Jim McGrath
2301 Russell Street
Berkeley, CA
May 14, 2026

Engineering Criteria Review Board Members
BCDC
375 Beale Street, Suite 510
Sam Francisco, CA 94105
Submitted via email

Subject: May 27, 2026, DRB meeting on Berkeley Water Transportation Pier Ferry Project

Dear Board Members:

While I have a master's in coastal engineering, it has been a long time since I have prepared a wave climate. But I have something that might be more valuable in the current context--experience. I have sailed, kayaked, and windsurfed on these waters for 46 years. Often more than 150 days a year. I have sailed and raced different kinds of windsurfing equipment, taken multi-day trips in a kayak, and sailed on a 51-foot ketch with Berkeley public school fifth graders. I know the winds, the waves; I know the water here.

At the last ECRB meeting, I testified that the design wave seemed too small, and that the analysis did not consider waves from the west to northwest direction. I recommend that data from the Berkeley Reef Light station be used. That station is close to the proposed site and has years of continuous data.

The report before you does not respond to those comments—but also suggests that the terminal breakwater can safely be shortened to 300 feet.. The essence of the response is:

> As a result, the representativeness of the wind data is a key factor in the reliability of the analysis. Based on a review of multiple wind stations and sensitivity model analysis, wind data from Alameda, San Francisco, and Richmond were identified as the most representative of wind conditions influencing the Berkeley Ferry Terminal site. Data from other stations are different and would not represent the local wind wave generated waves within the fetch limits for the specific site.

I disagree. There is a wind sensor much closer to the site of the proposed terminal, and data from that site is readily available. In fact, it was used by city consultants when they prepared a feasibility study. The feasibility study from October 7, 2021, in Appendix B, had a feasibility level study of wave conditions. They were able to find and use the data from the Berkeley Reef Light--approximately 6.5 years of data. Now there will be another five years or so. The 2021 effort was not in sufficient detail for design purposes and didn't look

at northwest winds or west-northwest winds, which are predominant and strong in the late winter and summer. But it did use a 20-knot wind from the west, which generated a significant wave heigh of 2.62 feet. Twenty knot winds are common in the afternoon in this area from mid-February through September. It appears that COWI is using a smaller wave based on far-field wind data and modeling. Using existing real world data is always superior to modeled or assumed data, and in this case data is available but has not been used. I will attach a screen shot from the 2021 study that shows the location of the Berkeley Reef station and the proximity to the site.

Very truly yours,

Jim McGrath

Attachment

Figure 1. Local Wind Stations Evaluated (left) and Wind Roses for Berkeley Reef Light (inset) and Berkeley Marina (inset) with Speeds in Knots (2-min average).

