

Elbow Creek: the good, the bad, and the ugly

A presentation for Friends of Lake Algonquin

July 29, 2023





Hello!
I'm Caitlin Stewart,
and I'm glad
you are here today!!

Roadmap



Historical perspective



Storm damage



Next steps

A Historical Perspective of Elbow Creek

STRAIGHTENING

Habitat was compromised, sediment was deposited, stream velocity increased.



Natural Channel Design Project

J-hooks and cross veins installed along a 1,900 ft stretch. Diffuse and redirect energy, reduce bank erosion, create habitat.



1970s

1996

2008

2019



Severe Rain Event

Elbow Creek flooded, Gilmantown Road washed out. Bedload carried then deposited. Bank erosion.



Streambank Stabilization Project

Stabilized another 500 ft stretch. 7 J-hooks and cross veins were repaired. 4 new structures were installed.

2019 Halloween Storm

- ▶ Hit after our stabilization project was installed
- ▶ 50% rock structures are still in place
- ▶ NCD protected streambanks and landowner property
- ▶ Stream channel still exists
- ▶ J-hooks and cross veins mitigated erosion, sediment transport and deposition
- ▶ Water quality degradation would have been much worse without NCD



Next Steps

\$75,000 WQIP
grant

Hire hydrologist

Comprehensive
stream corridor
assessment

ID areas prone to
erosion and
flooding

Prioritize areas
to implement
erosion reduction
practices

Future funding -
implementation
dollars
(hopefully!)

The good, the bad, and the ugly

- ▶ The ugly - straightening
- ▶ The bad - severe storm events
- ▶ The good - assessment of entire stream corridor, holistic watershed approach



What
questions
do you have?



Working to manage and promote the wise use of natural resources in Hamilton County since 1965



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