



Survey for Proposed Mooring Buoy

A SCUBA survey was performed on December 13<sup>th</sup>, 2023 from approximately 1:30pm at the project site located 16907 Cove Walk NW Vashon Island, WA 98070. A Diver from Dave’s Dive Services used SCUBA to survey flora, fauna, substrate types and other qualitative information relative to the proposed project of installing Helix anchors for a Mooring buoy. Water visibility was 10-15ft, with clear skies. GPS location of the proposed buoy location is LAT:47.4535° , LONG: -122.51287°.

Site was observed as Helix anchor will be set. A 30ft circle was made off the anchor point with 4 points, and one point at the anchor location. Observations at each point included depth, bottom substrate, species of rooted kelp, total kelp % cover and other species present.

Initial observations include that the proposed Helix anchors are compatible with the bottom type. Bottom substrate was sand and mud. There is was no rooted kelp or eelgrass in the survey site. The site is on a slit constant in grade.

The proposed buoy location observations include a depth of 21ft at 1:30pm, with a sand and clay bottom. The MLLW at anchor site is 13ft. At the 30ft mark a 16ft depth to the East (shore side), 34ft depth to the West (offshore).

Table. Circle Point Observations

Site Point	Depth (ft.)	Bottom Substrate	Macroalgae (estimated % cover)	Total kelp % cover	Fish and Invertebrates
North point	21	Sand/Clay	<i>none</i>	0%	None
West point	34	Sand/Clay	<i>none</i>	0%	None
South point	21	Sand/Clay	<i>None</i>	0%	None
East point	16	Sand/Clay	<i>none</i>	0%	None

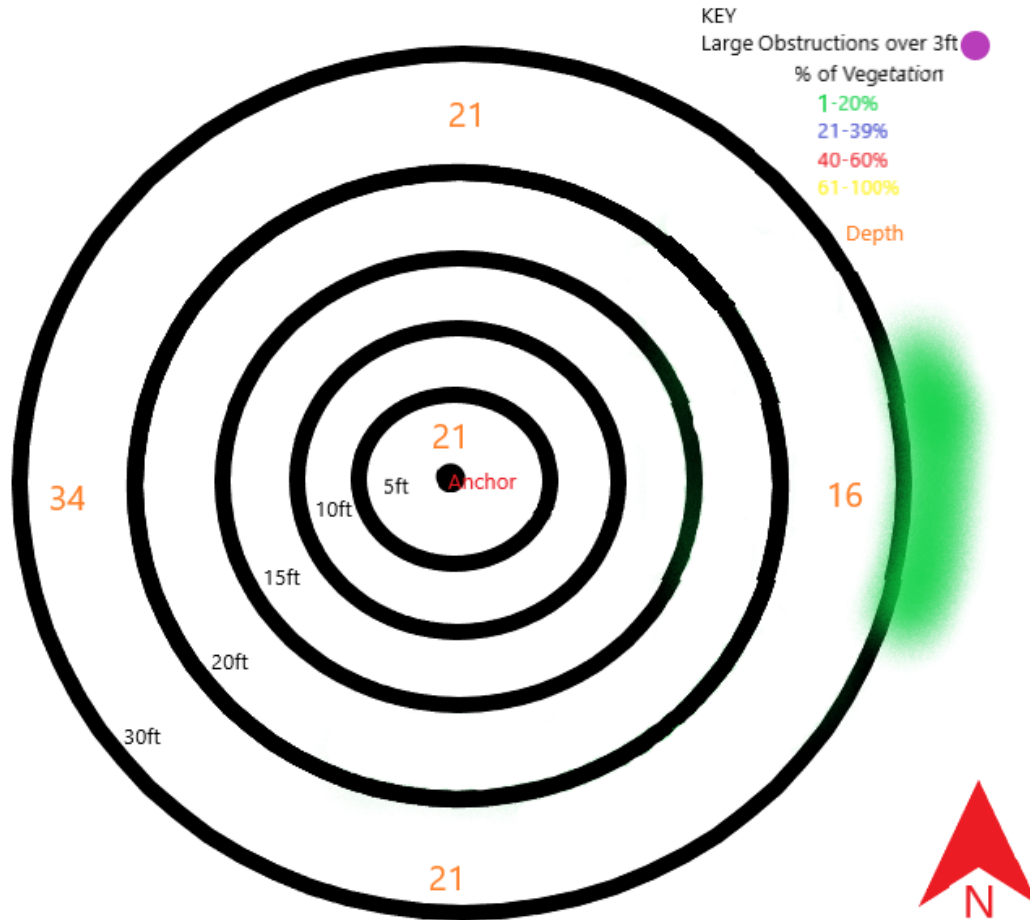
MLLW= Mean lower low water  
MHHW= Mean higher high water  
LLW= Lower ow water

