

GLOSSARY - DEFINITION OF COMMONLY USED TERMS, ACRONYMS, AND ABBREVIATIONS

Term	Definition
A	
A	Ampere
AA	Federal Antiquities Act
ac	acre
ac-ft	acre-feet or acre-foot, the amount of water needed to cover one acre to a depth of one foot (43,560 cubic feet or 325,900 gallons)
ac-ft/yr	acre-feet per year
accretion flow	The incremental flow between two points. Also known as local inflow.
ACEC	Area of Critical Environmental Concern
ACHP	Advisory Council on Historic Preservation
ACSR	aluminum conductors steel reinforced
ADA	Americans with Disabilities Act
adit	An almost vertical pipe or short horizontal passage entering a tunnel, either to add water from a conduit, sluice or other water source, or as a maintenance access tunnel (also referred to as a portal)
aestivation	Similar to hibernation, where an animal is dormant during unfavorable summer-like conditions. For example, to survive long periods of drought, some reptiles and amphibians become inactive or "aestivate."
AFRP	Anadromous Fish Restoration Program
afterbay	A reservoir located immediately downstream from a powerhouse, sometimes used to re-regulate flows to the river or stream
AGC	Automatic Generation Control used to support California electric regulation system
AIR	Additional Information Request issued by the Federal Energy Regulatory Commission
AIRFA	American Indian Religious Freedom Act
AMSET	Adaptive Management Services Enterprise Team
amsl	above mean sea level
anabat	An electronic instrument used to detect and record high frequency vocalization of bats
anadromous	Anadromous fish live most of their lives in saltwater and return to freshwater to spawn.
ancillary	Provides added support
APE	Area of Potential Effect, as pertaining to Section 106 of the National Historic Preservation Act
AR	American Rivers
AUM	animal unit months
AW	American Whitewater
B	
BA	Biological Assessment
BAOT	boats at one time
baseload	Generation around-the-clock
Basin Plan	Basin Plans provide the basis for protecting water quality in California. Basin Plans are mandated by both the Federal Clean Water Act and the State Porter-Cologne Water Quality Act. Sections 13240-13247 of Porter-Cologne specify the required contents of a regional basin plan. For a given region, each plan contains 1) water quality objectives to ensure the reasonable protection of beneficial uses and 2) a program of implementation for achieving those objectives.
BASINS	Better Assessment Science Integrating Point and Nonpoint Sources (software)
Bay-Delta	The San Francisco Bay-San Joaquin Delta Estuary
BBS	Breeding Bird Survey
BC	Before Christ
BDAC	Bay-Delta Advisory Committee
BDCP	Bay-Delta Conservation Plan
BEPA	Bald Eagle Protection Act
BLM	United States Department of the Interior, Bureau of Land Management
BLM-S	Bureau of Land Management, sensitive species
BMI	benthic macroinvertebrates
BMP	Best Management Practice
BO	Biological Opinion
BOD	biological oxygen demand
BOR	United States Department of the Interior, Bureau of Reclamation

Glossary (continued)

Term	Definition
B (continued)	
BP	before present
BVID	Browns Valley Irrigation District
BWD	Brophy Water District
bypass flow	Bypass flows are those flows that are required to be released into a stream, and do not flow through the powerhouse
C	
C	Centigrade
CAISO	California Independent System Operator
CALFED	Interagency committee with management and regulatory responsibility for Bay-Delta Estuary
CalVeg	Classification and Assessment with Landsat of Visible Ecological Groupings. The Forest Service's classification system of California's existing vegetation communities. Original information was collected using remote sensing techniques along with field verification.
CAS	California Academy of Sciences
CRLF	California red-legged frog
Cal-IPC	California Invasive Plant Council
CalTrans	California Department of Transportation
capital improvement	The construction, installation, or assembly of a new fixed asset, or the significant alteration, expansion, or extension of an existing fixed asset to accommodate a change of purpose.
CCWD	Contra Costa Water District
CD	Compact Disc
CDBAW	California Department of Boating and Waterways
CDEC	California Data Exchange Center
CDF	California Department of Forestry and Fire Protection
CDFA	California Department of Food and Agriculture
CDFG	California Department of Fish and Game
CDPR	California Department of Parks and Recreation
CD-ROM	Compact Disc-Read-Only Memory
CDSOD	California Department of Water Resources, California Division of Safety of Dams
CDWR	California Department of Water Resources
CE	Federal Candidate Endangered Species. A species or subspecies listed as endangered under the California Endangered Species Act
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFBF	California Farm Bureau Federation
CFR	Code of Federal Regulations
cf or ft ³	cubic feet
cfs	cubic feet per second. One cfs equals approximately 1.98 acre-feet per day.
CHRIS	California Historical Resources Information Center
CID	Cordua Irrigation District
CIPS	Commission Issuance Posting System
CL	carapace length
cm	centimeter
CMARP	Comprehensive Monitoring, Assessment, and Research Program
CNDDB	California Natural Diversity Data Base
CNPPA	California Native Plant Protection Act
CNPS	California Native Plant Society
CNPS-1A	Plant presumed by the CNPS to be extinct in California
CNPS-1B	Plant considered by the CNPS as rare or endangered in California and elsewhere
CNPS-2	Plant considered by the CNPS as rare or endangered in California but more common elsewhere
CNPS-3	Plant that requires more information by the CNPS before assigning to other lists – A review list
CNPS-4	Plant considered by the CNPS as plants of limited distribution
Commission	Federal Energy Regulatory Commission; also referred to as FERC
Comprehensive Plans	A comprehensive plan is a plan for the development or generation or other beneficial uses of a river recognized under the Federal Power Act section 10(a)(2)(a).
component	A named data set in an operation model that is a building block for a condition.
Conjunctive use	Conjunctive use of surface and groundwater consists of combining the use of both water sources in order to (1) minimize the undesirable physical, environmental and economical effects of using each and (2) optimize the water demand/supply balance.

