



# Cedar Creek and Southside Park Pond

## Municipal Class EA

Public Information Meeting #3

July 11, 2012

**AECOM**

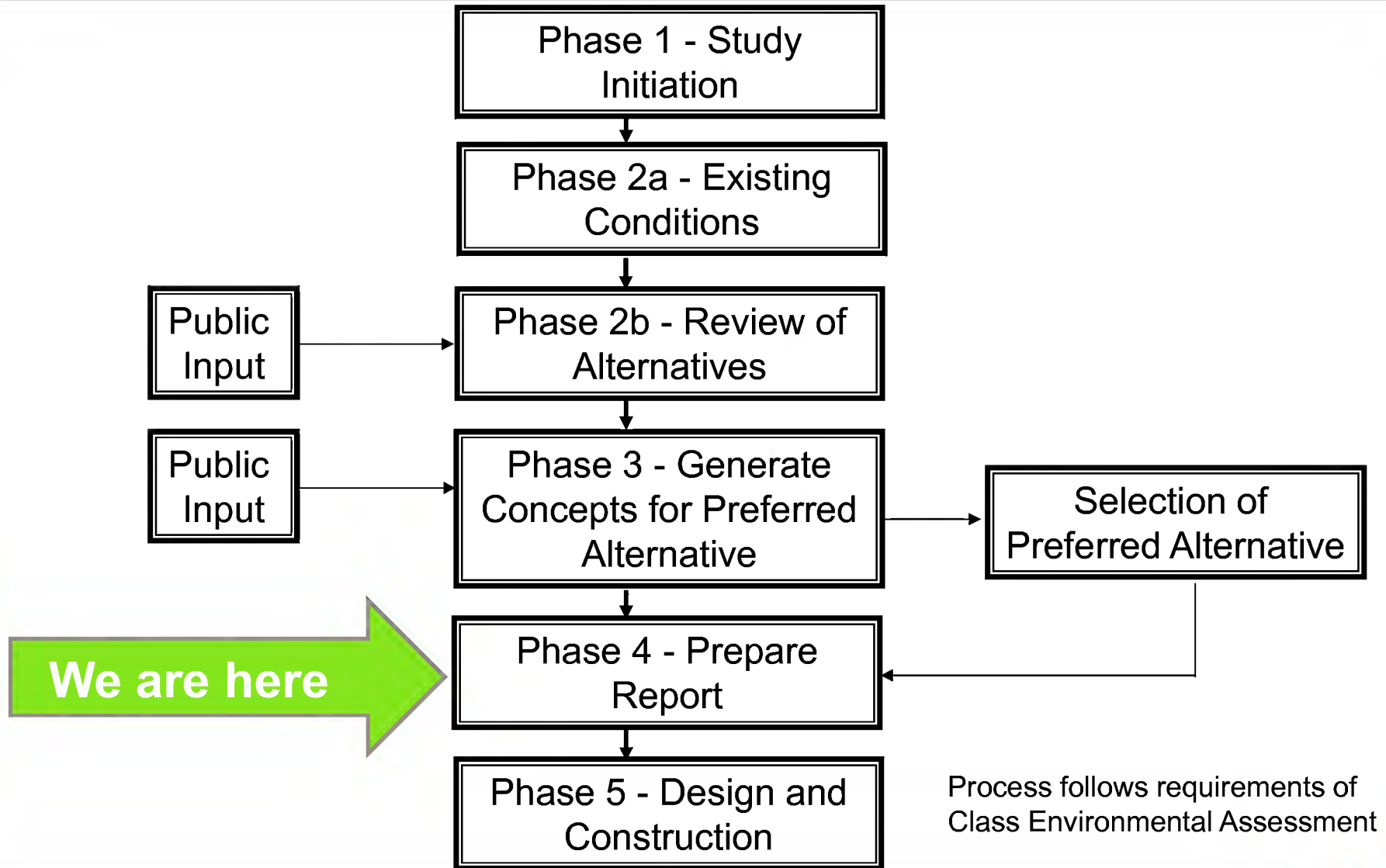
  
**WOODSTOCK**  
ONTARIO CANADA

# Presentation Outline

- Study Overview
- Review of concepts and alternatives presented at previous public meetings
- Evaluation criteria and selection process
- Results of the evaluation and selection of the preferred alternative
- Next steps



