

*NOTE: Words set in SMALL CAPS are defined elsewhere in the Glossary.*

**ABLATION** - Removal of a part by melting.

**ACCRETION** - The process of growth or enlargement by a gradual buildup by external addition or accumulation.

**ADAPTIVE MANAGEMENT** - An iterative approach to decision making involving a cycle of planning, implementation, monitoring, research, and subsequent reexamination of decisions, plans and priorities, based on new information.

**AGGRADE** - To build up the grade or slope (of the earth) by deposition of sediment.

**ALGAL MATS** - Aggregations of algae in string-like fibers that float on the water surface; common in nutrient enriched environments.

**ALLUVIUM** - A general term for all detrital deposits resulting from the operation of modern rivers.

**ANASTOMOSED** - The union of parts or branches so as to interconnect.

**ANTHROPOGENIC** - Resulting from the influence of human beings on nature.

**BATHYMETRY** - The measurement of depths within or across a body of water.

**BED LOAD** - Soil, rock, particles, and other debris rolled along the bottom of a stream by moving water, but not suspended as silt.

**BENTHIC** - Relating to the bottom of a body of water.

**BIOMAGNIFY** - The concentration of contaminants as the result of repeated ingestion and storage in animal tissue.

**BIOMASS** The amount (weight) of living matter in a given area.

**BIOTIC** - Relating to life; caused or produced by living beings.

**BRAIL BAR** - A pipe or board with many hooks dangling from chains towed from a boat along the river bottom to collect freshwater mussels that clamp onto the hooks when touched.

**BYSSAL THREAD** - A tuft of long glue-like filaments by which zebra mussel adhere to a surface.

**CENTRARCHID** - The family of sunfishes including bluegills, largemouth bass, crappie, and many other species; usually found in slow-flowing or still waters.

**CHANNEL TRAINING STRUCTURE** - A human-made flow obstruction used to divert river flow to a desired location, usually toward the center of the main channel to increase scour and limit sedimentation or to protect the river bank from eroding; **WING DAMS**, **CLOSING DAMS**, **REVTMENT**.

**CLOSING DAM** - A rock pile placed at the upstream end of a side channel to divert river flow toward the main channel.

**COLLUVIUM** - A general term applied to loose and incoherent deposits, usually at

the foot of a slope or cliff and brought there chiefly by gravity; can be underwater.

**DECIDUOUS FOREST** - A forest composed of trees that lose their leaves during winter (i.e., maples, oaks).

**DETRITIVOROUS** - Animals that feed on dead or decaying organic matter such as leaves in a stream.

**ECOSYSTEM** - The complex of a community and its environment functioning as a distinct unit in nature.

**EPIHEMERAL** - Lasting a very short time.

**EPILITHIC** - Animals or plants (usually algae) that live in association with rock SUBSTRATES.

**EPIPHYTIC** - Animals or plants (usually algae) that live in association with plants.

**EUTROPHICATION** - The process by which a body of water becomes rich in nutrients; excessive plant and algae growth are indicative of nutrient enrichment.

**EVAPOTRANSPIRATION** - The combined loss of water by evaporation and transpiration (water loss from leaves and stems) from plants.

**FLOCCULENT** - Made up of an aggregation of a number fine particles loosely settled on the river bottom; easily disturbed and resuspended.

**FLOOD ZONE** - The land mass adjacent to the river that is subject to seasonal inundation by floodwaters.

**FLOOD PULSE** - A seasonal rise in river levels, beyond bankfull, due to snowmelt and rain that triggers a complex variety of physical

and biological processes that help maintain a healthy river ecosystem.

**FLOODPLAIN** - Land adjacent to a river, composed of soil from previous floods (ALLUVIUM), subject to varying degrees of inundation based on elevation in relation to the river; commonly referred to as the area between river bluffs.

**FLUVIAL** - Relating to a stream or river; produced by stream action (i.e., erosion).

**GEOGRAPHIC INFORMATION SYSTEM (GIS)** - Computerized maps that can be linked with biological information to analyze plant and animal distributions in relation to physical variables.

**GEOMETRY** - As used in geology, the shapes, angles, and configuration of geologic features.

**GEOMORPHOLOGY** - The science that deals with land and submarine relief features (landforms) of the earth's surface; the physical structure of the river FLOODPLAIN environment.

**GRAVID** - Pregnant.

**HERBACEOUS** - Plants with little or no woody tissue and usually only persisting for a single season; grasses.

**HERBIVORE** - A plant-eating animal.

**HYDRODYNAMIC** - The motion of fluids and the forces that act on solid bodies immersed in fluids and in motion relative to them.