Glossary (continued)

Term	Definition
C (continued)	
Consumptive use of water	Water no longer available for use because it has evaporated, transpired, or has been incorporated into products and crops.
Conceptual design for recreation facilities	A conceptual design is the designer's initial communication to convey proposed design solutions. Conceptual designs for a facility may consist of diagrammatic sketches, bubble diagrams, line diagrams, preliminary floor plans, or renderings. A conceptual design is prepared prior to a site development plan. (Forest Service Handbook 7309.11, Chapter 30.)
condition	The main building block of a scenario, containing the data used by the operation model to simulate the system. At this time, the only condition that is defined by components is 'Turbine Generator'.
Conduit	A pipe, flume or canal used for diverting or moving water from one point to another, usually used when there is no existing streambed or waterway.
Contact List	List of Interested Parties that have provided an e-mail address to the Licensee for distribution of information regarding the Relicensing. Also referred to as Relicensing Contact List.
Control Area	An electric system bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other control areas and contributing to frequency regulation of the interconnection. A control area operates its AGC on tie-line frequency bias.
CORP	California Outdoor Recreation Plan
CP	California Protected Species. Species designated as protected under the CDFG sport fishing regulations as authorized by the California Code of Regulations, Title 14
CPUC	California Public Utility Commission
CR	California Rare Species. A species or subspecies listed as rare under the California Endangered Species Act
critical habitat	Areas of land or water that the United States Fish and Wildlife Service or National Marine Fisheries Service has designated to have the physical or biological features essential to the conservation of a species listed under the federal Endangered Species Act.
CRMP	Cultural Resource Management Plan
CSBP	California Stream Bioassessment Procedure
CSPA	California Sportfishing Protection Alliance
CSC	California Special Concern Species, an administrative designation by CDFG
CT	Federal Candidate Threatened Species. A species or subspecies listed as threatened under the California Endangered Species Act
cu yd	cubic yard
CVHJV	The California Central Valley Habitat Joint Venture
CVP	Federal Central Valley Project
CVPIA	Central Valley Project Improvement Act
CVRWQCB	Central Valley Regional Water Quality Control Board
CWA	Federal Clean Water Act
CWHR	California Wildlife Habitat Relationships System
CWSC	California Water Services Company
CWT	coded wire tags
D	
DBW	Dam Base Width. The width of the dam at its widest point along the foundation.
DCE	Dam Crest Elevation. The elevation of the lowest point along the crest.
DCW	Dam Crest Width. The width of the dam at the crest.
Dam fish release requirement	The flow that must be released to the stream downstream of the dam; also known as minimum streamflow release requirement or bypass flow.
DH	Dam Height. The height of the dam from the crest (see below) to the stream channel at the downstream toe.
Dam Low Level Outlet Control	The type of gate and/or valve that controls the release from the low level outlet.
Dam Low Level Outlet Type	A description of the low level outlet facilities.
Dam Max Low Level Outlet Capacity	The flow that can be discharged through the low level outlet at the NMWS.
Dam Max Spillway Discharge	The maximum flow the spillway can pass with the water surface at the crest of the dam.
Dam Slope – Upstream Face	The slope of the upstream face of the dam.
Dam Slope – Downstream Face	The slope of the downstream face of the dam.
Dam Spillway Control	The type of device that controls the spillway.
Dam Spillway Crest Elevation	The elevation of the lowest point of the spillway.
Dam Spillway Type	The type of spillway.
Dam Type	A description of the type of dam.
Dam Year Placed in Service	The first calendar year water was impounded behind the dam.

Glossary (continued)

Term	Definition
D (continued)	
dbh	diameter at breast height
DCMWC	Dry Creek Mutual Water Company
de novo	From the beginning; start fresh.
Decommission	Demolition, dismantling, removal, obliteration and/or disposal of a deteriorated or otherwise unneeded asset or component, including necessary cleanup work. This action eliminates the deferred maintenance needs for the fixed asset. Portions of an asset or component may remain if they do not cause problems nor require maintenance.
DEIR	Draft Environmental Impact Report
DEIS	Draft Environmental Impact Statement
DEM	Digital Elevation Model – The format of the USGS digital elevation data sets containing elevation values that have been primarily derived from the United States Geological Survey topographic map series.
Dependable capacity	The maximum dependable output (in units of power, e.g., MW) of a generator or a group of generators under a combination of adverse hydrologic conditions and high electrical demand.
Development	The Project facilities situated immediately upstream of a powerhouse, which are not part of another development.
Discharge	water released from a dam
distribution system	The substations, transformers and lines that convey electricity from high-power transmission lines to the consumer. Usually 115 kV and lower voltage.
Diversion dam	Generally a small dam with minimal storage and a primary purpose of routing a portion of upstream flow into a diversion conduit.
DLA	Draft License Application
DO	dissolved oxygen
DOC	dissolved organic carbon
DPS	distinct population segment
Draft EA	Draft Environmental Assessment
DEIR	Draft Environmental Impact Report
DRP	Dispute Review Panel
DSS	The United States Army Corps of Engineers' Hydrologic Engineering Center Data Storage System is a database system designed to store and retrieve scientific data.
DVD	Digital Versatile Disk
E	
EA	Environmental Assessment
EAP	Emergency Action Plan
ECPA	Electric Consumers Protection Act
EDD	California Employment Development Department
EDR	Englebright Dam Reach
EFH	Essential Fish Habitat
EIA	Energy Information Administration
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
elev	Elevation
endemic (adj.) endemism (noun)	Restricted to a certain locality or region. Indigenous. Native.
EPA	United States Environmental Protection Agency
EPT	Orders of benthic insects: Ephemeroptera, Plecoptera, and Tricoptera.
ESA	Federal Endangered Species Act
ESU	evolutionarily significant unit
EVC	existing visual condition
F	
°F	Fahrenheit
FAC	Federal Advisory Committee
FACA	Federal Advisory Committee Act
FARM	Framework for Archaeological Research and Management of Forests of the North Central Sierra Nevada
FC	Federal Candidate Species. A species or subspecies currently proposed as a candidate for listing under the ESA
FE	Federal Endangered Species. A species or subspecies listed as endangered under the Federal Endangered Species Act
FEA	Final Environmental Assessment

