

# Casey Allen

DERT Public Comment on Amendment 2 to Agreed Order DE 6083,

The Deschutes Estuary Restoration Team (DERT) has a long history of advocacy for restoration and remediation efforts in the South Puget Sound, acting to advance community engagement and encouraging policy makers to discuss and act on environmental issues vital to the health of the human and more than human inhabitants of the region. DERT is affiliated with the Puget Soundkeepers and the Waterkeeper Alliance, and has collaborated with Salmon Defense, the Squaxin Island Tribe, and Oly Ecosystems on many occasions to advance our shared goals. We acknowledge the Squaxin Island Tribe as the original and rightful stewards of this land since time immemorial and promote and support the Tribe's science and viewpoints around the restoration of the Deschutes Estuary and the overall health of Budd Inlet. As such, and in recognition of the fluid interconnectivity of aquatic habitat of the Deschutes River and the marine habitat of Budd Inlet, DERT is in support of Amendment 2 to Agreed Order DE 6083.

DERT believes it is well past time for remediation work to begin on sediment clean-up of long identified Dioxin/Furan (PCDDs/PCDFs) contamination in Budd Inlet sediments, with the Department of Ecology and the Port of Olympia having acknowledged the issue and its sources for over a decade. These chemicals have been noted as -1-the most toxic man-made chemicals ever made-1- and are known to both bioaccumulate and biomagnify, moving up food chains (Jeno et al. 2021). As acknowledged by representatives of the Squaxin Island Tribe, tribal members who fish and gather from these habitats are exposed to these chemicals and their families and communities may be at risk through contact with contaminated sediment and the ingestion of fish and benthic fauna of Budd Inlet. The law of the land allows that the Tribe should be able to fish and gather their traditional foods without risk to their health or livelihood. These same chemicals are a risk to non-Indigenous residents of the Budd Inlet as well, reducing the ability of all to safely recreate in and harvest from Budd Inlet.

DERT recognizes the Port of Olympia's past cooperation in remediation efforts but supports the Department of Ecology's finding in their -1-Final Investigation Report – Port of Olympia Budd Inlet Sediment Site-1- document. While PCDDs/PCDFs have ample industrial and public sources, DERT agrees with the DoE that the Port's -1-Chemometric Source Investigation-1- does not explain PCDD/PCDF hotspots, and similarly does not identify point source vectors but instead focuses on more diffuse non-point source origins. These findings are in direct opposition to acknowledged causes of contamination on the Port's own website and ignore well respected research and reviews that cite the very industrial processes that occurred on Port-owned properties as major contributors (Kulkarni et al. 2008; Dopico & Gómez, 2015). Any further investigation should occur concurrently with interim remediation which should focus on contamination hotspots.

The Deschutes Estuary Restoration team is in support of an Interim Action Plan to improve the environmental conditions as rapidly as possible for all inhabitants of Budd Inlet. We believe that the Port holds a responsibility to the human and more than human residents of the area to perform remediation for pollutants that they have historically had a hand in creating. DERT will continue to advocate for healthy and functional ecosystems in support of Indigenous rights, a vibrant ecological community, and an educated and engaged public.

## Bibliography

Dopico, M., & Gómez, A. (2015). Review of the current state and main sources of dioxins around the world. *Journal of the Air & Waste Management Association*, 65(9), 1033-1049.

Jeno, J. G. A., Rathna, R., & Nakkeeran, E. (2021). Biological Implications of Dioxins/Furans Bioaccumulation in Ecosystems. *Environmental Pollution and Remediation*, 395-420.

Kulkarni, P. S., Crespo, J. G., & Afonso, C. A. (2008). Dioxins sources and current remediation technologies—a review. *Environment international*, 34(1), 139-153.



Public Comment on Amendment 2 to Agreed Order DE 6083,

The Deschutes Estuary Restoration Team (DERT) has a long history of advocacy for restoration and remediation efforts in the South Puget Sound, acting to advance community engagement and encouraging policy makers to discuss and act on environmental issues vital to the health of the human and more than human inhabitants of the region. DERT is affiliated with the Puget Soundkeepers and the Waterkeeper Alliance, and has collaborated with Salmon Defense, the Squaxin Island Tribe, and Oly Ecosystems on many occasions to advance our shared goals. We acknowledge the Squaxin Island Tribe as the original and rightful stewards of this land since time immemorial and promote and support the Tribe's science and viewpoints around the restoration of the Deschutes Estuary and the overall health of Budd Inlet. As such, and in recognition of the fluid interconnectivity of aquatic habitat of the Deschutes River and the marine habitat of Budd Inlet, DERT is in support of Amendment 2 to Agreed Order DE 6083.

DERT believes it is well past time for remediation work to begin on sediment clean-up of long identified Dioxin/Furan (PCDDs/PCDFs) contamination in Budd Inlet sediments, with the Department of Ecology and the Port of Olympia having acknowledged the issue and its sources for over a decade. These chemicals have been noted as "the most toxic man-made chemicals ever made" and are known to both bioaccumulate and biomagnify, moving up food chains (Jeno et al. 2021). As acknowledged by representatives of the Squaxin Island Tribe, tribal members who fish and gather from these habitats are exposed to these chemicals and their families and communities may be at risk through contact with contaminated sediment and the ingestion of fish and benthic fauna of Budd Inlet. The law of the land allows that the Tribe should be able to fish and gather their traditional foods without risk to their health or livelihood. These same chemicals are a risk to non-Indigenous residents of the Budd Inlet as well, reducing the ability of all to safely recreate in and harvest from Budd Inlet.

DERT recognizes the Port of Olympia's past cooperation in remediation efforts but supports the Department of Ecology's finding in their "Final Investigation Report – Port of Olympia Budd Inlet Sediment Site" document. While PCDDs/PCDFs have ample industrial and public sources, DERT agrees with the DoE that the Port's "Chemometric Source Investigation" does not explain PCDD/PCDF hotspots, and similarly does not identify point source vectors but instead focuses on more diffuse non-point source origins. These findings are in direct opposition to acknowledged causes of contamination on the Port's own website and ignore well respected research and reviews that cite the very industrial processes that occurred on Port-owned properties as major contributors (Kulkarni et al. 2008; Dopico & Gómez, 2015). Any further investigation should occur concurrently with interim remediation which should focus on contamination hotspots.

The Deschutes Estuary Restoration team is in support of an Interim Action Plan to improve the environmental conditions as rapidly as possible for all inhabitants of Budd Inlet. We believe that the Port holds a responsibility to the human and more than human residents of the area to perform remediation for pollutants that they have historically had a hand in creating. DERT will continue to advocate for healthy and functional ecosystems in support of Indigenous rights, a vibrant ecological community, and an educated and engaged public.



## Bibliography

Dopico, M., & Gómez, A. (2015). Review of the current state and main sources of dioxins around the world. *Journal of the Air & Waste Management Association*, 65(9), 1033-1049.

Jeno, J. G. A., Rathna, R., & Nakkeeran, E. (2021). Biological Implications of Dioxins/Furans Bioaccumulation in Ecosystems. *Environmental Pollution and Remediation*, 395-420.

Kulkarni, P. S., Crespo, J. G., & Afonso, C. A. (2008). Dioxins sources and current remediation technologies—a review. *Environment international*, 34(1), 139-153.