GLOSSARY

Acre-Foot (ac-ft). The amount of water it takes to cover one acre to a depth of one foot, 43,560 cubic feet or 1,233.5 cubic meters.

Anadromous Fish. Fish that live in saltwater habitats most of their lives, but periodically migrate into freshwater to spawn and develop to the juvenile stage (e.g., salmon).

Area of Potential Effects (APE). Defined in Title 36 of the Code of Federal Regulations, Section 800.16(d) as the "geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if such properties exist. The APE is influenced by the scale and nature of the undertaking and may be different for different kinds of effects caused by the undertaking." Section 106 of the National Historic Preservation Act requires that the APE be defined and documented in consultation with the State Historic Preservation Office.

Benthic. Associated with the bottom (or substrate) or the depths of a body of water, such as a lake, ocean, or river. Used to refer to aquatic organisms that are bottom dwellers.

Benthic Macroinvertebrates. Organisms without backbones, which are visible to the eye and live at the bottom of lakes, rivers, streams, estuaries, and marine waters, and around rocks and sediment.

Capacity. The load for which an electric generating unit, other electrical equipment or powerline is rated.

Clean Water Act (CWA). The Federal Water Pollution Control Act of 1972 and subsequent amendments in 1977, 1981, and 1987 (commonly referred to as the Clean Water Act). The Act established a regulatory system for navigable waters in the United States, whether on public or private land. The Act set national policy to eliminate discharge of water pollutants into navigable waters, to regulate discharge of toxic pollutants, and to prohibit discharge of pollutants from point source without permits. Most importantly it authorized EPA to set water quality criteria for states to use to establish water quality standards.

Code of Federal Regulations (CFR). A compilation of the general and permanent rules of the executive departments and agencies of the Federal Government as published in the Federal Register. The code is divided into 50 titles that represent broad areas subject to Federal regulation. Title 18 contains the FERC regulations.

Cubic Feet Per Second (cfs). The rate of flow representing one cubic foot of water moving past a given point in one second.

Dam. A structure constructed across a water body typically used to increase the hydraulic head at hydroelectric generating units. A dam typically reduces the velocity of water in a particular river segment and increases the depth of water by forming an impoundment behind the dam. It also generally serves as a water control structure.

GLOSSARY

Discharge. Volume of water passing a given point within a given period of time.

Dissolved Oxygen (DO) Level. The concentration of oxygen held in a solution of water. Perhaps the most commonly employed measure of water quality. DO levels generally decline with increased pollution. Low DO levels adversely affect fish and other aquatic life. The total absence of DO leads to the development of an anaerobic condition with the eventual development of odor and aesthetic problems.

Drawdown. The lowering of water level of a reservoir as a result of withdrawing water.

Environmental Impact Statement (EIS). A report that documents the information required to evaluate the environmental impact of a project. It informs decision makers and the public of the reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the environment.

Expanded Study Area. For the purposes of this Study, the Expanded Study Area is defined as the Study Area plus the area within one mile of the FERC Project boundary.

Federal Energy Regulatory Commission (FERC or Commission). The governing federal agency responsible for overseeing the licensing/relicensing and operation of hydroelectric projects in the United States.

FERC Project Boundary. The boundary surrounding the MFP facilities as delineated in the MFP license issued by the FERC in 1963.

Federal Power Act (FPA). Federal statute enacted in 1920 that established the Federal Power Commission (now FERC) and the statutes for licensing hydroelectric projects.

Federal Power Commission (FPC). Predecessor of FERC.

Federal Register (FR). A publication of the Federal Government that includes official transactions of the U.S. Congress, as well as all federal agencies such as FERC. Copies of the Federal Register are available on the Internet, public and university libraries.

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

Flow Duration Curve. A graphical representation of the percentage of time in a historical record that a specified flow of any given magnitude has been equaled or exceeded.

Generation. The process of producing electricity from other forms of energy, such as steam, heat, or water. Refers to the amount of electric energy produced, expressed in kilowatt hours.

GLOSSARY

Gross Storage. The sum of the dead storage and the live storage volumes of a reservoir, the total amount of water contained in a reservoir at its maximum normal operating elevation.

Habitat. The locality or external environment in which a plant or animal normally lives and grows, characterized by its physical or biotic properties.

Hydroelectric Station. A facility at which the turbine generators are driven by falling water.

Hydroelectric Power. Capturing flowing water to produce electrical energy.

Hydroelectric Project. The complete development of a hydroelectric power site, including dams, reservoirs, transmission lines, and accessories needed for the maintenance and operation of the powerhouse and any other hydroelectric plant support facilities.

Hydropower License. A license issued by the Commission, authorizes the licensee to construct and operate a new project, or continue to operate an existing project, which is capable of generating more than 5 megawatts. The license term is usually from 30 to 50 years.

Integrated Licensing Process (ILP). A new FERC process for conducting a relicensing program and the FERC's default licensing process effective July 23, 2005. The ILP provides for increased public participation during pre-filing consultation, development of FERC-approved Study Plans, better coordination between the FERC and other agency processes, and encourages informal resolution of study disagreements. PCWA has chosen the ILP mainly because it emphasizes early collaboration with the stakeholders, a feature PCWA believes is important. **MFP or Project** – Middle Fork American River Hydroelectric Project, FERC Project No. 2079.

kilowatt (kW). A unit of electrical power equal to 1,000 watts.

kilowatt-hour (kWh). A basic unit of electricity consumption equals to 1 kW of power used for one hour. A kilowatt-hour equals the amount of electricity needed to burn ten, 100-watt light bulbs for one hour.

megawatt (MW). A unit of electrical power equal to one million watts or 1,000 kW.

megawatt-hour (MWh). A unit of electrical energy equal to 1 MW of power used for one hour.