Glossary (continued)

Term	Definition
F (continued)	
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FEPA	A federally-listed endangered species currently proposed for delisting from the ESA
FERC	Federal Energy Regulatory Commission
FERC determination	A binding decision made by FERC during the relicensing process
FERC Project Boundary	The area Licensee uses for normal Project operations and maintenance, and is shown on Exhibits G, J, and K of the current license.
FGDC	Federal Geographic Data Committee: promotes the coordinated development, use, sharing, and dissemination of geographic data.
FHSA	Federal Historic Sites Act
FHWA	Federal Highway Administration
fishway	A structure on or around natural or artificial barriers to facilitate fish migration, such as a fish ladder.
fixed asset	A constructed feature such as a building, road, campground, trail, or other item of infrastructure.
fixed asset component	A subsystem, major item of equipment, or other portion of a fixed asset. Examples of components include: roof for a building, deck for a bridge, pavement for a road, interpretive kiosk at a viewing area, site furnishings (tables, grills, etc.) at a campground.
flashboards	Removable boards installed seasonally in reservoir spillways to temporarily increase storage capacity
flood elevation	The reservoir elevation at which the plant's reservoir spills.
FLPMA	Federal Land Policy and Management Act
flume	A lined structure, commonly made of wood, metal or concrete, used for conveyance of water, usually where no streambed exists or the topography is not suitable for a canal or tunnel.
FMP	Fire Management Plan
FMU	Fire Management Unit
FODC	Friends of Deer Creek
forebay	A reservoir upstream from the powerhouse from which water is drawn into a tunnel or penstock for delivery to the powerhouse
Forest Service	United States Department of Agriculture, Forest Service
FOW	forced oil and water cooled
FP	Fully Protected. A species or subspecies designated as "fully protected" under the California Department of Fish and Game Code
FPA	Federal Power Act
FPD	Federal Proposed Delisting. A species or subspecies proposed for listing as endangered under the federal Endangered Species Act.
FPE	Federal Proposed Endangered. A species proposed for listing as "endangered" under the federal Endangered Species Act.
fps	feet per second
FPT	Federal Proposed Threatened. A species or subspecies proposed for listing as threatened under the federal Endangered Species Act.
Frequency Regulation	The ability of a Control Area to assist the interconnected system in maintaining scheduled frequency.
FRRRPA	The Forest and Rangeland Renewable Resources Planning Act
FSC	Federal Species of Concern. An administrative designation by United States Fish and Wildlife Service (former category 2 species)
FSM	Forest Service Manual
FSS	Forest Service Sensitive. A species or subspecies designated as "sensitive" by the Forest Service
FSV	Species designated by the Sierra Nevada Framework as moderate to high vulnerability and species of concern.
FT	Federal Threatened Species. A species or subspecies listed as threatened under the Federal Endangered Species Act
ft	foot or feet
FWCA	Fish and Wildlife Coordination Act
G	
G	Giga
g	Gram
GAP	Gap Analysis Program. United States Geological Survey and UC Santa Barbara's vegetation, land cover, and potential wildlife habitat map(s) for California.
Generator	A machine, powered by a turbine, that converts the rotating mechanical energy into electrical energy.

Glossary (continued)

Term	Definition
G (continued)	
GIS	Geographic Information System
GMP	General Management Plan
gpd	gallons per day
gpm	gallons per minute
GPS	Global Positioning System
GRCD	Grasslands Resource Conservation District
grizzly	A wide-opening grating across the entry to a water conduit, for screening of large objects such as logs.
Gross head	The difference between the headwater elevation and the tailwater elevation.
GWh	gigawatt hour (equals one million kilowatt hours)
H	
H	Horizontal
“H”-frame structure	A wood pole transmission structure that consists of two wood poles with a horizontal cross arm above the conductor
HA	Commercially or recreationally harvested species; non-protected species.
HABS	Historic American Building Survey
HABTAT	United States Fish and Wildlife Service Instream Flow Incremental Methodology simulation model
HAER	Historic American Engineering Record
HCP	Habitat Conservation Plan
head	The vertical height of water that represents potential energy.
Headwater	The upper tributaries that form the source of a stream
head loss	The amount of head that is lost (to friction, etc.) between the headwater (reservoir/forebay/intake) and the tailwater.
HEC	Hydrologic Engineering Center of the United States Army Corps of Engineers
HEC-ResSim	United States Army Corps of Engineers – Hydrologic Engineering Center Reservoir Simulation model, Version 3.0. Also referred to as ResSim.
HEP	Habitat Evaluation Procedures
HIC	Hallwood Irrigation Company
HLCTS	Hydropower License Compliance Tracking System
hp	Horsepower
HPMP	Historic Properties Management Plan
hr	Hour
HREZ	Heritage Resource Emphasis Zones
HRMA	Heritage Resource Management Area
HSC	Habitat Suitability Criteria
HSI	Habitat Suitability Indices
HSPH	Hydrologic Simulation Program—Fortran
HU	Hydro unit, numbers assigned by California’s regional water quality control boards.
HUC	Hydrologic unit codes developed by the Water Resources Council corresponding to hierarchal classification of hydrologic drainage basins in the United States. Each hydrologic unit is identified by a unique HUC.
HVAC	Heating Ventilation and Air Conditioning System
Hz	Hertz (cycles per second)
I	
ICD	Initial Consultation Document, also known as Pre-Application Document
IFIM	United States Fish and Wildlife Service, Instream Flow Incremental Methodology
IHA	Indicators of Hydrologic Alteration
ILP	Integrated Licensing Process
Immediate Vicinity	The area extending to about one mile out from a Project feature
in	Inch
inflow	The water entering a reservoir.
Initial License	The first license for a Project issued by Federal Energy Regulatory Commission.
Installed capacity	Installed capacity refers to the maximum amount of electric energy, in megawatts, that can be produced by all of a dam’s turbines operating to their maximum capacity for a given time. No power station ever produces at maximum capacity over a sustained period of time due to maintenance needs, lack of demand or, in the case of hydro dams, lack of water. Also called nameplate capacity or maximum capacity.
Interchange	Electric power that flows from one entity to another.

