



NATURE  
ALBERTA

Living By Water Program

# Shoreline Assessments & Naturalization of Properties on Select Recreational Lakes

By Sheldon Helbert

# Outline

## **A. Shoreline assessment program**

## **B. Shoreline naturalization incentive program**

- Partners
- Introduction
- Program delivery
- Summary of key results

# A & B Partners (Four Lakes)

## **Wabamun**

- Parkland County
- WWMC
- SVs
- Property owners

## **Isle**

- Parkland & Lac Ste Anne Counties
- LILSA
- SVs
- Property owners

## **Lac La Nonne**

- Lac Ste Anne & Barrhead Counties
- LEPA
- Property owners

## **Pigeon (Pilot)**

- PLWA
- SVs:  
Itaska Beach,  
Norris Beach &  
Grandview
- Property owners

# A. Shoreline Assessments

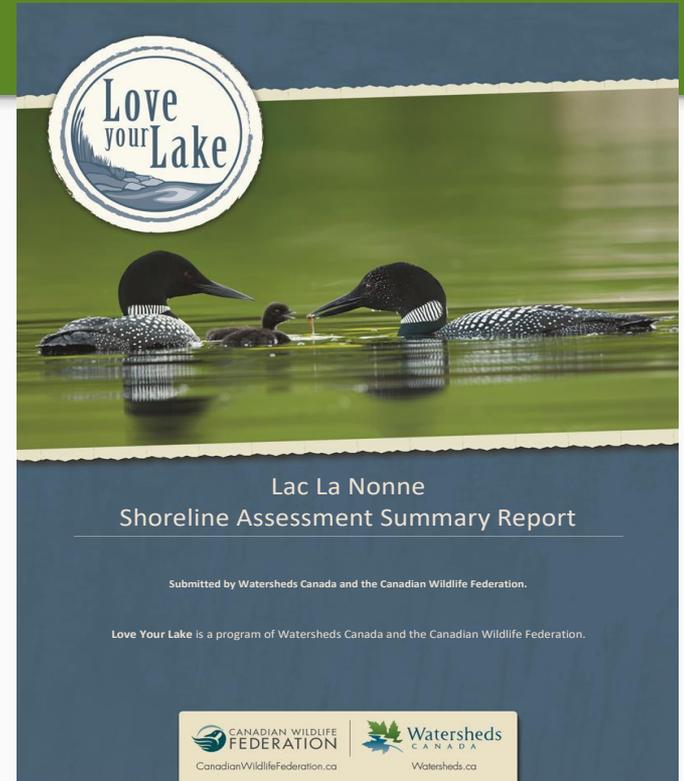
- Evolution of home site assessments
- Adoption of Watersheds Canada & Canadian Wildlife Federation Love Your Lake Protocols – Pilot Program
- Nature Alberta contributes financial support and expertise
- Partners contribute volunteers, provide geospatial data, distribute communications and promote program goals

# A. Shoreline Assessment Program Delivery

- Data (~20 metrics) using LYL protocols collected from boat by two staff with volunteer boat operator
- Two reports: **Individual** (confidential & private) for property owner and **Summary** for everyone (owners use Summary as benchmark)

