

EROSION STUDIES ON MITIGATING IMPACTS RELATED TO ADAM CREEK

Steven McArdle

Technical Lead

Status Meeting May 7, 2012



SENES Consultants Ltd. and 4DM Inc.

Team

- Steve McArdle - Hon B.Sc. – Earth Science, Cert of Meteorology, M.Sc. Remote Sensing - 4DM Inc.
- Larry Onisto – Hon. B.Sc. Environmental Science - SENES Consultant Ltd
- Colin Graham M.A.Sc. Engineering P.Eng - ERDE Inc.
- Eleni Koukidis B.Sc. Earth Science, M.Sc. – Hydrology – 4DM Inc.
- Patrick Grover P.Eng (PhD Candidate) Hydraulics / Sediment Transport – 4DM Inc.
- Aleksey Naumov PhD Hydrology – 4DM Inc.

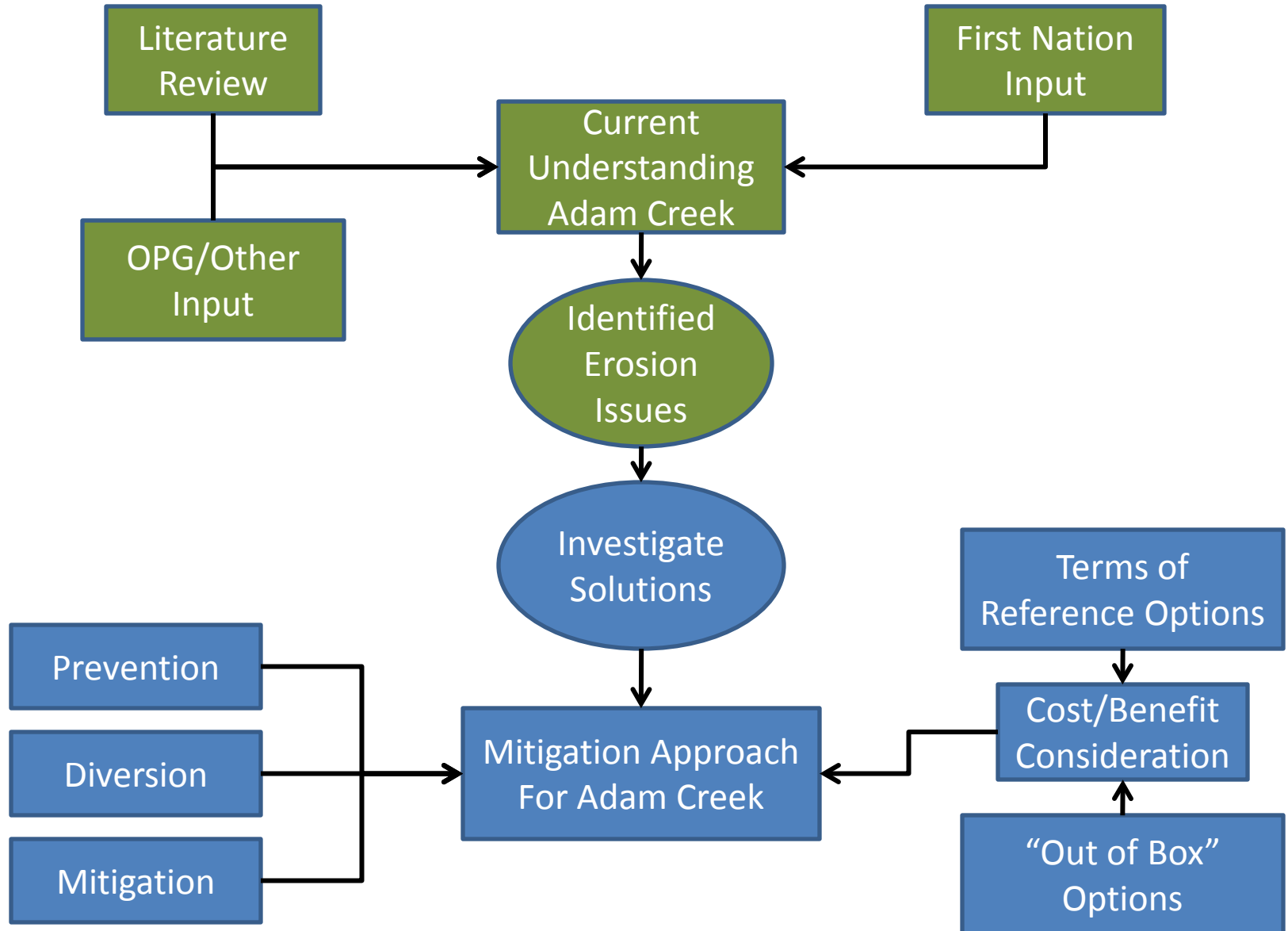
Introduction

- Scope of Work
- Approach
- Project Activities
- Schedule
- Questions

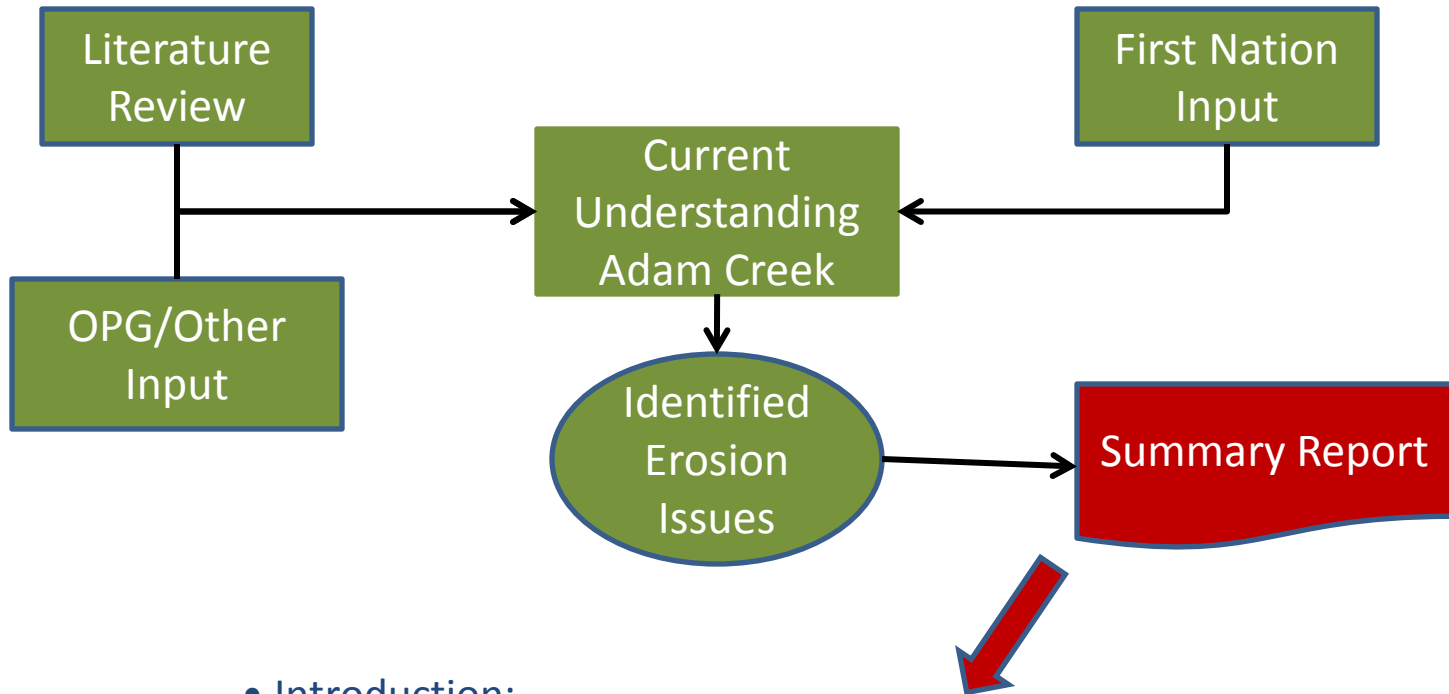
Scope of the Project

- MECC has requested a study to investigate and assess potential erosion mitigation measures that will reduce the impact of releasing water down Adam Creek
- Consider the options listed in the Terms of Reference as well as propose other options
- Assess options for benefit and costs based effectiveness, feasibility, and implementation

