



Glossary



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A

Abutment: The sides of the valley against which the dam bears, further classified as right abutment and left abutment when viewing downstream.

Acequia: An irrigation ditch or canal.

Acre-foot: A quantity or volume of water covering 1 acre to a depth of 1 foot (43,560 cubic feet).

Active storage: See also "minimum pool." The amount of storage within a reservoir used for storage and release under normal operating parameters.

Adaptive management: Formalizes a monitoring process and provides for redirection of projects and programs based on new information. Adaptive management may be carried out according to the following steps: participants determine measurable goals for management and then: (1) outline their understanding of system functions and outputs, (2) establish quantified objectives and controls, (3) initiate the action, (4) monitor and evaluate the outcomes, (5) review goals and objectives, and (6) redirect the action, if necessary. An adaptive management program is developed in coordination and collaboration with other governmental agencies, stakeholders, and interest groups, as appropriate.

Agency preferred alternative: The alternative that the lead agency (or agencies) believes would fulfill its statutory mission and responsibilities, giving consideration to economic, environmental, technical, and other factors.

Alkaline: Having above pH 7.0.

Alluvial: Material transported and deposited by the action of flowing water, such as clay, silt, sand, and gravel.

Ambient: Surrounding on all sides; encompassing.

Annual demand: Total yearly amount of water required for irrigation, domestic, or industrial use, usually expressed in a volume (acre-feet).

Arable: Suitable for farming.

Archaic: The Archaic period in the region is typified by a change from a big-game hunting emphasis to the hunting of smaller, modern game and the intensive collection of plant foods. Most sites of this period date between 8000 and 2000 BP (before present).

Artifact: A human-made object.

B

Base flow: Groundwater inflow to the river. Portion of stream discharge that is derived from natural storage.

Benthic: Bottom- or depth-inhabiting.

Bioaccumulation: The uptake and retention of nonfood substances by a living organism from its environment, resulting in a buildup of the substances in the organism.

Bioassimilation: The accumulation of a substance within a habitat.

Biodiversity: The variety of life and its processes, and the interrelationships within and among various levels of ecological organization.

Biological Assessment: Analysis prepared by or under the direction of a Federal agency for the purpose of identifying potential impacts of a proposed action on endangered or threatened species and their critical habitat. The analysis is provided to the Fish and Wildlife Service either for information (when it has been concluded that no effect would occur) or with a request for consultation (when a possible effect has been identified).

Biological Opinion: Document which states the opinion of the U.S. Fish and Wildlife Service as to whether a Federal action is likely to jeopardize the continued existence of a threatened or endangered species or result in the destruction or adverse modification of critical habitat.

Biomagnification: The enhancement of a substance (usually a contaminant) in a food web such that the organisms eventually contain higher concentrations of the substance than their food sources.

Biota: The flora and fauna of a region.

Borrow: Material excavated from one area to be used as fill material in another area.

C

Candidate species: Plant or animal species not yet officially listed but which are undergoing a status review by the U.S. Fish and Wildlife Service as candidates for possible addition to the list of threatened and endangered species.

Coliform: Organisms common to the intestinal tract of humans and animals.

Colorado pikeminnow: Formerly Colorado squawfish.

Colorado River Compact: The 1922 Colorado River Compact apportioned the waters between the Upper and Lower Basins. The 1948 Upper Colorado River Basin Compact apportioned the waters between the Upper Basin States.

Colorado Ute Indian Water Rights Final Settlement Agreement, December 10, 1986 (Settlement Agreement): Describes project-reserved water rights for the two Colorado Ute Tribes and details other benefits to the tribes.

Colorado Ute Indian Water Rights Settlement Act of 1988 (Public Law 100-585) (Settlement Act): Enters into law provisions of the Colorado Ute Indian Water Rights Settlement Agreement of 1986 and mandates the Tribal Development Fund and other provisions of the Settlement Agreement.

