

Dongli Lake Development

Tianjin, People's Republic of China



New water quality standards are beginning to transform development practices throughout China. An innovative approach is exemplified at Dongli Lake, a mixed-use community that will house 50,000 people when completed. Intuition & Logic led an international team of engineers, architects, wetland scientists and land planners in developing a design approach that captures and treats stormwater from the entire development in a series of wetlands. The design challenges include poor ground water quality with high salt and phosphorous

concentration, a drought-prone climate and a requirement that the wetland also serve as a highly attractive community focal point.

Using an intensely collaborative, structured process called Value Planning, the team developed a strategy detailing proposed water management including appropriate routing, circulation, water quality, and operation and maintenance. We devised water harvesting and point of contact pre-treatment concepts to improve the delivery rate, quality and quantity of runoff delivered to the wetland complex. The final design is a free water surface wetland comprised of 12 wetland cells totaling 300 acres of emergent wetland and open water marsh.

Wildlife habitat is explicitly included in the design, a feature that is very rare in contemporary residential development in China. To our client's knowledge, this is the first time that "bird privacy" areas have been integrated into an urban development. To support a more sustainable lifestyle and help residents understand the functions of the wetland, the developers also asked the design team to incorporate a community educational center where residents, especially children can have hands-on experiences measuring water quality, enjoying wildlife viewing and learning about wetlands and plant-animal interactions.