

# Leading Harvest Farmland Management Standard 2024

### What the Leading Harvest Standard Does

The Leading Harvest Farmland Management Standard (*Leading Harvest Standard*\*) identifies sustainable farming practices based on 13 Principles, 13 *Objectives*, 33 *Performance Measures*, and 72 *Indicators*. It addresses economic, environmental, social, and governance issues and includes measures to efficiently use water, *agricultural chemicals*, and energy to grow *crops* for useful *agricultural products*; *minimize waste*; and conserve soils, water resources, and *biodiversity*. It also takes into consideration the well-being of *tenants/lessees of farmland*, employees, *contract management company* employees, contract farm labour, and local communities. Conformance to the *Leading Harvest Standard* requires awareness and *appropriate use of agricultural best management practices* to advance sustainable agriculture.

### What Is Addressed by the Leading Harvest Standard?

The *Leading Harvest Standard* applies to any organization that owns or has management authority for *farmland (Standard User)* and the *farmland* that it chooses to enroll. It does not apply to animal agriculture operations. *Objectives 1 and 7 through 13* apply to the *Standard User* and the management system it uses to manage enrolled *farmland*, except for *Indicators 7.2.3, 7.3.1, and 9.4.1*. *Objectives 2 through 6 and Indicators 7.2.3, 7.3.1, and 9.4.1* apply to all *farmland* enrolled under the *Leading Harvest Standard*. The activities of *farmland tenants/lessees* may contribute to the performance of the *Standard User* for *Objectives 2 through 6 and Indicators 7.2.3, 7.3.1, and 9.4.1*, but the *Standard User* is responsible for conformance to these *Objectives, Performance Measures, and Indicators*. Indicator 13.1.4 applies to all *farmland tenants/lessees* of leased *farmland* enrolled under the *Leading Harvest Standard*.

### Geographic Application of the Leading Harvest Standard

This standard is applicable worldwide through licensing with Leading Harvest. ~~The contained glossary is relevant for Canada.~~

### Leased Farmland Under the Leading Harvest Standard

The *Standard User* can credibly conclude that *tenant/lessee* operations are in conformance with the *Leading Harvest Standard* where inspection of leased *farmland* and other supporting evidence can demonstrate that lessor operations are in conformance with *Objectives 2 through 6 and Indicators 7.2.3, 7.3.1, and 9.4.1* of the *Leading Harvest Standard*. Inspections, annual interviews, and desk audits may be permissible for verifying whether *farmland* tenant operations are within the scope of the *Leading Harvest Standard* when used to the scope and scale of the lessor's operations. For *farmland* leased and operated by *tenants/lessees*, *Objectives 1 and 8 through 13* (except for *Indicators 7.2.3, 7.3.1, and 9.4.1*) apply to the *Standard User* and the management system it uses to manage *farmland*.

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\* All terms in italics are defined in the glossary

#### Impact of Scope, Scale, and Size Under the Leading Harvest Standard

The *Leading Harvest Standard* can be applied to farms and *farmlands* of any size. All *Standard Users* are held to the same *Leading Harvest Standard*, but the expectation of evidence of conformance may vary with the scope (i.e., type of crop, type of operation, geographical regions) and scale of the *Standard User* as well as the size of *enrolled farmlands*, because these parameters influence the risk of adverse impacts to society and the environment from agricultural operations. *Standard Users* managing large acreage areas may need a greater level of conformance evidence than those managing modest acreage areas in order to demonstrate risk management sufficient to meet the requirements of the *Leading Harvest Standard*.

#### References

This standard incorporates, by dated or undated reference, provisions from other publications. For dated and undated references, the latest edition of the publication applies.

#### Normative References

[None for now]

#### Informative References

- i. ISO 14001:2004 Environmental Management Systems—Specification with guidance for use.

## Leading Harvest Farmland Management Principles

*Standard Users* believe *farmland* owners and producers have a vital stewardship responsibility and commitment to society and future generations. They recognize the importance of maintaining viable commercial and family *farmland* and supporting an agricultural system that renews its ability to provide food and other *agricultural products* and sustains rural communities and natural resources. They seek to appropriately apply and improve *agricultural best management practices* on the *farmland* that they manage and promote such practices on other *farmland* to advance sustainable agriculture. Consistent with these responsibilities, the Leading Harvest Standard requires that *Standard Users* have a written *policy* (or policies) demonstrating their commitment to implement and achieve the following principles:

### Principle 1. Sustainable Agriculture

To practise sustainable agriculture to meet the needs of the present without compromising the ability of future generations to meet their own needs. This means practising a *farmland* stewardship ethic that integrates profitable agricultural production with efficient use of inputs; the *conservation* of natural resources, including *farmland*; attention to *climate change* and land rights; and consideration for tenants/lessees, employees, contract workers, *Indigenous Peoples*, and local communities.

### Principle 2. Soil Health and Conservation

To maintain or enhance long-term *soil health* and *soil productivity* and to protect soil from degradation.

### Principle 3. Protection of Water Resources

To conserve and protect *groundwater* and *surface water* resources by managing impacts from water use and *runoff*.

### Principle 4. Protection of Crops

To ensure long-term *crop productivity* by applying *biosecurity* principles and *appropriate* use of *crop protectants* while protecting the environment.

### Principle 5. Energy Use, Air Quality, and Climate Change

To increase use of *energy-efficient agricultural practices* and equipment and to *minimize* atmospheric emissions. To be resilient and prepared for adverse climatic and weather events.

#### Principle 6. Waste and Material Management

To promote the efficient production of *agricultural products* and to *minimize* waste by seeking other uses of waste.

#### Principle 7. Conservation of Biodiversity

To manage *farmland* in a manner that maintains agricultural production while conserving biological diversity—including animal and plant species, *wildlife habitats*, and natural or ecological community types—and avoids *habitat* conversion.

#### Principle 8. Protection of Special Sites

To manage *farmland* that is geologically or culturally important in a manner that considers its unique qualities.

#### Principle 9. Local Communities

To contribute to the economy and well-being of rural communities through jobs, local purchases, other contributions, efforts to maintain community health and safety, and by respecting land and resource rights of local communities and *Indigenous Peoples*.

#### Principle 10. Employees and Farm Labour

To provide a safe and respectful working environment, fair compensation, and training for employees; *contract management company* employees; and farm labour necessary to improve the practice of sustainable agriculture.

#### Principle 11. Legal and Regulatory Compliance

To comply with applicable national and *sub-national* laws, statutes and regulations relating to agriculture.

#### Principle 12. Management Review and Continual Improvement

To continually improve the practice of agricultural management and to monitor, measure, and report performance in achieving the commitment to sustainable agriculture.

#### Principle 13. Leased Operations

To promote the application of *agricultural best management practices* on tenant-operated/leased *farmland*.

## Leading Harvest Standard Objectives

The Leading Harvest Standard is broken down into 13 Objectives, which are summarized below.

### Objective 1. Sustainable Agriculture Management

To practise sustainable agricultural stewardship to improve *crop* production and ensure long-term agricultural sustainability.

### Objective 2. Soil Health and Conservation

To maintain or enhance *soil health* to optimize *crop* yield and protect long-term *soil productivity* on *agricultural lands*.

### Objective 3. Water Resources

To protect water resources and manage water for efficient agricultural productivity.

### Objective 4. Crop Protection

To achieve *crop protection* goals while protecting people and the environment.

