

MRCTI

Digital Conference Sept 14-16, 2021
Redefining What River Cities Can Do



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August 1, 2021

Dear Mississippi River Corridor Stakeholder:

Once again, we must meet again in a virtual setting to keep everyone safe and control contagion as much as possible. Though we were supposed to meet in Baton Rouge this year, we hope this digital meeting will be just as valuable as an in-person counterpart. We plan to visit Baton Rouge in September 2024.

Building Back Safely. After hosting the last two meetings virtually, we are obliged to conduct our tenth annual meeting over a digital platform. Our 2021 Annual Meeting was originally scheduled to take place in Baton Rouge, LA. However, the developing COVID variant situation in southern Louisiana requires we take measures to keep Mayors and guests safe.

Recovery of the Mississippi River Corridor is strong. After the 2019 floods followed by a global pandemic, our corridor has certainly been tested, but our Mayors have showed epic leadership in working collectively to move and keep the region intact—ready to build-back-better with critical stakeholders like you.

Capstone the recovery of your city with us in Baton Rouge. The American Rescue Plan is stabilizing our budgets, the vaccine is rolling out, earmarks are back, and now we're poised to realize significant investment in restoring our infrastructure—join us in Baton Rouge to take advantage of all the resources becoming available; and place your organization in a proactive position to take advantage of new opportunities developing.

Mayors from ten states will gather with industry, federal leadership, and global investors. The MRCTI Annual Meeting begins on September 14 with a special infrastructure summit with industry leaders, global investors, and federal agencies. We then proceed through September 15 and 16 featuring discussions with parks organizations, state emergency managers, and land management specialists to unveil how all of us can participate in and benefit from corridor-scale disaster protection partnerships.

Major announcements will take place on September 14, 15, and 16. Our *Infrastructure Summit* on September 14 will include announcement of a tremendous new resource for our Mayors; during the Annual Meeting press conference on September 15, Mayors will reveal the potentially transformative results of our plastic waster initiative pilot; and on September 16, MRCTI will elect new co-chairs and executive committee.



MRCTI





Build-back-better with MRCTI. Together we can do much more than just recover to status quo. Through MRCTI, our cities can stand united in pushing for infrastructure that performs better, lasts longer, and is less costly to maintain and operate.

As you proceed through the various announcements, unveilings, and new partnerships featured at this meeting and profiled in this digital folder, please refer to the annual meeting agenda as materials are included here in the same order as placed on the agenda.

We hope you will find the materials and guides contained here useful in tracking all the Mayors of our great corridor are pursuing.

Very sincerely,

Sharon Weston Broome
Mayor of Baton Rouge, LA
MRCTI Co-Chair

Bob Gallagher
Mayor of Bettendorf, IA
MRCTI Co-Chair

Mississippi River Infrastructure Fund



A Finance Innovation Developed by:
Mississippi River Cities & Towns Initiative
Sciens Capital
Quantified Ventures

Introduction

The Mississippi River Cities & Towns Initiative (MRCTI) is working with project partners to realize a vision put forth by Ambassador Andrew Young to restore the entire Mississippi River Corridor through the harnessing of global capital to build a Mississippi River Infrastructure Fund (MRIF). The MRIF is designed to complement federal infrastructure spending toward both natural and built infrastructure restoration within the waterway's ten-state corridor concentrating attention on the main stem and those cities near or immediately adjacent to its banks.

How the MRIF Works

The MRIF is being designed to support sustainable development projects in cities along the Mississippi River that aim to generate a combination of social, environmental, and economic returns.

Partners engaged in a series of pilot projects and studies to determine the type, financial feasibility, and impact of infrastructure projects that are currently needed and planned along the Mississippi River Corridor. From this development work, it has been determined that the MRIF will begin small

with an infusion of \$100 million. A certain percentage will be set aside to invest in secure conventional water infrastructure projects with a dedicated ROI. The remaining seed funding will be used toward making grants or loans at not more than 3 percent (3%) to cities for innovative natural infrastructure projects to increase resilience, sequester carbon, improve water quality; multi-use economic development projects; and/or tourism projects.

The *Investment Arm* of the Fund, or conventional water infrastructure projects, will be comprised of an established vehicle with a proven positive return track record. The *Innovation Arm* of the Fund will operate through a schedule of annual allocations administered by an investment committee. MRIF eligible projects will focus on climate risk, resilience, adaptation, sustainability, and natural capital capacities in addition to generating economic benefits.

Priority will be given to projects that compliment, augment, and/or restore environmental services and assets such as wetlands, forests, marshes, and backwater connectivity.

- Continued on other side

What Will an Impact Investor be Investing In?