# A. Shoreline Assessment Reports

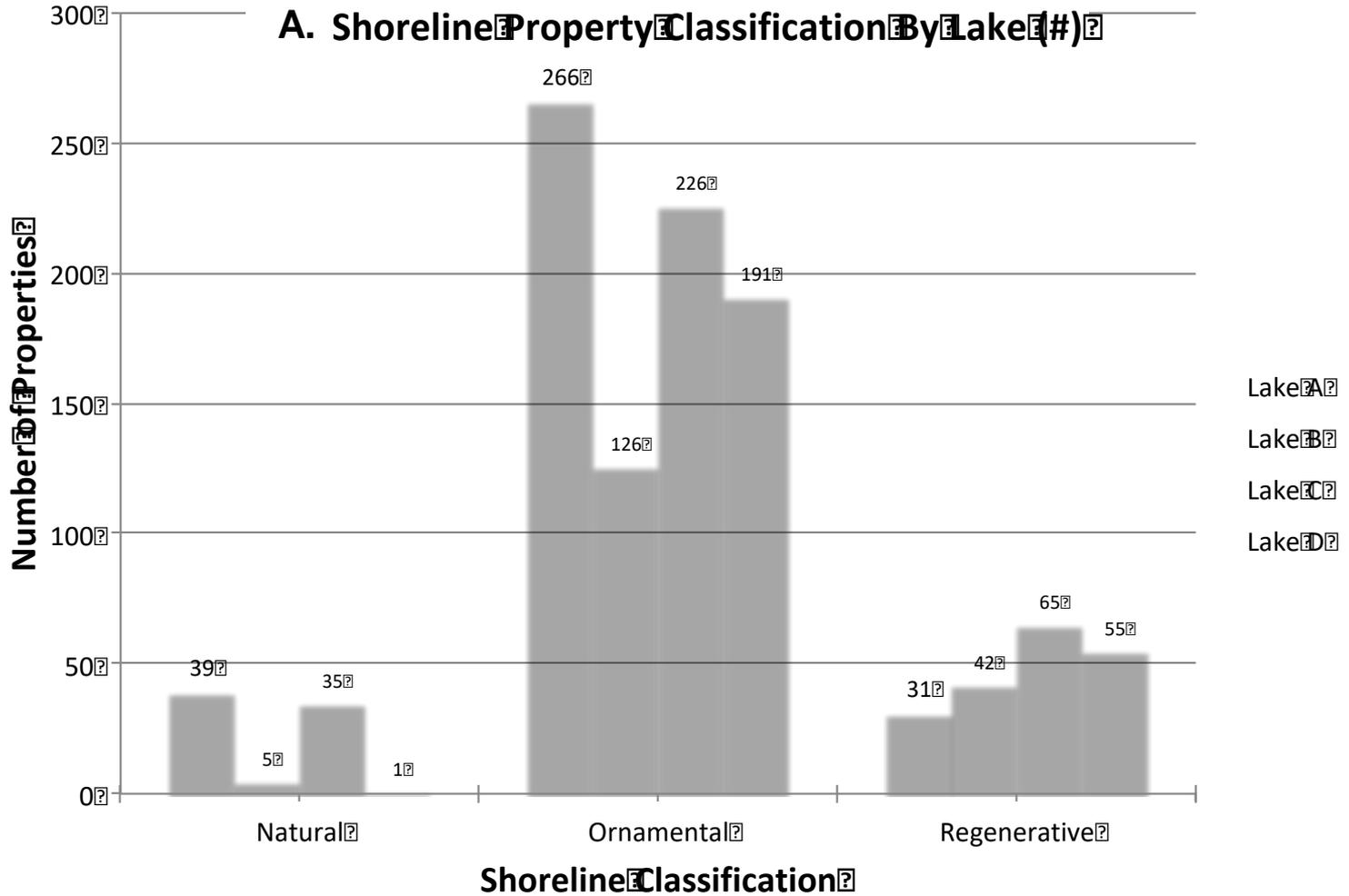
- Introduction & Methods
- Results ( $\leq 13$  topics):
  - Shoreline Classification & Restoration (buffers)
  - Erosion, Sediment & Runoff (roof drainage)
  - Building Setbacks, Slopes & Lawns
  - Shoreline Development (docks, lifts, stairs, beaches, launches, sheds, boat houses, decks, ...)
  - Retaining Walls & Invasive Species
  - Aquatic Vegetation & Wildlife
- **Next Steps** → **Naturalization** = restorative activity



