

CHAPTER 10

Glossary

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2004 Settlement Agreement — Protection, enhancement, and mitigation measures agreed to by the participants in the Project 2105 Licensing Group for inclusion in the new Federal Energy Regulatory Commission license for the Upper North Fork Feather River Hydroelectric Project. The 2004 Settlement Agreement is a partial settlement agreement as not all concerns were resolved in the agreement.

2105 Collaborative — Also known as Project 2105 Licensing Group; a broad-based group of resource agencies, public entities, and non-governmental organizations formed to reach agreement on protection, mitigation, and enhancement measures for inclusion in the new Federal Energy Regulatory Commission license for the Upper North Fork Feather River Hydroelectric Project.

A-weighted decibel scale (dBA) — The dBA scale correlates to the range of sounds audible to the human ear (where 10 dBA is at the low threshold of hearing and 120–140 dBA is the threshold of pain).

Ambient noise level — The background sound level at a given location.

Anadromous — Fish that live their adult lives in the ocean but migrate up fresh-water rivers to spawn.

Ancillary services — Provision of generation capability to match system output to load.

Anoxic — Anoxic waters are depleted of dissolved oxygen.

Average daily water temperature — The average of water temperatures over the course of a 24-hour day. The average daily temperature is the limit of resolution of the temperature model used to estimate river temperatures

Bankfull — The water level, or stage, at which a stream, river, or lake is at the top of its banks and any further rise would result in water moving onto the floodplain.

Base flow — Streamflow that results from precipitation that infiltrates into the soil and eventually moves through the soil to the stream channel. Also referred to as groundwater flow or dry-weather flow. Base flow is contrasted with flow that results from a rainstorm or other precipitation event.

Basin — Geographic land area draining into a lake or river; also referred to as drainage basin or watershed.

Basin Plan — *Water Quality Control Plan for the Sacramento and San Joaquin River Basins* prepared by the Central Valley Regional Water Quality Control Board. Basin plans designate the beneficial uses of waters to be protected and establish the water quality objectives necessary to protect those uses, as required under Section 303 of the Clean Water Act and Sections 13240 and 13241 of the California Water Code.

Beneficial uses — State law defines the beneficial uses of California’s waters that may be protected against water quality degradation to include “domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves.”

Bioaccumulation — The increasing concentration of a pollutant such as mercury or polychlorinated biphenyls in the food chain.

Biological study area — Lands within the Upper North Fork Feather River Hydroelectric Project boundary and surrounding plant and wildlife communities.

Biostimulatory substances — Chemicals or elements that have an effect, whether positive, negative, or neutral, on living tissue.

Community noise equivalent level — A 24-hour, single number, equivalent noise level, usually calculated from measured hourly equivalent noise levels.

Controllable water quality factors — As defined in the Basin Plan, “those actions, conditions, or circumstances resulting from human activities that may influence the quality of the waters of the State, that are subject to the authority of the State Water Board or the Regional Water Board, and that may be reasonably controlled.”

Cultural resources — Archaeological, traditional, and built environment resources, including buildings, structures, objects, districts, and sites.

Cumulative impacts — The impacts of a project along with other past, present, and reasonably foreseeable future projects.

Diel — A 24-hour period of time.

Discretionary action — An action for which an agency can use its judgment in deciding whether and how to carry out or approve a project.

Dissolved oxygen — The concentration of free (not chemically combined) molecular oxygen (a gas) dissolved in water, usually expressed in milligrams per liter, parts per million, or percent of saturation. Adequate concentrations of dissolved oxygen are necessary for the life of fish and other aquatic organisms and the prevention of offensive odors.

Distinct population segment — A distinct population segment is a vertebrate population or group of populations that is separated from other populations of the species and significant in relation to the entire species. The Endangered Species Act provides for listing species, subspecies, or distinct population segments of vertebrate species.

Environmental baseline — The conditions that existed at the time the Notice of Preparation was released in August 2005, including operation of the Upper North Fork Feather River Hydroelectric Project under its existing Federal Energy Regulatory Commission license. Same as environmental setting.

Environmental setting — See “environmental baseline.”

