

AGRICULTURAL OPERATION STRATEGY/PLAN DEVELOPMENT

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Nutrient Management in Ontario

- In Ontario, Nutrient Management is legislated through the Nutrient Management Act, 2002 and associated Regulations and Protocols
- The purpose of the nutrient management act is to provide for the management of materials containing nutrients in ways that will:
 - enhance the protection of the natural environment
 - provide a sustainable future for agricultural operations and rural development

Certifications through OMAFRA

- Agricultural Operation Planning Certificate
- Agricultural Operation Strategy or Plan Development (AOSPD) Certificate
- Non-Agricultural Source Material Plan Development Certificate
- Prescribed Materials Application Business Licence
- Broker Certificate
- Technician License

How do you get your AOP Certificate?

- Take the required courses through the University of Guelph, Ridgetown
 - Introduction to Nutrient Management
 - Regulations and Protocols
- Apply for your Certificate

How do you get your AOSPD Certificate?

- Take the required courses through the University of Guelph, Ridgetown
 - Introduction to Nutrient Management
 - Regulations and Protocols
 - How to Prepare a Nutrient Management Strategy and Plan using NMAN
- Complete Practicum (two fictitious NMS/P) and achieve a passing grade of 80%
- Pass an exam (passing grade is 75% or higher)
- Apply for Certificate

How do you get your NASMPD Certificate?

- Take the required courses through the University of Guelph, Ridgetown
 - Introduction to Nutrient Management
 - NASM Plan Developer's Course
 - How to Prepare a NASM Plan Using NMAN
- Complete Practicum and achieve a passing grade of 80%
- Pass an exam (passing grade is 75% or higher)
- Apply for Certificate

What is a nutrient unit?

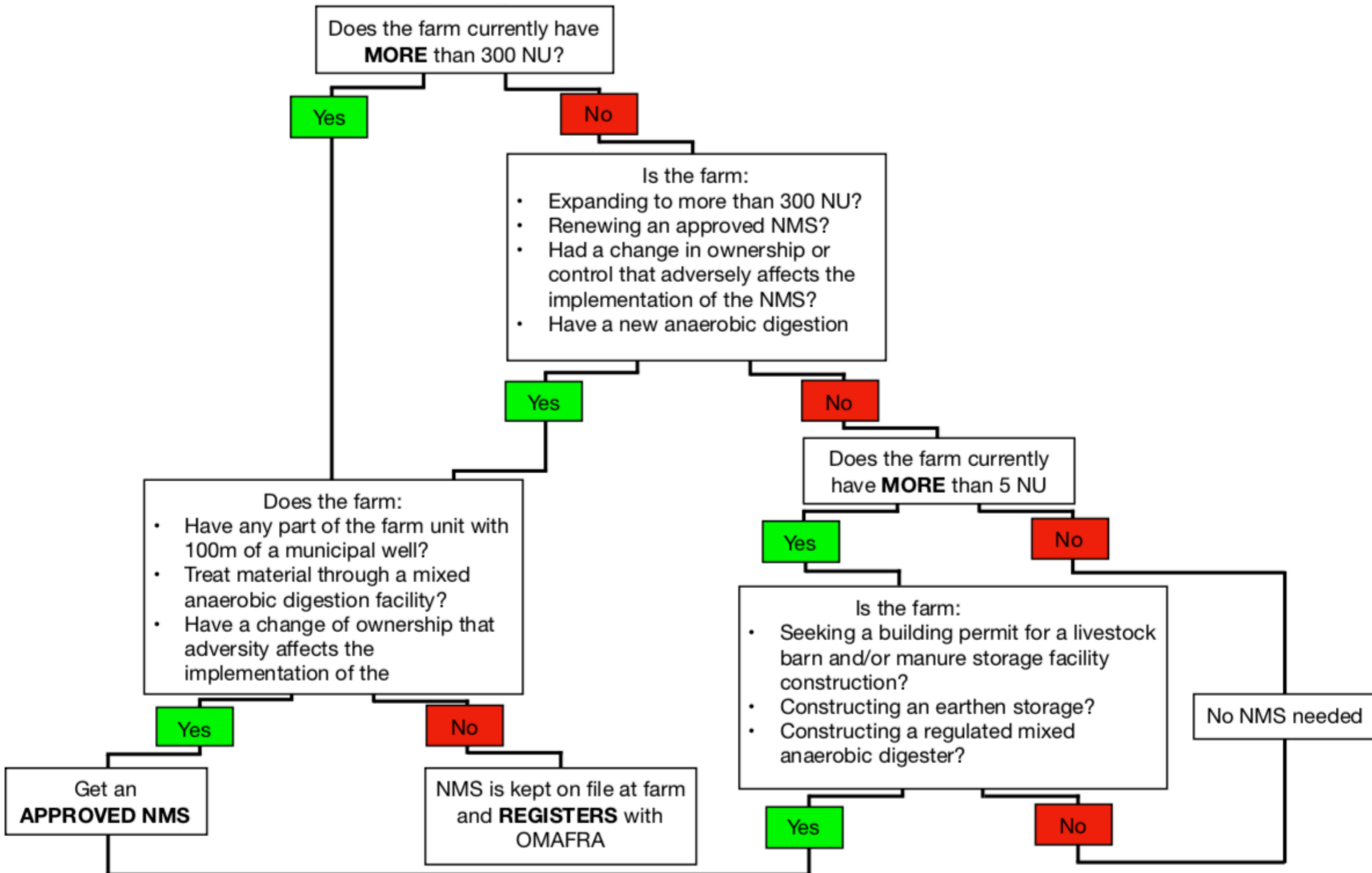
- A nutrient unit is the amount of nutrients that give the fertilizer replacement value of the lower of 43kg of nitrogen or 55 kilograms of phosphate as nutrient
- Examples:

