

MUNICIPALITY OF BROCKTON

CLASS EA FOR SAUGEEN RIVERBANK EROSION



WELCOME

Public Information Centre

Wednesday February 1, 2023

6:00 PM to 8:00 PM



MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

SUMMARY OF CLASS EA PROCESS:

- PLANNING AND DESIGN PROCESS FOR MUNICIPAL INFRASTRUCTURE PROJECTS
- CONDUCTED TO EVALUATE THE POTENTIAL IMPACTS OF THE PROJECT ON THE NATURAL, CULTURAL, SOCIAL, ECONOMIC, AND BUILT ENVIRONMENTS

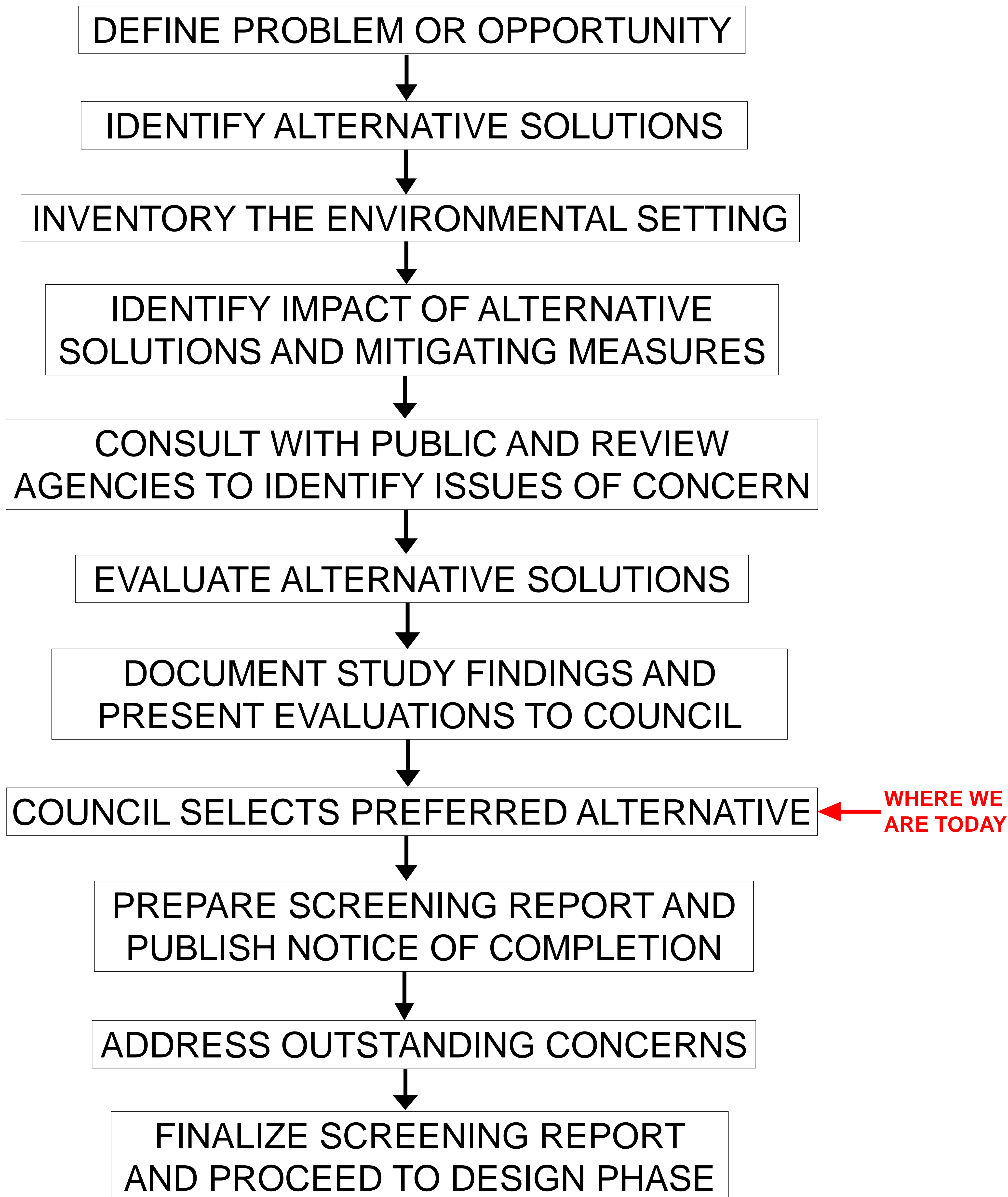
STUDY PHASES:



SCOPE OF THIS STUDY:

- WORKS UNDERTAKEN IN A WATERCOURSE FOR THE PURPOSES OF FLOOD CONTROL OR EROSION CONTROL
 - SCHEDULE B PROJECT
- GENERAL STUDY COMPONENTS:
 - DEFINE PROBLEM / OPPORTUNITY;
 - IDENTIFICATION OF ALTERNATIVE SOLUTIONS;
 - CONSULTATION WITH THE PUBLIC / REVIEW AGENCIES;
 - SELECTION OF A PREFERRED ALTERNATIVE;
 - EVALUATION OF ALTERNATIVES / IMPACT MITIGATION;
 - PREPARATION OF ENVIRONMENTAL SCREENING REPORT; AND
 - FINAL PUBLIC NOTIFICATION.