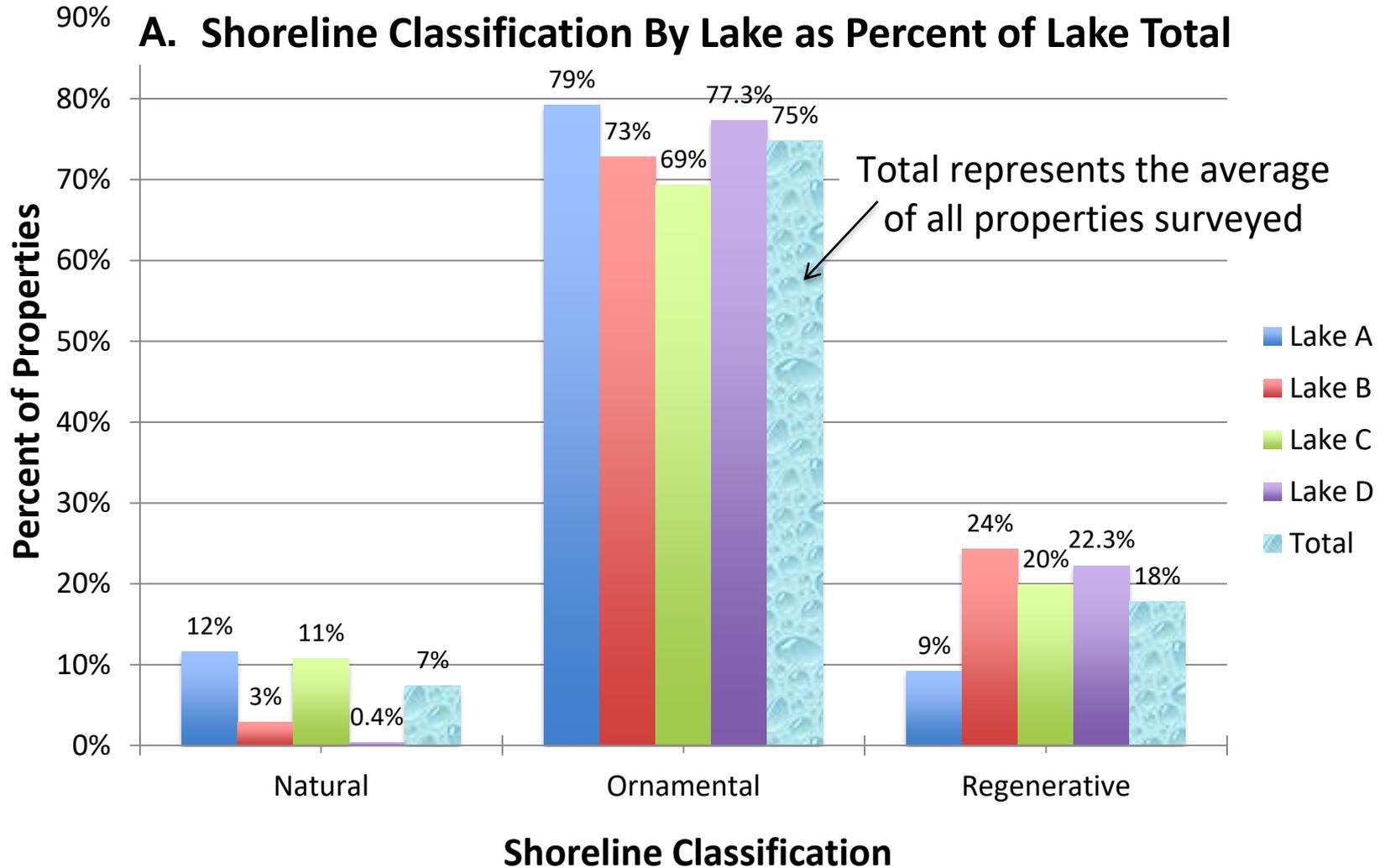
# A. Shoreline Classification



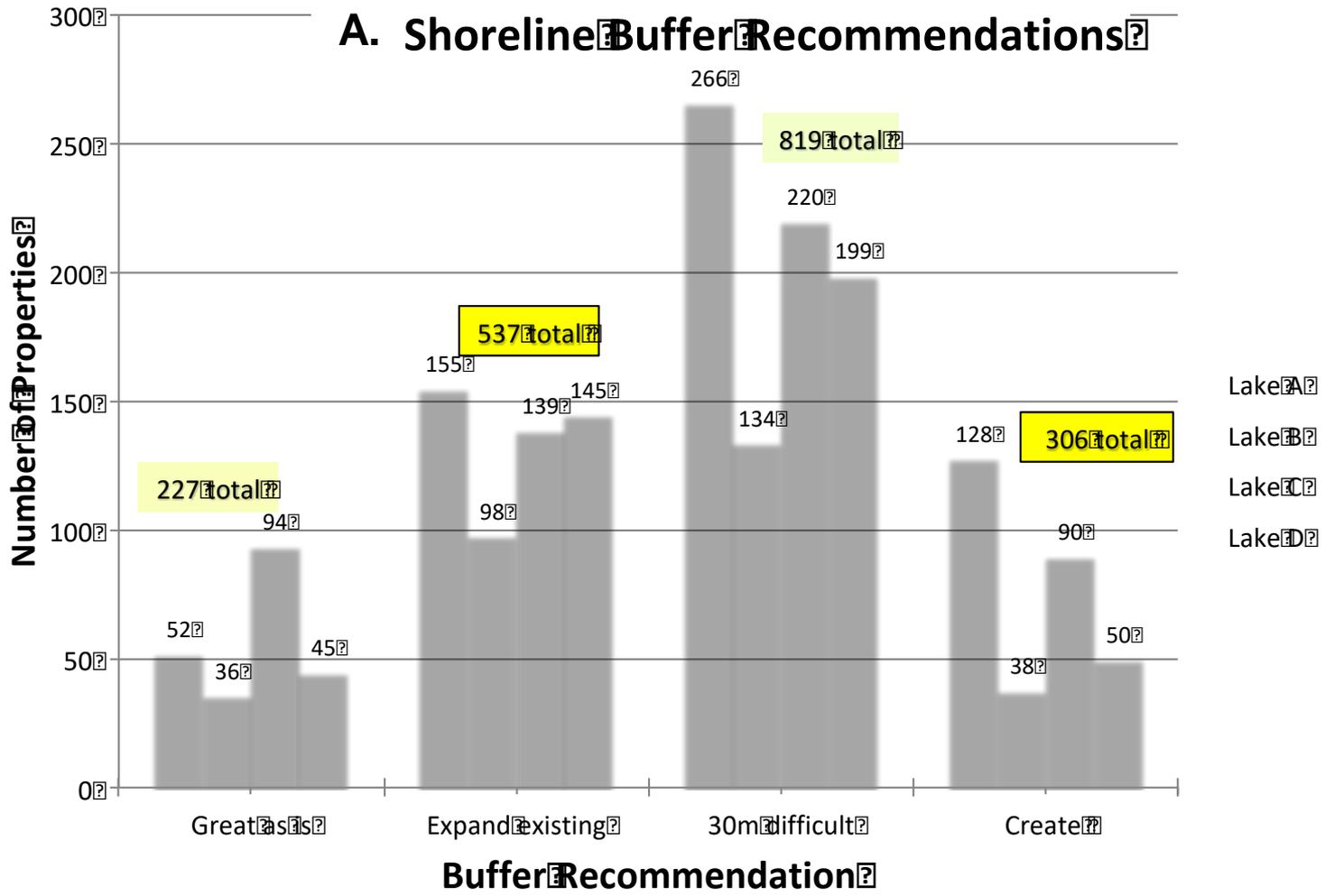
# A. Shoreline Property Classification By Lake (#)