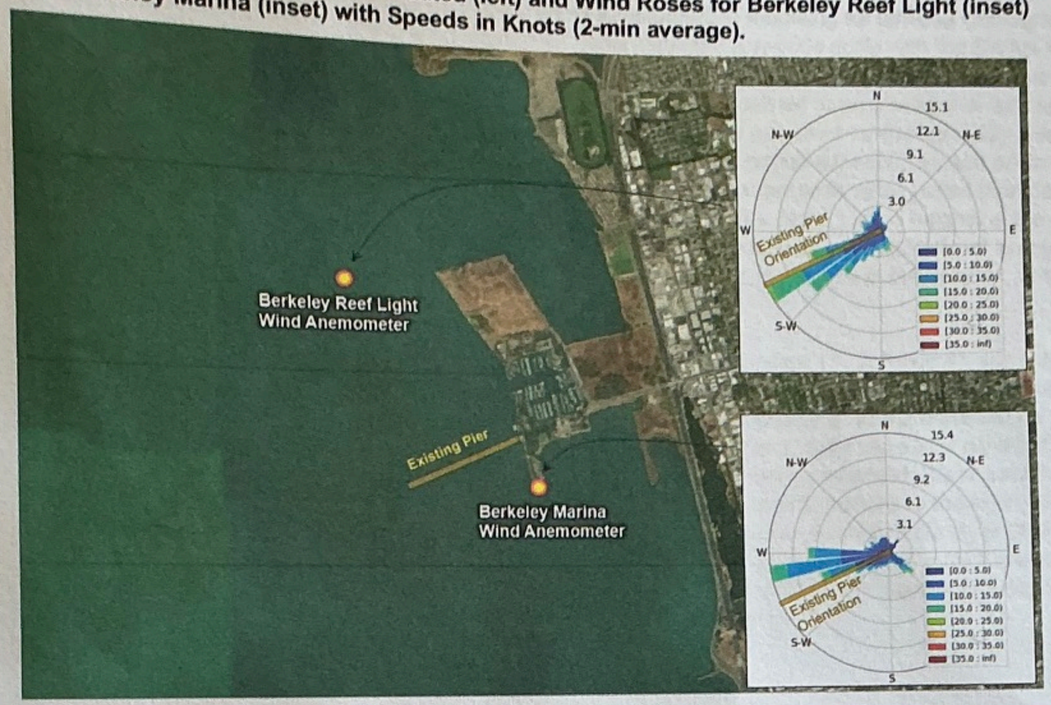
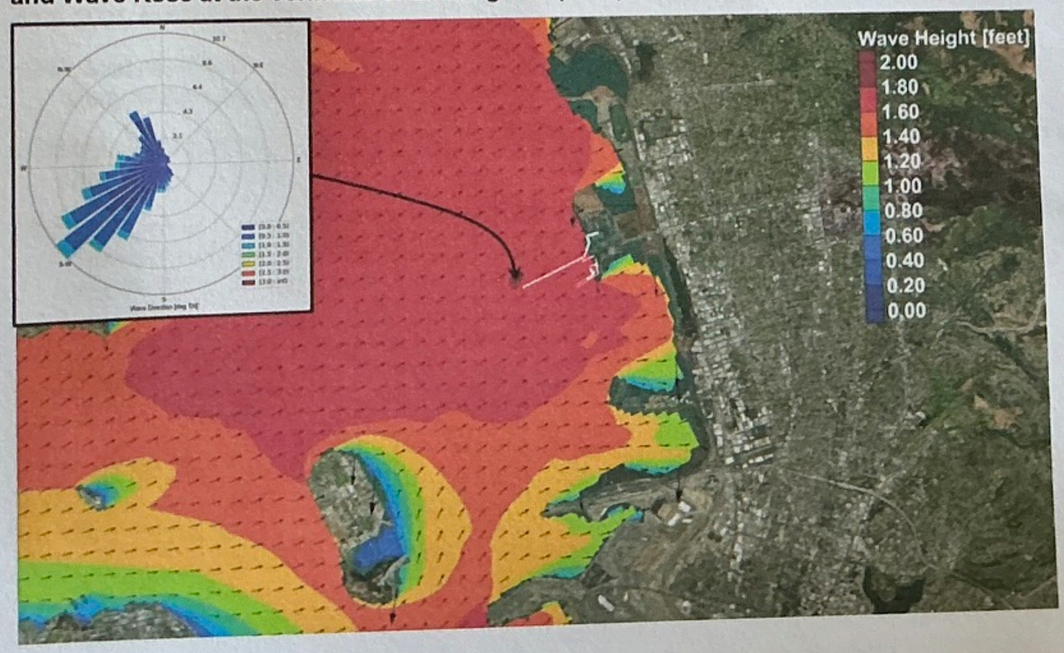


Figure 2. Significant Wave Height and Peak Wave Direction for Southwest Wind Speed 20 knots, and Wave Rose at the Terminus of Existing Pier (inset).