SUMMARY OF SCHEDULE B CLASS EA PROCESS



PROJECT TIMELINES

June 2020 – Initial notification to public, agencies and Indigenous Communities

June 2020 – Letter mailed to adjacent properties and published in Walkerton Herald Times

May 2020 – SVCA provided 1987 Geotechnical Report

April 2021 – Completed Topographic Survey of Slope

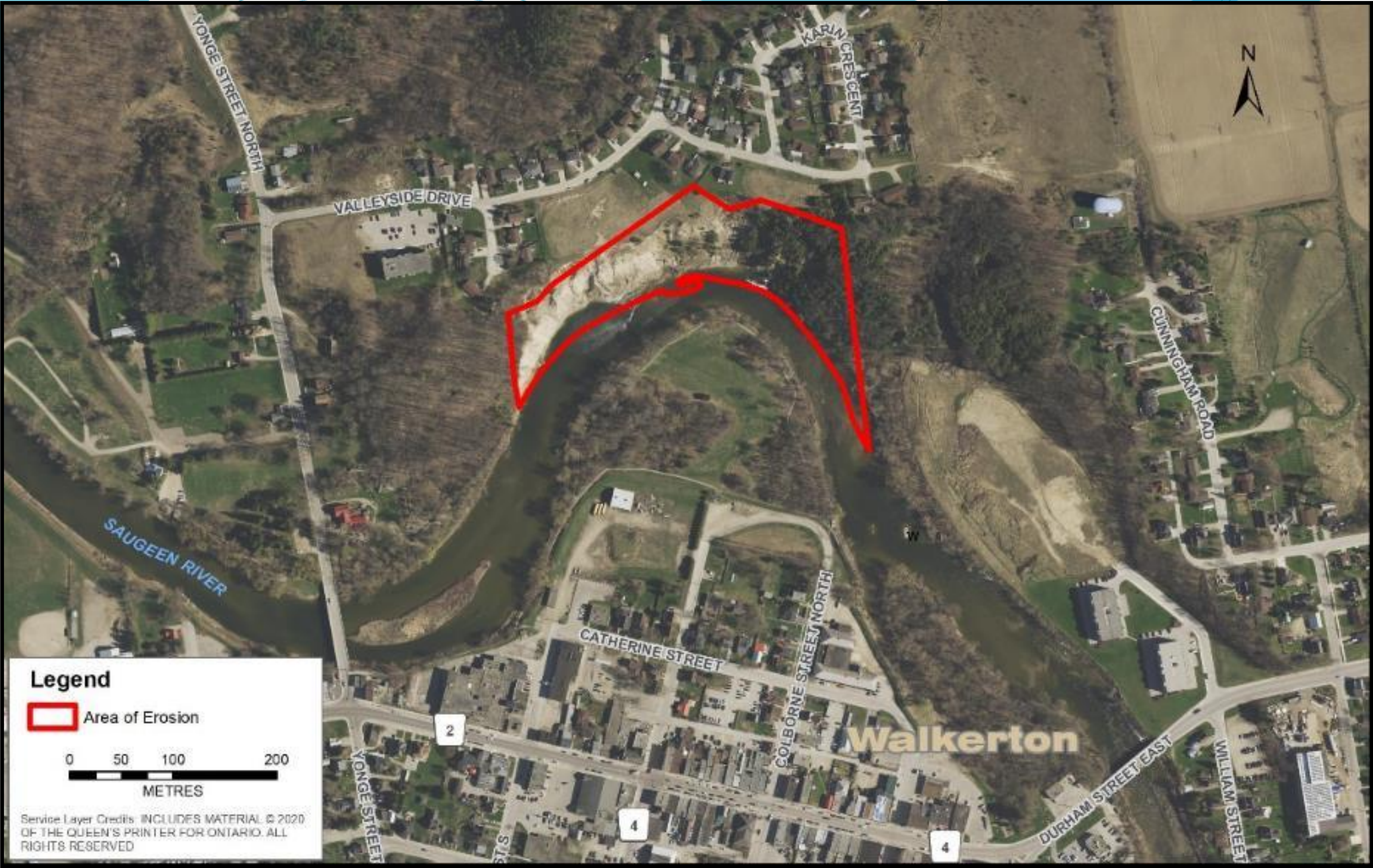
June 2021 – Golder retained to updated 1987 Geotechnical Report

