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Kunming Eco Communities, Yunnan Province, CHINA

Kunming is the capital of the Yunnan Province, located in southwestern China. The city is both a political and cultural center in the province. The city is home to universities, museums, galleries and significant educational institutions. The city developed in a highly desirable geographic location, situated approximately 2,000m above sea level among limestone hills, north of Lake Dian. Because of its year-round temperate climate, Kunming is often called the "Spring City" or "City of Eternal Spring".

The city is projected to double in size by 2010, to accommodate approximately eight million people. Kunming's transport links to Southeast Asia and elsewhere, particularly its air links, are steadily expanding, with direct routes already existing to all major Chinese cities, most major Southeast Asian cities and some major cities in Japan and South Korea. Growth at this scale has caused many interesting planning challenges and the opportunity for both western and eastern design professionals to collaborate.

SWA, a highly respected landscape architecture and planning firm retained NSI to assist with their planning efforts for the Kunming Eco Communities. The Eco Communities are an exceptional example of ecological planning and development in the region. SWA crafted a master plan based on a watershed planning approach. Such an approach contains development in appropriate areas and restores watersheds and forest in the process. The approach is often referred to as “regenerative development”.

NSI contributed to the master planning effort with the development of stormwater details, stormwater modeling, a water balance report, and preliminary engineering. Conceptual and preliminary engineering considered 2,500 units of homes and apartments proposed for the development. The master plan offered design solutions that honored water at each step. A water balance provided the framework for examining the flows into and out of the various water treatment and reuse systems. Rainwater harvesting from building rooftops offset potable water use. Both reclaimed wastewater and storm water were proposed at potential heat sources or sinks. Additionally, a combination of both lot level and development level stormwater management techniques were proposed to treat water to appropriate standards before returning to watersheds and aquifers.

above: photo courtesy of SWA

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below: schematic master plan courtesy of SWA