NOVA SCOTIA ENVIRONMENTAL FARM PLAN

The Nova Scotia Environmental Farm Plan Program (EFP)

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Growing Forward 2

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FARM PLAN

Outline

1) How the EFP process works
2) Outreach and Projects
3) Waste stats from our database

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Summary of NS EFP Today

Number of Registered Farms in NS: **2350**

Number of Original EFP Reports: **1915**

Number of Follow – up EFP Reports: **1163**

EFP Total Land Area: **> 120,000 ha**

"We were pleased with the detailed work and hope the process will happen on every farm"

Winding River Farms Ltd.

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Summary of NS EFP Today

- **Voluntary, Confidential** and **No Cost** to the farmer
- Delivered through the NS Federation of Agriculture
- Funded by provincial and federal governments
- Currently 4 EFP coordinators

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Goals of the NS Environmental Farm Plan

- Educate farmers about applicable regulations, guidelines, best management practices (BMPs)
- Identify existing and future environmental risks
- Prioritize actions to reduce risks - tailored to the individual farm
- Provides possible solutions to reduce or prevent risk

NS Environmental Farm Plan Stages

- On-Farm Assessment
- Findings Report
- Follow-up Visits (every 5 years)

On-Farm Environmental Assessments

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One-on-one visit with the farmer to:

- present the process
- discuss goals and improvement projects
- inventory farm resources
- water sampling (if interested)

Then:

- Farmer leads a tour of the farm
- Problem areas are identified
- Possible solutions are discussed
- Recommendations are made

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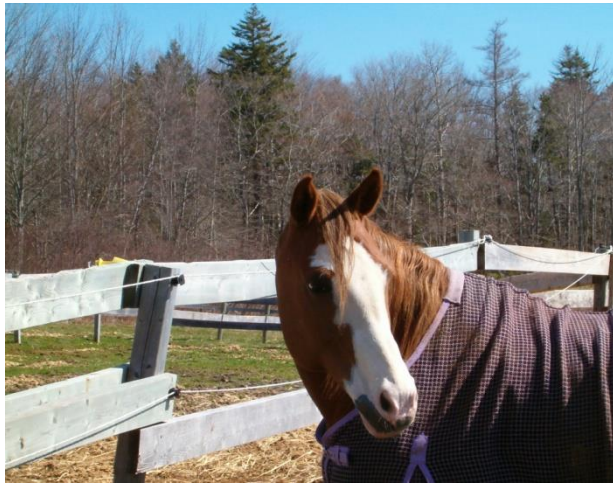
What we look at

- **Protection of water quality**
  - Water Use and Management
  - Waste Handling and Disposal
  - Nutrient Management
  - Fuel Storage and Handling
  - Pesticide Storage and Management
  - Livestock and Greenhouse Production
  - Soil and Crop Management
- **Prevention of nuisance**
- **Wildlife habitat/biodiversity**
- **Energy conservation**

