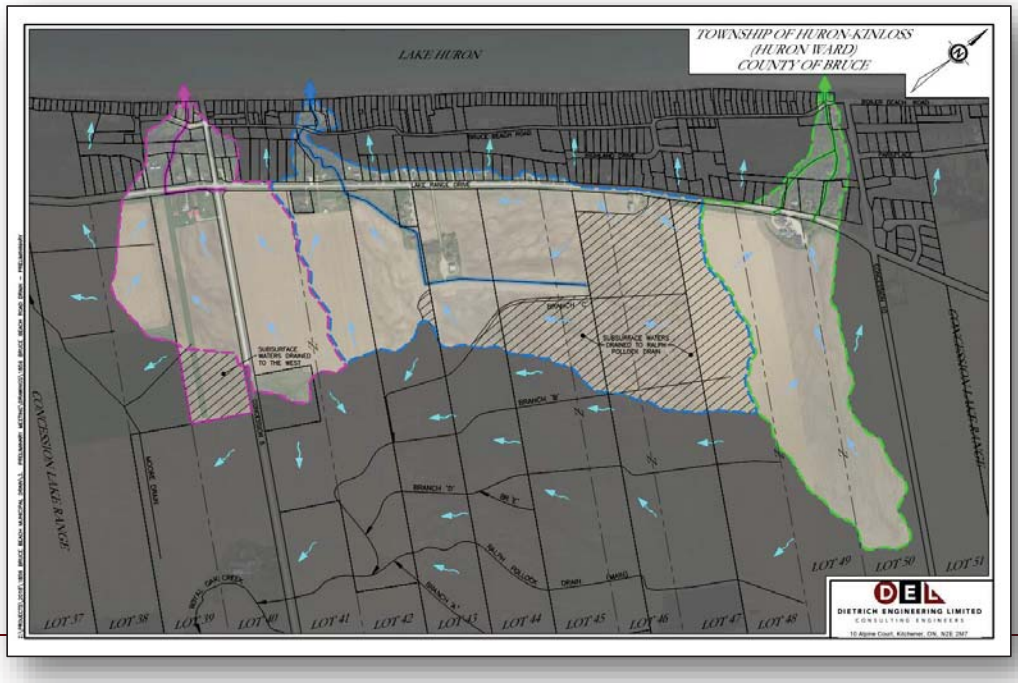


Bruce Beach Road Drainage Issues
Township of Huron-Kinloss

Public Open House – May 25, 2019

Huron - Kinloss

DEL

Presentation Overview

- Introductions & History
- Purpose of this Public Open House
- Findings
- Review of Concepts
- Review of *HaveYourSayHK* Input
- Project Plan/Stage
- Public Questions and Input

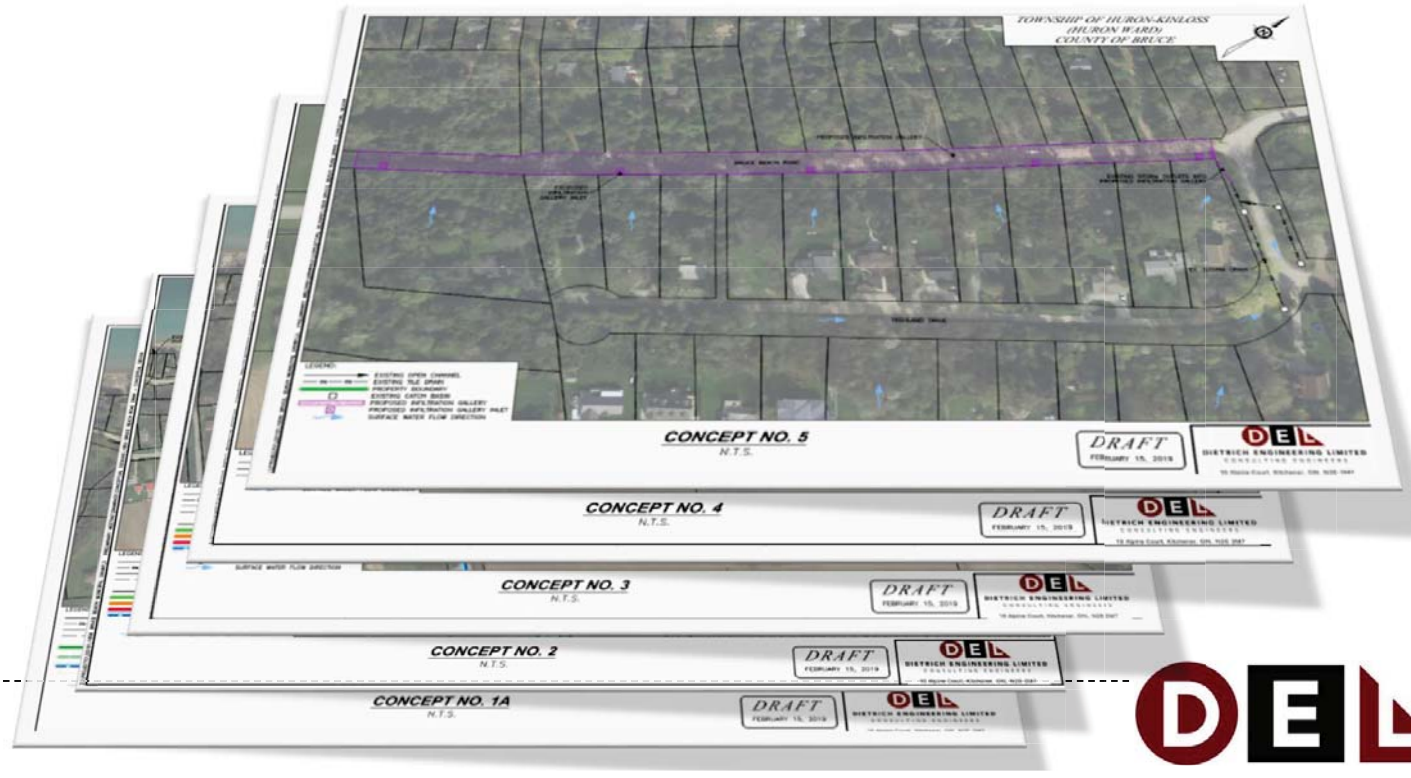
Introduction and History

Introduction

- Dietrich Engineering Limited Appointed by the Council of the Township of Huron-Kinloss on November 19, 2018 under Section 4 (1)(c) of the Drainage Act.
  - To provide a drainage works for Bruce Beach Road between Concession 8 road and Highland Drive and Lake Range Road between Lots 40 and 49.

History

- Dietrich Engineering Limited presented five conceptual designs and a general project plan at the February 11, 2019 Council Meeting.



