

## **Abstract**

**CREATIVE PROJECT:** A Study of Sustainable Stormwater Management Design in China's Mixed-Use Urbanized Environments and a Design Application in Taihu, Beijing

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Stormwater is a water resource rather than a waste. Harvesting stormwater and treating stormwater on-site can make stormwater an alternative resource and reduce environmental problems such as urban runoff pollution, stream and wetland degradation, increased bank erosion and loss of groundwater. By reviewing related literature, exploring precedents, and conducting site observations, this creative project determined the current trends of sustainable stormwater management design in urban and suburban environments, indicated the environmental and cultural impacts of such design, proposed suitable design approaches concerned with sustainable stormwater management that could provide amenity functions based on China's environmental and cultural situation, and applied these design approaches into a mixed-use suburban development design on the outskirts of Beijing, China. This development design converted an existing village

into a working ecotourism village with stormwater management and wastewater management as integrated parts of the community water quality enhancement.