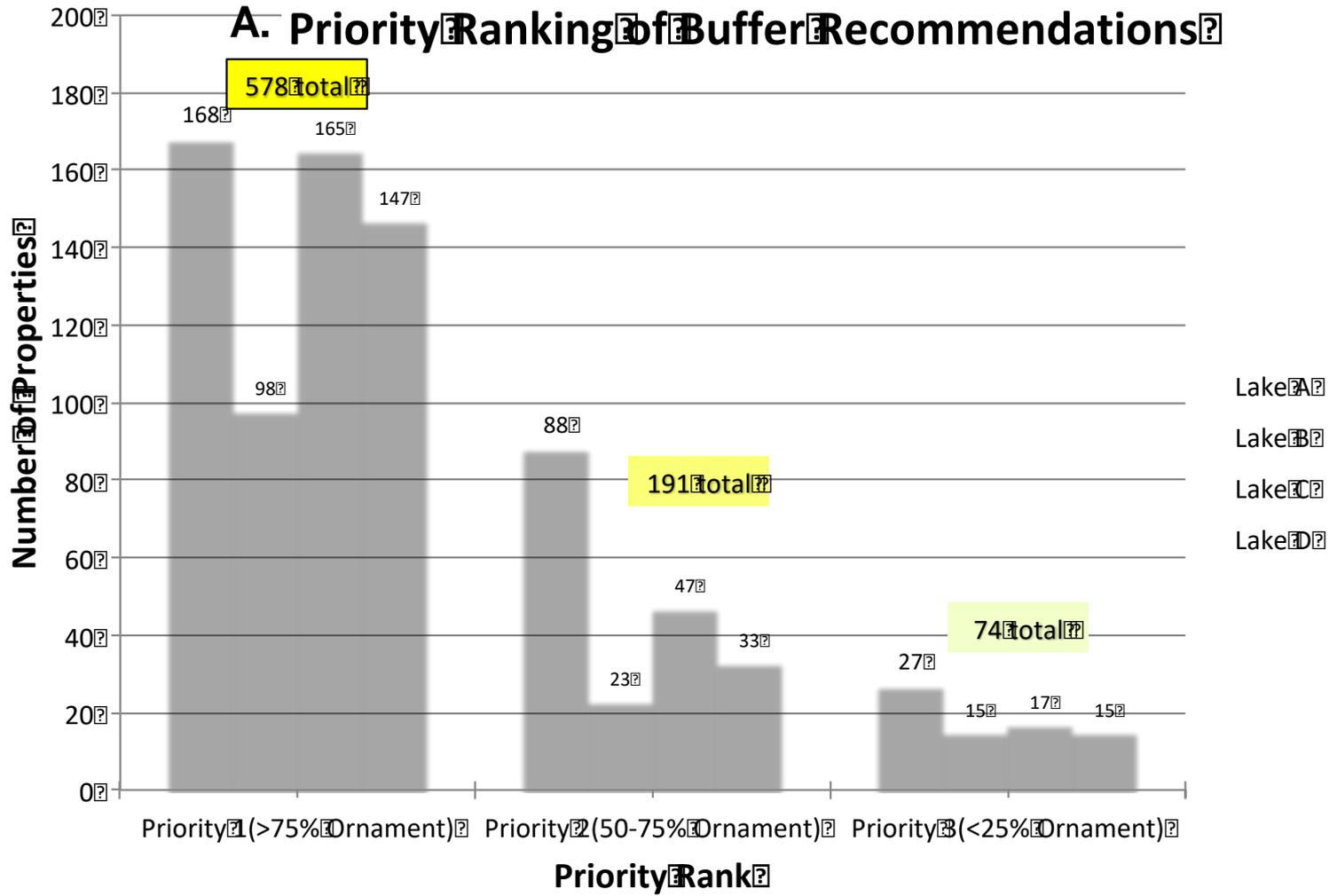
# A. Shoreline Classification By Lake as Percent of Lake Total