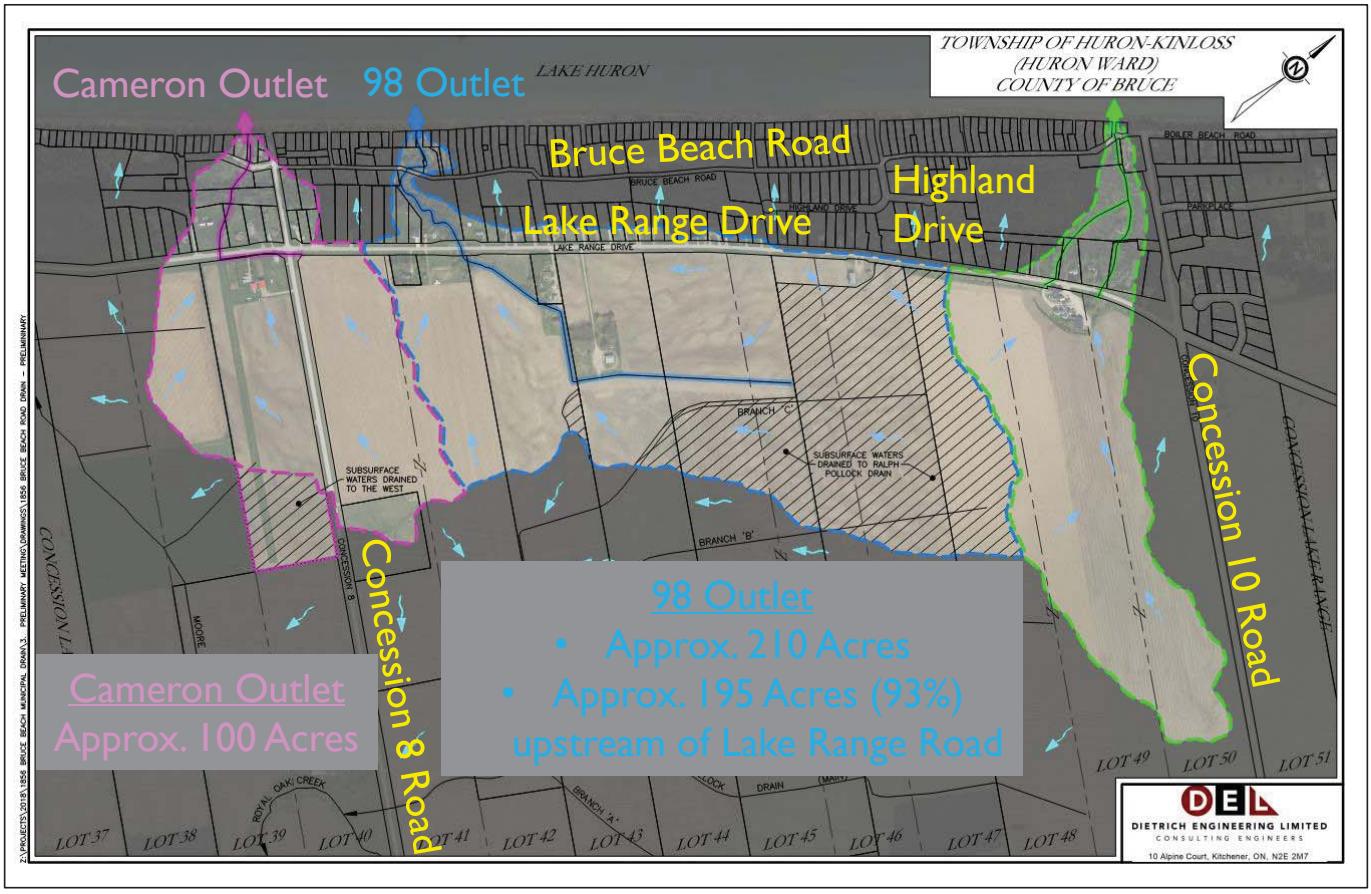
Purpose of Public Open House

Purpose of Public Open House

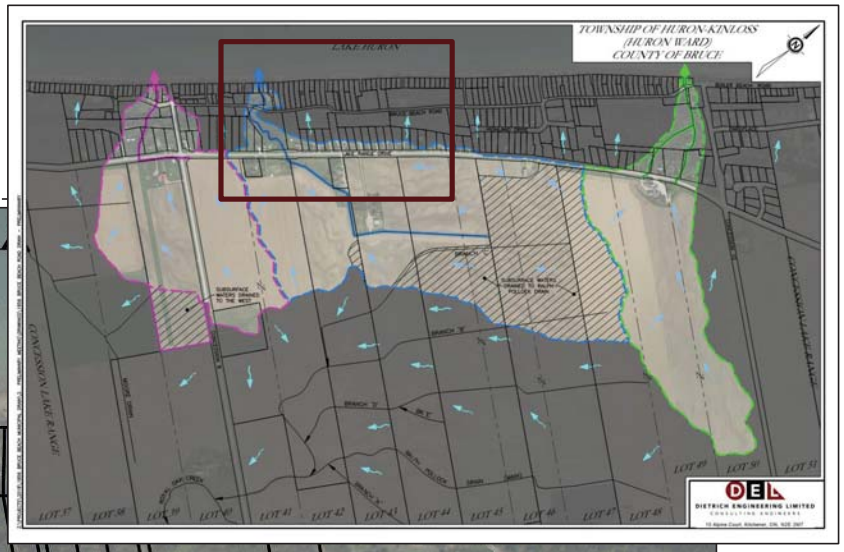
- For the Engineer to obtain as much information as possible which will help the Engineer prepare a practical design solution for the drainage problems which are occurring along Bruce Beach Road.
  - To add another forum for community involvement and input in addition to the *HaveYourSayHK* website.

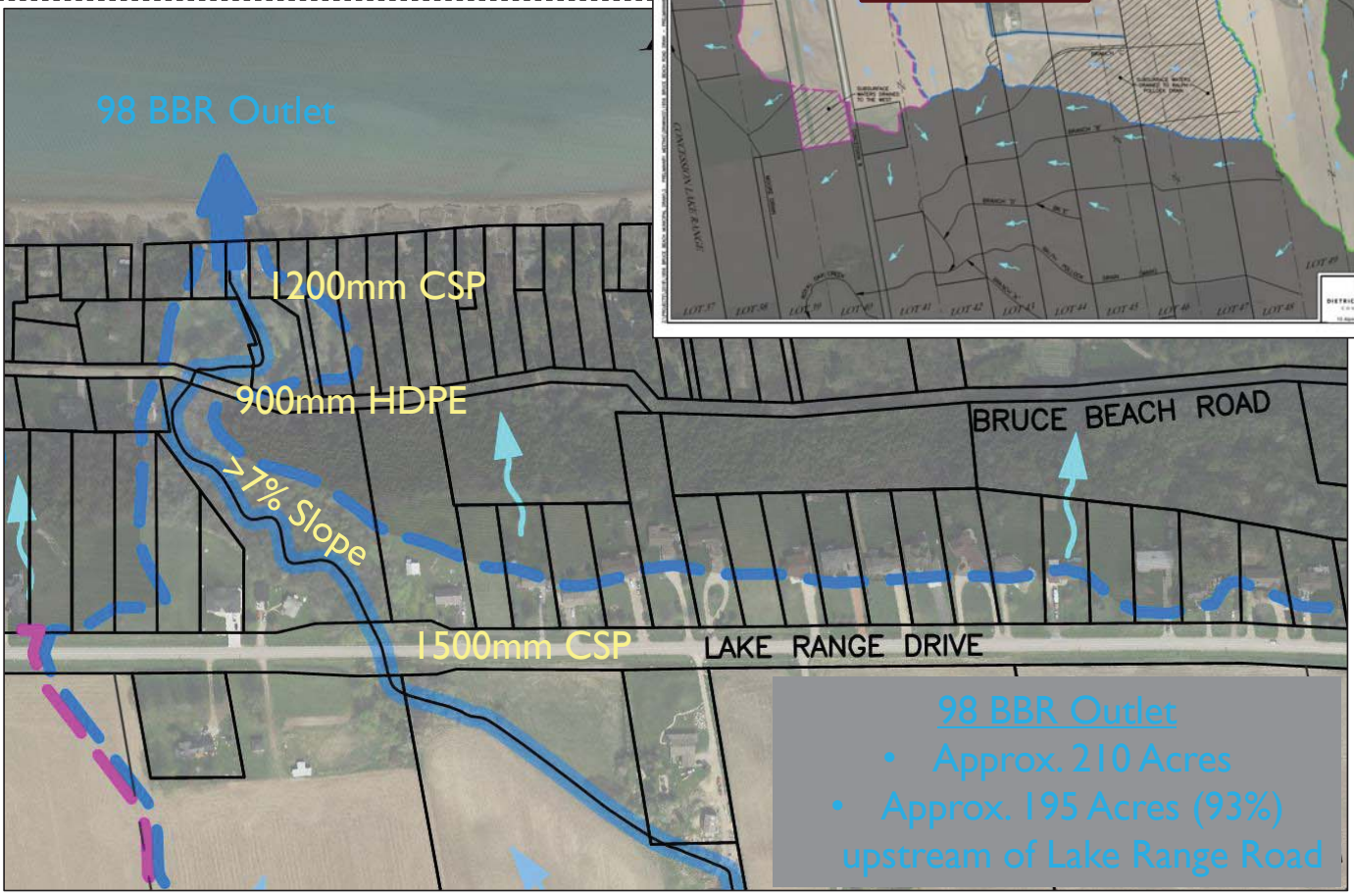
Findings

Findings *(so far)*



Findings *(so far)*





98 BBR Outlet

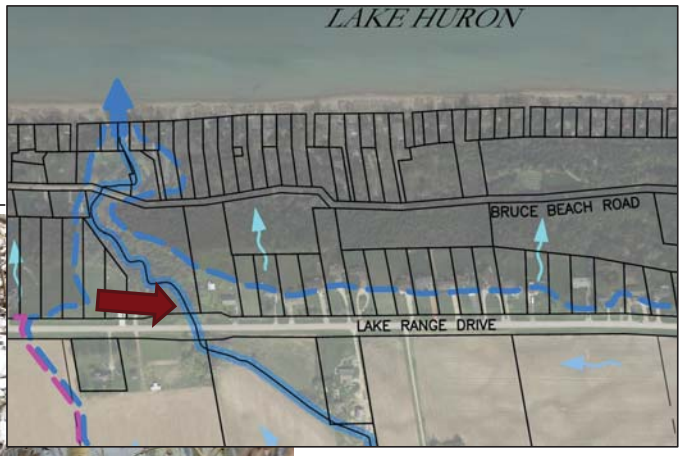
- Approx. 210 Acres
- Approx. 195 Acres (93%) upstream of Lake Range Road

