



SURE Research Publication Service

1) Reference of your publication:

Li, Y. F.*, Li, Y., Wu, W. 2016. Threshold and resilience management of coupled urbanization and water environmental system in the rapidly changing coastal region. *Environmental Pollution*, 208, 87-95.

2) Hyperlink to the publication:

<http://dx.doi.org/10.1016/j.envpol.2015.08.042>

3) Abstract:

Threshold and resilience management of coupled urbanization and water environmental system

The concept of thresholds shows important implications for environmental and resource management. Here we derived potential landscape thresholds which indicated abrupt changes in water quality or the dividing points between exceeding and failing to meet national surface water quality standards for a rapidly urbanizing city on the Eastern Coast in China. The analysis of landscape thresholds was based on regression models linking each of the seven water quality variables to each of the six landscape metrics for this coupled land-water system. We found substantial and accelerating urban sprawl at the suburban areas between 2000 and 2008, and detected significant nonlinear relations between water quality and landscape pattern. This research demonstrated that a simple modelling technique could provide insights on environmental thresholds to support more-informed decision making in land use, water environmental and resilience management.



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