keep competitive workforces.

- **Trade Adjustment Assistance Programs serve to support trade impacted changes in labor capacity, human capital.**

We'll consider that.

- **Greg Pritchett from Henderson Riverport explained the following scenario:**

**A paper plant recently announced it is coming to the county, and it has another location near Cincinnati. I am struggling with the notion of considering a closed loop system. One location needs waste paper from the other to make cardboard boxes for shipping the paper. There may be a domestic container scenario to gather the scrap paper in empties and provide boxes via the same container. Could this be done through a public-private partnership, if so, how do I connect the dots for this long-term strategic issue to consider this scenario?**

Yes, this is a possible public-private partnership scenario. While there are specific funding requirements for different funding programs, multiple ones could be tapped into for this scenario.

If you have a shipper that has inbound and outbound cargo, especially for container on barge, the marine highway program can fund equipment for those types of project designations through the three-step process: 1) freight moving on marine highway route, 2) project designation, and 3) Secretary permission to move to the grant application process with a public sponsor, which would be Henderson in this case.

- **Could they tie into the Paducah Marine Highway Designation?**

It has the potential to; however, it would have to go through the process.

- o Intermodal Marketing Companies (IMC's) can manage the logistics of the kind of ops Greg Pritchett described, with domestic containers, (Dom-cons), depending on the origins and destinations for the outbound and the O/D's for inbound cargos, considering the relative volumes and equipment types.

## 6. SESSION 5: FUNDING PROGRAMS: RIVERPORT CAPITAL IMPROVEMENT NEEDS

Wednesday, September 1, 2021 at 2:00 PM Eastern

**Presenters:** Jimmy McDonald Deputy Project Manager, Metro Analytics  
Tim Cahill Paducah Riverport Director

### Presentation Content

Building on initial information presented during the first summit, Jimmy McDonald reviewed successful funding strategies—both in surrounding states and from a federal perspective. Overall, 43 individuals attended the session. Kentucky’s Riverport Investment (KRI) program currently provides \$500,000 to ports annually with a 50% match requirement. Over the past decade, KRI has funded nearly \$5 million divided between 70 riverport projects, summarized in **Table 4**. However, some constraints limit the fund’s utility: for example, funds must be expended in a given fiscal year and cannot be carried over. Coming from the General Revenue Fund, there is also the risk that these could be reallocated by the Governor in a given legislative cycle.

*Table 4: Statistics on KRI Grants for Past Decade*

Riverport	Number of Projects	Allocation Amount	Project Type	Number of Projects	Allocation Amount
Owensboro Riverport Authority	17	\$ 1,382,691	Equipment	17	\$ 1,459,340
Hickman-Fulton County Riverport Authority	14	\$ 860,320	Highway Access	20	\$ 1,430,288
Louisville-Jefferson County Riverport Authority	9	\$ 832,480	Rail Access	13	\$ 985,920
Henderson County Riverport Authority	7	\$ 660,390	Waterfront Infrastructure	15	\$ 851,794
Eddyville Riverport Authority	13	\$ 569,835	Land Acquisition and Land Development	2	\$ 94,278
Paducah-McCracken County Riverport Authority	8	\$ 436,066	Warehousing	2	\$ 70,000
Greenup-Boyd County Riverport Authority	2	\$ 157,338	Security and Technology	1	\$ 7,500
<b>Grand Total</b>	<b>70</b>	<b>\$ 4,899,119</b>	<b>Grand Total</b>	<b>70</b>	<b>\$ 4,899,119</b>

Five projects were awarded in fiscal year 2022: a new compact track loader for Owensboro, dock tieback repairs in Eddyville, a front-end loader for Hickman, construction of a tangent connection loop in Louisville, and a replacement clamshell bucket for Paducah.

Numerous states are making substantial investments in their waterfront system, in part due to the focus on sustainability. Fuel and emissions savings associated with waterborne shipping cannot be beat; removing

less environmentally friendly truck traffic from contested highways is another benefit. The waterway system has available capacity and provides a strong return on investment.

