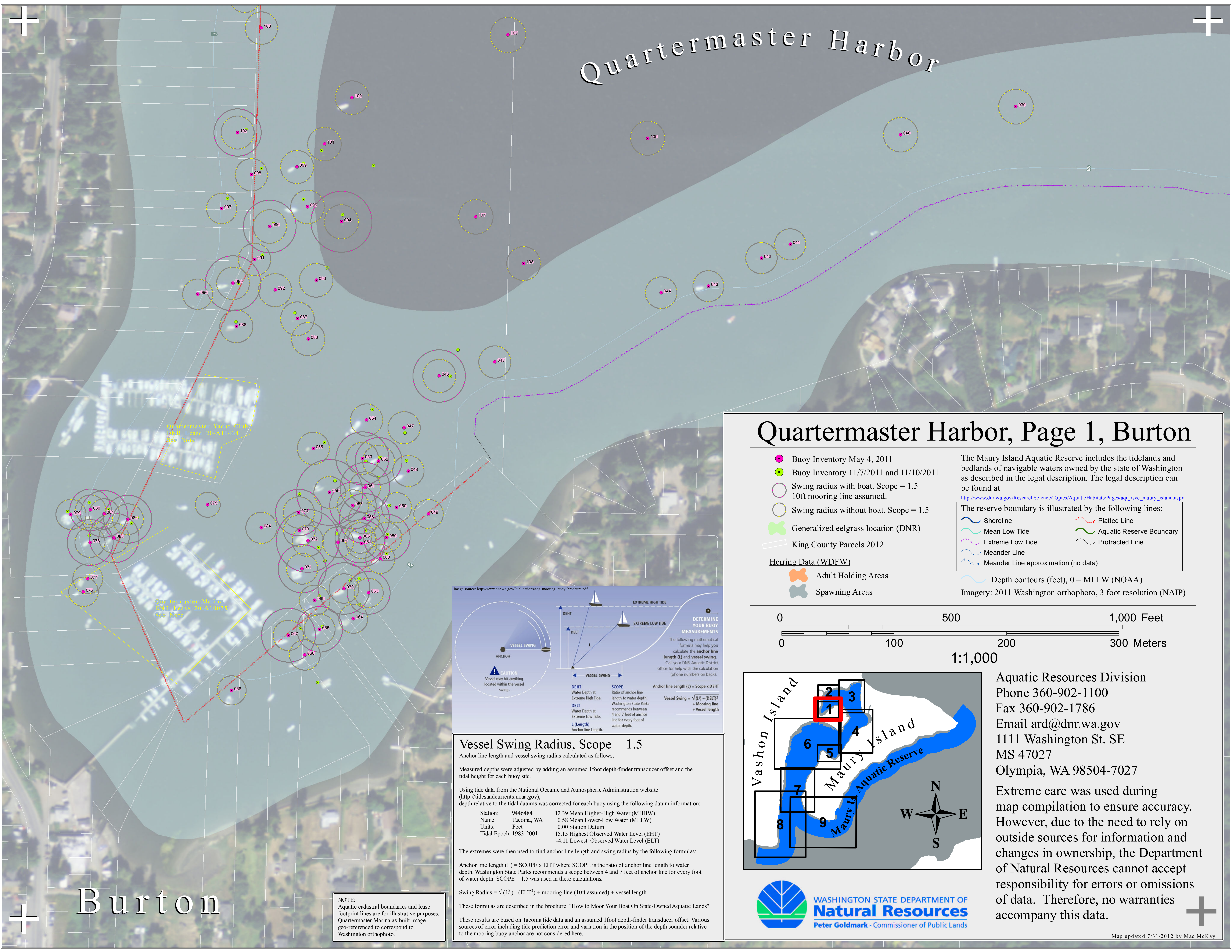


Quartermaster Harbor



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- Buoy Inventory May 4, 2011
- Buoy Inventory 11/7/2011 and 11/10/2011
- Swing radius with boat. Scope = 1.5
10ft mooring line assumed.
- Swing radius without boat. Scope = 1.5
- Generalized eelgrass location (DNR)
- King County Parcels 2012
- Herring Data (WDFW)**
- Adult Holding Areas
- Spawning Areas