Impact or catalytic investors, through MRIF, would be investing into traditional and essential infrastructure projects as well as innovative new natural infrastructure projects. Where infrastructure banks already exist in several states, there are no investment vehicles dedicated exclusively to prosperity and preservation of the planet's most important River Valley which, in turn, supports the global commodity supply-chain. This truly is a unique opportunity to invest in climate risk, community resilience, sustainability, food/water security, and infrastructure restoration. Depicted right is an example of how the seed funding could be allocated to both generate traditional returns based on needed cash-flow coupled with an option to realize returns on climate, vulnerability, and water quality improvement.

\$100 Million Seed

\$50m Investment Arm 7% to 20% ROI <ul style="list-style-type: none"> • Secure Return • Water Projects • Utility Projects • Proven • Conventional • Established Fund 	\$50m Innovation Arm Grants, 3% ROI <ul style="list-style-type: none"> • Natural • Infrastructure • Multi-Use Proj. • Tourism • Resilience • Water Quality Improvement
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Why We Need to Invest in Mississippi River Communities

The Mississippi River is responsible for U.S. prominence in the global commodities trade. The natural and built infrastructure of the waterway makes possible the nation's only trade surplus and is one of the most tapped sources for fresh water on the North American Continent. The River generates nearly \$500.0 billion in annual revenue for the nation directly supporting 1.5 million jobs. The Mississippi River is mid-America's economic connection to all opportunities for global trade. The Southern Louisiana maritime port is the largest port by tonnage in the U.S. The U.S. is the world's largest exporter of food products due to the environmental services provided by the 31-state Mississippi River basin.

Outcomes Investing at Watershed Scale

This unique partnership provides a 'workhorse' Investment Arm delivering needed cash-flow to create safe returns while the Innovation Arm supports resilience, carbon reduction, water security, and protection of vulnerable communities. The non-monetary returns can be tracked for reporting through partners like CDP and listing. Partners like Two Degrees Adapt are providing data and analysis to inform project development. Other partners such as Ducks Unlimited are assembling an entre` of natural infrastructure deployments.

THIS IS NOT AN OFFER TO SELL SECURITIES. Information contained [in this announcement] is not an offer to sell securities or the solicitation of an offer to buy securities, nor shall there be any sale of securities in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of such jurisdiction.

Project Partners



Resilience Revolving Loan Fund Act Gives MRCTI Cities New Tool

The Resilience Revolving Loan Fund or STORM Act passed both the House and Senate unanimously as a separate stand-alone bill. Mayor Rick Eberlin of Grafton, IL (pictured right, top) and Mayor Melvin Carter of St. Paul, MN (pictured right, 3rd from top) conducted a press an on-line press conference with ASCE and the US Chamber thanking their members of Congress for moving the RRF to the President's desk.

The Act represents the largest new infrastructure protection tool since passage of the Pre-Disaster Mitigation Grant Program in 2001.

How the RRF Works

The RRF works like this...1) States will compile local government resilience projects into a package they send to FEMA; 2) FEMA then evaluates the projects for their ability to mitigate disasters and reduce repetitive loss; 3) If successful, FEMA awards a state a capitalization grant through which the State can set-up a revolving loan fund for localities to carry out their projects; 4) No single project can use more than \$5 million in loan funds toward one project; 5) the loan must be repaid by the locality back to the state at an interest rate of no more than 1.25%; 6) repayment periods varies depending on the terms of the state's RRF; 7) RRF loans are intended to be very flexible allowing local governments to place funds toward many different impacts from floods, to droughts, to even wildfires and chemical spills; 8) all repayments of loans go back into the RRF to fund another project in the state.

MRCTI originally wrote and proposed the RRF Act in March 2019. Congressman Davis of Illinois (pictured bottom, center) and Congresswoman Craig of Minnesota (pictured far right) had the vision and leadership to push it toward passage with the help of 2019 ASCE President Robin Kemper (pictured right, 4th from top).

The Resilience Revolving Loan Fund will help cities better live with the River rather than trying to make the River live with cities. Since 1993, towns have been moving residents out of exposed areas.

This Resilience Revolving Loan Fund will be a game-changer enabling Mayors to bring new and innovative resilience projects online. MRCTI sees a lot of those projects involving the deployment and restoration of natural infrastructure as well as built.

Wetlands, marshes, reconnected flood plain and backwater areas can help near-water communities move and store flood water at corridor scale. The priority is not to erect levees or flood walls but instead pulling levees back to give the River room.

One of the most valuable aspects of the RRF Act is it is designed to be flexible and be easier for local governments to apply. It currently can cost a city over \$200,000 to credibly apply for a FEMA grant. That's two-hundred thousand in data gathering, staff time, and red tape cities certainly can't afford.