**Table 5** provides a synopsis of peer state funding programs, summarized from the first summit. Kentucky has a comparable number of ports; there’s a strong business case to invest in the port system, integrating different funding sources to leverage benefits from several programs.

*Table 5: Matrix of Peer State Funding Programs*

	Kentucky	Ohio	Indiana	Illinois	Missouri	Tennessee	Virginia	Florida
State Port Authority			X				X	
Number of Public Port Terminals	11	8	3	19	15	5	5	15
State Budget Dedicated Funds Greater than \$500,000 Annually		\$7.5 M			\$600 K		\$42 M	\$76 M
State Budget Dedicated Funds Less than \$500,000 Annually	\$500 K							
State Ports Grant Programs		\$ 23 M		\$150 M	\$9.4 M		\$5 M	\$44 M
State Rail Grant Programs	X			X		X		X
State Technical Assistance		X	X	X			X	X
Provide Market Outreach Programs or Plans	X	X		X	X	X	X	X
Economic Development Business Community Partnerships	X	X		X		X	X	X

As suggested in the previous session, numerous federal funding programs are available as well:

- Federal Infrastructure Bill – Transportation (Senate) currently includes \$1.2 Trillion with \$17 Billion designated specifically for ports. White House estimates currently anticipate \$6.1 Billion headed to Kentucky.<sup>8</sup>
- INFRA Grants – 2021 budget of \$906 Million
- FEMA Port Security Grant Program – 2021 budget of \$100 Million
- EPA Diesel Emissions Reduction Act (DERA) – 2021 budget of \$46 Million
- FAST Act was funded through 2020 for \$4.5 Billion, likely evolving into “Build Back Better”
- USDOT RAISE Grant Program – 2021 budget of \$1 Billion in discretionary grant funds
- MARAD Port Infrastructure Development Program – 2021 budget of \$230 Million

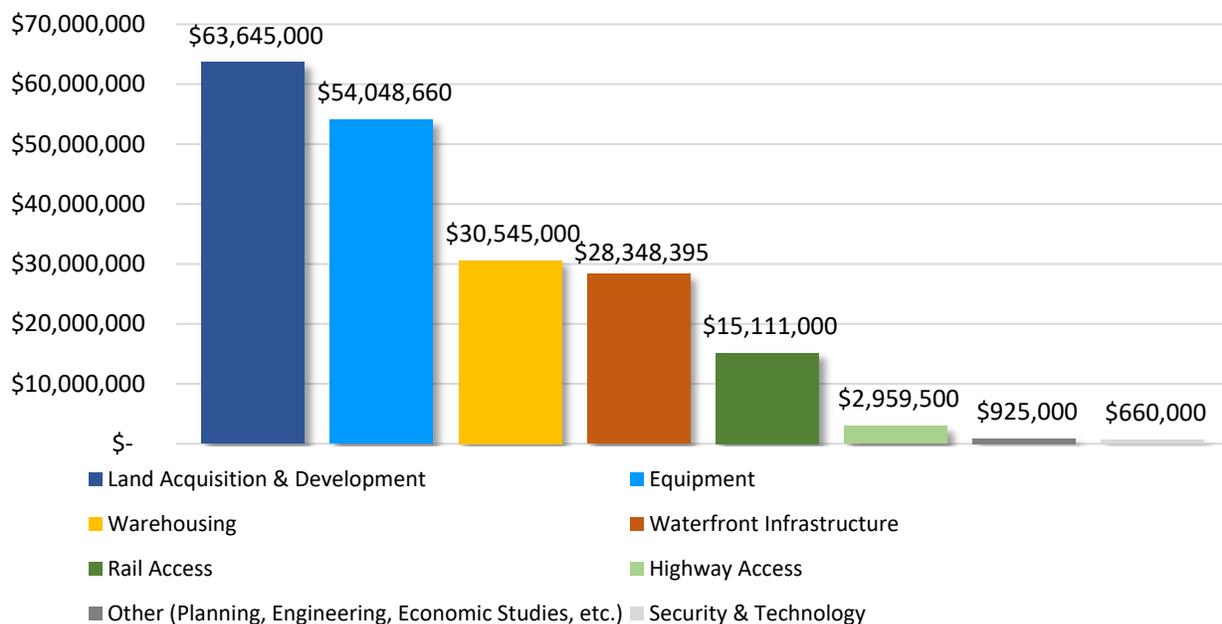
<sup>8</sup> <https://www.cnbc.com/2021/08/31/infrastructure-bill-map-which-states-get-the-most-money.html>

