



DEPARTMENT OF
ECOLOGY
State of Washington

Addendum to

Quality Assurance Project Plan

*McAllister Creek Source Identification: Water
Quality Monitoring for Fecal Coliform Bacteria
and Nitrate+Nitrite-N in Medicine Creek*

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McAllister Creek Source Identification: Water Quality Monitoring for Fecal Coliform Bacteria and Nitrate+Nitrite-N in Medicine Creek

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DEPARTMENT OF ECOLOGY
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Through Kim McKee, Supervisor
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From: Betsy Dickes, Water Quality Program, Water Cleanup/Technical Assistance Unit

Subject: Medicine Creek fecal coliform bacteria sampling investigation in 2009.
Addendum to the McAllister Creek Source Identification:
Water Quality Monitoring for Fecal Coliform Bacteria and Nitrate+Nitrite-N in
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Background

Sampling for fecal coliform bacteria was conducted in the 2007/2008 wet season. Based on results from that study, bacteria concentrations were low and below freshwater water quality standards (Dickes, unpublished data). A report is in process, but because of that data analysis, sampling was initiated in the summer of 2009 to document dry season conditions. The QAPP written for 2007 (Dickes, 2007) describes the basis for quality assurance and is being used as the basis for this 2009 work. Project goals and objectives have changed slightly since only bacteria will be sampled at RM 0.05; sampling will occur in the low flow dry season of July through September 2009; and reporting dates are revised.

Goals and Objectives

The project goal for water quality monitoring in Medicine Creek:

- Characterize FC bacteria concentrations to document dry season conditions at the mouth of Medicine Creek watershed during an out-going low tide July through September 2009.

Project objectives for Medicine Creek water quality monitoring:

- Collect water quality samples to be analyzed for FC bacteria.
- Assess compliance with freshwater State Extraordinary Primary Contact Recreational water quality standards for FC bacteria.
- Document current FC bacteria concentrations at the mouth of Medicine Creek to see if it may contribute to FC concentrations in McAllister Creek.

Study Design

Replicate samples will be collected for FC bacteria at RM 0.05, the mouth site, during this investigation. The upstream location at RM 0.3 is not being sampled because the channel is inundated with vegetation and not easily accessible during this low flow sample period. Samples will be collected on an out-going tide to avoid marine influence. Tidal height will be based on the DuPont Wharf/Nisqually tide station. Conductivity will be used as a surrogate to check for salinity and verify the tidal stage.

Proposed Sample Dates:

- July 6 and 20
- August 3 and 17 and 31
- September 14

Proposed Schedule:

Completion of Final Approved QA Project Plan	July 2009
Sampling Period	July – September 2009
Draft Study Report	January 15, 2010
Final Report	March 15, 2010

Reference

Dickes, B., 2007. Quality Assurance Project Plan: McAllister Creek Source Identification: Water Quality Monitoring for Fecal Coliform Bacteria and Nitrate+Nitrite-N in Medicine Creek. Washington State Department of Ecology, Olympia, Washington. Publication Number 07-10-105 <http://www.ecy.wa.gov/pubs/0710105.pdf>