Glossary (continued)

Term	Definition
I (continued)	
Interested Parties	All governmental agencies, non-governmental organizations, Native American tribes, and unaffiliated members of the public who either (1) routinely participate in Federal Energy Regulatory Commission relicensings in California or (2) have advised the Licensee that they wish to become involved in one or more of the relicensing proceedings. The Licensee is considered to be an Interested Party.
introgression	The introduction of genes from one species into the gene pool of another species.
Inverted siphon	A pressurized pipe section of conduit that crosses a stream channel or ravine.
ISO	Independent System Operator
ITA	Indian Trust Asset
J	
JPS	Jimmerson-Gasper-Surface association, a soils classification
K	
kcfs	a thousand cubic feet per second
kg	kilogram: 1,000 grams
kg/day	kilograms per day
kg/ha	kilograms per hectare
kg/yr	kilograms per year
km	kilometer: 1,000 meters
kV	kilovolt: 1,000 volts
kVA	kilovolt amperes
KVP	Key View Point
kW	kilowatt: 1,000 watts
kWh	kilowatt-hour: 1,000 watt hours
L	
L	Liter
lb	Pound
LCMMP	Land Coordinated Mapping and Monitoring Program
lead agency	A lead agency is the agency responsible for ensuring that a course-of-action, i.e., project, complies with the California Environmental Quality Act and/or the National Environmental Policy Act.
Lentic	Related to or living in standing water.
LEO	Law Enforcement Officer
level	reservoir surface elevation
level fluctuation	The change in reservoir surface elevation.
License Application	Application for a new license; submitted to the Federal Energy Regulatory Commission no less than two years in advance of expiration of an existing license.
Licensee	Yuba County Water Agency
license term	The period for which a license is issued by the Federal Energy Regulatory Commission. Usually between 30 and 50 years.
LIDAR	Light Detection and Ranging. An optical remote sensing technology that measures properties of scattered light to find range and/or other information of a distant target.
load shapes	The daily schedule of power pricing and the hour duration of each price.
local inflow	The incremental inflow between two plants (also known as accretion flows).
LOP	limited operating periods
lotic	Related to or living in flowing water.
LRMP	Land and Resource Management Plan
LWD	large woody debris
M	
μ	micro
μg	microgram
μg/L	micrograms per liter (equals parts per billion, or ppb)
μmho/cm	micromhos per centimeter, a measurement of electrical conductivity
μS	microsiemens, a measurement of electrical conductivity
M	mega
m	meter (if the letter is used as a unit on its own)
m	milli (if the letter is placed in front of another unit)
mainstem powerhouse	A plant located on the main stream that runs through the system. Not a plant on a side or tributary stream.
maximum penstock velocity	The maximum velocity in the penstock at the "installed capacity" as defined above. This will occur at the smallest penstock diameter.

Glossary (continued)

Term	Definition
M (continued)	
mbf	million board feet
MBTA	Migratory Bird Treaty Act
MCA/T	mandatory conditioning agencies/tribes
MCE	maximum credible earthquake
MCL	maximum contaminant level
Meeting Participant	A Relicensing Participant who attends a specific meeting. Meeting Participants are different for each meeting.
Member Unit	One of eight water users who participated in the Yuba Accord with YCWA.
metadata	“Data about data” - Describe the content, quality, condition, purpose and other characteristics of data.
mg	milligram
mg/L	milligrams per liter (equals parts per million, or ppm)
mgC/m ²	milligrams of carbon per square meter
mi	mile
mills/kWh	0.1 cent per kilowatt hour
minimum daily average flow	A requirement indicating the minimum flow of water that must be maintained at a measurement location when instantaneous flow measurements are averaged on a daily basis.
minimum instantaneous flow	A requirement indicating the minimum flow of water that must be maintained at a measurement location at any point in time.
minimum instream flow	A requirement indicating the minimum flow within a Project-affected reach, at a fixed measurement location. A minimum instream flow can be defined as an instantaneous flow or a time period-averaged flow.
MIR	minimal implementation requirement, a Forest Service system
MIS	A Forest Service Management Indicator Species
mm	millimeters
MNBMC	Migratory Bird of Management Concern, a Forest Service classification
MOA	memorandum of agreement
morphometric	measurement of the external form (size and shape) of an object
MOU	memorandum of understanding
MPN	most probable number
mps	meters per second
MSCS	Multi-Species Conservation Strategy
MSFCMA	Magnuson-Stevens Fishery Conservation and Management Act
msl	mean sea level
must-run	Energy or ancillary services necessary to maintain system reliability
MVA	megavolt-ampere
MVZ	Museum of Vertebrate Zoology
MW	megawatt: 1,000 kilowatts
MWh	megawatt-hours: 1,000 kilowatt-hours
mya	million years ago
MYR	Middle Yuba River
N	
n	nano
NAD 83	North American Datum 1983 – Based on a definition of the size and shape of the earth. It is the datum for map projections and coordinates within the United States and throughout North America.
NAGPRA	Native American Graves Protection and Reparation Act
NADV	North American Vertical Datum
NAHC	California Native American Heritage Commission
NAIP	National Agriculture Imagery Program
Narrows 1; Narrows 2	
natal	Of, relating to, or present at birth.
natural inflow	The flow that a point in the system would have received if there were no upstream flow regulation in the system. This flow is equal to the sum of all upstream accretion inflows. Also known as unimpaired or unregulated flows.
NCCP	Natural Conservation Plan
NCIC	North Central Information Center
NDA	no data available
NEPA	National Environmental Policy Act
NEPAct	National Energy Policy Act

