

DEPARTMENT OF ECOLOGY

Environmental Assessment Program

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THROUGH: Dale Norton, Section Manager, Western Operations Section
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SUBJECT: Task 2, Deliverable 2.1

Task 2: Compile bacteria monitoring program information (meta-data) for each responsive entity and compile the supplied data.

Task 2 is summarized in a spreadsheet format that includes organization, organizational point of contact, bacteria type, sub-region of sampling locations, frequency of sampling and the objective, data quality, and where the data is housed.

To validate data quality, a study Quality Assurance (QA) planning level was assigned to each data set that aligns with the quality assurance levels set in the Environmental Information Management System (EIM). The quality assurance levels used are as follows:

- 1- Informal or no QA documentation
- 2- Generic or incomplete document
- 3- Quality Assurance Project Plan (QAPP), Standard Operating Procedure (SOP) or equivalent
- 4- Approved QAPP or SOP

Out of the 78 entities contacted that fell within the Phase 1 or Phase 2 cities and counties, 27 entities have conducted bacterial nearshore marine monitoring in Puget Sound in the past five years. Most of the data collected have a quality assurance level of a 3 or 4 with the exception of two volunteer groups.

While the Task 2 spreadsheet is comprised of those organizations that indicated they had data that was collected in the nearshore marine environment, three organization's data sets have not been included in the data compilation at this point. Puget Sound Naval Shipyard (PSNS) has been conducting monthly nearshore monitoring in Dyes and Sinclair Inlets since 2010 as part of

an approved TMDL for these areas. These results are part of a paper that is due to be published in early 2016 and the data will not be available until the report is released. The City of Edmonds had two sewage spill events (in the last 4 years) that resulted in samples being collected and analyzed. However, since these spills were not storm flow related they were not included in the collected data. The third set of data that was not included were samples taken by the Nooksack Salmon Enhancement Association at the mouth of Terrell Creek at Birch Bay State Park. The data portal for Whatcom Public Works has this station listed as a freshwater station; therefore, this data was not included. These exceptions are highlighted in the spreadsheet.

All other fecal indicator bacteria results have been collected and entered into an Excel spreadsheet.

Please let me know if you have any questions.

