

# BENEFITS OF ECOLOGICAL RESTORATION

## VILLAGE OF ALGONQUIN



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owns and actively maintains over 750 acres of preserved open space. Over the past 25 years, over 400 of those acres have been restored utilizing plant species native to the state of Illinois. There are many benefits of our naturalization program.

*Gaslight Park Bird and Butterfly Sanctuary*



### WATER QUALITY BENEFITS

- Reduction of nutrients and pollutants in stormwater runoff
- Increased Infiltration to Shallow Aquifers
- Erosion Control
- Flood Control



### ENVIRONMENTAL BENEFITS

- Increased carbon sequestration
- Increased habitat for native insects and animals
- Increased biodiversity
- Expand and protect our rare native ecosystems
- Improved soil health



### CULTURAL ECOSYSTEM SERVICES

- Improved aesthetics of restored areas
- Additional passive recreation opportunities
- Increased property values adjacent to restored natural areas

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Dixie Creek Restoration Project

# CREEK RESTORATION BENEFITS



Reduces Flooding to Neighboring Properties



Deeply rooted native plants prevent erosion



Native plants filter pollutants from stormwater before entering waterway



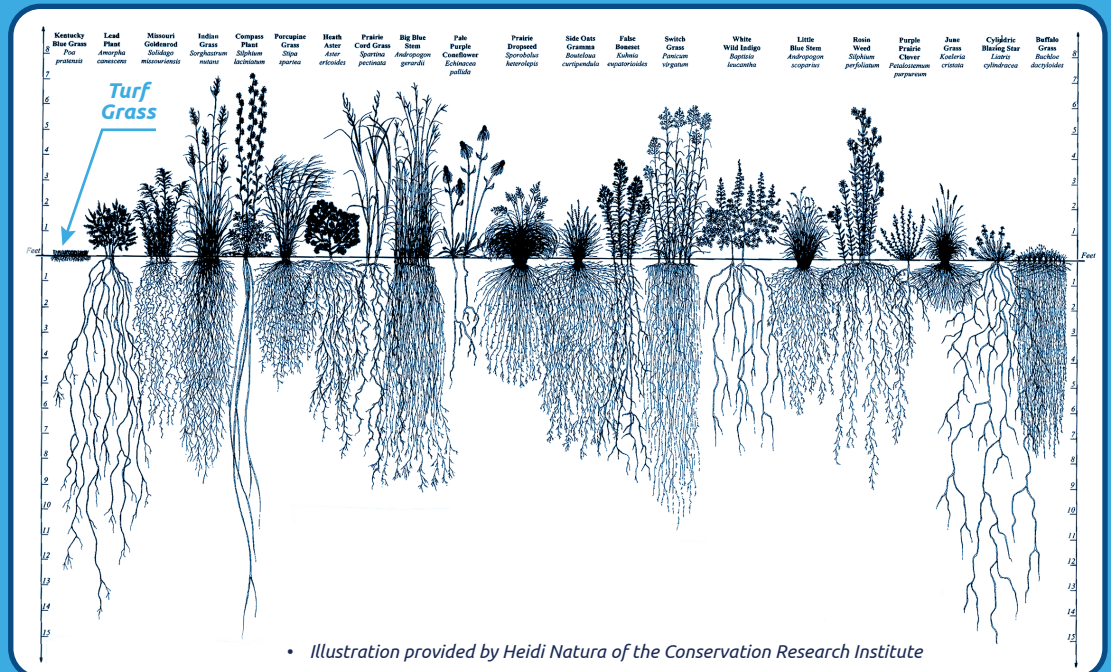
Increased habitat for fish and aquatic macroinvertebrates

# UNDERSTANDING DEEP ROOT SYSTEMS AND THEIR FUNCTION IN THE ECOSYSTEM

Many of the benefits provided by naturalization projects are due to the deeply rooted prairie plant species that are native to our region that are installed during the ecological restoration process. Many of these plants have roots that grow five to ten feet into the soil, with some species having roots that reach depths of 15 feet!

- Native prairie plants are the best natural option for the prevention of erosion
- An established prairie can absorb up to 9 inches of rainfall per hour before runoff occurs
- Native prairie plants sequester carbon in the soil due to their extensive root systems
- Increased water infiltration rates lead to increased recharge rates for our shallow aquifers\*

\*The Village of Algonquin receives the majority of its drinking water from shallow aquifers.



• Illustration provided by Heidi Natura of the Conservation Research Institute