

Calusa Green, LLC
Application for Planned Development Rezoning

Low Impact Development (LID) and Green Technology Features

Low Impact Development (LID) is a term used to describe a land planning and engineering design approach to managing stormwater runoff. LID emphasizes conservation and use of on-site natural features to protect water quality. This approach implements engineered small-scale hydrologic controls to replicate the pre-development hydrologic regime of watersheds through infiltrating, filtering, storing, evaporating, and detaining runoff close to its source.

The Calusa Green project utilizes LID techniques in its stormwater management. The sheet flow stormwater runoff from the landfill areas, operation area, compost facility, parking lot and driveways all flow into normally dry swales that flow into the wet retention stormwater basin. This provides pre-treatment effects from the paved operational areas. Further the stormwater basin is designed to contain the 100yr. 72 hr. storm event with zero discharge off site.

Stormwater that falls onto the open areas of the landfill are captured by the leachate collection system and either re-circulated into closed areas of the landfill for enhanced methane gas production or hauled off site to an approved waste water treatment facility. Stormwater that falls onto the open space areas that are being maintained as citrus groves is captured into the grove's self contained irrigation system for storage and irrigation purposes. This system is totally separate from the landfills stormwater system.

Green Technology features of the Calusa Green project include a methane gas to energy plant that captures the gas produced by the decaying material in the landfill and instead of simply burning off the gas (flaring) the gas is used to power turbines that produce electricity which is then fed into the power grid. Another green technology used is the composting of vegetation debris to reduce the waste stream going into the landfill. The final product is used for soil enhancement. Additionally, the introduction of biosolids into the composting operation is planned to provide a treatment for residual waste from waste water treatment facilities. The final product will be used to supplement the landfill soil cover and as fertilizer for end users.

Recycling of materials that can be removed from the waste stream and reprocessed into usable products will be the focus of the proposed recycling operation. These recyclables will be sorted and stored for transport to a facility in need of these materials for manufacturing.