



SELANGOR DISASTER

MANAGEMENT UNIT

SELANGOR STATE
SECRETARY OFFICE



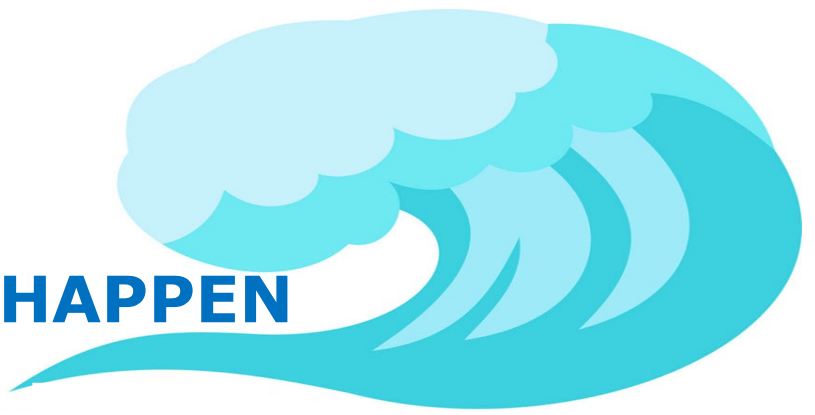
IEM

The Institution of Engineers, Malaysia



HIGH TIDE PHENOMENA

HOW DID HIGH TIDE HAPPEN



Tides caused by the combined effects of the gravitational forces exerted by the Moon and the Sun, and the rotation of the Earth
Beaches in Selangor experience tides twice a day.

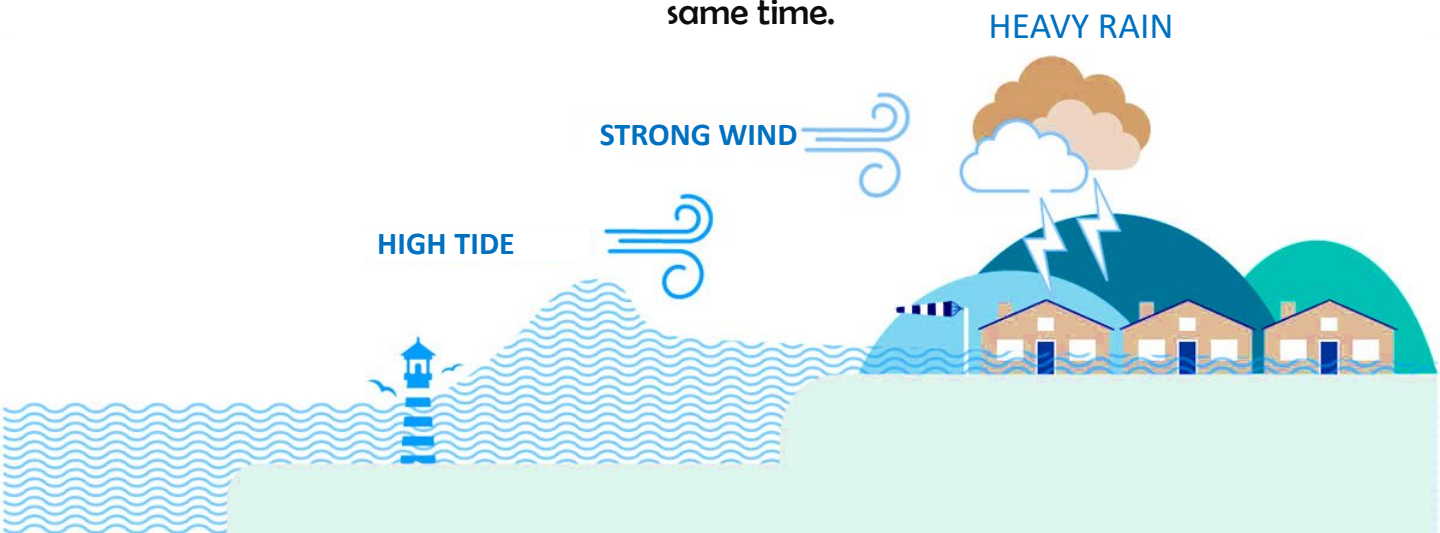
High tide happen during full moon.

High tide phenomena will occur when the position of the sun, earth and moon are in parallel.



Factor of coastal flood?

