

GLOSSARY

Aggregate of users: A group of users defined by a geographic area, such as State, county, minor civil division, or Hydrologic Unit boundary, for which withdrawal, distribution, use, consumptive use, wastewater collection, or return flow are collectively estimated.

Alias: A reference for a Site, Conveyance, or Resource that links NEWUDS data to an outside database.

Association: Database term that indicates that two tables are related to each other through a third table (an association table) that contains the primary keys for each of the tables. For example, *tblSite* is associated with *tblConveyance* through *tadSiteConveyance*.

Atmosphere: Site type for consumptive use that represents water that is evaporated or incorporated into products.

Collection system: Site type that represents a sewer or wastewater-collection system, a pipe or system of pipes conveying wastewater from users to a wastewater-treatment plant. A Local collection system conveys wastewater from users within a single minor civil division. A Regional collection system conveys wastewater from users in more than one minor civil division or from another regional collection system.

Commercial water use: Water used for motels, restaurants, office buildings, ski resorts, water parks, and other commercial facilities and institutions. The water may be community-supplied or self-supplied.

Community-returned water: Wastewater discharged by users in a sewer or community-wastewater system.

Community-supplied water: Water received by a user from a community-water system.

Community-wastewater system: Wastewater collected from users or groups of users, conveyed to a wastewater-treatment plant and released as return flow into the hydrologic environment or sent back to users as reclaimed wastewater.

Community-water system: System for the provision to the public of water for human consumption through pipes or other constructed conveyances if such a system has 15 year-round service connections or serves more than 25 year-round residents. Community-water systems provide water for a variety of uses, such as domestic, commercial, industrial, thermoelectric power, and public use.

Consumptive use: That part of withdrawn water that is evaporated, transpired, incorporated into products or crops, consumed by humans or livestock, or otherwise removed from the immediate water environment.

Conveyance: Connects two sites that exchange or transfer water, either physically, such as through a canal, or acting as a virtual connection such as the transfer of water from an irrigation field to the atmosphere.

Core Entity: Component of a model such as Site, used for translating water-use activities into a database.

Discharge pipe: A pipe through which effluent is released after use into a receiving stream or infiltration bed. Also referred to as an outfall.

Distribution: The process of conveying water from a water supplier's points of withdrawal or treatment through the distribution system to the user or another water supplier.

Distribution system: Site type that represents a pipe or system of pipes conveying water from wells and intake pipes or a potable water treatment plant to users. A Local distribution system conveys water to users within a single minor civil division. A Regional distribution system conveys water to users in more than one minor civil division or to another regional distribution system.

Domain: The definition of codes used in NEWUDS that provide the set of permissible values for modeling water-use activities. For example, the code for the State of New Hampshire is "4" (Appendix 2).

Domestic water use: Water for household purposes, such as drinking, food preparation, bathing, washing clothes and dishes, flushing toilets, and watering lawns and gardens. Households include single and multi-family dwellings. Also called residential water use. The water may be obtained from a public water supply or may be self supplied.

Foreign key: A field in a table that forms a link to another table where the same field is defined as a primary key.

Ground-water return flow: Site type for wastewater that is returned to ground water over a geographic area by an aggregate of users or through septic systems.

Ground-water withdrawal: Site type for water that is withdrawn from ground water over a geographic area by an aggregate of users or by a single user for which there is not enough information to select a more specific site type.

Industrial water use: Water used for industrial purposes, such as fabrication, processing, washing, in-plant conveyance, and cooling, and includes such industries as steel, chemicals, paper, and petroleum refining. The water may be community-supplied or self-supplied.

Industrial treatment plant: Site type for a treatment plant that prepares water to standards that are not necessarily drinking water standards—may be higher or lower.

Inflow and infiltration: Site type for the combination of inflow from surface water and infiltration from ground water into a wastewater collection system. Infiltration will occur if the ambient ground-water pressure is greater than the internal pressure of the conveyance at a breach.

Instream use: Water that is used, but not withdrawn, from a surface-water source, or a ground-water source, for hydroelectric-power generation, navigation, water-quality improvement or waste assimilation, fish propagation, wildlife preservation, recreation, and ecosystem maintenance, which includes freshwater circulation to the estuaries and maintenance of riparian vegetation and floodplain wetlands. Also referred to as non withdrawal use or inchannel use.

