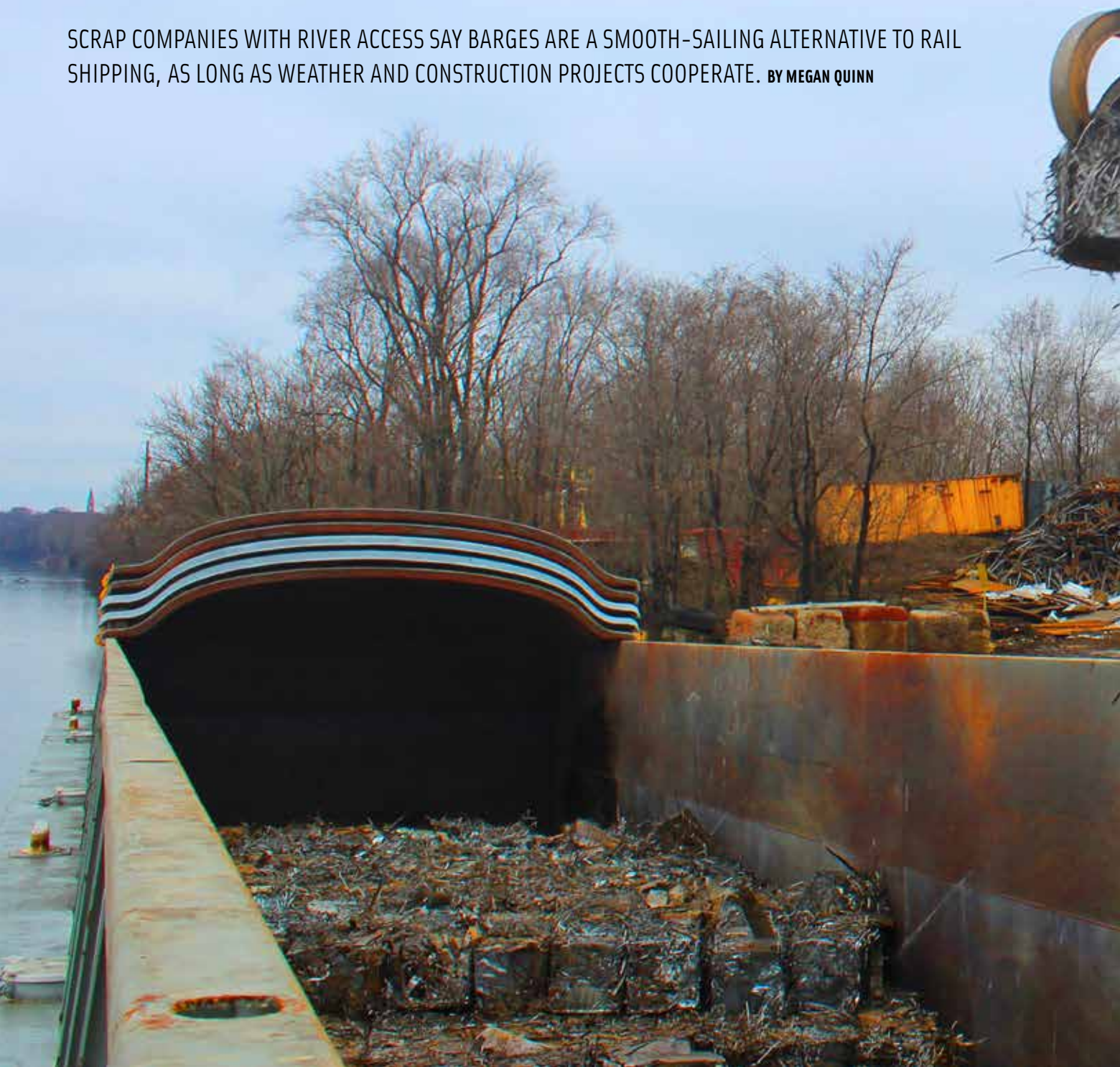


BARGING AHEAD

SCRAP COMPANIES WITH RIVER ACCESS SAY BARGES ARE A SMOOTH-SAILING ALTERNATIVE TO RAIL SHIPPING, AS LONG AS WEATHER AND CONSTRUCTION PROJECTS COOPERATE. **BY MEGAN QUINN**





Each spring for the last 60 years, enthusiastic boaters have crowded into the Des Plaines River in northern Illinois for the annual Des Plaines Canoe and Kayak Marathon, a celebration of the river's recreation and wildlife opportunities. In Joliet, Ill., the river and the wider Illinois Waterway network of which it's a part represents something else: a reliable, inexpensive, and fuel-efficient way to move thousands of tons of scrap to steel mills and other customers throughout the Midwest and the South.