**HYDROGRAPH** - A plot (line graph) of water levels or discharge for a given period of time, usually annual, used to present water levels for that time, or to present an average of many individual events (i.e., 50-year average).

**HYDROLOGY** - The science that deals with the properties, distribution, and circulation of water on the surface of the land, in the soil and underlying rocks, and in the atmosphere.

**HYDROPSYCHID CADDIS FLIES** - A family of aquatic insects (Hydropsychidae) whose immature stage (nymph) is aquatic; they build silken nets on rocks and snags to filter particulates from flowing water and are sometimes found in very high densities.

**INTERSTITIAL** - A space that intervenes between things, especially between closely spaced things.

**LEACHABLE SOILS** - Soils subject to the action of percolating water that can separate and carry off soluble components such as nutrients and contaminants.

**LENTIC** - Relating to, or living in, still waters such as lakes and ponds.

**LEVEE** - An embankment constructed to prevent flooding.

**LITTORAL** - Relating to the shore or shoreline.

**MACROINVERTEBRATE** - A group of animals without a bony skeleton; usually in reference to animals large enough to view without the aid of a microscope.

**MESIC** - Requiring a moderate amount of moisture; usually wetted during seasonal floods.

**MORPHOMETRY** - The science that deals with the measurement of size and shape of bodies of water and their basins.

**NAVIGATION POOL** - Terrestrial and aquatic habitats in the floodplain between two nav-

igation dams. A somewhat deceptive term that implies still water such as in a lake; in reality, a complex of floodplain habitats.

**NEKTON** - The group of aquatic animals that swim freely in the water column (i.e., fish, some aquatic insects).

**ORTHO-PHOSPHORUS** - A plant nutrient.

**PERIPHYTON** - An algal community that grows on the leaves of submersed aquatic plants.

**PERTURBATIONS** - A disturbance of motion, course, arrangement, or equilibrium.

**PHOTIC ZONE** - A layer of water that receives enough sunlight to produce submersed aquatic plants.

**PHYSIOGRAPHIC** - Relating to physical geography.

**PHYTOPLANKTON** - Minute plants floating or drifting in the water column of lakes and streams.

**PORE WATER** - Water found in the tiny spaces between particles of sediment on the river bed.

**QUIESCENT** - Tranquil.

**REACH** - A continuous stretch or expanse; in reference to rivers, can be used to define relatively homogenous sections.

**REVTMENT** - A facing (stone or concrete) used to sustain an embankment or river bank.

**RIP RAP** - A layer of stones spread on a bank to prevent erosion.

**RIVER ECOLOGICAL HEALTH** - A condition of well-being, defined by the river community

based on the knowledge of how river ecosystems are structured, how they operate, and how they respond to human use. Six criteria proposed for assessing the ecological health of the floodplain reaches of the UMRS include hydrological, structural, and water quality; biological conditions; and the ability of a river to sustain itself and to recover from disturbance.

**SUBSTRATE** - The base on which an organism lives; the bottom soils of aquatic systems.

**TAXA** - The scientific name applied to groups of animals in a formal system of nomenclature.

**TAXONOMISTS** - Scientists that develop orderly classifications of plants and animals based on natural relationships.

**TURBIDITY** - A measure of water clarity.

**VERTICAL ACCRETION** - Accretion upward as opposed to laterally; vertically accreted, the operation of depositing sediment to accumulate upward.

**WET MESIC** - A moist, marsh-like prairie habitat.

**WING DAM** - Usually, a pile of rock that extends perpendicular from a bank into a river channel to divert flow into the channel, thus scouring the river bed.

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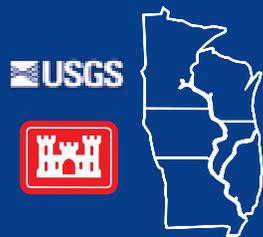
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The Long Term Resource Monitoring Program (LTRMP) for the Upper Mississippi River System was authorized under the Water Resources Development Act of 1986 as an element of the Environmental Management Program. The mission of the LTRMP is to provide river managers with information for maintaining the Upper Mississippi River System as a sustainable large river ecosystem given its multiple-use character. The LTRMP is a cooperative effort by the U.S. Geological Survey, the U.S. Army Corps of Engineers, and the States of Illinois, Iowa, Minnesota, Missouri, and Wisconsin.