

## ***Interactive comment on “Rain-fed streams dilute inorganic nutrients but subsidise organic matter-associated nutrients in coastal waters of the northeast Pacific Ocean” by Kyra A. St. Pierre et al.***

### **Anonymous Referee #2**

Received and published: 30 December 2020

#### General comments:

The paper presents an excellent and pertinent study of river/coast nutrients dynamics at two islands located at the Pacific eastern coast. The objectives are clearly stated and relevant and the methods are properly described. The presented data-sets obtained along four years of monitoring, in a relatively pristine environment, constitute also a relevant contribution of the presented work.

There are two main issues that will help to understand or further justify and explain

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some aspects of the obtained results, and the authors could further comment or discuss: i) the monitored marine environment “Kwakshua Channel system” hydrodynamics and nutrients exchange with the Hakai passage that receives the contribution of much greater discharges from other watersheds are not sufficiently detailed; ii) the monitoring program concentrates on surface water and low attention is put on the sediment transport (together with associated nutrients) that should be more relevant at the bottom layers. The authors should further justify their option and comment on eventual consequences for their results.

#### Specific comments:

Line 62: “receives upwards of 2000 mm of rainfall per year”. Is this an average maximum value? Please specify. Line 406 - Please, explicitly indicate the watersheds area instead of mention “smaller”

Technical corrections: Line 76: “(Giesbrecht et al. 2016 and in review “ delete “and”  
Line 110: “(Gonzalez Arriola et al., 2015” – change to Arriola et al. 2015  
Lines 159-160: The sentence is not clear. Please rephrase. Lines 253-254: Check or format the full range for temperature (use “to” instead of “-“)

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