Saving Sukhna Lake

What is happening at Sukhna Lake?

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- The Chandigarh Administration has been using a 450 m pipeline to divert 2 million gallons of water per day to the lake from 7 tubewells located near the Chandigarh Golf Club.
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- **The operation to fill the rain-fed lake** will continue until March, when the demand for water in the city is likely to rise. The level of water in the lake is expected to go up by 3 feet over its current level of 1,154 feet by then.
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- The engineering wing of the Municipal Corporation has upgraded the machinery at the Sector 26 waterworks, situated about a kilometre from the lake. The water from the tubewells is being sent to an underground reservoir in Sector 26, from where it is being **pumped to the lake (which is at a greater height).**
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Why does the lake need to be filled artificially?

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- The lake has dried up on several occasions in the past, exposing parts of its bed. 1987 – was particularly a bad year, when a deficient monsoon wreaked havoc.
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- In 2012, the Administration submitted to the court that no water was available to fill the lake. However, as the level kept falling, **the Administration proposed that treated sewage water be pumped in.**
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- But experts objected on environmental grounds, following which the court directed the Administration to seek suggestions from residents and submit a plan. **This week, drinking water was diverted to the lake.**
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- The capacity of the pumps has been boosted, and a changing valve has been

installed at the waterworks, which will cut off supply to the lake when demand in the city increases.
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Why is Sukhna Lake so important?

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- The lake was designed by the creator of the city, **Le Corbusier**, and the plan was executed by the then Chief Engineer, **P L Verma**, at a cost of Rs 1 crore.
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- The lake was constructed across Sukhna Choe by damming it along with Kansal and Nepali Choe. The dam was a 12.8 m high, **rock-filled earthen structure**.
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- The attachment of the city's creators to the lake can be gauged from the fact that the ashes of Corbusier's cousin and Chandigarh's chief architect, Pierre Jeanneret, were immersed in the lake as per his wishes in 1970.
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- Chandigarh's residents have a deep emotional connect with the lake. They go to its shores for morning and evening walks, and it is one of the top tourist attractions of the city.
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- **The lake is home to several species of migratory birds.** The Administration has constructed a bird watching centre at one end of the lake.
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- In 2005, the lake had 33 species of fish, which fell to 19 after a large part of the lake dried up in 2012. After the culling of ducks following the 2014 avian flu scare, the Administration decided to no longer allow ducks at the lake.
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What problems does the lake face?

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- Silting has been a problem ever since the lake was created. **The Shivaliks are erosion-prone,** and the water that flows into the lake from the catchment area brings along silt.
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- Between 1958 and 1962, **the lake lost more than 20% of its storage capacity** due to silting.

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- In the 1970s, the Chandigarh Administration started taking measures to save the lake. More than 150 silt-retention dams were built.
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- By 1988, around 2,600 hectares of the Sukhna Lake catchment area had been converted into the Sukhna Wildlife Sanctuary, and an additional 880 hectares were classified as a reserve forest.
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- While these measures succeeded in checking the problem of silting, **they also reduced the quantity of water entering the lake.**
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- Another problem is of excessive weeding — there are 8 types of weeds in the lake. According to experts, the major reason for the growth of weeds is excessive siltation and the flow of sewage into the lake.
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- The Chandigarh Administration has now started bio-treatment of sewage water.
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Is it common for a lake's levels to be boosted in this manner?

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- The city of San Diego has been pumping drinking water into the Chollas Lake, a popular, 16-acre recreational fishing basin, for at least a decade.
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- Closer home, in November 2016, the Forest Department pumped water into dry tanks and ponds in **Karnataka's Bandipur National Park,** and attempts have been made to fill the marshlands of the Keoladeo National Park in Bharatpur artificially.
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- However, none of these projects are comparable in scale, circumstances and methods to the efforts being put into the Sukhna Lake.
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