

GLOSSARY OF TERMS

Animal Unit Equivalent (AUE): A live weight of 455 kilograms (1,000 lbs.) of livestock or any combination of livestock, poultry and farmed game that equals 455 kilograms. AUEs allow standardized waste and manure impact assessment across animal species. *Stocking Rate* and *Carrying Capacity* are expressed in **Animal Unit Month (AUM)**, which is the amount of forage required by one Animal Unit in one month.

Aquatic Habitat Fragmentation: Breaks in habitat, ecosystems or land use types into smaller fragments. Fragmentation results from natural causes such as beaver dams, or from man-made control structures.

Aquifer: A geologic formation which contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Biodiversity: The variety of plant and animal life in the world or in a particular habitat. Biodiversity can be described as all species of living organisms and their supporting ecosystems and ecological processes. Typically biodiversity is discussed at three levels: species, genetic and ecosystem diversity.

Cubic Decametre: 1 dam³ = 1000 cubic metres (1000 m³) = 1 million litres.

Ecosystem: The interaction of living organisms with each other and their environment as a single functioning unit.

Eutrophication: The nutrient enrichment of a waterbody, stimulating excessive algal blooms and aquatic plant growth. Decaying plant matter reduces dissolved oxygen, which can cause other aquatic organisms to die.

GIS (Geographical Information Systems): A computer software tool for capturing, storing, integrating, manipulating, analysing and displaying data related to positions on the Earth's surface. Data might be represented as several different layers where each layer holds data about a particular kind of feature (e.g. roads).

Gross Watershed or Incremental Gross Drainage Basin: The effective and non-effective drainage area for a hydrometric gauging station.

Gross Water Availability: The total amount of water available for development along a stream or within a watershed without accounting for existing or proposed internal water allocations. It is multiplied by either one-half or the full annual unit runoff, depending on downstream allocations. The multiplier is one-half if the watershed is part of an international basin (e.g. Souris River) or interprovincial basin (e.g. Assiniboine River).

Groundwater: All subsurface water distinct from surface water, specifically within the saturated zone of a defined aquifer.

Hydrology: The study of the storage and movement of water on and below the earth's surface and within the atmosphere.

Intensive Livestock Operation: The confining of one animal unit to less than 370 square metres (or 4,000 square feet).

Instream Flow/Environmental Flow: The amount of water flowing through a stream course that is needed to achieve environmental management objectives.

Land cover: Habitat or vegetation class type (e.g. forest or grassland).

Land use: How humans use an area. Land cover and land use are related, but not equivalent terms.

Net Water Availability: The gross water availability minus the surface water allocations. Net water availability is typically expressed in cubic decametres.

Non-Effective Drainage Area or Areas of Non-contributing Drainage: Non-contributing areas do not contribute to downstream accumulations of stream flow for a median (1:2) annual runoff.

Non-Point Source Pollution: Non-point source pollution comes from many diffuse sources. Transported in runoff, pollutants are deposited into lakes, rivers, wetlands, coastal waters, and even our underground sources of drinking water. Common pollutants include: fertilizers (nutrients), herbicides, and insecticides from agricultural lands and residential areas; petrochemicals from urban runoff and energy production; sediment from improperly managed construction sites, crop and forest lands, and eroding streambanks; salt from irrigation practices and winter road salting; acid drainage from abandoned mines; bacteria, nutrients and faulty septic systems.

Point Source Pollution: Pollution originating from a single location or source such as pulp effluent, wastewater effluent or an oil spill.

Response Indicators: Represent the management plans implemented to improve the state of the watershed. These are measured by how effective the plan was in improving the state of the watershed.

Riparian Areas: Transition zones between land and water environments. They are narrow strips of land along streams, lakes, potholes, springs, coulees, wooded draws, or anywhere water is plentiful. Riparian areas are defined by vegetation that is different than that upland while providing a unique role socially, economically and ecologically.

Range Site: “an area of rangeland which has the potential to produce and sustain distinctive kinds and amounts of vegetation to result in a characteristic plant community under its particular combination of environmental factors, particularly climate, soils, and associated native biota” (Jacoby 1989).

Stewardship: Caring for land and associated resources and maintaining healthy ecosystems for future generations.

Unit Net Water Availability: The net water availability divided by the basin area. Unit net water availability is typically expressed in millimetres of unit runoff, which is equivalent to dam^3/km^2 .

$$\text{Unit runoff} = \frac{\text{Annual volume (dam}^3\text{)}}{\text{Effective drainage area (km}^2\text{)}}$$

Upland: An area of land that lies above the floodplain. It is characterized by vegetation that relies on precipitation for its water source.

Watershed: A geographic area defined by topographic elevation divides that has a common outlet for its surface runoff.

Watershed Health: A healthy watershed can provide desired maintenance, integrity and ecological processes.