What we look at…

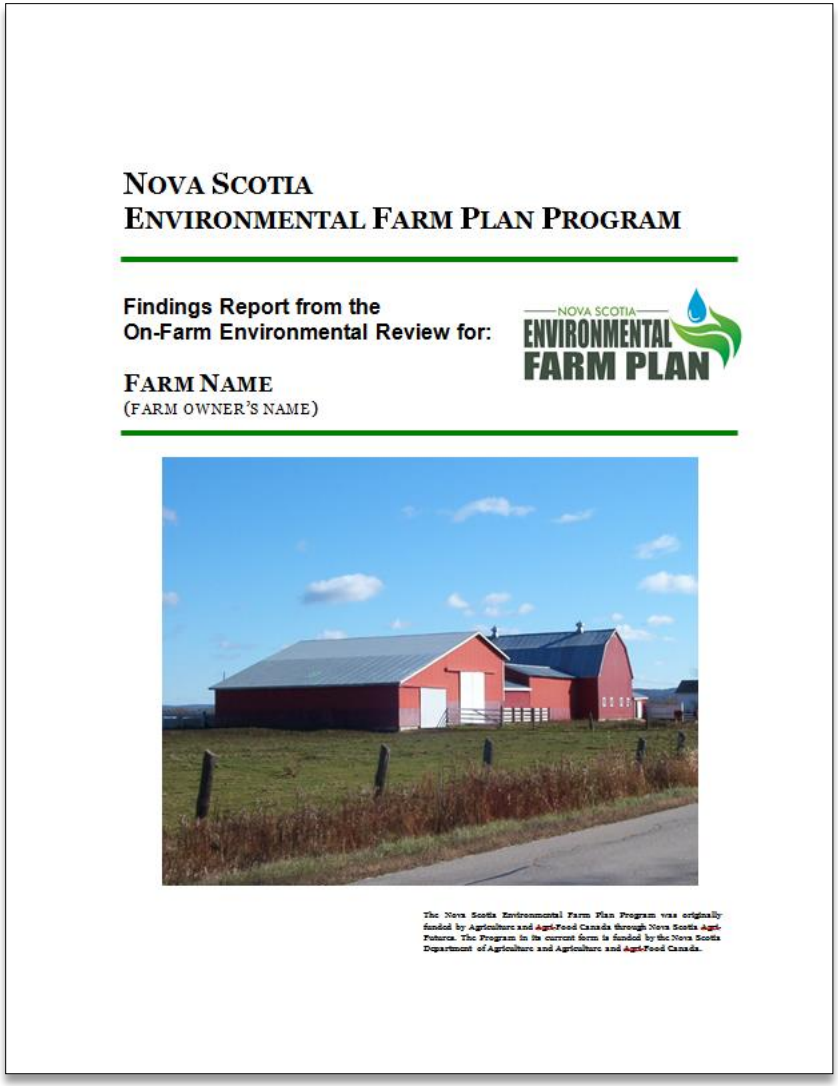
…depends on the farm



Waste Handling and Disposal

- Septic Systems
- Disposal of Farm Wastes
  - Silage plastic
  - Used oil
  - Farm sharps
  - Packaging materials
  - Pesticide containers
  - Old pesticides and meds
  - Greenhouse plastic & trays
  - Fertilizer bags & liners

Findings Report



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Findings Report from the
On-Farm Environmental Review for:

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FARM NAME
(FARM OWNER'S NAME)

The Nova Scotia Environmental Farm Plan Program was originally funded by Agriculture and Agri-Food Canada through Nova Scotia Agri-Futures. The Program in its current form is funded by the Nova Scotia Department of Agriculture and Agriculture and Agri-Food Canada.

- Provides a summary of the on-farm environmental review
- Is presented to the farmer for discussion
- The report contains no surprises

Findings Report

Assessing the Risk of Surface and Groundwater Contamination

Appendix A: Potential for Ground and Surface Water Contamination

Facility or Activity	Follow-up	Subsequent Follow-up
Septic system	Slight	Slight
Waste disposal	Low	Low
Manure storage	Low	Slight[1]
Fertilizer storage	Low	Low
Pesticide storage	Slight	Slight
Pesticide mixing	Low	Low
Fuel storage	Moderate	Moderate
Silage storage	Low	Low
Cattle watering	Slight	Slight
Milkhouse washwater	Low	Slight[2]
Vacuum pump exhaust	Low	Low
Applied livestock manure	Low	Low
Applied fertilizer	Low	Low
Applied pesticides	Low	Low
Soil erosion	Slight	Slight

Environmental Risk Ratings:

Low	No remedial action required	Slight	Remedial action possible but not essential
Moderate	Remedial action should be taken	High	Remedial action required

Notes:

Risk ratings are based on: a) how quickly water will move into and through the soil, b) depth to water table, c) the distance to the nearest well water source, d) soil texture and organic matter content, e) topography (steepest or longest slope), f) the distance to the nearest surface water source and g) cropping practice