June 2021 – Class EA Alternatives Identified

March 2022 – Cost Estimates Developed

Nov. 2022 – Fluvial Geomorphology Study completed by Water's Edge Fluvial Geomorphologists

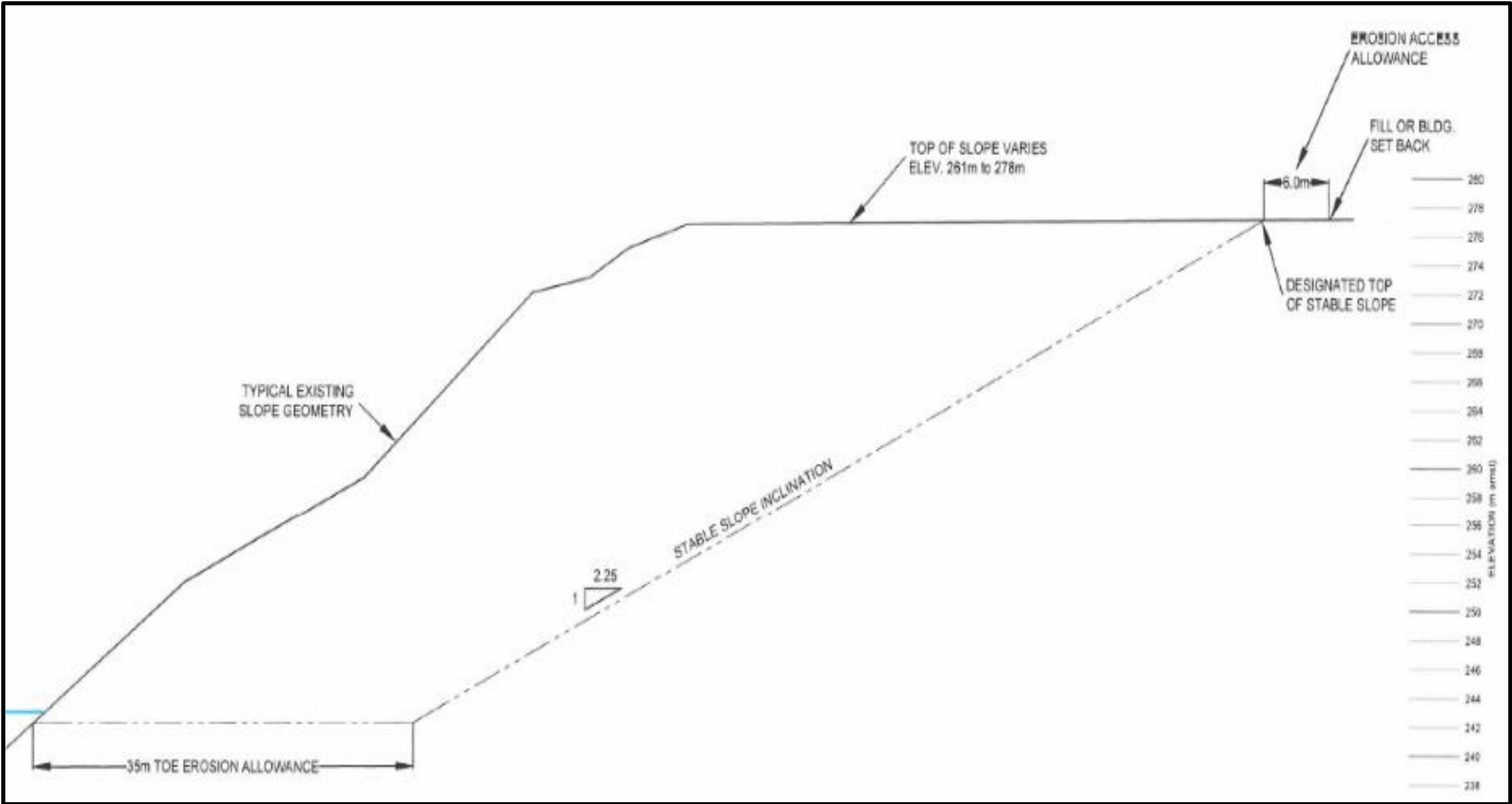
PROJECT STUDY AREA



Photos from December 2022



LONG TERM EROSION HAZARD LIMIT

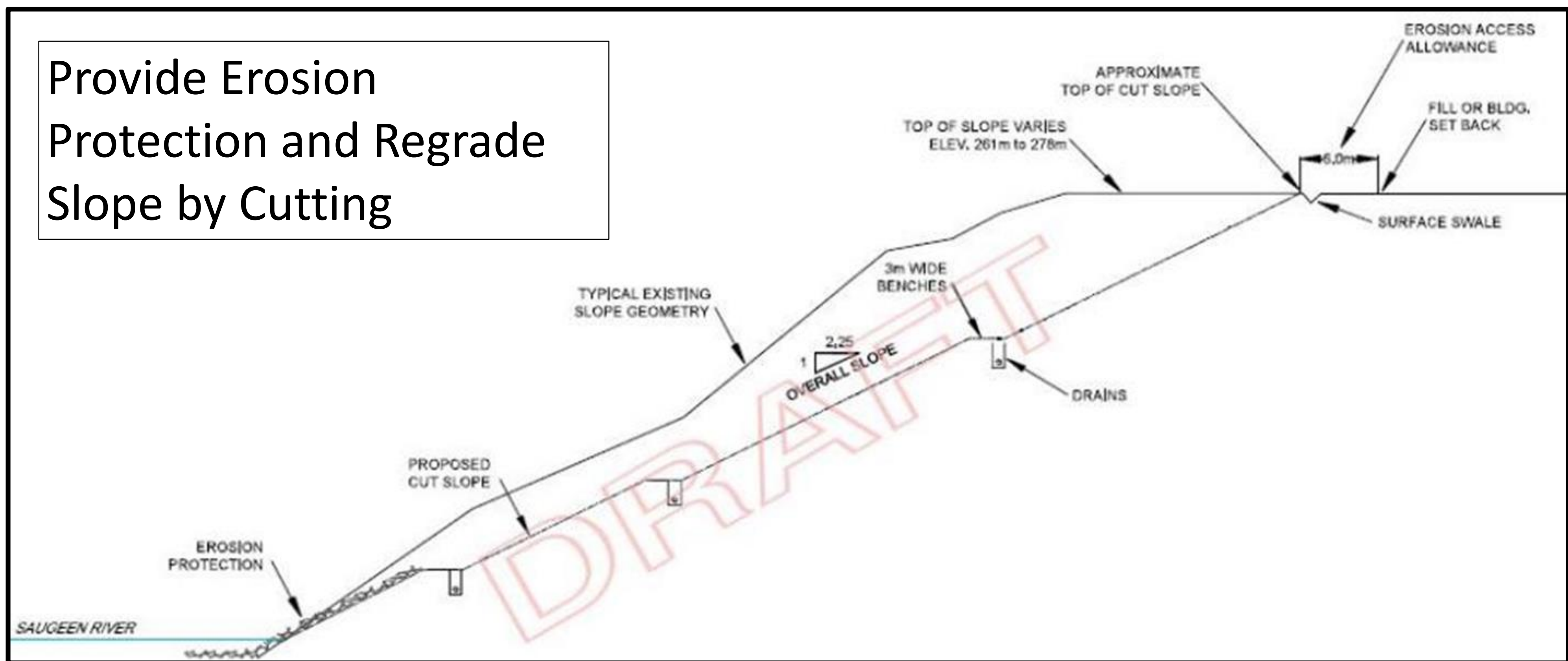


GEOTECHNICAL REPORT