- MARAD Marin Highway Program – 2020 Budget of \$10.8 Million
- FHWA Section 130 Rail Crossing Program – FY2020 Budget of \$245 Million

Kentucky’s ports need to be collectively ready to pursue this funding, speaking with a strong voice to generate support from the state legislature, Kentuckians for Better Transportation (KBT), and other advocacy groups. Based on conversations with port directors, nearly \$200 million in capital improvement projects have been identified over the next five years (**Table 6**), categorized into one of eight “buckets” by project type (**Figure 11**). Land acquisition represents the largest bucket, followed by equipment needs. With rapidly changing market needs and local priorities, the capital improvement program should be updated annually.

*Table 6: Five-Year Capital Improvement Program by Port*

Port	FY 2021/2022	FY 2022/2023	FY 2023/2024	FY 2024/2025	FY 2025/2026	Total by Port
Greenup-Boyd County Riverport Authority	\$ 20,000	\$ 1,500,000		\$ 6,000		\$ 1,526,000
Henderson County Riverport Authority	\$ 600,000	\$ 750,000	\$ 1,500,000	\$ 3,000,000	\$ 15,300,000	\$ 21,150,000
Hickman County Riverport Authority		\$ 6,000,000	\$ 2,100,000		\$ 10,000,000	\$ 18,100,000
Louisville Riverport Authority	\$ 500,000	\$ 11,500,000	\$ 12,000,000			\$ 24,000,000
Maysville Mason Riverport					\$ 5,000,000	\$ 5,000,000
Meade County Riverport Authority		\$ 12,000,000				\$ 12,000,000
Owensboro Riverport Authority	\$ 10,489,030	\$ 4,284,175	\$ 3,660,250	\$ 3,737,000	\$ 2,815,100	\$ 24,985,555
Paducah McCracken County Riverport Authority	\$ 2,843,000	\$ 400,000	\$ 51,000,000		\$ 17,000,000	\$ 71,243,000
West Kentucky Regional Riverport Authority	\$ 234,000	\$ 15,354,000	\$ 1,950,000	\$ 350,000	\$ 350,000	\$ 18,238,000
<b>Total By Fiscal Year</b>	<b>\$ 14,686,030</b>	<b>\$ 51,788,175</b>	<b>\$ 72,210,250</b>	<b>\$ 7,093,000</b>	<b>\$ 50,465,100</b>	<b>\$ 196,242,555</b>



*Figure 11: Port Five-Year Capital Improvement Program by Project Type*

Next, Tim Cahill joined Jimmy to share his experience and perspectives from Paducah. Tim joined the port in June 2020, coming from a background of commodity management. Paducah has a rich history of successfully leveraging grant funding since its inception in the 1960s. Situated on 48 acres, we are largely a bulk facility serving 30 counties in four states.

Our small footprint is the biggest economic development challenge Paducah faces today. With only 12 acres of usable property left, we may not have much space on-site but we work with our city and county partners to facilitate freight solutions throughout the county. Partnerships are so important: even when we as individual ports compete against one another on specific jobs, we still need to collaborate at a system level.

