

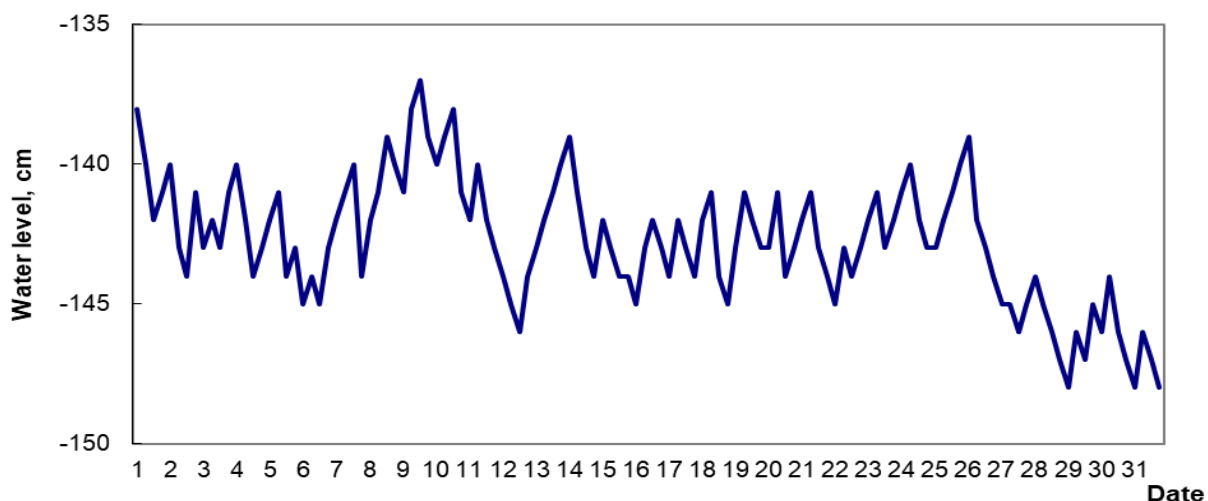


**MINISTRY OF ECOLOGY AND NATURAL RESOURCES
OF THE REPUBLIC OF KAZAKHSTAN
RSE «KAZHYDROMET»**

RESEARCH CENTER

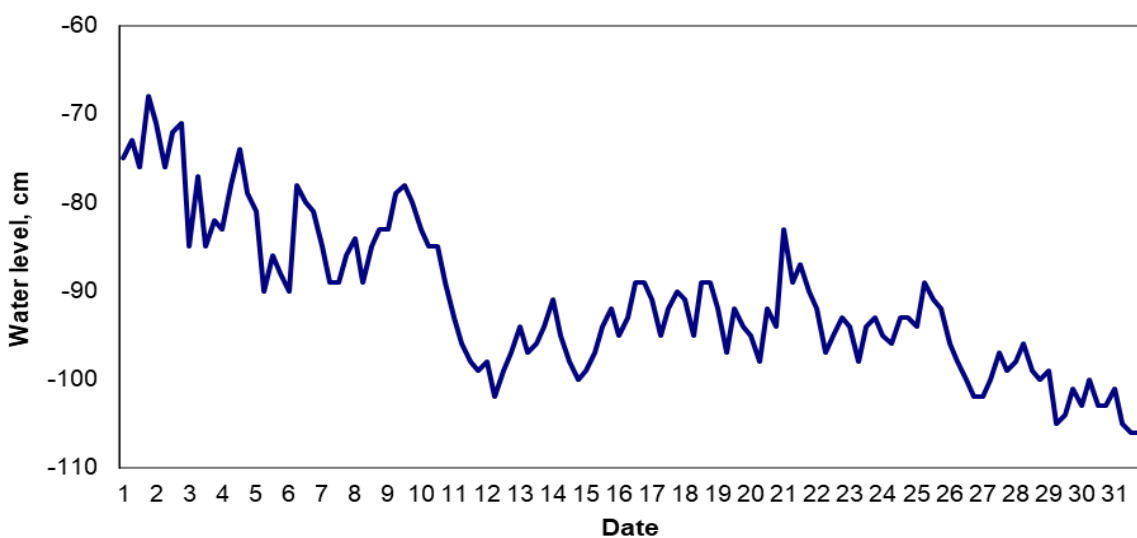
**OVERVIEW OF UP SURGE AND DOWN SURGE EVENTS
in August 2026**

Kulaly



The runup and surge level fluctuations did not exceed 11 cm. The sea level change during the month varied from minus 29.48 m BS to minus 29.37 m BS.