"Access to the inland waterways by barge is a key component to our business," says Lou Plucinski, president of BL Duke, a scrap metal recycling and terminal services company in Joliet, Ill., that ships up to half of its scrap by barge. Barges don't get the same recognition or headlines as other transportation modes, like railroads or trucks, but barges have long been a staple transportation system for scrapyards like his, he says. The United States has about 25,000 miles of navigable inland waterways, and barges move up to 760 million tons of scrap and other commodities each year along those rivers and tributaries, according to the American Waterways Operators.

Scrapyards that can best take advantage of barge shipping generally have three characteristics: the ability to transport scrap easily and effectively from the scrapyard to the dock, the capacity to ship large quantities of scrap, and

customers that can receive scrap by barge. Barge shipping is so important to its business that BL Duke invested in a property with direct access to the Des Plaines River, where the company handles up to 15 barge orders per month of ferrous scrap destined for steel mills, foundries, and other customers along the Illinois, Mississippi, Arkansas, and Ohio rivers.

Recyclers don't have to be directly on a river or own their own docks to benefit from barge shipping, however. Grossman Iron & Steel, a

One reason barges are attractive to the scrap industry is their capacity to haul huge loads at generally low costs. One 15-foot barge can transport about 1,500 tons, the equivalent of about 17 rail cars or 70 truckloads.

scrapyard near the Mississippi River in St. Louis, simply loads trucks with material, drives the short distance to a barge terminal, and fills the barge at the scheduled time. It usually takes workers about five or six hours to fill a barge with busheling or shred. Grossman sends such shipments three or four times a month to mills owned by Nucor Corp. (Charlotte, N.C.) and other companies, transporting about 80% of its scrap by barge, says George Lawler, the company's logistics manager. He likens the process to door-to-door delivery: "We're right on the river. The people we sell to are also on the river. Shipping by barge is a no-brainer."

A COST-SAVING STRATEGY

One reason barges are attractive to the scrap industry is their ability to haul huge loads at generally low costs. One 15-foot barge can transport about 1,500 tons of material, which is the equivalent of 17 rail cars or 70 truckloads, for several dollars cheaper per pound than train or truckloads, recyclers say.

"Steel scrap is such a low-value commodity right now, and logistics costs have the biggest impact to our bottom line," Plucinski says. "Barges are far and away the most inexpensive way to move this type of cargo. If we want to go to Peoria, it's about \$7 per net ton by barge, or \$32 [per net ton] by truck. If we want to go to Mobile, it's \$24 a [net] ton by barge. We haven't even calculated what that would be in a truck," he says of recent prices.

Scrapyards can hire each barge individually by dealing directly with the barge company and

securing a spot market price, but those prices vary depending on the market and barge availability, Lawler says. When barge lines have excess equipment and little business, spot market prices are low. Those prices can rise quickly during important shipping seasons, such as when the agriculture industry begins harvesting grain—a major competitor for barge space in his region during the summer and fall, Plucinski says.

Enter into a long-term contract with the barge terminal, or have the mill secure the booking instead, to secure low or more stable prices, Lawler says. "We have contracted for barge freight ourselves, but most times, we're dealing with [larger scrap and steel companies], which have a lot more clout, so their barge rate is better," he explains. Large mills often have contracts with barge companies to use their barges for a certain number of bookings a year, which locks in a much lower shipping rate. Its relationships with its mill customers mean that in summer 2020 Grossman was paying a "ballpark" rate of about \$15 per ton to ship to locations along the Arkansas River, which is routinely lower than the rate it can negotiate on its own. "If you send anything by rail, you're looking at \$35-40 a ton. So that right there makes the decision for you. You go with a barge," Lawler says.

TRAIN TENSION

Though barge transportation was a no-brainer for Lawler's business, it took a little longer to convince another St. Louis scrapyard to make barge shipping a regular part of its logistics.