Glossary (continued)

Term	Definition
N (continued)	
new construction	The erection, construction, installation, or assembly of a new fixed asset.
New License	A license issued for a Project for which the Federal Energy Regulatory Commission has issued an initial license
NFMA	National Forest Management Act
NFS	National Forest Service
ng	nanogram
NGO	Non-Governmental Organizations
NGVD	National Geodetic Vertical Datum
NHA	National Hydropower Association
NHI	Natural Heritage Institute
NHPA	National Historic Preservation Act
NID	Nevada Irrigation District
NJE	Nanny-Jacksback-Esro association, a soil classification
NLT	No later than
NMFS	Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service
NMWS	Normal Maximum Water Surface elevation, applies to reservoirs
NOAA	Department of Commerce, National Oceanic and Atmospheric Administration
normal operating capacity	The maximum MW output of a generator or group of generators under normal maximum head and flow conditions
NOI	Notice of Intent
NPDES	National Pollution Discharge Elimination System
NPN	Neuns-Ponto-Neer association, a soils classification
NPS	National Park Service
NRCS	Natural Resource Conservation Act
NRHP	National Register of Historical Places
NRI	Nationwide Rivers Inventory
NTU	nephelometric turbidity unit
NWI	National Wetlands Inventory
NWIS	United States Geological Survey's National Water Information System
NWS	National Weather Service
NYI	North Yuba Index
NYR	North Yuba River
O	
O&M	Operation and maintenance
OEHHA	California's Office of Environmental Health Hazard Assessment
OEP	Federal Energy Regulatory Commission Office of Energy Projects (Formerly Office of Hydropower Licensing)
OGM	Obie-Goulder-Mounthat association, a soils classification
OHP	State Office of Historic Preservation
OHV	Off Highway Vehicle
Operation and maintenance	The utilization of fixed Project assets for their intended use, as well as any ongoing, repetitive tasks associated with keeping fixed Project assets in acceptable condition, including safety inspections.
ORV	Off-road vehicle <i>or</i> Outstanding Remarkable Views
OS	Office of the Solicitor
Oz	ounce
P	
P	phosphorus
PA	Programmatic Agreement
PAC	Protected activity center
PAD	Pre-Application Document
PAD Questionnaire	Questionnaire developed and circulated by Yuba County Water Agency to gather existing, relevant and reasonably available information for inclusion in the Yuba River Development Project Pre-Application Document.
PAOT	people at one time
PCT	Pacific Crest Trail
PDF	Portable document format
peaking	Operation of generating facilities to meet maximum instantaneous electrical demands
penstock	An inclined pipe through which water flows from a forebay or tunnel to the powerhouse turbine

Glossary (continued)

Term	Definition
P (continued)	
penstock capacity	The maximum design flow in the penstock.
penstock connections	The type of connections in the penstock both within the cans themselves and between cans.
penstock diameter	The nominal diameter of the penstock.
penstock length	The length of the penstock (see definition for penstock, above) from the tunnel or upstream inlet to the turbine shut off valve
penstock supports	The type of supports for the penstock.
penstock type	A description of the type of pipe and whether the pipe is surface or buried.
pf	power factor
PFMC	Pacific Fishery Management Council
PG&E	Pacific Gas and Electric Company
PH	Powerhouse
pH	The measure of the acidity or alkalinity of a substance or liquid
Powerhouse operation type	A reference to the manner in which water is scheduled through a powerhouse. At this time there are six operating types: <u>Diversion Powerhouse</u> – A powerhouse that utilizes upstream diversions with minimal storage. <u>Fill and Spill</u> – A powerhouse that peaks with the loadshape but gives priority to the upstream powerhouse and will spill in order for the upstream powerhouse to follow the loadshape as closely as possible. <u>Strictly Peaking</u> - A powerhouse that peaks its discharge. Attempts to schedule water in highest value periods of day. Can instantaneously (in a 15-minute increment) change load. <u>Peaking with Ramp Rates</u> – A powerhouse where the water discharge still closely follows the load shape (powerhouse will Peak); however, the powerhouse is constrained by ramping rates. <u>Pure Run of River</u> – A powerhouse where inflows are equal to outflows on an instantaneous basis. <u>Re-regulating</u> – A powerhouse designed to regulate peaked discharge from upstream powerhouses into smoother discharges. This powerhouse releases constant outflows for the whole day. Re-regulating powerhouses may or may not be constrained by ramping rates.
powerhouse maximum capability	Maximum megawatt output generated by the specific powerhouse. For powerhouses with two or more units, this value is the maximum simultaneous total output generated.
PHABSIM	Physical Habitat Simulation Models
Plan	A common term for a County's general plan.
PLP	Preliminary Licensing Proposal
PM&E	Protection, Mitigation & Enhancement
PM&E measure	A Project facility, operation or management activity undertaken for the purpose of protecting or mitigating impacts that would result from continued Project operation and maintenance, or for the purpose of enhancing resources that would be affected by continued Project operation and maintenance.
PMF	Probable Maximum Flood
PMP	Probable Maximum Precipitation
PNF	Plumas National Forest
POAOR	California Public Opinion and Attitudes in Outdoor Recreation Survey
Posted File	A file placed on the Licensee's Relicensing Website.
power development	See "development"
Power Factor	The ratio of actual power to apparent power. Power factor is the cosine of the phase angle difference between the current and voltage of a given phase. Unity power factor exists when the voltage and current are in phase
ppb	parts per billion
PPL	Pit-Pastolla-Lasvar association, a soils classification
ppm	parts per million
Program	CALFED Bay-Delta Program
Project	YCWA's Yuba River Development Project, FERC Project No. 2246. Specifically, the Project facilities and features identified in the existing FERC license.
Project Area	The area within the FERC Project Boundary and the land immediately surrounding the FERC Project Boundary (i.e., within about 0.25 mile of the FERC Project Boundary) and including Project-affected reaches between facilities and downstream to the next major water controlling feature or structure.
Project Drainage Basins	Combination of the Middle Yuba River, North Yuba River and Yuba River drainage basins.
Project Region	The area surrounding the Project in the order of a county or national forest.
Project Roads	Roads within Project boundary and constructed for Project purposes and necessary for Project operation and maintenance

