Message

From: Croxton, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=CA7B9940863640D5B96F4295EA3C9641-CROXTON, DAVE]
Sent: 9/17/2018 8:18:21 PM
To: Hodgkiss, Miranda [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9d441ddb44ac4ed486058d2c2690b977-Hodgkiss, Miranda]
Subject: FW: budd inlet developments
Attachments: moxlie in 1879.jpg

Just FYI I believe. Toward the end some interpretation of our partial disapproval.

From: Opalski, Dan
Sent: Monday, September 17, 2018 10:23 AM
To: Croxton, David <Croxton.David@epa.gov>
Subject: FW: budd inlet developments

From: Ex. 6 Personal Privacy (PP)
Sent: Monday, September 17, 2018 8:56 AM
To: Opalski, Dan <Opalski.Dan@epa.gov>
Subject: budd inlet developments

An Open Letter to the Puget Sound Action Team.

Introduction

1. The ecology of water quality.

2. Contamination

3. Species

4. Diversions, omissions and prevarications

5. SEPA appeals

Conclusion

Introduction:

There are currently 160 milers of culverted surface waters in Olympia Washington. We, the Olympia Urban Waters League have been advocating for several years for the removal of streams from culverts.

Since 2015 we've centered our efforts on East Bay and the estuary of Moxlie Creek. A mixed-use development is planned for the center of the historic estuary. The Westman Mill development will be comprised of 85 rental units, commercial space and parking. Pilings would be driven deep into estuarine sediments forever eliminating the opportunity for a meaningful restoration.

In the attached drawing from 1879, East Bay is pictured in the foreground. Many rivers have a companion stream that helps shape the estuary; Medicine Creek for the Nisqually, Hylebos for the Puyalup and in this case, Moxlie Creek for the Deschutes. Cherry and Chestnut Streets don't yet exist at the time the drawing was made. The development would be in center of the East Bay estuary. The current location of the culvert to the east would be irrelevant in a real restoration.

The idea of East Bay Flats and Townhouses was introduced in a public meeting held on November 19, 2015 at the Coach House. The event, Downtown Olympia: Opportunities and Obstacles with Architect Ron Thomas, was sponsored by Olympians for People Oriented Places "a group whose purpose is to make Olympia a vibrant, well-planned city." Questions and comments were not permitted.

The plan was renamed Westman Mill and went before the City Planning Commission which determined that because the Moxlie Creek culvert passes under streets and buildings it would be impossible to daylight. Our response was that the stream could follow any pathway to the bay from where it enters the ground as long as it continues to flow downhill and that some routes would be very doable. This response has been ignored to this day. The proposal ultimately went before The Design Review Board where once again questions and comments were not permitted.

The story of our appeal is one of being ignored, marginalized and ultimately silenced.

1. The Ecology of Water Quality:

The East Bay Flats and Townhouses would be 250 feet from the shore of Budd Inlet to the north and 250 feet east of Moxlie Creek. Moxlie Creek after running through a half mile long culvert drains into East Bay, a water body that's degraded for too many nitrates and too little dissolved oxygen. Nitrates travel 18 time farther in a buried stream than one that sees daylight:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4505844/

Estuaries are the place where fresh water and nutrients coming from land meet the marine environment. Being lighter than salt water, fresh water flows out on the surface drawing salt water and organisms in underneath, a phenomenon called the salt wedge. These and other persistent circulation patterns help incorporate nutrients into the food web. It all happens best in shallow water in the presence of abundant sunlight and atmospheric oxygen. Tide flats are one of nature's perfect designs. They're also especially vulnerable to modifications in structure, i.e., long culverts and dredging, filling and armoring.

There has been a general tendency to underscore river estuaries while ignoring stream estuaries. Streams in South Puget Sound drain a area comparable to that of rivers, the area drained is in the all important and greatly modified lowlands ecoregion and stream estuaries form a "chain of pearls" along the length of the shoreline providing critical migratory habitat. There was no native salmon run in the Deschutes River because of the waterfall. All native salmon in Budd Inlet spawned in Schneider, Ellis and Percival Creek and especially Moxlie Creek and its chief tributary Indian Creek.

