

Waiver Requests for the Lummi Nation Water Quality Monitoring and Reporting Program Under Section 106 of the Clean Water Act

Lummi Nation Water Resources Division
October 16, 2007

SUMMARY:

The Lummi Nation Water Resources Division (Lummi) is requesting a waiver of the monitoring and reporting requirements for macroinvertebrates based on the limited applicability of the Environmental Protection Agency proscribed methodology for this parameter on the Lummi Indian Reservation (Reservation).

INTRODUCTION AND BACKGROUND:

The EPA recently published “Final Guidance on Awards of Grants to Indian Tribes under Section 106 of the Clean Water Act – for Fiscal Years 2007 and Beyond” (EPA Guidance). There are a series of activities that federally recognized Indian tribes, including the Lummi Nation, are required to accomplish under this guidance. The first activity was to evaluate water quality monitoring and reporting capabilities based largely on the water quality parameters that the Lummi Water Resources Division (Lummi) monitors and reports on. This was provided to the EPA in September 2007. The second requirement is to request any waivers of the monitoring and reporting requirements that the tribe believes are justified by October 30, 2007. In the self-assessment of monitoring and reporting capabilities, Lummi informed the EPA that we would be requesting a waiver for collecting and reporting macroinvertebrate data. Because of the site specific characteristics of fresh water streams on the Lummi Indian Reservation (Reservation) and our understanding of the EPA’s macroinvertebrate protocols, although we understand the importance of macroinvertebrates as a biological indicator, we believe that the macroinvertebrates parameter derived using the EPA proscribed protocols will provide very limited water quality information.

DISCUSSION AND JUSTIFICATION FOR WAIVER REQUEST:

The Reservation’s surface water resources include marine waters, wetlands, marshes, tidal flats, tidally influenced streams and wetlands, and small intermittent streams. A Reservation-wide survey of 22 channels on the Reservation conducted on August 26 and 27 1996 by the Lummi Water Resources Division documented that with the exception of the Nooksack River, all of the fresh water streams on the Reservation are essentially intermittent. Other than the Nooksack River channel, two of the channels had flow, one with an estimated flow of much less than 1 gallon per minute and one with an estimated flow of a few gallons per minute. Figure 1 depicts the location of the Reservation watersheds and Table 1 provides a summary of the Reservation’s watersheds developed as part of the Lummi Nation Storm Water Management program and the Non-Point Source Pollutant Management Program. Most of the listed watersheds result from aggregating smaller watersheds.

Fresh surface water on the Reservation discharges to the marine waters of Bellingham Bay, Portage Bay, Hale Passage, Lummi Bay, or the Strait of Georgia; the lower reaches

of many of the streams and wetlands are tidally influenced. These marine water bodies all border the Reservation and are part of northern Puget Sound or the southern extent of Georgia Strait. The tidelands surrounding the Reservation are a part of the Reservation and are an extremely important resource for the Lummi Nation.

Table 1. Lummi Reservation Watershed Characteristics¹

Basin ID	Drainage Area (acres)	Receiving Water Bodies	Stream Flow Characteristics
A	307	Bellingham Bay, Hale Passage	Intermittent
B	634	Portage Bay, Hale Passage	Intermittent
C	583	Hale Passage, Lummi Bay	Intermittent
D	791	Portage Channel, Bellingham Bay	Intermittent
E	183	Bellingham Bay	Intermittent
F	340	Bellingham Bay	Intermittent
G	798	Bellingham Bay	Intermittent
H	574	Lummi Bay	Intermittent
I	1,136	Lummi Bay	Intermittent
J	87	Nooksack R. Floodplain	Intermittent
K	4,696	Bellingham and Lummi bays	Intermittent, tidally influenced
L	2,384	Lummi R., Lummi Bay	Intermittent, tidally influenced
M	145	Lummi Bay	Intermittent, tidally influenced
N	333	Lummi Bay	Intermittent
O	1,964	Lummi Bay	Intermittent
P	4,257	Lummi Bay	Intermittent
Q	1,209	Onion and Lummi bays	Intermittent
R	1,078	Lummi Bay and Georgia Strait	Intermittent
S	548,800	Bellingham and Lummi bays	Nooksack River – Perennial

¹ Lummi Water Resources Division. 2001. Lummi Nation Non-Point Source Assessment Report. Lummi Indian Business Council.

Applicability EPA Macroinvertebrate Protocols

Two Lummi Water Resources Division staff members attended the EPA macroinvertebrate workshop in Seattle, WA during May of 2007. Our understanding of the sampling protocol for macroinvertebrates is that we select certain types of stream segments, collect macroinvertebrate samples during a specific time window during the year, and have the samples analyzed for macroinvertebrates by an EPA-certified laboratory for various counts and calculated indexes. There are several reasons why we believe this approach is not appropriate for the Lummi Indian Reservation.