<b>Reference:</b>	<b>Location:</b> 16907 Cove Walk NW Vashon Island, WA 98070	<b>Proposed Project:</b> Mooring Buoy Helix Anchor
<b>Applicant:</b> Derek Jankel	<b>GPS of Anchor Site:</b>	<b>In:</b> Colvos Passage
<b>Adjacent Property Owners:</b>	<b>LAT:</b> 47.4535°	<b>Near/At:</b> Cove, Vashon Island
1)	<b>LONG:</b> -122.51287°	<b>County:</b> King County
2)	<b>Page:</b> 1 of 6 <b>Date:</b> Dec. 13 <sup>th</sup> , 2023	<b>State:</b> Washinton



# Dave's Dive Services

"Here Yesterday, Today, & Tomorrow"



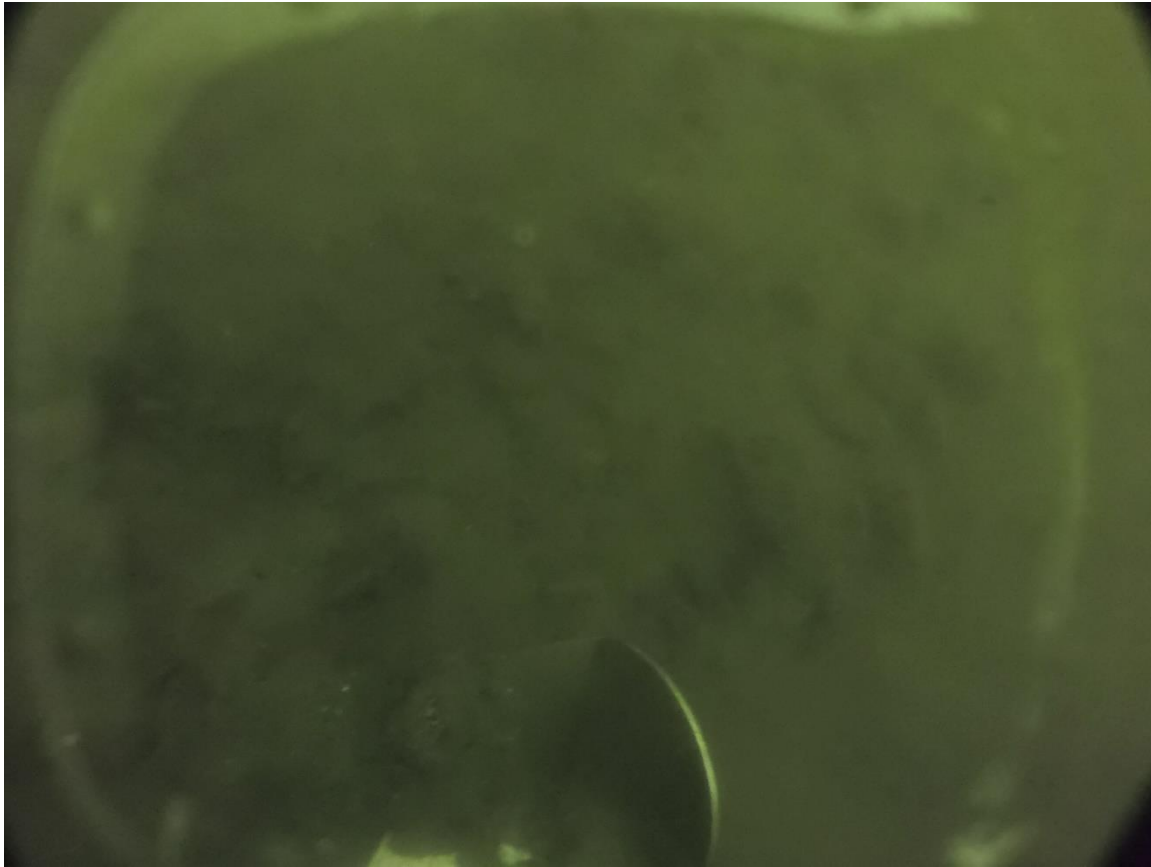
**Figure 1. Site map of the proposed area of the mooring buoy with depth at time of dive and total % cover of rooted vegetation**

