

FLUSHING AWAY WATER POLLUTERS

Emergency water pollution incidents in Selangor

A total of 101 emergency water pollution incidents were recorded in Selangor between 2018 and August this year.

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THERE have been more incidents of water pollution in Selangor with the potential to cause water supply cuts for people in the state this year. So far, 28 incidents have been recorded – an increase from 24 last year.

On the bright side, though, most incidents were Code Yellow. This means they had the potential to disrupt operations at water treatment plants but were quickly tackled before supply cuts became necessary, the Selangor Water Management Authority (Luas) tells *Sunday Star*.

Twenty-six of the 28 cases this year were in this category. However, two incidents led to Code Red, a situation that forces water treatment plants to shut down, leaving taps dry for affected households and businesses. The incident on Aug 11 left 397 areas in Selangor and Kuala Lumpur facing water supply cuts due to chemical pollution in Pahang's Sungai Semantan after a highway mishap.

Such incidents are, of course, a huge inconvenience for people and also cause businesses to lose revenue. So consumers should be happy to know that Luas has plans in the pipeline to stop direct and indirect

that can reach areas with limited access.

“Advanced technology drones with optic camera sensors will also be deployed to operate in low light conditions, especially at night,” says Luas.

12 cases brought to justice

Between 2018 and August this year, Luas recorded 101 emergency incidents of pollution of water sources.

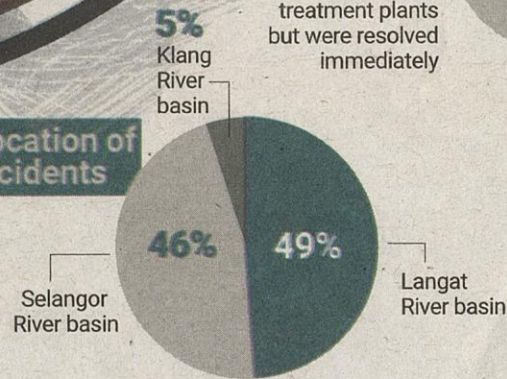
Most incidents were at the Langat River basin (49%), followed by the Selangor River basin (46%) and the Klang River basin (5%).

Of the 101 cases, 60% were successfully resolved immediately before causing water treatment plants to shut down. The remaining 40% reached Code Red (when water treatment plants had to stop work), Luas says.

The state water authority also reveals that 12 cases of various offences involving water sources were taken to court to be prosecuted

Plans are in the pipeline to curb water pollution in Selangor to avoid water supply cuts, with the state government considering expanding regulations.

Location of incidents



were under Code Yellow, or incidents that have the potential to affect water treatment plants but were resolved immediately

60%

were under Code Red, or incidents that forced water treatment plants to shut down

40%

DOE: Selangor has the biggest number of water pollution complaints

MURKY, coloured, oily, foul-smelling water and dead fish found in rivers – these are among examples of water pol-

not accidental but come from industrial and human activities.

Among examples of such pollution sources are inefficient

sources of pollution in the state.

The authority is looking into making it compulsory for all developments in Selangor, regardless of their distance from water reserves, to obey regulations when discharging pollutants to curb water pollution. This is to regulate such activities so that their emissions do not pollute water sources.

"We are reviewing how we can improve and strengthen moves to stop direct and indirect sources of pollution that can affect the quality of river water.

"This may be done by amending and enforcing existing regulations," says Luas in a recent interview.

Under current regulations, developments covering an area below 50ha require an emission and discharge of pollutants license from the state government to regulate the quality of pollutants being released.

(Developments larger than 50ha are subject to conditions in an environmental impact assessment by the Department of Environment – the DOE – under the Federal Government.)

At the same time, any development activities within 50m of river reserves in Selangor must have written approval for "Water Resources Alteration Activities" to ensure the works do not disrupt river conditions.

"The need to expand both regulations to cover all development activities in the state regardless of their distance from water sources is currently being reviewed," Luas says.

Until then, Luas personnel, through its Skwad Pantas (quick squad), are monitoring main river basins 24 hours a day to stop water pollution in its tracks and avert water supply cuts.