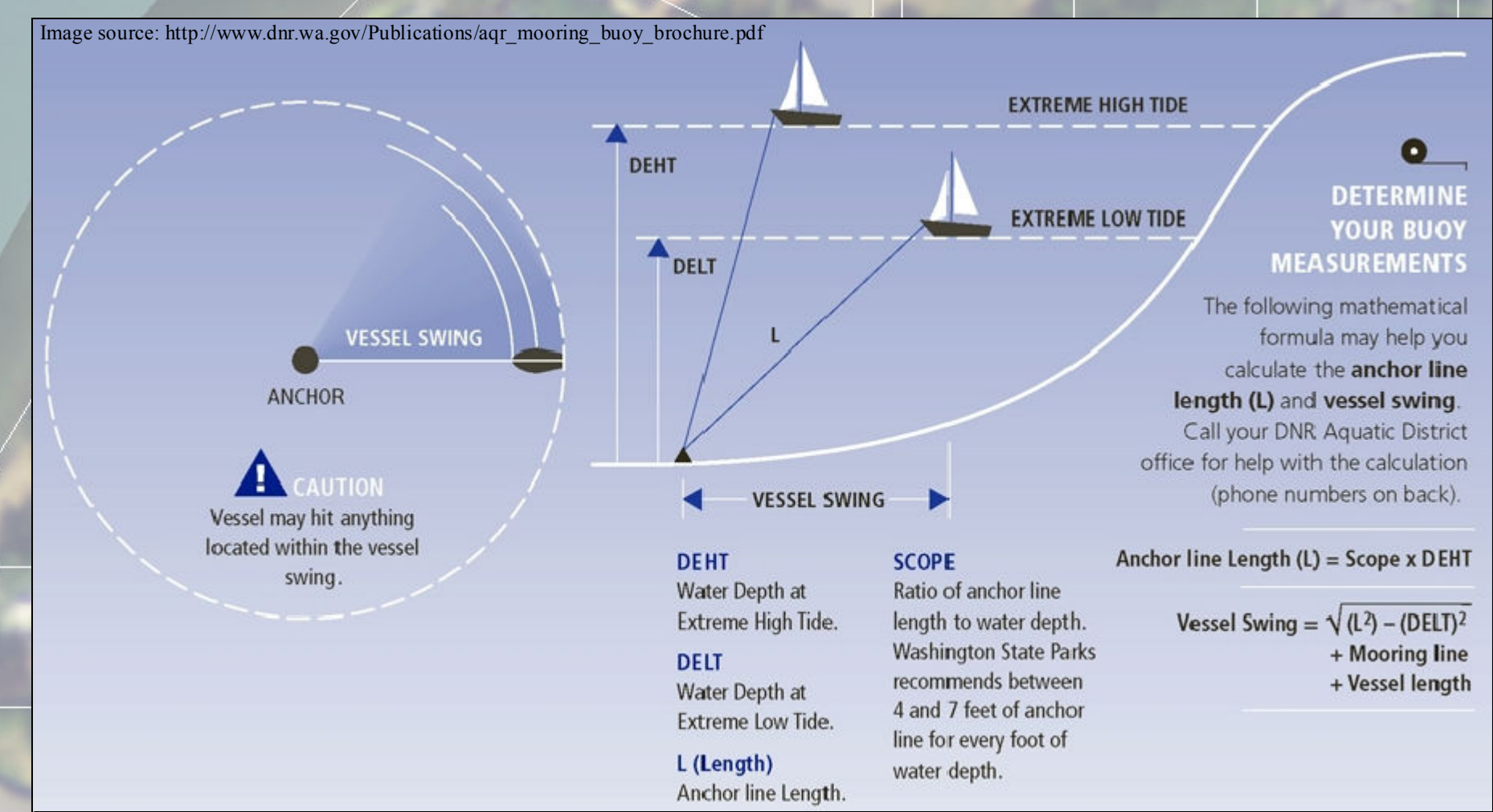
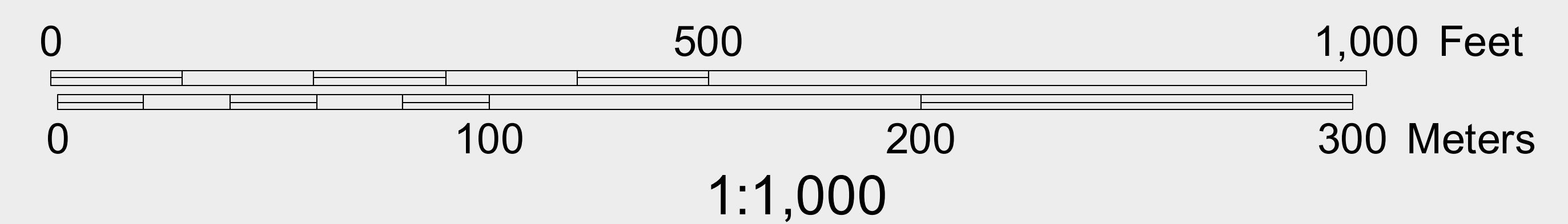
The Maury Island Aquatic Reserve includes the tidelands and bedlands of navigable waters owned by the state of Washington as described in the legal description. The legal description can be found at http://www.dnr.wa.gov/ResearchScience/Topics/AquaticHabitats/Pages/aqr_rsve_maury_island.aspx