We have a phenomenal workforce—eight people on staff, six who have at least a decade of experience. Some of our equipment is dated. The most important strategy is to coordinate: talk to trade associations, customers, other ports, etc. Understand what the market needs, and which partners you can reach out to for support—even to generate local match funds. On our recent grant to modernize our aging bulk yard, we knew we needed help to address this critical need and were grateful to find our partners helped raise \$500,000 towards our \$3.8 million grant request. We all have a wish list of projects, but when you are revenue-challenged, you have to be realistic about what you truly need to survive.

Jimmy and Tim discussed the Florida model, where a grassroots effort grew into a robust format with substantial funding allocations flowing into the state. Federal funding, including MARAD's marine highway program, has had a dramatic impact on Kentucky. And the industry is changing: Louisville and Owensboro have been successful in leveraging rail. China is moving their cars downriver by barge. Carbon credits are coming. We need to anticipate these changes—in commodities, in technology, in whatever opportunities are on the horizon—and embrace them.

What do you see as the State's role in supporting the public ports? There is a lot of competition between states. Ohio is pouring in grant money for all their ports; new facilities are under development in Massac County and Cairo. I don't expect the State to protect us, but would like to see them continuing to dialogue with port directors, economic development proponents, shippers, etc. Some of our customers have a lot of political pull and were more than willing to help generate interest and support. Its critical we utilize these resources—and get the word out about what an asset our port system can be. Our customers can help open these doors and start conversations. The State should also be engaged at all levels—Transportation, Economic Development, advocacy groups for waterway transportation and investment in the waterfront to help grow the mode.

Before transitioning to the question-and-answer session, Tim offered his insights on grant writing: hire an expert to position your project to be as competitive as possible. Jimmy reiterated that MARAD's local contact in Paducah—Chad Dorsey—is also a great resource.

## Question and Answers

A question-and-answer session followed.

- **When we compare the funding against other states, please qualify that some of the states fund blue water ports which are much, much larger. A comparison of state funds with brown water ports would be more equivalent.**

Thank you. Beyond just funding levels, we also wanted to highlight program development over time and other options to support infrastructure development.

Virginia, both Carolinas, and Georgia are working on inland ports to move containers off the coastal docks where property is limited. In northwest Georgia, the port authority has invested ±\$40 million for 40 acres to handle 200,000+ containers in the first year, only expected to grow. It highlights that you can “stuff a lot of stuff” into even a small space.

- **You talked about carbon trading in Europe. Can you explain how that works? How might the US model be set up? What are manufacturers looking to achieve and where to do ports fit in?**

In partnership with a financial services company, we received credits based on emissions reductions as trucks were taken off the highway. Other funding programs target environmental issues (e.g., equity, clean water, clean air). DERA grants are available to transition equipment away from heavy diesel to electric or clean diesel. It's a theme in many grant programs and likely to continue as an emphasis area. Paducah upgraded our electric equipment with more modern electric equipment and added an extra truck scale to reduce idling time, showing a 10% savings.

- **What consideration has been given to a "state port entity," a quasi-governmental agency, or to establish some other collective formal role, for collaborating on back-office operations, and formalizing collaborations for strategic objectives, whether a new legal regime or a public enterprise for optimizing future funding and resource allocations?**

Great question: consider the Florida Ports Council example I provided. They represent the collective needs of Florida Ports the chief liaison for port industry needs in the state, whether fiscal, policy, operations, or information. This gives them one message and a strong podium while maintaining local autonomy of the ports. It's been powerful and effective as they went from \$5 million annual allocations to nearly \$61 million during the past 20 years.

Chapter 311 in Florida Statute creates the Florida Seaport Transportation and Economic Development Council with authority to collectively advocate for funding, distribute funds, develop a project review and ranking process, provide data and marketing resources, produce an annual mission plan strategic report, meet with state agency partners, and provide a public forum for input into funds allocation and investment strategies.