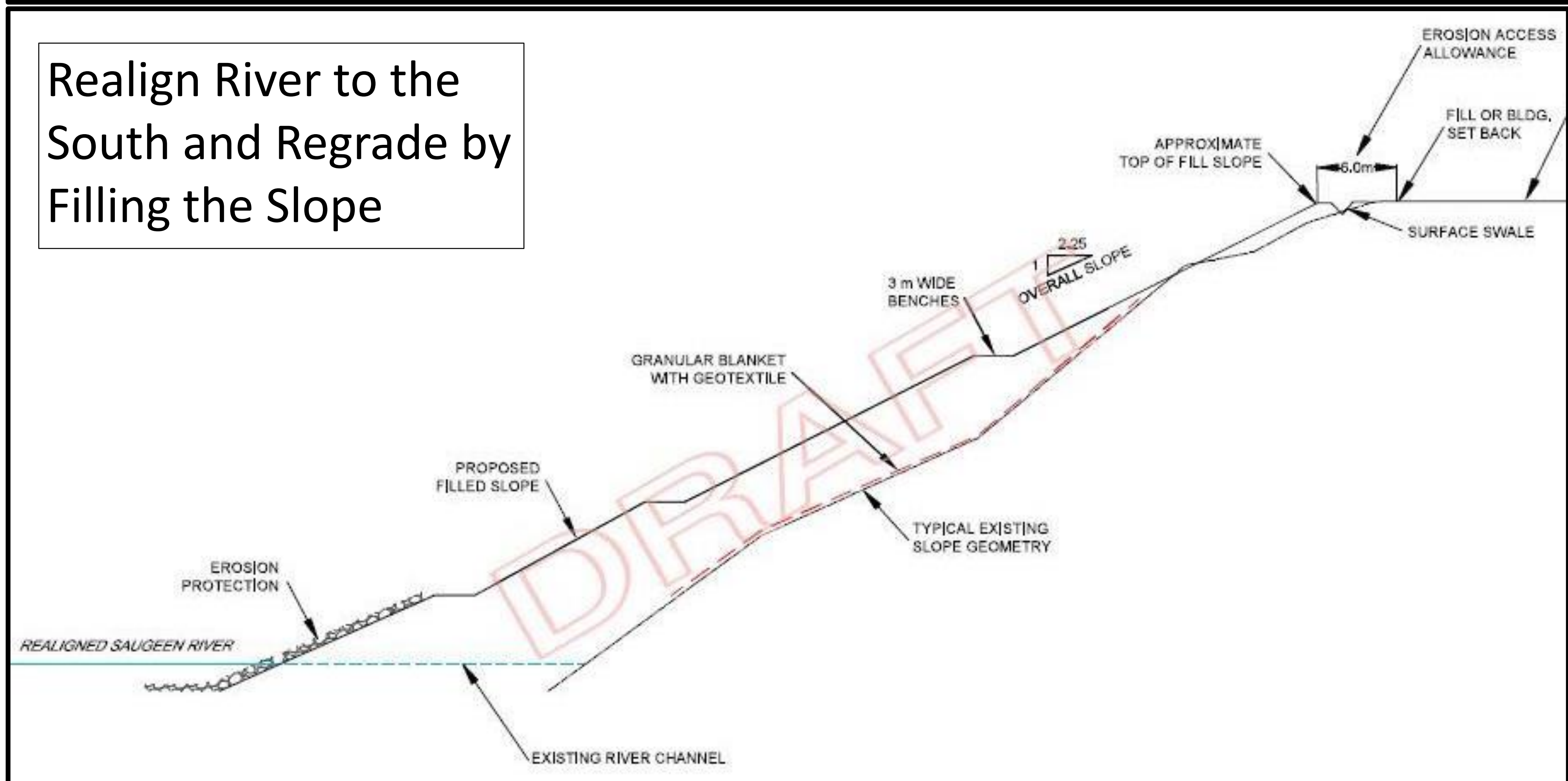
- A geotechnical assessment was completed in 1987 by Golder at request of Saugeen Valley Conservation Authority;
- Report identified 4 Alternatives (including Do Nothing);
- Golder was retained in June 2021 to revisit the original report and update the recommendations;
- Same 4 Alternatives were determined to be valid. Alternatives include:
