

## **Apple Weather App Integration of Ocean Data**

### Availability Statement:

The ocean data presented in the weather app can be accessed by following the source link at the bottom of each widget in the application. Given the product's app format, our product improvement will be completely portable. In doing so, we aim to bring marine awareness and accessibility of more environmental data to users.

### Limitations Statement:

The data gathered from our third-party providers is currently limited to harbors, public beaches, or other ocean research stations where water sampling and testing occurs. We recognize that this data may not be extensive enough to provide a clear enough picture on the closest body of ocean water to the user. However, by providing relevant or important information regarding our oceans, despite how limited it may be, can still hold to inform and educate users on local marine events or impacts.

### Ethics Statement:

As expressed previously, the overarching goal of our improved product is to provide users with ocean awareness through our highly portable and easily accessible app. These virtue ethics will allow us to raise public awareness on their surrounding marine locations.

- Consequential Ethics: The goal is to inform people of and provide access to more environmental marine data that's currently publicly accessible, by processing the data into formats that engage users. For example: graphs with live data and daily statistics for values of note (high tide level, low tide level, high and low water temperatures, etc). While we are processing the data to visualize it in the formats mentioned, we are using statistical analysis to ensure the data is properly represented without skewing the end visuals to color user perspectives.
- Non-consequential Ethics: We're following county and organizational (NOAA) regulations on data usage/re-usage in our project to ensure compliance.

### Societal Impact Statement:

While we visualize the data for easy understanding and to promote awareness, we aren't providing any recommendations regarding the conditions. Our intent is to offer the data as unfiltered as possible besides processing for easy understanding and presentation. Users can use the data to inform their own decisions.

We also intend to anonymize the water station data by referring to general locations instead of specific water stations. The 3rd-party websites hosting the information will still be linked, but the exact water stations used will not be identified. Bringing awareness to the water station data also brings awareness to the water stations to everyone, including those with malintent. Monitoring data tools, due to its nature of long-term monitoring, are left unsupervised for long periods of time. While they're occasionally checked in on and live tracking ensures

organizations can maintain them when things go wrong, water stations are still prone to vandalism. Maintaining the security and safety of these tools ensures everyone can benefit from the data. However we are unable to fully control any downstream results that would come from publicizing the data regardless, our efforts aim to mitigate the potential negative effects.