Findings *(so far)*

Findings *(so far)*

Findings *(so far)*

Findings *(so far)*



Findings *(so far)*

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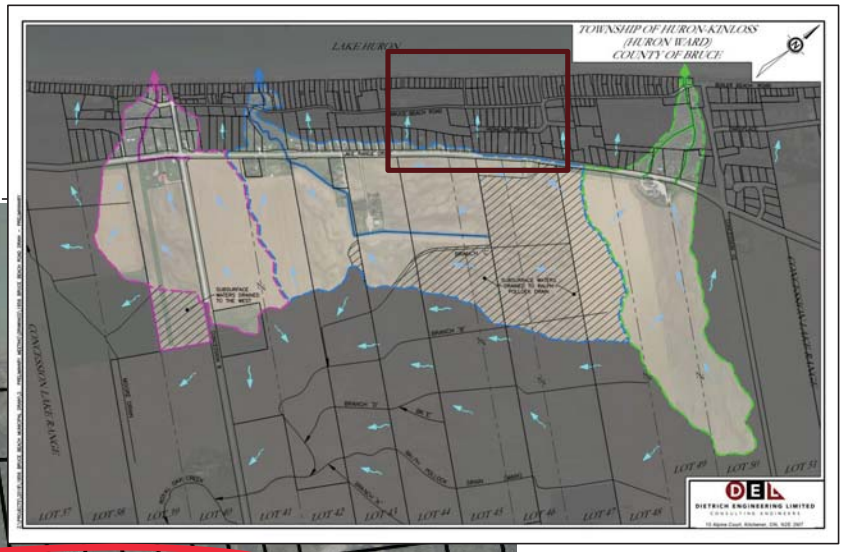
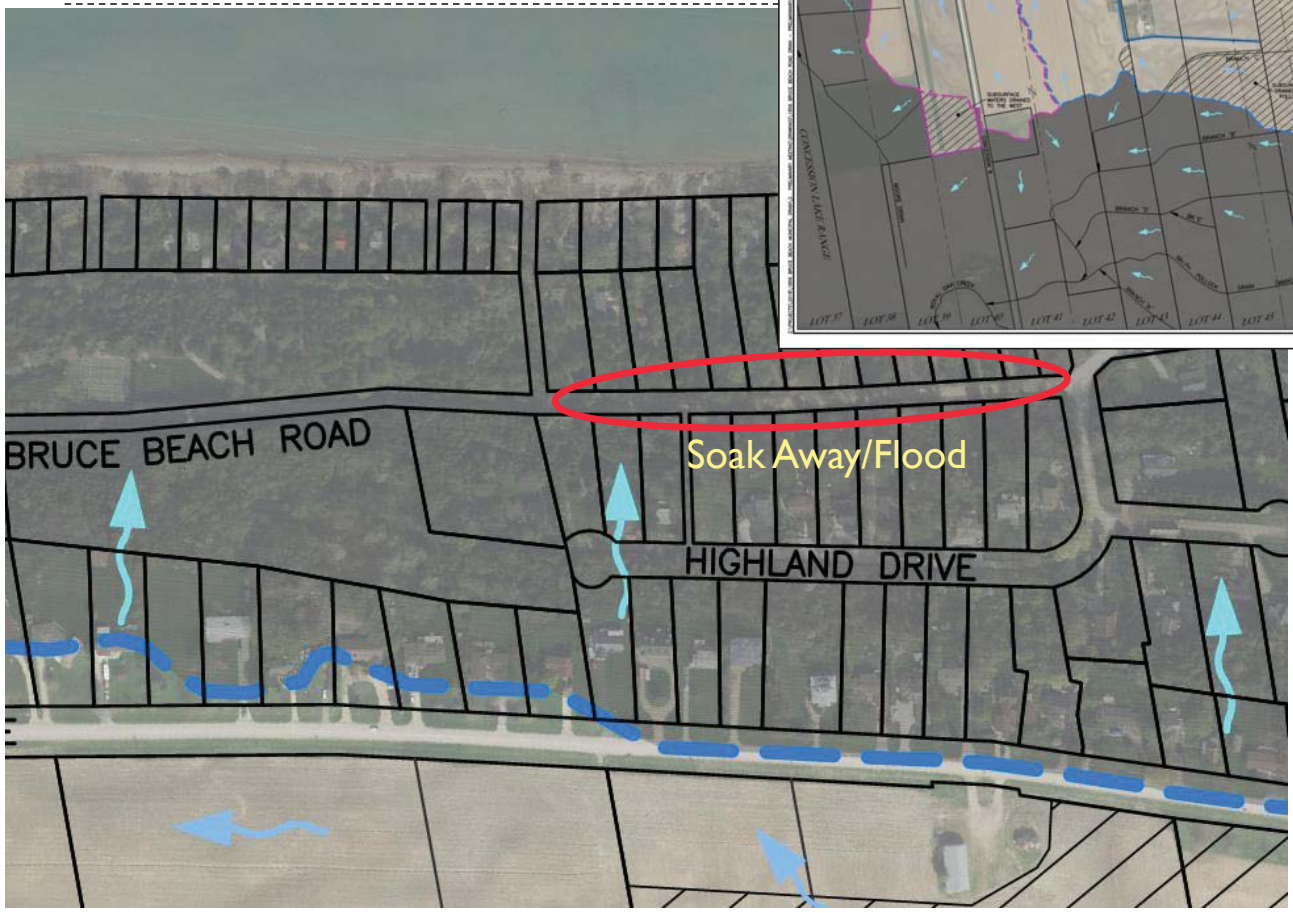
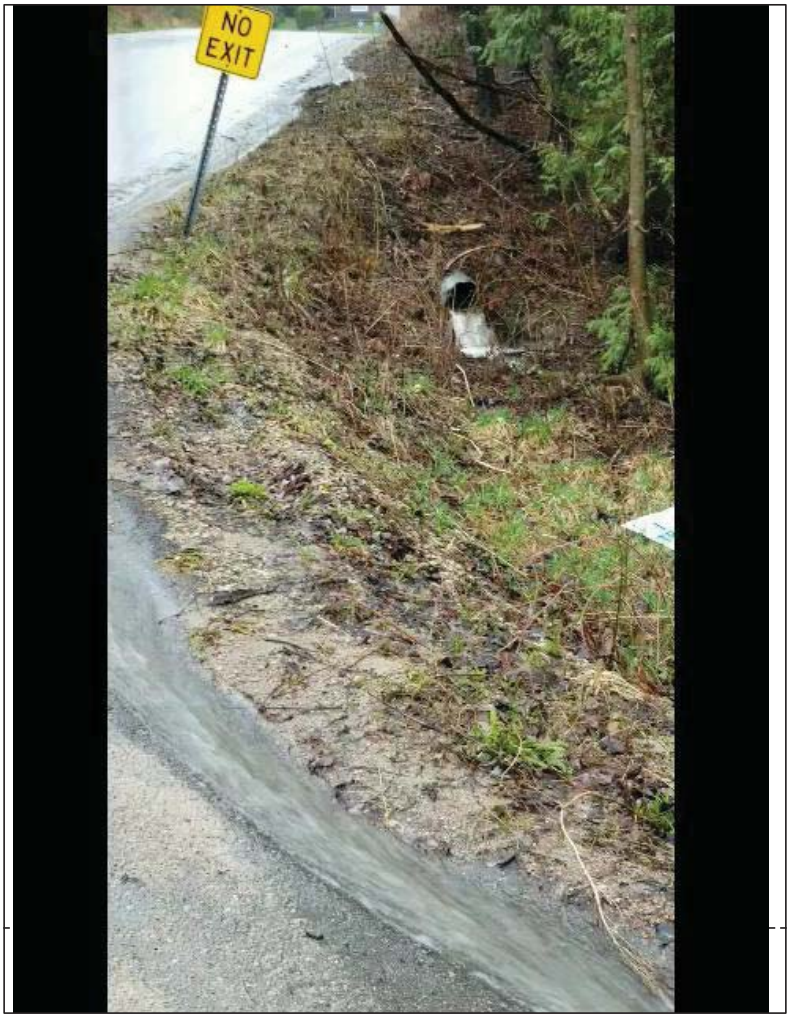




