GLOSSARY

Term	Definition
1980 Instream Flow Rule	In June 1980, Ecology adopted an administrative rule for protecting instream flows on the mainstem Columbia River (WAC 173-563). Water rights on the Columbia River mainstem issued after 1980 are subject to the state instream flow rule.
Acquisition	The selling of a whole or partial water right to state or federal agencies or to private conservation organizations.
Acre-foot	A unit of volume equal to one acre of area by one-foot depth (equal to 43,560 cubic feet or 325,851 gallons). This unit is generally used to measure the volumes of water used or stored in reservoirs. Also used are thousands of acre-feet (kaf) and millions of acre-feet (maf).
Active storage	Water occupying the active storage capacity of a reservoir.
Active storage capacity	The portion of the live storage capacity in which water normally will be stored or withdrawn for beneficial uses, in compliance with operating agreements or restrictions.
Adjudication	"The process where all those claiming the right to use water from a water source are joined in a single legal action to determine the rights and priorities for the use of the water" (Clifford, et al., 2004:149).
Appropriation	"The establishment of a water right by diversion, due diligence and beneficial use. Must be adjudicated to establish seniority of right" (Clifford, et al., 2004:149).
Aquifer storage and recovery	A water storage technique that uses underground aquifers as storage reservoirs. ASR is permitted by Ecology under WAC 173-157 and provides an opportunity for utilizing underground storage, provided certain technical conditions are met. Water may be stored for a period of weeks, months or longer, and then recovered for potable or other uses.
Average Streamflow	The average rate of flow at a given point during a specified period (Corps, 2003).
Basin	"The land area that drains into [a] waterbody" (Clifford, et al., 2004:156).
Beneficial use	Beneficial use shall include, but not be limited to, use for domestic water, irrigation, fish, shellfish, game and other aquatic life, municipal, recreation, industrial water, generation of electric power, and navigation (RCW 90.14.031(2) and WAC 173-500-050(4)).
Biological Opinion	A set of recommendations from NMFS defining what operations the Columbia River system operation should be in order to ensure that the endangered species are not placed into jeopardy (Corps, 2003).

Term	Definition
Columbia Basin Project	A federal project authorized by Congress in 1935 and developed in parallel with the construction of Grand Coulee Dam. Primary irrigation facilities are the Feeder Canal, Banks Lake, the Main, West, East High, and East Low Canals, O'Sullivan Dam, Potholes Reservoir and Potholes Canal. There are over 300 miles of main canals, about 2,000 miles of laterals, and 3,500 miles of drains and wasteways on the project (Bureau of Reclamation, 2006a). The project irrigation facilities were planned to deliver a full water supply to 1,029,000 acres of land previously used only for dry farming or grazing. About 621,000 acres are currently authorized to be irrigated and further development is on hold.
Columbia River Initiative (CRI)	An initiative created to address the water management issues in the Columbia River. The CRI included a framework for issuing new water rights from the Columbia River while improving streamflows for fish. The CRI was composed of four elements—a legislative proposal for consideration in the 2005 legislative session, a proposed budget to secure water and conduct feasibility studies of new off-channel storage projects, draft rule language for implementation of the CRI, and cooperative agreements with federal and local partners.
Columbia River Water Management Program	A program established by House Bill 2860 in which Ecology aggressively pursues development of water supplies to benefit both instream and out-of-stream uses through storage, conservation and voluntary regional water management agreements.
Columbia-Snake River Irrigators Association (CSRIA)	An association that represents farming operations in Eastern Washington that irrigate about 250,000 acres of row crop, vineyard and orchard lands. Its members have farming operations along the Columbia-Snake River system north from the City of Brewster, reaching to the south along the John Day and McNary Pools of the Columbia River. Some of the members own farming operations in the Yakima Valley and within the CBP area. The membership also includes several municipal service irrigators, including Brewster, Kennewick, West Richland, and the Kennewick Irrigation and Hospital Districts (Ecology, 2006b).
Conservation	Conservation is the management of water resources so as to maximize efficiency of use and eliminate waste. In the context of the Columbia River Water Management Program, conservation generally refers to non-storage projects and can include water right acquisitions, infrastructure efficiency projects, and other projects designed to provide access to new water supplies for both instream and out-of-stream uses.
Consumptive Use	Use of water whereby there is a diminishment of the water source (WAC173-500-050(5)). In the context of irrigation, consumptive use includes crop evapotranspiration, and water evaporated during irrigation applications (e.g. spray, canopy and wind losses).
Control point	A stream gage that is used to measure the discharge of the stream to ensure that instream flow requirements are met.