Such scheduled monitoring is done through collaboration with other agencies including the DOE, Air Selangor, National Water Services Commission, Indah Water Konsortium Sdn Bhd, the police and others.

"Monitoring and patrolling efforts at these sites are complemented by unmanned aerial vehicles, or drones,

were taken to court to be prosecuted.

Luas had amended state laws in 2020 to provide a stronger deterrent sentence for water polluters. Those who cause river pollution in the state now face a fine of between RM200,000 and RM1mil as well as a mandatory jail term of up to three years under the amended Selangor Water Management Authority (Luas) Enactment.

Previously, such offenders were subject to a maximum fine of RM100,000, a jail term not exceeding three years or both.

An additional provision enables offenders to pay Luas all expenses incurred in rectifying or recovering the situation caused by the pollution.

Based on its findings on recent incidents, Luas says pollution at water sources does not only happen due to direct contamination such as by those who dump effluents into rivers.

"It can also be caused by other activities including urbanisation and industrial works which are far from rivers.

"Pollution can also be caused by licensed or unlicensed activities, such as ground works, developments, construction, sand mining and quarry works, agriculture, livestock farming, wet markets and so on," it explains.

The situation also depends on whether there is enough water to dilute the effluents.

"While some activities adhere to standards for effluents that are released, they still can cause significant negative effects in the quality of river water if the river has a low dilution factor," Luas says.

Luas urges the public to help its efforts to stop river pollution by reporting any suspicious activities that could lead to water pollution.

The public can contact the authority by emailing aduan@luas.gov.my, calling its WhatsApp line at 019-264 7904, messaging through Facebook (Lembaga Urus Air Selangor), Instagram ([lembagaurusairselangor](https://www.instagram.com/lembagaurusairselangor)) and Twitter ([@luas_selangor](https://twitter.com/luas_selangor)).

Water pollution complaints in Malaysia

This shows the number of water pollution complaints throughout Malaysia made by the public to the Department of Environment.

Years	Number of complaints
2019	986
2020	915
2021	862
2022 (until July 29)	472
TOTAL	3,235

Source: Department of Environment, Malaysia



among examples of water pollution complaints made by the public to the Department of Environment (DOE).

Between 2019 and July 29 this year, the department received 3,235 water pollution complaints throughout Malaysia. Of the total, Selangor recorded the highest number of complaints over the past four years.

The state's figures made up 27%, or 880, of total complaints in that period. This is followed by Johor with 546 complaints (16.8%) and Penang with 311 (9.6%), based on data from the DOE made available to *Sunday Star*.

But on the whole, the number of water pollution complaints nationwide has been receding every year. From 986 in 2019, it fell to 915 in 2020, followed by 862 last year.

"As of July 29 this year, there have been 472 complaints of water pollution," says the DOE.

So far this year, the DOE recorded five water pollution incidents that led to water treatment plants halting operations.

One of them was the oil pollution incident on Aug 11 involving Pahang's Sungai Semantan due to a highway accident which forced the Langat 2 water treatment plant to shut down.

On April 1, a chemical pollution incident happened near Sungai Bariawa and Sungai Pegalan in Sabah following an accident with a lorry transporting glue.

The incident caused the Tenom water treatment plant to stop operations temporarily.

However, the main sources of water pollution are

lution sources are inefficient processing in the sewage system, as well as effluents from manufacturing and agricultural industries.

These sources are said to have high levels of biochemical oxygen demand (BOD), which is the amount of oxygen consumed by bacteria and other microorganisms while they decompose organic matter at a specified temperature. The higher the BOD, the faster oxygen is depleted leaving less oxygen for river life.

"Other causes of pollution have high ammoniacal nitrogen content, which is often linked to livestock farming and domestic sewage.

"Sediment also pollutes our waters, and are mainly from uncontrolled ground works from land clearing," explains the department.

To ensure our water sources are protected, the DOE says it constantly monitors, prevents and controls the causes of such pollution in line with the Environmental Quality Act.

"We are continuously carrying out enforcement on industrial premises, sewage plants and development projects that are subject to environmental impact assessment reports and discharge effluents.