The RRF, on the other hand, is designed to relieve towns of that burden and depend more on the ROI of a project. The law also allows cities to use the funds they would have had to spend on recovery to repay the loan amount. The RRF has been authorized for \$200 million over two fiscal years. MRCTI cities can help by urging their members of Congress to appropriate the maximum amount authorized.





DU CEO Adam Putnam (right) was joined by Memphis Mayor and MRCTI Tennessee State Chair Jim Strickland (left) to announce the Memorandum.

DU and MRCTI announce Memorandum of Common Purpose

Partnership with Mississippi River Cities and Towns Initiative will help protect and restore wetlands

WASHINGTON, D.C. – March 4, 2021 – Today, Ducks Unlimited and the Mississippi River Cities and Towns Initiative (MRCTI) signed a Memorandum of Common Purpose, signaling our shared goal to protect and restore wetlands and riparian habitats along the Mississippi River for the benefit of migrating waterfowl and Mississippi River communities.

One of America's largest expanses of wetlands, the Mississippi River Valley (MRV) is a vital migration corridor for 40% of North America's waterfowl and 60% of its bird species, but an estimated 75% of bottomland and riparian habitat has been lost. Since 2011, the MRV has sustained nearly \$60 billion in natural disaster impacts including flooding, droughts and major storms.

Under the Memorandum, MRCTI and DU will work together to profile and promote disaster mitigation through habitat restoration. We have the shared goal of accelerating the pace of natural infrastructure project delivery, such as floodplain and backwater habitat restoration and enhancement, that increases waterfowl habitat, reduces exposure of cities and towns to flooding and provides economically important recreation opportunities along the corridor.

In addition, more than one third of the mayors involved with the Mississippi River Cities and Towns Initiative are DU members. Ducks Unlimited CEO Adam Putnam was joined by Memphis Mayor and MRCTI Tennessee State Chair Jim Strickland to announce the Memorandum.

"The Mighty Mississippi has etched her place in our history, economy, folklore and the American character," said Ducks Unlimited CEO Adam Putnam. "Waterfowl, wildlife and people depend on this essential alluvial valley for our daily needs, and it only makes sense for DU to lock arms with MRCTI in common cause for conservation and restoration projects up and down the watershed. More than one third of the mayors involved with the Mississippi River Cities and Towns Initiative are DU members, and we're excited to partner with MRCTI to promote projects that are sustainable and ecologically beneficial – projects that will protect jobs, secure our economy and enhance both our man-made and natural infrastructure across the Mississippi River Valley."

"The signing of this innovative agreement with Ducks Unlimited will provide both habitat and disaster protection for our cities along the Mississippi," said Mayor Jim Strickland of Memphis, TN and MRCTI Tennessee Chair.

For more information, visit www.ducks.org, and be sure to Follow DU's Twitter feed – @DUNews1937 – to get the most up-to-date news from Ducks Unlimited.

Ducks Unlimited Inc. is the world's largest nonprofit organization dedicated to conserving North America's continually disappearing waterfowl habitats. Established in 1937, Ducks Unlimited has conserved almost 15 million acres thanks to contributions from more than a million supporters across the continent. Guided by science and dedicated to program efficiency, DU works toward the vision of wetlands sufficient to fill the skies with waterfowl today, tomorrow and forever. For more information on our work, visit www.ducks.org.

[The Mississippi River Cities and Towns Initiative \(MRCTI\)](#) is a coalition of 75 mayors from across the Mississippi River Basin, which spans nearly a third of the country. The Mississippi River provides drinking water to more than 20 million people and 50 cities. More than 60 billion gallons of fresh water is withdrawn from the river daily. The River's resources support 1.5 million jobs and create \$496.7 billion in annual revenue.

Mississippi River

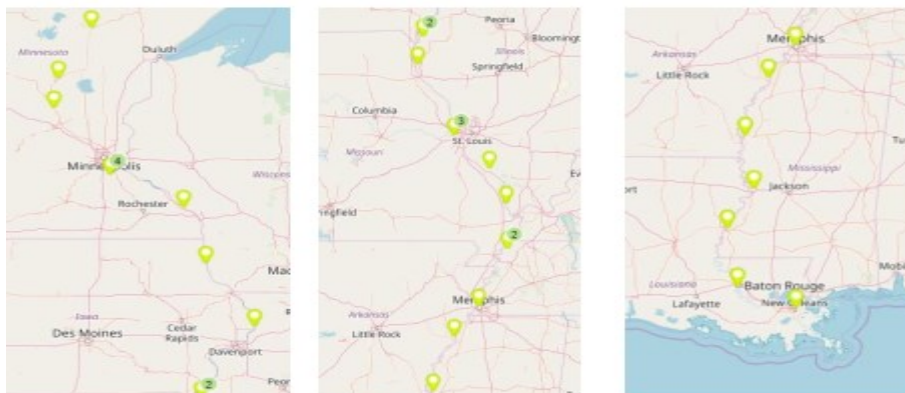
Flooding Economic Impact & Nature-Based Adaptation Solutions