Epilimnion — The upper, wind-mixed layer of a thermally stratified lake.

Evolutionarily significant unit — An evolutionarily significant unit is a Pacific salmon population or group of populations that is substantially reproductively isolated from other conspecific populations and that represents an important component of the evolutionary legacy of the species.

Geographical scope — For the cumulative impact analysis, the geographic scope is the North Fork Feather River watershed.

Greenhouse gases — Any gas that absorbs infrared radiation in the atmosphere. Greenhouse gases include carbon dioxide, methane, nitrous oxide, ozone, and chlorofluorocarbons.

Hibernaculum — A shelter in which animals hibernate or overwinter.

Historic properties — As defined by the National Historic Preservation Act, historic properties are districts, sites, buildings, structures, traditional cultural properties, and objects significant in American history, architecture, engineering, and culture that are eligible for inclusion in the National Register of Historic Places.

Hydromodification — An alteration in a river, stream, or lake.

Hypolimnion — The bottom, and most dense, layer of a stratified lake. It is typically the coldest layer in the summer and warmest in the winter. It is isolated from wind mixing and typically too dark for much plant photosynthesis to occur.

Hypoxic — Refers to waters that have dissolved oxygen concentrations of less than 2 to 3 parts per million.

Incidental take — An unintentional, but not unexpected, taking. See “take.”

Intrastate waters — Waters, such as lakes or rivers, that are only found in one state.

Lacustrine — Having to do with a lake environment.

Lead agency — The public agency that has the principal responsibility for carrying out or approving a project. The lead agency decides whether an environmental impact report or Negative Declaration is required for a project, and causes the appropriate document to be prepared.

Lentic — Refers to standing water habitats, such as lakes, ponds, and swamps.

Mass wasting — Loss of soil or geologic material through landslides or erosion.

Mesotrophic — Moderately productive; relating to the moderate fertility of a lake in terms of its algal biomass.

Metalimnion — The middle or transitional zone between the well-mixed epilimnion and the colder hypolimnion layers in a stratified lake.

Nameplate capacity — The maximum rated output of a generator, prime mover, or other electric power production equipment under specific conditions designated by the manufacturer. Installed generator nameplate capacity is commonly expressed in megawatts and is usually indicated on a nameplate physically attached to the generator.

Nephelometric turbidity unit — Unit of measure for the turbidity of water. Essentially, a measure of the cloudiness of water as measured by a nephelometer. Turbidity is based on the amount of light that is reflected off particles in the water.

Notice of Preparation — A notice issued by the lead agency to responsible and trustee agencies and the State Clearinghouse advising them of the preparation of a draft environmental document and requesting comments on the project.

Palustrine — Having to do with a wetland environment.

Peak capacity — The maximum electrical output of a generator or power plant.

Project — A project is defined under California Environmental Quality Act as “the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment” and that requires a discretionary approval from a public agency.

Pulse flow — Flows used periodically to meet specific objectives such as gravel mobility or whitewater recreation.

Ramping flows — Stream flows that are increasing in amount and speed.

Receiving water — A water body, such as a river or lake, that an outlet or creek empties into.

Redd — A fish nest. Redds are usually made in clear gravel along river and stream beds.

Refugia — Areas used by animals for hiding, resting, aestivating, or hibernating.

Related project — A project that occurs in the same geographic area as the proposed project, would be implemented in the same general time period as the proposed project, and would result in similar types of impacts as those described for the proposed project.

Responsible and trustee agencies — Agencies, other than the lead agency, that will issue permits or other approvals for a project. They act after the lead agency has completed its California Environmental Quality Act process.

Riparian — Streamside vegetation such as willows and cottonwoods. This vegetation is important habitat for many species and helps to cool water temperatures.

Sensitive noise receptors — Specific geographic points, such as schools, hospitals, convalescent homes, residences, or parks, where people could be exposed to unacceptable levels of noise that affect daily activities or that result in health effects, like hearing loss or reduced sleep.