Livestock Type	# of animals equal to 5NU	# of animals equal to 300 NU
Medium frame horses	5	300
Guernsey Dairy Cows	12	720
Broiler Chickens	1250	90,000
Feeder Pigs	26	1575
Beef Feeders	15	900

What is a Nutrient Management Strategy(NMS)?

- Documents issues such as manure generation, manure type and quantity, adequate storage capacity and acceptable runoff management
- If you have **LESS** than five Nutrient Units, you do not need a NMS
- If you are expanding a livestock barn or manure storage facility and have **MORE** than five Nutrient Units, a NMS is required

Does your NMS need to be approved by OMAFRA?



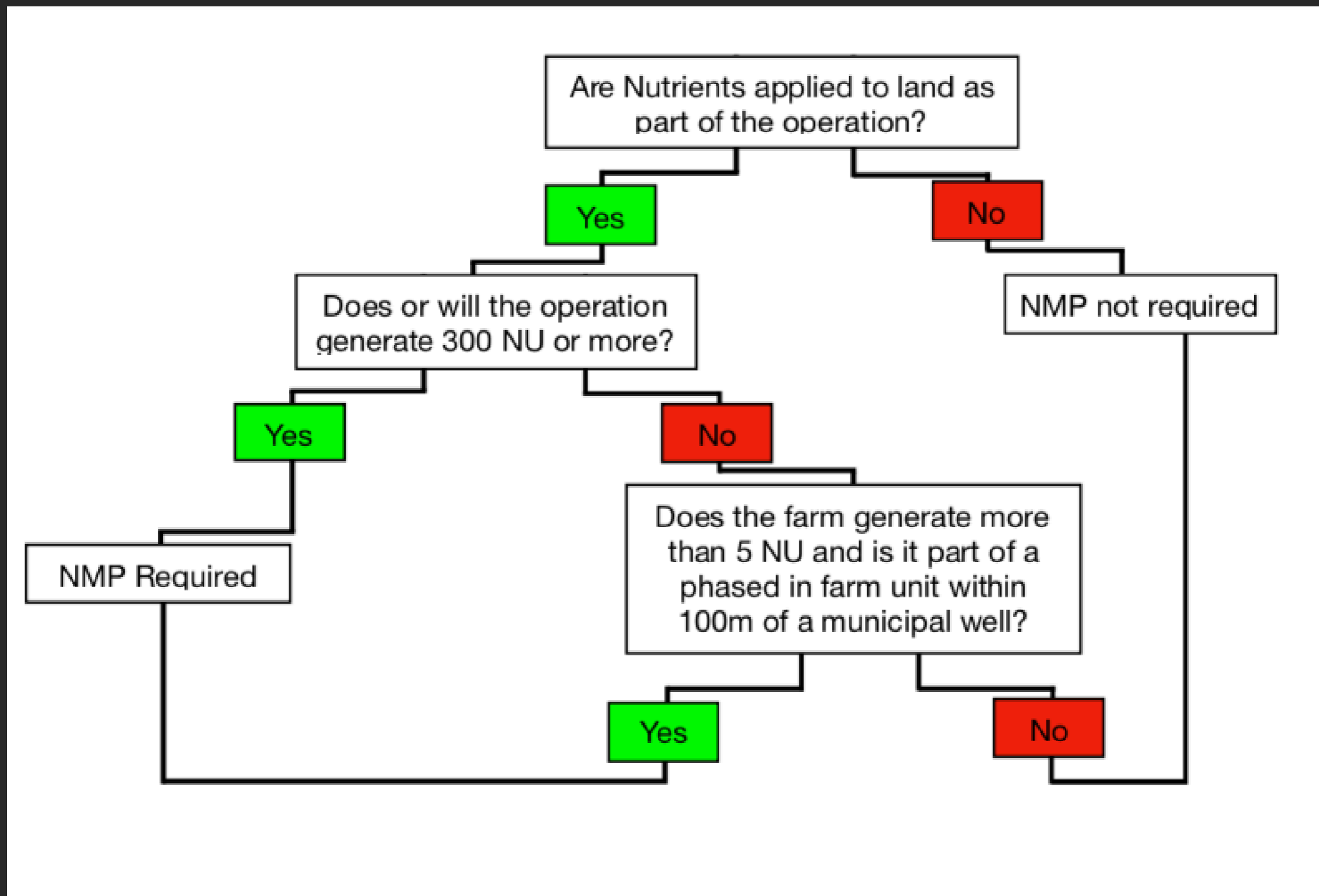
Components of a NMS

- Farm Unit Summary - size and location
- List of prescribed material generated
- Storage information
- Destination of nutrients generated
- Nutrient Transfer Agreements
- Farm unit Declaration
- Overview of Operation (including livestock facilities)
- Farm unit sketch
- Contingency Plan
- Regulated AD facility (if applicable)

What is a Nutrient Management Plan?

- A Nutrient Management Plan explains how nutrients are going to be applied on land that you either own or rent
- It deals with fields, agronomics and setbacks to sensitive features when applying nutrients
- They are based on some of the components fo the Nutrient Management Strategy such as manure amounts and analysis
- NOTE: If you have a NMP you need to have a NMS

Do I need a Nutrient Management Plan?



Components of a Nutrient Management Plan

- Nutrient Information
- Field Information
 - Field properties
 - Field sketch
 - Soil sampling results
- Cropping Practices
- Nutrient Application
- Nutrient Application Rates
- Land Base Information

What is a NASM Plan?

- A NASM Plan means a nutrient management plan for the management of Non-Agricultural Source Material and other nutrients that may be applied to NASM application areas or stored in NASM storage facilities
- A NASM Plan includes:
 - details about the farm and fields
 - storage information
 - Crops grown on the farm
 - Nutrients to be applied
 - Nutrient application rates to meet crop needs and to protect the environment
 - Separation distances to protect sensitive features and neighbours
 - Contingency plan

When is a NASM Plan needed?

- A NASM Plan must be **REGISTERED**:
 - When applying or storing Category 2 NASM with a metal content rated as CM1
- A NASM Plan must be **APPROVED**:
 - When applying or storing Category 2 NASM with a metal content rated as CM2 (example: organic waste or wastewater from brewery or distillery)
 - When applying or storing ANY category 3 NASM (biosolids, washwater from an abattoir etc)