 - Do Nothing
 - Provide Erosion Protection and Regrade Slope by Cutting
 - Realign River to the South and Regrade by Filling the Slope
 - Realign River to the South and Regrade by Filling and Cutting

ALTERNATIVES IDENTIFIED BY GEOTECHNICAL REPORT

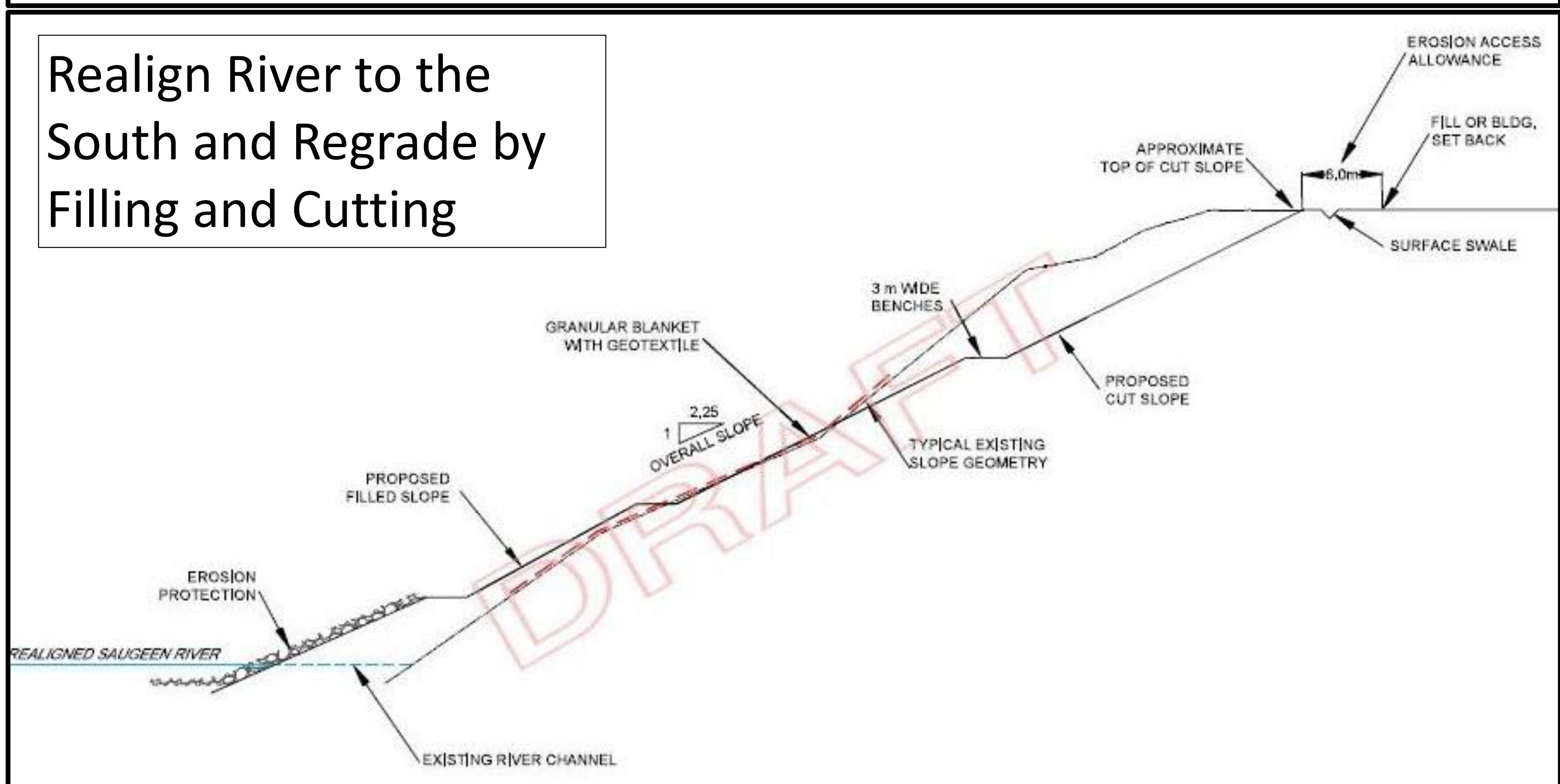
Provide Erosion Protection and Regrade Slope by Cutting



