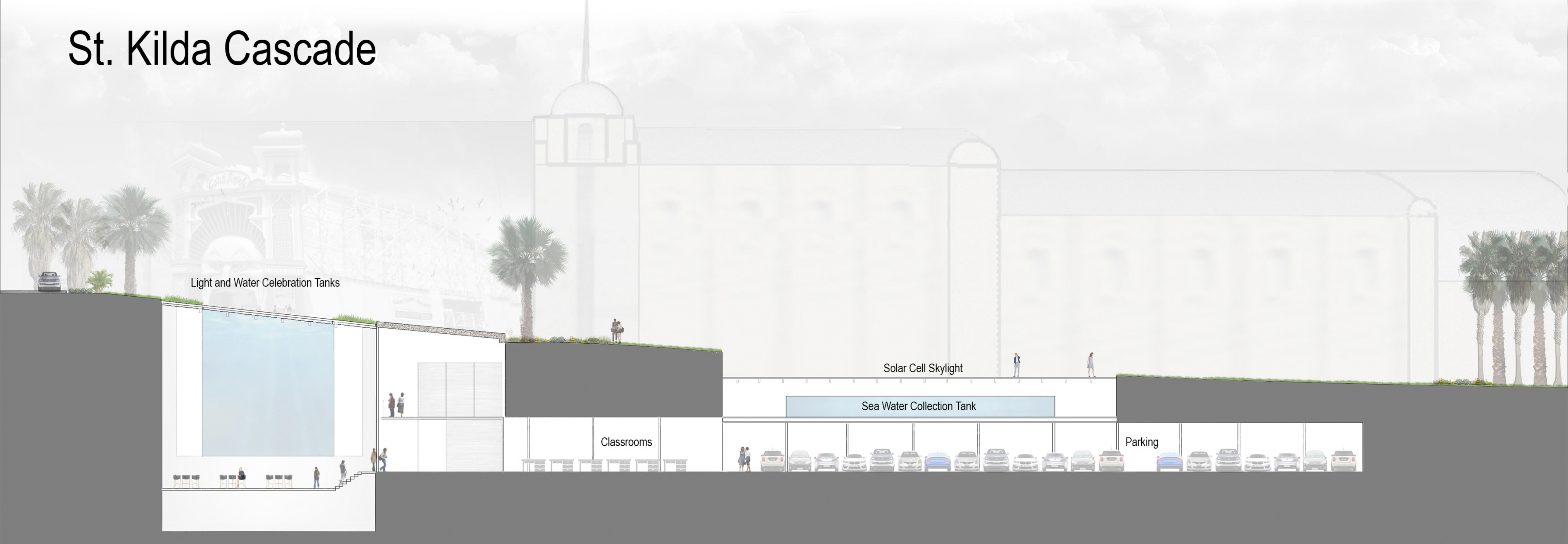


St. Kilda Cascade



When I was in middle school my teacher asked the class, "Students, do you know where the water in your water bottle came from?" He then told the story of recycled rainwater and fifteen years later the memory continues to stand out. What if there was a place where the parents of St. Kilda could take their family and friends to learn about water conservation? What if that place was not only a learning center but also a place that celebrates water in a phenomenal way? During the millennium drought that struck Australia in the 2000s the residents of Victoria made a substantial impact by doing their part to conserve water as individuals. Without the help of those individuals it is very likely that Melbourne could have run out of water. My proposal is an electro dialysis desalination plant and educational center where residents of St. Kilda and visitors from all over the world can come and experience a beautiful cascading waterfall at the slopes while dining with friends, viewing art, or learning about how individuals can make an impact on our future. Electro dialysis is the process of desalinating water via shockwave. It reduces the chance of degradation from the osmosis process and requires minimal energy and infrastructure. Electro-deionisation as it is also referred, uses an electric field to pull dissolved salts from water. In addition to the electro dialysis technology the design of this plant incorporates transparent solar cells that will be used to gather energy to operate the plant.

