I applaud the considerable progress that has been made during the almost 20 years that the lower yard of the former Unocal Bulk Fuel Terminal 0178 has been undergoing cleanup. Twenty years is a long time, and I can understand why Ecology and Chevron are eager to see it completed. I am writing to urge Ecology and Chevron to not stop now, though. Capping and covering the remaining contamination (Alternative 6) lack the permanence, protectiveness, and long-term effectiveness that is needed to meet both the spirit and the law of the Model Toxics Control Act.

The Draft Feasibility Study and Disproportionate Cost Analysis need to be revised and a more thorough cleanup plan selected.

1. **Chevron Corporation made the mess — they need to clean it up.**
   Unocal (Chevron) reaped significant financial gain from their use of the property as a bulk fuel terminal and created significant environmental contamination in the process. Alternative 6 would pass on to a future owner the cost of removing this contamination for habitat restoration and estuary reconnection. The public, the City of Edmonds, and the Tulalip Tribes are not asking Chevron to restore the wetland or reconnect the estuary- but simply to clean it up to a level closer to how they found it so that a future landowner could do so without incurring additional costs.

2. **Potential future use of the property as a restored estuary reconnecting the Edmonds Marsh to Puget Sound should be considered in the feasibility study.**

   Future use: The Washington Administrative Codes (WACs) do not specify that planned or future uses are limited to the current landowner. **WAC 173-340-351(6)(a)** states: *Include <u>any</u> planned future uses of the site or <u>any</u> habitat restoration or resource recovery goals for the site*.

   WAC 173-340-708(3) *Reasonable maximum exposure* states:

   (a) Cleanup levels and remediation levels shall be based on estimates of <u>current and future resource uses</u> and reasonable maximum exposures <u>expected to occur under both current and potential site use conditions</u>, as specified further in this chapter.

   (b) The reasonable maximum exposure is defined as the highest exposure that <u>is reasonably expected to occur at a site under current and potential future site use</u>.

   Documents supporting potential future use for estuary reconnection, habitat restoration and salmon resource recovery:

   - Memorandum of Understanding between WSDOT and City of Edmonds giving the City of Edmonds the first right of purchase for the *intended use of the property to rehabilitate near-shore habitat for salmon and related species.* (MOU 2.8)
   - A state legislature budget line item

- City Resolution 1508
- The 2022-2027 Parks Recreation and Open Space (PROS) Plan (page 116) (a PDF)
- The Parks Department 2022-2027 Capital Facilities and Capital Investment Plan (page 30)
- Memorandum of Understanding between WSDOT and City of Edmonds
- Letters from the Port of Edmonds and the Tulalip Tribes in support of the current NOAA Coastal Resiliency grant also support the potential future use of the site for restoration of the estuary and marsh requiring excavation of the Unocal fill and contamination. (See #5 below, Public Concern, for additional support of this future use.)

WSDOT links to future use: The existing marsh pipeline blocks salmon passage in violation of the 2013 federal culvert injunction that mandates *that the state remove* fish passage barriers. *The surface water channel replacing the pipeline would be on the Unocal site*. Since WSDOT holds the equitable title to the property, reconnection will be a required future use. *Also,* WSDOT proposed replacing the marsh pipeline with a surface water reconnection when planning use of the Unocal property for a ferry terminal. The terminal project has been abandoned but there is a detailed and specific habitat plan developed for this reconnection.

3. A more accurate cost-benefit calculation is needed.

Currently, permanently removing all contamination through excavation (Alternative 4) is rated only 12% more beneficial than capping and covering it (Alternative 6). Ecology guidance has confirmed that the cost analysis needs to consider *both quantitative and qualitative estimates and the use of best professional judgment*. The extensive benefits of estuary restoration, wetland expansion, and salmon resource recovery should be included in the analysis of benefits.
(Concise Explanatory Statement: Chapter 173-340 WAC, pages 119-120)

When considering future land and resource uses, Alternative 6 is not protective, permanent, or effective in the long term. The benefit scores for Alternative 6 should be adjusted to reflect this. A DCA comparison method should be used that does not overemphasize cost, which increases the weight given to benefits, and that includes the future costs of engineered covers.

4. Environmental hazards, especially from climate change and sea level rise, are required to be included in cleanup decision making.

The Draft Feasibility Study does not address the significant impacts that climate change and sea level rise will have on the Unocal property. Sea level rise will increase groundwater levels, and flood waters will more frequently inundate the site. These factors may mobilize contamination and allow it to move toward Willow Creek and Puget Sound through groundwater.