Peshnoy



Date	Level rise, cm	Level fall, cm	Prevailing wind direction, rhumb	Maximum wind speed, m/s
04-05.08.2026		16	SSW	6

- On August 04-05, a sea level drop of 16 cm was observed, from minus 28.74 m BS to minus 28.90 m BS. Wind speed reached 6 m/s, predominantly from the south south-west;

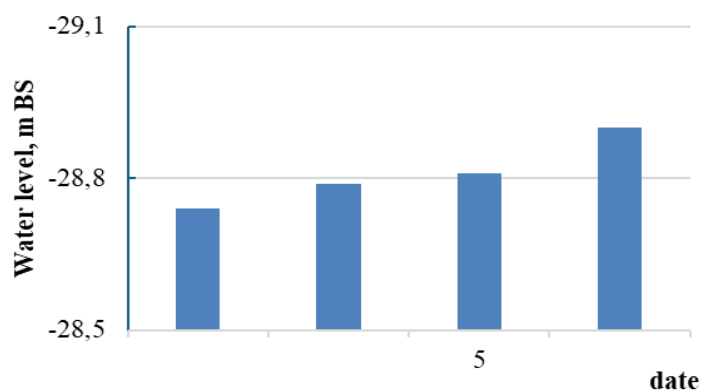
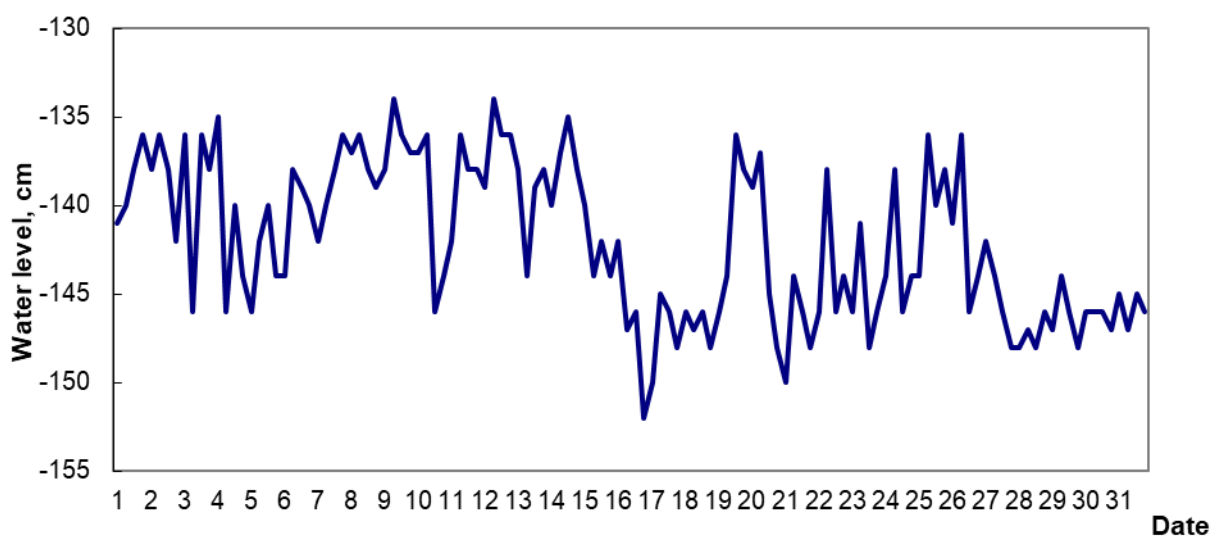