Findings Report
Environmental Action Plan

Appendix B: Environmental Action Plan

Issue	Possible Solutions	Priority	Possible Resources Available	Notes
Water quality	Test well water quality at least once a year to ensure it meets the Canadian Drinking Water Guidelines	Annually		
Surface and ground water protection	Ensure minimum separation distances are maintained from wells, watercourses and ditches	Continue to Practice		Minimum Separation Distances for Agricultural Activities factsheet
	Establish and maintain riparian zones and buffer strips along watercourses	Continue to Practice	*Homegrown Success Program Contact: 1-866-844-4276	Agricultural Riparian Buffer Zones factsheet
Water withdrawal	Obtain a permit from Nova Scotia Environment if water withdrawal from any source exceeds 23,000 L/day	As Applicable		http://novascotia.ca/nse/water/ withdrawalApproval.asp
Farm sharps	Place used needles in a designated sharps container and dispose of with a vet, a pharmacy or contact your regional waste authority for alternative disposal options	Continue to Practice		A Sharps Bucket was delivered to the farm at the time of the farm visit
Septic system	Upgrade the septic system	Within the Next 2 Years		
Nutrient Management Planning	Contact a certified NMP specialist to renew the farm's NMP	As Applicable	*Homegrown Success Program Contact: 1-866-844-4276	Nutrient Management Planning factsheet
Manure testing	Include manure analysis as a component of the NMP and test manure at least once every three years	Within the Next 3 Years		

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Follow Up Visit

(5 years after original review)

One-on-one visit with the farmer to:

- identify changes to the farm business
- review the implementation of the action plan
- discuss new environmental concerns, goals and improvement projects

Provide feedback to our program

Track trends on a provincial level

- Develop a database of information collected on farms

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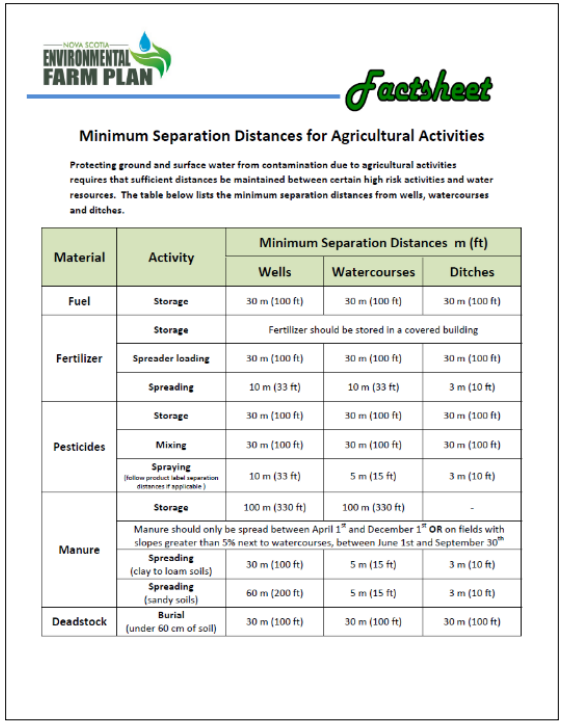
Database

- Identify number of EFP farms by commodity in each watershed or county
- Identify high/moderate risk by issues (i.e. manure storage)
- Track changes in farm stewardship
- Information can be used to identify where more attention is needed or funding should be allocated – influence policy decisions (e.g. fuel storage)

Other EFP Resources

We provide the following additional resources and services:

- Water sample testing
- Factsheets
- Field Crop Record Books
- Pesticide Storage Signs
- Pesticide spill kit signs
- Sharps containers
- Old tile drainage plans
- Lend out – soil sampling probes, wind meters, residue management kit



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Factsheet

Minimum Separation Distances for Agricultural Activities

Protecting ground and surface water from contamination due to agricultural activities requires that sufficient distances be maintained between certain high risk activities and water resources. The table below lists the minimum separation distances from wells, watercourses and ditches.