2. Contamination

According to the 2008 Budd Inlet Characterization, there is a dioxin hotspot with 540 ppt in the nearshore bank and 167 ppt in the neighboring benthic surface and 1000 ppt in the neighboring subsurface. The characterization states: "Additional evaluation is needed at the Hardel Mutual Plywood site and the Moxlie Creek discharge to determine whether these sites are significant sources

of dioxin/furan contamination through the use of PCP as a wood preservative, or if Cascade Pole was the source of accumulation to these areas based on water circulation patterns in inner Budd Inlet." (page 54) There appears to have been no effort to determine if this is the case. There are also two storm drains running through the hotspot that may be the source. Or it could be a groundwater seep.

Between 1979 and 1982 1.1 million cubic yards of dredge spoils from in front of Cascade Pole, the area that was later determined to be a superfund site, were used as fill around the eastern side of the Port peninsula.

Two large documents have been assembled on these questions, the Newfields report:
https://fortress.wa.gov/ecy/gsp/DocViewer.aspx?did=53748
and the Anchor QEA report:
https://www.portolympia.com/DocumentCenter/View/2382/Final-Investigation-Report-Budd-Inlet-Sediment-Site-Aug2016?bidId=
In the forward to the Newfields report, the Department of Ecology states that the Port's (Anchor QEA) explanations for hot spots and sources make no sense. The whole subject was subsequently dropped.

Possible sources for dioxin entering the bay are listed as street runoff, volcanos, old phone poles and other sources that are not only unsubstantiated they're ridiculous. If these concentrations came from those kinds of sources there'd be no life on earth as we know it. The chemometrics of the hotspot are the same as Cascade Pole. The possibility that the source could be contaminated fill is nowhere to be found in either document. Neither even mentions the term "contaminated fill".

The Moxlie Creek culvert is also contaminated with PCBs: "Water from Moxlie Creek flows through a culvert that discharges into the southern end of East Bay. East Bay was placed on the 1998 303(d) impaired water list for PCBs based on a single composite sample of mussel tissue collected from the culvert at the mouth of Moxlie Creek (Ecology 2003). The sample had a total PCB concentration of 21 µg/kg wet weight (ww), which exceeded the 303(d) listing criterion of 5.3 µg/kg ww. Additional sampling of mussel tissues in 2002 found PCB concentrations ranging from 7.0 to 9.6 µg/kg ww, which confirmed that the 303(d) listing continues to be warranted (Ecology 2003). (page 6)

https://fortress.wa.gov/ecy/gsp/DocViewer.ashx?did=1237

The sources, nature and extent of dioxin and PCB contamination have not been determined. Sampling of the East Bay site was not done according to DNAPL protocols. The primary source of dioxin in Budd Inlet benthic soils is creosote, a dense non aqueous liquid (DNAPL), probably originating at the Cascade Pole site on the northern tip of the peninsula. Being heavier than water, DNAPLs tend to migrate downward to the first aquitard and then horizontally. This would be in the neighborhood of 25 feet below the current ground level. The deepest samples ranged about half that depth. The vast majority were considerably less, in the range of one to four feet. (Remedial Investigation and Feasibility Study Report, Dec 2016. Table 3.1 for wells. Table 3.7 for cPAHs. Table 3.8 for dioxin/furans)

An example of what we might expect is the 2009 cleanup of the new City Hall site which was contaminated with coal tar DNAPLs. The source was the power station on Legion 600 feet to the south. Material migrated downward to the first aquitard then horizontally. to and through the site in the direction of the East Bay development site 400 feet further to the north. The entire City Hall site was excavated 25 feet down to the aquitard and out to the edge of the northern property line. Given the nature of DNAPLs we should assume that if they haven't arrived at the East Bay site they will in the future. A large building on the site would make any cleanup difficult.

https://www.epa.gov/sites/production/files/2015-06/documents/dnapl_issue_paper.pdf

3. Species. Chinook and coho salmon and cutthroat trout have been observed in Moxlie and Indian Creek. Indian Creek, the chief tributary to Moxlie Creek, runs through 1.5 miles of pool and riffle regime and a full square mile of undeveloped watershed in the area south of Wheeler between Eastside and Boundary. The area represents potentially excellent spawning habitat for the species of salmonids that still manage to migrate through the 25 or so culverts that impede passage. Some of these culverts provide no benefit at all and could be easily removed.

The impending loss of the Southern Resident Orcas was underscored this week by the heartbreaking images of a mother trying to support her dead calf. Ken Balcomb of the Center for Whale Research summed it up to the Seattle Times: "The (Southern Residents) have very little reproductive potential left, and we are wasting it in a process that cannot succeed unless thinking leaves the box. We have to call it quits or fight like hell to restore wild salmon in as many ecosystems as possible as soon as possible."