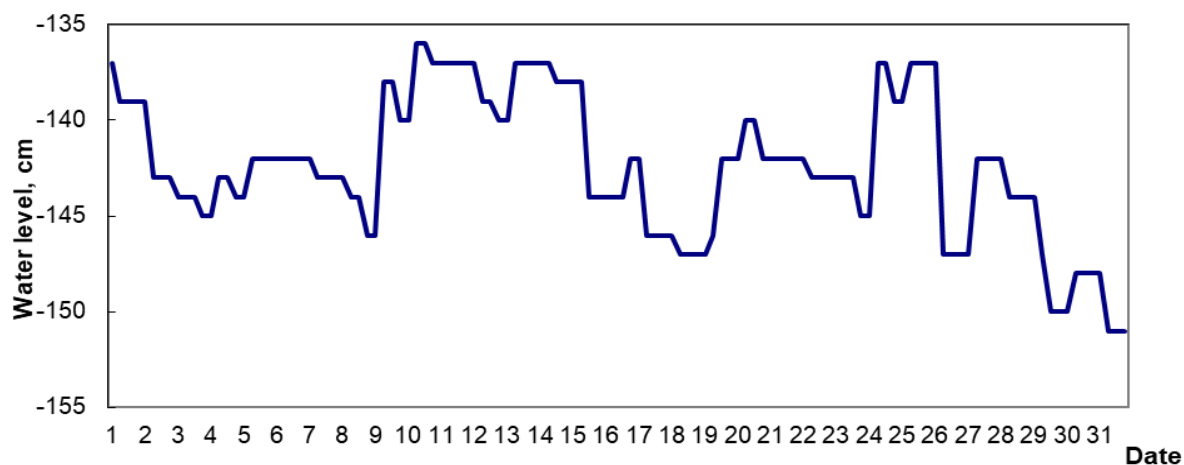
Figure 1. Graph of sea level changes in Peshnoy on August 04-05, 2026.

Fort-Shevchenko



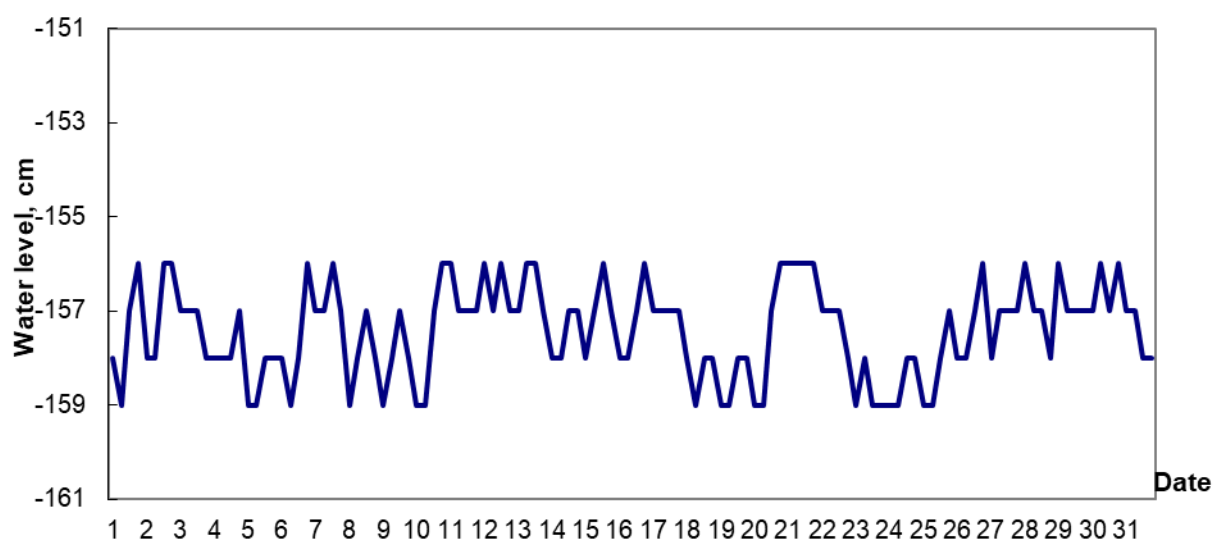
The runup and surge phenomena were not recorded. The sea level change during the month varied from minus 29.52 m BS to minus 29.34 m BS.