# Public Consultation Process



# Overview

## Southside Park

- 26.7ha park
- Contains Pond and Cedar Creek
- Picnic areas and shelters
- Sports fields (baseball, soccer, volleyball, lawn bowling, cricket)
- Passive recreation areas
- Play areas
- Southside Aquatic Centre
- Concession building



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# About the Study: Objectives

The study objectives are:

- Identify opportunities to improve surface water quality and ultimately fish populations
- Identify methods to improve fish passage
- Engage stakeholders to provide input for the study
- Maintain a landscape which considers public safety, utility and recreational activities

# About the Study: Progress

- The existing conditions of the study were initially presented December 2011
- The proposed alternatives for Cedar Creek and Southside Pond were presented March 2012
- Public consultation has been conducted at two previous public information centers
- Comments have been received from the public and the regulatory agencies
- An evaluation of the alternatives has been completed and the preferred alternative selected

# Proposed Alternatives: Southside Pond

## Alternative 1 - Do Nothing

- No changes would be made

## Alternative 2 - Rehabilitate Existing Pond

- Dredge the pond and create a low flow channel
- Retain a dam structure
- Add a fish passage structure

## Alternative 3 - Rehabilitate Existing Pond and add a Sediment Forebay

- Dredge the pond
- Create a sediment forebay and low flow channel
- Retain a dam structure
- Add a fish passage structure and other enhancements

# Proposed Alternatives: Southside Pond

## Alternative 4 - Remove Dam and Create Offline Wetland

- Remove Southside Pond and the dam structure
- Create a natural channel that incorporates vegetative treatments for stability and environmental function
- Develop the former pond area as a wetland or vegetated area

## Alternative 5 - Remove Dam and Create Offline Pond

- Create an offline Pond, (does not receive direct flows from creek during low flow periods)
- Route Cedar Creek around the offline Pond and remove the dam structure. The creek would flow without impedance
- Provide vegetative landscape enhancements



# Proposed Alternatives: Cedar Creek

## Alternative 1 - Do Nothing

- No improvements or changes would be made

## Alternative 2 - Repair or Replace the Channel Bank Protection

- Replace or repair the deteriorated bank erosion protection

## Alternative 3 - Repair or Replace the banks and enhance the low flow channel

- Replace or repair the deteriorated bank erosion protection
- Create a low flow channel with pools and riffles (where possible) within the existing footprint of the creek

## Alternative 4 - Rehabilitate Creek in Existing Alignment

- Remove existing hard bank protection
- Reconfigure the channel cross section to include bank terracing, a low flow channel and pools and riffles
- Provide vegetative protection to channel (bioengineering)

# Proposed Alternatives: Cedar Creek

## Alternative 5 – Rehabilitate Creek as a Natural Channel

- Remove existing hard bank protection
- Reconfigure the channel cross section to include terraced banks, a low flow channel and pools and riffles
- Provide vegetative enhancements and erosion protection
- Configuration would be implemented with a subtle meander

## Alternative 6 – Rehabilitate Creek using Natural Channel Design

- Remove existing bank protection
- Realign the channel with a more dynamic plan form and include terraced banks, a low flow channel and pools and riffles
- Natural vegetation would be incorporated to prevent erosion

# Evaluation Criteria

## Social/Cultural

- Public Health & Safety
- Odor/Air Quality
- Heritage Resources
- Aesthetics

## Natural Environment

- Terrestrial Wildlife and Vegetation
- Aquatic Resources
- Water Quality Impacts
- Geology/Geomorphology

## Technical/Engineering

- Hydraulics
- Constructability
- Operation & Maintenance
- Permitting and Approval  
(Applicable Policies)

## Economic

- Initial Capital Costs
- Operating & Maintenance Costs  
(Long Term)

*The evaluation criteria is used to assess each alternative and determine how best it functions to suit the objectives. Elements of the community play an important role.*