The Southern Resident Orcas travel in groups from Puget Sound into British Columbia and along the West Coast as far south as Monterey Bay. Since not all populations of chinook spawn at the same time, the orcas move from one to another and all populations along their migration are important. In the U.S., nine species of chinook — including those in Puget Sound — are listed as threatened or endangered.

If birds are a good indicator of ecosystem health, Budd Inlet is an ecosystem in collapse. RW Morse has written several widely used field guides and is widely regarded as a preeminent expert on northwest birds. In June of 2002 he presented the West Bay Habitat Assessment to the City in which he noted:

"By examining past Christmas Bird Count records, we know that the number of waterbirds has dramatically declined in West Bay over the last fifteen years. The area between the Fourth and Fifth Avenue Bridges, at the south end of West Bay, used to have good numbers of feeding mergansers, scoters, grebes, goldeneye, alcids, and cormorants. Today, there are very few birds here and, on most days, there are none".

(The) "vast majority of waterbirds using West Bay have seen a dramatic decline in their numbers. These species include: Red-necked, Horned, and Western Grebes, Pelagic Cormorant, Surf Scoter, Barrow's Goldeneye, Hooded, Common, and Red-breasted Mergansers, Ruddy Duck, Bonaparte's and Mew and Ring-billed Gulls. Some waterbirds were even not recorded during the survey period although they were prevalent 15 years ago: White-winged and Black Scoters, American Wigeon, Canvasback, Rhinoceros Auklet, and American Coot. When an examination is made of comparable dates in December in 2001 versus 1986: in 1986, 812 waterbirds were counted (21 species) versus only 168 birds (16 species) in 2001. Thirty to eighty waterbirds were often seen between the Fourth and Fifth Ave bridges".

Although the assessment is of West Bay, East Bay is directly connected and saw similar declines over the same time period. Habitat and water quality have remained largely unchanged in West Bay and have been degraded in East Bay, especially with the filling of the land in question here and the extension of the Moxlie Creek culvert between 1979 and 1982.

This section of the culvert is a critical area. It meets all the qualifications of being aquatic tidelands being the area between the ordinary high tide line and extreme low tide line (unless otherwise established). The Moxlie Creek culvert is a bed, the land below the ordinary high water lines not including irrigation ditches, canals, storm water run-off devices, or other artificial watercourses except

where they exist in a natural watercourse that has been altered by man. See WAC 220-110-020(9) for full definition. It's brackish waters, waters with a salinity intermediate between seawater and freshwater, usually showing wide salinity fluctuations. It's estuarine waters, waters that are semienclosed by land but have open, partly obstructed, or sporadic access to the ocean, and in which seawater is at least occasionally diluted by freshwater runoff from land. Estuarine waters of the state include adjacent tidal flats and beaches up to the limit of tidal inundation. It's habitat, which may be tied to temperature, water, soil, sunlight, source of food, refuge from predators, places to reproduce, and other living and non-living factors. It includes the ordinary high water mark, which if the ordinary high water line cannot be found is measured as the line of mean higher high water adjoining saltwater and the elevation of the mean annual flood adjoining freshwater. WAC 220-110-020(69). And it's a watercourse a "channel, bed, bank, or bottom waterward of the ordinary high water line in which fish may spawn, reside, or through which they may pass, and tributary waters with defined bed or banks, which influence the quality of fish habitat downstream, not including irrigation ditches, canals, storm water run-off devices, or other entirely artificial watercourses, except where they exist in a natural watercourse which has been altered by humans". WAC 220-110-020(105).

4. Diversions, omissions and prevarications.

In a letter dated December 05, 2015, City Manager Steve Hall writes: "Our current environmental restoration efforts in the City are focused on West Bay which has active salmon runs, bird nesting and many other advantages over the Moxlie area. We are in the middle of a habitat study on west bay with the Squaxin Island tribe, the Port and others to improve environmental conditions on West Bay. Any future dollars we invest in restoration are likely to be directed there and not to East Bay. We don't have the staff or money to also do Moxlie and I would not recommend the City or the Port change course from our West Bay efforts. If you are looking for optimal environmental impact, I'd urge you to follow the West Bay work."