# A. Shoreline Buffer Recommendations



# A. Priority Ranking of Buffer Recommendations

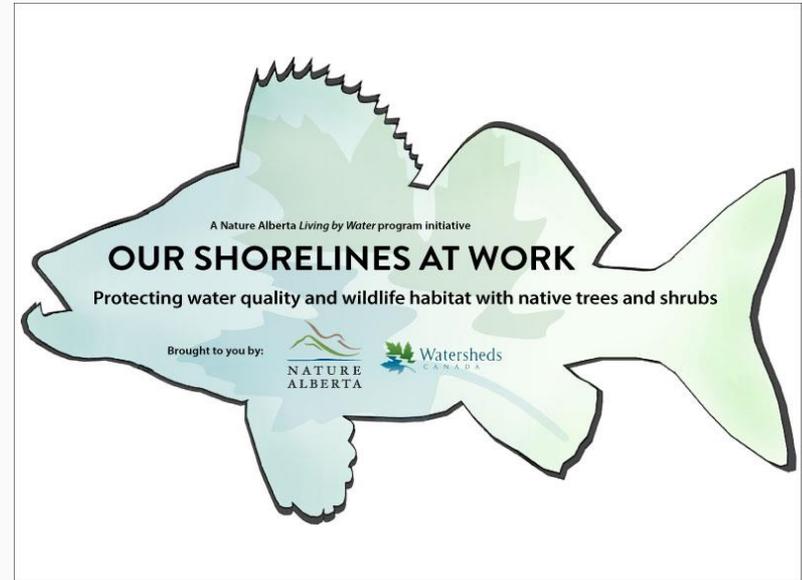


## B. Shoreline Naturalization Program

- Cost-sharing incentive: Nature Alberta pays 60% + Owner 40% (+ in-kind support)
- Long-term goals: Improve health of lake & modify behaviour
- Objective: Mitigate traditional land use practices that cause disturbance/damage to lake & lake's riparian ecosystem
- **Design plan must align with owner's vision**

# B. Program Delivery: Shoreline Naturalization

- Restorative activity
- Owner in-kind contribution & outreach opportunity
- Follow-up and maintenance
- Signage – get the message out

