

Catherine McCoy

From: hwbranch@aol.com
Sent: Thursday, March 1, 2018 11:58 AM
To: Catherine McCoy
Subject: (SEPA DNS), Westman Mill, East Bay Flats and Townhouses.

Re: Notice of Land Use Approval and State Environmental Policy Act Determination of Nonsignificance (SEPA DNS), Westman Mill, East Bay Flats and Townhouses. Formal Comments:

This SEPA DNS should be rejected because it fails to establish non-significance. The East Bay/Westman Mill Development would be in the historic estuary of an impaired water body. The option of restoring the estuary has never been seriously considered. The assumption has been from the beginning that the site would be developed, an assumption that largely invalidated the ensuing process.

There's no clearly stated hypothesis or prediction and as such no conclusion. This is important because without these things our work can be haphazard or manipulated. The hypothesis in this case might be: We can build there in a way that protects people walking on the site from exposure. The conclusion might be: We can do it. The process from hypothesis to conclusion has one goal in mind, to build, and as such is far from a complete assessment of risks and benefits.

Dioxin continues to enter East Bay from undetermined sources. The precautionary approach would be to hold off on development until these sources have been identified. The Precautionary Principle is widely endorsed. The National Environmental Policy Act, The Wilderness Act, The Endangered Species Act and The Clean Water Act establish rigorous goals to restore and maintain chemical, physical, and biological integrity and not destroy opportunities prior to their being understood.

The nature and extent of contamination on the Port Peninsula remain unknown. The plan is to cover the area with a geotextile membrane after removing anything containing dioxin at greater than 590 ppt, that has been found. Found exceedances of above 11ppt will remain at the site underneath the landscaped surfaces or soil cover. These include TPH-D (total petroleum hydrocarbons diesel), TPH-HO (total petroleum hydrocarbons heavy oil), cPAHs (carcinogenic polycyclic aromatic hydrocarbons) and dioxin/furans. It is suggested that dioxin does not pose a threat to human health or the environment because it binds strongly to soil and has limited mobility. If this were true, how has dioxin spread throughout the inlet? Dioxin is lipophilic and readily mixes with oily substances like PAHs and TPHs, materials found at the site.

Attempting to differentiate and separate earth, water, plants and animals limits the rigor of science. Especially in marine environments, none exist in a vacuum. In estuaries, fresh water and nutrients being lighter than salt water flows out on the surface drawing salt water and marine organisms in underneath creating a persistent circulation pattern called a salt wedge. In addition to consuming nitrates and generating dissolved oxygen, plankton are the origin of the web of life. It all happens best in the presence of abundant sunlight and atmospheric oxygen. Tide flats are one of nature's perfect designs.

There is no mention of phytoplankton in the SEPA review. Phytoplankton are the origin of life on earth. All life on earth relies on them. Their workings and that of certain cyanobacteria, are why the earth looks like it does from space.

Under the category of animals, there is no mention of zooplankton which are probably the most important animals on earth because they are primary consumers, they control the abundance of phytoplankton, they move energy up the food web and they represent the larval stage of many species.

There's the benthic world, nearshore biota like salt marsh, overhanging vegetation, insects and salmon migrating up Indian/Moxlie creek culvert to spawn and locally extinct species of water birds, all expected if we accept the status quo to recover and live in a long dark pipe. The land is zoned Urban Waterfront and is as such afforded little protection. Any estuary should be considered a critical area. The more damaged, the more critical. The Estuary Restoration Act, administered under NOAA, says estuaries are dynamic, productive and support important ecosystem functions including biogeochemical cycling and movement of nutrients, mitigation of floods, maintenance of biodiversity and biological production.

Estuaries are influenced by both sea and land, forming a mixture of habitat types that do not exist in isolation, but rather have physical, chemical and biological links between them, things like hydrology, sediment transport, the

transfer of nutrients and the way mobile species move between them both seasonally and during tidal cycles. Even small estuaries are typically composed of a mosaic of between habitat types - subtidal, intertidal mudflats, intertidal sandflats, marshes, rocky shores and lagoons. The original Estuary Restoration Act was passed into law in 2000 to develop and enhance an Estuary Habitat Restoration Strategy. The Act also directed NOAA to develop monitoring protocols for estuary habitat restoration projects, and to create and maintain a national database of restoration projects.

Moxlie Creek drains into East Bay, a water body that's degraded for too many nitrates and too little dissolved oxygen. This is partly because of modifications to structure, i.e., long culverts and dredging, filling and armoring the estuary. The creek continues to degrade the bay's chemical parameters because its physical parameters are severely modified. As long as we refuse to repair physical parameters, we continue to degrade East Bay.

