Glossary

ALLUVIUM:	Material such as sand, silt or clay deposited on land by streams.
BEDROCK:	The solid rock that underlies the soil and other unconsolidated material or that which is exposed at the surface.
BOULDERS:	Rock fragments larger than 60 cm in diameter.
CALCAREOUS SOIL:	A soil containing enough calcium carbonate (commonly with magnesium carbonate) to effervesce. Visible when treated with cold, diluted hydrochloric acid. A soil having measureable amounts of calcium carbonate or magnesium carbonate.
CATENA:	A sequence of soils of about the same age, derived from similar parent material and occurring under similar climatic conditions but having different characteristics due to variation in relief and drainage.
CATION:	An ion carrying a positive charge of electricity. The common soil cations are calcium, potassium, magnesium, sodium and hydrogen.
CATION-EXCHANGE CAPACITY:	The total amount of exchangeable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. The term as applied to soils is synonymous with base exchange capacity, but is more precise in meaning.
CHROMA (COLOUR):	The relative purity, strength or saturation of a colour, directly related to the dominance of the determining wavelength of the light and inversely
CLAY:	As a soil - mineral particles in the soil, having a diameter less than 0.002 mm. As a soil texture class - soil material that is 40% or more clay, less than 45% sand, and less than 40% silt.
COARSE TEXTURED (LIGHT TEXTURED) SOIL:	Sand or loamy sand.
COLLUVIUM:	Soil material, rock fragment or both moved by creep, slide, or local wash and deposited at the base of steep slopes.
CONE VOLCANIC:	A cone-shaped prominence; a point of eruption.
DRAINAGE LINE:	The course or channel or a clearly defined stream in a drainage system.
EROSION:	The weathering away of the land surface by running water, wind, ice and other agents and by such processes as gravitational creep.
FINE TEXTURED (HEAVY TEXTURED) SOIL:	Sandy clay, silty clay and clay.
FLOODING:	The temporary covering of soil with water from over flowing streams and runoff from adjacent slopes.
FLOOD PLAIN:	A level alluvial plain that borders a stream and is subject to flooding unless protected artifically.

GILGAI: The microrelief of heavy clay soils with high coefficients of expansion and contraction according to changes in moisture.

GRAVEL: Rounded or angular fragments of rock ranging from 2 mm to 75 mm in diameter.

GRAVELLY SOIL MATERIAL: Material from 15 to 50% by volume rounded or angular rock fragments.

GULLY EROSION: Erosion of soil or soft rock material by running water that forms distinct channels that are larger and deeper than rills and that usually carry water only during and immediately after heavy rain.

HILL: A natural elevation of the land surface, rising rather prominantly above the surrounding land, usually of limited extent and having a well defined outline and less than 300 metres from base to summit.

HORIZON, SOIL: A layer of soil approximately parallel to the surface having distinct characteristics produced by soil forming processes.

A00 Organic horizons in which essentially the original form of most vegetative matter is visible to the naked eye. The A00 corresponds to the L (litter) and some F (fermentation) layers in forest soils designations.

A0 Organic horizons in which the original form of most plant or animal matter cannot be recognized with the naked eye. The AO corresponds to the H (humus) and some F (fermentation) layers in forest soils designations.

A Mineral horizons consisting of - (i) horizons of organic matter accumulation formed or forming at or adjacent to the surface; (ii) horizons that have lost clay, iron, or aluminium with resultant concentration of quartz or other resistant minerals of sand or silt size; or (iii) horizons dominated by (i) or (ii) above but transitional to an underlying B or C.

A1 Mineral horizons, formed or forming at or adjacent to the surface, in which the feature emphasized is an accumulation of humified organic matter intimately associated with the mineral fraction.

A2 Mineral horizons in which the feature emphasized is loss of clay, iron, or aluminium, with resultant concentration of quartz or other resistant minerals in sand and silt sizes.

A3 A transitional horizon between A and B, and dominated by properties characteristic of an overlying Al or A2 but having some subordinate properties of an underlying B.

A/B A horizon transitional between A and B, having an upper part dominated by properties of A and a lower part dominated by properties of B, and the two parts cannot be conveniently separated into A3 and B1.

A/C A horizon transitional between A and C, having subordinate properties of both A and C, but not dominated by properties characteristic of either A or C.