Realign River to the South and Regrade by Filling the Slope



Realign River to the South and Regrade by Filling and Cutting



FLUVIAL GEOMORPHOLOGY ASSESSMENT

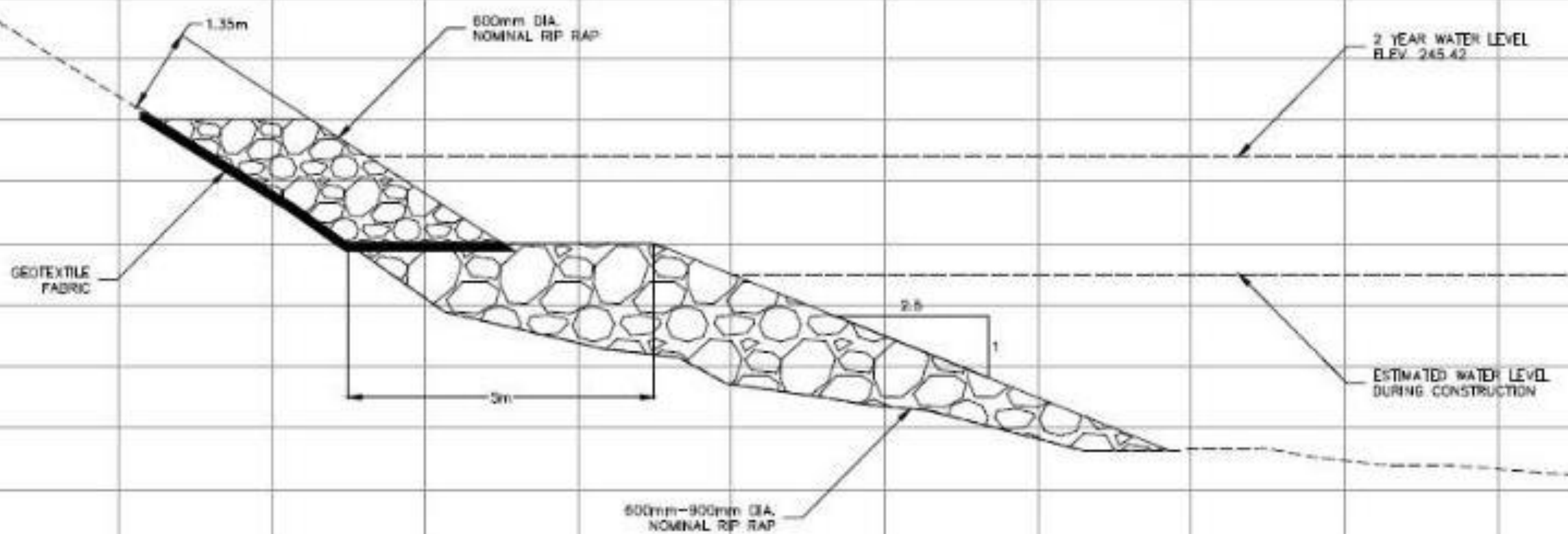
- Fluvial Geomorphology is a study which examines river processes and the interactions between sediment and water movement;
- Water's Edge Fluvial Geomorphologists were retained to examine the river system and provide input on the selection of a preferred approach to address erosion;
- The primary purpose of the assessment was to understand how implementation of the alternatives could negatively impact areas downstream;
- Concluded that protecting the toe of the slope is less impactful than allowing the slope area to continue eroding unabated (material deposited into the river from erosion could impact downstream areas).