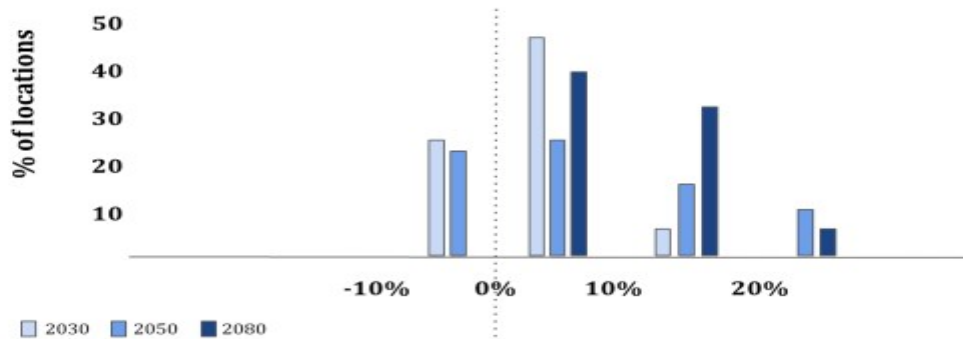
Project Partners



35 Analysis Locations



Median change in 1% flood discharge (relative to 2005)



17 levees present a significant probability of overtopping in case of a 1% riverine flood in 2030

Location	Levee	Probability of Overtopping for 2030 1% Flood
Mississippi River at Grafton, IL	Consolidated North County Levee System	1.08
Mississippi River at Winona, MN	Winona City & Prairie Island	1.04
Mississippi River at Helena, AR	Mississippi and White Rivers Below Helena System	1.03
Mississippi River at Chester, IL	Bois Brule Levee & Drainage District System	1.01
Mississippi River at Greenville, MS	Greenville Harbor - West Bank	0.99
Mississippi River at Baton Rouge, LA	Mississippi River West Bank - Below Morganza	0.99
Mississippi River at Baton Rouge, LA	Mississippi River East Bank	0.98
Mississippi River at Greenville, MS	Greenville Harbor - East Bank	0.96
Mississippi River at Chester, IL	Saint Genevieve Levee System No. 2	0.94
Mississippi River at Thebes, IL	Big Five Levee System	0.94
Mississippi River at St. Louis, MO	St. Louis Flood Protection Project System	0.92
Mississippi River at Lock & Dam 11 (TW)	Dubuque, IA	0.88
Mississippi River at Natchez, MS	Natchez Port MS	0.86
Mississippi River at Chester, IL	Prairie du Rocher / Edgar Lake System	0.80
Mississippi River at Vicksburg, MS	Vicksburg Protection Works - Westbank	0.77
Mississippi River at Memphis, TN	Memphis - Wolf River Backwater Levee System	0.66
Mississippi River at Mel Price Lock & Dam (TW)	Wood River D&LD Lower System	0.63

Shovel Ready Projects



- Typical Size: 200 Acres
- ROI driven solely by Carbon and Nutrient Removal Monetization
- Not significant contribution towards 1% flood mitigation

Infrastructure Wide Projects



- Typical Size: 10,000 Acres
- Significant contribution towards 1% flood mitigation

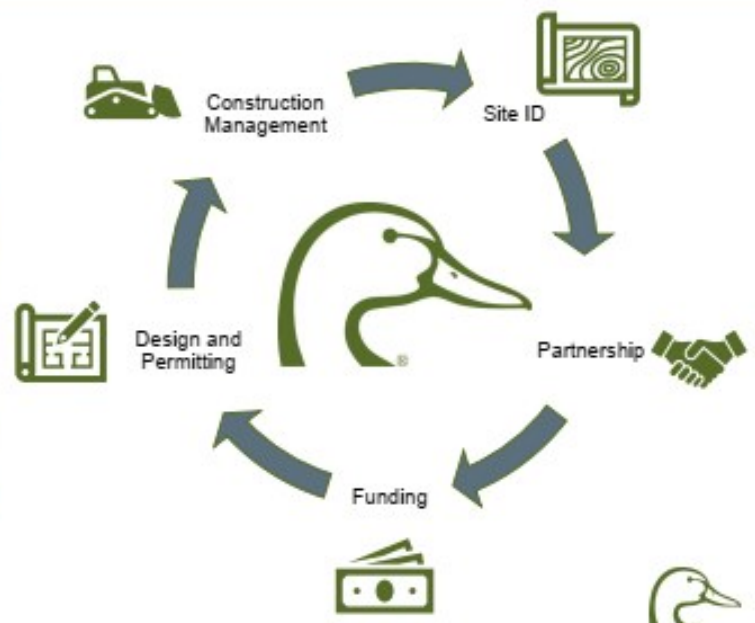
Selecting Regional Natural Infrastructure Pilot Projects Along the Mississippi River