### Objective 5. Energy Use, Air Quality, and Climate Change

To conserve energy used by agriculture operations and *minimize* adverse impacts to the atmosphere and the global climate; and to be resilient and prepared for adverse climatic and weather events.

### Objective 6. Waste and Material Management

To manage food waste, *agricultural chemicals*, and other materials from agricultural operations to *minimize* their adverse impacts on people and the environment.

### Objective 7. Conservation of Biodiversity

To manage *farmland* in a manner that maintains agricultural production while conserving *biodiversity* where *appropriate* or legally required.

### Objective 8. Protection of Special Sites

To manage *special sites* on *farmland* that are geologically or culturally important in a manner that recognizes and respects their unique qualities.

### Objective 9. Local Communities

To operate safely and responsibly; contribute to the economic well-being, social networks, and health of local communities; and recognize and respect the rights of local communities and *Indigenous Peoples* in regions of agricultural operations.

### Objective 10. Employees and Farm Labour

To provide a safe and healthy working environment, fair compensation and training for *Standard User* personnel, *contract management company* employees, and *contract farm labour* necessary to improve the practice of sustainable agriculture.

### Objective 11. Legal and Regulatory Compliance

To comply with applicable national and *sub-national* laws, statutes, and regulations relating to agriculture.

#### Objective 12. Management Review and Continual Improvement

To promote continual improvement in the practice of sustainable agriculture by conducting management reviews and monitoring performance.

#### Objective 13. Tenant/Leased Operations

To promote the use of *agricultural best management practices* on leased *farmland* to broaden the practice of sustainable agriculture and to promote the efficient use of agricultural inputs and the management of environmental impacts.

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## Objective 1. Sustainable Agriculture Management

To practise sustainable agricultural stewardship to improve *crop* production and ensure long-term agricultural sustainability.

**Performance Measure 1.1 Sustainable Agricultural Stewardship:** *Standard Users* shall demonstrate their commitment to sustainable agricultural stewardship of *farmland*.

Indicator 1.1.1 *Farmland Stewardship Commitment*: A written commitment statement and list of goals that describes the sustainable agricultural stewardship of *farmland*.

Indicator 1.1.2 *Farmland Stewardship*: Demonstration of the management of major synergies and tradeoffs between the economic, social, and environmental dimensions of sustainable agricultural stewardship of *farmland* while ensuring long-term profitability and sustainability.

Indicator 1.1.3 *Farmland Conservation*: ~~Demonstration that measures are in place and implemented to minimize conversion of prime farmland. Conservation of prime farmland to avoid its conversion to non-agricultural uses when conversion would adversely impact regional agriculture.~~

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**Performance Measure 1.2 Critical External Factors:** *Standard Users* shall manage for potential impacts of *critical external factors* to help ensure long-term profitability and sustainability of each farm or farm management unit by the *Standard User*.

Indicator 1.2.1 *Adapting to Critical External Factors*: A *process* for periodically identifying *critical external factors* and adapting to their impacts to ensure the long-term profitability and sustainability of agricultural production of a farm or farm management unit.

## Objective 2. Soil Health and Conservation

To maintain or enhance *soil health* to optimize *crop* yield and protect long-term *soil productivity* on *agricultural lands*.

**Performance Measure 2.1 Soil Health:** *Standard Users* manage nutrients and apply practices to achieve *crop yield* and maintain or enhance *soil health* of *cropland*.

Indicator 2.1.1 *Soil Quality*: Application of *agricultural best management practices* (e.g., tillage systems, *cover cropping*, addition of *soil amendments*) to maintain or enhance *soil fertility* and physical and biological characteristics of soil.

Indicator 2.1.2 *Soil Health Monitoring*: Monitoring of *soil health* characteristics, including nutrients from different sources necessary to maintain or enhance *appropriate* nutrient balance and *soil health*.

Indicator 2.1.3 *Nutrient Management Program*: ~~Demonstration of the implementation of~~ ~~An~~ up-to-date *nutrient management program* that efficiently uses nutrient inputs and

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nutrients in the soil and *crops* to create optimum conditions for *crop* production and nutrient utilization and avoids nutrient loss to water and air.

Indicator 2.1.4 *Crop Residues*: Application of *agricultural best management practices* to use *crop residues* to maintain or improve *soil health* and long-term *soil productivity* where *appropriate*.

**Performance Measure 2.2 Soil Conservation:** *Standard Users* shall implement *agricultural practices* to minimize *soil erosion* and avoid degradation of *agricultural lands*.

Indicator 2.2.1 *Cropland Soil Management*: Application of *agricultural best management practices* to minimize *soil erosion* and physical damage (e.g., compaction) of *cropland* and restore *soil health* where *appropriate*.

Indicator 2.2.2 *Degradation of Agricultural Lands*: A *process* to avoid the widespread loss of *agricultural lands* to *soil mismanagement* (e.g., failure to prevent extensive *soil erosion*, acidification, salinization, and accumulation of other adverse compounds).

### Objective 3. Water Resources

To protect water resources and manage water for efficient agricultural productivity.

**Performance Measure 3.1 Water Use:** *Standard Users* shall conserve *water* resources and manage *water* use to avoid long-term depletion and maintain *crop productivity*.

Indicator 3.1.1 *Agricultural Water Withdrawal*: A *process* for avoiding the depletion of available *groundwater* resources beyond the recharge capacity of the watershed or catchment and by direct withdrawal where *groundwater depletion* is an issue as determined by a *groundwater regulatory agency*.

Indicator 3.1.2 *Regional Water Conservation*: Participation individually or collaboratively in regional *water conservation programs* where *appropriate* to help foster responsible use and conservation of *groundwater* and *surface water* used for agriculture.

Indicator 3.1.3 *Water Conservation*: A *water management program* that uses *appropriate* technology (including *crop/irrigation system design*) and applies *agricultural best management practices* to utilize water efficiently; to provide water tailored to *crop* needs; and to control *pests*, pathogens, salinization, and accumulation of other adverse compounds.

**Performance Measure 3.2 Water Quality:** *Standard Users* shall apply a *program* to properly manage the use of *fertilizers* and other *soil amendments*, *crop protectants*, and other inputs and avoid the release of sediment and nutrients from *agricultural lands* into *groundwater* and *surface water*.

Indicator 3.2.1 *Input Application on Agricultural Lands*: Application of *agricultural best management practices* when applying *fertilizers* and other *soil amendments*, *crop*

*protectants*, and other agricultural inputs to avoid and control the infiltration of nutrients, *crop protectants*, and pathogens into *groundwater*.

Indicator 3.2.2 *Water Quality Protection*: Application of *agricultural best management practices* to manage water runoff from *cropland* into *surface water* and protect *wetlands*, *riparian areas*, and *water quality* of *groundwater* and *surface water*.

### Objective 4. Crop Protection

To achieve *crop protection objectives* while protecting people and the environment.

**Performance Measure 4.1 Integrated Pest Management:** *Standard Users* shall protect *crops* against *pests* by implementing an *Integrated Pest Management program* that uses *appropriate biosecurity* to achieve *crop protection objectives*.

Indicator 4.1.1 *Pest Monitoring*: Monitoring of *pests* to prevent excessive *crop loss* and economic injury to *crop plants*.

Indicator 4.1.2 *Crop Protection*: **Implementing Aa process** for preventing excessive *crop loss* from *pests*, *crop protectant resistance*, and buildup and spread of *pests*.

