



March 7, 2003

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Surface Water Quality Standards  
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In re: Proposed Changes in Water Quality Standards

Dear Ms. Braley,

FOGH (Friends of Grays Harbor) is a broad-based 100% volunteer tax-exempt 501(c)(3) citizens group made up of crabbers, fishers, oyster growers and caring citizens. The mission of FOGH is to foster and promote the economic, biological, and social uniqueness of a healthy Grays Harbor estuary. The goal of FOGH is to protect the natural environment and human health in Grays Harbor and vicinity through science, advocacy, law, activism and empowerment.

We appreciate this opportunity to comment on the above referenced rule making.

A fundamental understanding of surface water and groundwater discharge into a coastal environment has become increasingly important in recent years due to its potential effects on marine biota and the chemical balance of a coastal body such as the Grays Harbor Estuary. Constituents, both dissolved and colloidal, in part enter a coastal body through the hyporheic zone which provides a direct route for groundwater and its constituents to impact the water chemistry.

Although each species of anadromous salmonid differs in its specific habitat requirements, they all share some common habitat needs. Extending the list to include resident species, all salmonids require sufficient invertebrate organisms for food; cool, flowing waters free of pollutants; high dissolved oxygen concentrations in rearing and incubation habitats; water of low sediment content during the growing season (for visual feeding); clean gravel substrate for reproduction; and unimpeded migratory access to and from spawning and rearing areas.

It has been identified that there are five classes of environmental factors that affect the biotic integrity of aquatic ecosystems: 1) food (energy) source; 2) water quality; 3) habitat structure; 4) flow regimes and; 5) biotic interactions.

But fish and marine organisms are not the only ones to suffer from inappropriate or unwise water quality modifications. Humans too are at risk from recreational water pathogens, which include *Campylobacter*, *Escherichia coli*, *Salmonella*, *Shigella*, *Vibrio* (non cholera) and *Giardia*.

Recreational activities associated with swimming, water skiing, scuba diving, or surfing have been associated with the acquisition of infectious diseases. The symptoms experienced by swimmers and surfers who became ill include respiratory, gastrointestinal, eye, nose, ear and allergic. Recreational outbreaks have been associated with many of the enteric waterborne pathogens, including *Cryptosporidium*, *Giardia*, echovirus, hepatitis A, *Shigella* and *E. coli* 0157:H7. Eye and throat infections have been associated with adenoviruses. Exposure to these pathogens may occur due to direct ingestion, inhalation or contact of contaminated hands with the mouth or eyes. This is particularly of concern for the elderly, young and immuno-compromised populations.

The use of indicator methods such as fecal coliforms has historical significance for the oystergrowers of our region. Table 210 (1)(g) characterizes “Extraordinary Quality” as Fecal coliform organism levels must not exceed a geometric mean value of 14 colonies/100mL, and not have more than 10 percent of all samples (or any single sample when less than ten sample points exist) obtained for calculating the geometric mean value exceeding 43 colonies/100mL. Coliform measurements are used by the Department of Health to regulate these industries and their ability to harvest their product. Extraordinary quality is REQUIRED for commercial shellfish waters. We are concerned that changing the indicators from fecal coliforms to Enterococci organisms where levels must not exceed a geometric mean value of 35/100 ml may compromise the ability of the shellfish growers to survive.

Surface runoff and CSO discharges can change conventional water quality parameters, for example, lowering the salinity of receiving waters. If either of these sources contains organic materials or nutrients, they also have the potential to affect DO concentrations and pH. Additionally, CSOs and stormwater discharges may be warmer or colder than the receiving waterbody. Lowered salinity, DO, changes in pH and changes in temperature can affect most aquatic life.

The aquatic ecosystem is therefore potentially at risk not only from chemicals in the waters and sediments, but also from changes in water quality parameters (DO, pH, salinity, temperature, and TSS) and physical impacts (scouring, sedimentation, and displacement).

We are concerned that there is not a clear methodology to avoid water quality problems. It appears that the rule tends to allow modifications and then analyze their impacts after the fact. There appears also, to be no recognition of cumulative effects. Restrictions to the mixing zones, for example, focus



on the individual point source rather than the combination of each stressor on the ecosystem. It would appear that TMDL analysis and avoidance is not part of the rule. We fear that these practices will lead to a degradation of the waters of our state.

FOGH is concerned that there is no standardized Stormwater Manual specified for use. It is conceivable that a Manual that is inappropriate, outdated or inaccurate could be used to develop strategies to fit a project rather than protect the water quality.

We are also concerned that the time period set aside for comment on this extremely important and far-reaching proposed rulemaking is inadequate. We request that the comment period be extended to allow the public interest to be served through further study and analysis.

We hope that these comments will be helpful in continuing to raise the quality of water in Washington State. Clean water is how we and other sharers of the Earth survive now and in the future.

Thank you for your consideration of this very important subject.

Sincerely,

A handwritten signature in green ink, appearing to be 'A. B.', with a long horizontal line extending to the right.