## 7. SESSION 6: ECONOMIC DEVELOPMENT: ADVANCING OUR STATE'S RIVERPORTS

Thursday, September 2, 2021 at 9:30 AM Eastern

**Presenter:** Mimi Rasor                      Rasor Communications  
                    Kevin Johns                      Technical Lead, Metro Analytics

### Presentation Content

Jimmy McDonald started the session by welcoming participants and reviewing Zoom functionality. He introduced both speakers, Mimi Rasor and Kevin Johns with the consultant team. A total of 51 individuals logged on throughout the session.

Mimi described the marketing toolkit that is under development as part of the study. The goal is to gather information prepared for this study and provide content/materials to port directors that can aid in building awareness and educating potential clients of their capabilities and services. Of the five stages in communication theory—awareness, interest, trial, evaluation, and adoption, marketing materials can influence the first three. We've talked to the ports and project team and have crafted these port profiles as a foundation to raise awareness and interest. While each port is unique—different sizes, different development levels, different capabilities and strengths—we're looking to find a collaborative common ground.

Primary components of the marketing toolkit will include the port profiles, updated website content for the Kentucky Riverport Association, KYTC, and CED sites, an outline of next steps in determining an appropriate go-to-market strategy for each individual port, and recommendations for future collateral materials. While no two ports are the same, it's a guide to get you started and you can customize your content from this foundation. **Figure 12** presents the working draft profile for Henderson to illustrate the overall concept.



Figure 12: Template for Port Profiles

Next, Kevin presented an implementation guide on using Business Intelligence and Public Private Partnerships to attract funding to modernize the Kentucky riverport network and address statewide economic goals. He provided numerous hyperlinks—including herein—to potential resources that may be valuable when seeking federal grants or initiating marketing conversations. There are many approaches that have proven successful—applying individually or collaborating statewide—but teamwork is essential to “future-proof” the state, to address priorities, to see a higher ROI, and come up with matching dollars. It is always a very competitive process, even more so now in light of disasters in New Orleans, New York, and other places.

To best compete, create a policy framework application that is equitably and economically powerful.<sup>9</sup> You have the new business intelligence. The best applications will address new DOT and EDA priorities, requiring applicants to leverage infrastructure dollars; foster equity; create workforce innovations; install port city innovation hubs, joint city county port industrial, office and mixed-use business parks; apply business intelligence; apply smart tech; and advertise for public-private partnerships (P3s) to document speed and leveraging capabilities. The resulting Kentucky port network strategy will be nationally replicable, resilient, and data driven, with measurable cash-positive ROI.

<sup>9</sup> <https://www.transportation.gov/rural/toolkit/maximizing-award-success-introduction-evaluation-criteria>

Poverty is not a dirty word; successful programs transform underutilized, impoverished youth to a pipeline of new talent to generate tax revenues through future workforce development.

Kevin provided working insights on the current infrastructure bill, which is less than the original \$2.2 trillion proposed but still represents a substantial investment. RAISE discretionary DOT grants have been renamed to emphasize the importance of equity, drawing funding into areas that have traditionally been marginalized through previous federal investments.<sup>10</sup> The White House has developed an environmental justice framework called Justice40 that commits the federal government to directing 40% of climate and clean energy investments into communities impacted by environmental injustice. The initiative aims at redressing legacy problems such as disproportionate pollution exposure and climate impact risks in communities of color and low-income neighborhoods. EDA investment priorities highlight three similar metrics: equity, recovery/resilience, and workforce development.

Beyond federal dollars, P3s and resulting new revenue streams improve the potential to generate a large federal grant match. Kevin shared a research team starter portfolio to aid long-term economic resiliency of the ports and governments:

- Team Ports with Cities, Counties and CEOs to offer performance-based property tax incentives or partnerships to companies and infrastructure contractors who tutor children out of poverty for high paying careers (Einstein Projects)
  - <https://genesysworks.org/about-us/>
  - <https://jausa.ja.org/>
  - <https://www.ibm.com/blogs/corporate-social-responsibility/2020/06/redesigning-high-school/>
  - <https://www.nlc.org/article/2017/11/09/how-austin-texas-got-equitable-economic-development-right/>
- Team with ROI-driven Private Infrastructure Investment Funds
  - <https://www.cg-la.com/about>
  - <http://www.gldpartners.com>
  - <https://giia.net/>
  - <https://gresb.com/partner/global-infrastructure-investor-association/>
- Team with ROI-driven Innovation Hubs, start-ups, and recruitment of talent/technology companies
  - <https://www.kyinnovation.com/>