Sea level rise and stormwater flooding will also increase the risk that engineered covers will fail in the southwest corner of the site, where flood flows can pass under the BNSF railroad bridges before returning to Puget Sound. The covers are also at risk from waves that will overlap the railroad tracks in the future.

The location of the Unocal property adjacent to Puget Sound and in a seismic hazard zone also necessitates removing rather than covering contamination. **Ecology's current preferred Alternative 6 does not adequately consider the environmental hazards of the Unocal site.**

> **WAC 173-340-360 (3) (a) (iv)** *General Requirements* states: A *cleanup action must prevent or minimize present and future releases and migration of hazardous substances in the environment*
>
> **WAC 173-340-360 (3) (a) (v)** *General Requirements* states: *A cleanup action must provide resilience to climate change impacts that have a high likelihood of occurring and severely compromising its long-term effectiveness*
>
> **Ecology's climate change and sea level rise guidance:**

- *Ecology believes that climate resilience should be separated out from the threshold protectiveness requirement. Specifying that a cleanup action must be resilient to climate change impacts that have a high likelihood of occurring and severely compromising the action's long-term effectiveness is critical in ensuring the long-term effectiveness and protectiveness of cleanup actions.* (Concise Explanatory Statement: Chapter 173-340 WAC, pages 51-53)
- *Ecology conducted a vulnerability assessment of the state's cleanup sites to understand the types of sites most vulnerable to climate change impacts. We (Ecology) found that sea level rise poses the highest potential risk to sediment and upland cleanup sites in or near marine and tidally influenced waterbodies.* **This description accurately describes the Unocal site and supports the need for a climate vulnerability assessment prior to selecting the final cleanup plan.** (Sustainable Remediation Climate Change Resilience and Green Remediation, Publication No. 17-09-052, 2023, page 1)

5. Public Concern has not been properly weighted.

Chevron lists noise, traffic, short- and long-term risks, and timeframe as the most common community concerns. They assert that complete excavation, Alternative 4, will be most disruptive to the public. This is a flawed assessment of the public's concern about the Unocal cleanup situation. Of the approximately one hundred people who attended Ecology's September 2024 public meeting, no one mentioned those concerns. Instead, the primary concern expressed was that cleanup be sufficient to make reconnecting the Edmonds Marsh to Puget Sound feasible. (Chevron's Feasibility Study Addendum, page 6.6)

6. A cleanup plan between complete excavation (Alternative 4) and no excavation (Alternative 6) should be considered.

Excavating contamination in the areas where the estuary restoration channel will be located and capping and covering contamination elsewhere would better address future land use, public and Tribal concerns, and the environmental hazards of the site at a cost much closer to Alternative 6.

Cost is a significant factor in weighing alternatives and the MTCA cleanup plan selection process favors the adoption of the least expensive alternative if the benefits are deemed to be close and the estimated costs are widely divergent. By submitting Alternative 4 with an estimated cost that is 10 times more expensive than Alternative #6, Chevron is almost forcing Ecology to accept Alternative 6 as the preferred option, even though it is less permanent, less protective, and less effective in the long term.

7. Tribal interests and rights need to be considered.

Ecology states that they have notified tribes of the opportunity to comment but according to the amended MTCA rules, which is not sufficient. The updates require Ecology to *consider the rights and interests* of Indian tribes when evaluating cleanup action alternatives in the feasibility study and in the cost analysis. There is *no mention of these* in the current feasibility study. The Unocal property was used traditionally by the Tulalip tribes as a "usual and accustomed" gathering and fishing place. Tribal concerns about depleted salmon populations are well known. Tibal interest in reconnecting the Edmonds Marsh to Puget Sound to aid salmon recovery has been affirmed by their letters of support for the city's MOU with WSDOT and for the current NOAA Coastal Resiliency grant. These interests and rights are long standing and should be included in Ecology's and Chevron's analyses. **WAC 173-340-620 (3) and (4)**

8. Updated soil samples are needed before the updated feasibility study is completed.

Most soil samples were collected during excavations in 2001, 2003, and 2008. Since the site contaminants have been subject to natural attenuation over the intervening years, there may be substantial changes to the number of areas that do not meet cleanup limits. This added information could have an impact on the ranking of the benefits of each proposed remedial action alternative and the cost of their implementation. If new remedial action alternatives *combining* engineered covers with excavation are considered, updated soil sampling will be particularly important. The disproportionate cost analysis will change based on how much of the site remains contaminated. The results of the additional soil sampling that is planned need to be incorporated into the Ecology's updated feasibility study.