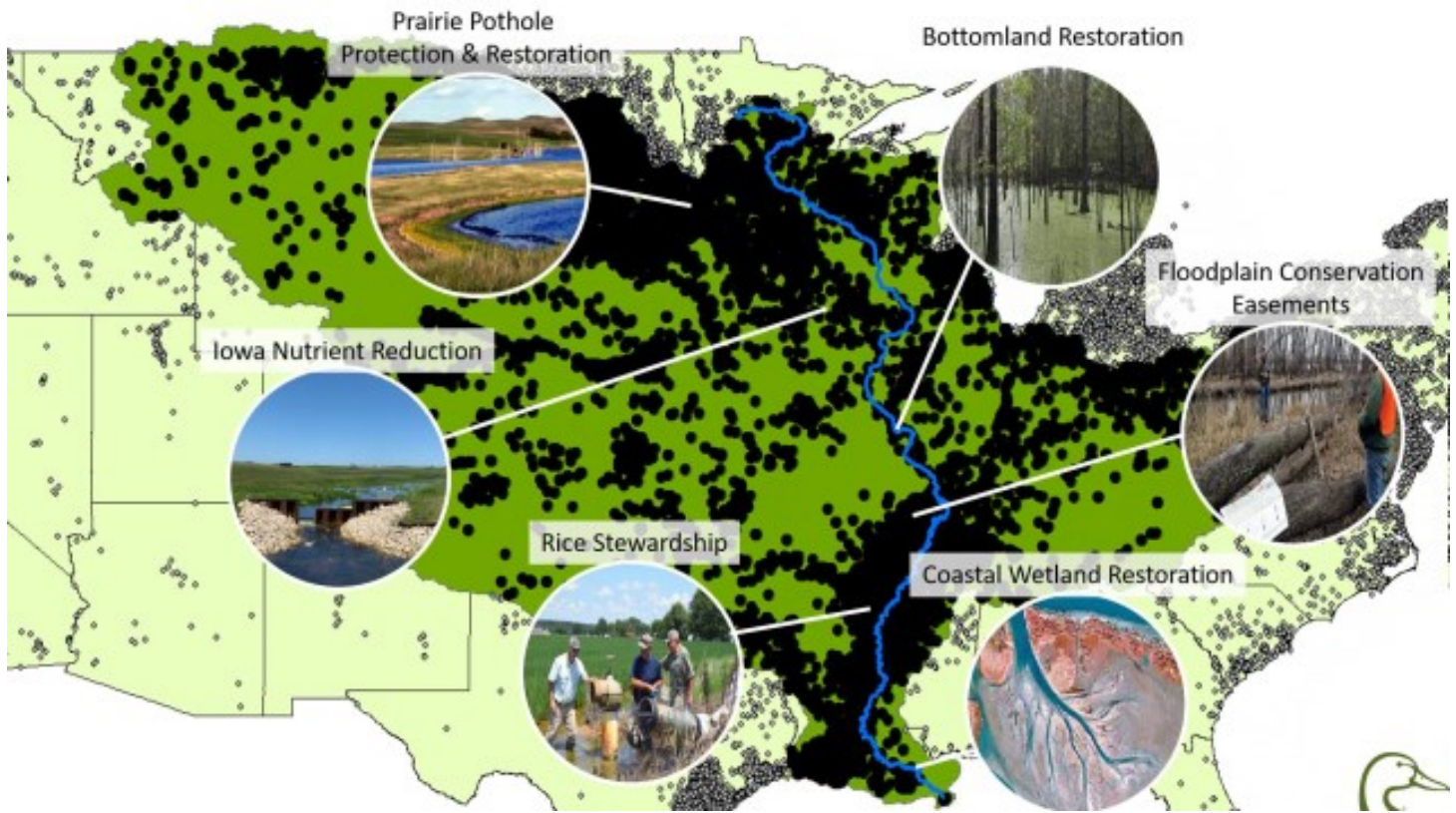
Dr. Ellen Herbert, Ecosystem Scientist
Michael Sertle, Big Rivers Biologist

MRCTI



Ducks Unlimited: How We Work





Wetland Loss = Loss of Water Storage



NEWS - 04 APRIL 2018

Mississippi River flooding worse now than any time in past 500 years



Inland Flood: Presidential disaster declaration



Natural Infrastructure Benefits

Annual Co-Benefits of Natural Infrastructure in the Mississippi Alluvial Valley



Provided water storage equivalent to the daily use of **83,287 U.S. homes.**



Removed CO2 Equivalent. Equal to **34,324 cars** for one year.



