



Encampment Forest Association - Two Harbors, Minnesota

SHORING UP

RIVERINE SOLUTIONS & SHORLINE RESILIENCE

Riverine projects are vital to recreation, habitat connectivity, and community resilience. Because these shorelines are heavily used, they require durable designs that balance human activity with natural processes and a changing climate.

AMI Consulting Engineers, P.A. combines advanced software with experienced engineers to deliver customized riverine solutions for private, commercial, tribal, municipal, and government clients. Riverine environments present unique challenges, requiring designs that are attractive, functional, constructible, cost-effective, resilient, and environmentally sustainable. Our work accounts for storm events, floodplain impacts, and climate change scenarios.

SHORELINE STABILIZATION/REHABILITATION

Increasing precipitation, flooding, and development accelerate shoreline erosion. AMI helps clients protect their shorelines using structural and nature-based features that improve stability and long-term resilience. Through site-specific assessments, AMI evaluates shoreline reach, river currents, flooding history, sediment transport, and physical conditions to determine the most appropriate protection measures. Solutions are selected based on geophysical setting, desired risk reduction, materials, cost, and durability.

WATERFRONT PERMITTING SERVICES

AMI understands environmental regulations and guides clients through permitting to keep projects on schedule and reduce risk. We monitor in-field conditions, anticipate regulatory needs, and manage permits across agencies including DNR, EPA, USACE, Fish and Wildlife, SHPO, and others. Our comprehensive permitting services support all phases of riverine and environmental projects.

ENGINEERING WITH NATURE (EWN)

AMI actively incorporates the USACE's Engineering With Nature (EWN) principles. We align natural and engineered systems to create sustainable, resilient designs that integrate social, environmental, economic, and climate considerations. Our projects—such as dredging, marsh creation, ridge restoration, and river restoration—utilize natural processes to enhance performance and reduce environmental impact. Stakeholder and public engagement is a key part of our EWN-based approach.

RIVERINE PROCESS MODELING

Our team of engineers, scientists, and geologists collects and analyzes field data to model complex riverine processes. AMI provides expertise in river scour analysis, hydrology and hydraulics (H&H) modeling, sediment transport, and geomorphology to support project planning and design.