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<sup>10</sup> See articles at <https://www.bloomberg.com/news/articles/2021-08-11/an-infrastructure-bill-built-on-environmental-justice> and <https://www.nationalreview.com/2021/08/the-racialized-equity-agenda-in-bidens-infrastructure-bill/>

- <https://www.innovationnewsnetwork.com/inland-ports-as-innovation-hubs/4884/>
- Team with ROI driven governments and developers for added tax value to industrial, office, and mixed use real estate parks
  - <https://piernext.portdebarcelona.cat/en/people/port-innovation-districts-synergies-between-the-city-and-the-port/>
  - <https://www.louisvilleriverportauthority.com/>
  - <https://portworkspaces.com/>

Kevin concluded with five questions port directions should ask when pondering economic development options.

- Do you have a plan to team up with your City/County to build and share tax profits on development of industrial, office and mixed-use employment centers near the river and in port environs?
- Do you have a cooperative agreement with your City/County to provide property tax incentives for manufacturing, logistics, and technology recruitment? Or other P3s to encourage businesses to expand in the riverport?
- Do you have a CEO network that meets annually with schools, speaking frankly on curricula and tutoring to eliminate youth poverty and foster entrepreneurship, management, STEM, logistics, creatives, etc?
- Do you have a formal relationship with education? Are you able to be an economic leader in equity, in Einstein Projects that produce cash-positive ROI including net new taxes to City/County governments?
- Are you connected to existing state and local adult workforce initiatives? This could include the KY Department of Education,<sup>11</sup> Agriculture,<sup>12</sup> Transportation,<sup>13</sup> or Economic Development<sup>14</sup> initiatives.

## Question and Answers

A question-and-answer period followed.

- **To what degree is there added value to cross-border outreach, collaboration, regionalization, and formalized work together to attract federal investments?**

Any port directors or state officials who can pull together cooperation from teaming partners—other states, other regions—makes a competitive, compelling argument to be awarded grant money.

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<sup>11</sup> <https://education.ky.gov/CTE/nsfy/Pages/KY-NSFY.aspx>

<sup>12</sup> <https://www.kyagr.com/ky-agnews/press-releases/2021/KDA-KAM-announce-fifth-year-of-LAND-forums.html>

<sup>13</sup> <https://transportation.ky.gov/Education/Pages/default.aspx>

<sup>14</sup> [https://ced.ky.gov/Entrepreneurship/Accelerators\\_Incubators](https://ced.ky.gov/Entrepreneurship/Accelerators_Incubators)



its many success stories during his tenure. He became Secretary of Transportation in 2019 and currently leads 4,400 employees and oversees its \$2.5 billion annual operating budget.

Secretary Gray thanked the study team and port partners for their efforts to date. The national transportation freight network is one of the greatest assets of our country. Millions of people go to work every day operating trucks, trains, aircraft, barges, ships, and cargo equipment that contribute to the national economy. According to the Federal Highway Administration, nationally, our freight system moves 55 million tons of goods worth more than \$49 billion each day. In addition, the freight network supports 44 million jobs. It is a critical force in our economy made up of a vast, complex network of almost seven million miles of highways, roads, railways, waterways, and pipelines.

Kentucky is central to many of these waterway, rail, and highway networks. The state's freight infrastructure includes 10 interstates and 10 state parkways; 19 freight railroads operating over 2674 miles of rail; five commercial airports with the US hubs for UPS, DHL and the soon-to-open Amazon Prime Air; 37,000 miles of pipeline, and 1,980 miles of navigable waterways with 7 active riverports and 4 developing riverports. While logistics include transportation modes that vary in terms of their strengths and benefits, each serves an important role in the freight delivery system, and they must work together to create a connected and resilient freight network.

