

11/05/2024

**Addendum to
Quality Assurance Project Plan**

**Quality Assurance Project Plan for Status
and Trends Monitoring of Urban Streams in
Clark and Cowlitz Counties in the Lower
Columbia River Region**

Clark County, Lead Implementing Entity

Publication Information

Each study conducted for the Washington State Department of Ecology (Ecology) must have an approved Quality Assurance Project Plan (QAPP). This QAPP describes the objectives of the Status and Trends Monitoring of Urban Streams in Clark and Cowlitz Counties in the Lower Columbia River Region (LCUS) study. This QAPP describes the procedures to be followed to achieve the objectives for water quality, sediment chemistry, benthic macroinvertebrate, physical habitat, and continuous parameter monitoring that will be conducted by Clark County. The LCUS study will be funded and using pooled contributions from all of the National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater (MS4) Permittees located in Clark and Cowlitz Counties, in the Lower Columbia River Region.

The final completed QAPP is available at: <https://www.clark.wa.gov/public-works/stream-health-and-monitoring>

Data for this project will be available on Ecology's Environmental Information Management (EIM) website: <https://fortress.wa.gov/ecy/eimreporting/default.aspx> and from Clark County's LCUS Project Manager, Chad Hoxeng at Chad.Hoxeng@clark.wa.gov; 1-564-397-4018. In EIM, search on Study ID: SAM_LCU

Author and Contact Information

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Quality Assurance Project Plan (QAPP) for Status and Trends Monitoring of Urban Streams in Clark and Cowlitz Counties in the Lower Columbia River Region

November 2024

Approved by:

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Signature: Chad Hoxeng, LCUS Project Manager, Natural Resource Specialist III, Clean Water Division, Clark County	Date:
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Signature: Chris Dudenhoeffer, Ecology WQP Quality Assurance Coordinator	Date:
Signature: Chelsea Morris, Ecology Project Manager & SAM Scientist	Date:
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Signatures are not available on the Internet version.

Note: The numbered headings in this document correspond to the headings in the original QAPP. Only relevant sections are included here; therefore, some numbered headings may be missing.

6. Experimental Design

Clark County Public Works, Clean Water Division (CWD) is amending the Ecology approved Status and Trends Monitoring of Urban Streams in Clark and Cowlitz Counties in the Lower Columbia River region (LCUS) QAPP to finalize the LCUS sites. Not all status sites selected in the development of the QAPP in 2019 were viable for this project, mainly due to no summer flow. Alternative status sites, a replacement status site, and a reference site were selected to meet LCUS project goals.

The Table below will replace 2020 approved LCUS QAPP Table 5 on page 16.

Table 5 Trend and status sampling locations and date of active monitoring.

Stream		Site Code	10/1/20-9/30/21	10/1/21-9/30/22	10/1/22-9/30/23	10/1/23-9/30/24	10/1/24-9/30/25
Trend Sites	Burnt Bridge Creek	BBC050	x	x	x	x	x
	Campen Creek	CMP010	x	x	x	x	x
	Cougar Creek	CGR020	x	x	x	x	x
	Mill Creek	MIL010	x	x	x	x	x
	Westover Creek	WST020	x	x	x	x	x
Reference Site	Jones Creek	JNS060	x	x	x	x	x
Status Sites	Morgan Creek	MOR010	x				
	Curtin Creek	CUR020	x				
	Packard Creek	PCK010	x				
	Dwyer Creek	DWY020		x			
	Woodburn Creek	WBN030		x			
	Suds Creek	SUD010		x			
	Breeze Creek	BRZ010			x		
	Woodin Creek	WDN010			x		
	Whipple Creek	WPL050			x		
	Mill Creek Tributary 2	MILT020				x	
	McCormick Creek	MAC050				x	
	Lalonde	LAL030				x	
	Rockwell Creek	RCW010					x
	Tenny Creek	TEN055					x
	Currie Creek	CRE010					x
Gee Creek	GEE050					x	

Status sites Fisher Creek, Cold Creek, Allen Canyon Creek and Indian Creek were dropped from the LCUS project. Listed 2020 QAPP alternative status sites Brezee Creek and Morgan Creek were used in the LCUS project. Replacement status site Mill Creek Tributary 2 (-122.63097, 45.73981) and reference site Jones Creek (-122.30211, 45.68134) were added to the LCUS project to ensure meeting project goals.

The decision to use alternative status sites and add a reference site for the LCUS project came after multiple discussion throughout the project's first five years via discussions and meetings with previous SAM Scientist Keunyea Song and current SAM Scientist Chelsea Morris. This change is beneficial and will better align data comparison of the SAM LCUS study with the SAM Puget Sound Small Streams study.