"Such enforcement efforts include taking legal action against owners of premises that discharge liquid waste that exceed limits and imposing stricter conditions on premises licensed by DOE, like palm oil and rubber factories," it says.

Continuous checks on river water quality and groundwater throughout Malaysia are also carried out.

"The DOE also strives to promote awareness and environmental education among the public through its Rakan Alam Sekitar programme, which includes competitions to raise awareness," it adds.

2018

3

Code red

Code yellow

2019

11

3

2020

11

21

2021

2

22

2022*

2

26

Note: *until August

Source: Selangor Water Management Authority

Get water polluters to pay victims for losses caused by their actions

THOSE affected by water pollution should be allowed to claim for their losses from parties responsible for such incidents.

This can be done by amending the Environmental Quality Act 1974 to include a new section enabling such claims, suggests the Association of Water and Energy Research Malaysia (Awer).

"This section can enable the Department of Environment (DOE) to tabulate the loss of income and additional cost suffered by affected parties during a pollution incident.

"Such a clause can also allow the DOE to freeze the assets of the wrongdoers to the total amount of money they owe to the DOE's lawsuit," says Awer president S. Piarapakaran.

Currently, those who illegally dump scheduled wastes into Malaysian waters will face a maximum fine of RM500,000, five years' jail or both under Section 34B (4) of the Act. There are plans by the government to increase the penalty to deter such crimes, with a Bill expected to be tabled in Parliament in October.

Piarapakaran says the current penalty under the existing law is a very small fraction of the actual cost of pollution.

"Thus, it does not deter wrongdoers.

"With our proposal to enable the claims for those affected by the pollution, offenders will have to pay a penalty, clean-up costs and claims that may run into a few million or higher," he says.

Apart from imposing harsher penalties, Piarapakaran says the government should allow sufficient buffer zones between water sources like rivers and human activity like factories and roads.

"Separate drainage and buffer zones can minimise pollution of rivers or catchment areas.

"There are many rivers, which are sources of drinking water, that pass roads. The recent Sungai Semantan incident is another reminder that the authorities need to buck up on this issue," he says.

On Aug 11, a highway accident near Pahang's Semantan river caused 397 areas in Selangor and Kuala Lumpur to face water supply cuts due to chemical pollution from the mishap.

Piarapakaran also proposes that the government should start annual mandatory sampling of raw and processed food to detect potential pollutants.

While having stiffer penalties will help, Malaysian Water Association president Dr Mohamad Asari Daud says these laws must be coupled with effective enforcement.

"Perhaps we can also get offenders to do community service such as cleaning rivers and drains for a long duration so that they learn to appreciate the importance of a clean environment," he suggests.

As pollution can happen anywhere and at anytime, Mohamad Asari believes that awareness among the public and citizen empowerment are needed.

"People need to be more involved in ensuring the safety and security of water resources.

"With quick public tip-offs via WhatsApp, Instagram and Facebook, culprits polluting any part of our environment can be stopped from contaminating our water catchments," he says.

On Selangor's 24-hour monitoring of strategic river stretches, Dr Mohamad Asari questions how long personnel can be deployed to guard the rivers – it's not a permanent solution, he feels.

"Again, I believe the public can make a difference if they are empowered to safeguard rivers within their areas," he says.

Malaysian Nature Society president Prof Dr Ahmad Ismail also believes it is important to plan, monitor and enforce the laws we have to get results.

"We need to look at the whole process. For example, penalties can be set depending on how serious the impact of the pollution is," he says.

Different incidents may have varying repercussions and would need different penalties. For example, he compared a river pollution incident killing cockles in Sungai Buloh, Selangor, and another incident causing water supply cuts for millions of people.

"One affects domestic water users while the other poisons fish that affects people eating contaminated seafood as well as the income of fishermen.

"How does one calculate the penalties involved?"

Either way, Prof Ahmad says all laws, regulations and penalties must take into account various angles.

This is especially since Malaysia now has better knowledge and heightened concern over animal welfare as well as human and environmental health, he says.