"I remember loading our first barge. There was a learning curve, but today it's like clockwork," says Dan Becker, co-president of Becker Iron & Metal (Venice, Ill.). Though the scrapyard is less than a mile from a barge dock, it didn't begin shipping prime scrap by barge until about four years ago, in part because the company has a rail spur and had invested in its own rail cars. The company's ongoing difficulties scheduling shipments with the railroads inspired Becker to consider other options, he says. It can take a long time for the rail carriers to return the company's rail cars for shipping, and "sometimes they get stuck somewhere, and you get a bill out of the blue for some repair that needs to be made," he says. Other times, the railroad would deliver many empty cars at once. The scrapyard can only accommodate and fill so many cars a day, however, thus such deliveries force them to speed

through loading or unloading to avoid steep demurrage charges. "There's a lot of additional expenses with the railroad that we don't normally get with the barge," Becker says.

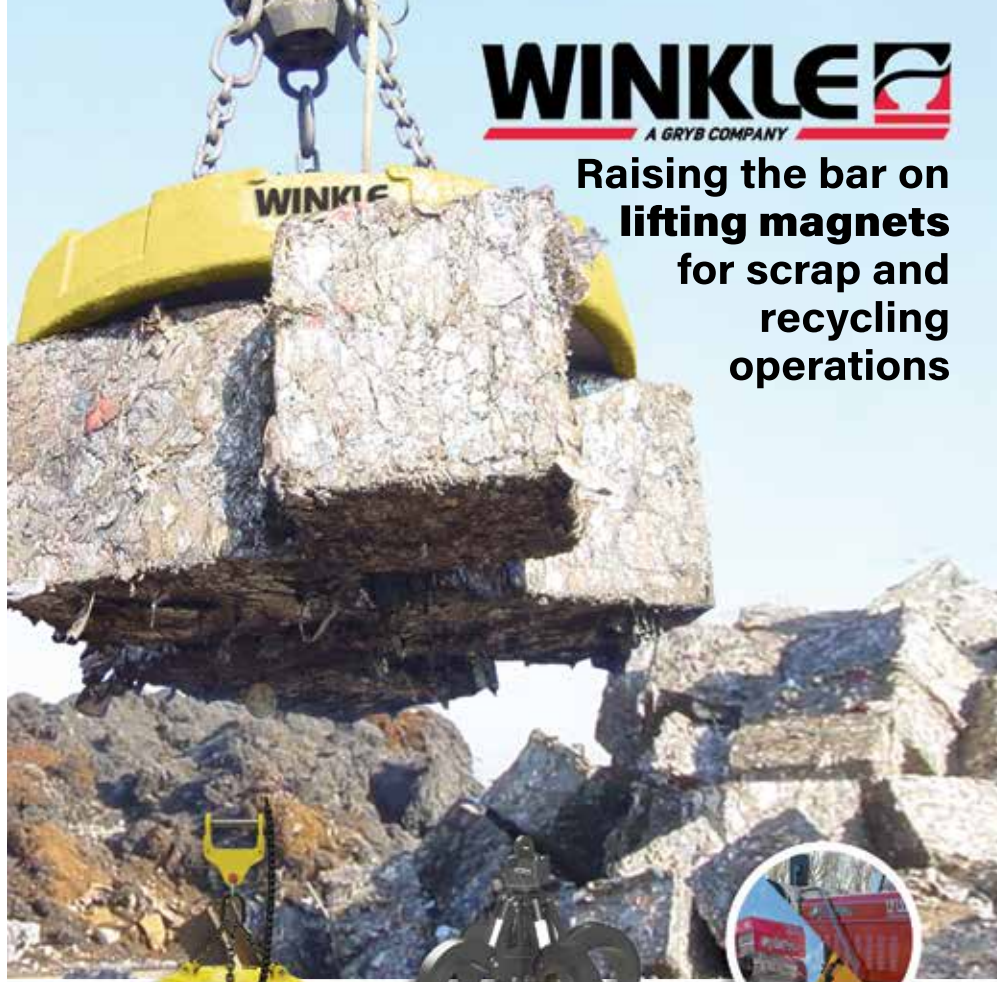
Both BL Duke and Grossman also have rail spurs and own their own rail cars, which Lawler and Plucinski say positions their companies to ship their scrap in any direction. But they share Becker's frustrations with rail. "Trying to get cars in a timely fashion is the biggest problem. You're stuck doing something in a three-week timespan. By the time you figure out what you need and where it needs to go, you don't have a big enough time envelope," Lawler says. "So yes, we do rail. But it's a last resort."

