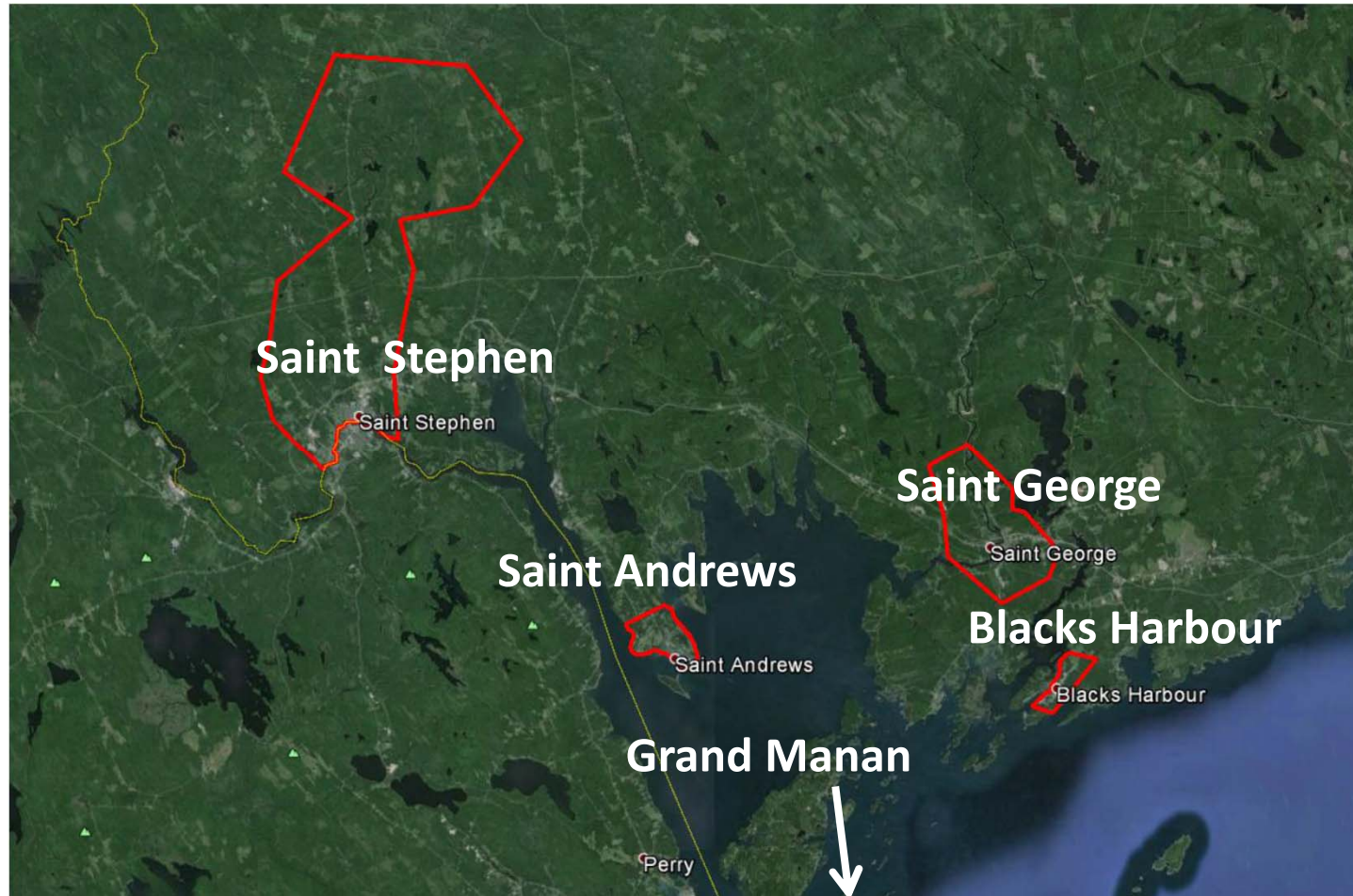


Use of LIDAR for Flood Stricken Areas in Charlotte County, NB St Croix Estuary Project

*Réal Daigle, Meteorologist
rdenviro1@gmail.com*

Where?



Who?

