

Feedstock Potential from Agricultural Waste Streams and Crops



Jeff Wentzell, NS Agriculture
Circular Economy Summit
Wednesday, June 29th, 2016



Opportunity

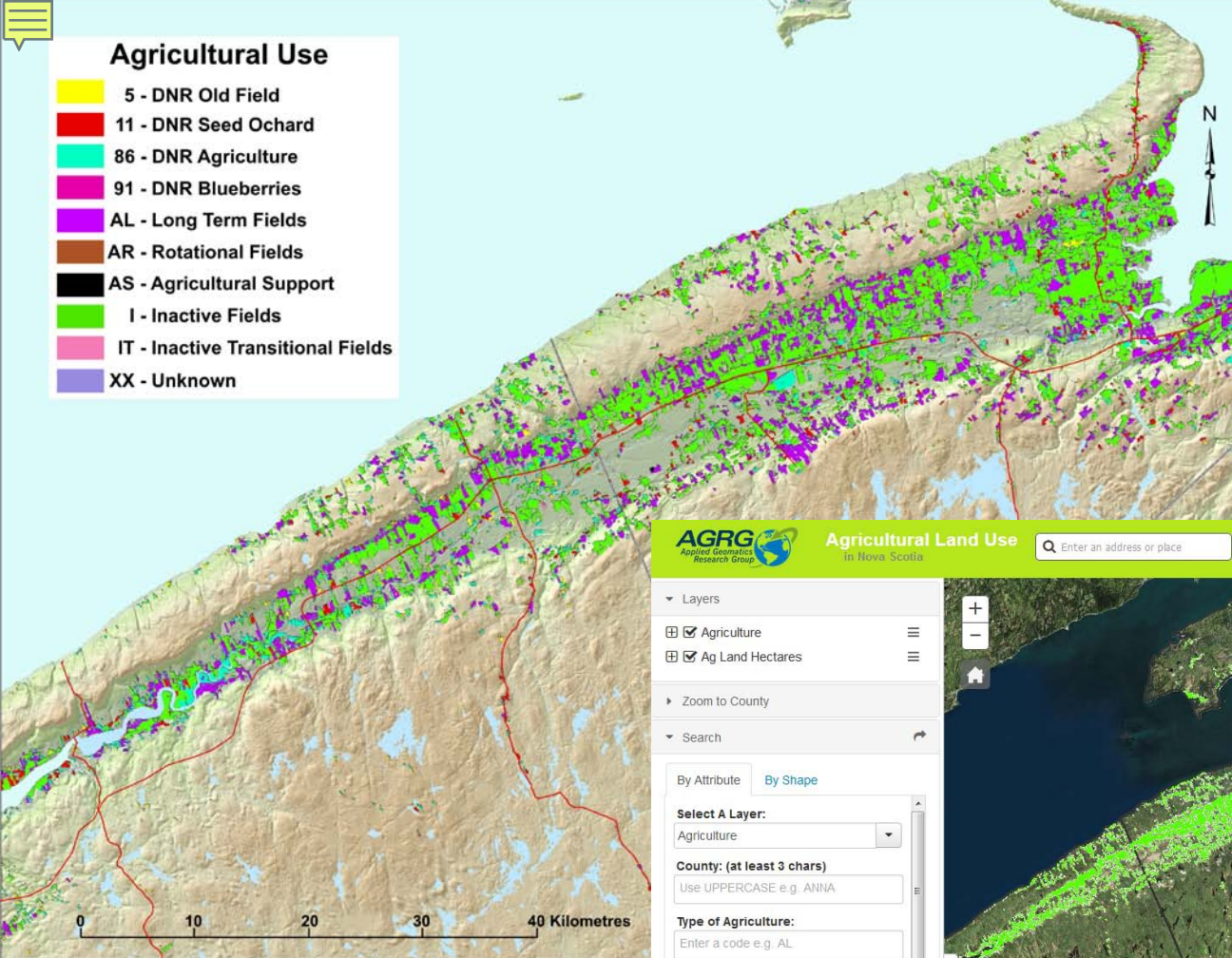
Can the agri-food sector...
primary producers and
processors add value
through the bio-resource
economy?



