

Cherry Point Aquatic Reserve Citizens Stewardship Committee

Please see attached file for comments

November 30, 2017

➤ Regarding Proposed Rule for Vessel Sewage No Discharge Zone in Puget Sound

We strongly support adoption of the proposed NDZ rule. We are an independent citizen's group that exists to help conduct monitoring and public education on the Cherry Point Aquatic Reserve.

In addition to our concern about bacterial pollution from non- or partially treated waste, we are also disturbed about the drugs, hormones and other pharmaceuticals that are flushed with this waste into the Salish Sea. We understand that relatively little is known about the effects of these chemicals on marine species. We know that even scarcely detectable concentrations of petroleum-derived constituents can have strong negative effects on fish (and probably other species') embryos (Incardona, J. P. *et al.* Very low embryonic crude oil exposures cause lasting cardiac defects in salmon and herring. *Sci. Rep.* **5**, 13499 (2015)), and we suspect that pharmaceuticals may be found to exert similar detrimental effects. For this reason, and to foster water quality improvement generally in the Salish Sea, we encourage you to adopt the proposed rule.

We also note that you have attempted to ensure the practicality of the rule by providing for adequate pump-out stations across the Salish Sea. We encourage you to continue to promote and expand that network. The easier it is to comply, the more people will do it.

Thank you for considering our comment.

Kim Clarkin, Vice Chair, for Cherry Point Aquatic Reserve Citizens Stewardship Committee
Bellingham