

AgKnowledge 2016

Charlie Lalonde

Project Manager

Holland Marsh Growers'
Association Water Project



This project was undertaken with the financial support of:
Ce projet a été réalisé avec l'appui financier de:



Environment Canada
Environnement Canada

HMGA Context

- Social License Approach to achieving compliance
- Canadian Federation of Agriculture definition best summarizes the context:
 - “the ***ongoing level of acceptance, approval and trust of consumers regarding how food is produced***”
- Pillars include
 - Economics and Affordability
 - Environment
 - Health
 - Labour
 - Biotechnology
 - Animal Welfare

Steering Committee

- AAFC
- OMAFRA
- Holland Marsh Growers' Association



Agriculture and
Agri-Food Canada

Agriculture et
Agroalimentaire Canada



Ontario

Ministry of Agriculture,
Food and Rural Affairs



Government Expertise

- AAFC
 - Knowledge & Contacts
 - Document review
- MOECC
 - Practical water treatment systems
- OMAFRA
 - Knowledge & Contacts
 - Document Review
 - Final Manual
- Environment Canada
 - Funding & Reporting



Scientific Partners

- University of Guelph
 - Engineering Department
 - Muck Crops Research Station
- SRG Soil Research Group
 - Pathogens
 - Field P Runoff
- OMAFRA
 - Woodchip biofilters
 - Optimizing dedirting systems
- McMaster & Western Universities
 - Water characterization & Flocculant dosing
- Flowers Canada
 - Greenhouse biofilters
- Farm & Food Care
 - Water Efficiency
- OFVGA
 - Permit to take water

Technology Path

- Bishop Technologies: Geotubes, V-Bags and BioCords
- Newterra: Ultrafiltration
- Voltea: Capacitive Deionization
- ProMinent Fluid Controls
- Engineering Firms: Treatment system design
- GroPak Farms: Fabrication



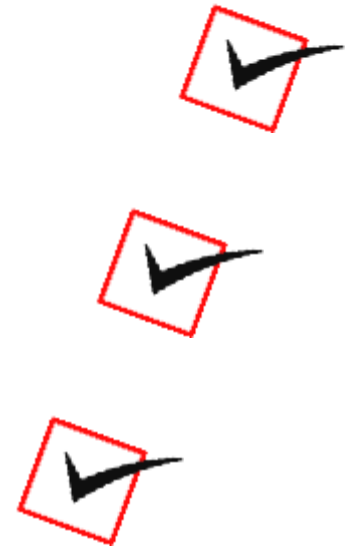
Grower Contributions

- Test sites
- Financial contributions
- Practical feedback
- Cost effective solutions
- HMGA + 4 grower sites initial contributions



Lessons Learned

- Water characterization...soil is not a nutrient and needs to come out first
- Technology requires attention and optimization
- New category of maintenance
 - Electrical/plumbing and IT combination
- Location of water treatment
 - Infrastructure needs
 - Monitoring
- Complex regulatory system
 - Involving MOECC staff in search for solutions is beneficial



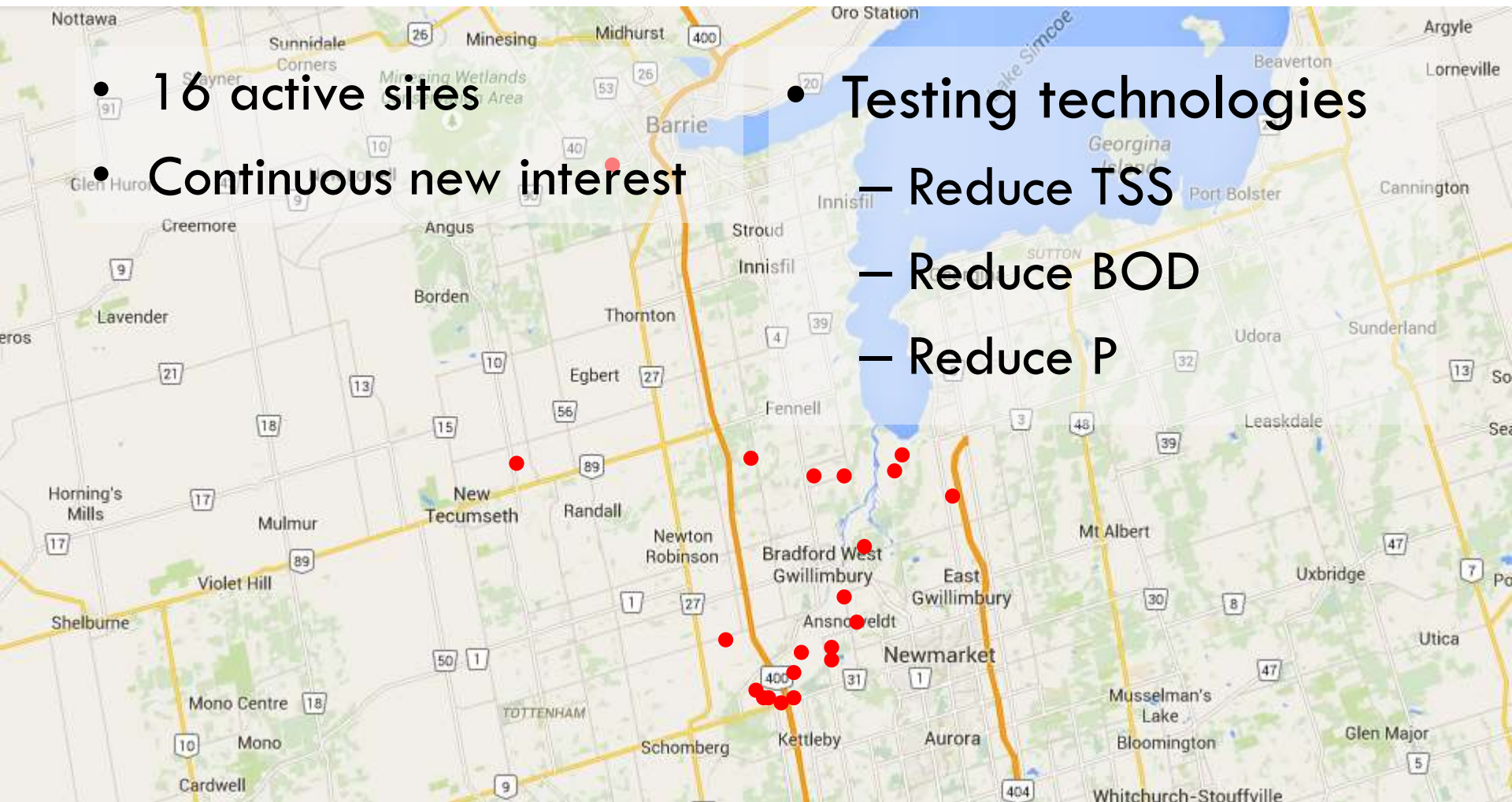
Project Goals

- Reduce risks to environment from vegetable washwater discharge
- Evaluate technologies to treat washwater from vegetables grown on muck soil
- Build capacity in the industry to supply proper treatment options

Grower Sites

- 16 active sites
- Continuous new interest

- Testing technologies
 - Reduce TSS
 - Reduce BOD
 - Reduce P





Questions?

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