Indicator 4.1.3 *Pest Control Practices*: Prioritization of the use of *lowest risk, most selective treatment options* to achieve *crop protection goals* whenever *appropriate*.

**Performance Measure 4.2 Crop Protectant Management:** *Standard Users* shall select, use, and store *crop protectants* in accordance with label instructions and regulatory requirements.

Indicator 4.2.1 *Application and Storage of Crop Protectants*: Application and storage of *crop protectants* according to label instructions and regulatory requirements and application of practices to protect employees, farm workers, public health, and the environment and avoid drift of *crop protectants* offsite.

### Objective 5. Energy Use, Air Quality, and Climate Change

To conserve energy used by agricultural operations and *minimize* adverse impacts to the atmosphere and the global climate; and to be resilient and prepared for adverse climatic and weather events.

**Performance Measure 5.1 Agricultural Energy Use and Conservation:** *Standard Users* shall conserve energy resources, especially fossil fuels, used by agricultural operations.

Indicator 5.1.1 *Energy Conservation*: Use of technologies and application of *agricultural best management practices* to conserve energy where *appropriate*.

Indicator 5.1.2 *Renewable Energy*: Use of *renewable energy technologies* and application of *agricultural best management practices* where *appropriate*.

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**Performance Measure 5.2 Air Quality:** *Standard Users shall minimize adverse impacts to air quality from agricultural operations.*

Indicator 5.2.1 Air Emissions: Use of *low-emission technologies* when compatible with *agricultural best management practices*.

Indicator 5.2.2 Airborne Dust Control: Application of *agricultural best management practices* to minimize airborne dust where and when it adversely affects human health and/or the environment.

**Performance Measure 5.3 Climate-Smart Agriculture:** *Standard Users shall apply the principles of climate-smart agriculture and/or carbon farming to reduce adverse impacts on the global climate and adapt to climate change.*

Indicator 5.3.1 Greenhouse Gas Emissions: Application of *climate-smart agricultural best management practices* that minimize greenhouse gas emissions from agricultural operations and farmland and/or sequester greenhouse gases that contribute to climate change where appropriate. ~~Examples could include, but are not limited to, application of low-emission technologies and practices that reduce the use of agricultural inputs or their volatilization, increase soil carbon sequestration using farmland, and reduce volatilization of greenhouse gases.~~

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Indicator 5.3.2 Climate Change Adaptation and Resilience: Application of *climate-smart agricultural best management practices* to adapt to climate change impacts and enhance farm or management unit resilience where appropriate. ~~Examples could include, but are not limited to, the use of drought resistant crop varieties, new crop species, practices that improve soil moisture retention and soil drainage, and training on the management of new crop pests.~~

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Indicator 5.3.3 Preparedness for Severe Climate and Weather Events: Application of *climate-smart agricultural best management practices* to prepare for and mitigate the impact of severe climate and weather events on agricultural operations. ~~Examples could include, but are not limited to, establishing monitoring practices and emergency plans for various types of natural disasters (e.g. wildfire, flood, extreme drought) and using insurance policies that cover natural disasters.~~

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## **Objective 6. Waste and Material Management**

To manage waste, agricultural chemicals, and other materials from agricultural operations to minimize their adverse impacts on agriculture and the environment.

**Performance Measure 6.1 Management of Waste and Other Materials:** *Standard Users shall minimize solid waste and hazardous waste from agricultural operations and manage waste and agricultural chemicals in compliance with applicable laws, statutes, regulations, and best management practices and programs.*

Indicator 6.1.1 Waste Disposal: ~~Implementation of aA process for properly handling and disposing of hazardous and solid waste, avoiding the burning of rubber, plastics.~~

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chemically treated materials, or other materials which produce excessive or noxious smoke, unless combustion results in usable energy or some other demonstrably beneficial byproduct.

Indicator 6.1.2 Resource Recovery: Implementation of Aa process for properly handling waste to be reused, repurposed, or recycled or converted to energy, where appropriate.

Indicator 6.1.3 Management of Agricultural Chemicals and Other Materials: Management, use, and storage of *agricultural chemicals* and equipment gases, fluids, and fuels according to regulatory requirements and application of practices to manage spills and protect employees, farm labour, and the environment.

**Performance Measure 6.2 Food and Agricultural Surplus and Waste Resource Recovery:** *Standard Users* shall ensure efficient handling and recovery of *agricultural products*, surplus, and *agricultural waste*.

Indicator 6.2.1 Food and Agricultural Product Waste: Prevention of excessive loss of food *crops* and other *agricultural products* during harvest and on-farm storage.

Indicator 6.2.2 Resource Recovery of Agricultural Surplus and Waste: Reuse, repurpose, and/or recycle product or *crop residues*, manure, other *agricultural wastes*, and/or agricultural inputs (e.g., tailwater recovery) where appropriate.

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**Commented [SH10]:** REASON FOR CHANGE CATEGORY: STAKEHOLDER FEEDBACK

### **Objective 7. Conservation of Biodiversity**

To manage *farmland* in a manner that maintains agricultural production while conserving *biodiversity* where appropriate or legally required.

**Performance Measure 7.1 Species Protection:** *Standard Users* shall protect *species at risk*.

Indicator 7.1.1 *Species at Risk Protection:* Protection of *species at risk* when they occur on *enrolled farmland* and management of agricultural operations with consideration of *species at risk* in the local watersheds catchments and landscapes of operation.

Indicator 7.1.2 *Species at Risk:* A program to locate and protect known *viable occurrences* of *species at risk* on *enrolled farmland*. A *protection program* may be developed independently or collaboratively and may use easements, *conservation* land sales, exchanges, or other *conservation* strategies.

**Performance Measure 7.2 Wildlife Habitat Conservation:** *Standard Users* shall conserve *native habitats*, *wildlife habitat*, *natural communities*, and *Ecologically Important Sites* on *enrolled farmland*.

Indicator 7.2.1 *Native Habitats and Natural Communities:* Maintenance or *conservation* of *native habitats* and *natural communities* in areas not used for agricultural production.

Indicator 7.2.2 *Ecologically Important Sites*: Participation individually or collaboratively in plans or programs that manage *Ecologically Important Sites* in a manner that takes into account their unique qualities.

Indicator 7.2.3 *Cropland for Wildlife Habitat*: Application of *agricultural best management practices on cropland* to create temporary wildlife habitat where appropriate.

~~Examples could include, but are not limited to, no till practices, cover cropping, adding soil amendments made up of organic matter, bird boxes, soil erosion control structures (e.g., grassed waterways), delayed mowing/slashing, intercropping, seeding areas with native grassland seed mixes, tailwater recovery ponds managed as wetlands, and water level management of rice fields for waterbirds.~~

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**Performance Measure 7.3 Avoided Conversion:** *Standard Users* shall avoid conversion of natural forests, other natural communities, and *Ecologically Important Sites*.

Indicator 7.3.1 *Habitat Conversion*: Demonstration of commitment ~~and due diligence~~ to avoid the *land use conversion* and fragmentation of *natural communities* and *Ecologically Important Sites* on enrolled farmland.

