Appendix 3. Glossary of Terms

The following terms are used in the Framework Report. Many are commonly used in the ground-water and data-management fields, but some have multiple meanings and thus are defined as used in this report.

**Acceptable** – Meets criteria described in Framework Document, or as subsequently revised.

**Aquifer** – A geologic formation from which useable quantities of ground water can be extracted.
   a. **Principal** – A regionally extensive aquifer or aquifer system that is either currently used or has the potential to be used as a source of potable water.
   b. **Major** – An aquifer or aquifer system that is used for abstraction in significant quantities for potable or other uses, such as irrigation, industrial, power generation, and mining by at least one state and may cross state or national boundaries.

**Aquifer flow type** – The principal aquifer flow types are confined and unconfined. Within each of these primary flow types, flow may occur through granular porous media (e.g. sand), through fracture networks in consolidated rocks, or through dissolution channels in consolidated rock.

**Baseline** – Conditions against which future conditions will be compared.

**Confined aquifer** – An aquifer bounded above and below by confining beds.

**Confining bed** – A body of relatively less permeable or distinctly less permeable material stratigraphically adjacent to one or more aquifers.

**Core (Questions)** – The fundamental (Level I) questions that the NGWMN is designed to answer.

**Core (Data elements)** – "Core" data elements are a set of data fields accepted by data providers and users to encompass the range of data attributes most useful in documenting and understanding the particular activity that the data represent. (see definition of "data element" below).

**Date elements** – An item used to contain data values. A data element can be a field in a relational database, a column in a flat file, an attribute used to describe spatial data, or a row or column in a spreadsheet. Examples of data elements are name, date, length, time or cost.

**Data elements categories** – Classification of different subsets of data elements based on recording information about sites, facilities, collection and analysis processes and results. For ground water monitoring, these categories include:
- Point of contact
- Site identification/description
- Geologic identification/description
- Well location
- Well characteristics
- Measurement/sampling event
- Water quality results

a. Field parameters – data elements characterizing monitoring site location, conditions, facilities, equipment and activities

b. Analytes – data elements characterizing the substances to be analyzed (e.g., name, CAS number, etc.)

Dedicated monitoring well – A well designed for the sole purpose of long-term monitoring.

Degree of confinement – The degree to which water flow to or from an aquifer is restricted by adjacent geologic units.

Ground water – Water occurring beneath the ground surface in the zone of saturation.

Ground-water level – The elevation (generally referenced to mean sea level as the datum) to which water in a tightly cased well screened at a given location will rise. The term is the preferred one for this document. However, other terms are occasionally used; such as ground-water elevation, hydraulic head, piezometric head, and potentiometric head.

Ground-water reserves – The volume of water present in an aquifer at any given time that can be extracted from the aquifer at reasonable cost.

Ground-water surface – The highest elevation at which ground water physically occurs in a given location in an aquifer (i.e. top of aquifer formation in a confined aquifer and the ground water level in an unconfined aquifer).

Local – An area encompassing a few counties or less.

Metadata – “data about data”; it is the data describing context, content and structure of records and their management through time.

Minimum data elements – a subset of core data elements that are mutually agreed on by data providers and users as required and essential to be reported to enable basic data exchange and comparison.

Program implementation – Initiating and carrying out the activities related to the operation of the various aspects of the NGWMN program.
Program training – Activities associated with teaching and preparing individuals to conduct the various aspects of the NGWMN program.

Region – An area that is not based on political boundaries.

Regional or Multi-state regional network – A network of wells designed to monitor an area larger than a state and often include several states.

Representativeness – The degree to which data from a network accurately represent aquifer conditions. It is affected by factors such as the locations at which samples are collected, number of sampling locations, and sampling frequency.

Special studies – Studies tailored to special or specific questions being asked (as distinguished from surveillance or trend monitoring).

Surveillance monitoring – Ongoing monitoring at low frequency for as many wells in the NGWMN as practical. It is used to assess long-term trends over large areas (as distinguished from trend monitoring or special studies).

Target area – Area designated for monitoring intensity (in either time or space) greater than used for background areas in the same or similar aquifers (may be targeted due to either existing stresses or proposed stresses). Both surveillance and trend monitoring spatial density/frequency would typically be greater in a targeted area than in the surrounding unstressed area.

Trend monitoring – Monitoring subsets of NGWMN wells at higher frequencies than used for surveillance monitoring. The purpose is to evaluate temporal trends that occur more rapidly than can be observed in surveillance monitoring.

Unconfined aquifer – An aquifer in which the ground-water level near the ground-water surface is equal to the ground-water surface. An alternative and equivalent definition is an aquifer in which the ground-water surface is at atmospheric pressure.

Unstressed – Ground-water conditions (quantity and quality) that have not been altered by anthropogenic influence (or detrimental amount of alteration).

Unstressed area – A region where the ground-water conditions have not been altered by anthropogenic influences.

Water use Categories or types
  - Domestic – Water used for residential, commercial, institutional purposes.
  - Public – Water used for all purposes by public.
  - Irrigation – Water artificially applied on lands to assist the growing of crops and pastures, or in the maintenance of recreational lands, such as parks and golf courses.
Livestock – Water used by horses, cattle, sheep, goats, hogs, poultry, and other commercially important animals.

Mineral exploration and extraction – Water used: (1) in the extraction or washing of minerals, (2) in quarrying and milling, and (3) for the extraction for crude petroleum and natural gas.

Industrial – Water used in the manufacture of metals, chemicals, paper, and allied products.

Hydroelectric and Thermoelectric power – Water used by plants fueled by fossil fuels or nuclear generation, and used to drive turbines that generate electric power.

Well tagging – the process of identifying and/or updating the type of Network a monitoring well (or monitoring point) is identified to be in and the type of monitoring performed at that well.