This is the area of intertidal exchange. It's the only place it can be located. It can't be remediated elsewhere. It needs to be structured as naturally as possible to be effective. The rate of flow of a liquid increases as diameter narrows and decreases as diameter expands. By expanding and slowing flow sedimentation increases and scouring decreases. Daylighting the stream through a narrow area to one side of the development would not be a restoration. It would be a concrete lined channel. This is an opportunity to restore a small portion of the original estuary. The entire parcel needs to be involved.

Olympia's stormwater system consists of 160 miles of underground pipe. The City appears to believe that daylighting streams is not feasible, especially Moxlie Creek because the pipe is too deep and runs beneath buildings and utilities. Actually, the stream could follow any pathway from where it goes underground at Plum and Union provided it continues to flow downhill. The best pathway may be down Cherry Street instead of Chestnut Street. The planned location of the Westman Mill building would eliminate the Cherry Street option.

The CWA and numerous RCWs state that these kinds of decisions should be based on the best available science. Science begins with observation. An appropriate observation in this case might be: "I notice East Bay is low in dissolved oxygen". A hypothesis might be: "These low levels of dissolved oxygen are due to modifications in in-stream and estuarine structure". A prediction might be "If we find levels dropping in the pipe and the estuary the hypothesis will be supported". If this turns out to be the case our conclusion would be "Low levels are the result of modifications to structure". Observation, hypothesis, prediction (test), conclusion. If we can repeat the last two steps the conclusion is supported.

The Growth Management Act states that every five years cities and counties must revise their plans and regulations and that they must include the "best available science" when developing policies and development regulations to protect the functions and values of critical areas and must give "special consideration" to conservation or protection measures necessary to preserve or enhance anadromous fisheries". One objective of the Clean Water Act is "the restoration and maintenance of the chemical, physical and biological integrity of the country's water"... to achieve water quality that is both "fishable" and "swimmable". Oceanography is the study of the interrelationships between physical, chemical and biological parameters in marine environments. Why is there no oceanography anywhere in this process?

The Moxlie Creek estuary is clearly a critical area. Protecting critical areas has a nexus in several federal and state laws: including the Federal Clean Water Act, Safe Drinking Water Act, Endangered Species Act, the National Environmental Policy Act and including the Washington State Environmental Policy Act (SEPA), Shoreline Management Act, Watershed Planning Act, Salmon Recovery Act, the Municipal Water Law and the GMA. Additionally the federal and state governments have a responsibility to ensure that tribal treaty rights are upheld, which in part requires that fish habitat is protected and improved.

Phytoplankton photosynthesis drives many biogeochemical and ecological processes. Changes in pH, trace metal speciation, concentrations of dissolved gases (oxygen, carbon dioxide, methane), inorganic nutrients (nitrate, phosphate, silicate), and organic compounds are all closely associated with fluctuations in phytoplankton photosynthesis as are trophic linkages between the phytoplankton as primary producers and bacteria, zooplankton, benthic invertebrates, and predators. Our understanding of estuaries is therefore dependent upon an understanding of natural and human-induced variability of phytoplankton abundance, community composition, productivity, and connections to other biological communities. These topics are central to poorly resolved issues such as the growing worldwide incidence of toxic algal blooms and associated fish mortality.

Section 303(d) of the CWA, requires states to identify waters where current pollution control technologies alone cannot meet the water quality standards set for that waterbody. East Bay is a perfect case study. Every two years, states are required to submit a list of impaired waters. These are prioritized based on the severity and the designated use. Puget Sound is water. We cannot confine persistent toxins and poor water quality to a place like East Bay. The problem will spread through the water and the food web. Salmon migrate the perimeter of Puget Sound. If in their

migration they happen to enter East Bay, they'll be lucky to get out alive. Species don't exist in isolation. Fish populations depend on the general health of other populations throughout the Sound.

To summarize, nothing about this process addresses ongoing impacts on the impaired waters of the East Bay estuary or Indian and Moxlie Creeks, despite documented proposals and a preponderance of science affirming daylighting as a necessary step to improving water quality. This plan from the beginning has been designed for one purpose, to develop in the historic estuary of a degraded stream in an impaired water body, preferring as an expressed alternative to modify 26 acres of tidelands in West Bay that are already under a perpetual easement to the U.S. Fish & Wildlife Service to serve as a fish and wildlife conservancy area. Giving up on the most degraded areas and investing effort instead in fixing the least degraded areas is singularly backward.

This proposed development is far from insignificant. Getting rid of such a colossus would be a monumental undertaking. When 100 foot pilings are driven deep into the historic marine sediments, the restoration option will become virtually impossible as their attempted removal would turn everything to mush. If anything we are doing today will be a lasting legacy, this is it.

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