7.6M lbs.

Reduction of enough Nitrogen in waterways to fertilize **33,062 acres of corn.**

\$5.79M



Value of the natural capital produced by just one year of DU's conservation projects in the MAV.



7.08M DED

Duck Energy Days enough to support **64,384 ducks** all winter.



Building Partnerships to Deploy Natural Infrastructure: MRCTI & DU

- Absorb Floodwater
- Public Recreation & Tourism
- Increase Habitat
- Improve Water Quality
- Sequester Carbon



Deploying Natural Infrastructure at Scale to Protect Our Cities:

*Selecting Regional Pilot Projects with
Ducks Unlimited, Inc.*

MRCTI



Ducks Unlimited Pilot Project Region



Pilot Project Rational



Dutch "Room for the River" @ Nijmegen, Waal River

- In or upstream of Two Degrees Adapt study identified locations
 - Mid-river focus
- Potential to increase flood storage
- Timeline
 - Shovel Ready
 - In-Design
 - In-Planning



Tangible Results

★ MICHIGAN

DU project lessens impact of historic Michigan flooding

1,000-acre project helps absorb 10 feet of floodwater



The DU project at Shawanese National Wildlife Refuge in 2018.

Saginaw and Bay City Rivers

Saginaw wildlife refuge swallowed up to 10 feet of water and stopped a bigger flooding disaster



Riverine Flood Reduction Capacity



Minimum of 10,000 acres to achieve 1% reduction in riverine flood by 2030

St. Genevieve 10% overtopping reduction 60,000 acre-feet

Region	Area (acres)	Flood storage (min acre-feet)	Flood storage (max acre-feet)
Quad Cities	19,539	15,308	41,751
St. Louis	19,347	12,281	58,041
Tri-State	19,987	21,985	59,961

- Average cost per acre-foot of storage (one flood): \$2,524
 - 1 flood/year over 30-year design life: \$84/acre foot