Term	Definition
Crop Irrigation Requirement (CIR)	Water supplied by irrigation to satisfy evapotranspiration that is not provided by water stored in the soil and precipitation. Where additional quantities of water are required for leaching, frost-protection, cooling and other miscellaneous crop requirements, these quantities are added to the CIR.
Cubic feet per second (cfs)	Unit of measure expressing rates of discharge. Also expressed as thousand cubic feet per second (kcfs) (Corps, 2003). One cfs is equal to 449 gallons per minute and approximately two acre-feet per day.
Dam	A barrier built across a watercourse for impounding water.
Decision Support System	A model that attempts to capture many different parts of a complex system and couple them together in a variety of ways. The connections between parts can be quantitative (i.e. non-linear and linear mathematical relationships) and qualitative (i.e. preferences or rules). Groups of parts can be examined independently or in conjunction with others. DSS is useful for compiling and organizing information as well as for simulating processes and making decisions.
Discharge	The rate of flow of a river or stream measured in volume of water per unit of time. The standard units of measure are cubic feet per second (cfs) or thousand cubic feet per second (kcfs) (Corps, 2003).
Diversion	The amount of water withdrawn from surface or ground water sources (Corps, 2003).
Drafting	The process of releasing water from storage in a reservoir. Operators begin drafting reservoirs—through turbines or over the spillway of a dam —to lower the level for a number of reasons, including flood control or downstream flows for fish or power generation (FCRPS, 2001).
Drawdown	The distance that the water surface of a reservoir is lowered from a given elevation as the result of the withdrawal of water (Corps, 2003).
Efficiency	Generally, efficiency is the ratio of output to input. Efficiency in the Columbia River Water Management Program will depend on the context of the project (e.g. agricultural, industrial, municipal). Increasing efficiency could be measured by increasing the output with the same amount of input, or by maintaining the same output with less input. For example, increasing irrigation efficiency means that the same or a greater crop production occurs with less water use. See also, Irrigation Efficiency.
Endangered Species	Any species which, as determined by the U.S. Fish and Wildlife Service, is in danger of extinction throughout all or a significant portion of its range other than a species of the class Insecta determined to constitute a pest whose protection would present an overwhelming and overriding risk to man (Corps, 2003).
Evapotranspiration	A loss of water from the soil both by evaporation and by transpiration from growing plants.

Term	Definition
Existing Water Right Capacity	The difference between current water use and existing water rights.
Fallowing Corners	Occurs when a center pivot with a round irrigation pattern is installed on a square(ish) field and the landowner decides to fallow the corners in lieu of irrigating them by some other method.
Feed route	A route (can be a combination of artificial and natural channels) used to transport irrigation water from one location to another.
First tier demand forecast	A water demand forecast based solely on water right applications on file in Ecology's WRTS database. It includes a summary of water right applications and the water use associated with those applications.
Flood control	Any activity designed to reduce the flow and impact of a flood. Flood control measures include levees and wall construction; improving discharge capacity of the stream channel; reservoir and dam construction; and diversion of excess water into bypasses or floodways.
Gage	An instrument that can measure water quantity and quality parameters.
Group A Systems	Those domestic water systems that regularly serve either 15 or more service connections or 25 or more people per day for 60 or more days per year.
Group B Systems	Those domestic water systems that serve fewer than 15 service connections and fewer than 25 people per day, or 25 or more people per day for fewer than 60 days per year.
Hydropower	Mechanical energy derived from falling or flowing water, e.g., rivers, streams, and the overflow of dams. Water flowing from a higher level to a lower level (as from a dam or waterfall) is used to activate a turbine that drives an electric generator, a process called hydroelectric power generation. The amount of power furnished is proportional to the rate of flow of the water and the vertical distance through which it falls.
Impoundment	A facility or part of a facility which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), which is designed to hold an accumulation of liquid.
Inchoate water right	An inchoate water right is an incomplete appropriative right in good standing that comes into being when the first step required by law for acquiring an appropriative right is taken (e.g. a permit is issued). The inchoate right remains in good standing for so long as the requirements of the law are fulfilled. An inchoate right to use water ripens into a vested water right only in the amount of water actually put to a beneficial use. In relation to the Columbia River, inchoate rights represent a portion of existing water rights that may be "in the river" now, but may not be in the future as the rights are developed.