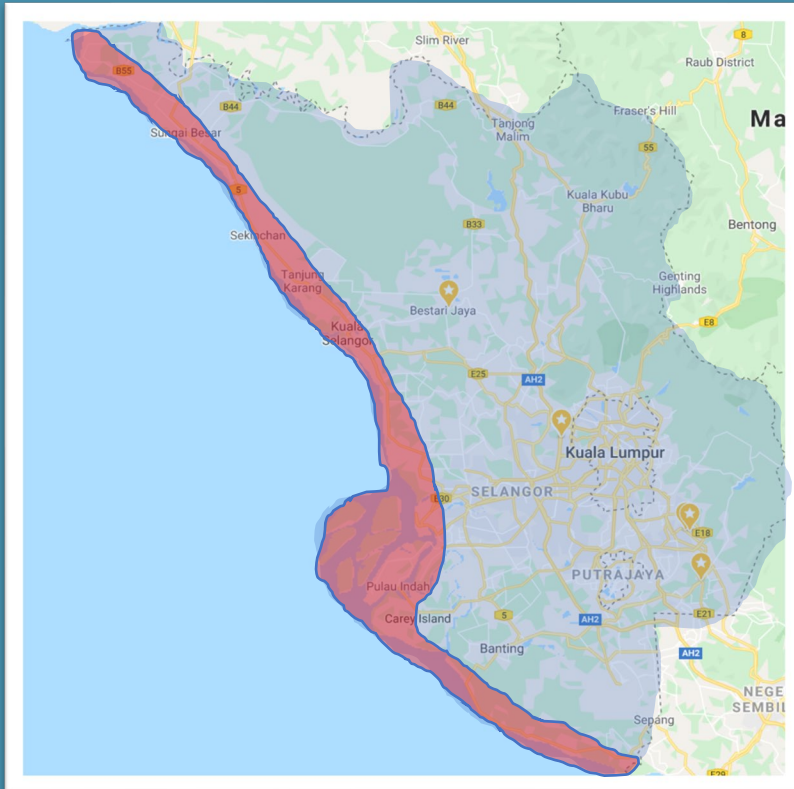
Flood will only occur when high tide, strong wind and heavy rain happen at the same time.



PREPARATION FOR HIGH TIDE SITUATION.



HIGH RISK AREA



KLANG

PENKALAN TOK MUDA,
BATU 4 JALAN KAPAR,
BAN SEMENTA,
PELABUHAN KLANG,
JALAN PANDAMARAN BANTING.

SABAK BERNAM

TEBUK MENDELING,
SUNGAI AIR TAWAR,
SUNGAI PANJANG.

KUALA SELANGOR

KAMPUNG KUANTAN,
PANTAI REMIS,
PEKAN SUNGAI BULOH.

SEPANG

PESISIR PANTAI BAGAN LALANG.

KUALA LANGAT

PANTAI KELANANG,
PESISIR PANTAI TANJUNG SEPAT.

Sumber: <https://selangorkini.my/2017/09/air-pasang-besar-15-kawasan-di-lima-daerah-berisiko-banjir/>

TIDAL FORECAST

DATE	TIME	TIDAL RANGE (Datum Carta)
22 Aug 2020	8.16 AM	5.4 m
18 Sep 2020	6.38 AM	5.5 m
19 Sep 2020	7.16 AM	5.7 m
20 Sep 2020	7.53 AM	5.6 m
16 Oct 2020	5.28 AM	5.5 m
17 Oct 2020	6.11 AM	5.7 m
18 Oct 2020	7.50 AM	5.8 m
19 Oct 2020	7.27 AM	5.7 m

DATE	TIME	TIDAL RANGE (Datum Carta)
20 Oct 2020	8.02 AM	5.4 m
14 Nov 2020	4.59 AM	5.5 m
15 Nov 2020	5.44 AM	5.6 m
16 Nov 2020	6.25 AM	5.6 m
17 Nov 2020	7.05 AM	5.5 m

Can coastal flood occur, If there is barrier. Why?

This are because:

1. There are natural factors that raise the water level besides climate change could be an impact in the future.
2. Seawall or barrier are affected during high tide.
3. Limitations of the original design in the barrier structure.
4. Human factor such as opening of sluice gate and loss of power supply in pump house.



My area is protected by coastal barrier, why do I have to move?

The transfer may be made by the authorities for safety purpose. Early evacuation will facilitate to new placement. Moving in the dark is more difficult and dangerous.

What will happen when seawall/ barrier affected?

The authorities will do their best to fix it. If barrier are affected, seawater will overflow. When that happens, the flowing water erode the seawall. The overflow seawater carries strong and fast water current. The overflow water level depend on the area of the affected barrier and the time until the water begins to recede

Tide flood will be back to normal within hours, Why?

Tide flood depends on tidal cycle. Usually will back to normal in 5 to 7 hours.

What are the preparation for high tide?

Tide floods have been predicted and usually authorities will make preparations for it. When there is a plan, they have more time on planning to save property, reduce losses and repairing neighborhood.

WHAT ARE THE ACTION THAT NEED TO BE TAKEN?

BEFORE FLOOD

- 1 Turn off the main switch and place the electrical appliance in a high place.
- 2 Store / keep important document in a safe place
- 3 Prepare 'safety kit' & some food in case of emergency.



AFTER FLOOD

- 1 Evacuate early before high tide occur.
- 2 Comply with authorities instruction.
- 3 Bring along medicine and important document if needed.



DURING FLOOD

- 1 Return to your residence after obtaining permission from the authorities.
- 2 Monitor the structure of your building. If there are cracks or damage immediately contact the insurer or the authorities for further action.
- 3 Do not turn on switches or electrical appliances until clean and dry.
- 4 Wear gloves & shoes during cleaning operations.