

Title: Water bodies an urban microclimate: A review

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Abstract: In urban areas, water bodies have a positive effect upon microclimate of the surroundings with the relative cooling impact it has on evaporative procedure. Hence, evaporative cooling might be one of the pretty efficient methods of passive cooling for urban spaces and buildings. Differences in temperature between the urban space and the non-urban space which surrounds, is dubbed UHI (Urban Heat Island) effect. Water bodies have also been proven to be influential methods of decreasing urban temperatures. A water body temperature is capable of being lower than the surrounding urban environment around 2 - 6 °C. According to these findings; one may conclude that the rise of evapotranspiration in cities, that has roots in vegetation and water body, can efficiently mitigate the influence of the urban heat island. Unfortunately, the effect that water bodies can have upon urban temperatures has not been thoroughly assessed in previous studies, specifically the difference between the daytime and night time influences of water bodies, and the matter the how urban design may be in influential in moving the cooling influence from the water bodies toward the city. This paper provides a theoretical background for the problem and reviews the related literature.