In terms of how KYTC is supporting the riverports, first in the past two years, we have authorized (conservatively) more than \$260 million in roadway infrastructure improvements in counties where we have operating riverports. Ensuring freight can be transported on land to and from the riverports is a significant priority and our primary mission at KYTC – maintaining and improving our roads and bridges. In addition, we have authorized more than \$185 million in roadway infrastructure investment in counties with developing ports.

Specific to the riverports, we have the KRI program that provides \$500,000 annually in the form of General Fund matching grants to address critical infrastructure development, facility repairs, and needed equipment to maintain or improve operations at our ports. To date we have awarded over \$4.8 million dollars in Kentucky Riverport Improvement to our seven operational public riverports. We also encourage and support our counties in applying for federal funding, which has been successful in bringing in tens of millions of dollars to improve Kentucky rail and highway infrastructure as well. In addition, Governor Beshear just announced in June \$2.5 million in railroad improvement awards to support the safe, efficient movement of freight across our state.

I heard during this Summit, the team outlined a number of funding opportunities for riverport leaders to consider when planning and developing their operations. There are numerous opportunities out there to

obtain funding for growth and development. I would encourage you to seek out these funding options and reach out to our team if we can provide counsel throughout that process.

Our state, our communities, and our industries need a multimodal transportation network that includes our riverports. This study is elevating the understanding of the economic role that each of the public ports and over 150 private river terminals play in communities across Kentucky. Our ports provide key waterway connections to and from our communities, to other states and domestic trading partners, to the Great Lakes, and to the Gulf of Mexico and international trade lanes. So, while we're here to focus on future needs for improvements to our riverport network, we know the connection across all modes of transportation are critical to our success. We thank each of you for helping us gain insights to help prioritize infrastructure investment and best serve the future freight needs of businesses and industries throughout the state.

## Question and Answers

Mikael moderated a series of questions provided earlier by the port directors.

- **Would KYTC promote the need for KRI funds to be a permanent budget allocation opposed to being funded from the general budget on an annual basis?**

Because the Transportation Cabinet's budget is approved every two years by the General Assembly, nothing is truly considered a permanent budget allocation. Since 2013, the Transportation Cabinet budget crafted by the Governor and enacted by the Legislature has included \$500,000 annually in general fund revenue for riverport improvement. KYTC utilizes the general funds appropriated to it through the budget bill for the Riverport Improvement grants. We are constitutionally prohibited from using road fund dollars for non-highway modes of transportation. That is why there's no line item for riverports in the six-year highway plan.

If riverports authorities and operators want to advocate for a dedicated revenue stream, the best place to start is to identify advocates who can enact necessary legislation. If successful in establishing a dedicated stream of revenue, the Cabinet would happily administer it as outlined in the enabling legislation.

- **Does the Cabinet have a position on a Kentucky carbon tax? If so, could a portion of that tax be dedicated to a state funding source for the Riverports?**

As the Energy and Environment Cabinet administers the program, KYTC does not have a position. It's no secret that passing legislation to fund infrastructure improvements via taxes is a challenge; we've worked hard to increase the gas tax for years. It comes back to the importance of leveraging your passion to engage with legislative voices.

- **With the recent Federal Infrastructure Bill passage, would the Cabinet support and request the development of an I-157 east that would connect Kentucky to states west of the Mississippi River? Kentucky is the only state that does not have Interstate highway connectivity across the Mississippi River. This would significantly enhance the opportunity for manufacturing and warehouse distribution development in Western Kentucky while providing safer and less congested highways.**

There is no active plan to pursue this connection, but with advocacy perhaps it gains traction. The Six Year Plan includes several ambitious projects; the working Infrastructure Bill could provide funding for projects like a new cross-river connection. Growing up in Glasgow, I remember a time before I-65 connected Louisville and Nashville and the impact the interstate—then the parkway system—had on these cities, Bowling Green, Glasgow, and others. Highways are a critical component of KYTC’s mission to provide economic opportunities for the Commonwealth.