Jim McGrath <macmcgrath@comcast.net> 4/28/2026 1:27 PM

Wind data and wave climate

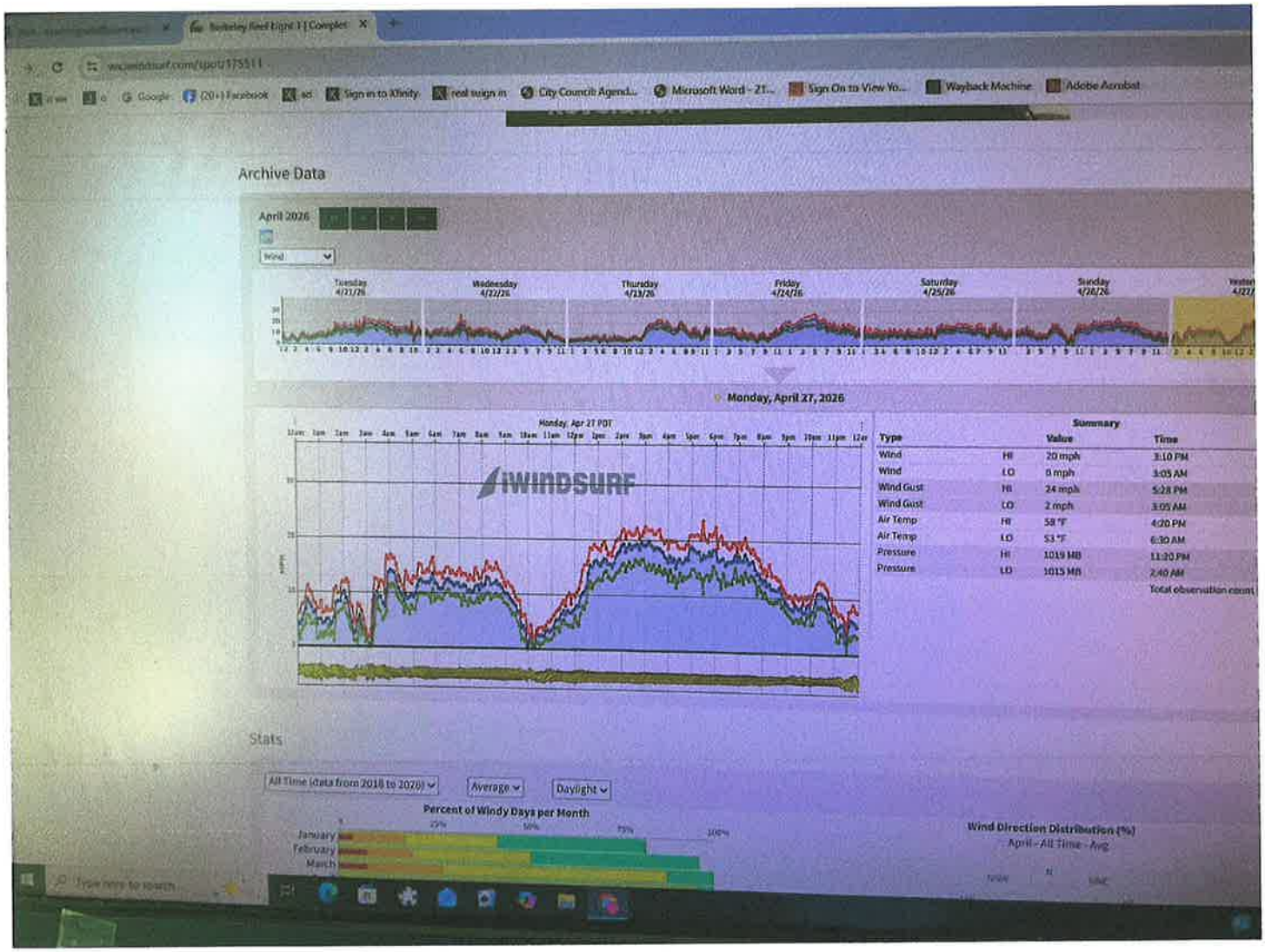
To leslie.ewing@bcdc.ca.gov

Leslie—I got a notice for the next meeting of the ECRB. I did not see any new information about wind and waves from the northwest, the direction of concern identified in the last ECRB meeting. I've enclosed a screenshot of the iwindsurf page for the last 7 days for the Berkeley reef sensor. That sensor is the closest data sensor to the marina entrance and provides wind velocity and direction for subscribers. I have used it for years, and know that there is a seasonal pattern where the wind direction is from the north northwest. You can see that on most of those days the wind velocity is over twenty miles an hour. It appears that COWI made no effort to use this data. Did I miss something? This is readily available and superior to the data that they used.

Jim McGrath

Sent from my iPad

- IMG_0067.jpeg (1 MB)


Archive Data
April 2026
Wind
Tuesday 4/21/26
Wednesday 4/22/26
Thursday 4/23/26
Friday 4/24/26
Saturday 4/25/26
Sunday 4/26/26
Monday, April 27, 2026
Monday, Apr 27 PDT
iWINDSURF
Summary
Type | Value | Time
Wind HI 20 mph 3:10 PM
Wind LO 0 mph 3:05 AM
Wind Gust HI 24 mph 5:28 PM
Wind Gust LO 2 mph 3:05 AM
Air Temp HI 58 °F 4:20 PM
Air Temp LO 53 °F 6:30 AM
Pressure HI 1019 MB 11:20 PM
Pressure LO 1015 MB 2:40 AM
Total observation count
Stats
All Time (data from 2018 to 2026)
Average
Daylight
Percent of Windy Days per Month
January
February
March
Wind Direction Distribution (%)
April - All Time - Avg