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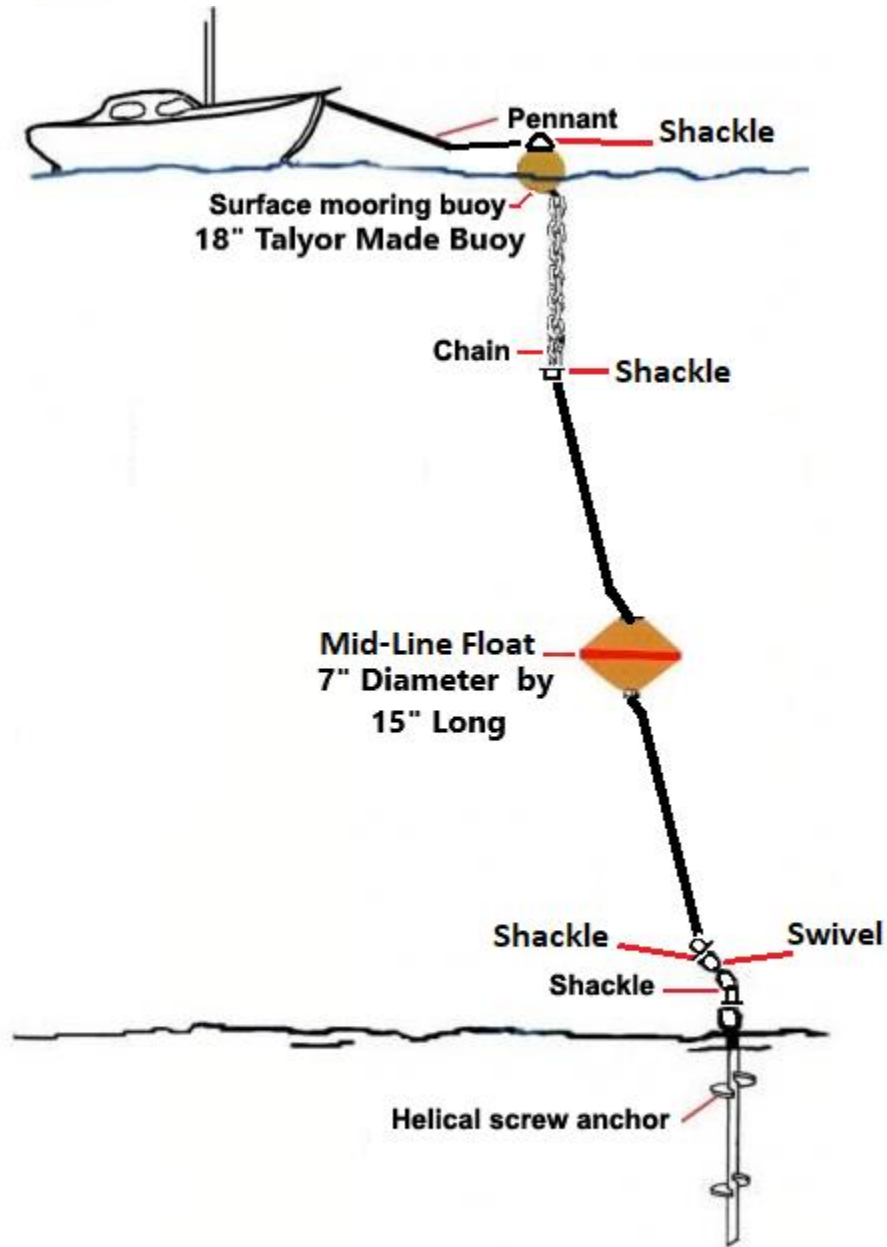
**Figure 2. Picture of bottom at anchor site**