Glossary (continued)

Term	Definition
P (continued)	
Project Vicinity	The area surrounding the Project on the order of a United States Geological Survey 1:24,000 topographic quadrangle.
Project Viewshed	The area from which Project features are visible. The land base from which the Project may be seen.
Project Works	All of the infrastructure associated with the operations of the Project
PSEA	Pacific Service Employees Association
psi	pounds per square inch
PSR	Pacific Southwest Region of the Forest Service
PURPA	Public Utilities Regulatory Policies Act
PWC	Personal water craft
PWD	Persons with Disabilities
PX	California Power Exchange
Q	
QA/QC	Quality Assurance/Quality Control
QF	A qualifying facility, a cogenerator or small power producer that sells its excess power to a utility
quad	Quadrangle
Qualifying Plans	A specific list of comprehensive plans submitted to FERC by California agencies.
R	
ramping	The act of increasing or decreasing stream flows from a powerhouse, dam or diversion structure
ramping rates	The rate of water discharge from a powerhouse, dam or diversion structure, prescribed by the License or other regulatory-driven rule.
ramping rate curve	The river flow vs. stage curve relationship at the point where ramping rate compliance is measured.
RCA	Riparian Conservation Areas as defined by Tahoe National Forest
RCO	Riparian Conservation Objectives as defined by Tahoe National Forest
RD	Recreation Day, which equals a visit by a person to a site for recreation purposes during any portion of a 24-hour period
Reach	A stretch of stream defined for the purposes of communication, usually defined between readily identifiable endpoints (such as structures or stream confluence).
REC	Sierra Foothill Research and Extension Center
Regulated hydrology	The hydrology of Project-affected streams subsequent to construction of the Project. The hydrology of any stream that is augmented, constrained, or otherwise manipulated by upstream man-made structures.
Relicensing	The process of acquiring a new license for a Project that has an existing license from the Federal Energy Regulatory Commission.
Relicensing Contact List	List of Interested Parties that have provided to YCWA an e-mail address to which YCWA may forward information regarding the Relicensing. Also referred to as Contact List.
Relicensing Participants	Interested Parties, which includes YCWA, that routinely actively take part (i.e., attend meetings/workshops and make filings) in the Relicensing proceedings
relicensing proceeding	Relicensing of YCWA's Yuba River Development. Sometimes referred to as the Relicensing.
reservoir	The water retained by a dam. Also referred to as headwater, storage, forebay, or headpond.
reservoir drainage area	The area that drains into the reservoir.
reservoir elevation	The water surface elevation of a reservoir at a given point in time
reservoir gross storage	Reservoir storage at maximum normal water surface elevation.
reservoir length	The distance between the two most distant points on the reservoir shore at normal maximum water surface elevation.
reservoir maximum storage capacity	The gross volume of water that can be stored in the reservoir.
reservoir NMWS elevation	Normal Maximum Water Surface - The elevation of the lowest spill crest if uncontrolled, the top of the gates for gates at the top of the dam.
reservoir surface area	The surface area of the reservoir at the normal maximum water surface elevation.
reservoir storage curve	A curve that defines a reservoir's volume in acre-ft at various surface elevations.
reservoir usable capacity	A volume measurement of the amount of water that can be stored for generation, down to a minimum level
reservoir width	The maximum distance between the two most distant points on the reservoir shore at normal maximum water surface elevation taken at a right angle to the line at reservoir length.
residence time	The period of time water remains in a reservoir.
ResSim	United States Army Corps of Engineers - Hydrologic Engineering Center (USACE-HEC) Reservoir Simulation model, Version 3.0. Also known as HEC-ResSim.
Responsible agency	A responsible agency is a public agency with discretionary approval authority over a portion of a project that is subject to the California Environmental Quality Act.