Task 2 Deliverable 2.1										
Contact	Organization	F	E	C	Location (sub-region)	Sampling Period	Sampling Objectives	Study QA Planning Level	Data Location	Within last 5 years
John Franz	City of Anacortes				Whidbey Basin	Sporadic	Sanitary overflows	LEVEL 3: SOP/City of Anacortes Lab	City of Anacortes	X
Cami Apfelbeck	City of Bainbridge				Central Sound	2014	Targeted Storm Events	LEVEL 3: SOP/TWISS LAB	City of Bainbridge	X
Jim Zimny	City of Bremerton	X			Central Sound	Every other month	Ambient monitoring by KPHD	LEVEL 4: Approved QAPP or SOP.	Environmental Information Management System (EIM)	
Sara Brook	City of Bellingham	X			Strait of Georgia	Limited-during project	Project work on pocket estuary.	LEVEL 3: QAPP/Edge Analytical Lab	City of Bellingham Public Works	
Report will be published beginning of 2016	Puget Sound Naval Shipyard (PSNS)		X	X	Central Sound	Monthly	Dyes & Sinclair Inlet TMDL	Fecal coliform are analyzed by a contract lab and entero and E. coli are analyzed by Naval Hospital.	Report	X
Mike Cawrse	City of Edmonds				Central Sound	Sporadic	Sewage spills *(not storm flow related)			X (2 events)
Eva Crim	City of Port Orchard	X			Central Sound	Every other month	Ambient monitoring by KPHD	LEVEL 4: Approved QAPP or SOP.	Environmental Information Management System (EIM)	X
Eva Crim	City of Poulsbo	X			Central Sound	Every other month	Ambient monitoring by KPHD	LEVEL 4: Approved QAPP or SOP.	Environmental Information Management System (EIM)	X
Jeremy Freimund	Lummi Natural Resources (Whatcom)	X	X	X	Strait of Georgia	Monthly at most sites	WQ monitoring in WRIA 1	Samples analyzed at Avocet	In their database & exported annually to STORET.	X
Lori Delorm	Jamestown S'Kallam Tribe	X			Strait of Juan De Fuca		3 stations for DOH	LEVEL 4: Approved QAPP or SOP.	Dept. of Health Database	X
George	Puyallup Tribe	X			Central Sound	Monthly	w/DOH	LEVEL 4: Approved QAPP or SOP.	Dept. of Health Database	X
Franchesca Perez	Stillaguamish Tribe	X			Whidbey Basin		Warm Beach and mud flats for DOH	LEVEL 4: Approved QAPP or SOP.	Dept. of Health Database	X
Mike McHugh	Tulalip Tribes	X			Whidbey Basin		51 stations for DOH (Saratoga Pass to Port Susan)	LEVEL 4: Approved QAPP or SOP.	Dept. of Health Database	X
Todd Woodard	Samish Indian Nation (Skagit)				Whidbey Basin	1 to 2 times/month	3 sites in Fidalgo Bay (Ebb tide at 6 ft)	LEVEL 4: EPA approved QAPP/Edge Analytical	EPA Storage and Retrieval Data Warehouse (STORET)	X
Jezra Beaulieu	Nooksack Indian Tribe (Whatcom)	X	X	X	Strait of Georgia	Monthly	5 sites in Birch Bay & Semiahmoo Spit	LEVEL 4: EPA approved QAPP/Edge Analytical	EPA Storage and Retrieval Data Warehouse (STORET)	X
Kimberle Stark	King County	X	X		Central Sound	Monthly	20 sites-Marine Monitoring Program	LEVEL 3: SOP/QAPP/King Co. Lab	King Co. LIMS database	X
Eva Crim/ Mindy Fohn	Kitsap County	X			Central Sound	Every other month	Ambient monitoring by KPHD	LEVEL 4: Approved QAPP or SOP.	Environmental Information Management System (EIM)	X
Austin Rose	Whatcom Marine Resources Committee (MRC)/Whatcom Public Works	X			Strait of Georgia	2015	5 marine sites for Chuckanut Bay PIC	LEVEL 3: QAPP/Edge Analytical Lab	http://www.whatcomcounty.us/DocumentCenter/View/14113	X
Blain Reeves	Department of Natural Resources (DNR) (Aquatics)	X					For DOH	LEVEL 4: Approved QAPP or SOP.	Dept. of Health Database	X
Susan Wood	Padilla Bay (Ecology)- Stream Team	X			Whidbey Basin	Every 2 wks (Sep.- June)	Bayview State Park. Knee deep off picnic area.	LEVEL 2: Generic document. Not a certified lab *	Susan keeps data on her computer	X
Brice Boland	Surfrider		X		Strait of Juan De Fuca, South Sound, Strait of Georgia	Sporadic	WQ bacteria data for surfers	LEVEL 1: Informal or no QA documentation. Data questionable.	http://www.surfrider.org/blue-water-task-force	X
Jim Gibson	Swinomish Tribe	X			Whidbey Basin	Monthly	For DOH/tribal shellfish beds	LEVEL 4: Approved QAPP or SOP.	Dept. of Health Database	X
Annitra Peck	Nooksack Salmon Enhancement Association	X			Strait of Georgia	Monthly for 2 yrs.	Sampled Terrell Creek at the mouth where it is tidally influenced at Birch Bay State Park. 2yrs/monthly for fecal. In conjunction with Whatcom Public Works.	Upon further research, Whatcom Public Works has this station listed as a freshwater station.		X
Todd Zackey	Tulalip Tribes (Snohomish)		X		Whidbey Basin	Monthly since 2010	WQ monitoring (6 stations)	LEVEL 4: Tulalip Tribes~QAPP	EPA Storage and Retrieval Data Warehouse (STORET)	X
Jean Snyder	Department of Health	X			Throughout Puget Sound	Monthly	WQ monitoring	LEVEL 4: Approved QAPP or SOP.	Dept. of Health Database	X
Julianne Ruffner	Department of Ecology		X		Throughout Puget Sound	Weekly (Memorial Day - Labor Day)	WQ monitoring	LEVEL 4: Approved QAPP or SOP.	Environmental Information Management System (EIM)	X