

# NATURE-BASED CLIMATE SOLUTIONS

By 2025, Delta Institute will have assisted municipalities in integrating natural and green infrastructure – improving the environment, mitigating the impacts of climate change, and strengthening communities – reducing stormwater impacts by **100 million gallons** and leveraging **\$100 million** in investment.

By standardizing green infrastructure, creating innovative financing mechanisms for municipalities, and using natural solutions to water management, Delta will help our community partners attain improved water quality, canopy cover, and address equity issues through the improvements that healthier water and trees bring.

**Why our work is needed today.** As climate change impacts continue to accelerate, cities and regions throughout the Midwest have experienced increased problems related to flooding, stormwater runoff, and degraded infrastructure—all threatening public health, water quality, economic opportunity, and quality of life. Furthermore, stormwater runoff carries oils, grease, pesticides, sediment, and excess nutrients (such as phosphorus and nitrogen) into Lake Michigan tributaries.



**100 MILLION  
GALLONS**



**\$100 MILLION  
INVESTED**

Nature-based climate solutions and GI such as rain gardens, stormwater planters, permeable pavements, and bioswales provide communities with opportunities to manage these challenges more effectively. However, many communities face barriers which prevent adoption, including planning, design, connecting natural systems with gray infrastructure, financing, maintenance, and monitoring.

**Our Renewed Focus.** Delta is realigning our organizational strategy to do a deeper level of impact on Midwestern climate resilience through our programs. Our current and recent Nature-Based Climate Solutions goals include:

**Goal: Increase adoption and integration of green and natural infrastructure.** Projects include:

- [Sharing our GI designs guide](#), an open-source guide with standard GI techniques for community use;
- Partnering with communities to install GI, ranging from riparian restoration to [wetland creation](#) to [municipal/built stormwater management projects](#) to reduce flooding and improve water quality; and,
- [Planting 700 stormwater trees in Oceana County, Michigan](#), while also hosting capacity-building workshops that advance long term forestry management goals for local community leaders.

**Goal: Create an integrated administration program to scale up implementation of green and natural infrastructure.** Projects include:

- [Collaborating with a cluster of public and private sector partners](#) through RISC Solutions to execute \$10 million in investments for improved water quality and more green neighborhoods; and,
- Partnering directly with municipalities to design strategies for implementing GI, such as in our [Gary, Indiana GI plan](#).

Implementing nature-based climate solutions yields several community benefits: reduced flooding, increased access to green space, restoration of biodiversity, increased economic development, improvements to water quality, removing and storing carbon, and absorbing odors and pollutant gases.

### Creating an economically vibrant Midwest.

In addition to their environmental and climate benefits, these nature-based climate solutions also have positive effects on communities' insurance rates, median income, housing prices, and other economic indicators. Our work will also streamline the process for municipalities to gain access to emerging carbon and water markets. Please join us today.

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Delta Institute works with communities throughout the Midwest to solve complex environmental challenges. We envision a region in which all communities and landscapes thrive through an integrated approach to environmental, economic, and social challenges.

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