Colorado Ute Settlement Act Amendments of 2000: An act that amended the 1988 Colorado Ute Indian Water Rights Settlement Act and authorizes construction of facilities as described in the Animas-La Plata Project Final Supplemental Environmental Impact Statement, July 2000. It also defines the water supply to the project participants and constitutes the settlement of water rights claims by the Colorado Ute Tribes on the Animas and La Plata Rivers in Colorado.

Commercial rafting day: A 24-hour period within the commercial rafting season that commercial rafting is offered as a recreation activity.

Commercial rafting season: The period generally extending from Memorial Day in late May through Labor Day in early September.

Commercial user-day: The participation in commercial rafting during a 24-hour period by one person.

Connected actions: As defined by 40 CFR 1508.25(a)(1), those actions which are interrelated with a proposed Federal action and which should be discussed in the same environmental impact statement.

Conservation: Reduction in applied water due to more efficient water use.

Conservation measures: Actions taken to benefit or promote the recovery of threatened and endangered species that are part of the proposed action.

Conservation pool or storage: The pool allocated to the storage of water for conservation purposes only.

Consumptive water use: Total amount of water used by vegetation, human activities, and evaporation of surface water.¹

Cooperating agency: May be any Federal agency other than the lead agency that has jurisdiction by law or special expertise with respect to the environmental impacts expected to result from a proposal.

Cretaceous: Having the characteristics of chalk; relating to the Mesozoic era system of rocks.

Critical habitat: Defined in Section 3(5)(A) of the Federal Endangered Species Act as: (1) the specific areas within the geographical area occupied by the species at the time it is listed, on which are found those physical or biological features (a) essential to the conservation of the species and (b) which may require special management considerations for protection; and (2) specific areas outside the geographical area occupied by a species at the time it is listed upon a determination by the Secretary of the Interior that such areas are essential for the conservation of the species.

Cubic foot per second (cfs): As a rate of streamflow, a cubic foot of water passing a reference section in 1 second of time. A measure of moving volume of water (1 cfs = 0.0283 m³/s).

Cultural patrimony: Ancestral heritage and entitlement.

Cultural resources: Any buildings, sites, districts, structures, or objects significant in history, architecture, archaeology, culture, or science.

Cumulative action: As defined in 40 CFR 1508.25(a)(2), those actions, when viewed with other proposed actions, that have cumulatively significant impacts.

Cumulative impact: See also "effects/impacts." Impacts that occur as a result of cumulative actions.

¹ Water consumption by riparian vegetation and evaporation from the river channel surface are not beneficial consumptive uses of water under New Mexico law.

D

Dead storage: The reservoir capacity from which stored water cannot be evacuated by gravity.

Decibel: Measure of noise intensity.

Depletion: Use or natural loss of water in a manner that makes it no longer available to other users in the same system. To permanently remove or lose water from a system.

Depletion factor: The percent of water that is diverted for a particular use and not returned to the stream.

Dissolved oxygen: Oxygen that exists in water as a result of air/water mixing or aquatic photosynthesis. Sufficient quantities of dissolved oxygen in water are required to support fish and most other aquatic animals.

Diversion: Removing water from its natural course or location, or controlling water in its natural course or location, by means of a ditch, canal flume, reservoir, bypass, pipeline, conduit, well, pump, or other structure or device.²

Dredging: Widening or deepening of water channel by removing sand, mud, silt, or gravel. Dredging can be accomplished using suction pumps or mechanical scrapers.

E

Eddies: Currents of water running contrary to the main current.

Effects/impacts: National Environmental Policy Act Guidelines §1508.8 state:

"Effects" include:

- (a) Direct effects, which are caused by the action and occur at the same time and place.
- (b) Indirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

² A bypass of flows past a diversion or storage facility does not constitute a diversion or diversion right in New Mexico.