Our Approach



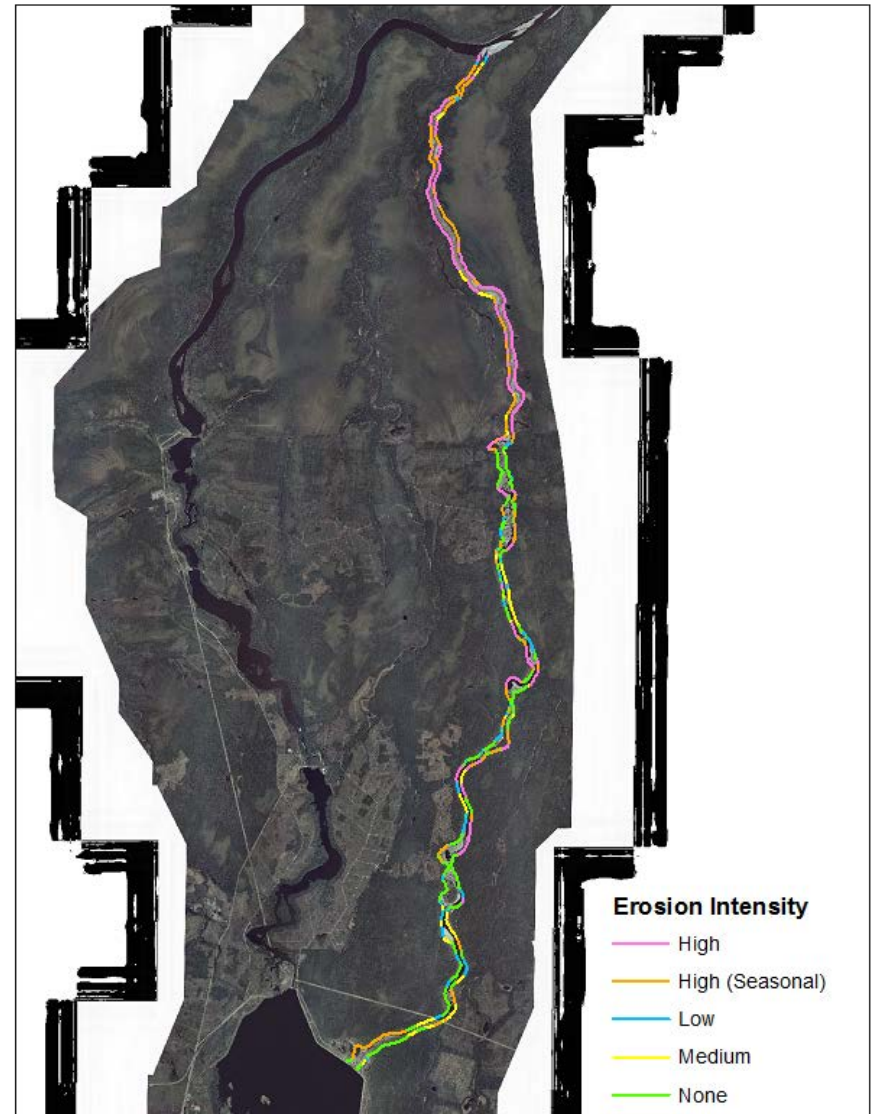
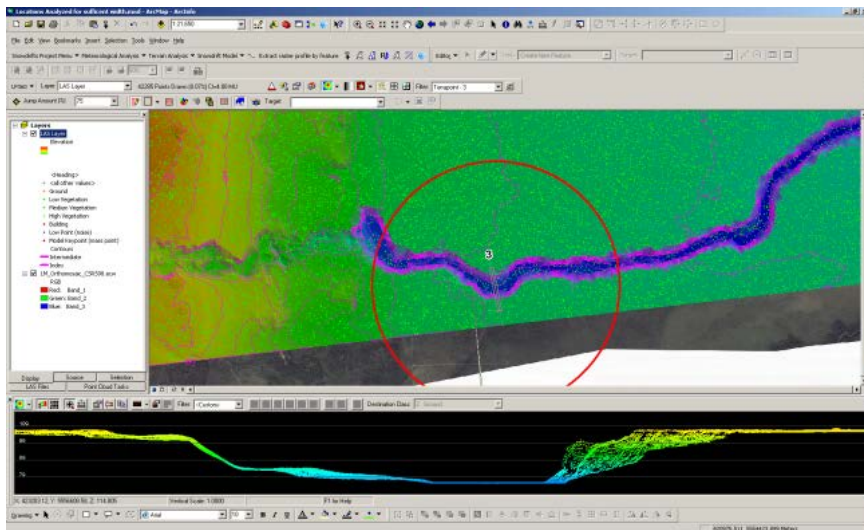
Project Activities



- Introduction:
- Relevant Characteristics of Adam Creek
- First Nation Input
- Summary of Erosion: Severity and Locations
- Current understanding of Causality Erosion in Adam Creek
- Movement of water through Adam Creek;
- Identified Gaps in Information
- Summary

