

Supplemental Table S1: Metadata template information of importance as identified by stakeholder advisory group

Metadata	Potential Controlled Vocabulary	Automated	Notes
Organization			
Organization_dataset			
Org_siteNo			
Site_Name			
Latitude			
Longitude			
Start_date			
End_date			
Period_of_record_yrs		Yes	
Period_of_record_days		Yes	
Status	active, inactive		
Interval	Instant, 15 minutes, 30 minutes, hourly, weekly, monthly, annually		
Meas.freq	continuous, discrete		
Format	Electronic, paper		
Stream type	stream, canal		
Availability	Public, private, upon request		
Method	Stage, discharge, rated discharge		
Units			
Instrumentation			
accuracy categorical	<.02ft, .02-.05ft, .05-.1 ft, >.1ft		
Purpose	Operations, research		
download frequency	Weekly, monthly, telemetry		
Rating_curve_available	Online, yes local, no		
Ratin_curve_updated	Annually, bi-annually		

Auxiliary data			
url			
State	Full state name	Yes	
County		Yes	
HUC8		Yes	
nhdpv2_REACHCODE		Potentially	Snapping locations to the NHD is a tedious process and depends on accuracy
Location accuracy			
Contact_email			
Data_notes			

Supplemental Table S2: List of organizations with data in the streamflow catalog and data portals where available.

State	Organization	Organization Acronym	Organization Website	Division/ Program	Program Website	Data Portal
ID	Idaho Department of Water Resources	IDWR	https://idwr.idaho.gov/	ESPA program, Upper Salmon Basin Watershed	https://modelwatershed.idaho.gov/	https://water-measurement-idwr.hub.arcgis.com/pages/locations
ID	Idaho Power		https://www.idahopower.com/	Water Information	https://www.idahopower.com/community-	https://www.idahopower.com/community-

					recreation/recreation/ water-information/	recreation/recreation/water- information/stream-flow-data/
ID	Dry Creek Experimental Watershed	DCEW	https://www. boisestate.edu /drycreek/			https://www.boisestate.edu/drycr eek/dry-creek-data/
ID	Idaho Department of Environmental Quality	ID DEQ	https://www. deq.idaho.gov	Water	https://www.deq.idah o.gov/water-quality/	https://mapcase.deq.idaho.gov/wq 2022/
ID	Northwest Watershed Research Center	NWRC	https://www.a rs.usda.gov/p acific-west- area/boise- id/northwest- watershed- research- center/	Reynolds Creek Experimenta l Watershed	https://www.ars.usda. gov/pacific-west- area/boise- id/northwest- watershed-research- center/docs/reynolds- creek-experimental- watershed-data/	https://www.ars.usda.gov/pacific- west-area/boise-id/northwest- watershed-research- center/docs/reynolds-creek- experimental-watershed-data/
ID	Pioneer Irrigation District		http://www.pioneerirrigati on.com/			

ID	Priest River Experimental Forest	USFS			https://www.fs.usda.gov/rmrs/experimental-forests-and-ranges/priest-river-experimental-forest	https://www.fs.usda.gov/rds/archive/
ID	Mica Creek Experimental Watershed	MCEW	https://www.uidaho.edu/cnr/mica-creek			
ID	SPF Water Engineering	SPF	http://spfwater.com/			
ID	Ecosystem Sciences		http://www.ecosystemsciences.com/			
ID, UT, WY	Bear River Watershed			Bear River Watershed	https://bearriverinfo.org/index	https://bearriverinfo.org/watershed-data/index
OR	Oregon Department of Fish and Wildlife	ODFW	https://www.dfw.state.or.us/			
OR	Oregon Water Resources Department	OWRD	https://www.oregon.gov/o			https://apps.wrd.state.or.us/apps/sw/hydro_near_real_time/

			wrld/pages/index.aspx			
OR	City of Salem	City of Salem	https://www.cityofsalem.net/	Mid-Willamette Valley High Water Watch	https://hwww.onerain.com/	https://hwww.onerain.com/list/
OR	HJ Andrews Long Term Ecological Research Site	HJ Andrews LTER	https://andrewsforest.oregonstate.edu/			https://portal.edirepository.org/nis/mapbrowse?packageid=knb-lter-and.4341.33
OR	Trask River Watershed Study		https://traskstudy.forestry.oregonstate.edu/			
OR	Oregon Water Enhancement Board	OWEB	https://www.oregon.gov/oweb/pages/index.aspx			
OR	Deschutes River Conservancy		https://www.deschutesriver.org/about-us/staff/	OWEB Grantee		
OR	Walla Walla Basin	WWBWC	https://www.wwbwc.org/	OWEB Grantee		https://www.wwbwc.org/monitoring/surfacewater.html

	Watershed Council					
OR	Warner Basin Habitat Partnership	WBAHP		OWEB Grantee		
OR	Columbia Soil & Water Conservation District		https://www.columbiaswcd.com/	OWEB Grantee		
OR	Coos Watershed Association		https://cooswatershed.org/	OWEB Grantee		
OR	Malheur Watershed Council		https://www.malheurwatershed.com/	OWEB Grantee		
OR	North Fork John Day Watershed Council		https://www.nfjdwcd.org/	OWEB Grantee		
OR	Umatilla County SWCD		http://www.umatillacountyswcd.com/	OWEB Grantee		

OR	Lincoln SWCD and partners		http://www.lincolnswcd.org/	OWEB Grantee		
OR	The Understory Initiative		https://understoryinitiative.org/	OWEB Grantee		
PNW	PacifiCorp		https://www.pacificorp.com/		https://www.pacificorp.com/community/recreation/water-release.html	
PNW	US Forest Service, Region 6	USFS R6	https://www.fs.usda.gov/r6			
WA	Washington Department of Ecology	ECY	https://ecology.wa.gov/	Flow Monitoring	https://ecology.wa.gov/Research-Data/Monitoring-assessment/River-stream-monitoring/Flow-monitoring	https://apps.ecology.wa.gov/continuousflowandwq/
WA	Washington Department of	WDFW	https://wdfw.wa.gov/			

	Fish and Wildlife					
WA	Pierce County		https://www.piercecountywa.gov/			https://www.piercecountywa.gov/7390/Environmental-Data-GIS