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Abstract

This research paper focuses on extreme wet periods and dry periods that follow closely after one another. The primary focus of this paper is to determine the number and severity of whiplash precipitation events that occurred in South Bend, Indiana from the summers (including the shoulder months of May and September) of 2010 through 2019, or the extent of the decade. Precipitation data from this period of time is compared to that of the previous 30 years (1981-2010) to see how much precipitation has deviated from the 30-year averages. The reason for conducting this study relates to the importance of precipitation on the overall well-being of the city itself and the surrounding areas, as precipitation variations will be exacerbated by climate change. Most of the precipitation that falls in South Bend, IN falls during the summer months. The agriculture industry, for example, is a major presence in the areas surrounding the city of South Bend and data from this research could be vital to accurately estimating the impact climate change will have on the city and the region of Southwest Michigan and Northern Indiana in general.

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