Project Lead: Kim Reeder, St Croix Estuary Project Inc & partner Eastern Charlotte Waterways Inc

Major funders:

- ***New Brunswick Environmental Trust Fund***
- ***Environment Canada***

Partners:

- ***Saint Stephen, Saint Andrews, Saint George, Blacks Harbour, Grand Manan***

Contractors:

- ***R. J. Daigle Enviro (Climatology, SLR Scenarios)***
- ***UNB Forest Watershed Research Group (Wet areas mapping)***
- ***Leading Edge Geomatics (LiDAR)***

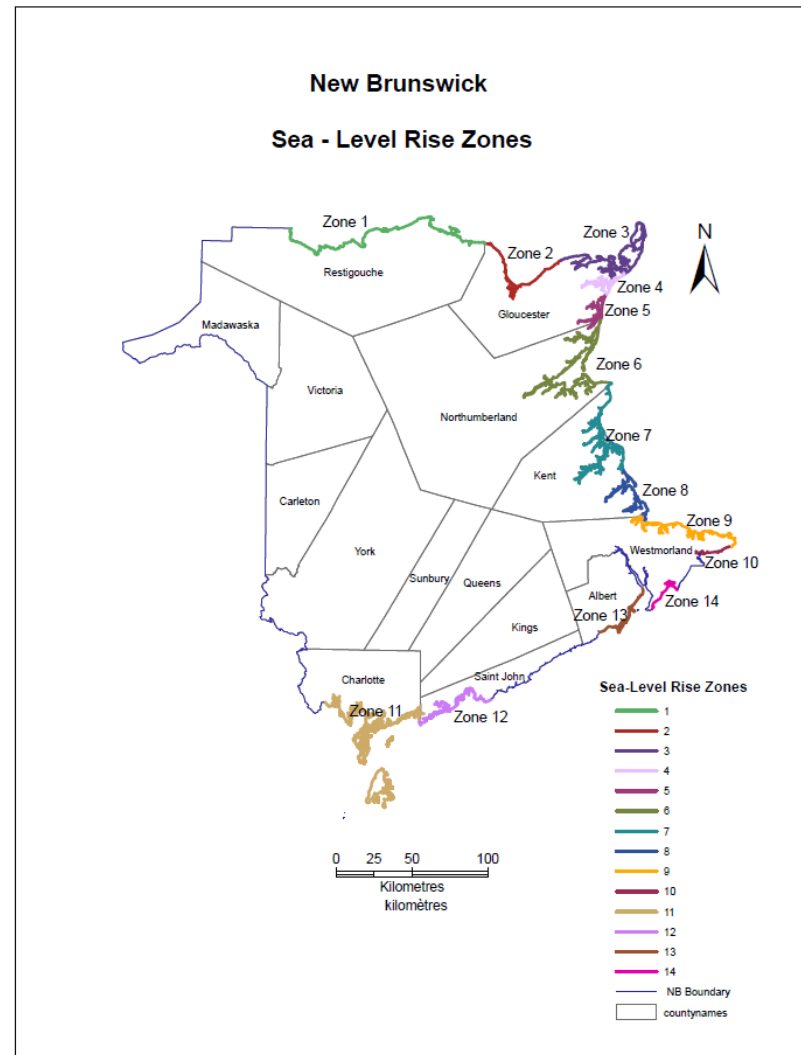
What?

- ***Climate Change Vulnerability Assessment Tool***
- ***Community-based Working Groups***
- ***Identification of Vulnerabilities to Extreme Weather events***
- ***Understanding of Climate Change Impacts to the Communities***
- ***Starting point for Identification of Solutions and Adaptation Options***