Saura



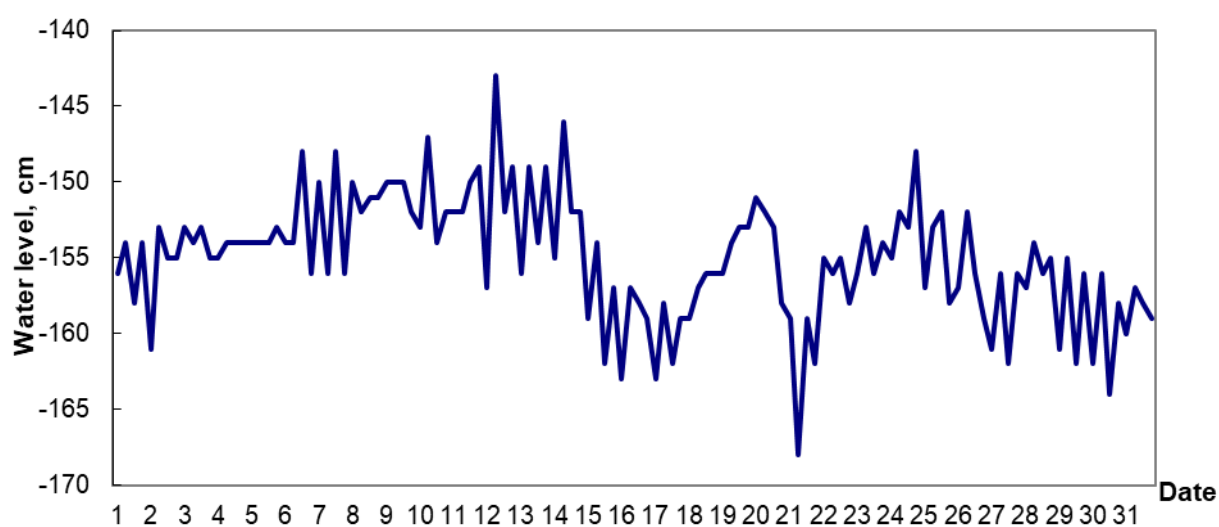
The runup and surge phenomena were not recorded. The sea level change during the month varied from minus 29.51 m BS to minus 29.36 m BS.

Peschany



The runup and surge level fluctuations did not exceed 3 cm. The sea level change during the month varied from minus 29.59 m BS to minus 29.56 m BS.

Aktau



Date	Level rise, cm	Level fall, cm	Prevailing wind direction, rhumb	Maximum wind speed, m/s
20-21.08.2026		17	W	4

- On August 20-21, a sea level drop of 17 cm was observed, from minus 29.51 m BS to minus 29.68 m BS. Wind speed reached 4 m/s, predominantly from the west;

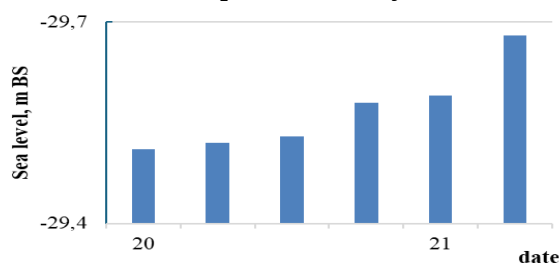
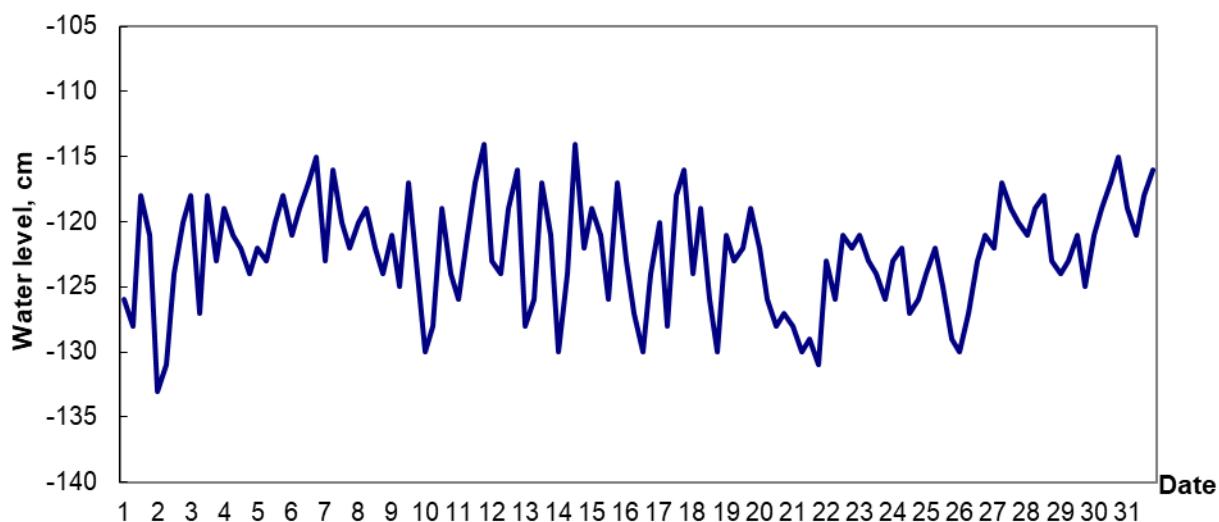