Effects and impacts as used in these regulations are synonymous. Effects on natural resources (and on the components, structures, and functioning of affected ecosystems), aesthetic, historical, cultural, economic, social, or health, whether direct, indirect, or cumulative. Effects may also include those resulting from actions which may have both beneficial and detrimental effects, even if, on balance, the agency believes that the effect will be beneficial.

- (c) Significant and potentially significant effects.

Endangered species: A species which is in danger of extinction throughout all or a significant portion of its range as defined under the Endangered Species Act.

Endangered Species Act: Federal law that authorizes and establishes the process for the protection of habitats and populations of species threatened with extinction. The stated purposes of the Federal Endangered Species Act of 1973, as amended, are to provide conservation of the ecosystems upon which endangered and threatened species depend and to establish and implement a program to conserve these species.

Enhancement: Actions that improve the quality of existing habitat beyond its original condition.

Environment: All biological, chemical, and physical factors to which organisms are exposed.

Environmental impact statement: Detailed public document required by the National Environmental Policy Act for proposed major Federal actions having a significant effect upon the human environment. It is a formal document which must follow the requirements of the National Environmental Policy Act, the Council on Environmental Quality regulations, and directives for the Federal agency responsible for the project proposal. It focuses on a description of the affected environment and a detailed analysis of the environmental consequences of the proposed action and its alternatives. It is released to the public and other agencies for review and comment. An environmental impact statement is used by the decisionmaking official(s) to make informed decisions concerning implementation of the selected alternative. The decision is documented in a record of decision.

Epilimnion: The warmer layer of water in a thermally stratified body of water that occurs from the surface down to the thermocline (metalimnion).

Escarpment: A cliff or steep slope that separates two level or gently sloping areas.

Eutrophic: Applied to nutrient-rich surface waters with high primary productivity.

Evapotranspiration: The combined processes of evaporation and transpiration (release of vapor by plants). The sum of water used by vegetation and water lost by evaporation.

F

Feasibility: Capable of being done or carried out.

Fecal coliform: Fecal coliform bacteria are formed in the intestinal tracts of animals. Their presence in water or sludge is an indicator of pollution and possible contamination by pathogens.

Federal nexus: Actions that take place in a manner circumscribed by Federal requirements, often because of the use of Federal funds, and including Federal permits, rights-of-way, and various regulations.

Federal Register: Periodical published daily (Monday through Friday, except on official holidays) by the Federal National Archives and Records Administration. It provides a uniform system for making available to the public regulations and legal notices issued by Federal agencies.

Fingerling: A salmonid fish (including trout) that is from 3 to 4 inches in length, typically reaching this size before 1 year of age.

Fish and Wildlife Coordination Act: The Fish and Wildlife Coordination Act and related acts express the policy of Congress to protect the quality of the environment as it affects the conservation, improvement, and enjoyment of fish and wildlife resources. Under this act, any Federal agency that proposes to control or modify any body of water, or to issue a permit allowing control or modification of a body of water, must first consult with the Fish and Wildlife Service and State Fish and Game officials.

Floatable flow: The flow rate below which a particular river-related recreation activity would cease.

Flood plain: Nearly level land, susceptible to floods, that forms the bottom of a valley.

Flow: See also "streamflow." The volume of water passing a given point per unit of time.

Flowage: Water that floods onto an adjacent land.

Forbs: Weeds or broad-leafed plants.

Free-flowing: Defined by Section 16(b) of the Wild and Scenic Rivers Act as existing or flowing in natural conditions without impoundment, diversion, straightening, riprapping, or other modifications of the waterway.

Fry: A salmonid fish (including trout) that is from 1 to 2 inches in length.

G

Groundwater: Water contained beneath the land surface of the earth that can be collected with wells, or drainage galleries, or water that flows naturally to the earth's surface via seeps or springs.

H

Habitat unit: A numerical value derived from multiplying the index of suitable habitat for a given species by the size of the area available for that species. The habitat unit is a means of communicating the gains and losses in habitat resulting from the management activities and project implementation.