- Special-status species** — For the purposes of this environmental impact report, special-status plant and wildlife species are those that are: (1) listed as threatened or endangered under the federal or California endangered species acts; (2) proposed for listing as threatened or endangered; (3) candidates for listing as threatened or endangered; (4) designated as rare by the California Department of Fish and Wildlife; (5) ranked on the California rare plant ranking system as 1B or 2; or (5) designated by the Regional Forester of the United States Forest Service as sensitive pursuant to the National Forest Management Act.
- Substantial adverse change** — “...Physical demolition, destruction, relocation, or alteration of [a historical] resource or its immediate surroundings such that the significance of ... [the] resource would be materially impaired.”
- Take** — Under the federal Endangered Species Act, take of a species is defined as to “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, or disturb.” Section 86 of the California Fish and Game Code defines take as “to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.”
- Temporal scope** — For the cumulative impact analysis, the temporal scope is 30 to 50 years into the future, which correlates to the period of time requested by Pacific Gas and Electric Company for a new Federal Energy Regulatory Commission license for the Upper North Fork Feather River Project.
- Terrane** – A geological body that has formations and complexes that are geologically similar.
- Thermal stratification** — The physical process in a water body when warming of surface water creates a sufficient gradient in the relative densities between the surface and deeper waters, which ultimately limits the depth to which wind can mix the warm surface with the deeper colder water.
- Thermocline** — The depth at which the temperature gradient in a lake or water body is steepest during the summer. The transitional zone between the two layers that exhibits the greatest rate of temperature change is referred to as the thermocline, or metalimnion.
- Thresholds of significance** — Standards that judge the potential impact that an action may result in. These standards are compiled in the California Environmental Quality Act Guidelines; agency standards; legislative or regulatory requirements, as applicable; and professional judgment. The thresholds provide a means to identify the level at which an impact becomes significant. Most thresholds are qualitative, but quantitative thresholds are provided for some resource topics.
- Traditional cultural property** — A particular place or property that reflects the beliefs, customs, and practices of a living human community, typically reflecting the heritage of Native American tribes.
- Turbidity** — A measure of the degree to which light is scattered by suspended particulate material and soluble colored compounds in the water. It provides an estimate of the muddiness or cloudiness of the water due to clay, silt, finely divided organic and inorganic matter, soluble colored organic compounds, plankton, and microscopic organisms.

Typical meteorological year — A collection of meteorological data that gives the expected temperature and precipitation for a given date.

Upper incipient lethal temperature — The highest temperature to which a species can be acclimated; above this temperature, all temperatures are lethal, regardless of previous thermal exposure

Viewer exposure — The visibility of resources in the landscape, the proximity of the vantage point to the view, the elevation of the viewer relative to the view, the frequency and duration of the viewing, the number of observers, and preconceived expectations of individual viewers or groups.

Viewer sensitivity — The extent of the public's concern for particular landscapes.

Viewshed — Viewshed is defined by the Federal Highway Administration as all of the surface area visible from a particular location (such as a vista point) or a sequence of points (such as a highway or trail).

Water neutral — No decreases or increases in annual storage.

Water quality limited segment — Any segment of a river or stream where it is known that water quality does not meet applicable water quality standards, and/or is not expected to meet applicable water quality standards, even after the application of the technology-based effluent limitations required by sections 301(b) and 306 of the Clean Water Act.

Water quality objectives — Water quality objectives are "...the limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area."

Water year — A 12-month period during which a complete annual hydrologic cycle normally occurs. The water year used by the United States Geological Survey runs from October 1 through September 30, and is designated by the year in which it ends.

Water year types — A means of assessing the amount of water originating in a basin. For the North Fork Feather River, the water year types are based on inflow into Lake Oroville. The water year types are as follows: (1) wet: greater than or equal to 5,679 thousand acre-feet (TAF) inflow to Oroville; (2) normal: less than 5,679 TAF but greater than or equal to 3,228 TAF inflow to Oroville; (3) dry: less than 3,228 TAF but greater than or equal to 2,505 TAF inflow to Oroville; and (4) less than 2,505 TAF inflow to Oroville.

Waters of the United States — Water bodies subject to regulation by the United States Army Corps of Engineers.