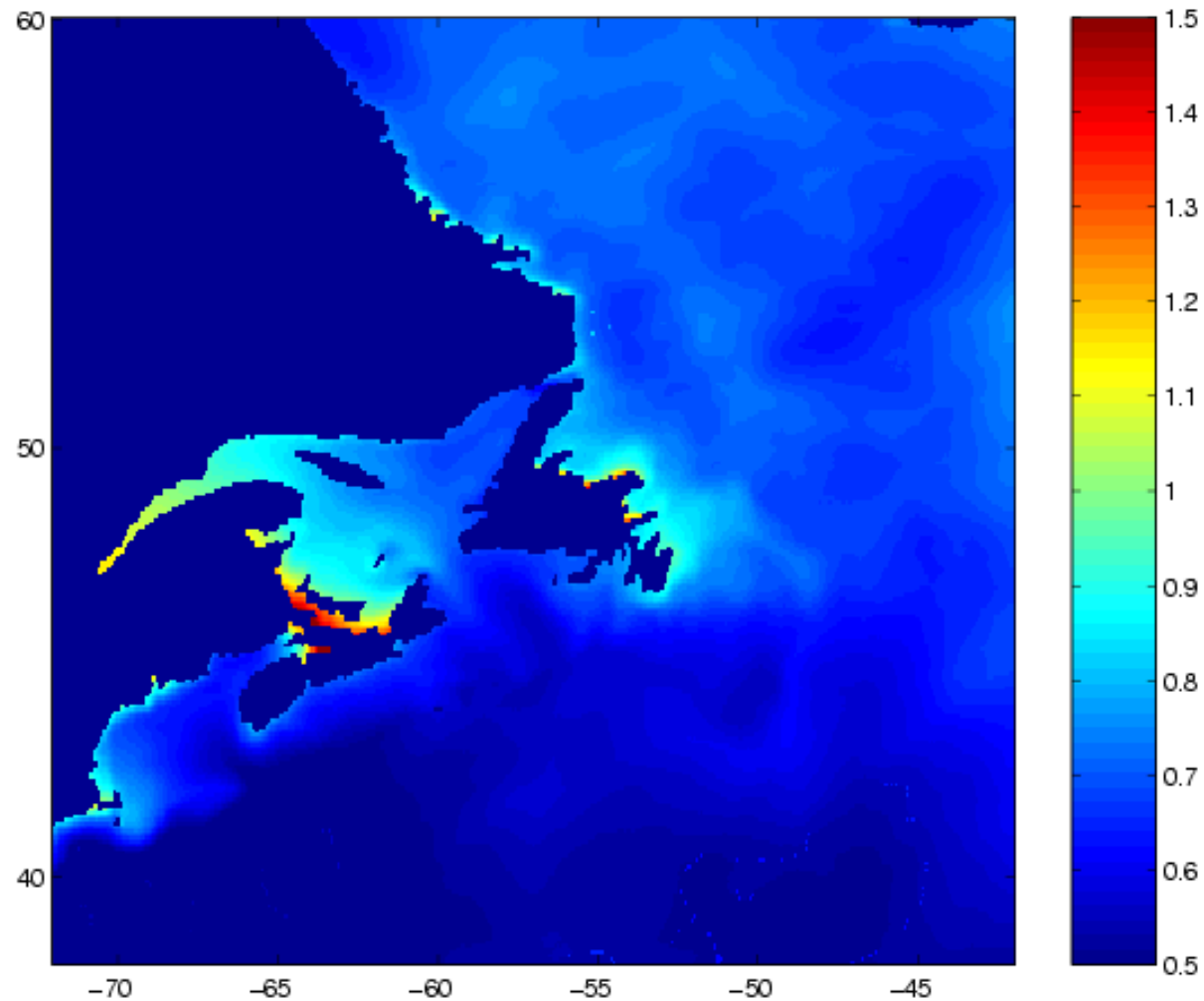
How?

- ***Analysis of Precipitation Climatology***
- ***LiDAR Mapping for each Community***
 - ***Display flooding impacts from recent extreme rainfall events***
 - ***Conduct wet areas mapping of watershed areas***
 - ***Display coastal flooding scenarios***
- ***Communicate Results and obtain Buy-in through Working Groups***

Flooding Scenario Zones (14)