Intake pipe: Site type for a pipe into a surface-water body through which water is transferred to another site.

Interbasin transfer: Conveyance of water across a drainage or river basin divide.

Irrigation water use: The artificial application of water on lands to assist in the growth of crops or pasture including in greenhouses. Irrigation water use may also include application of water to maintain vegetative growth in recreational lands such as parks and golf courses, including water used for frost and freeze protection of crops.

Land application: Site type for disposal of wastewater over a field, as in irrigation.

Leakage: Water that moves from a conveyance system or storage area into the surrounding and underlying materials. This process will occur if the ambient ground-water pressure is less than the internal pressure of the conveyance system or storage area at a breach.

Link: Database term for relating two tables directly to each other—where the primary key in one table is a foreign key in another table.

Local collection system: See collection system.

Local distribution system: See distribution system.

Major user: A user who withdraws, receives, or uses water, or releases or returns wastewater at a rate that is significant relative to the local water budget or above a threshold for a State allocation or water-resource management program.

Mining water use: Water used for the extraction of naturally occurring minerals including coal, ores, petroleum, and natural gas. Includes water associated with quarrying, dewatering, milling, and other on site activities done as part of mining. Excludes water used for processing, such as smelting and refining, or slurry pipeline (industrial water use). These activities are included in SIC codes 10–14.

Minor Civil Division: A political or administrative area of a county or county equivalent, other than an incorporated place, established by appropriate State or local government authorities and adopted as a primary county division; equivalent to a town in New England.

Minor user: A user who withdraws, receives, or uses water, or releases or returns wastewater at a rate that is *not* significant relative to the local water budget or is below a threshold for a State allocation or water-resource management program.

Network: A group of Sites and Conveyances that represent a water-use activity.

Offstream use: Water withdrawn or diverted from a ground- or surface-water source for use.

Per capita water use: The average volume of water used per person (or other unit) during a standard time period, generally per day. (Other units may include various types of livestock, hospital beds, etc.).

Potable treatment plant: Site type for the plant that prepares water to drinking water standards; including chlorination, fluoridation, and filtration.

Primary key: A field or combination of fields that uniquely identifies each data record in a table, may be used to relate to records in other tables.

Public use: Water supplied from a community-water system and used for firefighting, street washing, and municipal parks and swimming pools.

Ranney collector: A large diameter well located near a large surface-water body to induce infiltration of surface water.

Rate: The quantity of water that moves through a Conveyance over a specific time interval as determined through a specific method.

Raw data: Data that has not been converted—appears in the database in the same units and decimal places as it was received.

Recharge basin: Site type that represents return of freshwater or wastewater into a specially designed basin.

Recharge well: Site type for a hole in the ground that was a diameter smaller than its depth, through which water is pumped back into the ground.

Reclaimed wastewater system: Site type for system of pipes that conveys wastewater from a treatment plant to users before it reaches a natural waterway or aquifer.

Recycled water system: Site type for system of pipes conveying water from one user to another user, but generally by the same user, before it passes back into the natural hydrologic system.

Regional collection system: See collection system.

Regional distribution system: See distribution system.

Resource: Aquifer or surface-water body from which water is withdrawn or returned.

Resource interactor: Group of site types that either withdraw water from or return water to the natural hydrologic system. Includes the following site types: Ground-water withdrawal, wellfield, withdrawal well, recharge well, ground-water return flow, spring, surface-water withdrawal, intake pipe, discharge pipe, surface-water return flow, unaccounted-for water, Ranney collector, land application, recharge basin, and inflow and infiltration.

Resource transfer conveyance: Flow of water from one water body to another without the water being used. For example, water is transferred from Quabbin Reservoir to Wachusett Reservoir from which it is withdrawn for distribution to users.

Return flow: Water that is returned to surface or ground water after use or wastewater treatment, and thus becomes available for reuse. Return flow can go directly to surface water, directly to ground water through an injection well or infiltration bed, or indirectly to ground water through septic systems.

Self-supplied water: Water withdrawn from a ground- or surface-water source by a user and not obtained from a community-water system.