Headwater: The source and upper part of a stream; water upstream of a dam.

Heavy metal: A metallic element of high atomic weight (greater than 45) with a density greater than 5 grams per cubic centimeter (i.e., more than 5 times the density of water).

Historic depletions: See "depletion."

Hydrograph: A graph showing, for a given point on a stream or conduit, the stage, velocity, flow, or other property of water with respect to time.

Hydrography: The science that deals with the physical aspects of all waters on the earth's surface.

Hypolimnetic: Of or relating to the hypolimnion.

Hypolimnion: The colder layer of water in a thermally stratified body of water that occurs from the lower end of the thermocline (metalimnion) down to the bottom of the reservoir.

I

Inactive capacity: The reservoir capacity below the active storage and above the dead storage from which the stored water is normally not available because of the operating agreements or physical restrictions. Under normal conditions, such as a shortage of water or a requirement for structural repairs, water may be evacuated from this space (after obtaining proper authorization).

Indirect effects: (Economics) Production changes resulting from various rounds of re-spending of the initial industries' receipts by industries which supply products and services to the initial industry.

Induced effects: (Economics) Changes in economic activity resulting from household spending of income earned directly or indirectly from the initial expenditure.

Inflow: Water that flows into a body of water.

Interstate compact: An agreement between two or more States dealing with competing demands for a water resource beyond the legal authority of one State alone to solve. Such agreements require the consent of Congress and the States.

Invertebrate: Animals lacking a spinal column.

Ion: An atom or molecule that has lost or gained one or more electrons.

Irretrievable commitments of natural resources: Loss of production or use of resources as a result of a decision. It represents opportunities foregone for the period of time that a resource cannot be used.

Irreversible commitments of resources: Decisions affecting renewable resources, such as soils, wetlands, and waterfowl habitat. Such decisions are considered irreversible because their implementation would affect a resource that has deteriorated to the point that renewal can occur only over a long period of time or at great expense or because their use would cause the resource to be destroyed or removed.

J

Jeopardy opinion: A jeopardy opinion is a determination by the Fish and Wildlife Service that a given project may jeopardize the continued existence of an endangered species.

L

Lacustrine habitat: Wetlands and deepwater habitats such as lakes or ponds.

Lead agency: National Environmental Policy Act Guidelines §1508.16 states:

"Lead agency" means the agency or agencies preparing or having taken primary responsibility for preparing the environmental impact statement.

Lee Ferry: A reference point in the Colorado River 1 mile below the mouth of the Paria River in Arizona which marks the Upper/Lower Colorado River Basins. Lee Ferry is the site of the GS stream gage above the Paria River confluence.

Limnological conditions: Physical, chemical, and biological conditions in fresh water, including both lakes and streams.

Limnology: The science of the study of the physical, chemical, and biological conditions in fresh water, including both lakes and streams.

Loam: A soil consisting of a mixture of clay, silt, and sand.

Loess: A loamy (clay, silt, and sand) deposit deposited by wind.

M

Main stem: The principal channel of the river.

Megawatt (MW): One million watts.

Megawatthour (MWh): One million watthours.

Mesotrophic: Applied to surface waters having levels of plant nutrients intermediate between those of oligotrophic and eutrophic waters.

Metamorphic: Having changed over time.

Methane gas: A colorless, odorless flammable gas that is a product of decomposition or organic matter in marshes and mines or of the carbonization of coal.

Minimum pool: The lowest volume of water maintained in a reservoir under normal operating parameters.

Mitigation: National Environmental Policy Act Guidelines §1508.20 states:

“Mitigation” includes:

- (a) Avoiding the impact altogether by not taking a certain action or parts of an action.
- (b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- (c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
- (d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- (e) Compensating for the impact by replacing or providing substitute resources or environments.

As used in cultural resource compliance procedures: Any treatment of historic or prehistoric property that will offset adverse effects that may result from an agency’s action.

