Kunming is the capital of Yunnan Province and is home to universities, museums, galleries and significant educational institutions. The city developed in a highly desirable geographic location, approximately 2,000 meters 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 was projected to double in size by 2010 to accommodate approximately eight million people. Growth at this scale 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 Biohabitats to assist with master planning efforts for the Kunming Eco Communities. The master plan was based on a watershed planning approach, which contained development in appropriate areas and restored watersheds and forest. The approach is often referred to as “regenerative development.”

Biohabitats 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 proposed units of homes and apartments. 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. Additionally, a combination of lot level and development level stormwater management techniques were proposed to treat water to appropriate standards before returning it to watersheds and aquifers.

Watershed-based master planning guides the growth of a rapidly expanding capital city in China.