Review and updates of Plans

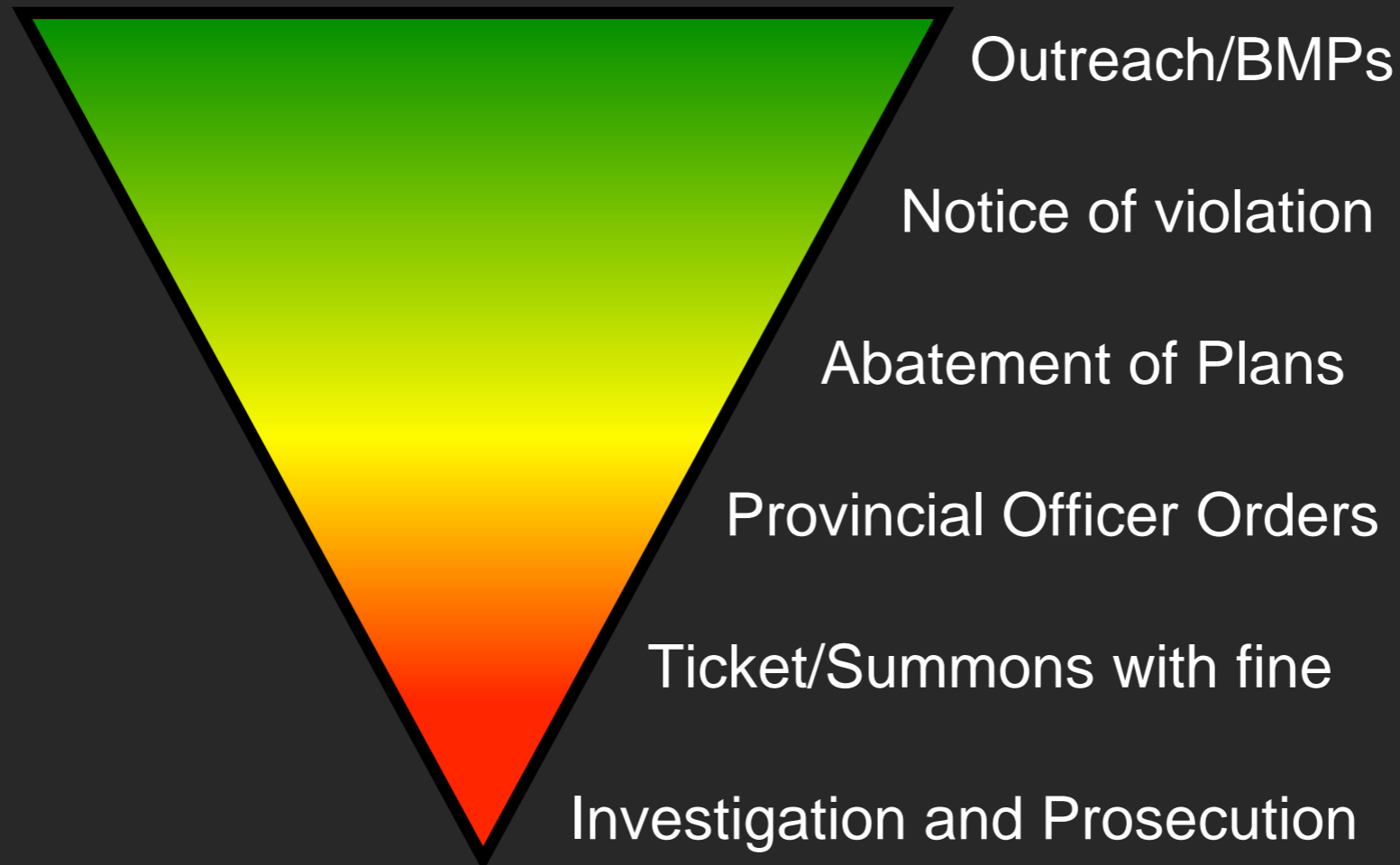
- Operator reviews and prepares a summary of activities with respect to the NMS/P and NASM Plan annually and updates to accurately reflect anticipated operation for the coming year
- NMS/P and NASM Plans must be renewed every 5 years

Plan Enforcement

- Plans are approved by OMAFRA, but enforced by the MOECC
- The MOECC does a “Risk Assessment” of approved sites
- The MOECC officers will randomly target sites, with emphasis on the sites that are more of a risk
- The Officers will go out and ensure that everything is up to date and the Strategy is being followed
- Officers also respond to spills

Non-Compliance

- The Officers take into account:
 - Consequences of the violation
 - Compliance history
 - Individual circumstances



Additional Plan Information

- Plans are owned by the Owner of the Agricultural Operation
- It is up to the discretion of the Owner to decide whether or not the Plan is to be shared
- Cumulative effects are not considered when developing documents, Plans are developed based off of a single “farm unit”, without taking into account farms outside of the “farm unit”

Source Water Protection and NMS/P and NASM Plans

From the NASM Plan Approval:

CONDITIONS

17. The application of NASM within the Intake Protection Zone 2 as identified on the NASM Plan Site Maps shall be managed in accordance with the Source Water Protection section of the Operation Overview.

REASON FOR CONDITION

The reason for condition 17 is to ensure the application of NASM within the Lagoon City Intake Protection Zone 2 of the Lake Simcoe and Couchiching/Black River is managed such that it does not become a significant drinking water threat and meets the requirements of the Source Protection Plan.

Operation Overview Statement:

Source Water Protection

2031 Farm Field 2 & 3 is a part of the SWP IPZ2 and 3 with a vulnerability score of 8.1, surface water will observe the regulation setback of 20 metres. Nutrient application rates will not exceed the regulation standards. Surface application will be only be used in a standing crop or if greater than 30% crop residue situation. As per company policy, tile outlets are checked every hour and our field equipment is equipped with a spill kit to block outlets in the event of a spill.

Questions?

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