Findings *(so far)*



Findings *(so far)*

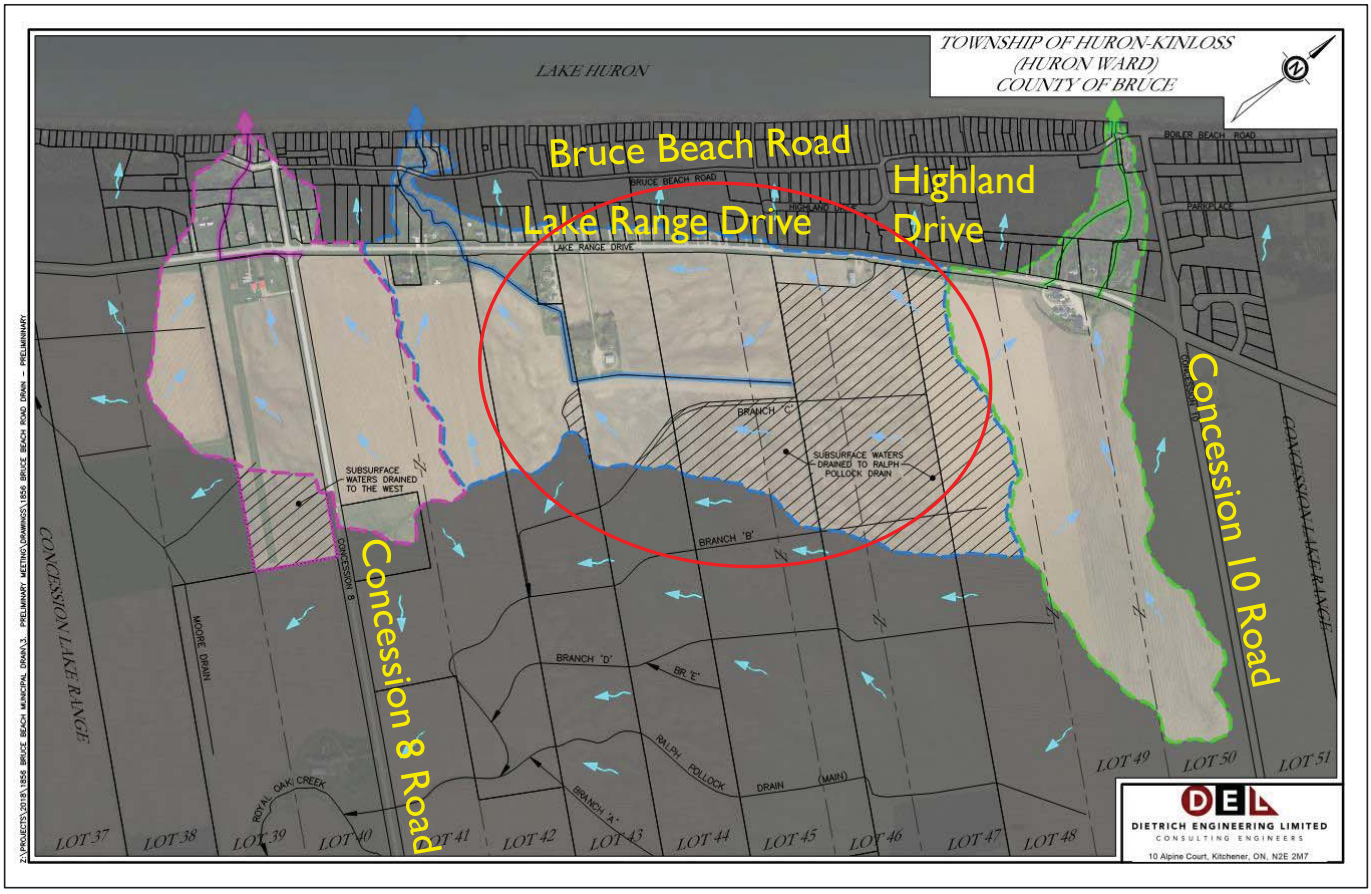
Findings *(so far)*

Findings *(so far)*

Findings *(so far)*

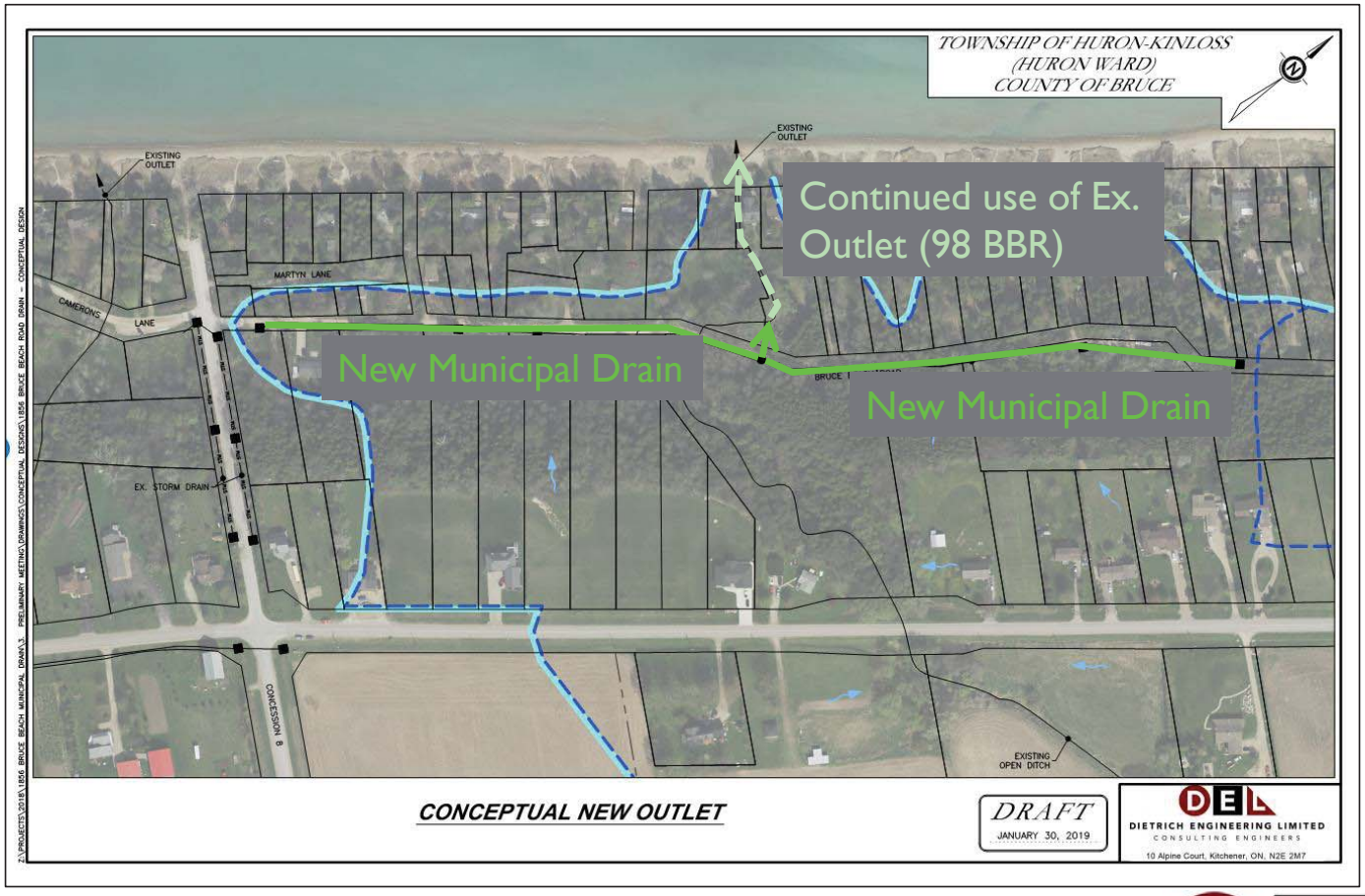
- 2006
- 2010
- 2015