B Horizons in which the dominant feature or features is one or more of the following: (i) and illuvial concentration of silicate clay, iron, aluminium, or humus, alone or in combination; (ii) a residual concentration of sesquioxides or silicate clays, alone or mixed, that has formed by means other than solution and removal of carbonates or more soluble salts; (iii) coatings of sesquioxides adequate to give conspicuously darker, stronger, or redder colors than overlying and underlying horizons in the same sequum but without apparent illuviation of iron and not genetically related to B horizons that meet requirements of (i) or (ii) in the same sequum; or (iv) an alteration of material from its original condition in

sequums lacking conditions defined in (i), (ii), and (iii) that obliterates original rock structure, that forms granular, blocky, or prismatic structure of textures are such that volume changes accompany changes in moisture.

B1 A transitional horizon between B and A1 or between B or A2 in which the horizon is dominated by properties of an underlying B2 but has some subordinate properties of an overlying A1 or A2.

B2 That part of the B horizon where the properties on which the B is based are without clearly expressed subordinate characteristics indicating that the horizon is transitional to an adjacent overlying A or an adjacent underlying C or R.

B/C **A** transitional horizon between B and C or R in which the properties diagnostic of an overlying B2 are clearly expressed but are associated with clearly expressed properties characteristic C or R.

C A mineral horizon or layer, excluding bedrock, that is either like or unlike the material from which the solum is presumed to have formed, relatively little affected by pedogenic processes, and lacking properties diagnostic of A or B but including materials modified by: (i) weathering outside the zone of major biological activity; (ii) reversible cementation, development of brittleness, development of high bulk density, and other properties characteristic of fragipans; (iii) gleying; (iv) accumulation of calcium of magnesium carbonate or more soluble salts; (v) cementation by accumulation such as calcium or magnesium carbonate or more soluble salts; (vi) cementation by alkali-soluble siliceous material or by iron and silica.

R Underlying consolidated bedrock, such as granite, sandstone, or limestone. If presumed to be like the parent rock from which the adjacent overlying layer or horizon was formed, the symbol R is used alone. If presumed to be unlike the overlying material, the R is preceded by a Roman numeral denoting lithologic discontinuity.

HUE (COLOUR): Is caused by light of certain wavelength and changes with the wavelength.

LAND COMPONENT: Is an area of land, distinct from surrounding terrain, having an integrated assemblage of particular classes of geological material, landform, soil and native vegetation.

A0 Organic horizons in which the original form of most plant or animal matter cannot be recognized with the naked eye. The AO corresponds to the H (humus) and some F (fermentation) layers in forest soils designations.

A Mineral horizons consisting of - (i) horizons of organic matter accumulation formed or forming at or adjacent to the surface; (ii) horizons that have lost clay, iron, or aluminium with resultant concentration of quartz or other resistant minerals of sand or silt size; or (iii) horizons dominated by (i) or (ii) above but transitional to an underlying B or C.

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C A mineral horizon or layer, excluding bedrock, that is either like or unlike the material from which the solum is presumed to have formed, relatively little affected by pedogenic processes, and lacking properties diagnostic of A or B but including materials modified by: (i) weathering outside the zone of major biological activity; (ii) reversible cementation, development of brittleness, development of high bulk density, and other properties characteristic of fragipans; (iii) gleying; (iv) accumulation of calcium of magnesium carbonate or more soluble salts; (v) cementation by accumulation such as calcium or magnesium carbonate or more soluble salts; (vi) cementation by alkali-soluble siliceous material or by iron and silica.

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HUE (COLOUR): Is caused by light of certain wavelength and changes with the wavelength.

LAND COMPONENT: Is an area of land, distinct from surrounding terrain, having an integrated assemblage of particular classes of geological material, landform, soil and native vegetation.

LAND SYSTEM: Is an area of land, distinct from surrounding terrain, within which there are particular classes of land characteristics and maximal covariance between them, expressed as a recurring sequence of particular land components. The land components generally occur in similar proportions, and have similar interrelationships in each occurrence of a particular land system.

LEACHING: The removal of soluble material from the soil by percolating water.

LIGHT TEXTURE SOIL[i] Sand and loamy sand.