Agricultural Use

- 5 - DNR Old Field
- 11 - DNR Seed Orchard
- 86 - DNR Agriculture
- 91 - DNR Blueberries
- AL - Long Term Fields
- AR - Rotational Fields
- AS - Agricultural Support
- I - Inactive Fields
- IT - Inactive Transitional Fields
- XX - Unknown

Crops



AGRG Applied Geomatics Research Group **Agricultural Land Use** in Nova Scotia

Layers

- Agriculture
- Ag Land Hectares

Zoom to County

Search

By Attribute By Shape

Select A Layer:
Agriculture

County: (at least 3 chars)
Use UPPERCASE e.g. ANNA

Type of Agriculture:
Enter a code e.g. AL

Crop:
Enter a code e.g. AN

Soil Name:
Use mixed-case e.g. Acadia

Drainage:
Enter a code: I MW P R VP W

Measurement

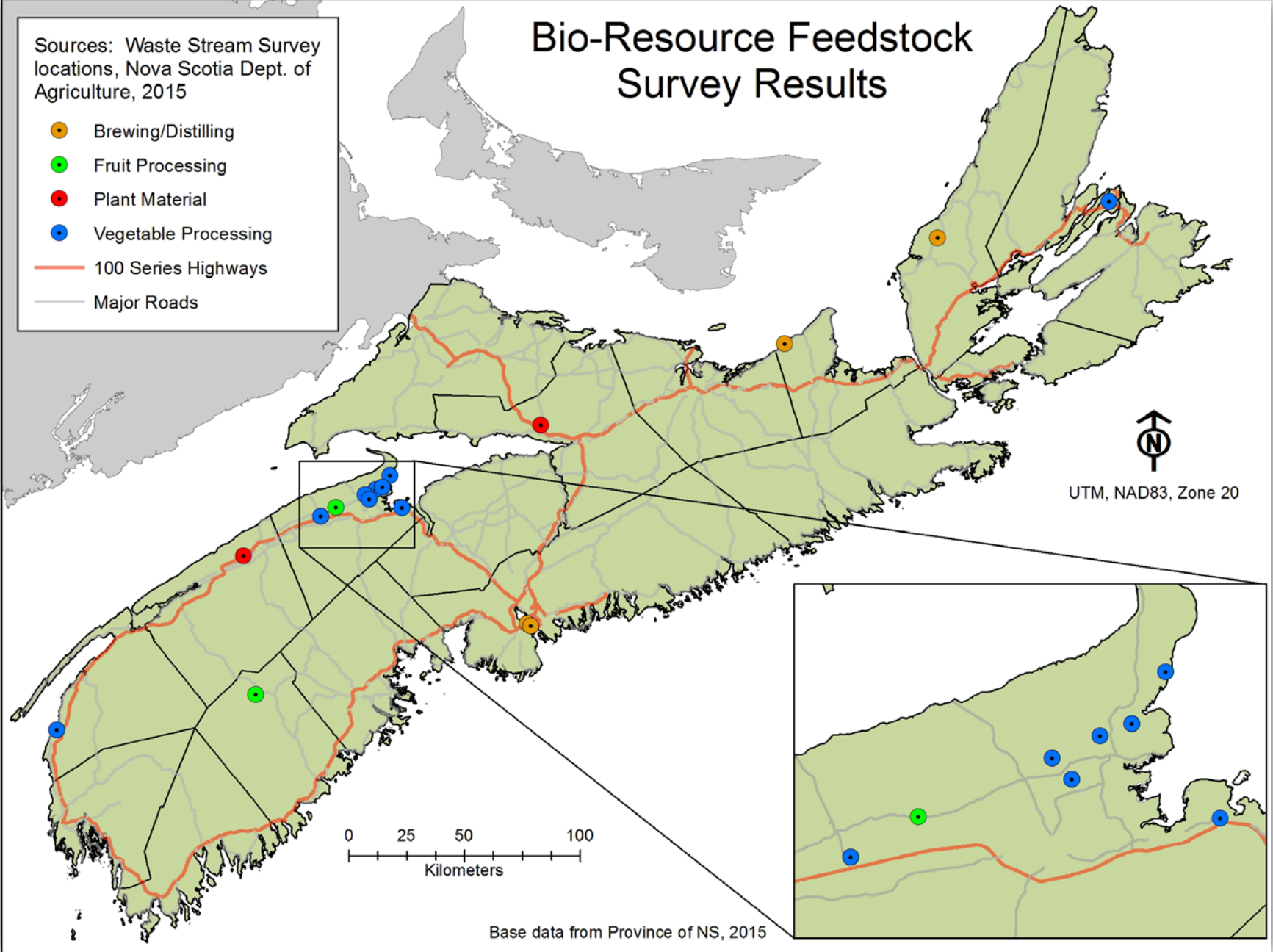
Identify

A satellite view of a coastal region in Nova Scotia, showing a large body of water and surrounding land. The agricultural land use data is overlaid on the satellite imagery, with green areas indicating agricultural fields. The interface includes zoom controls and a home button.

Bio-Resource Feedstock Survey Results

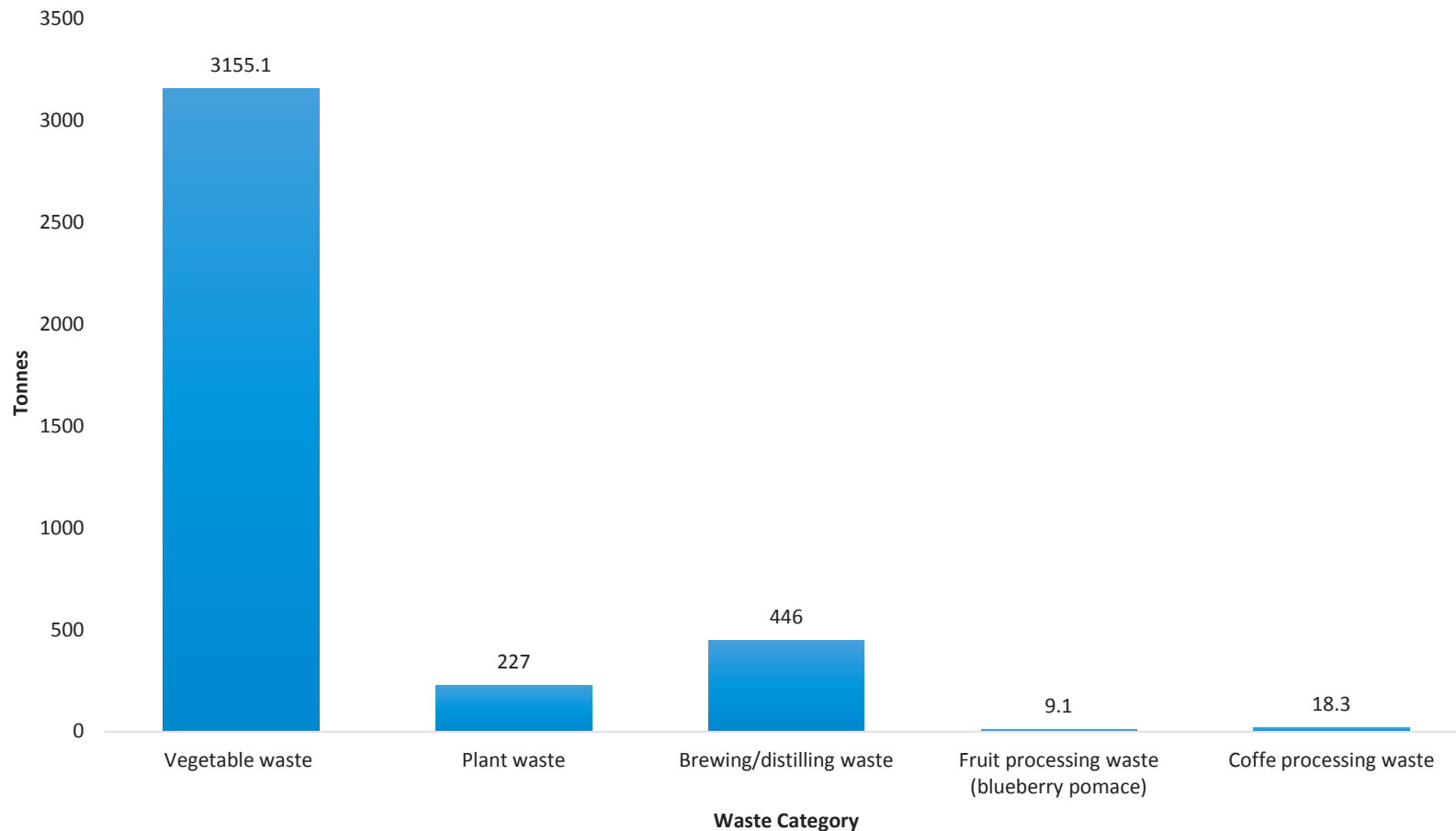
Sources: Waste Stream Survey locations, Nova Scotia Dept. of Agriculture, 2015