Findings *(so far)*

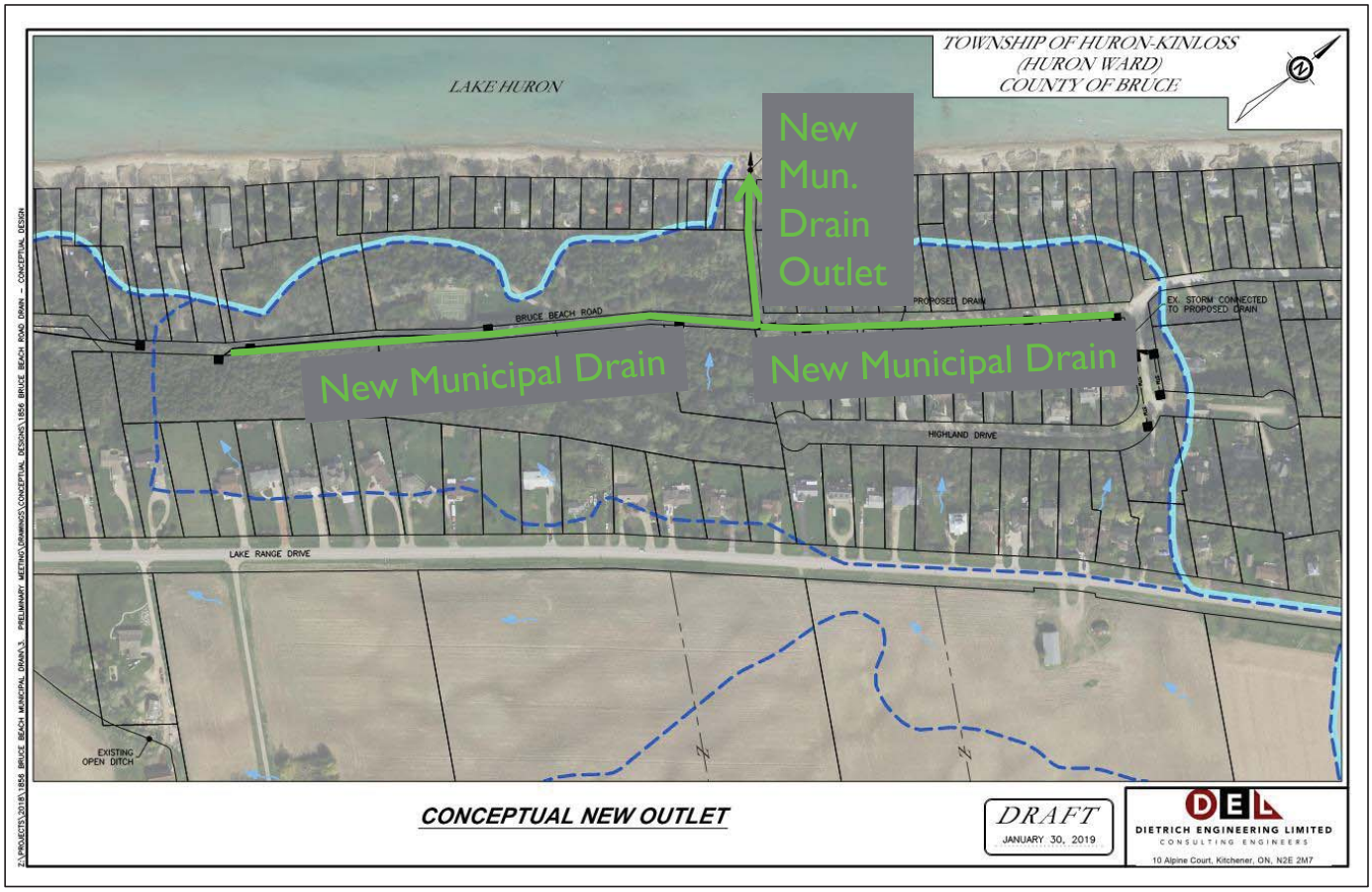


Review of Concepts

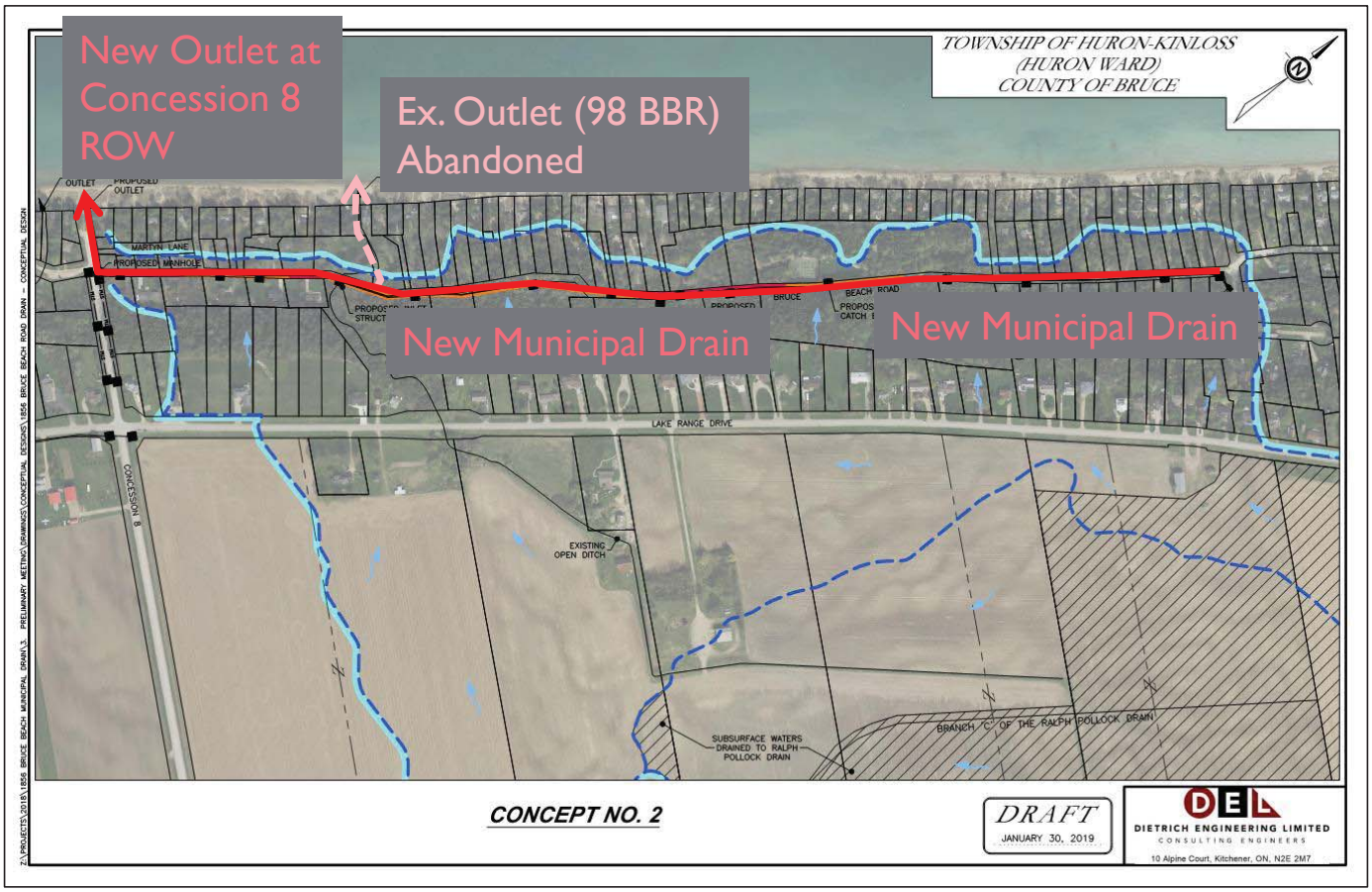
Concept No. 1a (98 BBR)



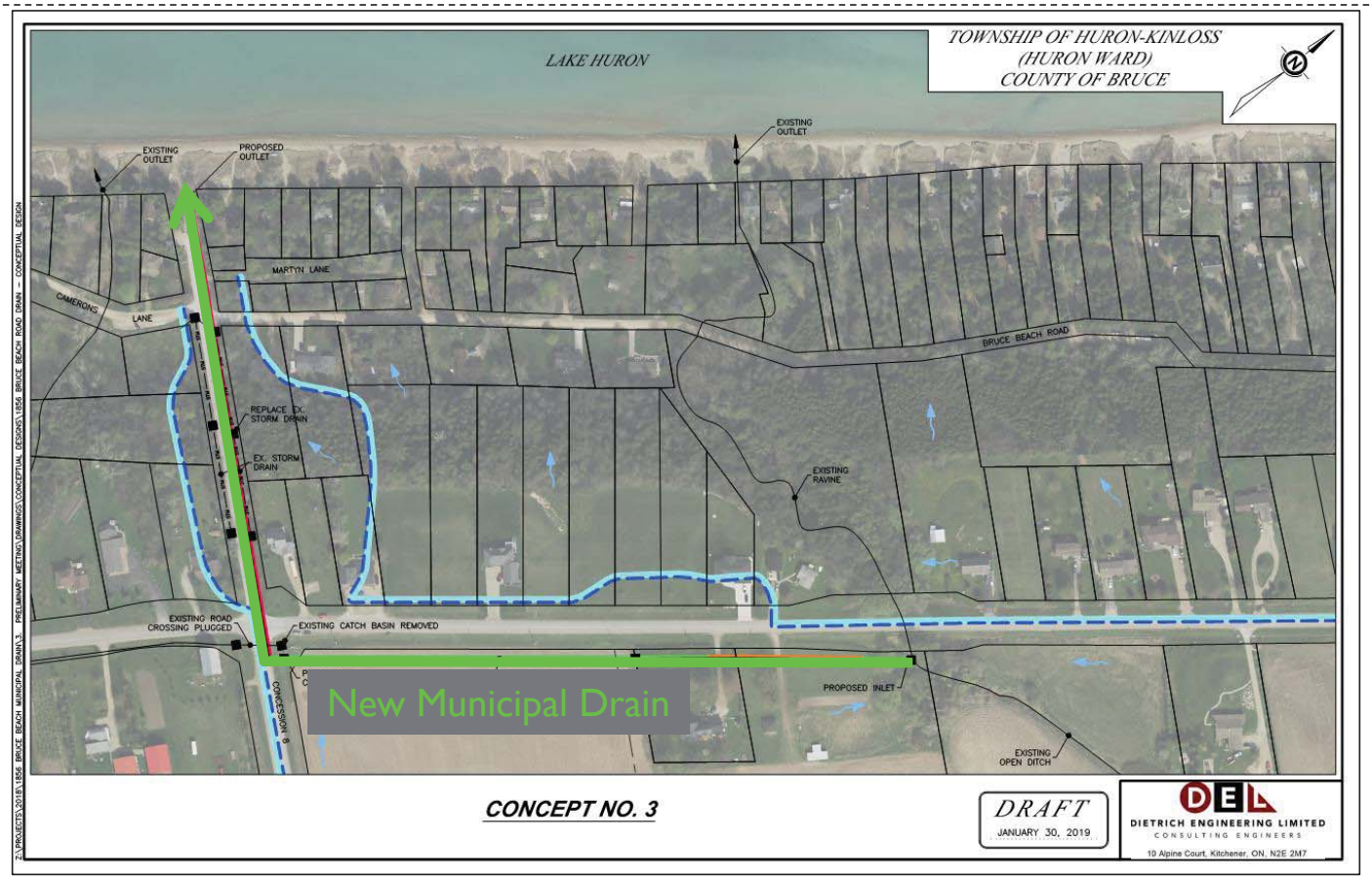
Concept No. 1b (Highland Drive)