Material	Activity	Minimum Separation Distances m (ft)		
		Wells	Watercourses	Ditches
Fuel	Storage	30 m (100 ft)	30 m (100 ft)	30 m (100 ft)
Fertilizer	Storage	Fertilizer should be stored in a covered building		
	Spreader loading	30 m (100 ft)	30 m (100 ft)	30 m (100 ft)
	Spreading	10 m (33 ft)	10 m (33 ft)	3 m (10 ft)
Pesticides	Storage	30 m (100 ft)	30 m (100 ft)	30 m (100 ft)
	Mixing	30 m (100 ft)	30 m (100 ft)	30 m (100 ft)
	Spraying (follow product label separation distances if applicable)	10 m (33 ft)	5 m (15 ft)	3 m (10 ft)
Manure	Storage	100 m (330 ft)	100 m (330 ft)	-
	Manure should only be spread between April 1st and December 1st OR on fields with slopes greater than 5% next to watercourses, between June 1st and September 30th			
	Spreading (clay to loam soils)	30 m (100 ft)	5 m (15 ft)	3 m (10 ft)
	Spreading (sandy soils)	60 m (200 ft)	5 m (15 ft)	3 m (10 ft)
Deadstock	Burial (under 60 cm of soil)	30 m (100 ft)	30 m (100 ft)	30 m (100 ft)

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Other Projects

- Environmental stewardship award
- Pesticide sprayer calibration service
- Water metering
- Stream bank protection
- Soil erosion GIS model
- Biodiversity land owners guide
- Collaborate with university and provincial/federal research projects

Waste Projects

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- Maritime Agricultural Plastics Study – Clean Farms (2012)
- Recycling of Silage Plastic – Colchester County (2015)
- Evaluation of Agricultural Plastics Waste Management in NS: Identifying Barriers To and Opportunities for Improving Disposal Practices – Isaac Muise (2016)
- Pyrolysis – Wayne Adams (2013)

Waste Projects

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- Sharps buckets – 5 Liter

- Maple tubing – no connectors

EFP Farm Waste Data

Burning waste - 172 farms out of 1218 burn something

- garbage – 50
- silage plastic – 41
- used oil – 26
- brush – 19
- oil filters – 17
- prunings – 11
- sharps – 9
- chick trays – 8
- cardboard – 7
- dead stock – 7
- empty medicine containers - 4

Environment Act, burning of garbage (plastic, cardboard, treated wood) is not permitted

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EFP Farm Waste Data

Silage plastic - 405 farms

- Roadside garbage – 146
- landfill – 130
- dumpster – 51
- burned – 41
- piled – 13
- Recycle/reuse – 5

Farms considered commercial; can limit roadside pickup

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EFP Farm Waste Data

Sharps - 513 farms

- Sharps container – 427
- Roadside garbage – 41
- Burn – 9
- Dumpster – 4
- Recycle/reuse – 4
- Landfill – 3

Sharps disposal options vary by Municipality

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EFP Farm Waste Data

Used oil - 791 farms

- Used oil furnace – 320
- Recycle/Enviro depot – 161
- Reuse as lubricant – 153
- Picked up – 29
- Burn – 26
- Landfill – 3

Seller is required to provide a location of a used oil return facility

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EFP Farm Waste Data

Tires - 304 farms

- Recycle/Reuse/Return – 152
- Piled – 29
- Landfill – 23
- Picked up – 6

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EFP Farm Waste Data

Deadstock - 437 farms

- Deadstock pickup – 73 - No longer exists
- Wildlife/eagles – 56
- Compost – 52
- Freezer (mink) – 34
- Buried – 26
- Burned – 7
- Manure - 6
- Dumped – 5
- Green bin – 4

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