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Indicator 7.3.2 *Deforestation*: Demonstration of commitment to prevent *deforestation* of natural forest when farming where biome-specific or geography-specific *deforestation* protocol(s) are in place, by:

~~(a)~~—A written policy to demonstrate the *Standard User's* commitment to a zero *deforestation* policy that identifies the regions of application, relevant *natural forest* types, and appropriate *deforestation cut-off date(s)* in areas with biome-specific or geography-specific *deforestation* protocols, ~~and~~

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~~(b)~~—Indicator 7.3.3 *Responsible Land Acquisition*: Demonstration of due diligence to prevent the acquisition of farmland that was converted from *natural forest* after an appropriate *deforestation cutoff date(s)* identified by the *Standard User* in areas with biome-specific or geography-specific *deforestation* protocols.

**Performance Measure 7.4 Crop Diversity:** Support *crop* diversity on *cropland*.

Indicator 7.4.1 *Crop and Genetic Diversity*: Use of a variety of *crop* species, *crop* varieties, companion crops (e.g., *cover crops*, cross-pollination donors), and/or crop rotation where appropriate.

## Objective 8. Protection of Special Sites

To manage *Special Sites* on *farmland* that are geologically or culturally important in a manner that recognizes and respects their unique qualities.

**Performance Measure 8.1 Special Site Management:** *Standard Users* shall manage *Special Sites* in a manner appropriate for their unique qualities.

Indicator 8.1.1 *Special Site Identification*: Use of information such as existing heritage databases (from national or *sub-national* administrations) or expert advice in identifying or selecting *Special Sites*.

Indicator 8.1.2 *Special Site Management*: *Appropriate* mapping, cataloging, and management of identified *Special Sites* in a manner that recognizes their unique qualities.

### Objective 9. Local Communities

To operate safely and responsibly; contribute to the economic well-being, social networks, and health of local communities; and to recognize and respect the rights of local communities and *Indigenous Peoples* in regions of agricultural operations.

**Performance Measure 9.1 Economic Well-Being:** *Standard Users* shall foster the economic vitality of local communities through business practices that support sustainable agriculture and the local economy.

Indicator 9.1.1 Economic Contributions: Payment of all applicable taxes and, as *appropriate*, employment of staff from local communities and local procurement of supplies and services.

**Performance Measure 9.2 Community Relations:** *Standard Users* shall engage local communities to increase community awareness and support for the practice of sustainable agriculture and maintain or enhance *Standard User* reputation.

Indicator 9.2.1 Community Engagement: Engagement in positive relationships with neighbours and local communities thus raising the awareness of sustainable agriculture.

**Performance Measure 9.3 Local Communities and Indigenous Peoples:** *Standard Users* shall recognize and respect the rights of local communities and *Indigenous Peoples*.

PROPOSED NEW INDICATOR: Local Community and Indigenous Peoples Identification: Demonstration of due diligence to identify local community and indigenous peoples groups that may have rights within the land areas being managed by the Standard user.

Indicator 9.3.1 Local Community and *Indigenous Peoples* Policy: A written *policy* demonstrating a commitment to recognize and respect the rights of local communities and *Indigenous Peoples*.

Indicator 9.3.2 Land Tenure Rights of Local Communities and *Indigenous Peoples*: Demonstration of due diligence to prevent infringing on the land tenure rights of local communities and the land tenure rights, access to and use rights, customary rights, and legal rights of *Indigenous Peoples* when purchasing and managing land.

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Indicator 9.3.3 Local Communities' and *Indigenous Peoples'* Inquiries: Demonstration of commitment to be receptive to local communities' and *Indigenous Peoples'* inquiries and concerns.

**Performance Measure 9.4 Public Health:** *Standard Users* shall apply measures to protect public health from adverse impacts of *enrolled farmland*.

Indicator 9.4.1 Public Health and Safety: Application of health and safety *agricultural best management practices* that protect public health from adverse impacts of *agricultural chemicals*, excessive nutrients, equipment gases and fluids, fuels, and air pollution and that train employees to operate equipment safely.

### **Objective 10. Personnel and Farm Labour**

To provide a safe and healthy working environment and fair compensation and training for *Standard User* personnel, *contract management company* employees, and *contract farm labour* necessary to improve the practice of sustainable agriculture.

**Performance Measure 10.1 Safe and Respectful Working Environment:** *Standard Users* shall foster a culture of safety and respect among *Standard User* personnel and *contract management company* employees to *minimize* injuries, help establish safe routines, and enhance employee productivity.

Indicator 10.1.1 *Equal Opportunity Employment*: Provision for equal opportunity employee recruitment and occupations, including equitable access to professional development.

Indicator 10.1.2 Respectful Work Environment: Maintain a safe, *gender-equitable*, and *professional work environment*.

**Performance Measure 10.2 Occupational Training:** *Standard Users* shall provide training for *Standard User* personnel and ensure adequate training for *contract management company* employees necessary to improve the knowledge and practice of sustainable agriculture.

Indicator 10.2.1 Personnel and Contract Worker Training: Workplace health and safety education and training for *Standard User* personnel and *contract management company* employees.

**Performance Measure 10.3 Supporting Capacity for Sustainability:** *Standard Users* shall require *appropriate* training of *Standard User* personnel and *contract management company* employees so that they are competent to fulfill their responsibilities under the *Leading Harvest Standard*.

Indicator 10.3.1 Sustainability Policy Commitment: *Standard Users* shall provide a written *policy* demonstrating commitment to the *Leading Harvest Standard* that is communicated throughout the organization, particularly to facility and farm managers.

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Indicator 10.3.2 Employee Roles and Responsibilities for Sustainability: Assignment and understanding of roles and responsibilities for achieving the *Objectives* of the *Leading Harvest Standard*.

Indicator 10.3.3 Employee Sustainability Training: Staff education and training for *Standard User* personnel and *contract management company* employees sufficient to fulfill their roles and responsibilities under the *Leading Harvest Standard*. ~~Examples could include, but are not limited to, postsecondary degrees and professional certificates, in-house training, continuing education programs for managing waste, recycling, and crop protectant safety, professional development opportunities, and participation in agriculture-related professional organizations.~~

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**Performance Measure 10.4 Compensation:** *Standard Users* shall ensure adequate livelihood for employees and *contract management company* employees to attract and retain a stable workforce.

Indicator 10.4.1 Wages and Pay: Compensation to ensure an ~~equitable and fair living~~ wage for *Standard User* personnel and *contract management company* employees.

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**Performance Measure 10.5 Farm Labour:** *Standard Users* shall monitor *contract management companies* or *farm labour contractors* to help ensure farm labour working conditions consistent with the *Principles* and *Objectives* of the *Leading Harvest Standard*.

Indicator 10.5.1 Farm Labour Monitoring *Program*: A *program* to monitor *farm labour contractors* employed by *Standard Users* or *Contract Management Companies* to ensure compliance with applicable labour laws, statutes, and regulations by reviewing policies, practices, and training addressing workplace environment, equal opportunity, workplace health and safety, and compensation, including *living wage* and, where *appropriate*, housing and transportation.

## Objective 11. Legal and Regulatory Compliance

To comply with applicable national and *sub-national* laws, statutes, and regulations relating to agriculture.

**Performance Measure 11.1 Legal Compliance:** *Standard Users* shall comply with applicable national and *sub-national* agricultural and related social and environmental laws, statutes, and regulations.

Indicator 11.1.1 Access to Compliance Information: A *process* by which personnel have access to information on relevant laws, statutes, and regulations in *appropriate* locations.

Indicator 11.1.2 *Standard User Compliance Program*: A *program* to achieve compliance with applicable national and *sub-national* laws, statutes, and regulations.

