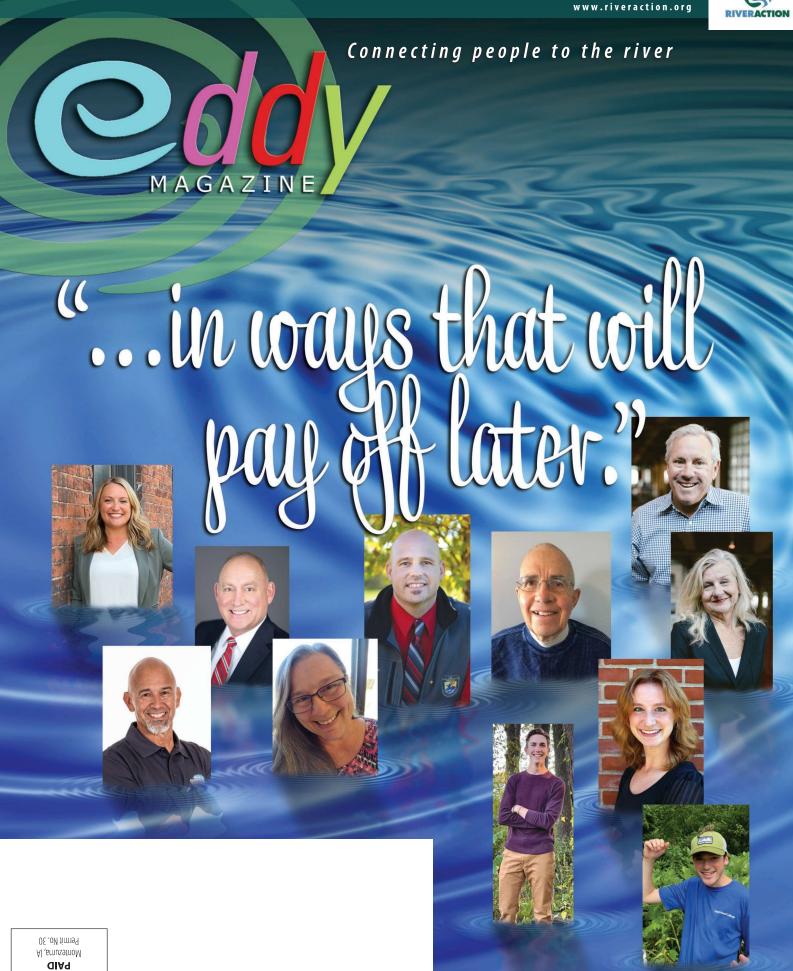
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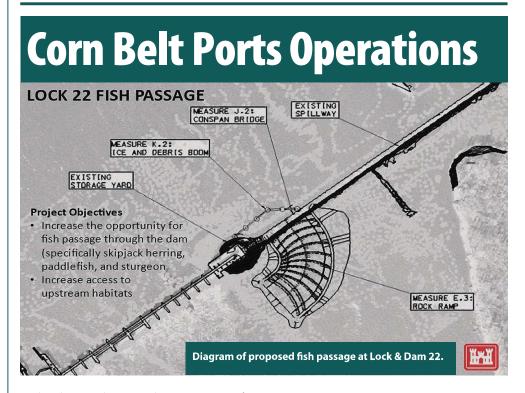


overgrown with shallow-rooted invasive species. These soil quality threats reduce tree root penetration into the soil, can cause snowmelt and rainfall to flow over the ground instead of soaking into the soil, decrease nutrient uptake, and create entry points for disease and insect infestations. The most effective management techniques to maintain soil quality will prevent and minimize these soil disturbances. Tree canopies, leaf litter, and prairie offer the best protection against erosion while plant roots stabilize and strengthen the soil against erosion. Soil can act as a sink for air pollutants as it supports the growth of plants, which play a major role in the regulation of air quality. Soil quality impacts air quality at a global scale (greenhouse gases, ozone depletion) and a local scale (particulates, pathogen movement, odors). This site has steep side slopes and the longrooted prairie plants will decrease erosion and increase water infiltration. Studies by the USDA and Iowa State University found that native grasses and forbs planted on former agricultural fields decrease the nitrate concentration in groundwater samples. The most dramatic decrease was closest to the restoration. Native grasslands take in carbon dioxide, give off oxygen, and trap carbon in their root systems, decreasing the amount in the air. Superfund sites have found that revegetation helps prevent soils contaminated with heavy metals from eroding into the rivers.

Equitable investment in healthy rivers and clean water is essential to solve the interrelated challenges of climate change, loss of biodiversity, and injustice. Restoration activities at the RIFPD sites will aid in achieving the stewardship goals of preservation of key pollinators, increasing biodiversity, and improving the health of the Rock River and Mississippi River watershed. Restoration activities have the added benefit of improving and expanding recreational

opportunities and access, and can partially mitigate the loss of habitat elsewhere by providing a more continuous wildlife corridor. The preservation of this land and the species that come with it will positively impact our community for generations to come, plus create a new recreational space for people of all ages to enjoy.

The conservation sections of the Infrastructure Bill could move the U.S. toward more equitable investment in healthy rivers and lands, essential to solve the interrelated challenges of climate change, loss of biodiversity, and injustice. Today, a restored prairie. Tomorrow, a healthier watershed and populace.



— by Chris Smith, Corn Belt Ports Director of Operations

n 2020 and 2021, the Corn Belt Ports were federally recognized, and together, based on freight tonnage, are the equivalent of the largest inland port in the nation, and connect the Heart of the Corn Belt with global markets. These three port regions include 40 riverfront counties, 12 regional planning agencies, 11 city and

county ports, and over 635 navigable river miles in parts of three Upper Mississippi River Basin States (IL, MO and IA).

In 1986, Congress designated the Upper Mississippi River System (which consists of the Upper Mississippi and Illinois Rivers) as both a nationally significant ecosystem and

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a nationally significant navigation system. It is the only inland river system in the United States to have such a designation. A complex geography like that in the center of the Upper Mississippi River Basin where multiple users of water (navigation, aquatic ecosystems, water supply, flood risk reduction, hydropower, agriculture, recreation, etc.) are all competing for limited water resources, in an area facing some well-documented climatic fluctuations, requires the right person to lead, coordinate and integrate sustainability and conservation efforts.

Because of the uniqueness of the requirements, the Corn Belt Ports needed an experienced environmental scientist that had solid water quality credentials and a strong agriculture commodity exchange background because of the national significance of the region to the global supply chain. The Corn Belt Ports Executive Coordinating Team recruited local scientist Dr. Anshu Singh to assist in securing \$1.24

billion in investment throughout the region's waterways in the recent Bipartisan Infrastructure Bill. "Twenty-five percent of the total investment will go directly toward innovative, technology-based ecosystem restoration and protection projects on the Illinois Waterway and the Upper Mississippi River," said Singh.

That investment included the start of the long-awaited Navigation and Ecosystem Sustainability Program (NESP) which included a nearly \$100M fish passage at Lock and Dam 22 (see drawing) as the first installment of \$1.717 billion for a 15vear effort to restore the river's ecological integrity and ability to support fish and wildlife. NESP will improve conditions for fish and wildlife through the construction of a fish passage, modified dam operations for the environment, 65 backwater and island enhancements, 29 side channel reconnections, and 92 modifications to channel structures. System ecological monitoring will document river health and allow river experts to assess the value of the restoration actions.



"Our apologies at the omission of

## Norm and Janet Moline

on the list of Swan Donors in our last issue. We are very grateful for their long-term support."