Municipal and industrial (M&I) water: Water delivered to industries and cities for uses, including human consumption, livestock and wildlife, recreation, and tourism development.³

N

National Environmental Policy Act (NEPA): Directs Federal agencies to prepare an environmental impact statement for all major Federal actions which may have a significant effect on the human environment. NEPA states that it is the goal of the Federal Government to use all practicable means, consistent with other considerations of national policy, to protect and enhance the quality of the environment. NEPA requires all Federal agencies to consider the environmental impacts of their proposed actions during the planning and decisionmaking process.

³ The categories of water uses listed in this definition are not those used by the State of New Mexico. For example, New Mexico considers water used by municipal public water systems to be for general municipal and industrial purposes, some of which may be used for human and pet consumption, local recreation facilities, and miscellaneous industrial and commercial uses. Water delivered to a particularly industry, especially delivered via a private water system, may be accounted as a specific industrial, commercial, power, or agricultural use (if for a feedlot or dairy). The Colorado River Compact makes reference to uses of water for domestic and agricultural purposes and for the generation of electrical power, and it defines domestic use in Article II(h) as follows: “The term ‘domestic use’ shall include the use of water for household, stock, municipal, mining, milling, industrial and other like purposes, but shall exclude the generation of electrical power.”

National Register of Historic Places: A Federally maintained register of districts, sites, buildings, structures, architecture, archaeology, and culture.

Navajo period (cultural resources analysis): The earliest evidence for the Navajo occupation is the 1400s.

No Action Alternative: Under the National Environmental Policy Act, "no action" represents a projection of current conditions to the most reasonable future responses or conditions that could occur during the life of the project without any action alternatives being implemented. The No Action Alternative should not automatically be considered to be the same as the existing condition of the affected environment since reasonably foreseeable future actions may be taken whether or not any of the project action alternatives are chosen. Differences could result from other water development projects, land use changes, or municipal development. "No action" is therefore often described as "the future without the project."

Nonpoint source pollution: Manmade or man-induced alteration of the chemical, physical, biological, or radiological integrity of water, originating from any source other than a point source.

Nutrients: Animal, vegetable, or mineral substances which sustain individual organisms and ecosystems.

O

Oligotrophic: Applied to surface waters that are poor in nutrients and with low primary productivity.

Operational losses: Losses of water resulting from evaporation and seepage.

Opportunity cost: The lost value (intrinsic, monetary, or otherwise) of foregoing an activity or option.

P

Paleocene: Relating to the oldest series or epoch of the Tertiary period.

Palustrine habitat: Marsh habitat.

Passerine: Relating primarily to songbirds.

Permian era: Relating to the latest system (Paleozoic era) of rocks (period between 225 and 280 million years ago).

Pervious: Permeable; having openings that allow water to pass through.

pH: Measure of acidity or basicity of a solution. This expression of hydrogen ion concentration is typically expressed in a scale from 1 to 14, 1 being the most acidic and 14 being the most basic.

Phreatophyte: Phreatophytes are deep-rooted plants that obtain water from the water table or the layer of soil just above it.

Pikeminnow: Formerly the Colorado squawfish, the Colorado pikeminnow (*Ptychocheilus lucius*) is an endangered fish that is endemic to the Colorado River Basin.

Piscivorus: An animal that consumes fish.

Play hole: Whitewater kayaking term used to reference an eddy or backwater rapid that can be surfed or run for extended periods of time.

Point source pollution: Any discernible, confined, or discrete conveyance from which pollutants are or may be discharged, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, container, rolling stock, concentrated animal feeding operation, vessel, or other floating craft.

Polycyclic aromatic hydrocarbons (PAH): Particular hydrocarbons characterized by the benzene ring, e.g., benzene, naphthalene, toluene.