National Environmental Policy Act (NEPA). A law passed by the U.S. Congress in 1969 to establish methods and standards for review of development projects requiring Federal action such as permitting or licensing.

GLOSSARY

Non-Governmental Organizations (NGOs). Local, regional and national organizations such as conservation, recreation or commerce groups.

Pre-Application Document (PAD). A document that is required as part of the ILP, which PCWA will file with the FERC and distribute to the resource agencies and other stakeholders in September 2007. As required in the FERC regulations, the PAD will include: 1) a description of the existing and proposed (if any) Project facilities and operations; 2) information on the existing environment; 3) existing data or studies relevant to the existing environment, and; any known and potential impacts of the proposed project on the specified resources. PCWA also plans to include agency and stakeholder-approved technical study plans in the PAD.

Pool. Refers to the reservoir (impounded body of water).

Powerhouse. The building that typically houses electric generating equipment.

Project Area. Area surrounding the immediate project but not within the Project boundary.

Project boundary. A line established by the FERC to enclose the lands, waters and structures needed to operate a licensed hydroelectric project.

Public Utility. A business enterprise rendering a service considered essential to the public and, as such, subject to regulation.

Preliminary Activities. Activities to be performed by PCWA, in consultation with the resource agencies, prior to filing the NOI and PAD.

Relicensing. The administrative proceeding in which FERC, in consultation with other federal and state agencies, decide whether and on what terms to issue a new license for an existing hydroelectric project at the expiration of the original license.

Reservoir. An artificial lake into which water flows and is stored for future use.

Resource Agency. A federal, state, or interstate agency with responsibilities in the areas of flood control, navigation, irrigation, recreation, fish or wildlife, water resource management, or cultural or other relevant resources of the state in which a project is or will be located.

Riparian Area. A specialized type of wetland with characteristic vegetation restricted to areas along, adjacent to or contiguous with rivers and streams, and periodically along flooded lake and reservoir shore areas, and lakes with stable water.

GLOSSARY

River Mile (RM). For this Study, a river mile is a standardized measurement of stream miles along the Study streams. River stationing begins at the confluence with the next highest order channel and extends upstream of Project diversions to the limit of the digitized stream segment.

Rosgen. Method for classifying streams and rivers based on common patterns of channel morphology. The reason for classifying streams on the basis of channel morphology, is to aid the understanding of stream condition and potential behavior under the influence of different types of changes.

Service List. A list maintained by FERC of parties who have formally intervened in a proceeding. In relicensing, there is no Service List until the license application is filed and accepted by FERC. Once FERC establishes a Service List, any documents filed with FERC must also be sent to the Service List.

Scoping. The scoping process is used to solicit public input on potential issues and whether there is a potential for significant adverse affects to the human environment from a proposed energy project, and identify the scope of the Environmental Assessment or Environmental Impact Statement to be prepared.

Spillway. The section of a dam that is designed to pass water over or through it.

Streamflow. The rate at which water passes a given point in a stream, usually expressed in cubic feet per second (cfs).

Study. For the purposes of this document, the Proposed studies will be conducted in 2005 and 2006. The Study will be carried out prior to the collaborative development of the comprehensive Technical Study Plans, which will occur in 2006 and 2007.

Study Area. For the purposes of this Study, the area within the FERC Project boundary and a 200 foot area surrounding any Project-related feature that may lie outside the FERC Project boundary, for example, radio towers, recreation facilities, sediment storage areas, and roads that were specifically developed to access Project facilities. The Study Area does not include the land areas that overlie subsurface features such as tunnels.

Technical Studies. Comprehensive technical studies that will be designed and developed as part of a multi-stakeholder collaborative effort in 2006 and 2007 and implemented in 2008 and 2009.

Transmission. The act or process of transporting electric energy in bulk from one point to another in the power system, rather than to individual customers.

Transmission Lines. Power lines normally used to carry high voltage electricity to substations which then is "stepped down" for distribution to individual customers.

Turbidity. A measure of the degree to which light can pass through water due to suspended particulate matter. Turbidity measurement provides an indication of water quality and clarity.

Tribes – Native American Tribes that may have a cultural affiliation with the Project, including: United Auburn Indian Community, Shingle Springs Rancheria, Washoe Tribe, Todd Valley Miwok-Maidu Cultural Foundation, Colfax-Todd Valley Consolidated Tribe, and Miwok Tribe of the El Dorado Rancheria.

Volt. The unit of electromotive force or electric pressure, akin to water pressure in pounds per square inch.

Warmwater Fish. Species tolerant of warm water (e.g., bass, perch, sucker).

Water Year. The 12-month period from October 1 through September 30.

Watershed. An entire drainage area that drains water, sediment and dissolved materials into a stream system or other body of water including all living and nonliving components of the system.

Wetlands. Lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. Wetlands must have the following three attributes: 1) at least periodically, the land supports predominantly hydrophytes (vegetation adapted to wet conditions); 2) the substrate is predominantly undrained hydric soil; and 3) the substrate is non-soil and is saturated with water or covered by shallow water at some time during the growing season of each year.