



Northern Waterthrush
Parkesia novaboracensis

CRYSTAL CREEK RESTORATION PROJECT



Green Darner
Anax junius

Improving Water Quality and Aquatic Habitat within Crystal Creek Watershed



Illinois Chorus Frog
Pseudacris illinoensis



American Toad
Anaxyrus americanus



Blanding's Turtle
Emydoidea blandingii



Common Snapping Turtle
Chelydra serpentina



Orangethroat Darter
Etheostoma spectabile

WHAT IS ROCK PROTECTION AND WHY ARE THE STREAMBANKS RE-SHAPED?

Outside bends of meandering streams receive the strongest flows following significant rain events in urban areas. Without protection, these flows cause the streambanks to erode. Stone, made up of natural rock, is placed in these areas to stabilize the bank and prevent erosion.

Streambank re-shaping, from a steep slope to a more gentle grade, creates floodplain and allows for planting with deep-rooted native vegetation. Native plants hold the soil in place as water levels rise and velocity increases.



Natural rock is used to stabilize eroded streambanks



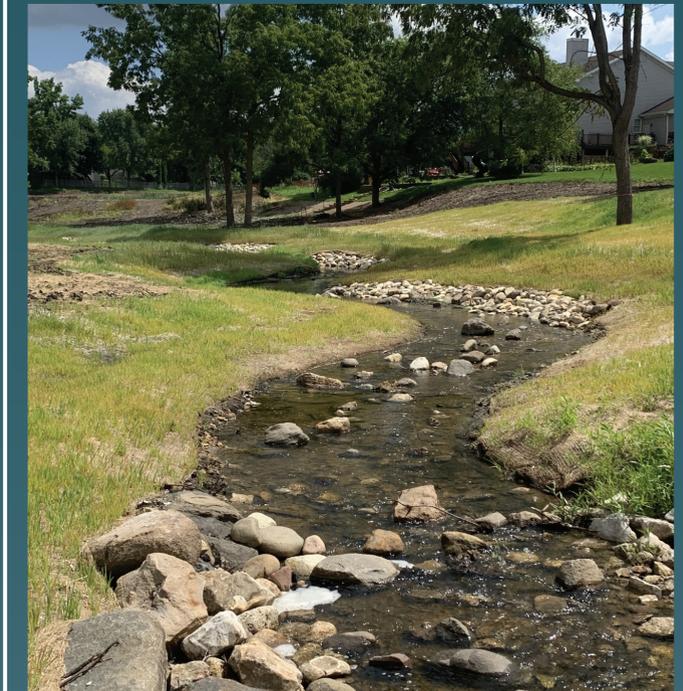
This restored portion of Crystal Creek mimics the natural conditions that existed prior to the stream being relocated and channelized in the 1960s. Ecological restoration projects create green infrastructure connections that improve water quality, reduce flooding, make the ecosystem more resilient, and restore biological diversity.

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WHAT ARE RIFFLES AND HOW DO THEY BENEFIT A STREAM?

Riffles are features in a stream where water is shallow and fast flowing over a substrate of rock and gravel. Riffles provide multiple benefits: they reduce streambank erosion by focusing the flow of water to the center of the channel, increase oxygen levels as water flows over the rocks and becomes aerated, provide fish and aquatic insect habitat, and help create deeper pools on the downstream end.



Constructed riffles providing habitat and oxygenating the water