If an I-157 connection has strong local support, talk to your local Area Development District planners to get it sponsored in the SHIFT process<sup>15</sup> to be prioritized among other statewide projects.

➤ **Does the Economic Development Cabinet have any input to state funds allocated to our Riverports?**

Economic development and transportation are closely related; the two agencies routinely engage as we develop opportunities and plans. The KRI budget bill language states that applications for the funds are reviewed and prioritized by the Water Transportation Advisory Board. As noted previously, KYTC is constitutionally prohibited from using road fund dollars for non-highway modes, like riverports.

➤ **Considering the current financial constraints, KYTC has to allocate dollars for roads and bridges. How or where do you see the needed riverport funding fitting in to the future KYTC plan?**

With constitution limitations to use Road Fund dollars on roadway projects, any state funding for riverport improvements would have to come from another source, such as the general fund. Once the study results are available, I encourage you to comb through it and see it as an advocacy tool for economic development opportunities riverport investments can unlock. I know you have a presence with groups like Kentuckians for Better Transportation to advocate on your behalf. The Cabinet is here to offer input and administrative support for funding opportunities using state and federal dollars.

➤ **The mission of this freight study is to take a holistic state view of our riverports and transportation modes for the future growth of Kentucky. Once the study is complete, can you provide your guidance to the ports on how they can leverage the findings to increase funding to support the growth.**

I chaired a study in the 1990s to improve quality and efficiency within state government that came up with hundreds of recommendations. I was proud when Governor Patton used it as his blueprint, transforming the study into an actionable plan. This port study should follow the same process: advocates picking up the recommendations and crafting an action plan to implement.

➤ **Should we consider reorganizing the Kentucky public ports and put them under one umbrella akin to how Indiana has structured the Ports of Indiana?**

There are many organizational structures that can succeed in different models, from consolidated to a loose confederation. As mayor, I’ve learned the value in easing into new organizational structures. There is no provision in our current laws that would even allow the Cabinet to take this type of action. And if there was, I wouldn’t be quick to take a position on a reorg unless I heard feedback from local city and county officials that this is a course of action they’d want to take. If

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<sup>15</sup> Online at <https://transportation.ky.gov/SHIFT/Pages/default.aspx>

there were interest in moving public ports under a statewide umbrella, that's something that is best to bubble up from the local level to the legislature.

- **How does the Cabinet plan to help market the Kentucky riverports as a whole during economic development conversations throughout the region and across the nation?**

While our agencies often coordinate, CED better fits the role of marketing whereas KYTC takes a more operational role. That's one of the reasons we partnered on the study.

- **Are there any additional plans to continue the current study after this Summit concludes? What are the next steps KYTC is planning?**

The study is near completion with a target to wrap up by the end of October. The question really becomes what are the ports going to do with this information? Let me give you a few suggestions. Organize. Gather all the public ports together so you are speaking with one voice. Gather all your allies together, whether it is the Kentuckians for Better Transportation, the Kentucky Chamber of Commerce, or even the Economic Development Cabinet. Make a plan. Determine what goals you want to achieve based on the information learned from this study. And finally, take the information to your legislators and the governor. They are going to be the ones that set the administrative polies and have the power to make the budgetary and legislative changes.

- **Can the public ports access the data from the study, specifically the projections for the individual riverports and how do they access that data?**

The Transearch dataset collected as part of this project is housed by KYTC. It is a massive dataset that requires extensive software experience to manipulate. The consultant team is developing a simplified method to allow ports to query the data. Port directors should expect to hear more from our project leads about the suggested method to access the data.

The study is in every respect a million-dollar asset. It represents a commitment by KYTC, but we cannot implement it. The action plan that emerges from the study—and its implementation—have to come from the port directors and other folks stepping up to move it forward. Identify your allies and work together on implementation to see the results.



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