



ECOVIE Institutional Rainwater Collection System

Application:

Non-Potable System for Irrigation
and storm water management.

Project Location:

Residential Site in
Atlanta, Ga.

This home had a problem with flooding caused by runoff from an adjacent church parking lot. In their renovation efforts, the owners planned to design the new driveway at a lower level, making the risk of flooding even greater. Ecovie solved this dilemma by placing a 3,400 gallon rainwater collection system under the driveway to capture storm-water and rooftop rainwater. Approximately 52,000 gallons of collected rainwater will be used in the spring through autumn for irrigation. The idea is to use captured rainwater to provide an empty cistern for the next big rainfall with an ability to capture the first 1.75 inches of rain.

Next, Ecovie engineered an overflow mechanism in such a way that the driveway fully drains even when the tanks are full. Also, an emergency sump pump backs up the passive gravity overflow. Ecovie also installed catch basins and passive drainage to ensure that water coming from the adjacent parking lot wouldn't reach the driveway.



Project Summary:

Collection Square Footage: 3,500

Tank Capacity: 3,400 Gallons

Projected Annual Water Supply: 52,000

The result of Ecovie's design and implementation is reduced storm-water runoff while simultaneously capturing water to be used for irrigation purposes. This project also helps to prevent erosion which can deteriorate the foundation of the home as well as the landscape. It is an excellent example how rainwater collection can be incorporated into a comprehensive stormwater management plan.