SLOW DOWN: LIUPANSHUI
MINGHU WETLAND PARK

Location: Liupanshui, Guizhou Province, China
Topics: Urban regeneration, Urban Ecology, Disaster risk reduction

Through a series of regenerative design techniques, particularly measures to slow down the flow of storm-water, a channelized concrete river and a deteriorated peri-urban site have been transformed into a nationally celebrated wetland park that functions as a major part of the city-wide ecological infrastructure planned to provide multiple ecosystem services, including storm-water management, water cleansing, and recovery of native habitats, as well as a creation of a cherished public space for gathering and aesthetic enjoyment.

Figure 1: This panorama, looking towards north, shows the sinuous design of the built project.
Figure 2: Site map and design concept: The Minghu Wetland Park is a part of the regional ecological infrastructure that is planned to remove the nutrients and other pollutants by slowing down water flow, restore native habitats, as well as create public green space for both recreation and better pedestrian connectivity. The planning and design studies above demonstrate both regional and parcel scale efforts to create an integrated system. The two key tactics to slow down water flow are namely bio-swales and terraced wetlands designed to better conform to the existing topography.
Figure 3: Before and after photo comparisons: sets of photos show dramatic changes happened on site between 2010 and 2013: it has transformed from a peri-urban derelict landscape, a deteriorating environment with illegal dumping of raw sewage and solid waste, into a beloved multi-functional wetland park.
Figure 4: The carefully graded, interlocking bio-swales and pond system along the valley acts as a “green sponge”. Storm-water is detained and retained to capture or transform the agricultural and urban non-point source pollutants. The designed landscape creates diverse native habitats for biodiversity enhancement. The working wetland attracts thousands of visitors every day from the city and the far-reaching region. Tourists and locals alike are enjoying the autumn weather in this view of the richly textured and colored tapestry. Self-seeding flowers were sown along the paths and between bio-swales, to create a low maintenance ground cover. They create a vibrant and pleasant walking experience.

Figure 5: Visitors are excited at the intimate contact with the massive drifts of self-seeding flowers and the cleansed water in the bio-swale.

Figure 6: The rainbow bridge is an iconic cultural landscape element that focuses views toward the extensive karst landscape surrounding the city. The bridge provides a cultural route for ordering and experiencing and interpreting the otherwise ordinary natural landscape.