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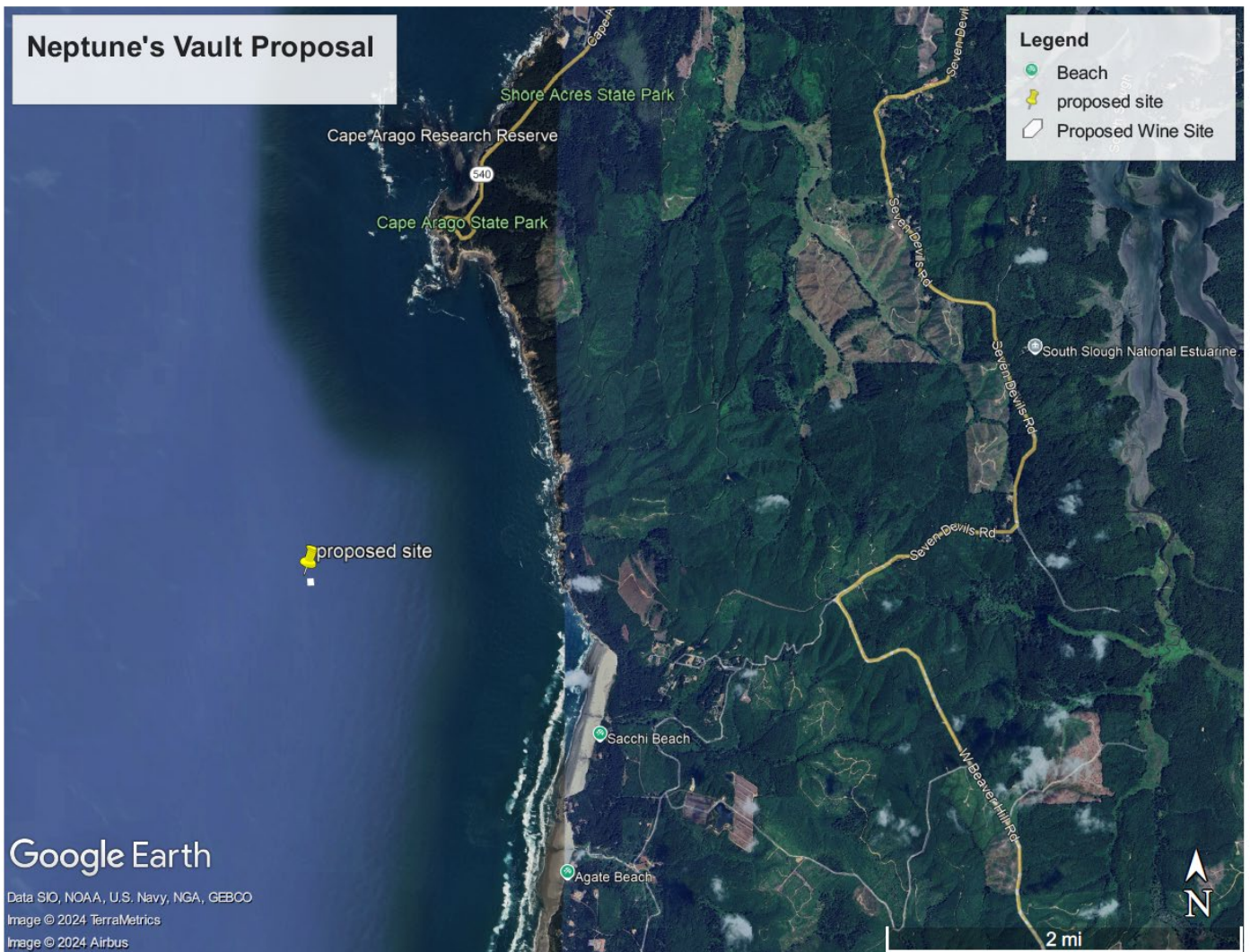
To: Ocean Policy Advisory Council

From: OPAC Scientific and Technical Advisory Committee

Re: Comments on Undersea Wine Cellar proposal

Date: December 10, 2024

Underwater wine aging has been proposed for nearshore Oregon, with a permit request to the US Army Corps of Engineers and Oregon DSL and DEQ, submitted in May by Padre Associates on behalf of Neptune’s Vault, Inc. The project will involve storage wine at a depth of approximately 70 ft for aging and desired accumulation of marine organisms. The company proposes to deploy up to 500 stainless steel cages of wine bottles, each with a 4x4 foot footprint, to remain submerged for 9-12 months. The desired location is 1.6 miles offshore of Sacchi Beach, Oregon (43°16'37.73"N, 124°24'56.51"W) and will occupy approximately 1 acre of seafloor. The site was chosen in consultation with biologists and commercial fishermen and consists of low grade, sand and mud habitat, as identified by camera sled and surficial geologic habitat mapping.



The STAC discussed the proposal and its potential impacts on habitat and fishing activities. We suggest consideration of the following:

1. Location may need to be further evaluated for commercial and recreational fishing activities or undersea cables.
2. Sandy bottom habitats in nearshore Oregon are subject to high intensity currents (horizontal speeds of several knots during the winter) and wave action (back and forth horizontal motions near the seafloor under the waves also of several knots in strength that will add to the ocean currents) during storms. This may move or tip the cages, leading to breakage of the bottles, or bury the cages in sand (up to multiple feet deep). Loss of cages would result in marine debris. We suggest measures to securely tag the cages to ensure retrieval, such as pinging devices that can be detected acoustically.
3. We suggest an evaluation of cage design prior to full scale deployment. The cages have short legs to reduce impact to the benthos and allow water flow, but we suspect that the area underneath each cage will fill in rapidly with sand or mud. Invertebrate density and particulate size can be measured under and around test cages, relative to adjacent control plots. The cages also have mesh to reduce potential entrapment of larger marine organisms but the mesh may be difficult to maintain and could actually increase entrapment. Monitoring a set of test cages for a few months could assist with cage design improvements. Avoiding plastic components is important for reducing marine debris generation.
4. As with all structures added to featureless ocean habitats, the cages will attract fish. This is unlikely to impact local populations positively or negatively in any substantial way, but should be anticipated. Upon cage removal, the loss of the “artificial reef” habitat will affect small fishes, and a rotational scheme may improve their survival.

The Habitat Committee of the Pacific Fisheries Management Council is also aware of the proposal and is monitoring OPAC’s response.