Both Becker and Lawler say they enjoy good relationships with the barge companies in the St. Louis area. Shipping by barge is a very common delivery method in the region, especially for the coal industry, and several barge companies usually are available for bookings even in the busy season. Lawler says barge companies sometimes call him when a barge is available ahead of schedule because of another company's cancellation. "We've found that with the barge guys, there's always a little flexibility."

The barge industry's breathing room is a welcome change from the railroad's rigid schedule, Becker says. Sometimes, the consumer or a broker handles the freight and contracts with the barge company on Becker's behalf, meaning his company only has to pick the loading dates and determine how many barges it needs to ship. Loading is also less of a headache than with the railroads, he says. Instead of rushing to fill a railroad car or worrying about how bad timing could cost them demurrage, "we usually get two days to load the barge, but often we can do it in one."

It can be a more laborious process to load and unload the delivery truck that takes the scrap from the scrapyards to the barge, but Becker says

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Barge shipping is not always smooth sailing. Chicago-area scrapyards are relying on railroads more this summer and fall than they would like because of a planned closure involving eight lock and dam sites along the Illinois Waterway, says Lou Plucinski of BL Duke.

the benefits of avoiding some of the railroad-related red tape and the costs and time constraints associated with shipping scrap by train are worth the costs. About one-third to one-half of his scrap now moves by barge. It's nice to have flexible transportation options, or the option to use a hybrid of both barge and rail to get scrap to its final destination, he adds. "I can go to Alabama, Mississippi, Arkansas, or Tennessee, or head up to Chicago. It's really market-dependent."

LOCK AND DAM TROUBLES

Barge shipping is not always smooth sailing. Chicago-area scrapyards are relying on railroads more this summer and fall than they would like because of a planned lock and dam closure, Plucinski says.

Eight lock and dam sites along the Illinois Waterway are "long overdue for significant repairs" to upgrade infrastructure that is over 80 years old, according to the Army Corps of Engineers. Significant points along the waterway, which connects Lake Michigan and the Mississippi River, shut down in July and won't be back open until repairs are complete in November at the earliest, it says. This could set back shipping schedules by up to a month and raise overall shipping rates by up to 20%, Chad Sutter, a logistics manager for Cooper Consolidated, told *Fastmarkets AMM* in October 2019.

The Chicago region began feeling the effects of the backup quickly after the closure, Plucinski says. "The only way to get to Chicago [from Joliet] on water is the Illinois River, and it's completely closed through October 2020. There is no barge traffic coming in and out, and that is a huge issue," he says.

Chicago is a net exporter of scrap for the region, and of the 200,000 tons of ferrous scrap Chicago-area scrapyards generate each month, 60,000 to 100,000 tons leave the area by barge, he says.

Even the recyclers who don't use barges are feeling the effects of the shutdown, says Frank Cozzi, CEO of Cozzi Recycling (Bellwood, Ill.). "The current shutdown of the locks on the Illinois river, prohibiting barge movement to the Mississippi, has a significant impact on ferrous scrap prices for all shippers in the Chicago market," he says. "Those who would normally ship by barge are forced to look for consumers in the Chicago market."

The closure is also unfortunate timing for BL Duke River Terminal, a new division of BL Duke launched in 2018. The company provides barge and rail transloading, warehousing, inventory management and final-mile logistics services. "Barge shipments make up a majority of the business for our terminal, followed by rail and truck. With the river closed and overall demand from local manufacturers down, it's been a difficult year for our new division. We're hoping the markets get back to normal soon because we are making investments to improve the facility's infrastructure and efficiencies," Plucinski says. The bottleneck of barge traffic in and out of Chicago could be both a blessing and a curse, he notes: It could increase demand for the division's services, but the demand could be overwhelming. "Transportation is going to become more and more of a headache," he says.