- The fresh water stream segments on the Reservation that could be sampled using the EPA protocol are intermittent and often do not have flowing water during part of the sampling window established under the protocol.
- Since the Reservation streams (with the exception of the Nooksack River) are intermittent and/or tidally influenced (e.g., Lummi River), we do not expect them to support the same range of macroinvertebrates that perennial regional fresh water reference streams support.

- Macroinvertebrate data have been collected on the Reservation at a number of sites as part of habitat assessments conducted by the Lummi Natural Resources Department. However, the protocols, locations, and purposes for this monitoring do not coincide with the protocols provided to us by the EPA. In our opinion, periodically collecting similar macroinvertebrate information utilizing the established protocols and locations will provide information that will be useful in assessing water quality.

SUMMARY:

The Lummi Water Resources Division is requesting a waiver of the macroinvertebrate sampling and reporting requirements due to the limited applicability of the EPA proscribed methodology for this parameter on the Lummi Indian Reservation.

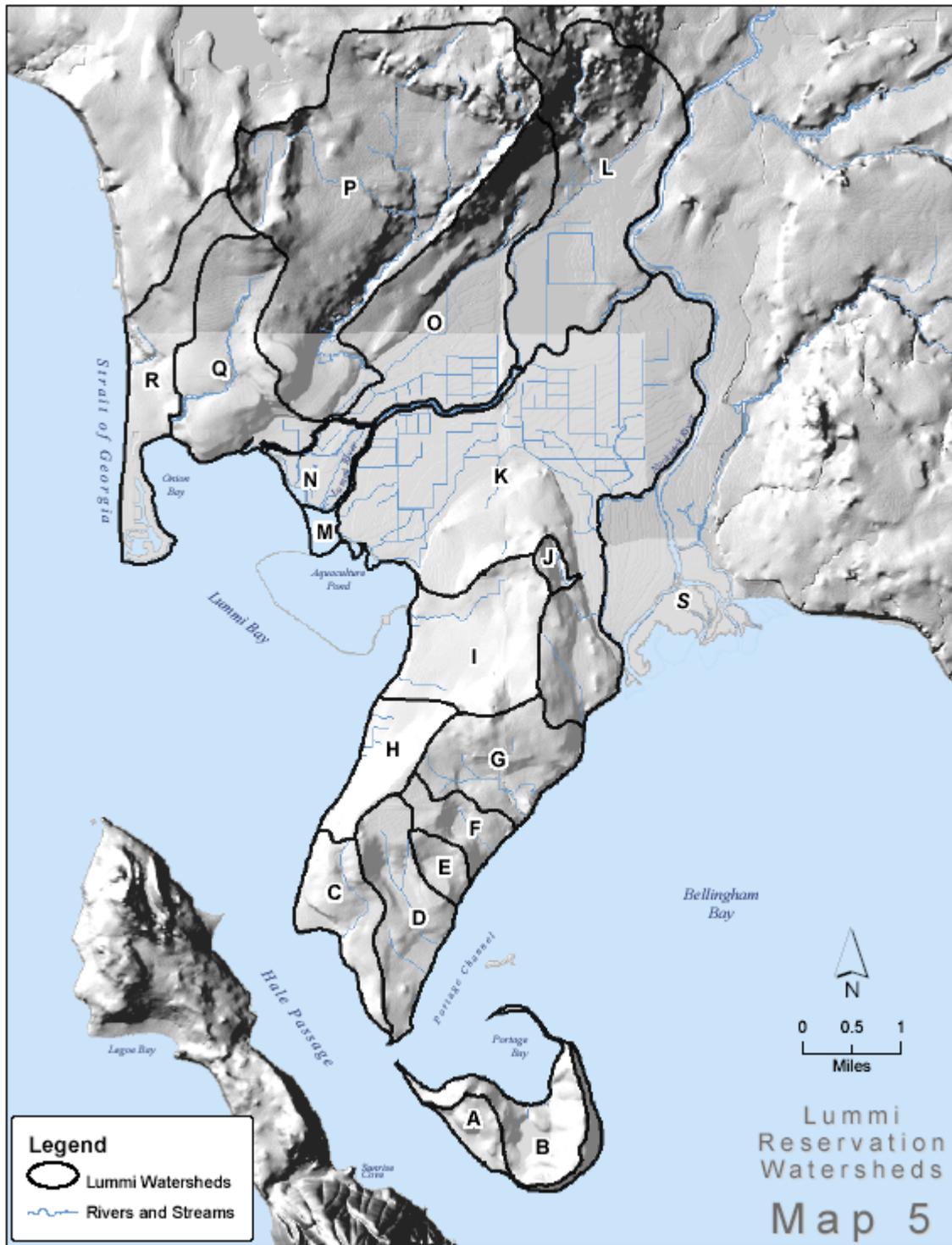


Figure 1. Lummi Reservation Watersheds.