Storm Surge 40-Year Return Level



Flooding Scenarios for LiDAR and Adaptation Planning Applications

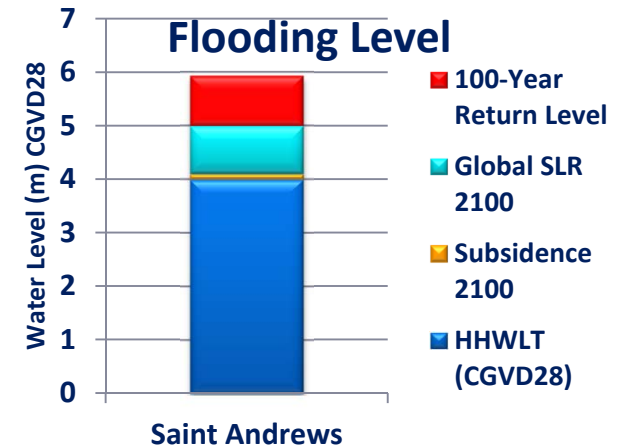
Flooding Level =

HHWLT Baseline

+ Crustal Subsidence Component

+ Global Sea-Level Rise Component

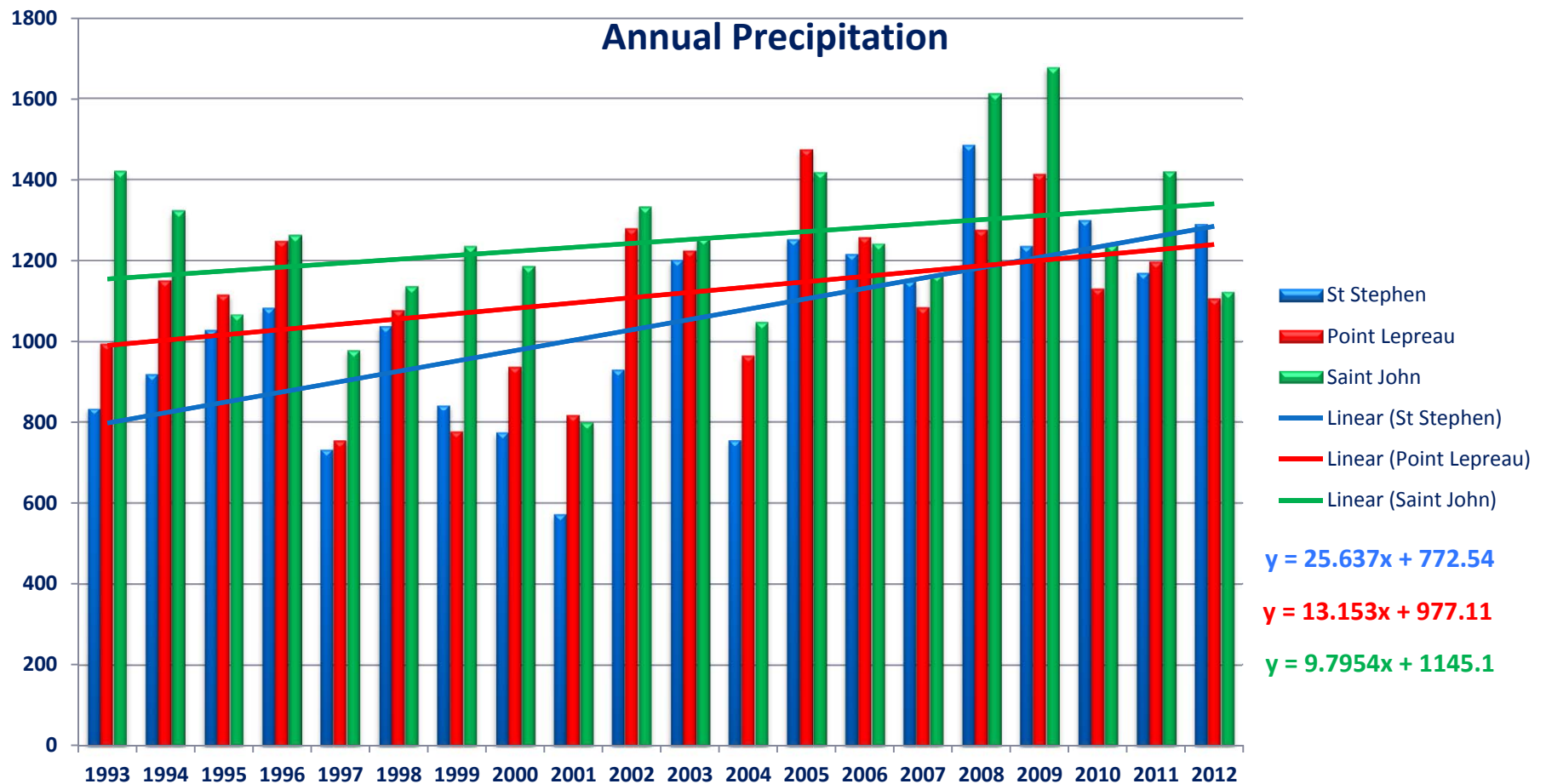
+ Storm Surge Return Period Component (1, 2, 5, 10, 25, 50, 100 Years)



(for each of Years 2000, 2025, 2055, 2085 and 2100)

Annual Precipitation Trends (1993-2012)

St Stephen, Point Lepreau, Saint John



Thank You!

R.J. Daigle Enviro

Environmental
Consultation

Meteorology
Climatology
Climate Change

A sustainable future
depends on us!

Réal Daigle
Director

379 Glencairn Dr.
Moncton
NB E1G 1Y5
Phone: 506-852-9589
Cell: 506-862-9589
E-mail: rdenviro1@gmail.com

R.J. Daigle Enviro