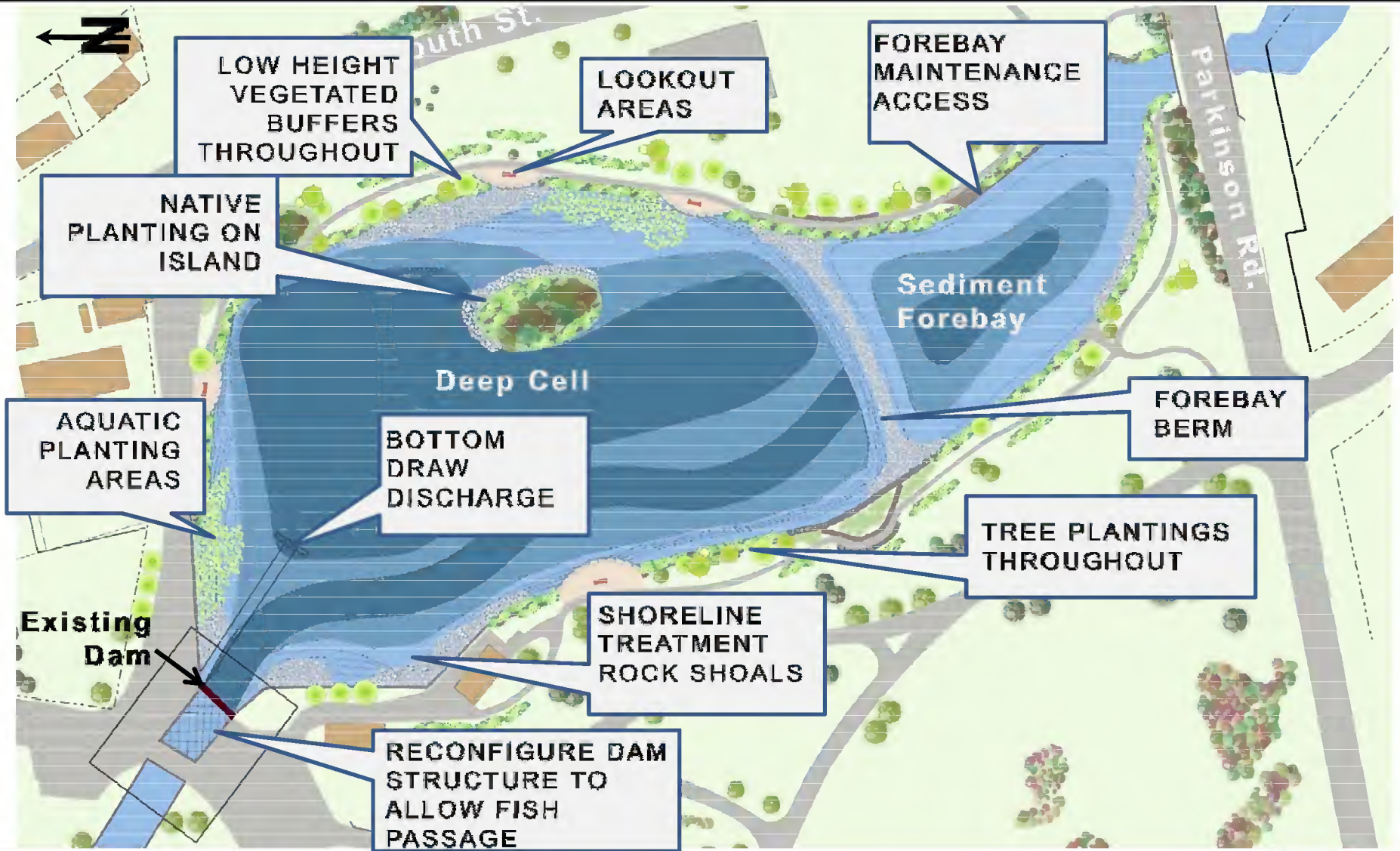
# Preferred Alternative Southside Pond

# Preferred Alternative – Southside Pond

## Rehabilitate Existing Pond and add a Sediment Forebay (Alt 3)

- Dredge the existing pond (Pond would maintain its existing shape and footprint)
- Create a sediment forebay at the upstream end, this would facilitate future maintenance
- Maintain the existing island, but provide native planting to reduce maintenance and stabilize the perimeter
- Retain a dam structure with the addition of fish passage enhancement
- Provide landscape enhancements
- Provide discharge improvements (i.e.. Bottom draw)
- The boat launch would be removed

# Preferred Alternative – Southside Pond



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# Concepts for Preferred Alternative - Southside Pond

**Provide Formalized Public Access Points, i.e. lookouts** – Lookouts allow views of the pond and can include sitting areas while protecting the vegetative buffers.



**Island** - The existing island would be planted with native vegetation and the shoreline would be stabilized. This will reduce the maintenance needs while maintaining the existing visual concept.

# Concepts for Preferred Alternative - Southside Pond

**Water Foul Mitigation** – open water ponds with grass at the shore provide attractive habitat for geese. Strategically placed vegetation and plantings around the pond would be incorporated as part of the design to better control water foul access.