Indicator 11.1.3 Compliance Commitment: Demonstration of commitment to legal compliance through available *regulatory action information*.



**Performance Measure 11.2 Legal Compliance Policies:** *Standard User* shall take *appropriate* steps to comply with all applicable social laws at national and *sub-national* levels in the jurisdictions where the *Standard User* operates.

Indicator 11.2.1 Written Compliance Policy: A written *policy* demonstrating commitment to comply with social laws, such as those addressing civil rights, equal employment opportunities, anti-discrimination and anti-harassment measures, workers' compensation and *living wage*, *Indigenous Peoples'* rights, workers' and communities' right to know, prevailing wages, workers' right to organize, and workplace health and safety.

Indicator 11.2.2 Consistency with International Labour Organization (ILO) Conventions: Demonstration of commitment to respect the principles concerning fundamental rights set out in the ILO Declaration on Fundamental Principles and Rights at Work.

Indicator 11.2.3 Consistency with Farmland Tenant/Lease Laws: Demonstration of commitment to respect the rights of *tenants/lessees* of leased lands with respect to the *covenant of quiet enjoyment* as determined by applicable national and *sub-national* laws, statutes, and regulations.

## **Objective 12. Management Review and Continual Improvement**

To promote *continual improvement* in the practice of sustainable agriculture by conducting management reviews and monitoring performance.

**Performance Measure 12.1 Farm Review and Continual Improvement:** *Standard Users* shall establish a management review system to examine findings and progress in implementing the *Leading Harvest Standard*, improve resource-use efficiency of agricultural production, make *appropriate* improvements in *programs*, and inform their employees of changes.

Indicator 12.1.1 Performance Review: A system to review commitments, *programs*, procedures, and measures of progress; evaluate their effectiveness; and review progress toward achieving goals for employees, tenants, use of agricultural inputs, management of adverse and positive environmental impacts, and agricultural production, including greater resource-use efficiency.

Indicator 12.1.2 Monitoring Performance: A *program* for collecting, reviewing, and reporting information to management regarding progress in achieving *Leading Harvest Standard Objectives* and *Performance Measures*.

Indicator 12.1.3 Agricultural Innovation: A *process* for identifying and considering opportunities for achieving improved farming efficiency, deploying improved technologies, and using new markets for under-utilized *agricultural products*, new *crops*, and low-grade agricultural materials (e.g., bioenergy markets).

Indicator 12.1.4 Annual Review and Improvement: An annual review of progress by management and determination of changes and improvements necessary to continually improve agricultural efficiency and farm conformance to the *Leading Harvest Standard*.

**Performance Measure 12.2 Support for Sustainable Agriculture:** *Standard Users* shall individually and/or through cooperative efforts support science-based agricultural research programs or partnerships or other efforts by associations to improve *soil health*, agricultural productivity, and sustainable agriculture.

Indicator 12.2.1 Support for Agricultural Research: Participation individually or collaboratively in agricultural research or other science-based programs that improve the knowledge and practice of sustainable agriculture. ~~Examples could include, but are not limited to, test plots for seed or crop trials or new practices; citizen science projects; demonstration days; and/or research or partnerships to address agricultural productivity, water quality, community issues, or similar topics that broaden the understanding of the benefits and impacts of sustainable agriculture.~~

**Commented [SH18]:** Consider removing examples for consistency and moving them to guidance materials.

### **Objective 13. Tenant/Leased Operations**

To promote the use of *agricultural best management practices* on tenant/leased farmland to broaden the practice of sustainable agriculture and to promote the efficient use of agricultural inputs and the management of adverse environmental impacts.

**Performance Measure 13.1 Leased-Land Management:** *Standard Users* shall clearly define and implement strategies to ensure that *tenant/lessee* activities adhere to the principles of sustainable agriculture.

Indicator 13.1.1 *Leased-Land Program:* A program to help ensure that *farmland* management complies with the *agricultural best management practices* and the *Principles* and *Objectives* of the *Leading Harvest Standard* as determined by a *Standard User* and *tenant/lessee*.

Indicator 13.1.2 *Farmland Lease Agreements:* Written agreements with *tenants/lessees* demonstrating their commitment to applying *agricultural practices* consistent with *agricultural best management practices*.

Indicator 13.1.3 *Communicating Leased-Land Objectives:* A written statement clearly defining sustainable agriculture goals of the *Standard User* for leased *farmland* that is shared with *tenants/lessees* and made available to *appropriate* stakeholders upon request.

Indicator 13.1.4 *Tenant/Lessee Social Responsibility Commitment:* A written statement by *tenants/lessees* demonstrating their commitment to operate safely and responsibly; provide a safe working environment; and comply with applicable country, state/provincial, and local laws, statutes, and regulations.

**Performance Measure 13.2 Leased-Land Monitoring:** *Standard Users* shall monitor *agricultural practices* used by *tenants/lessees* to ensure their consistency with *agricultural best management practices*.

Indicator 13.2.1 *Verifiable Monitoring System:* Use of a *verifiable monitoring system* with:

Indicator 13.2.1a A *process* for monitoring the *agricultural practices* used by *tenants/lessees*; and

Indicator 13.2.1b A *process* for evaluating the application of *agricultural practices* by *tenants/lessees* and identifying and communicating areas where tenants/lessees can improve their performance and achieve greater consistency with *agricultural best management practices* and the *Principles* and *Objectives* of the *Leading Harvest Standard*.

Indicator 13.2.2 Improvement of the *Verifiable Monitoring System*: A *process* for using information from the *verifiable monitoring system* to identify **and demonstrate** areas of performance improvement for the *verifiable monitoring system*.

**Commented [SH19]:** REASON FOR CHANGE CATEGORY:  
AUDITOR FEEDBACK AND STANDARD PHILOSOPHY

## Glossary

Commented [SH20]: Global glossary under development

This glossary contains terms relevant for Canada.

**Agricultural best management practices:** A practice or combination of practices deemed to be best practice for meeting productivity, economic, social, and environmental (sustainability) outcomes. In Canada, these recommended practices are typically developed by government agencies in collaboration with research institutions, industry organizations, and agricultural producers.

**Agricultural chemicals:** Substances such as *fertilizers*, liming and acidifying agents, road dust stabilizers, *crop protectants* (including insecticides, herbicides, fungicides, and nematicides), and other agricultural inputs used to enhance or support agriculture production.

**Agricultural land:** Land that is used directly or indirectly in the production of *agricultural products* including *cropland*, *grassland*, *rangeland*, *pasture*, and other land on which *agricultural products* or livestock are produced and resource concerns may be addressed. It may include cultivation under tree cover, cropped marshes, cranberry bogs, incidental areas included in the agricultural operation, and other types of land used for production of livestock.

**Agricultural practices:** Specific methods including tillage system, planting, application practices for *fertilizers* and *crop protectants*, harvesting, and other cropping practices that are applied to grow and harvest annual or perennial *crops* for food, animal feed, forage, fibre, oilseed, and other *agricultural products*.

**Agricultural products:** *Crops* for food, animal feed, forage, fibre, oilseed, medicine, cultural practices, fermentation products, or fuel, livestock, and livestock products. These products include, but are not limited to, field *crops*, grains, oilseeds, cattle, hogs, poultry, and dairy (Agriculture and Agri-Food Canada 2023).