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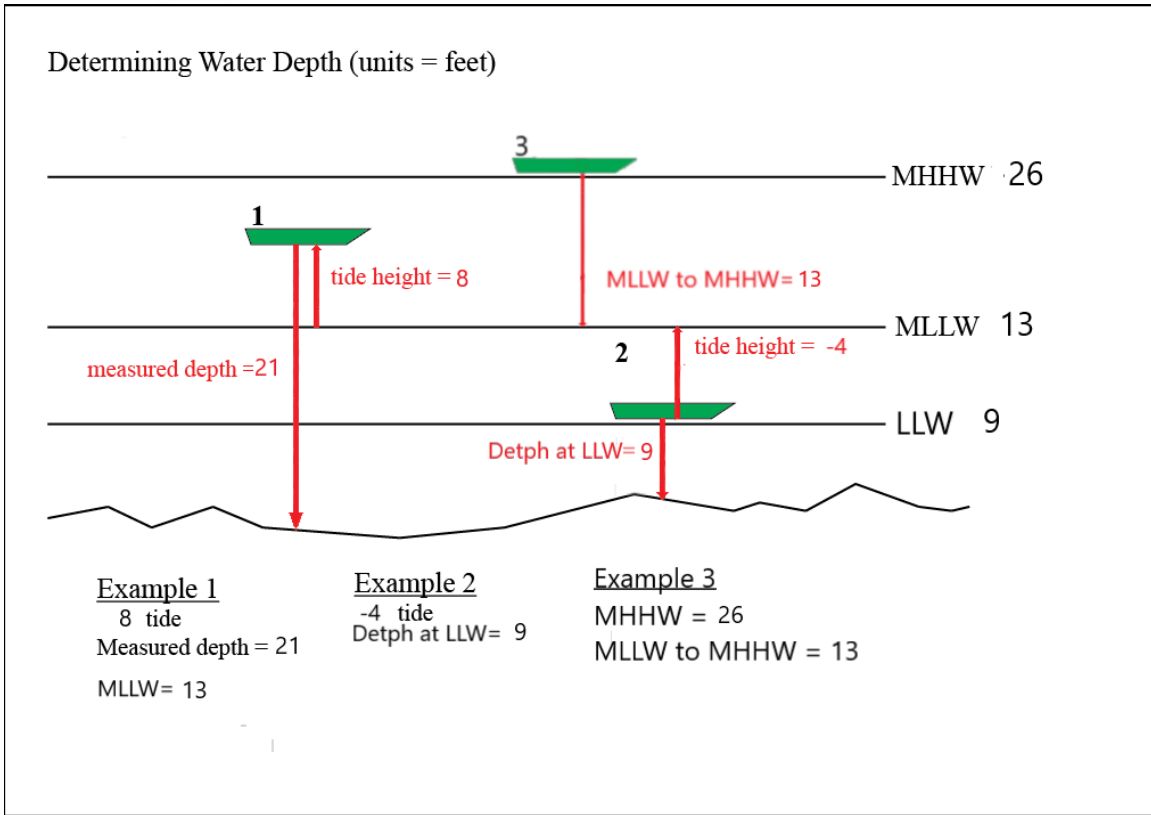
**Figure 3. Mooring System drawing**

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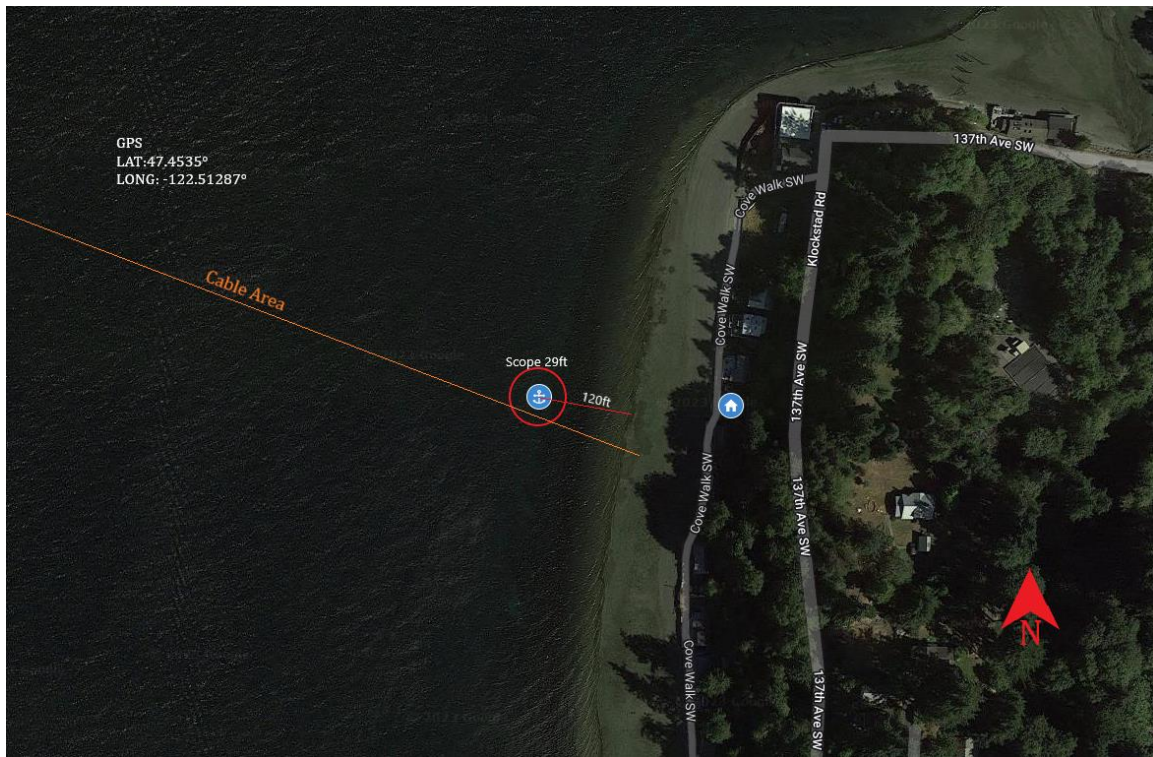
**Figure 4. Tide map of anchor site**

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**Figure 5. Buoy scope 29ft, about 200ft from LLT, has a cable area line close by.**

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