LOAM: Soil material that is 7 to 27% clay particles, 28 to 50% silt particles and less than 52%

sand particles.

METAMORPHIC ROCK: Rock of any origin altered below the zone of weathering, in mineralogical composition, chemical composition, or structure by heat, pressure and movement.

MINERAL SOIL: Soil that is mainly mineral material and low in organic material. Its bulk density is greater than that of organic soil.

MORPHOLOGY, SOIL: The physical makeup of the soil, including the texture, structure, porosity, consistence, colour and other physical, mineral and biological properties of the various horizons and the thickness and arrangement of those horizons in the soil profile.

MOTTLING, SOIL: Irregular spots of different colours that vary in number and size. Mottling generally indicates poor aeration and impeded drainage.

MOUNTAIN: Any part of the earth's crust, elevated at least 300 metres above the surrounding land surface. It has a restricted summit area and comparatively steep sides. It can occur as a single isolated eminence or in a group forming a long chain or range.

ORGANIC CARBON: Is the total amount of carbon in the soil excluding carbonate mineral form.

OVEN-DRY SOIL: Soil which has been dried at 105°C until it reaches constant weight.

PARENT MATERIAL OR PARENT ROCK: The unconsolidated and more or less chemically weathered mineral or organic matter from which the solum is developed by pedogenic processes.

PARTICLE SIZE ANALYSIS: Determination of the various amounts of the different separates in a soil sample, usually by sedimentation, sieving, micrometry, or a combination of these methods.

PANCHROMATIC: A film emulsion that is sensitive to all colours of the visible spectrum.

PARTS PER MILLION: (ppm) Weight units of any given substance per one million equivalent weight units of oven-dry soil.

PED: An individual natural soil aggregate.

pH: A numerical designation of acidity and alkalinity in a soil.

PHOTOINTERPRETATION: The science of identifying and describing objects imaged on a photograph.

PLAIN: Any flat area, large or small; having few if any prominent surface irregularities.

PLAIN, SLIGHTLY DISSECTED: Any flat area intersected by shallow widely spaced valleys.

PLAIN, CLOSELY DISSECTED: Any land surface having a gradual succession of rounded hills or undulations i.e. intersected by deep, closely spaced valleys. (A quantitative term such as drainage density or the ratio, local relief: average distance between successive hills, would help to differentiate these three types of plain).

PLATEAU: An elevated plain, limited on at least one side by an abrupt descent (more than 150 metres in height).

PROFILE, SOIL: A vertical section of the soil extending through all its horizons and into the parent material.

SAND: As a soil: particles with a diameter range of 0.002 - 2 mm. As a soil textural class of soil material containing 85% or more of sand.

SALTING: Harmful accumulation of salts in the soil.

SEDIMENTARY ROCK: Rock formed from materials deposited from suspension or precipitated from solution and usually being more or less consolidated.

SELF-MULCHING SOIL: A soil in which the surface layer becomes so well aggregated that it does not crust and seal under the impact of rain but instead serves as a surface mulch upon drying.

SILT: As a soil: mineral particles having a diameter in the range of 0.002 - 0.02 mm. As a soil textural class of soil material containing 8% or more of silt.

SLOPE: The inclination of the land surface from the horizon.

SODIC SOIL: In the solum more than 5% of the exchangeable cations are sodium.

SOIL: The unconsolidated mineral material on the immediate surface of the earth that serves as a natural medium for the growth of land plants.

SOIL STRUCTURE: The combination or arrangement of primary soil particles into secondary particles, units or peds.

SOIL TEXTURE: The relative proportion of sand, silt and clay particles in a mass of soil.

SOLUM: The upper and most weathered part of the soil profile; the A and B horizons.

STONY RISE: Steep-sided, anastomosing, lava flows with rough, blocky surfaces.

STONY SOIL: A soil containing more than 15% by volume of solid fragments more than 2 cm in diameter.

SWALE: A shallow, circular to long narrow depression, sometimes swampy in level or undulating land.

VALUE (COLOUR): The relative lightness or intensity of colour and approximately a function of the square root of the total amount of light.

WATER TABLE: The upper surface of ground water or that level below which the soil is saturated with water.

WEATHERING: All physical and chemical changes produced in rocks, at or near the earth's surface, by atmospheric agents.