Figure 2. Graph of sea level changes in Aktau on August 20-21, 2026.

Fetisovo



Date	Level rise, cm	Level fall, cm	Prevailing wind direction, rhumb	Maximum wind speed, m/s
01-02.08.2026		15	NE	5
14.08.2026	16		W	7

- On August 01–02, a sea level drop of 15 cm was observed, from minus 29.18 m BS to minus 29.33 m BS. Wind speed reached 5 m/s, predominantly from the northeast;

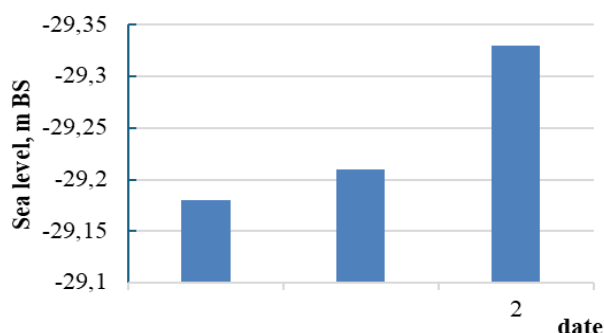


Figure 3. Graph of sea level changes in Fetisovo on August 01-02, 2026

- On August 14, a sea level rise of 16 cm was observed, from minus 29.30 m BS to minus 29.14 m BS. Wind speed reached 7 m/s, predominantly from the west;

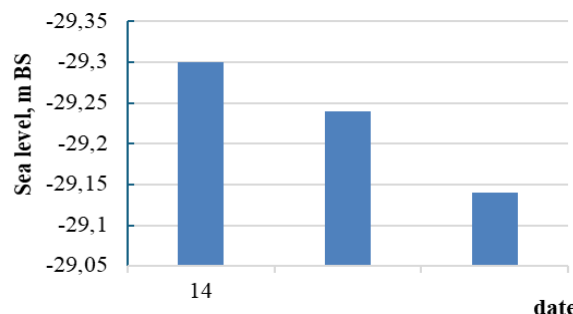


Figure 3. Graph of sea level changes in Fetisovo on August 14, 2026

Note:

Analysis of the Zhanbay upsurge and downsurge events was not performed due to the receipt of hydrometeorological data with gaps.

STORM SURGE HAZARD CRITERIA FOR THE NORTHEASTERN COASTLINE

	Rise/Fall, cm**	Characteristic***	Consequences
up surge	49	Critical	flooded coast area to 5 km
	60	Danger	flooding and flooding of dams and buildings up to 10 km
	109	Especially danger	flooding of the coast for more than 10 km, destruction of dams and buildings
down surge	-46	Critical	worsening navigation conditions for small ships
	-60	Danger	worsening of navigation conditions for small and medium-sized ships
	-104	Especially danger	ships would be aground

Note:

The calculated characteristics were obtained using the hydrodynamic module of the MIKE 21 Flow Model, adapted in RSE "Kazhydromet" to the conditions of the Caspian Sea.

***At definition of characteristic marks local conditions were considered.*

****Critical – 50 % frequency, danger – 25 % frequency, especially danger– 2 % frequency. The calculation was carried out for the period 1940-2024 according to the data of Peshnoy station.*

BS – Baltic System

The bulletin was compiled by the Department of Hydrometeorological Research of the Caspian Sea

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When using materials of the bulletin the link to RSE "Kazhydromet" is obligatory