NEON Glossary of Terms

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1   DESCRIPTION

This document provides the NEON Glossary of Terms and definitions for the NEON Project. The NEON Glossary of Terms will serve as a guide for each team to use when communicating and writing documentation that will be used throughout the NEON project.

Business Terms

Accounting Periods
A defined period of time whereby performance reports may be extracted (Federal reports on quarterly basis; fiscal year begins October 1 and ends September 30).

Advanced Shipping Notice (ASN)

Asset
Any serialized object and bar-coded with the Asset Management System (AMS)

Asset Hierarchy
Tree structure representing the parent child relationship of assets.

Asset ID
This is the serial # assigned to any NEON asset.

Bill of Materials (BOM)
A list of the raw materials, sub-assemblies, intermediate assemblies, sub-components, components, parts and the quantities of each needed to manufacture an end product.

Consumable
Low-value objects not under inventory control and are expensed upon receipt. These are not considered in the value of fixed assets.

Contract
A legal agreement between NEON and a supplier used for services and materials of larger expenditures including additional negotiated terms and conditions beyond those used in a Purchase Order. Contracts are only valid when issued and signed by an authorized Procurement and Contracts agent.

Customer
A person or a company that requests an entity to transport goods on their behalf.

Fixed Asset
An asset or group of assets capitalized and depreciated as a "system", with a value greater than $5k and a useful life over one year. A BOM represents the structure of fixed assets capitalized as "systems".

Inventory
A collection of items in storage. All such items have a part number and are tracked by bin location and quantity.

Purchase Order
A legal agreement between NEON and a supplier used for services and materials of lesser value expenditures. Purchase Orders contain standardized terms and conditions requiring no special

negotiated terms and conditions.   Purchase Order are only valid when issued and signed by an authorized Procurement and Contracts agent to a supplier.

Supplier
An organization providing services or goods to NEON on a repetitive basis.

Vendor
An organization providing services or goods to NEON on a single or short-term basis.

Technical Terms

Airsheds
Scientific term that refers to the "upwind source" of wind that is being measured at a particular site.

AQMS
"Air Quality Measurement System".   Sensors that will be deployed at NEON towers that measure chemical pollutants in the air.

Assembly
A group of machine parts, esp. one forming a self-contained, independently mounted unit. Assemblies combine with sensors to form instruments.

Association
A relationship between two or more entities. Implies a connection of some type – for example one entity uses the services of another or one entity is connected to another over a network link.

Bin
Location within a store room where inventory is stored.

Deployment Architecture
A view of the proposed hardware that will make up the new system, together with the physical components that will execute on that hardware. Includes specifications for machine, operating systems, network links, back up units & etc.

DryDowns
This is a slang term used to describe how we let our soil samples naturally dry before they are preserved in the soil archive.

Instrument
A device for recording, measuring, and/or controlling, especially such a device functioning as part of a control system. An instrument has one or more sensors and one or more assemblies making up its parts.

Interface
A common boundary between systems where data is exchanged.

Item
Any object residing in storage considered inventory, examples: nuts & bolts.

Item
Synonymous with part# assigned by NEON.

Job Plan
A list of tasks, labor, materials, and tools used as a template for a work order.

Laboratory Analysis
The analysis of NEON field collected samples. In the NEON context, this is most commonly done by external vendors. These analyses fall into three categories; chemical/stable isotope, taxonomic and genetic/pathogen analysis.

Leaf Area Index (LAI)
Leaf Area Index (LAI) is the ratio of total upper leaf surface of vegetation divided by the surface area of land on which the vegetation grows. LAI is a dimensionless value, typically ranging from 0 for bare ground to 6 for a dense forest.

Observation and Sample Management System (OSM)
The database used for management of information about NEON field collected samples.

Minirhizotrons
A sort of camera that is installed in the ground to take pictures of roots in the soil.   These are planned to be deployed at NEON sites and inform carbon-cycle science questions.

Part
Any item within the observatory. Used as a generic term in use cases.

Phenocam
Webcam-style camera that is planned to be installed at all NEON towers.   The images taken by this camera will be used to study phenology (the patterns of change associated with annual seasons). Hence the term phenocams.

Rating Curve
A continuous record of stream discharge or flow (hydrograph) is established by developing a mathematical relationship between water stage, which is continuously measured at the monitoring station, and discharge. This stage-discharge relationship, or "rating curve", is developed by pairing stage data with individual point-in-time discharge measurements. To properly develop a rating curve, discharge measurements should be made at a variety of water stages, from low to high. Using the rating curve, all water stages continuously measured at the monitoring station can be converted to flows, thereby establishing a flow record (hydrograph) for a given time period.

Sample
A physical object collected from a NEON field site. A sample can be biological (fish) or non-biological (water).

Scientific Research Collections
The museum quality specimens that NEON will generate. These are physical objects that are meant to be used as a research resource for the external community.

Sensor
A device that measures a physical quantity and converts it into a signal ready by an observer.

Service Request
A construct which indicates corrective maintenance is required within the observatory. A Service Request (SR) is only used during operations.

Specimen
A physical object (sample) collected from a NEON field site that has had some valued added to it such as a taxonomic identification. The collection of mosquitos from the field is a sample, but when they have been identified, sorted and labeled they become a specimen.

Store Room
Any location within NEON used for storing inventory and is represented by "bin location(s)" within the management system.

Use Case
A Use Case represents a discrete unit of interaction between a user (human or machine) and the system. A Use Case is a single unit of meaningful work; for example collection of mosquitoes, monitoring sites, and managing assets are all Use Cases.

Each Use Case has a description which describes the functionality in the observatory. A Use Case may 'include' another Use Case's functionality or 'extend' another Use Case with its own behavior.
Use Cases are typically related to 'actors'. An actor is a human or machine entity interacting with the system to perform meaningful work.

Work Order
A construct for assigning work to individuals or organizations.