CLASS EA ALTERNATIVES AND COST ESTIMATES

(Based on 2022 tender prices and discussions with a contractor)

1. Provide erosion protection at toe and regrade slope by cutting.
(\$ 7,820,000 + HST)
2. Realign river to south, protect toe, and regrade slope by filling.
(>\$ 7,820,000 + HST)
3. Realign river to south, protect toe, and regrade slope by filling and cutting.
(>\$ 7,820,000 + HST)
4. **Protect toe of slope – leave bank as is.**
(\$ 3,100,000 + HST) - Preferred
5. Do Nothing.

PREFERRED ALTERNATIVE

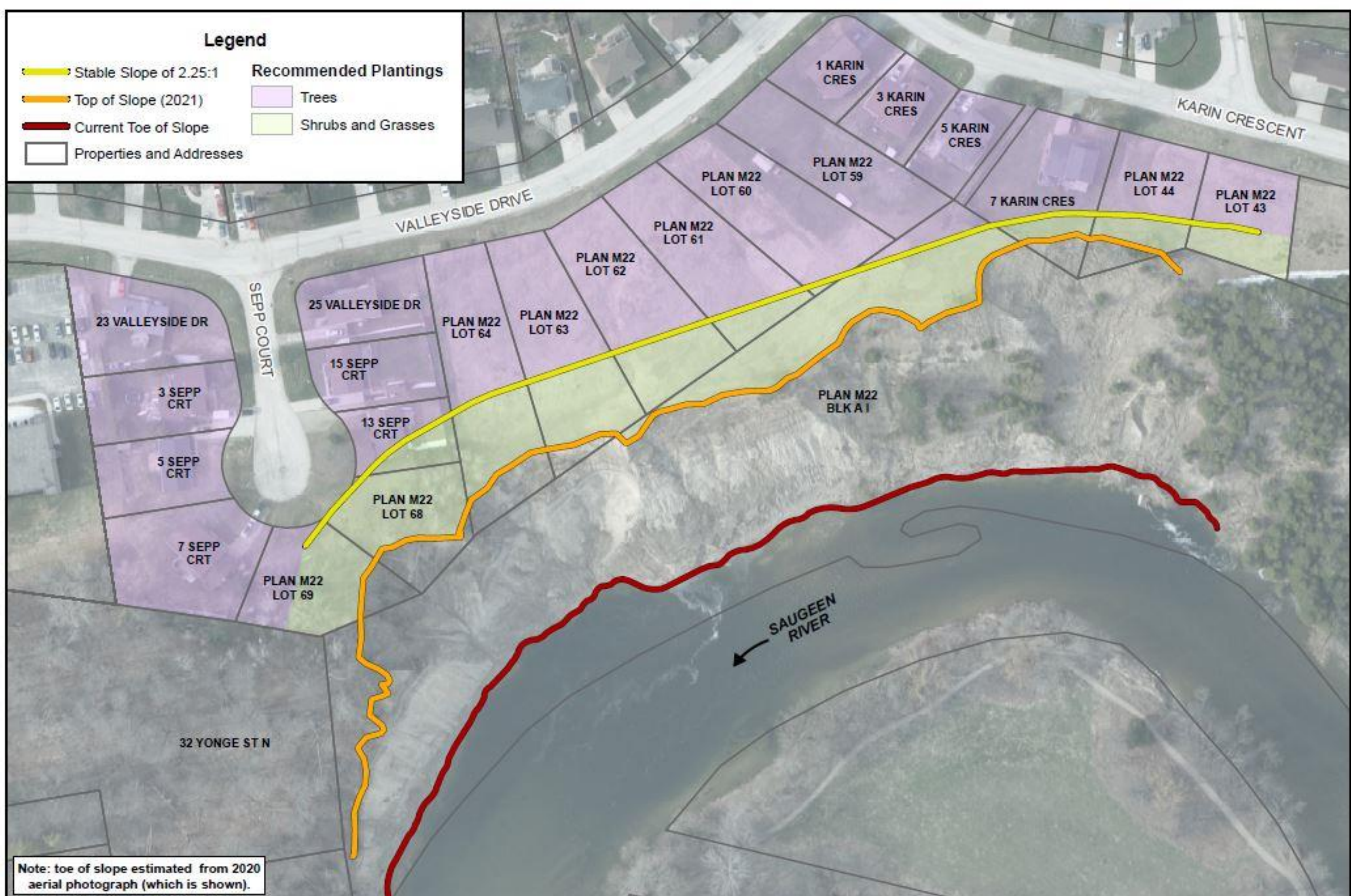


SCALE - 1:75

What can Residents Do?

