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Urban river rejuvenation to enhance city resilience under climate change scenarios

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Unsuitable urban development and huge constructions would affect the environmental factors of air and water quality even flood mitigation. There was a huge illegal mall and parking lot above Laochie Creek, urban river flowing through Chungli, Taoyuan County over sixteen years. This study explores how the urban river rejuvenation implements, including river management and water quality treatment. For example, the channel width of 50 m broadened from 35 m, which the flood prevention standard with recurrence interval of 100 years raised from 50 years. In addition, the capacity of contact bed treatment that originally designed by British engineer Dibden would be 30,000 cmd. This treatment reduces BOD 420 kg/day, ammonia nitrogen 210 kg/day, SS 420 kg/day. After eradicating obstacle above river, the air quality nearby this urban river enhances for better air circulation between land and seashore.