- Brewing/Distilling
- Fruit Processing
- Plant Material
- Vegetable Processing
- 100 Series Highways
- Major Roads





Initial Survey Results (2015)





Phase 2 – Expand Survey

Project Lead - Perennia

Funding Partners - ACOA, NS Department of Fisheries, NS Department of Agriculture, Bluewater CBDC

Partners and Expertise - NRC IRAP, NSBI, Innovacorp, NS Environment, RRFB

Consultant – Robert Anderson Consulting Ltd. (Lise LeBlanc, LP Consulting)



Surveys

Sectors: (42 participants)

- 10 Farms (9)
- 3 Mink Waste Processor (1)
- 14 Shellfish Processors (13)
- 4 Slaughter Facilities (1)
- 4 Greenhouses (1)
- 5 Food Processors (1)
- 3 Wineries/Breweries (1)
- 15 Industrial, Commercial, Institutional (9)
- 6 Municipal Compost (6)

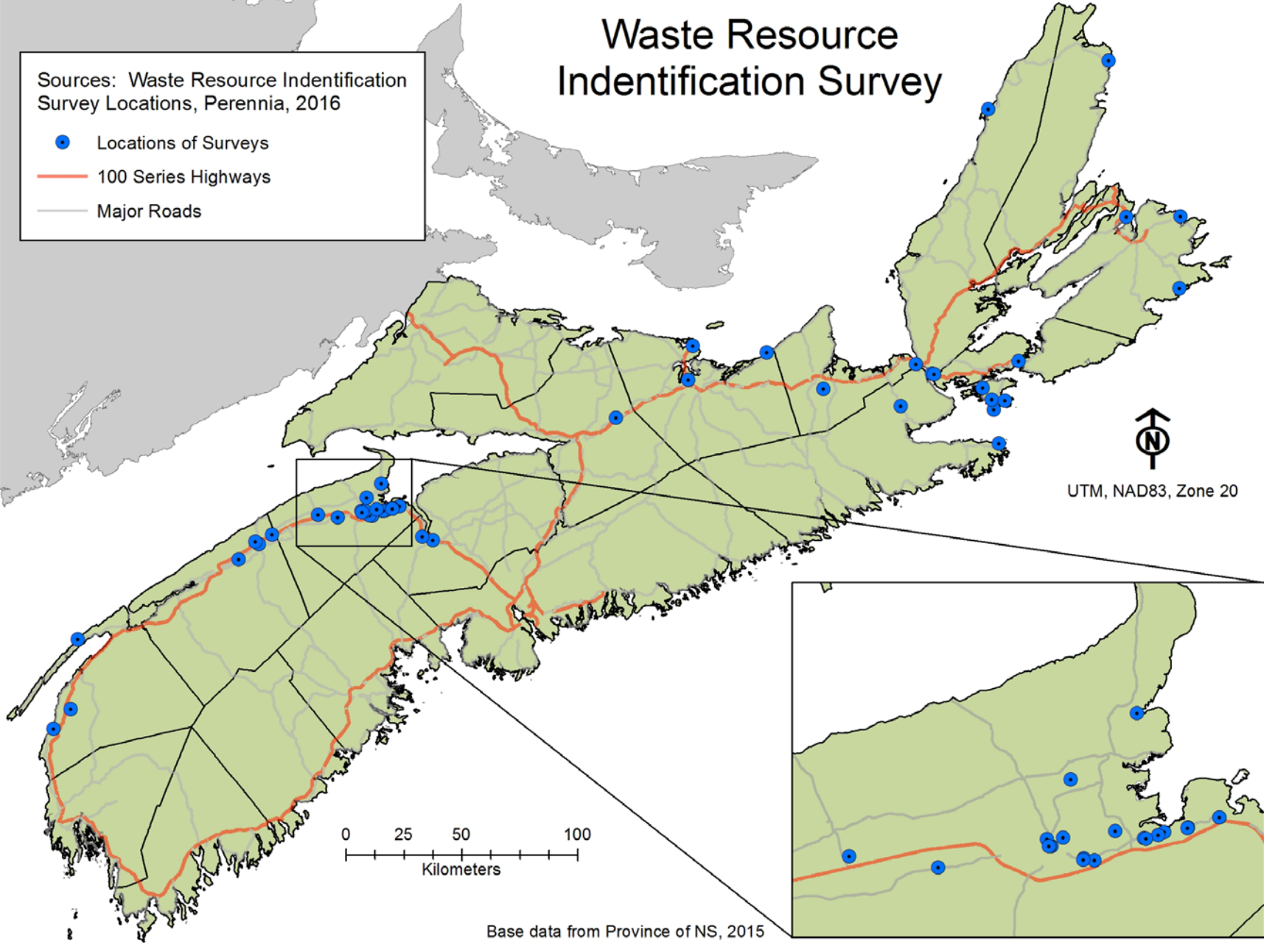
We asked...

- Type and quantity
- Time of availability
- Current use
- Alternative uses in development
- Storage capacity
- Contact
- Share?

Waste Resource Identification Survey

Sources: Waste Resource Identification Survey Locations, Perennia, 2016

- Locations of Surveys
- 100 Series Highways
- Major Roads





Highlights for Agriculture

Highlights:

- Farms - smaller volumes with alternate uses as soil amendment or to farmers and hunters
- Mink – approximately 55,000 tonnes annually through one processor
- Slaughter Facilities – compost waste with issues around SRM
- Greenhouses – minimal that is composted
- Processors – difficulty connecting with processors. Waste is from culls, damaged, grading issues, size....

Highlights for Fisheries

Sector:

- Shellfish Landings
 - 82% Lobster is exported live
 - In processing 74% of lobster, 60% of crab and 33 % of shrimp is waste
 - Waste handling varies... land application and composting facilities

Table 9-Available Waste Based on Landings

	Lobster (tonnes - 2015 data)	Crab (tonnes - 2014 data)	Shrimp (tonnes – 2015 data)
Total Exported	43,395	19,187 (landings)	30,367
Exported Live	35,861	6487	
Exported in Shell	6,455		18,663
Raw Processed		12,700	
Processed for Export (no shell)	1,079	7,925	11,704
Typical Waste %	74	60	33
Potential Waste (tonnes)	798	4,755	3,862

Moving Forward

Recommendations

- Partnerships
- Bio-Resource Working Group
- Understand the value proposition for agriculture





Contact Us

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