The Illinois Waterway project is an example of how heavily certain markets rely on barges for smooth, inexpensive shipping, but these

recyclers say they view the closure as a temporary obstacle that will have long-term benefits. Upgrades to the local locks and dams will actually make barge shipping even more stable in the future, Plucinski says. "It's exciting that they are rebuilding the dam system. It will make everything more reliable and make it more efficient. These haven't been touched in many years. Adding updated technology will mean there will be fewer closures." Lock and dam closures have been a routine part of shipping by barge the same way road construction and road closures are for truckers, Lawler says.

WEATHER WOES

Flooding, drought, or freezing can snare barge traffic and tie up shipments the same way construction can, these recyclers say. This can affect the time it takes to ship scrap, the cost for shipping, or the amount of scrap allowed onto the barge.

"If the water is too low, you can't ship, or you can't load as much weight on the barge," Becker says. "When the river is too high and there's flooding, it's too dangerous to move the barge, and there are delays." Becker remembers a major flood along the Mississippi River in 2019 due to spring snowmelt and rain, which disrupted the St. Louis area and put all barge shipping on hold for several weeks. The delays stretched out over several months afterward. "The barge facilities were all backed up. They were trying to accommodate all kinds of different customers, so what should have shipped in April was shipped in June." Becker shipped most of its scrap by rail for several months to avoid further delays, he says.

Similar flooding in the Chicago area at the same time snarled barge traffic to several mills in the region, Plucinski remembers. Though his consumers were understanding about the delays, steep competition for barges forced BL Duke to pay a premium to ship the material once it was safe to move barges again.

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Recyclers worry about racking up delay-related costs. They aim for shipping contracts that absolve them of responsibility for scrap that gets stuck at a dock or can't move because of problems on the river. Some contracts state that once a recycler loads the scrap onto the barge, it becomes the consumer's responsibility.

Other times, such as when Grossman handles contracts with the barge lines directly, the recycler takes on more risk, Lawler says. "In that case, if there's a flood and [the operators] park the barge, the meter starts running on dead freight time."

Scrapyards need to pay attention to closure alerts and stay in contact with their consumers, who are likely monitoring water conditions as closely as the scrapyard is, he says. "There's always one problem or another, especially when you're shipping farther away and have longer distances to go, Lawler says. "We're centrally located and can deliver scrap to most of our mills in four to five days, or six to seven max. Right

now we have a barge sitting somewhere on its way to [Steel Dynamics], but it's trapped because the waterway is shut down."

In the spring or summer, some recyclers or consumers try to schedule shipments taking potential storm delays into account. "The biggest problem with the spring and summer floods is that you may run into an extra day or two [of] transit time because they restrict the size of the tow or the travel hours," Lawler says. "But for us, we are not normally under the gun and needing to break a speed record to get our scrap there." Bad weather and weather delays are one of the unavoidable parts of barge shipping, Plucinski agrees. "You can never plan for nature."

PRICE AND LOGISTICS STRATEGIES

This year, lower ferrous prices, coupled with lower output from mills and business-related complications from the COVID-19 pandemic, have affected when and how recyclers ship scrap by barge.

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Major consumers like U.S. Steel, which shuttered for 18 months in the St. Louis area, only recently began purchasing scrap again. With fewer people buying items like cars and washing machines during the pandemic, mills aren't producing the same amount of steel as they were before COVID-19, Lawler says.

"If the mills aren't producing, they aren't buying, and that means we don't buy, or we buy for less," he says. Recyclers that ease off buying scrap because of market conditions sometimes ease off of barge shipping because they can no longer generate a high enough volume of homogenous material each month, Becker says. Recyclers need to be able to fill either a rake, a type of barge that holds 1,250 gross tons, or a box, a type that can carry 1,400 tons, he says. "You have to ask yourself how long you are willing to accumulate that material, wait to get it delivered, and then get paid. If you're in a cash crunch, maybe it might make sense to ship by truck or rail."

Becker says he's noticed rail service suffer

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since the pandemic started, which he believes is due to service cuts and closures. That problem may prompt Becker Iron & Metal and other scrapyards to continue shipping by barge even with reduced scrap flows, he says.

The volume of ferrous scrap BL Duke shipped in May was down by 50% from May 2019, in part because a major part of its business comes from manufacturing involved with automotive and other industries directly impacted by COVID-19. "We're getting back to normal now," he said in July, "but the scrap industry knows this business is always like a chess game: Get the best barge rates, get the best shipping price point for the scrap." ■

Megan Quinn is senior reporter/writer for Scrap.

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