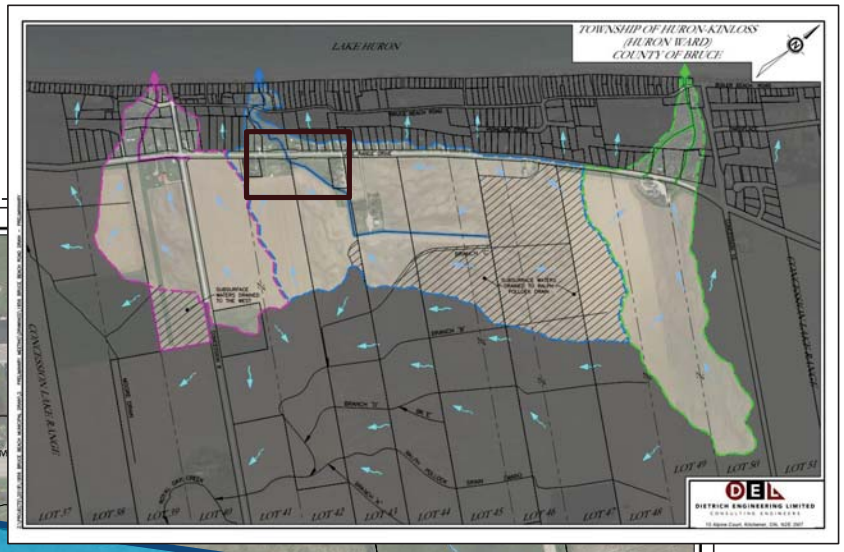
Concept No. 2

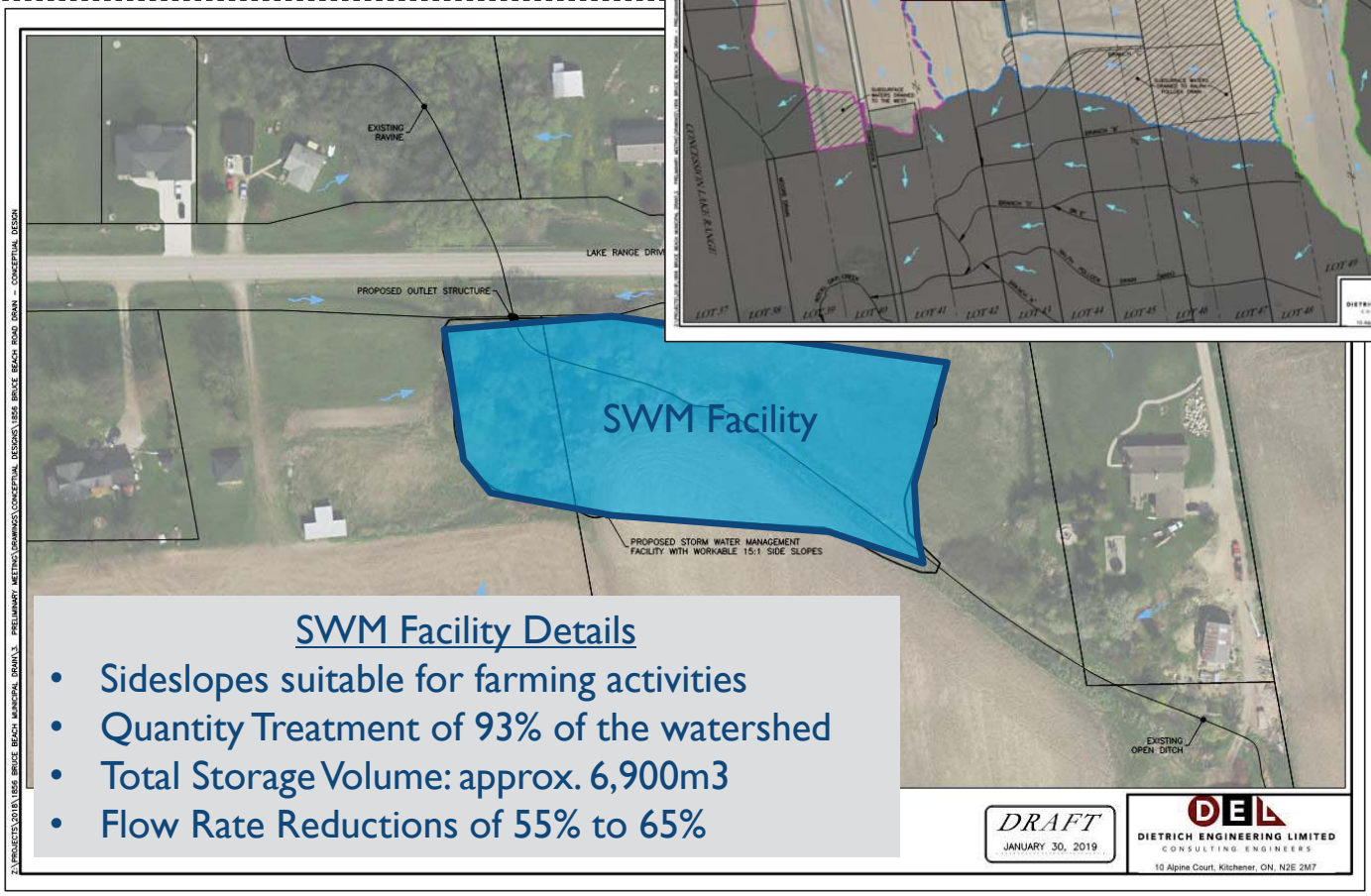

New Outlet at Concession 8 ROW
Ex. Outlet (98 BBR) Abandoned
New Municipal Drain
New Municipal Drain
TOWNSHIP OF HURON-KINLOSS
(HURON WARD)
COUNTY OF BRUCE
OUTLET
PROPOSED OUTLET
MARTIN LANE
PROPOSED MANHOLE
BEACH ROAD
LAKE RANGE DRIVE
CONCESSION 8
EXISTING OPEN DITCH
SUBSURFACE WATERS DRAINED TO RALPH POLLOCK DRAIN
BRANCH 'C' OF THE RALPH POLLOCK DRAIN
CONCEPT NO. 2
DRAFT
JANUARY 30, 2019
DIETRICH ENGINEERING LIMITED
CONSULTING ENGINEERS
10 Alpine Court, Kitchener, ON, N2E 2M7

Concept No. 3


LAKE HURON
TOWNSHIP OF HURON-KINLOSS
(HURON WARD)
COUNTY OF BRUCE
EXISTING OUTLET
PROPOSED OUTLET
EXISTING OUTLET
MARTYN LANE
CAMERONS LANE
BRUCE BEACH ROAD
REPLACE EX. STORM DRAIN
EX. STORM DRAIN
EXISTING RAVINE
EXISTING ROAD CROSSING PLUGGED
EXISTING CATCH BASIN REMOVED
New Municipal Drain
PROPOSED INLET
EXISTING OPEN DITCH
CONCESSION 8
CONCEPT NO. 3
DRAFT
JANUARY 30, 2019
DIETRICH ENGINEERING LIMITED
CONSULTING ENGINEERS
10 Alpine Court, Kitchener, ON, N2E 2M7

Concept No. 4





SWM Facility Details

- Sideslopes suitable for farming activities
- Quantity Treatment of 93% of the watershed
- Total Storage Volume: approx. 6,900m3
- Flow Rate Reductions of 55% to 65%

Concept No. 5

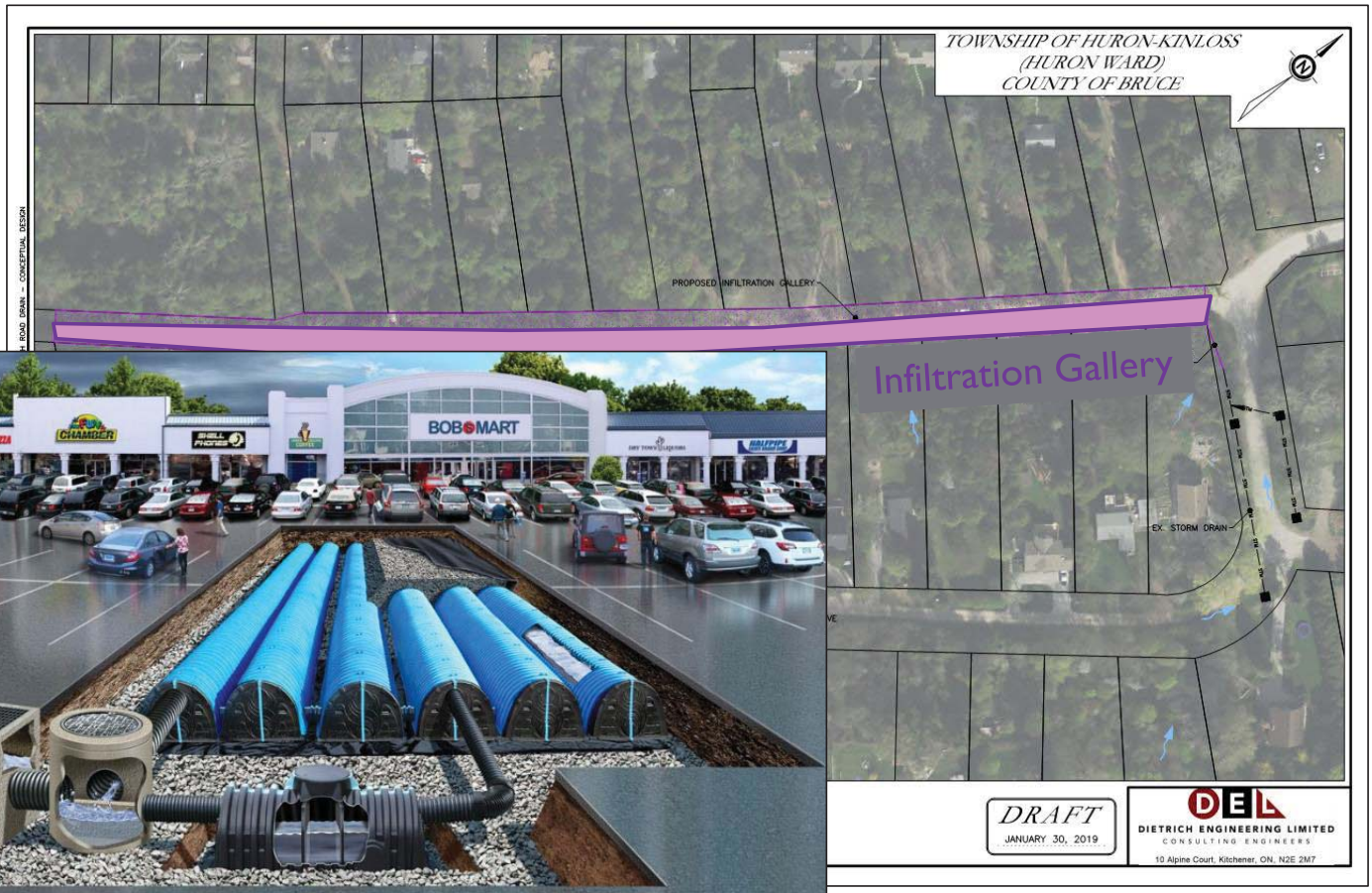


Photo Source: Aqua Q website

Scenario Comparison

Concept No.	Description	Feasibility / Practicality	Additional Comments
1a	New drainage system along south part of BBR Continued use of 98 BBR	Fair	Fails to meet guiding principals. Low complexity
1b	New drainage system along north part of BBR New outlet to Lake Huron	Fair	Fails to meet guiding principals. Low complexity
2	New drainage system along BBR New outlet @ Con 8	Very low feasibility	Meets most guiding principal Poses significant construction challenges
3	New drainage system along Lake Range New outlet @ Con 8	Fair	Meets some guiding principals
4	Detention facility @ Lake Range Road	Positive	Meets most guiding principals Can be coupled with other concepts
5	Infiltration @ Highland Drive	Unknown	Meets most guiding principals Needs more information

Review of *HaveYourSayHK* Input

HaveYourSayHK Input

- Comments have been paraphrased and grouped into four groups
  - Procedural
  - Problem Causes & Severity
  - Design
  - Costs & Assessments

