

Puget Sound Seabird Survey



4hr Survey Windows for 2021-2022 Season

We ask that you conduct your seabird surveys within four-hour survey windows, centered on the daytime high tides, on the first Saturday of every month, October 2021 through April 2022. Some survey windows have been shifted to start 30 minutes after sunrise or to end 30 minutes before sunset to promote optimum viewing conditions. Due to the significant difference in tide times from the most easterly survey site (Seward Park) to the most westerly site (Cape Flattery), survey sites have been divided into three “tide zones”. To determine which tide zone your survey site falls within, and therefore which set of 4-hour survey windows to utilize, find your site number or site name in one of the three boxed lists below and refer to the table for the time of your 4-hour survey window. **Please be sure to complete your survey(s) within the 4-hour window.**

SURVEYS

PSSS Sites Numbered 1-92, 108+ North of Deception Pass, Olympia Waterfront in the South, Seward Park in the East, and West to Fort Townsend.	PSSS Sites Numbered 93 – 102 Diamond Point John Wayne Marina Port Williams Ediz Hook North Ediz Hook South	PSSS Sites Numbered 103 – 107 Twin River Pillar Point Rec. Area Sekiu Shipwreck Point Cape Flattery
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Survey Date	Tide Zone 1		Tide Zone 2		Tide Zone 3		sunrise	sunset
	high tide	PSSS survey window	high tide	PSSS survey window	high tide	PSSS survey window		
October 2 2021	3:54pm	1:54pm – 5:54pm	2:17pm	12:17pm – 4:17pm	11:33am	9:33am – 1:33pm	7:10am	6:46pm
November 6 2021	7:07am	8:32am – 12:32pm*	3:07pm	1:07pm – 5:07pm	1:52pm	11:52am – 3:52pm	8:02am	5:44pm
December 4 2021	3:34pm	11:49am – 3:49pm*	12:54pm	10:54am – 2:54pm	11:45am	9:45am – 1:45pm	7:41am	4:19pm
January 1 2022	2:19pm	11:59am – 3:59pm*	11:36am	9:36am – 1:36pm	10:36am	8:36am – 12:36pm	7:58am	4:29pm
February 5 2022	8:04am	8:00am – 12:00pm*	6:08pm	12:47pm – 4:47pm*	3:31pm	12:47pm – 4:47pm*	7:30am	5:17pm
March 5 2022	6:37am	7:12am – 11:12am*	4:33pm	1:30pm – 5:30pm*	2:31pm	12:31pm – 4:31pm	6:42am	6:00pm
April 2 2022	7:07pm	3:11pm – 7:11pm*	4:53pm	2:53pm – 6:53pm	2:40pm	12:40pm – 4:40pm	6:46am	7:41pm

NOAA tide predictions for: Seattle, WA

Port Angeles, WA


Neah Bay, WA

(Sunrise/set times for Seattle)

*indicates that the survey window required adjustment due to the high tide proximity to sunrise or sunset

Calm:

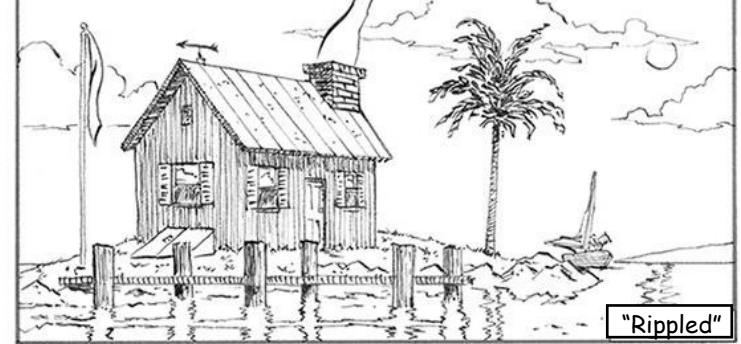
FORCE 0	SPEED 0 Knots 0 mph 0 km/h	SEA	Sea like a mirror
		LAND	Smoke rises vertically



"Calm"

Rippled:


FORCE 1	SPEED 1-3 Knots 1-3 mph 1-6 km/h	SEA	Ripples with the appearance of scales are formed, but without foam crests
		LAND	Direction of wind shown by smoke but not by wind vanes



"Rippled"

Choppy:


FORCE 2	SPEED 4-6 Knots 4-7 mph 7-11 km/h	SEA	Small wavelets. Crests have a glassy appearance and do not break
		LAND	Wind felt on face; leaves rustle; ordinary vane moved by wind



"Choppy"

Wavy:

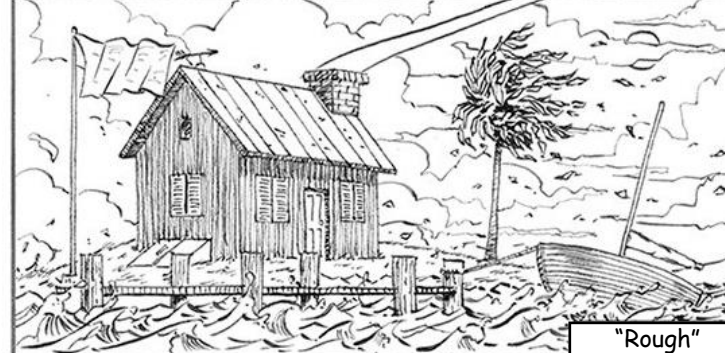
FORCE 4	SPEED 11-16 Knots 13-18 mph 20-29 km/h	SEA	Small waves, becoming longer, fairly frequent white horses
		LAND	Raises dust and loose paper; small branches are moved



"Wavy"

Rough:

FORCE 5	SPEED 17-21 Knots 19-24 mph 30-39 km/h	SEA	Moderate waves, taking a more pronounced long form; many white horses are formed
		LAND	Small leaves in trees begin to sway; wavelets form on inland waters



"Rough"