Term	Definition
Instream Flow	Used to identify a specific streamflow (typically measured in cubic feet per second, or cfs) at a specific location for a defined time, and typically following seasonal variations. Instream flows are usually defined as the streamflows needed to protect and preserve instream resources and values, such as fish, wildlife and recreation. (http://www.ecy.wa.gov/programs/wr/instream-flows/isfhm.html). A specific instream flow can be adopted by Ecology in rule, which becomes a water right with a priority date of the adoption of the rule; see 1980 Instream Flow Rule.
Instream Use	"A type of end application of water use that does not require withdrawal from the source. Examples of instream uses are recreational, navigational, and ecosystem preservation" (Clifford, et al., 2004:150).
Interruptible Water Right	Water rights junior to the 1980 instream flow rule that could be curtailed in low flow conditions in order to maintain adequate flows for fish. Interruptible rights can be curtailed when the March 1 forecast for April through September runoff at The Dalles Dam on the lower Columbia River is less than 60 million acre-feet.
Inventory	The water supply inventory described in this report combines the information requirements under Sections 5 and 6 of ESSHB 2860. Section 5 of ESSHB 2860 defines the required elements of the water supply inventory as: a. A list of conservation projects that have been implemented under this chapter and the amount of water conservation achieved; and b. A list of potential water supply and storage projects in the Columbia Basin, including i. Cost per acre-foot; ii. Benefit to fish and other instream uses; iii. Benefit to out-of-steam uses; and iv. Environmental and cultural impacts. Section 6 of ESSHB 2860 describes information requirements for a Columbia River mainstem water information system that includes: a. Total aggregate quantity of water rights issued under state permits and certificates, and filed under state claims on the Columbia River mainstem and for ground water within one mile of the mainstem; and b. Total volume of current water use under these rights as metered and reported by water users.
Irrigation	The controlled application of water to cropland, hay fields and/or pasture to supplement that supplied by nature.
Irrigation Efficiency	Irrigation efficiency represents the amount of water that needs to be applied in addition to the crop requirement for a particular type of irrigation system to meet the component system losses described below.

Term	Definition
John Day/McNary Reserve	On August 8, 1978, the John Day/McNary Reserve (WAC 173-531) was created to set aside 1,320,000 acre-feet per year to provide a water supply for the 330,000 acres of irrigation projected to be developed in the Columbia Basin by the year 2020 and 26,000 acre-feet of water for municipal use. The reserve is directed toward lands under existing water right permits, pending applications, and land for which appropriation applications may not yet have been filed.
Junior water right	"Water rights that were established more recently than senior rights. The more recent a date on a water right, the more "junior" it is relative to water rights with older issuance dates. All water rights are defined in relation to other rights, and a water right holder only acquires the right to use a specific quantity of water under specified conditions. Therefore, when limited water is available, junior rights cannot be exercised until all senior rights have been satisfied" (Clifford, et al., 2004:152).
Land Conservation Program	A riparian or upland conservation program that removes irrigated land from production for some state or federal conservation program purposes. Conservation Reserve Enhancement Program (CREP) and Conservation Reserve Program (CRP) are potential examples where irrigated agriculture may have been fallowed or put to use for some other conservation practice that does not require irrigation.
Large storage opportunity	A storage facility with a capacity that is greater than 1 million acre-feet.
Lining/Piping	The conversion of open-ditch water conveyance delivery systems to a more efficient delivery pipe or the placement of an impermeable liner within a ditch.
Management	The application of a system of managing water applications that creates water savings through scheduling changes or other management practices. Irrigation Water Management (IWM) is an example of a management tool that may create water savings. Canal automation is another example.
Management Zone	The one-mile corridor on either side of the Columbia River mainstem as defined in ESSHB 2860.
Mean Annual Flow	Volume (or rate) of river flow during a year (on average).
Municipal Use	There are three situations where water is considered to be for municipal use. The first is when water is used for residential purposes by fifteen or more residential service connections or for a nonresidential population that is, on average, at least 25 people for at least 60 days a year. The second is when water is used for governmental or governmental proprietary purposes by a city, town, public utility district, county, sewer district, or water district. The third includes indirect uses of water for residential, governmental or governmental proprietary purposes through the delivery of treated or raw water to a public water system for such use (RCW 90.03.015).