Glossary (continued)

Term	Definition
R (continued)	
RIMS	Records & Information Management System
riparian	Riparian applies to the vegetation zone and other biological resources adjacent to and hydrologically affected by neighboring riverine (lotic) and reservoir (lentic) water bodies.
RM	River mile as measured along the river course, from downstream to upstream, often beginning at a downstream confluence with another river reach.
RMA	Resource Management Area, a Bureau of Land Management term
RMP	Resource Management Plan, a Bureau of Land Management term
RMT	Yuba Accord's River Management Team
RNA/ACEC	Research Natural Area/Area of Critical Environmental Concern
ROD	Record of Decision
ROS	Recreation Opportunity Spectrum
Rosgen classification	The Rosgen classification system is a widely-used method for classifying streams and rivers based on common patterns of channel formation (morphology). The patterns are preferably observed from physical measurements.
ROW	Right-of-way
rpm	revolutions per minute
RST	Rotary Screw Traps
RTD	resistance temperature detector
run-of-the-river	A hydro project that uses the flow of a stream with little or no reservoir capacity for storing water
RV	recreational vehicle
RVD	Recreation Visitor Days
RWD	Ramirez Water District
RWQCB	Regional Water Quality Control Board
S	
salmonids	Any member of the taxonomic family Salmonidae, which includes all species of salmon, trout, char, whitefish, and grayling.
SCE	State candidate endangered. Species is a candidate for listing under the California Endangered Species Act, as endangered.
SCT	State candidate threatened. Species is a candidate for listing under the California Endangered Species Act, as threatened.
SCD	State candidate for delisting. Species is a candidate for delisting under the California Endangered Species Act.
SCADA	Supervisory Control And Data Acquisition system
scenario	A collection of settings that constitutes a HEC Res-Sim operation model run. Output data for a run are referenced by the scenario name.
SCORP	State Comprehensive Outdoor Recreation Plan
SD1	Scoping Document 1: A document issued by the Federal Energy Regulatory Commission summarizing the relicensing process for a Project; generally issued following the first public meeting after the NOI.
SD2	Scoping Document 2: Within 45 days following the deadline for filing of comments on Scoping Document 1, the Federal Energy Regulatory Commission staff shall, if necessary, issue Scoping Document 2 to address comments received regarding Scoping Document 1.
SE	State Endangered. A species or subspecies listed as endangered under the California Endangered Species Act.
Secchi Disc	A method of measuring surface water transparency in a reservoir
Section 106	Refers to section 106 of the National Historic Preservation Act
Section 401 Certification	Water quality certification issued by the State Water Resource Control Board, the California agency responsible for administering Section 401 of the Clean Water Act
Section 7 Consultation	The required formal consultation required under the Endangered Species Act between the Licensee and the United States Fish and Wildlife Service and/or the National Marine Fisheries Service.
SFP	State fully protected
SFPP	South Feather Power Project
SFREC	Sierra Foothill Research and Extension Center
SFWPA	South Feather Water and Power Agency
SHPO	California Department of Parks and Recreation, Office of Historic Preservation, State Historic Preservation Officer
SL	standard length
Smartville	In 2008, the people of this community petitioned to have the name changed to Smartsville, with an 's' in the middle of the name. However, the USGS gage refers to the former spelling of the community name. Therefore in this document, the community is referred to as such.

Glossary (continued)

Term	Definition
S (continued)	
SMS	United States Fish and Wildlife Service, Scenery Management System
SMZ	Streamside Management Zone as defined by Tahoe National Forest
SNEP	Sierra Nevada Ecosystem Project
SNFMISA	Sierra Nevada Forest Management Indicator Species Amendment
SNFPA	Sierra Nevada Forest Plan Amendment
SNTEMP	The United States Fish and Wildlife Service's Stream Network Temperature Model
SNYLF	Sierra Nevada yellow-legged frog
SOHA	spotted owl habitat areas
Special-Status Species	Special status species or subspecies are listed under the California Endangered Species Act, federal Endangered Species Act, resource agency, or resource trustee, as candidates for endangered or threatened status, species of special concern, sensitive species, watch list species, management indicator species, or rare species.
Spill	Water that passes over a spillway or dam without being utilized for power generation.
Spillway	A constructed passage for releasing surplus water from a reservoir or release water, not used for power generation, as otherwise necessary for safe project operation
spillway capacity curve	A curve that defines the magnitude of spill, in cubic feet per second, for the spillway at given reservoir elevations.
SPT	sediment pass-through
sq ft or ft ²	square foot
sq mi or mi ²	square mile
SR	State Rare. A species or subspecies listed as rare under the California Environmental Quality Act.
SRMA	Sierra Resource Management Area
SRMP	Sierra Resource Management Plan
SRWP	Sacramento River Watershed Program
ST	State Threatened. A species or subspecies listed as threatened under the California Environmental Quality Act.
Stage	A water surface elevation based on a local datum
State	State of California
station use	Energy used to operate the generating facility's auxiliary equipment
STATSGO	State Soil Geographic Database
stoplogs	Removable logs installed seasonally in reservoir spillways to temporarily increase storage capacity. Also known as "flashboards".
Storage-area-elevation curve	A rating curve that defines reservoir storage and water surface area as a function of the water surface elevation
STORET	The United States Environmental Protection Agency's computerized water quality data storage and retrieval system.
Study Area	The geographic area covered by a specific study
Study Plan	The aggregate of all study descriptions
Study Proposal	A single study, as well as the aggregate of all studies performed in support of the relicensing.
Su	Standard units; units of measuring PH
sub-basin	An area drained by a stream and all its tributaries that is contained within a larger basin or watershed
SUP	Special Use Permit issued by the Forest Service
SWDU	Statement of Water Diversion and Use
switching center	The main control center for the development. The switching center is responsible for operation of the development's automatic, semiautomatic and manual powerhouses.
switchyard	A facility where electricity from the electrical generator is transferred to the electric grid
SWP	State Water Project
SWRCB	State Water Resources Control Board
synthesized hydrology	The calculated estimate of flow (not measured).
SYR	South Yuba River
SYRCL	South Yuba River Citizens League
system operational losses	The water power lost during regular operation of the reservoir and hydropower system.
SYWD	South Yuba Water District
T	
tailrace	Channel through which water is discharged from the powerhouse turbines
tailwater curve	A curve that defines the tailwater elevation at the range of powerhouse flows.
tailwater elevation	The elevation where all energy from the water passing the turbine had been extracted. (Can be the turbine centerline or the river surface elevation at the point of powerhouse discharge)