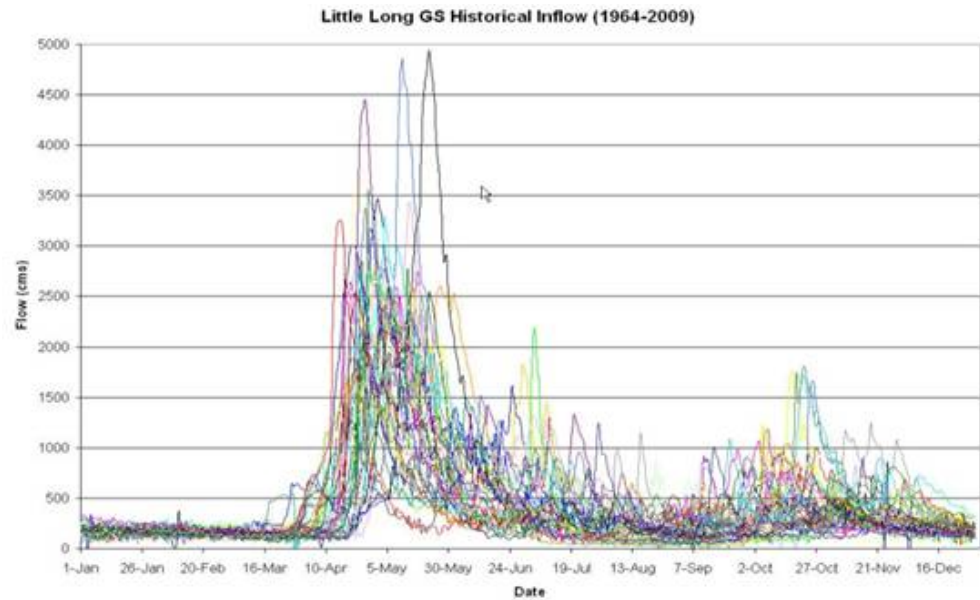
Project Activities

- Assembling erosion summary from reports and Colin's experience from past studies
- Mapped erosion intensity over the orthophotos
- Assembled LiDAR data for cross sections and vertical profile
- Gather First Nation input



Project Activities

- Requested current Dam Safety modeling studies
- Requested Spill data for Adam Creek
- Requested Diverted flow from Zadi Lake Control
- Requested Inflow / discharge in/out Little Long GS
- Reviewing previous reports and studies related to flows and elevation in the system
- Potential mitigation options



Tasks Deliverables and Timing

- 1. Kick Off Meeting - Early February and Refine Tasks and Schedule will be provided
- 2. Literature Review
- 3. Stakeholder Engagement
- 4. Summary of Findings
 - *Submission Digital Copy of Summary of Findings Report to MECC*
- 5. Assessment of Mitigation Measures
 - *Submission of Digital Copy of Mitigation Measures Summary to MECC*
- 6. Report and Presentation
 - *Submission of Digital Copy of Draft Report and Presentation to MECC*
 - *Submission Final Report with Recommendations (Digital / Hard Copies)*

ID	Task Name	Start	Finish	Duration	Timeline (2013)																											
					Feb 2013	Mar 2013				Apr 2013				May 2013				Jun 2013				Jul 2013				Aug 2013						
					17/2	24/2	3/3	10/3	17/3	24/3	31/3	7/4	14/4	21/4	28/4	5/5	12/5	19/5	26/5	2/6	9/6	16/6	23/6	30/6	7/7	14/7	21/7	28/7	4/8	11/8	18/8	
1	Task 1 PM	2/19/2013	19/08/2013	130d	[Blue bar spanning from Feb 17 to Aug 18]																											
2	Start/Status Meeting	07/05/2013	5/7/2013	0d	[Diamond marker at May 12]																											
3	Task 2 Literature Review	20/02/2013	09/04/2013	35d	[Blue bar from Feb 20 to Apr 9]																											
4	Task 3 Stakeholder Engagement	28/02/2013	28/05/2013	64d	[Blue bar from Feb 28 to May 28]																											
5	Task 4 Summary of Findings	09/04/2013	31/05/2013	39d	[Blue bar from Apr 9 to May 31]																											
6	Milestone 2 – Submit Findings	03/06/2013	6/3/2013	0d	[Diamond marker at Jun 3]																											
7	Task 5 Assessment of Mitigation Measures	03/06/2013	17/07/2013	33d	[Blue bar from Jun 3 to Jul 17]																											
8	Task 6 Draft Report	18/07/2013	05/08/2013	13d	[Blue bar from Jul 18 to Aug 5]																											
9	Milestone 3 – Draft Report	06/08/2013	06/08/2013	0d	[Diamond marker at Aug 6]																											
10	Task 7 Presentation	06/08/2013	07/08/2013	2d	[Blue bar from Aug 6 to Aug 7]																											
11	Task 8 Final Report	08/08/2013	22/08/2013	11d	[Blue bar from Aug 8 to Aug 22]																											
12	Task 8 Final Report	8/23/2013	23/08/2013	0d	[Diamond marker at Aug 23]																											

Questions

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