Term	Definition
National Environmental Policy Act (NEPA)	A 1969 federal Act that requires federal agencies to integrate environmental values into their decision-making processes by considering the environmental impacts of their proposed actions and reasonable alternatives to those actions (http://www.epa.gov/compliance/nepa/).
Natural Streamflow	The rate of flow at a given point of an uncontrolled stream, or streamflow adjusted to eliminate the effects of all man-made development (Corps, 2003).
Non-Consumptive use	A type of water use where either there is no diversion from a source body, or where there is no diminishment of the source (WAC 173-500-050(9)).
Non-use	When all or a portion of the water associated with a water right has not been beneficially used.
Odessa Ground Water Management Subarea	An area of approximately 2,000 square miles under the eastern-most portion of the authorized Columbia Basin project, east of the East Low Canal, designated as a groundwater management subarea in 1988. The purpose of establishing the Odessa Ground Water Management Subarea (Odessa Subarea) was to "…provide a procedure for managing ground water within the Odessa ground water subarea to insure the maintenance of a safe sustaining yield from the ground water body within a reasonable and feasible pumping lift" (WAC 173-130A-040). Constraints on water use in the Odessa Subarea are based on controlling the rate of decline in the water level, establishing a maximum lowering of the water table level, regulating withdrawal of ground water to protect senior water right holders, limiting new water users and limiting the location where new wells may be drilled.
On-Farm Efficiency	The installation of a more efficient irrigation application system. Examples would include a conversion from flood or rill/furrow irrigation to center pivot technology. Also, the replacement of hand-lines or less efficient sprinkler systems to drip irrigation.
Out-of-stream water use	A use that requires water to be taken out of the stream.
Permanent Crop Change	A permanent change in a crop grown on a field to one with a smaller irrigation requirement. A change from tree fruit or alfalfa to grapes would be an example.
Permit-exempt well	A well that is exempt from the state's water right permitting system because it is used for an exempt use. According to the Attorney General's Office, the four types of ground water use that are exempt from the state's water right permitting system include: 1) Providing water for livestock (no gallon per day limit or acre restriction); 2) Watering a non-commercial lawn or garden one-half acre in size or less (no gallon per day limit); 3) Providing water for a single home or groups of homes (limited to 5,000 gallons per day); and 4) Providing water for industrial purposes, including irrigation (limited to 5,000 gallons per day but no acre limit).

Term	Definition
Planning Unit	"A group that represents a wide range of water resource interests, tasked with conducting a watershed assessment and completing a watershed plan for one (or more) WRIAs. The initiating governments are responsible for development of an inclusive Planning Unit for the WRIA (RCW 90.82)" (Association of Cities, 1999:viii).
Pool reach	The length of the mainstem Columbia River between two dams with the exception of the Hanford reach, which is a national monument and not impounded.
Power Buyback	Where formerly irrigated lands have been voluntarily fallowed in a contractual agreement with an electrical power provider. This occurred in the 2001 drought.
Priority date	Water use of any sort is subject to the "first in time, first in right" clause, originally established in historical Western water law and now part of Washington State law. This means that a senior right cannot be impaired by a junior right. Seniority is established by priority date - the date an application was filed for a permitted or certificated water right - or the date that water was first put to beneficial use in the case of claims and exempt ground water withdrawals.
Reclaimed Water	Effluent derived in any part from sewage from a wastewater treatment system that has been adequately and reliably treated, so that as a result of that treatment, it is suitable for a beneficial use or a controlled use that would not otherwise occur and is no longer considered wastewater (Ecology, 1998).
Relinquishment	Five or more successive years of non-use triggers relinquishment of a water right unless there is sufficient cause to explain the non-use. The burden to prove that the right is still in good standing and should not be considered relinquished, rests on the water right holder. There are several categories of reasons that may serve as "sufficient causes" to explain why water has not been used (RCW 90.14.140).
Re-regulating/Storage Reservoirs	The installation of a reservoir to store fluctuations in canal flow for release at a later time, reducing the amount of water spilled at the end of a system. Also includes the installation of a reservoir to store water during high streamflow periods for use later in the season during low streamflow periods.
Reservoir	A natural or artificial pond or lake used for the storage and regulation of water.
Reservoir Storage Capacity	The volume of a reservoir available to store water (Corps, 2003).
Return Flow	Waters that, after having been diverted for a beneficial use, escape control of the water right holder and return to a public water body. Return flows may include, for example, waters lost through conveyance system inefficiency or waters used for a beneficial purpose that are not fully consumed by the purpose of use.