The City of Olympia is relying mainly on the West Bay Environmental Restoration Assessment Final Report of February 2016. The report, which is characterized as "science based", was prepared by: Coast & Harbor Engineering, a Division of Hatch Mott MacDonald who specializes in sediment transport modeling and bulkhead design, in association with JA Brennan Associates GeoEngineers who specialize in landscape architecture and Davido Consulting Group Environmental Science Associates who describe themselves as "excellence in engineering". All appear to be engineering firms.

Engineering is not science. They are separate, related, disciplines. Scientists explore the natural world. Discovery is the essence of science. Engineers innovate solutions. Engineering without science can be haphazard. Scientific discovery without engineering can be solely academic.

http://www.bu.edu/eng/about/deans-welcome/dean-lutchen/engineering-is-not-science/

On page 22 the Coast Harbor report states "Schneider Creek discharges into the reach via a large culvert, delivering sediment and freshwater and redistributing sediments in the mudflats." The estuary of Schneider Creek currently runs through a 500 foot long culvert. On page 17 the Schneider Creek culvert is labeled as a "stormwater retrofit (piped)".

The report states "Creek daylighting was beyond the scope of the Plan." Why would the most significant feature and greatest opportunity for improvement be deliberately left out of the assessment? Nearly half of the assessment concerns potential modifications to the Port Lagoon, which is under a perpetual easement to the U.S. Fish & Wildlife Service to serve as a fish and wildlife conservancy area and as mitigation for the development of the East Bay Marina. Alternatives include knocking holes in the old railroad berm that forms the lagoon and completely removing it. This might

reduce the length of intertidal and nearshore shoreline by as much as a full third. It might destroy what amounts to coastal lagoon habitat. It would cause extensive modifications in a 100 year old benthic community. In short, any proposed work will likely do more harm than good.

https://wa-portofolympia2.civicplus.com/DocumentCenter/View/2395

http://www.portolympia.com/DocumentCenter/View/454

In various documents the lagoon is repeatedly listed as key habitat. It probably represents some of the best physical and biological parameters in Budd Inlet. The idea that we can find greater benefit in restoring an "area of conservation" while ignoring the most damaged areas is illogical and contrary to the intent of the CWA.

Numerous Federal Acts and laws, including the Clean Water Act and the Endangered Species Act require adherence to Best Available Science. Numerous State Codes and Acts require the same. RCW 36.70A.172(1) states that counties and cities shall include the best available science in developing policies to protect the functions and values of critical areas. WAC 365-195-925 states that criteria for demonstrating "special consideration" has been given to measures necessary to preserve or enhance anadromous fisheries. To demonstrate compliance a county or city should include in the record evidence should be developed using the criteria set out in WAC 365-195-900 through 365-195-925 to ensure that conservation or protection measures necessary to preserve or enhance anadromous fisheries are grounded in the best available science. Conservation or protection measures necessary to preserve or enhance anadromous fisheries include measures that "protect habitat important for all life stages of anadromous fish, including, but not limited to, spawning and incubation, juvenile rearing and adult residence, juvenile migration downstream to the sea, and adult migration upstream to spawning areas. Special consideration should be given to habitat protection measures based on the best available science relevant to stream flows, water quality and temperature, spawning substrates, instream structural diversity, migratory access, estuary and nearshore marine habitat quality, and the maintenance of salmon prey species."

Which science might be applicable? Oceanography, the study of the interrelationships between physical, chemical and biological parameters, would certainly qualify and yet there has been no attempt to determine how modifications to physical parameters might have impacted chemical parameters such as dissolved oxygen and nitrates or biological parameters such as primary and secondary production. There is no oceanography to be found anywhere in this process.

The State has given up on East Bay. The Water Quality Improvement Report (WQIR) published by the Department of Ecology is 239 pages of data and graphics with no clearly stated hypothesis and conclusions scattered throughout, not well supported and not clearly stated to be such. One conclusion is that bacteria and nutrient loading coming from the Deschutes River and Capitol Lake exceed sources coming from streams and we'd get more bang for our buck going after the river and (by implication) forgetting the streams and their estuaries, including East Bay. As one reads on though one learns that the greatest source of nutrient loading is actually upwelling coming from north, outside of Budd Inlet. If most nutrients are coming from outside Budd Inlet we might notice plankton and structure and since the health of plankton is largely determined by structure, let's just call it that. Structure. Culverts, dredging, filling and armoring with piles of rock.