**Fish passage enhancement**  
- To facilitate fish passage at a dam structure, a fish passage structure would be incorporated into the design

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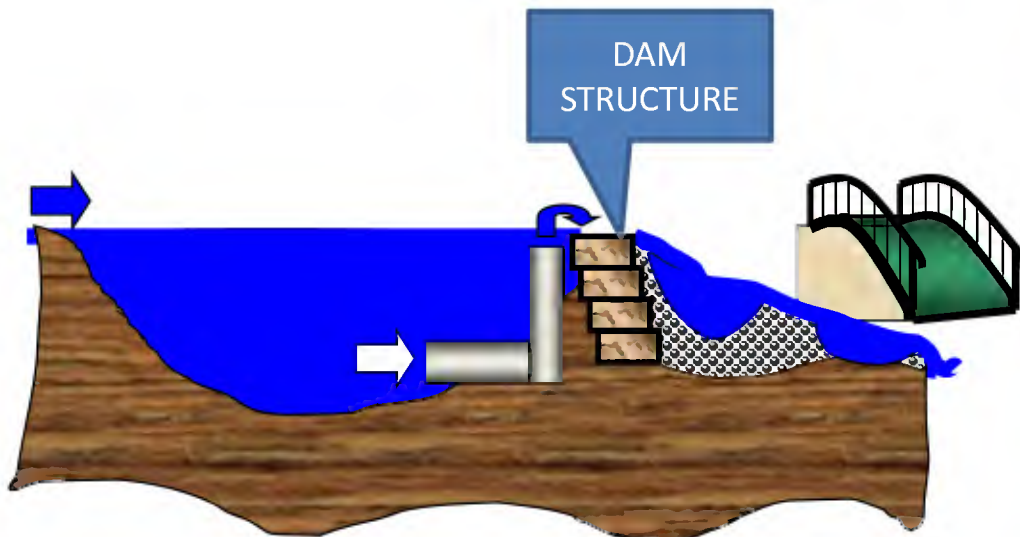


# Concepts for Preferred Alternative - Southside

**Aquatic Planting**— plant diversity would provide nutrient uptake and reduce the area of solar heat gain and mitigate increases in water temperature



**Bottom Draw Structure**- a pond discharge that provides cooler water at the bottom of the pond would improve the temperature of the discharge downstream