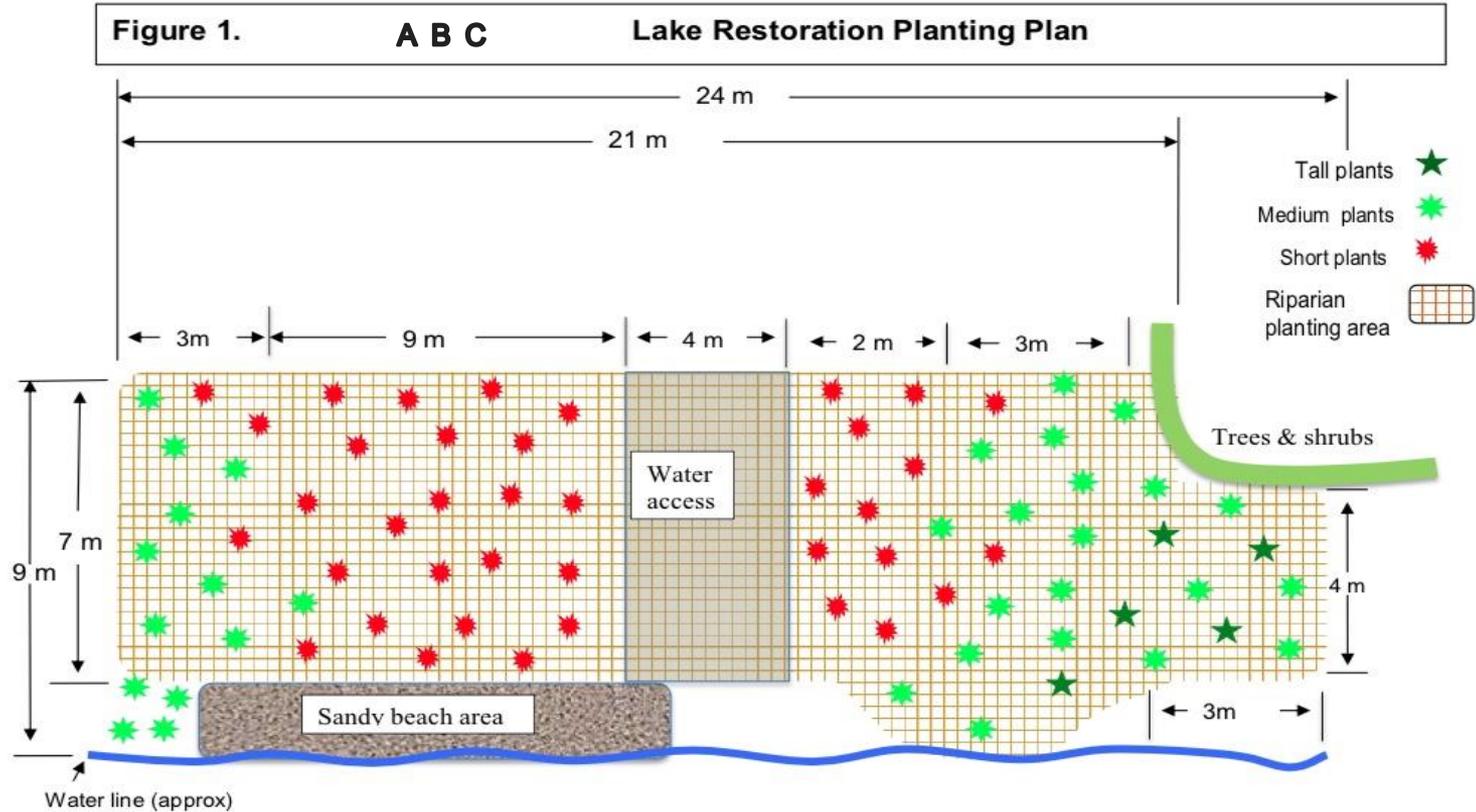


## B. Shoreline Naturalization

### Planting Plans:

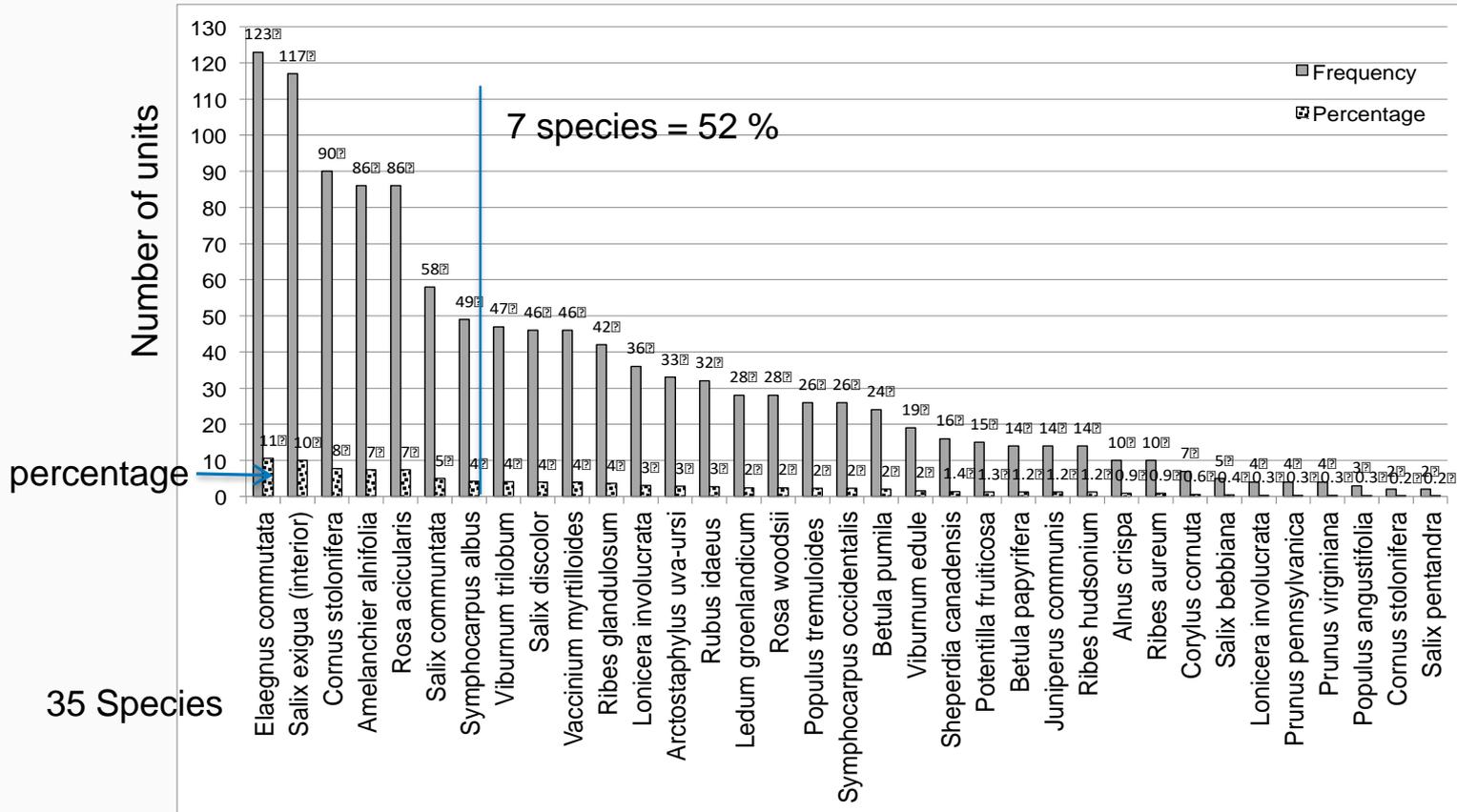
- A guide for DIY planting (help modify attitude and behaviour about how folk manage their shorelines)
- Forms the basis of a contractual agreement with roles & responsibilities for both Owner and Nature Alberta