The reserve boundary is illustrated by the following lines:

- Shoreline
- Mean Low Tide
- Extreme Low Tide
- Meander Line
- Meander Line approximation (no data)
- Platted Line
- Aquatic Reserve Boundary
- Protracted Line

— Depth contours (feet), 0 = MLLW (NOAA)

Imagery: 2011 Washington orthophoto, 3 foot resolution (NAIP)



Vessel Swing Radius, Scope = 1.5

Anchor line length and vessel swing radius calculated as follows:

Measured depths were adjusted by adding an assumed 1 foot depth-finder transducer offset and the tidal height for each buoy site.

Using tide data from the National Oceanic and Atmospheric Administration website (<http://tidesandcurrents.noaa.gov>), depth relative to the tidal datums was corrected for each buoy using the following datum information:

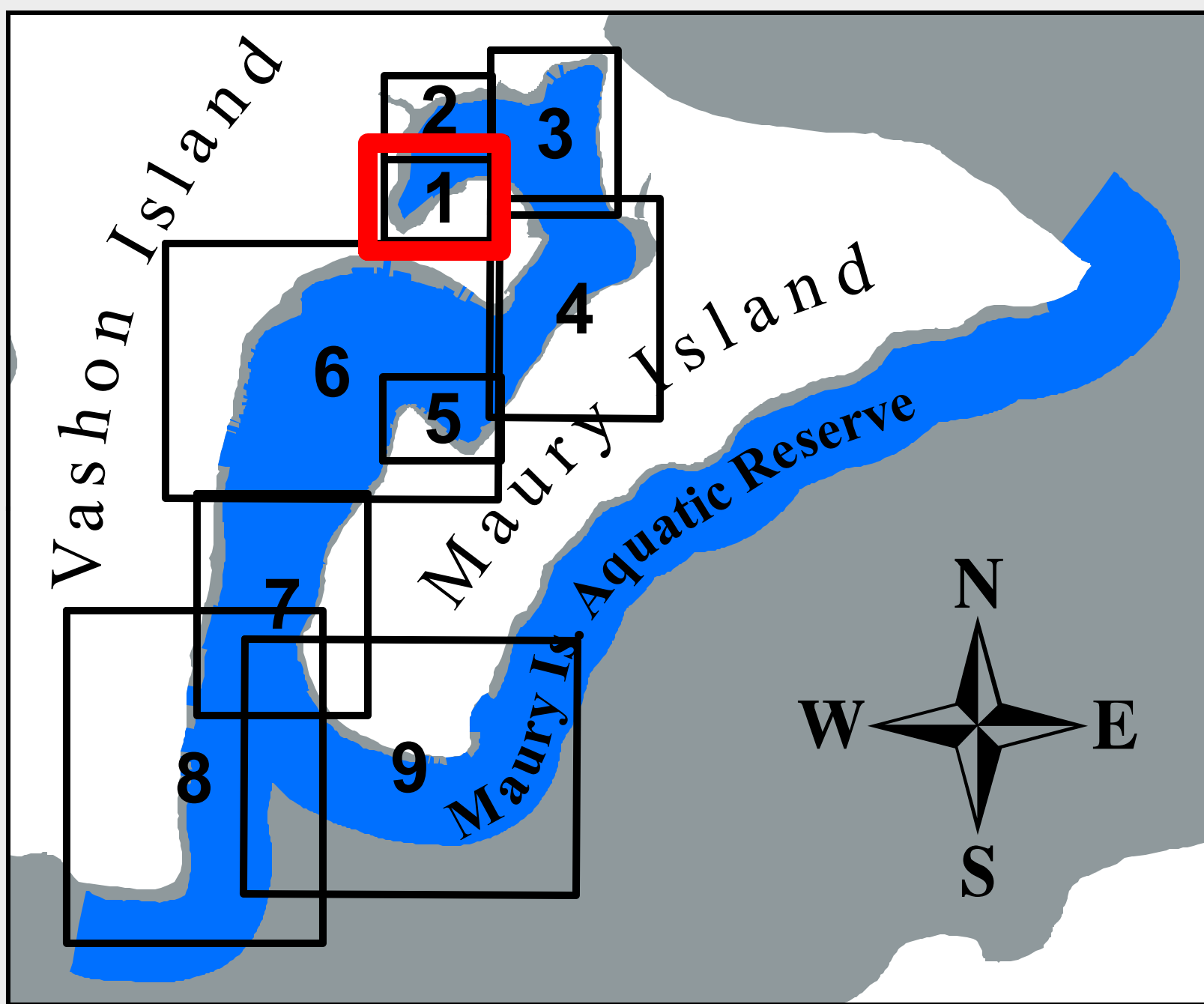
Station:	9446484	12.39 Mean Higher-High Water (MHHW)
Name:	Tacoma, WA	0.58 Mean Lower-Low Water (MLLW)
Units:	Feet	0.00 Station Datum
Tidal Epoch:	1983-2001	15.15 Highest Observed Water Level (EHT) -4.11 Lowest Observed Water Level (ELT)

The extremes were then used to find anchor line length and swing radius by the following formulas:

Anchor line length (L) = SCOPE x EHT where SCOPE is the ratio of anchor line length to water depth. Washington State Parks recommends a scope between 4 and 7 feet of anchor line for every foot of water depth. SCOPE = 1.5 was used in these calculations.

Swing Radius = $\sqrt{(L^2) - (ELT)^2}$ + mooring line (10ft assumed) + vessel length

NOTE:
Aquatic cadastral boundaries and lease footprint lines are for illustrative purposes. Quartermaster Marina as-built image geo-referenced to correspond to Washington orthophoto.



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Extreme care was used during map compilation to ensure accuracy. However, due to the need to rely on outside sources for information and changes in ownership, the Department of Natural Resources cannot accept responsibility for errors or omissions of data. Therefore, no warranties accompany this data.



Burton