**Agricultural waste:** Refers to *solid waste* that is generated by animal farming or the production and harvest of *agricultural products*. This may include, but is not limited to, poultry and livestock manure and residual materials in liquid or solid form generated from the production and marketing of poultry, livestock, furbearing animals, other livestock products, and *crop residues* from row *crops* and permanent *crops*.

**Appropriate:** Suitable or proper in the circumstances for a particular purpose. Considerations may include whether an activity will achieve the goal of an *Indicator* or *Performance Measure* in a specific setting, is practical and reasonable, and contributes to achieving regulatory compliance or obtaining social licence.

**Appropriate deforestation cutoff date:** A date (day, month, and year) specified by the most relevant biome- or geography-specific *deforestation* protocol(s) after which farmed land cannot have been deforested. An example of a relevant *deforestation* protocol could include, but is not limited to, the Canadian Boreal Forest Conservation Framework.

**Biosecurity:** The Canadian Food Inspection Agency (CFIA) works with stakeholders to develop national farm-level biosecurity standards and producer guidance documents for several crop and animal-based sectors. These standards provide a proactive approach to minimize the introduction and spread of diseases and *pests* (CFIA 2023).

**Biodiversity:** The variety and abundance of life forms, processes, functions, and structures of plants, animals, and other living organisms, including the relative complexity of species, communities, gene pools, and ecosystems at spatial scales that range from local to regional to global (SFI). This includes soil organisms, pollinators, beneficial organisms, agricultural and *grassland* plants, and *wildlife*.

**Carbon farming:** The process of changing *agricultural practices* or land use to increase the amount of carbon stored in the soil and vegetation (sequestration) and to reduce greenhouse gas emissions from livestock, soil, or vegetation (avoidance) (Dept Primary Industries and Regional Development, WA).

**Certification Body:** An independent third party that is accredited and competent to conduct certifications to the *Leading Harvest Standard*.

**Climate change:** Change in the state of the climate that can be identified (e.g. by using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer. It may be due to natural internal processes or external forcings or to persistent anthropogenic changes in the composition of the atmosphere or in land use (Intergovernmental Panel on Climate Change).

**Climate-smart agriculture (practices):** Practices and principles that promote sustainable increases in agricultural productivity (including sustainable intensification) while adapting to *climate change* and reducing *greenhouse gas* emissions (Food and Agriculture Organization of the United Nations).

**Conservation:** 1. *Protection* of plant and animal *habitat*. 2. Management of a renewable natural resource with the *objective* of sustaining its productivity in perpetuity while providing for human use compatible with the sustainability of the resource.

**Contract management company:** A third-party company used by a *Standard User* to directly operate *enrolled farmland*.

**Covenant of quiet enjoyment:** A covenant that promises that the tenant/lessee of an estate in real property will be able to possess the premises in peace, without disturbance by hostile claimants. Quiet enjoyment is a right to the undisturbed use and enjoyment of real property by a *tenant/lessee*.

**Cover cropping:** Cover cropping is a method of planting that helps build healthy soil. Cover crops keep the ground covered and help with continued carbon sequestration in non-production areas. When chosen and managed properly, cover crops can slow erosion, improve *soil health*, enhance water availability, suppress weeds, help control *pests* and diseases, increase *biodiversity*, benefit production for farmers, and help mitigate *climate change* (BC Climate Agri-Solutions). Common cover crops in Canada include oat, clover, peas, and radish (CAPI 2021).

**Critical external factor:** Any off-farm attribute or factor that is materially and substantially relevant to the viability, long-term profitability, and sustainability of agricultural production of a management unit or farm. These may include economic factors (e.g., labour availability, regional market demand and opportunities, regulatory changes, *farmland tenant* availability, supplier availability, and technological advancements), environmental factors (e.g., *climate change*, regional availability of water, and other inputs), and social factors (e.g., social licence).

**Crop:** Plant species that are purposefully grown and/or harvested to satisfy human and livestock needs. They can include plants grown for food, feed, forage, fibre, decorative purposes, oilseed, medicine, cultural practices, fermentation products, or fuel, including, but not limited to, field crops, hay or forage, fruits, vegetables, nuts, grains, and horticultural specialties. *Cover crops* and companion *crops* may be considered *crops* if purposefully grown.

**Cropland:** Land used primarily for the direct production of *agricultural products* for harvest, including, but not limited to, land in row crops or close-grown *crops*, forage *crops* that are in a rotation with row or close-grown *crops*, permanent hay land, horticultural *crops*, orchards, vineyards, cultivation under tree cover cropped marshes, cranberry bogs, and other lands used to produce *crops*. It may include both irrigated and dryland areas.

**Crop productivity:** The inherent capacity of a particular site to produce a *crop*, often measured in volume or weight per hectare.

**Crop protectants:** Also known as pesticides or crop protection products, crop protectants are used to keep crops healthy and abundant by protecting them against *pests* (insecticides), weeds (herbicides), and diseases (fungicides). Specific chemicals are labelled for very specific uses and quantities. They can be synthetic (developed in laboratories and manufactured) or natural. Chemicals used in agriculture need to be approved by Health Canada. Provinces and territories are responsible for controlling the use of crop protectants.

**Crop residues:** Materials from growing *crops* left on the soil surface or partially incorporated into the surface layer of *cropland* to reduce *soil erosion*, conserve soil moisture, and improve soil tilth. These materials may include, but are not limited to, stalks, stubble, leaves, chipped branches and vines, and seed pods.

**Crop genetic diversity:** Variation in genetic and phenotypic characteristics of plants used in agriculture. Its two components are the genetic diversity within each *crop* (within-*crop* diversity, including different *crop* varieties or hybrids of the same species) and the number of *crop* species commonly grown (between-*crop* diversity).

**Deforestation:** The conversion of *forest* to another land use or the long-term reduction of the tree canopy cover below the minimum 10 percent threshold. It includes areas of *forest* converted to agriculture, *pasture*, water reservoirs, residential and industrial areas, and urban areas (Food and Agriculture Organization of the United Nations).

**Ecologically Important Sites:** Sites of exceptional ecological importance including areas with *critically imperilled* or *imperilled* species or *natural communities* (potential source: species or

*natural communities* with NatureServe global conservation status ranks of G1 or G2), rare *natural communities*, or unique ecological landscape features (inspired by SFI).

**Endangered species:** A *wildlife* species that is facing imminent extirpation or extinction.

**Energy-efficient agricultural practices:** Practices that deliver more services for the same energy input or the same services for less energy input (modified from the International Energy Agency definition of energy efficiency).

**Enrolled lands:** Lands managed by the *Standard User* and enrolled under the *Leading Harvest Standard* and subject to third-party audit to the *Leading Harvest Standard*.

**Equal Opportunity Employment:** To provide employment where an employer agrees not to discriminate against any employee or job applicant because of race, colour, religion, national origin, sex, physical or mental disability, or age.

**Farmland:** Land owned or operated by an agricultural operation. It includes *cropland*, summer fallow, improved and unimproved *pasture*, woodlands and *wetlands*, all other land (including idle land), and land on which farm buildings are located (Statistics Canada 2023).

**Farmland tenant/lessee:** A tenant/lessee of *farmland* where the lease is managed by a *Standard User*.

**Farm labour contractor:** A farm labour contractor provides labour to producers in connection with the planting, cultivating, or harvesting of *agricultural products*. Although the workers may work on a variety of farms owned by different producers, they are the employees of the farm labour contractor (Government of British Columbia).