Septic system: Refers to a buried tank for the separation in the absence of oxygen of solids, grease, and liquid components of wastewater. The liquid fraction from the septic tank is discharged to a drain field for disposal.

Service area: (franchise area) A group of customers, which are served with water through a single delivery and(or) measuring/metering device from a main distribution system.

Single user: Site type for an individual user for which withdrawal, use, consumptive use, or return flow are measured or estimated. This site type is for the place of use—a manufacturing plant, commercial facility, or irrigation field.

Site: Point or area where a water-use activity occurs, either as a source or destination, or both.

Site type: Type of site where a water-use activity occurs. Major categories are resource interactor, transfer, treatment, and user.

Spring: Site type of an opening in the earth from which water flows without pumping.

Standard Industrial Classification (SIC) code: Four-digit codes established by the U.S. Office of Management and Budget and used in the classification of establishments by type of activity in which they are engaged.

Subject area: Physical implementation in NEWUDS of a core entity such as Site, in the form of data tables and its related association and domain tables.

Surface run-off: Alternate term for the site type Surface-water return flow for melted snow that was made artificially or excess irrigation water. Can also indicate inflow into wastewater collection systems during storm events.

Surface-water return flow: Site type for wastewater that is returned directly to an unknown surface-water body or wetland, or occurs over an area such as from irrigation or meltwater after snow making. This does not include water discharged into ponds for holding or percolation purposes.

Surface-water withdrawal: Site type for water that is withdrawn from surface water over a geographic area by an aggregate of users or by a single user for which there is not enough information to select a more specific site type.

System: Any user-defined group of sites with common ownership, location, or function.

Transaction: Flow of water or wastewater through a Conveyance over a specific time interval. For example, water moving from school well 1 to school building from January 1, 2001 to January 21, 2001.

Unaccounted-for water: Water supplied from a community-water system that has not been accounted for as being distributed to domestic, commercial, industrial, or thermoelectric uses. It includes public water use (fire fighting, street washing, and municipal parks and swimming pools), leakage (conveyance loss), and meter- errors.

Virtual conveyance: A type of conveyance representing a connection between two sites without providing information specific to that conveyance. Most conveyances are represented as virtual. If a conveyance was a specific canal, aqueduct, or pipe, then the virtual conveyance type would not be used.

Wastewater: Water that carries wastes from homes, businesses, and industries; a mixture of water and dissolved or suspended solids.

Wastewater collection: The process of conveying wastewater from users through a wastewater-collection system (sewer system) to a wastewater-treatment facility. May also include storm runoff. Wastewater is released by the user into the collection system and received by the treatment facility. Wastewater can also be released from a local collection system into a regional collection system.

Wastewater treatment plant: Site type for plant that prepares wastewater for discharge into the hydrologic system through the removal or reduction of contained solids or other undesirable constituents.

Water demand: (1) Relation between water use and price, when all other factors are held constant that is, increased prices results in decreased water use. (2) Demand is a general concept used by economists to denote the willingness of consumers or users to purchase goods, services, or inputs to production processes, since the willingness varies with the price of the thing being purchased. (3) Refers to the schedule of quantities that consumers would use per unit of time at a particular price per unit of water used.

Water transfer: Artificial conveyance of water from one area to another.

Water use: (1) In a restrictive sense, the term refers to water that is actually used for a specific purpose, such as for domestic use, irrigation, or industrial processing. (2) More broadly, water use pertains to human interaction with and influence on the hydrologic cycle, and includes activities such as water withdrawal, distribution, consumptive use, wastewater collection, and return flow.

Water-use activity: Any action related to using water, such as withdrawal, distribution, consumptive use, treatment, wastewater collection or return flow. The term "Water Use" may also pertain to time and areal distribution patterns, volumes, categories, or coefficients.

Wellfield: Ideally, site type for a series of wells that are joined together by a manifold metering system and are all finished in the same aquifer. May also be used when more than one well is included in the Site.

Withdrawal: The removal of surface water or ground water from the natural hydrologic system for use, including public-water supply, industry, commercial, domestic, irrigation, livestock, thermoelectric power generation, water uses.

Withdrawal well: Site type for a hole in the ground that has a diameter smaller than its depth and from which water is withdrawn for use.