Practicably irrigable acreage (PIA): The amount of acreage that can be practicably irrigated in consideration of physical and economic factors. The PIA standard is often used as a measure to help define Indian Tribes' claims to water that might be needed to fulfill the purposes for which their land reservations were set aside by Congress.

Private whitewater user-day: The participation in private whitewater recreation, such as rafting or kayaking, during a 24-hour period by one person.

Q

Quaternary era: Period representing the past 3 million years through the present time.

R

Reasonable and prudent alternative (RPA): Regulations implementing the Endangered Species Act, Section 7, define reasonable and prudent alternatives as alternative actions, identified during formal consultation with the Fish and Wildlife Service, that (1) can be implemented in a manner consistent with the intended purpose of the action, (2) can be implemented consistent with the scope of the Federal agency's legal authority and jurisdiction, (3) are economically and technologically feasible, and (4) would, the Service believes, avoid the likelihood of jeopardizing the continued existence of listed species or resulting in the destruction or adverse modification of critical habitat.

Record of decision (ROD): Per the National Environmental Policy Act, a written document which states the decision made, describes the environmental factors considered, the preferred plan, and the alternatives considered in an environmental impact statement.

Recreation-day: Analogous to user-day, which is the participation in a recreation activity at a given resource during a 24-hour period by one person.

Recruitment: Providing suitable habitat conditions that allow a given species to survive to reproductive age.

Related actions: As defined in 40 CFR 1508.25(a)(3), those actions that have similarities to a proposed action that provide a basis for evaluation together, such as common timing or geography.

Restoration/revegetation: Re-establishing a habitat or plant community in an area that historically supported it.

Riffle: Stream habitat consisting of shallow turbulent water passing through or over stones or gravel of a fairly uniform size.

Riffle and pool complex: A water habitat composed of riffles (characterized by water flowing rapidly over a coarse substrate) and pools (deeper areas of water associated with riffles).

Riparian: Living on or adjacent to a water supply such as a riverbank, lake, or pond.

Riparian zone: The area that supports riparian/wetland vegetation dependent on the hydrology and geomorphic processes of the river.

Riprap: Stones placed on the face of dams, streambanks, or other land surfaces to protect the surface from erosion.

Riverine: Relating to, formed by, or situated on a river.

Run: Stream reach characterized by rapid flow.

S

Salmonids: The family of fish which includes trout, salmon, and char.

San Juan River Basin Recovery Implementation Program: A program called for in the 1991 Animas-La Plata Biological Opinion. The program is a cooperative effort among entities interested in the dual goals of endangered fish recovery and additional water development in the San Juan River Basin. Participants include: U.S. Fish and Wildlife Service; Bureau of Indian Affairs; Bureau of Land Management; Bureau of Reclamation; Southern Ute Indian Tribe; Ute Mountain Ute Tribe; Navajo and Jicarilla Nations; States of Colorado and New Mexico; and water development interest groups.

Scoping: An early, open process for determining the scope of issues to be addressed and identifying the significant issues related to a proposed action. Scoping meetings are a part of the process.

Secchi measurement: A Secchi disk is a weighted white and black disk, 20 centimeters in diameter, that is lowered from the shady side of a vessel into a water column. The mean depth at which the disk disappears from sight and the point at which it reappears when raised essentially is a function of the absorption characteristics of both the water and of its dissolved and particulate matter.

Section 7 consultation: All Federal agencies are required to consult with the Fish and Wildlife Service on actions that may affect endangered or threatened species and their designated critical habitat. This consultation requirement is under Section 7 of the Endangered Species Act.

Sedimentation: Soil or gravel transported by water from other streams and bodies of water that settle out of the water and are deposited in the stream channel.

Seep: A spot where groundwater emerges slowly to the surface, often forming a pool.

Seismotectonic: Of, relating to, or designating structural features of the earth which are associated with or revealed by earthquakes.

Selenium: A naturally occurring trace element present in many geological formations in the West. Humans and animals require selenium in small amounts for good health, but concentrations can cause adverse reactions. The irrigation process can cause elevated selenium concentrations.