Term	Definition
River Mile	River Mile (RM) measurements start at the mouth of the stream (RM 0.0) and are measured in statute miles (one statute mile = 5,280 feet) along the center line of a river.
Runoff	The water from rain, snowmelt or irrigation that flows over the land surface and is not absorbed into the ground, instead flowing into streams or other surface waters or land depressions.
Run-of-the-river plant	A hydroelectric power plant using pondage or the flow of the stream as it occurs (Corps, 2003).
Seasonal Storage	Water held over from the annual high-water season to the following low-water season (Corps, 2003).
Second tier demand forecast	The water demand forecast that is based on projections of estimated current water use. This projection focuses more on "wet" water.
Seepage	The flow of a fluid through the soil pores, in downward or upward direction.
Senior water right	Water rights that are older (more senior) than those of junior rights. All water rights are defined in relation to other rights, and a water right holder only acquires the right to use a specific quantity of water under specified conditions. Thus, when limited water is available, senior rights are satisfied first in the order of their Priority Date" (Clifford, et al., 2004:154).
Small storage opportunity	A storage facility with a capacity that is less than 1 million acre-feet.
Snowpack	An area of naturally formed, packed snow that usually melts during the warmer months.
Split-Season Acquisition	When a farmer voluntarily forgoes mid to late season irrigation. An example is when a hay farmer decides to harvest only the first cutting of hay and forgo the rest of the season through a lease or contractual agreement.
Streamflow	The rate at which water passes a given point in a stream usually expressed in cubic feet per second (Corps, 2003).
Surface to Ground Water Conversion	When a well is drilled to be used as a primary source for a water right that was previously served from a surface water source. Water savings may accrue from a reduction in canal seepage. This technique may be used in some areas to mitigate for low instream flows.
Sustainability	"Development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland, 1987).
Tail Water Reuse	The capturing and reuse of tail water from a field or conveyance system rather than returning it back to the stream.
Tributary	A stream that contributes water to a larger stream.

Term	Definition
Trust water	Trust water is a water right or a portion of a right acquired by the state for management in the Trust Water Right Program (Trust Program) (RCW 90.42.020(3)). The state may acquire all or portions of water rights by purchase, lease, or donation, and may acquire trust water rights on a permanent or a temporary basis. A water right exercised through the Trust Program for the beneficial use of instream flows is not relinquished for non-use while it is in the program.
Uninterruptible Water Right	Water rights that are not subject to curtailment in low flow conditions in order to maintain adequate flows for fish due to the June 1980 instream flow rule adopted by Ecology. These include existing pre-1980 rights, pre-1980 reserved water rights, and additional water withdrawn for the Columbia Basin Project.
Vector Autoregression	A method of forecasting cop yield and prices whereby "identification is achieved by estimating reduced-form relationships, in which every variable in the multi-variate system is allowed to affect every other variable in the system with lags" (Bessler, 1984).
Water Bank or Water Market	An institutional mechanism that facilitates the legal transfer and market exchange of surface water, ground water, or water storage. This mechanism may be administered by any type of entity, such as private, public, or non-profit.
Water Resource Inventory Areas (WRIA)	"One of 62 geographic areas comprising the State of Washington, defined on the basis of surface water resources and codified in Washington Administrative Code 173-500-040" (Association of Cities, 1999:ix).
Water right certificate	The legal record of a water right issued by Ecology once the department confirms that all the conditions of the permit have been met. It is recorded at a county auditor's office. Once Ecology issues a certificate, the water right is considered appurtenant (attached) to the land on which the water is used (http://www.ecy.wa.gov/pubs/961804swr.pdf).
Water right claim	A claim to a water right, for a water use that predates the state's water permitting system (for surface water, 1917/1932, for ground water, 1945). The validity of a claim can only be confirmed through judicial processes (http://www.ecy.wa.gov/pubs/961804swr.pdf).
Water right permit	Permission by the state to develop a water right; it is not a final water right. A permit allows you to proceed with construction of the water system and start putting the water to beneficial use, in accordance with the terms of your permit. (http://www.ecy.wa.gov/pubs/961804swr.pdf)

Term	Definition
Water Right Tracking System	The database Ecology uses to track water rights. The information captured in this database includes the type of water right (surface or ground), the name of the business or person applying for a right or a change to an existing right, the priority date or date of application, the instantaneous quantity (Q_i) or maximum withdrawal rate requested, the annual quantity (Q_a) or volume requested (reported in acre-feet per year), the purpose of use, the water source and the geographic location (township, range and section) for the point of diversion (place of withdrawal) and/or place(s) of use.
Water Year	The period from October 1 through September 30 of the following calendar year. It is the time base used in hydrology (Corps, 2003).
Watershed	"The land area that drains into the defined waterbody" (Clifford, et al., 2004:156).
Watershed Management Plan	A document presenting the findings and recommendations of the planning unit for a Watershed Management Program in the management area" (Association of Cities, 1999:ix).