5. SEPA appeals

After passing through various commissions and boards the Westman Mill development was ultimately granted a State Environmental Policy Act (SEPA) Determination of Non-Significance.

The SEPA checklist went through earth, (slope, soils, clearing, grading), air (smells) surface water (work near, withdrawals diversions, discharges) ground water (withdrawal, drain fields), runoff, plants and animals, environmental health (hazardous waste, contamination, liquid gas pipes, curent land use (existing farm or forest, structures, zoning, people displaced, reside), height, views, recreation, buildings, landmarks, transportation, public services and utilities

The current situation is the target. The goal is to not make things dramatically worse. The SEPA checklist only marginally addressed issues of persistent contaminants and ecological restoration centering instead on whether the project will require any work over or in Budd Inlet, fill and dredge material, surface water withdrawals or diversions or discharges of waste materials to surface water or groundwater.

The Olympia Urban Waters League appealed that determination before the Hearing Examiner, Mark C. Scheibmeir, who determined that OUWL lacked standing. OUWL contended that because the tide backs up the entire half mile long culvert twice each day the lower portion near the development should be considered brackish marine waters where members of OUWL would have standing. And, what happens in Moxlie Creek directly impacts East Bay which lies directly down-current. But, in order to argue these points OUWL would have to have standing and without standing OUWL can't make these arguments.

OUWL appealed to Superior Court. The Port/City/Developer legal team asked the courts to recuse Judge James Dixon from the Westman Mill appeal. They felt they wouldn't get a fair hearing. The appeal went before Superior Court Judge Christine Schaller who also found that OUWL lacked standing.

Conclusion:

We, OUWL, contend that the Moxlie Creek culvert is estuarine brackish water and this makes it part of the marine environment. It's certainly not fresh water. The tide goes up the pipe twice each day. We have standing in cases involving marine waters.

By appealing the SEPA DNS, OUWL asked for an Environmental Impact Statement. An EIS is much like an expanded SEPA checklist. The process is only meant to gather relevant information. Even if the statement predicts negative impacts decision makers can proceed with the proposal. The City, Port and Developer legal efforts have been to prevent the gathering of relevant information.

The members of OUWL have been reluctant to pursue legal action further because of the costs and risks and a prevailing suspicion that some kind of legal chicanery will keep our case from ever being heard.

Then on July 29th, 2018 the EPA issued an Action Paper on the Deschutes River, Percival Creek and Budd Inlet Tributaries. Moxlie Creek is listed as a tributary of primary concern.

The Action Paper mentions "incomplete submittals", specifically capacities and allocations. Capacity is going to be largely a matter of physical parameters such as volume, depth, flow rate and structure. A stream in a long culvert may have zero capacity to assimilate nutrients. It mentions that downstream uses are not protected. The impact, for example, of conditions in Moxlie Creek on East Bay, the most degraded waters in the Budd Inlet. And it mentions that TMDL targets are not protective of water quality standards. The allowed discharges are not going to fix Budd Inlet.

The Action Paper is described as Multi-Parameter. We interpret this to not mean multiple examples of one parameter but rather multiple, physical as well as chemical and biological parameters. If we're

addressing physical parameters in Moxlie Creek, that is significant to our appeal. But is it binding? Will it ever be heard?

The role of the Washington State Department of Ecology in all this has been somewhere between inept and complicitous.

And last week the Puget Sound Partnership released the list of the Puget Sound Action Agenda Vital Signs that will get the most attention over the next four years. The first eight are: Estuaries, Shorelines with armoring, Floodplains, Land development and cover, Freshwater quality, Marine water quality,Toxics in fish and Chinook salmon. This reads like a description of East Bay and Moxlie Creek.

The Action Agenda seems to be hoping that by denying funding through the EPA or other sources we can influence local executive decisions. It seems highly likely that this would only effect policy in instances where a decision has been made and funding is being sought.

The Growth Management Act does not mean that local and sate jurisdictions are above Federal law. Local jurisdictions don't have the right to ignore and manipulate the truth. When they do, how are they brought into the light? Perhaps that's the question of the day and perhaps this is the perfect place to address it.

Sincerely,

Harry Branch

President Olympia Urban Waters League

cc: Environmental Protection Agency

National Oceanic and Atmospheric Administration

The Center for Whale Research

Oceana

Ocean Conservancy

and others