Glossary (continued)

Term	Definition
T (continued)	
taxa	Plural form of taxon.
taxon	A term used in animal and plant classification. One or more organisms that are classified as being members of the same group, related to each other.
TCP	Traditional Cultural Property
TDS	total dissolved solids
T&E	Threatened and Endangered species as listed by either the Federal Endangered Species Act or the California Endangered Species Act.
thalweg	The lowest elevation within the cross-section of a natural or artificial water conveyance channel
THP	Timber Harvest Plan
TLP	Traditional Licensing Procedure as defined by Federal Energy Regulatory Commission regulations
TMDL	total maximum daily load
TN	total nitrogen
TNC	The Nature Conservancy
TNF	Tahoe National Forest
TOC	total organic carbon
transformer	An electrical device which modifies the voltage and current relationship of a power source.
trash rack	A mechanism, found on a dam or intake structure, which clears the water of debris before the water passes through the structure
TRP	Traditional Relicensing Procedure as defined by Federal Energy Regulatory Commission regulations
TSS	total suspended solids
tunnel	An underground or underwater passageway
tunnel capacity	The maximum design flow in the tunnel.
tunnel diameter	The nominal design size of the tunnel.
tunnel length	The length of the tunnel from the upstream portal to the downstream portal.
tunnel lining	The type of lining in the tunnel, if any.
tunnel type	Either pressure or free flow.
turbine	A machine that converts the energy of moving water into the mechanical energy of rotation. This energy is then used to turn an electrical generator or other device.
TWD	tailwater depression unit
U	
UC Davis	University of California, Davis
unimpaired hydrology	Synthesized hydrology of Project-affected streams with no developments. An estimate.
Unit	A term referring to the combined turbine-generator machine.
US	United States
USACE	United States Department of Defense, Army Corps of Engineers
USBIA	United States Department of Interior, Bureau of Indian Affairs
USBLM	United States Department of Interior, Bureau of Land Management
USBR	United States Department of Interior, Bureau of Reclamation
USC	United States Code
USDA	United States Department of Agriculture
USDOC	United States Department of Commerce
USDOD	United States Department of Defense
USDOI	United States Department of Interior
USFWS	United States Department of Interior, Fish and Wildlife Service
USGS	United States Department of Interior, Geological Survey
UTM	Universal Transverse Mercator – The map projection upon which the UTM Coordinate System is based.
UYRSP	The Upper Yuba River Studies Program
V	
V	volts
VELB	valley elderberry longhorn beetle
VFW	Veterans of Foreign Wars
VMS	A Forest Service Visual Management System
VQO	Visual Quality Objectives, a Forest Service visual classification system
VRM	Visual Resource Management
W	
W	watt

Glossary (continued)

Term	Definition
W (continued)	
Watch List	A list prepared by an individual National Forest Land Resource Management Plan of plants and animal species that are locally rare (as opposed to declining throughout their range) and are of public concern, occur as disjunct populations, are newly described taxa, or lacking sufficient information on population size, treats, trends or distribution. These species are not on the federal special status species list.
Water quality certification	Issued by the State Water Resources Control Board in California, but required by the federal Clean Water Act, Section 401 water quality certification is required for any permit or license issued by a federal agency for any activity that may result in a discharge into waters of the state to ensure that the proposed project will not violate state water quality standards.
water withdrawals	Water that is withdrawn from the reservoir, not available for energy generation, which is lost from the system. Withdrawals can be either positive or negative.
WBWG	Bat species designated by the Western Bat Working Group as High Priority because they are imperiled or at high risk of imperilment
Whitewater Classification System	Class I: (Easy) Moving water with small disturbances on the surface and a few small waves. There is little to no danger to swimmers. Class II: (Novice/Beginner) Faster moving water with easily avoided rocks, holes, and waves. Danger to swimmers is still slight but care must be taken. Class III: (Intermediate) Fast moving water containing various rocks, holes, currents, and waves that require skillful maneuvering to avoid. Swimmers could be at risk and may require help. Class IV: (Advanced) Strong rapids, large waves, big holes, unpredictable currents, and dangerous obstructions requiring multiple maneuvers to get through or around. Swimmers are at risk and will require help to be rescued. Class V: (Expert) All of the characteristics of Class IV with the added danger of being longer and containing more continuous features that may not be avoided. There is serious risk to swimmers and others may be of no help. Class VI: (Unrunnable) Only a team of experts who carefully plan every aspect of this expedition would have hope of surviving these rivers and rapids.
WPT	western pond turtle
WSEL	water surface elevation
WSRA	Wild and Scenic Rivers Act
WUA	Weighted Usable Area
WWD	Wheatland Water District
WY	water year
X	
Y	
y ³	Cubic yard
ya	years ago
YCWA	Yuba County Water Agency
yd	yard
YOY	young-of-the-year
Yuba Accord	Adopted in 2008, the Yuba Accord consists of three agreements between Yuba County Water Agency and others to 1) increase Yuba County Water Agency's contribution to flows in the Lower Yuba River for fishery enhancement; 2) formalize conjunctive use practices in the Yuba County Water Agency's service area to help increase the volume of water available to increase the flows; 3) authorizes Yuba County Water Agency to sell the water, once it's downstream, to the CALFED Environmental Water Account and others; and 4) amends the YCWA and PG&E's power purchase contract.
Z	

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