Shiprock irrigation projects: Fruitland, Hogback, Cudei, and Cambridge.

Siphon: A pipe that conveys water between two sections of a canal by dipping down across a valley or draw.

Special status species: Any species listed or proposed for listing under the Federal Endangered Species Act. A general term for any species listed or proposed for listing as threatened or endangered under the Federal Endangered Species Act, a species considered rare, or a species of special concern under State or Tribal protection.

Spillway: A passage for water to run over an obstruction, such as a dam.

Static head: The difference in elevation between the pumping source and the point of delivery.

Streamflow: The volume of water passing a given point per unit of time.

Substrate: The base on which an organism lives; a substance acted upon.

Supply (water): An amount of water from a specified source.

Sustainability: Refers to the maintenance of a landscape and lifestyle in some agreed-upon form that includes both a space for human economic activity and a space to preserve the ecosystem under natural controls and evolution.

T

Tailwater: Water below a dam or hydropower development.

Tertiary: Relating to the first period (Cenozoic) system of rocks, marked by the formation of high mountains.

Thermal stratification: Distinct horizontal layers of water temperature forming in a body of water as a result of differential warming during late spring and summer.

Thermocline: In a thermally stratified body of water, a mid-depth zone of rapid temperature change located between the warmer epilimnion and the colder hypolimnion. Also known as the metalimnion.

Threatened: A legal classification for a species which is likely to become endangered within the foreseeable future.

Topography: Physical shape of the ground surface.

Total dissolved solids (TDS): Total amount of dissolved material, organic and inorganic, contained in water.

Toxin: Poisonous substance, generally from a plant or animal.

Trace element: Usually only present in "trace" or barely measurable amounts. When the name was developed, analytical chemistry was in its infancy and incapable of quantifying the amount or concentration of naturally occurring elements in soil or water other than the most common ones such as calcium, magnesium, sodium, potassium, chloride, carbon, mercury, and sulfur.

Traditional cultural property (TCP): A site or resource that is eligible for inclusion in the *National Register of Historic Places* because of its association with cultural practices or beliefs of a living community.

Turbidity: The scattering and absorption of light that makes water look murky. Caused by the content and shape of matter suspended in the water.

U

Upper Colorado River Basin: Those parts of the States of Arizona, Colorado, New Mexico, Utah, and Wyoming within and from which waters naturally drain into the Colorado River system above Lee Ferry, and also all parts of said States located without the drainage area of the Colorado River system which are beneficially served by water diverted from the system above Lee Ferry.

User-day: The participation in a recreation activity at a given resource during a 24-hour period by one person.

V

Vertebrate: Animal species with a spinal column.

W

Weir: A structure built across an open channel for measuring, diverting, or controlling water flow.

Wetlands: Lands, including swamps, marshes, bogs, and similar areas such as wet meadows, river overflows, mud flats, and natural ponds.

Wetted perimeter: Length of wetted channel perpendicular to flow.

Wild and Scenic Rivers Act (Public Law 90-542): The policy of this act selects certain rivers possessing remarkable scenic, recreational, geologic, fish and wildlife, historic, or other similar values, for preservation in free-flowing conditions. Those selected under recreational criteria may have undergone some diversion or impoundment in the past. Selected rivers and streams have been placed into the National Rivers Inventory by Acts of Congress; others are proposed for inclusion into the system.

Winters' Doctrine: Provides that the establishment of an Indian Reservation reserves the amount of water necessary for the purposes of the reservation. Upheld by the U.S. Supreme Court.

Y

Young-of-year: Refers to young (usually fish) produced in one reproductive year. Small fish, hatched from eggs spawned the current year, are considered young-of-year (age 0).

Z

Zone of influence: Area within the river valley that is influenced by the river's hydrology, both surface water and groundwater. In general, the river's riparian zone correlates with its zone of influence.