ACRONYMS AND ABBREVIATIONS

AF	acre-foot or acre-feet
AFY	acre-foot per year or acre-feet per year
ASR	Aquifer Storage and Recovery
BiOp	Biological Opinion
BPA	Bonneville Power Administration
Bureau of Reclamation	U.S. Bureau of Reclamation
CBP	Columbia Basin Project
CFS	cubic feet per second
CIG	University of Washington Climate Impacts Group
CIR	Crop Irrigation Requirement
Corps	U.S. Army Corps of Engineers
CREP	Conservation Reserve Enhancement Program
CRI	Columbia River Initiative
CRP	Conservation Reserve Program
CSRIA	Columbia-Snake River Irrigators Association
DEIS	Draft Environmental Impact Statement
DOH	Washington State Department of Health
DSS	Decision Support System
Ecology	Washington State Department of Ecology
EIS	Environmental Impact Statement
ESA	Endangered Species Act
ESSHB	Engrossed Second Substitute House Bill
ET	Evapotranspiration
FCRPS	Federal Columbia River Power System
FEIS	Final Environmental Impact Statement
GPD	Gallons per day
GPM	Gallons per Minute
GUD	General Use Designation
GW	Ground Water
IJC	International Joint Commission
IRPP	Instream Resources Protection Program

IWM	Irrigation Water Management
kcfs	thousand cubic feet per second
Management Program	Columbia River Water Management Program
Management Zone	Columbia River Management Zone
MIP	Minimum Irrigation Pool
MMS	Modular Modeling System
MOP	Minimum Operating Pool
NEPA	National Environmental Policy Act
NHD	National Hydrography Dataset
NLCD	National Land Cover Dataset
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPCC	Northwest Power and Conservation Council
NRCS	National Resources Conservation Service
NWSRFS	National Weather Service River Forecast System
Odessa Subarea	Odessa Ground Water Management Subarea
OFM	Washington State Office of Financial Management
OFWC	Oregon Fish and Wildlife Commission
OWRD	Oregon Water Resources Department
PAWS	Public Agricultural Weather System
PEIS	Programmatic Environmental Impact Statement
pers. comm.	Personal Communication
PNRAF	Pacific Northwest Resource Adequacy Forum
PO	Power
PUD	Public Utility District
Q_a	Annual Quantity
Q_i	Instantaneous Quantity
RCW	Revised Code of Washington
RM	River Mile
RW	Reservoir Water
SEPA	State Environmental Policy Act
SSARR	Streamflow Simulation and Reservoir Regulation
SW	Surface Water

SWSL	Surface Water Source Limitation
SWSMP	Small Water System Management Program
TMDL	Total Maximum Daily Load
Trust Program	Washington State Department of Ecology's Trust Water Rights Program
TWSA	Total Water Supply Available
U and A's	Usual and accustomed places
UGA	Urban Growth Area
USDA	United States Department of Agriculture
USGS	United States Geological Survey
VAR	Vector Autoregression
VRA	Voluntary Regional Agreement
WAC	Washington Administrative Code
WDFW	Washington Department of Fish and Wildlife
WFWC	Washington Fish and Wildlife Commission
WISE	Washington Irrigation Scheduling Expert
WR	Water Right
WRA	Water Right Application
WRIA	Water Resource Inventory Area
WRTS	Washington State Water Rights Tracking System
WSCC	Washington State Conservation Commission
WSDA	Washington State Department of Agriculture
WSP	Water System Plan
WSU	Washington State University
WSWRA	Washington State Water Resources Association

Standard Water Unit Conversions

1 cfs = 448.8 gpm
1 cfs = 646,272 gpd
1 cfs = 1.98 ac-ft per day
1 cfs = 0.6463 mgd
1 cubic foot = 7.48 gallons
1 gpm = 1,440 gallons per 24 hour day
1 gpm = 1.61 ac-ft per year
1 ac-ft = 1 foot of water on 1 acre
1 ac-ft = 325,851 gallons