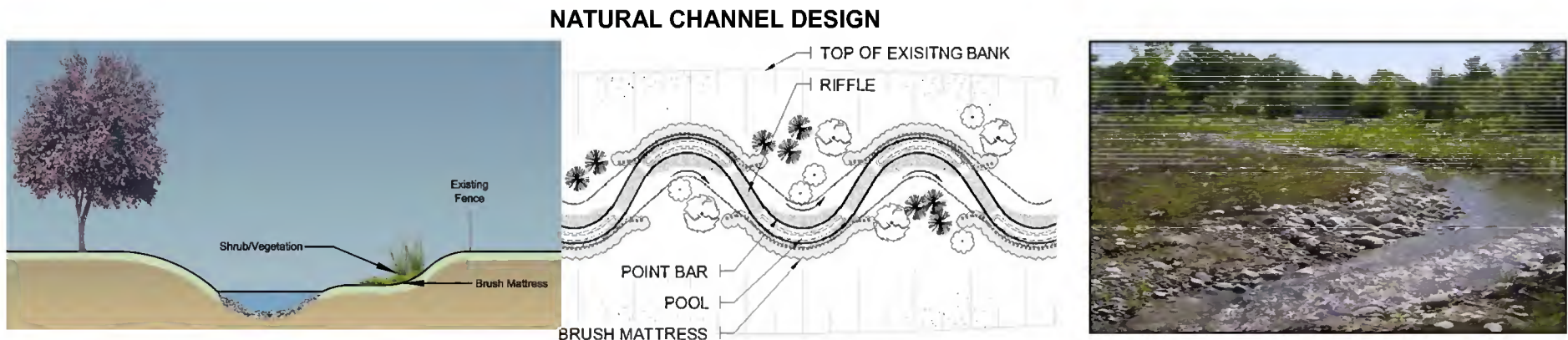


# Preferred Alternative Cedar Creek

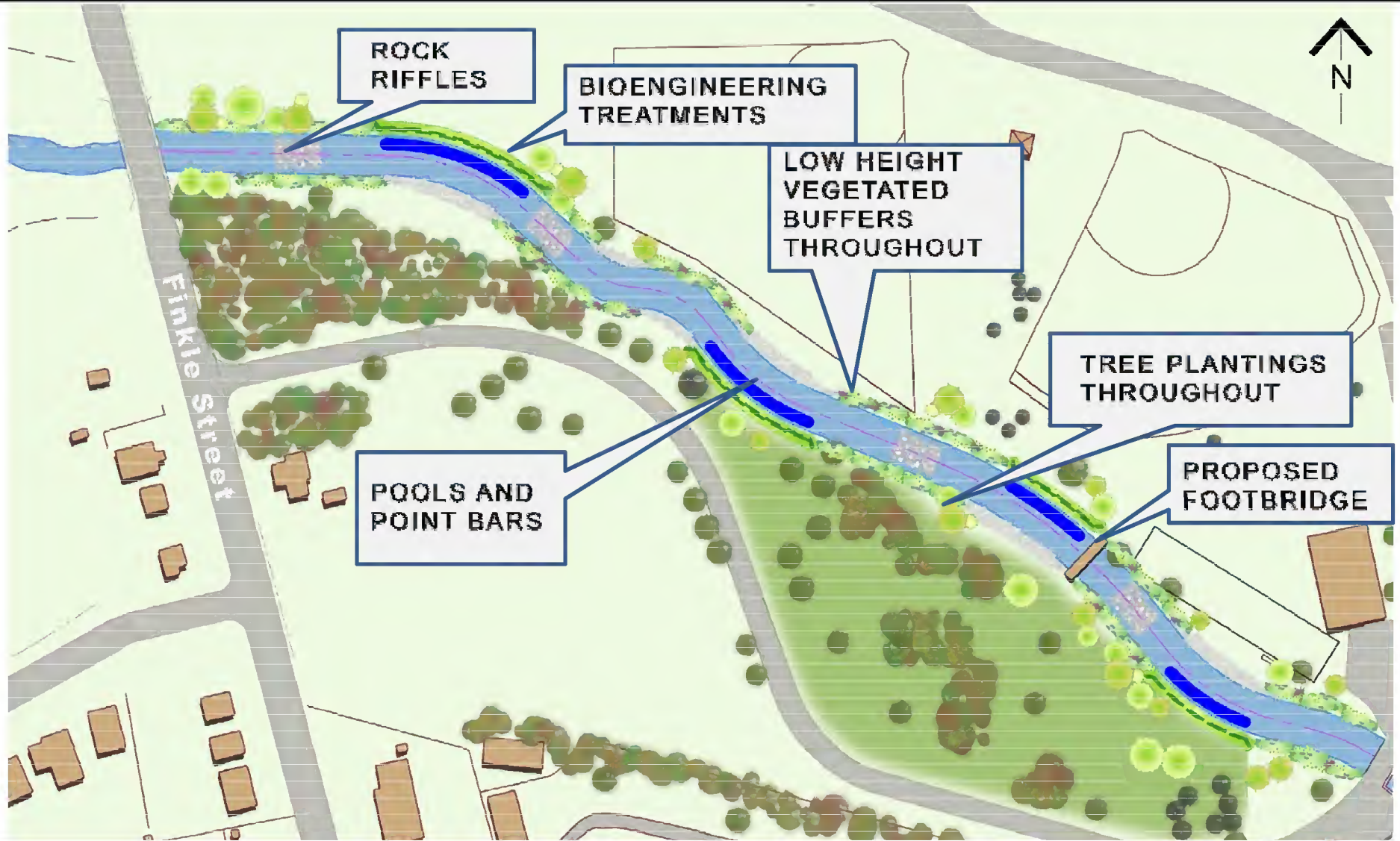
# Preferred Alternative – Cedar Creek

## Rehabilitate Creek with Natural Channel (Alt 5) :

- Implement natural channel features within the existing park landscape
- Vertical concrete walls would be removed and replaced with gentle banks comprised of earth, stone and vegetation in more dynamic planform
- The low flow channel would be enhanced to improve fish habitat
- Elements of the creek would be “self-sustaining” and reduce maintenance
- Consider provision of a pedestrian bridge, giving a connection between the existing baseball diamonds/playground area and the picnic area of Southside Park



# Preferred Alternative – Cedar Creek



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# Next Steps

- Woodstock Council will review the findings of study and the Class EA Report
- Notice of study completion will be advertised
- The Class EA Report will be filed for public viewing for a 30 day period.

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## Questions?