**Fertilizer:** Any substance or mixture of substances, containing nitrogen, phosphorus, potassium, or other plant food, manufactured, sold, or represented for use as a plant nutrient (CFIA).

**Forest:** Land with tree crown cover (or equivalent stocking level) of more than 10 percent and an area of more than 0.5 hectares with tree species largely of indigenous origin. The trees should be able to reach a minimum height of 5 meters at maturity in situ. It may consist either of closed forest formations where trees of various heights and undergrowth cover a high proportion of the ground or open forest formations with a continuous vegetation cover in which tree crown cover exceeds 10 percent. It does not include land that is predominantly under agricultural or urban land use (FAO 2018).

**Gender equitable:** The fair treatment for men and women according to their respective needs. This may include equal treatment or treatment that is different, but which is considered equivalent in terms of rights, benefits, obligations, and opportunities (UNESCO). Equivalency between men and women does not mean that women and men have to become the same, but that their rights, responsibilities, and opportunities will not depend on whether they were born male or female.

**Grasslands:** Natural or seminatural land defined by the following characteristics: (1) a non-wetland formation; (2) vascular vegetation has at least 10 percent cover; (3) graminoids have at

least 25 percent cover (but if less than 25 percent cover, graminoids exceed that of other herbaceous and shrub cover); (4) broad-leaved herbs (forbs) may have variable levels of cover and dominance; (5) shrubs have less than 25 percent canopy cover; (6) and trees: (i) in temperate zones, typically have less than 10 percent canopy cover, are less than 5 meters tall, and are single-layered or (ii) in tropical regions, typically have less than 40 percent canopy cover, are less than 8 meters tall, and are single-layered (Dixon et al. 2014).

**Greenhouse gases:** Greenhouse gases are gases in the atmosphere such as water vapour, carbon dioxide, methane, and nitrous oxide that can absorb infrared radiation, trapping heat in the atmosphere. This greenhouse effect means that emissions of greenhouse gases due to human activity cause global warming (IPCC, 2019).

**Groundwater:** Above the water table lies the unsaturated zone. Here the spaces in the rock and soil contain both air and water. Water in this zone is called soil moisture. The entire region below the water table is called the saturated zone, and water in this saturated zone is called groundwater (Government of Canada).

**Groundwater depletion:** A long-term decline in levels of *groundwater*, which can be caused by a combination of increased human usage (of ground and connected *surface water*) and changes to recharge (e.g. rainfall and human usage).

**Groundwater regulatory agency:** A local, regional, provincial, or federal public authority or government agency with statutory authority to exercise regulatory or supervisory oversight in the use and/or extraction of *groundwater*.

**Habitat:** A place, natural or otherwise (including climate, food, cover, and water), where an individual or population of animal species or plant species naturally or normally lives and develops.

**Hazardous waste:** Waste with properties such as flammability, corrosiveness, or inherent toxicity. These wastes and materials can pose a variety of risks, from skin damage on contact to the contamination of groundwater, surface water, and soil as a result of leaching into the environment (Government of Canada).

**Indicator:** A specific metric that provides information about an organization's agricultural and environmental performance and that is integral to assessing conformance to the *Leading Harvest Standard*.

**Indigenous Peoples:** Aboriginal Peoples is also used. The Canadian Constitution recognizes three groups of Aboriginal Peoples: Indians (more commonly referred to as First Nations), Inuit, and Métis. These are three distinct peoples with unique histories, languages, cultural practices, and spiritual beliefs (Government of Canada).

**Indigenous "Aboriginal" rights:** Refer to practices, traditions, and customs that distinguish the unique culture of each First Nation and were practiced prior to European contact. These are rights that some Aboriginal peoples of Canada hold as a result of their ancestors' longstanding use and occupancy of the land. The rights of certain peoples to hunt, trap, and fish on ancestral



lands are examples of Aboriginal rights. Aboriginal rights vary from group to group depending on the customs, practices, and traditions that have formed part of their distinctive cultures. Aboriginal rights are protected under s.35 of the Constitution Act, 1982.

There are areas in Canada where Aboriginal people's claims to Aboriginal rights and title have not been dealt with by treaty or in any other legal way. Historically, in most of British Columbia, Yukon and Nunavut, as well as parts of Québec, Newfoundland, and Labrador, treaties were not made with First Nations or Inuit people who lived there. To address this fact and other outstanding claims of Aboriginal rights and title, the comprehensive land claims process (or the making of modern treaties) was established in 1973 (Government of Canada).

**Integrated Pest Management:** Integrated pest management (IPM) is an all-encompassing approach to pest management in agriculture. It uses a combination of pest management tactics and is more environmentally friendly than relying only on pesticides (Agriculture and Agri-food Canada). *Appropriate* techniques may include, but are not limited to, enhancement of natural enemies, planting pest-resistant crops, adaptation of cultural management, and judicious use of *crop protectants*.

**Land use conversion:** A change in the extent or composition of an ecosystem or *habitat* where there is a shift from one land use to another that is considered significant or irreversible.

**Living wage:** The minimum income necessary for an employee or contract worker to meet their basic needs, which can include minimum food, child care, health insurance, housing, transportation, and costs of other basic necessities (e.g., clothing, personal care items, etc.), such that public assistance is not necessary to meet basic needs. It does not address other needs such as entertainment, recreation, or income for unpaid vacation (MIT).

**Low-emission technologies:** Advanced technologies used to significantly reduce *greenhouse gas* emissions levels, airborne pollutants, and other adverse environmental impacts. This can include high-efficiency equipment and technology using *renewable energy* (e.g., hybrid vehicles, solar energy).

**Lowest risk, most selective treatment options:** A treatment used to control site-specific *pests* that *minimizes* impact on non-target organisms and people and has the least overall impact while meeting management *objectives*. Considerations may include the target *pest*, the degree of control needed, cost, the season and timing of application, rates and methods, terrain, crop conditions, and the presence or absence of water bodies.

**Minimize:** To do only that which is necessary and *appropriate* to accomplish the task or *objective* described.

**Native habitats:** Areas where native species naturally occur and that have the living and nonliving environmental conditions necessary for survival, including areas for feeding, shelter, *protection*, and/or reproduction.

**Natural communities:** An assemblage of indigenous interacting plant and animal species and their common environment, recurring in specific ecological areas across the landscape. There are

specific definitions of natural communities defined principally by the dominant vegetation. Some of these are defined in this glossary and include *forests, grasslands, rangelands, and wetlands*.

**Natural forest:** *Forest* composed of indigenous trees and not classified as a planted *forest*.

**Nutrient management:** To manage the amount, source, placement, form, and timing of the application of nutrients and *soil amendments* such as animal manures to ensure adequate *soil fertility* for plant production and to *minimize* the potential for environmental degradation, particularly *water quality* impairment and unnecessary air emissions.

**Objective:** A fundamental goal.

**Pasture:** (1) Grazing lands comprised of introduced or domesticated native forage species that are used primarily for the production of livestock. They receive periodic renovation and/or cultural treatments such as tillage, fertilization, slashing, and weed control, and may be irrigated. They are not in rotation with *crops*. (2) A grazing area enclosed and separated from other areas by fencing or other barriers; the management unit for grazing land. (3) Forage plants used as food for grazing animals. (4) Any area devoted to the production of forage, native or introduced, and harvested by grazing.