# B. Planting Plan Example



Not to scale, dimensions approximate.

# B. Frequency distribution by species planted 2017 - 2018



## B. Typical Planting Event

- Family planting event
- June 2018
- ~36 plants + minor earthworks
- 4 people in 4 hours



## B. Before and Four Months After

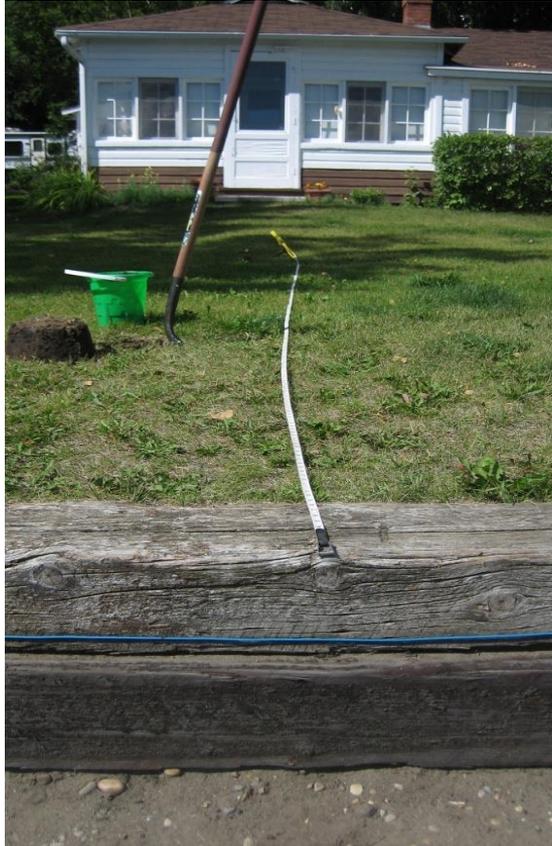


- Earthworks & permitting by owners, March 2018.
- Plan covered 1/2 of riprap & ~ 2 meter riparian area.

- First season's growth.
- Planted at ~1 m spacing.
- 100 plants of 10 species.
- 2 partial days by 3 people.



## B. Wabamun Lake Shoreline Restoration



Alderidge family demonstration site

2009, Year 1

2011, Year 2



# B. Wabamun Lake Shoreline Restoration

Alderidge family

2014, Year 5



2014, Year 5

## B. Wabamun Lake Shoreline Restoration



Alderidge family

2018, Year 10



2018, Year 10

# Concluding Remarks

- The lessons learned from these two pilot programs will guide Nature Alberta on their evolution
- Program audits in process and will be complete this fall
- Ideas => Train lake orgs to do own Shoreline Assessments and produce DIY Planting Kits for naturalization
- We welcome your thoughts on how we may improve these programs

# The End



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