HaveYourSayHK Input - Procedural

PROCEDURAL COMMENTS

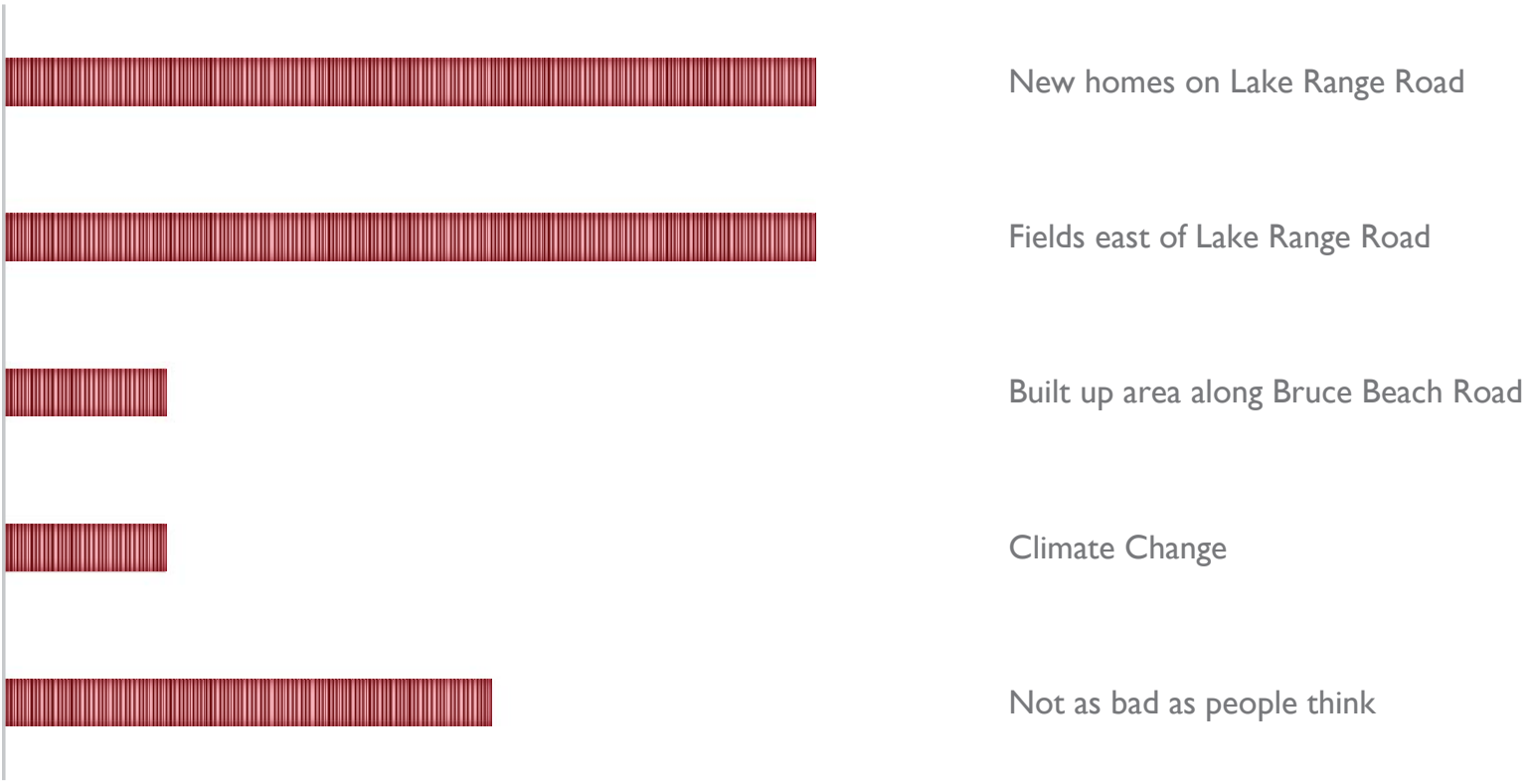
SVCA Involvement and permitting of more development on Lake Range Road

Have another Engineer conduct a review of engineering work

Expand the extents of the petitioned area to the North

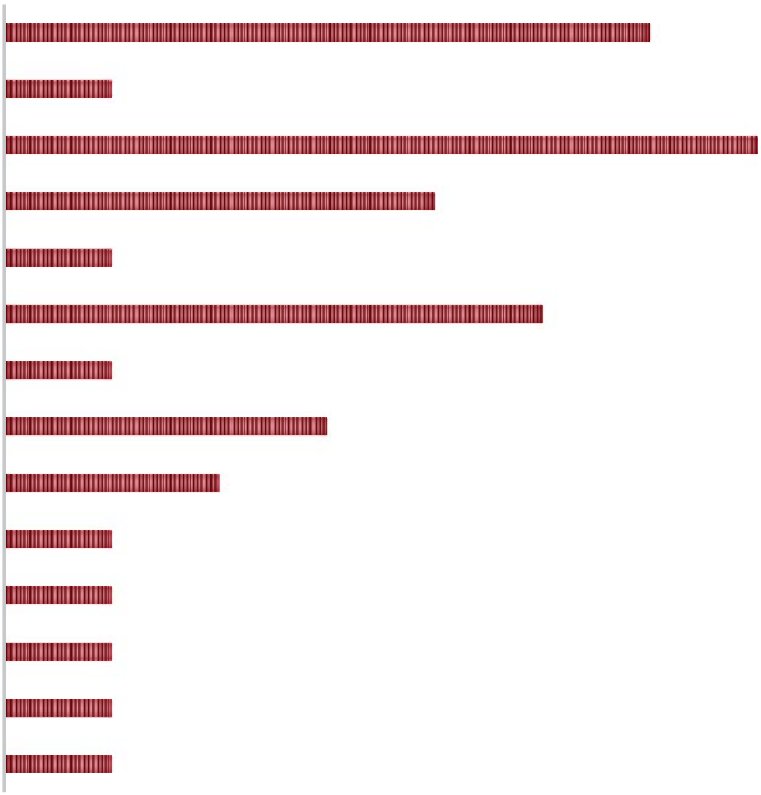
HaveYourSayHK Input – Problems Causes & Severity

PROBLEM CAUSES & SEVERITY COMMENTS



HaveYourSayHK Input – Design

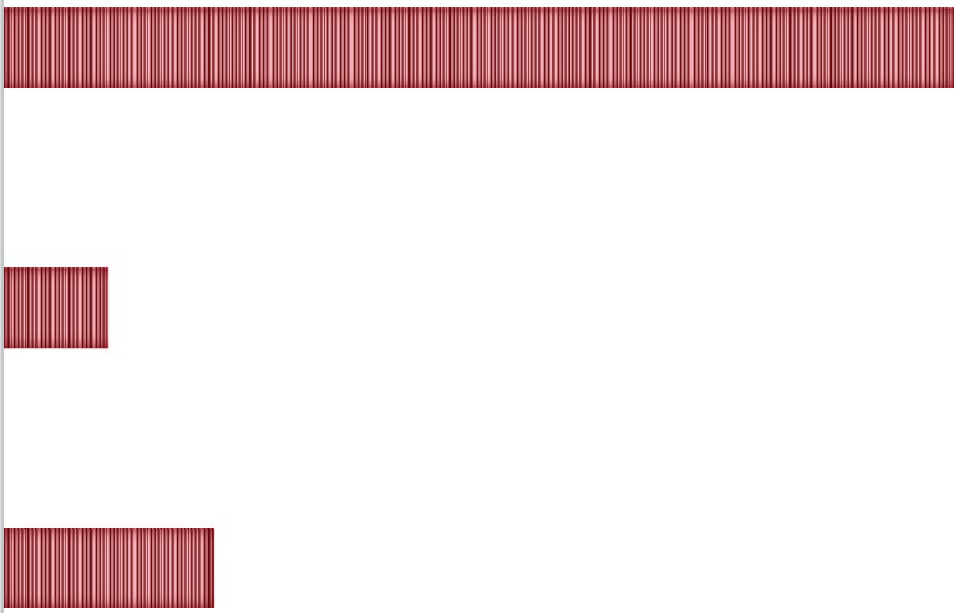
DESIGN COMMENTS



- Design a solution at the source of the flow
- Design a solution at the problem location (BBR)
- Water quality
- No new outlets to the beach
- Support for Concept No. 1
- Support for Concept No. 4 (SWMF)
- Do not support Concept No. 4
- Support for Concept No. 5 (Infiltration)
- New roadside ditches along BBR
- Build up BBR
- French Drains along LRR and Highland Drive
- Bank Stability
- Reference to national sewer/SWM guide
- Do nothing

