FLOODING RISK

Wastewater disruptions

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Credit: George White/Photolibrary/Getty

Infrastructure in coastal areas is likely to be affected by more frequent and significant flooding events as sea level rises. Identifying the infrastructure components most at risk is essential for investing in protective measures that increase the resilience of coastal communities.

Using geographic information systems, Michelle Hummel of the University of California, Berkeley, USA, and colleagues analysed the exposure to flooding, under different sea-level-rise projections, of wastewater treatment plants across the US coasts. They also estimated the population at risk of losing wastewater services, and found that it could be five times as high as previous

predictions of the number of people who would experience flooding of their homes.

Finally, a comparison of wastewater exposure to marine and groundwater flooding in the San Francisco Bay Area highlighted the risks posed by groundwater flooding in the region. Overall, the researchers concluded that flooding-induced disruptions to local infrastructure networks can have far-reaching consequences to areas not affected by the floods.

Monica Contestabile

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