The proposed erosion protection is designed to stabilize the toe of slope and prevent further migration north – the upper bank will continue to erode until it stabilizes. To help you can:

- Divert drainage away from bank area;
- Don't dispose of yard waste or any debris over the bank area;
- Don't drive vehicles or park heavy objects near the top of bank;
- Plant trees/shrubs in areas shown on mapping

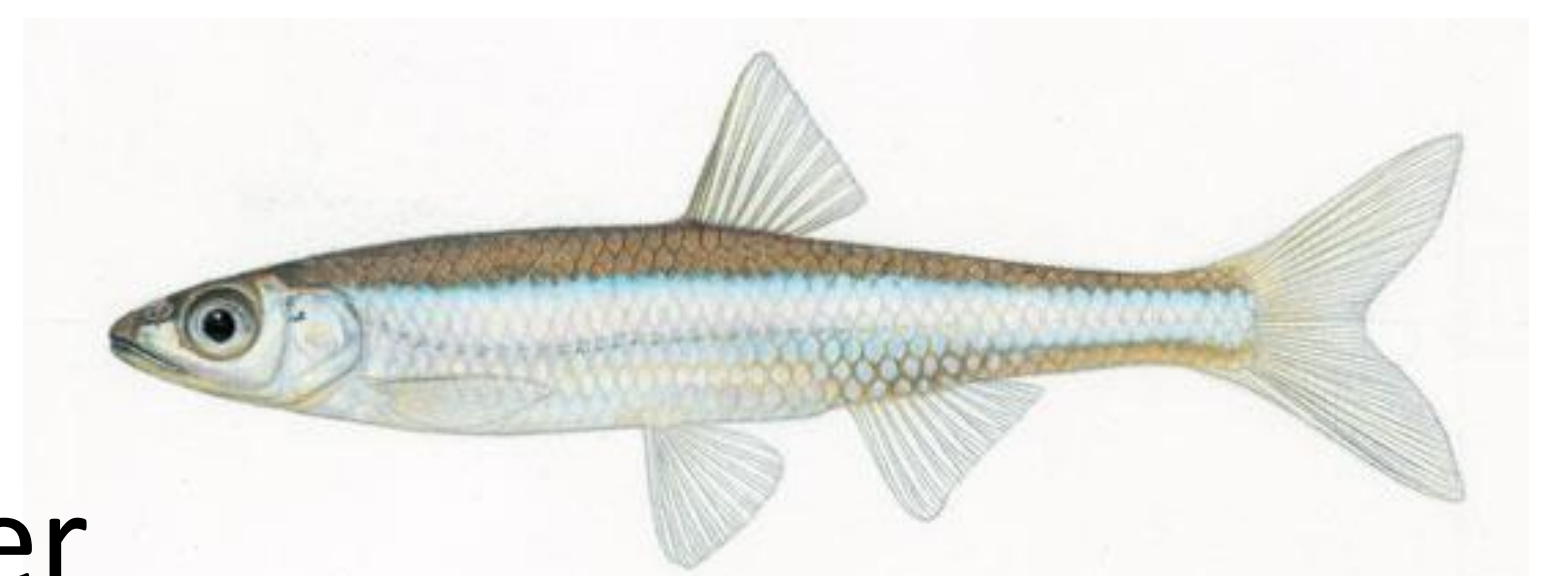


APPROVALS

- Ministry of Environment, Conservation and Parks (MECP) – Endangered Species Act (ESA) permit due to the presence of Bank Swallow nesting habitat and aquatic Species at Risk;
- Saugeen Valley Conservation Authority (SVCA) – Permit for altering a watercourse;
- Ministry of Natural Resources and Forestry (MNRF) – Public Lands Act;
- Department of Fisheries and Oceans (DFO) – Fish and Fish Habitat Impacts
 - Freshwater mussels
 - Alterations to fish habitat



Bank Swallow nesting habitat



Silver Shiner



Rainbow Mussels

NEXT STEPS

- Collect input from Residents on the Preliminary Preferred Alternative
- Collect input from Review Agencies, Indigenous Communities and adjacent property owners;
- Obtain Feedback from Geotechnical Engineer;
- Summarize input and Present to Council to confirm selection of Preferred Alternative;
- Prepare Class EA Screening Report & Notice of Study Completion;
- Submit Approval Applications;
- Finalize Engineering Design and proceed to Tendering.