

Storm Water Systems

Lake systems are designed to adequately handle a 25-year storm event. This is a storm event, which involves approximately 12 inches of rain in a 72-hour period. The lake system is not designed just to receive and convey the storm water but to also store and improve the storm water quality. The lake system is divided into drainage basins. These basins usually consist of a series of interconnected lakes that receive storm water run-off from the surrounding area and store that storm water to a certain control elevation. While the storm water is staged in these basins it seeps into the surrounding ground and is stored for future use. (i.e. irrigation water) Additionally, sediments and impurities are allowed to settle out, be absorbed by aquatic plants or broken down by natural bacteria in the lake thus improving the storm water quality. Once the water has been stored up to the designed control elevation it will flow over a weir or control structure for that particular area of the community. The storm water then continues downstream through the system and eventually exits the community.