**Performance Measure:** A means of judging whether an *Objective* has been fulfilled.

**Pests:** A pest is a harmful, noxious, or troublesome organism. Pests include insects, weeds, plant pathogens (fungi, bacteria, viruses, and nematodes), rodents, and other plant or animal pests. A non-native pest (also known as alien species or exotic pests) are pests that are introduced to a country or region deliberately or by accident, outside of their natural *habitat* (British Columbia).

**Policy:** A written statement of commitment to meet an *Objective* or to implement a defined *program* or plan to achieve an *Objective* or outcome.

**Prime agricultural land:** Prime agricultural areas represent large, generally contiguous blocks of land that enable current and future opportunities for agriculture. They are characterized by the presence of:

- Specialty crop areas and/or areas with Canada Land Inventory (CLI) Classes 1 - 3 lands;
- Other areas associated with prime agricultural land including CLI Classes 4 - 7 lands and additional areas with a local concentration of farms with characteristics of ongoing agriculture; and,
- Agricultural areas with organic soil (not part of the CLI classification system).

Small pockets of existing non-agricultural uses may be found within prime agricultural areas (Ontario).

**Process:** A series of purposeful actions or operations that leads to a sought-after end or outcome. This can include a set or sequence of informal or formal practices, procedures, or routines.

**Professional work environment:** A non-discriminatory workplace environment free from harassment and composed of competent, respectful, mature, and accountable employees working toward a common goal.

**Program:** An organized system, *process*, or set of activities to achieve an *Objective, Performance Measure, or Indicator*.

**Protection:** Maintenance of the status or integrity, over the long term, of identified attributes or values including management where *appropriate*, giving consideration to past disturbance, land use, and *pest* risk when determining *appropriate conservation* strategies.

**Rangeland:** Rangelands are ecosystems that support native or introduced vegetation that have the potential to be grazed and are managed as a natural ecosystem for multiple uses and values. Grazing is a natural process that supports ecosystem health and function.

**Regulatory action information:** Information related to compliance with government regulations such as permits, reports, and corrective action documentation.

**Renewable energy:** Energy from sources that are naturally replenishing but flow-limited. It is virtually inexhaustible in duration but limited in the amount of energy that is available per unit of time, including wood, waste, geothermal, wind, photovoltaic, tidal and wave, hydropower, and solar thermal energy.

**Riparian area:** A riparian area is defined as a strip of moisture-loving vegetation growing along the edge of a natural water body (Agriculture and Agri-food Canada).

**Runoff:** Water from precipitation or irrigation on an area that does not infiltrate, but instead is discharged from the area. The water that flows off the surface of the land is called surface *runoff*. Water that enters the soil before reaching *surface water* is called *groundwater runoff* or seepage flow from *groundwater*.

**Soil amendments:** Materials that typically are added to soil, plants, or the plant-growth environment to enhance plant growth. These include *fertilizers*, compost, sludge, manure, microbes, additives, materials improving soil condition (i.e., adjusting the pH of the soil, improving soil structure and texture, aeration adjustment, and moisture conservation among others), materials controlling or suppressing *crop pests*, and others or combinations thereof. Inorganic soil amendments are composed of synthetic chemicals and/or minerals, while organic soil amendments are often composed of organic matter from plant/animal sources and/or microbes, and may include materials such as manure, earthworm castings, soil, sphagnum peat, grass clippings, straw, wood chips, various composts, seaweed, guano, or naturally occurring mineral deposits, and living microorganisms, among others.

**Soil erosion:** A process by which soil and rock are removed by water and wind and then transported and deposited in other locations.

**Soil fertility:** The quality that enables soil to provide plant nutrients, in adequate amounts and in proper balance, for the growth of specified plants when light, moisture, temperature, tilth, and other growth factors are favourable.

**Soil health:** The capacity of soil to function as a vital living ecosystem that sustains *crops*, soil organisms, and humans. Its maintenance includes consideration of the physical, chemical, and biological characteristics of soil.

**Soil loss:** *Soil erosion* where the removal of topsoil occurs faster than the soil-forming processes can replace it due to natural, animal, and human activity.

**Soil mismanagement:** Agricultural operations, practices, and/or treatments that result in the decline of *soil health* and *soil productivity*, including *soil loss*.

**Soil productivity:** The capability of soil to produce a specified plant or sequence of plants under specific management.

**Solid waste:** Any solid, semisolid, liquid, or contained gaseous materials discarded from agricultural operations. It includes garbage, construction debris, commercial refuse, sludge from water supply or waste treatment plants, and other discarded materials.

**Special sites:** Sites that include *unique geological features* or *unique culturally important features* that are recognized regionally or nationally or by *Indigenous Peoples*.

**Species at risk:** An extirpated, *endangered*, *threatened species*, or a *species of special concern* (ECCC).

**Special concern species:** A *wildlife* species that may become a threatened or an *endangered species* because of a combination of biological characteristics and identified threats (ECCC).

**Standard user:** An organization certified or committed to being certified by an accredited *Certification Body* to be in conformance with the *Leading Harvest Standard*.

**Sub-national:** Sub-national government is defined as the sum of state governments and local/regional governments (OECD). In Canada, sub-national governments include provinces, counties, municipalities, and districts. **Surface water:** Water that is on the Earth's surface, such as in a stream, river, lake, or reservoir.

**Threatened species:** A *wildlife* species that is likely to become endangered if nothing is done to reverse the factors leading to its extirpation or extinction (ECCC).

**Unique culturally important features:** Features having significance for or being representative of human activities or beliefs. Examples could include, but are not limited to, documented areas such as archaeological sites, unusual historical sites, cemeteries, and sacred sites. Typically, these sites have been documented in databases established by state governments or the federal government and have been significant historically.

**Unique geological features:** Naturally occurring physical features on Earth's surface, which are unique or locally rare, typically limited in extent (0.1 to 100 acres), and often less than 10 acres. Examples could include, but are not limited to, exceptional waterfalls, stream or river gorges, canyons, arches, caves or mine entrances, outcrops of fossil beds, or rare mineral deposits, bluffs, buttes, and cliffs.

**Verifiable monitoring system:** A system capable of being audited by a third party that includes:  
 1. a means to characterize *farmland* under the authority of a *Standard User*, 2. a *process* to identify and use sources of available data regarding the use of *agricultural best management practices*, and  
 3. a method to assess *farmland tenant* performance.

**Viable occurrences:** Occurrences of species with good or excellent viability according to NatureServe, including occurrences that exhibit favourable characteristics with respect to population size and/or quality and quantity of occupied *habitat*, and, if current conditions prevail, the occurrence is likely to persist for the foreseeable future (i.e., at least 20-30 years) in its current condition or better (NatureServe).

**Water quality:** Water quality is a term used to describe the chemical, physical, and biological characteristics of water, usually in respect to its intended use. Water quality for agricultural use varies depending on the: water source (e.g. river, stream, pond, ditch, lake, well, dugout or municipal, etc.), and usage of the water, e.g., irrigation, crop washing, cleaning and sanitation procedures, or for livestock (Government of British Columbia).

**Wetlands:** Wetlands are submerged or permeated by water, either permanently or temporarily, and are characterized by plants adapted to saturated soil conditions. Wetlands include fresh and saltwater marshes, wooded swamps, bogs, seasonally flooded *forest*, sloughs, or any land area that can keep water long enough to let wetland plants and soils develop (Government of Canada).

**Wildlife:** Aquatic (freshwater), marine, and terrestrial fauna.