HaveYourSayHK Input – Costs & Assessments

COSTS & ASSESMENT COMMENTS



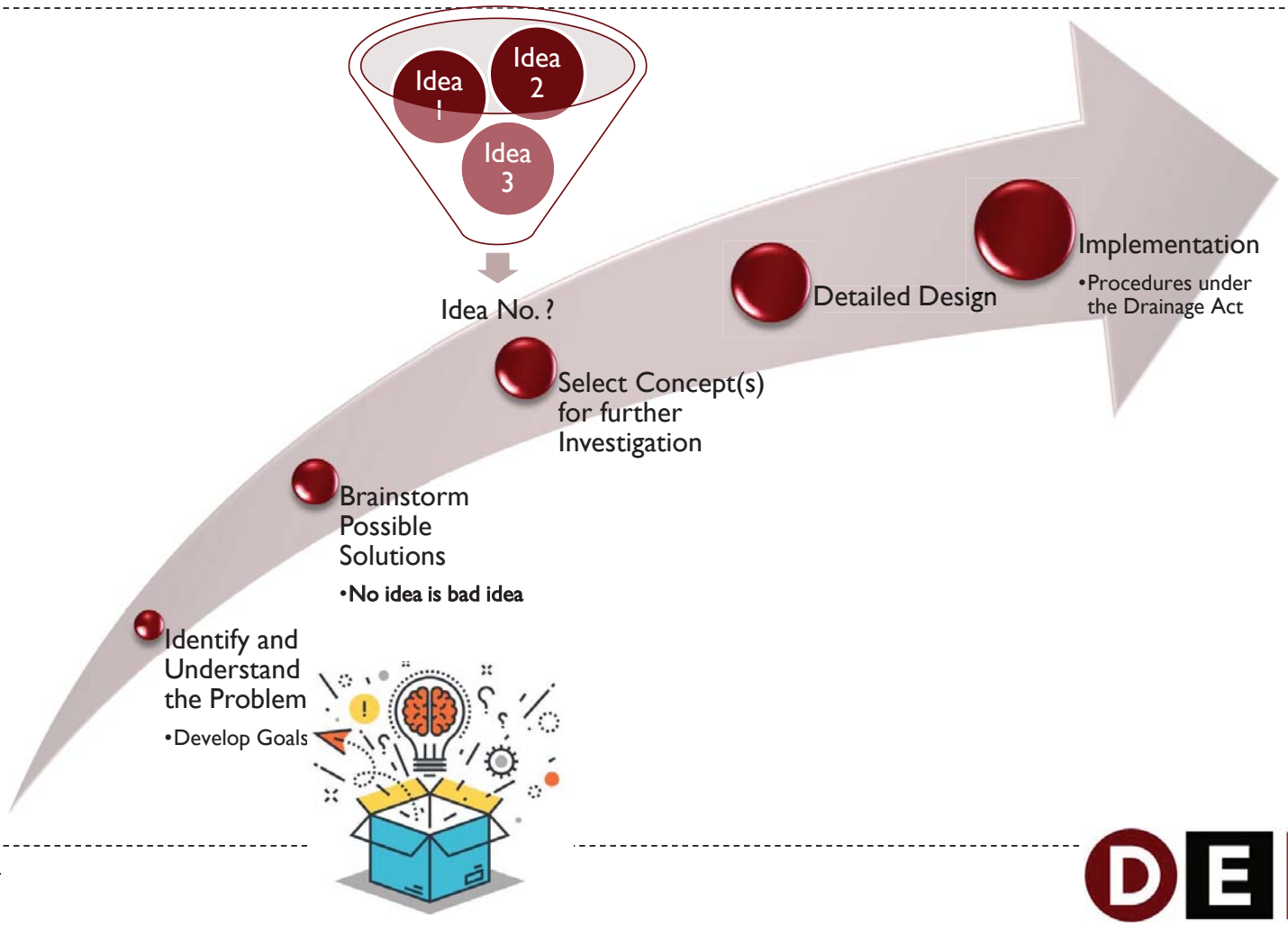
How much will it cost

Low cost solution may not be best

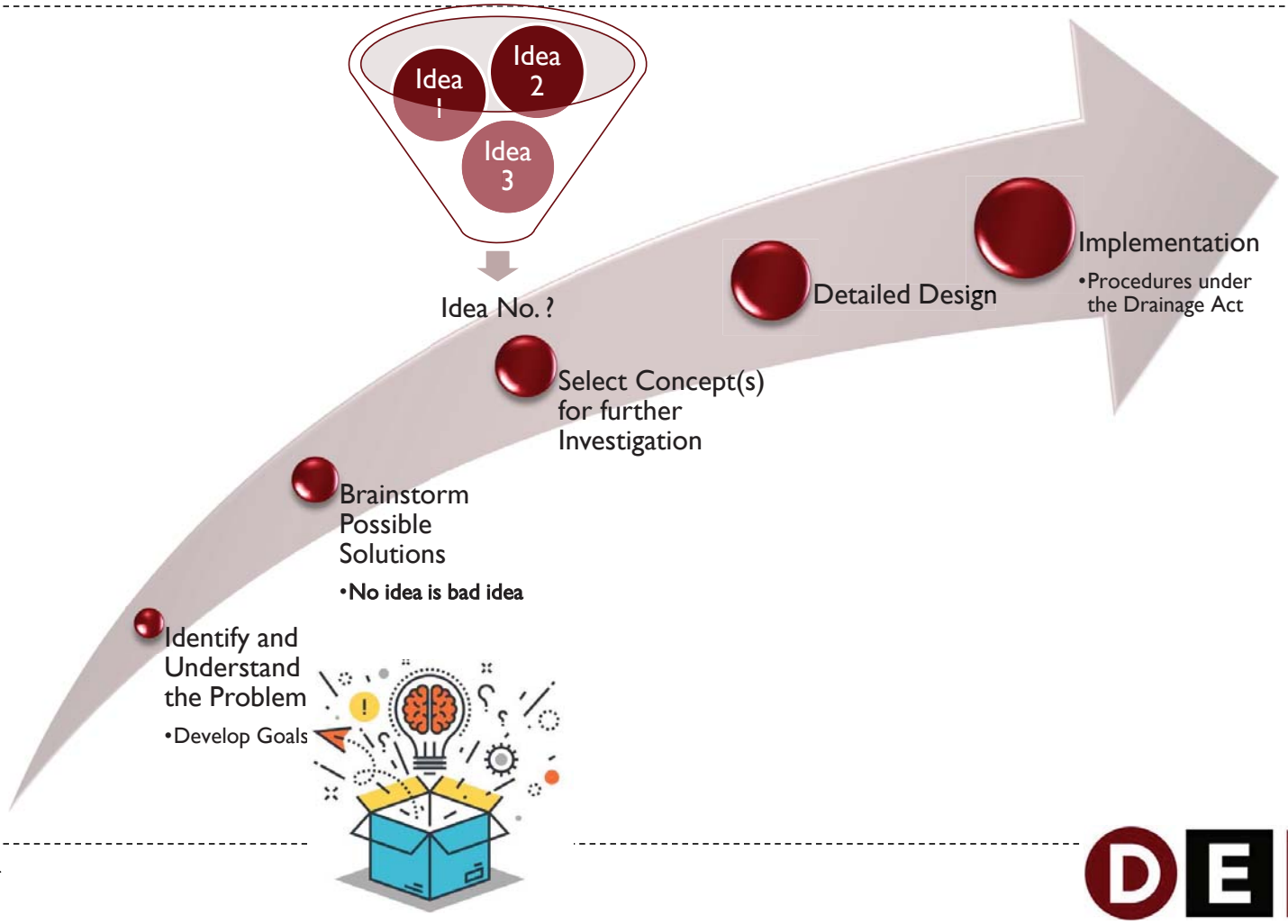
Keep costs low

Project Plan

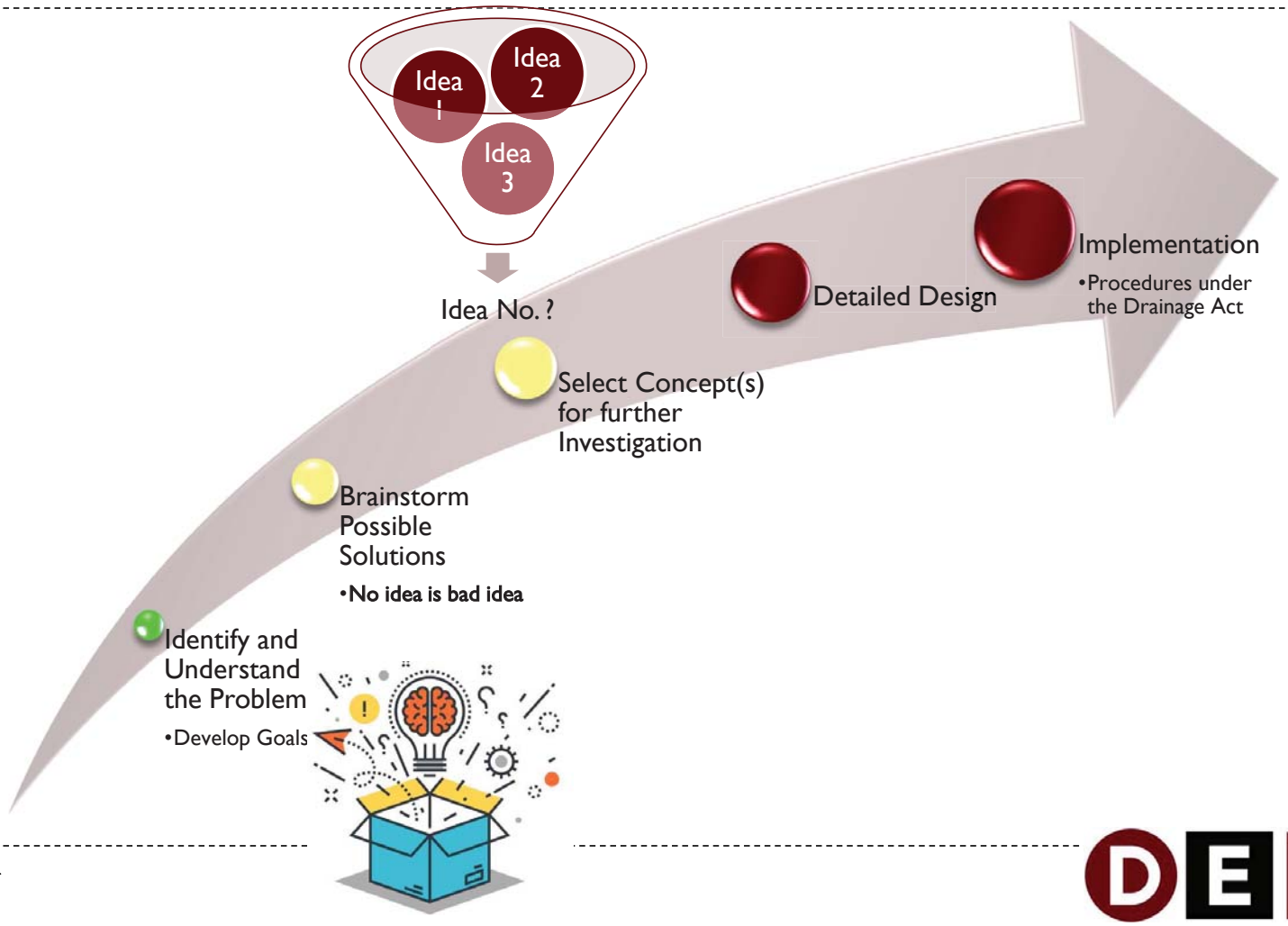
Project Plan



Where are we now?



Where are we now?



Public Questions & Input