Co-Benefits for Project Portfolio



54,618 to 268,078 mtCO₂e/year



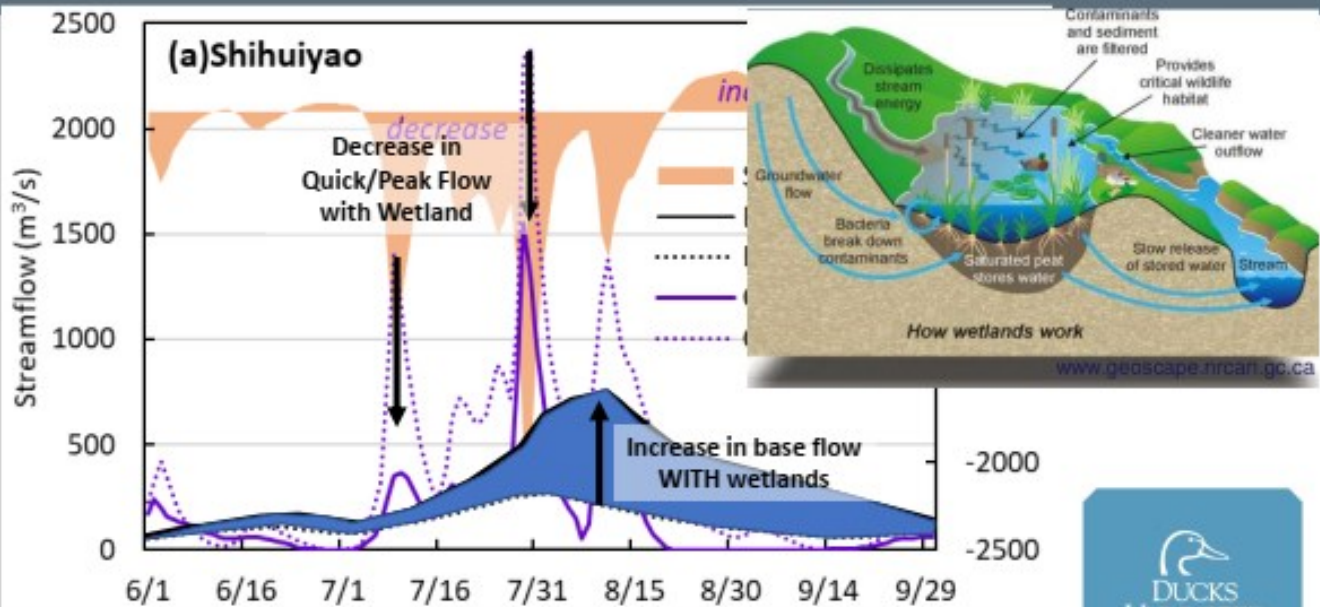
529,009 to 944,647 kg N/year



\$16-\$1,400/acre annually in recreation and other benefits



Co-Benefits for Flood and Drought



The Memphis/West Memphis Region



1,777 to 8,741 $mtCO_2e/year$



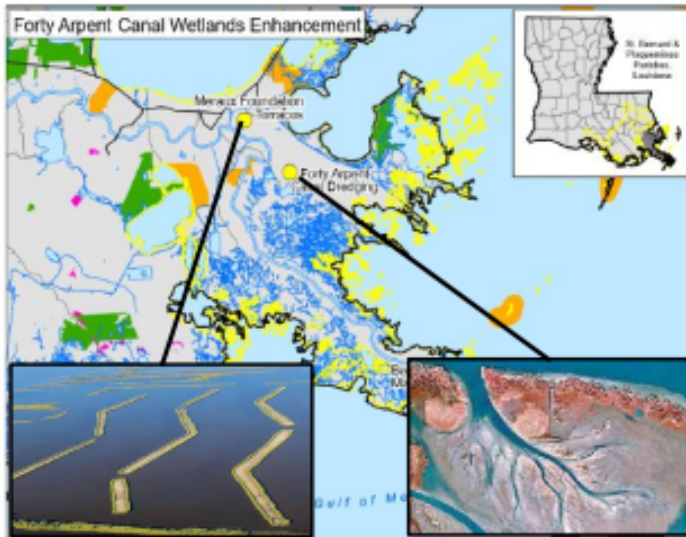
22,460 to 41,885 kg N/year



773, 611 pedestrians and
200, 476 cyclists



New Orleans/Gulf Coast



7,484 mtCO₂e/year



15-30% Reduction Storm Surge



Wetlands Conservation: Natural Infrastructure Solutions for the Mississippi River

MRCTI



REPORT HIGHLIGHTS

THE MISSISSIPPI RIVER PLASTIC POLLUTION INITIATIVE

Mississippi mayors, scientists, and communities have come together to tackle plastic pollution through the Mississippi River Plastic Pollution Initiative. A new report from Phase 1 of the Initiative showcases the state of plastic pollution along the river using data that was generated by volunteer citizen scientists in three pilot cities during the Spring of 2021.

VIEW FULL REPORT HERE: <https://bit.ly/3EaixlF>



OVERALL CORRIDOR FINDINGS

OVER 75,000 ITEMS COLLECTED

75,184 Items

74% Plastic

8% Metal

7% Paper

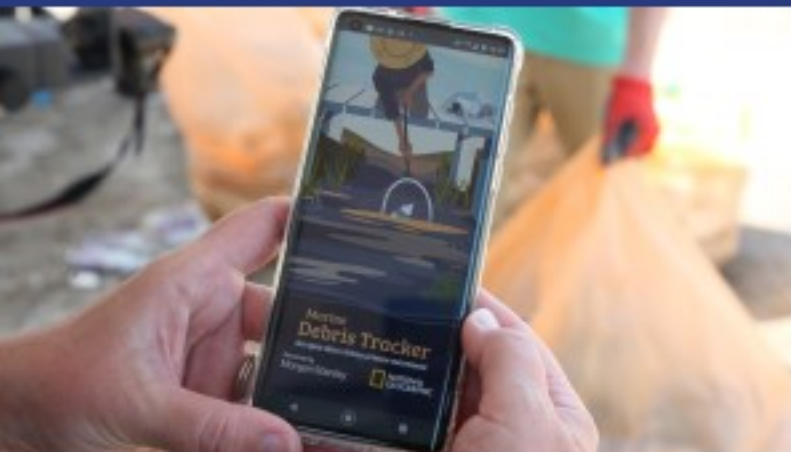
240 brands of litter were identified

Top Items

cigarette butts

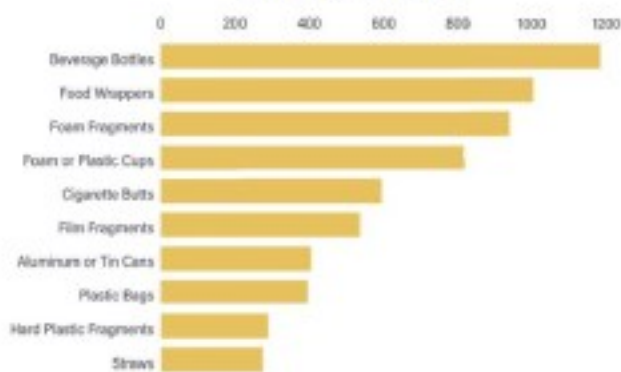
food wrappers

beverage bottles

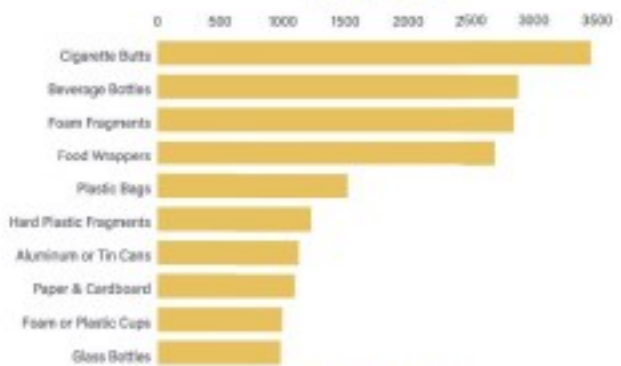


TOP ITEMS FOUND IN PILOT CITIES

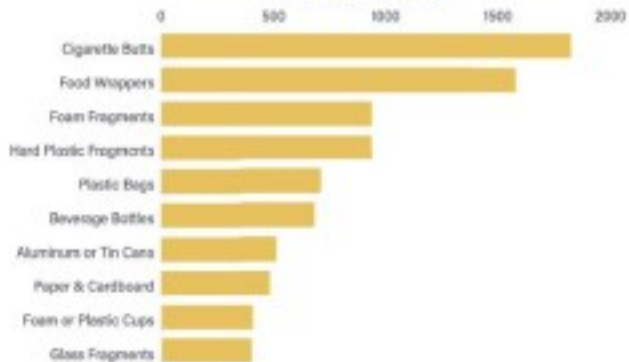
BATON ROUGE



ST. LOUIS



SAINT PAUL



www.unep.org/Mississippi

THE MISSISSIPPI RIVER PLASTIC POLLUTION INITIATIVE

The Mayors of the Mississippi River, in partnership with the United Nations Environment Programme, National Geographic Society and the University of Georgia, have launched an initiative to combat plastic pollution along one of the world's greatest waterways.

Working with volunteer citizen scientists from local communities, the initiative is recording data on the state of plastic pollution along the river to help policy makers, business and citizens take plastic pollution action.

THE CURRENT SITUATION

The Mississippi River is America's most essential inland waterway, providing hundreds of billions of gallons of water each day to key industries, as well as drinking water to 20 million people in 50 cities in 10 states. The ecology of the river is rich in diversity, supporting the livelihoods of people living along the river as well as a wide range of plant and animal species.

TACKLING PLASTIC POLLUTION ON THE MISSISSIPPI RIVER

In September 2018, state legislators and mayors of cities and towns along the Mississippi River made a commitment to reduce plastic waste in the Mississippi River Valley. Under the leadership of the Mississippi River Cities and Towns Initiative (MRCTI), mayors invited public and private entities to reduce their plastic use or waste stream by 20% by 2020. To support this goal, a new initiative has been launched to generate a first-ever snapshot of plastic pollution along the river.

To kick off the initiative, plastic pollution data was collected in three pilot cities during the Spring of 2021: Baton Rouge, St. Louis, and Saint Paul. This data was generated through a "citizen science" approach using a free mobile app for tracking upstream and coastal litter called the Marine Debris Tracker.

The data collected during this initiative is being used to generate a critical baseline for decision-makers in both the private and public sectors, against which to judge the success of their efforts to reduce plastic pollution flowing into the river.



THE PROBLEM

Plastic Pollution impacts more than the river valley. Up to 80% marine plastic originates from land-based sources. It is estimated that the Mississippi River drains 40% of the continental United States, creating a conduit for our litter to reach the Gulf of Mexico.

THE SOLUTION

Mayors, researchers, citizens and local organizations are coming together to collect data at different points along the river that can be utilized by decision-makers to inspire and take action. From schools to businesses, everyone can be a part of the solution!

Mississippi River Cities & Towns Initiative
1520 Market Street, Suite 2000
St. Louis, MO 63103

M R C T I

