

BAYOU ST. JOHN GREEN INFRASTRUCTURE DEMONSTRATION PROJECT

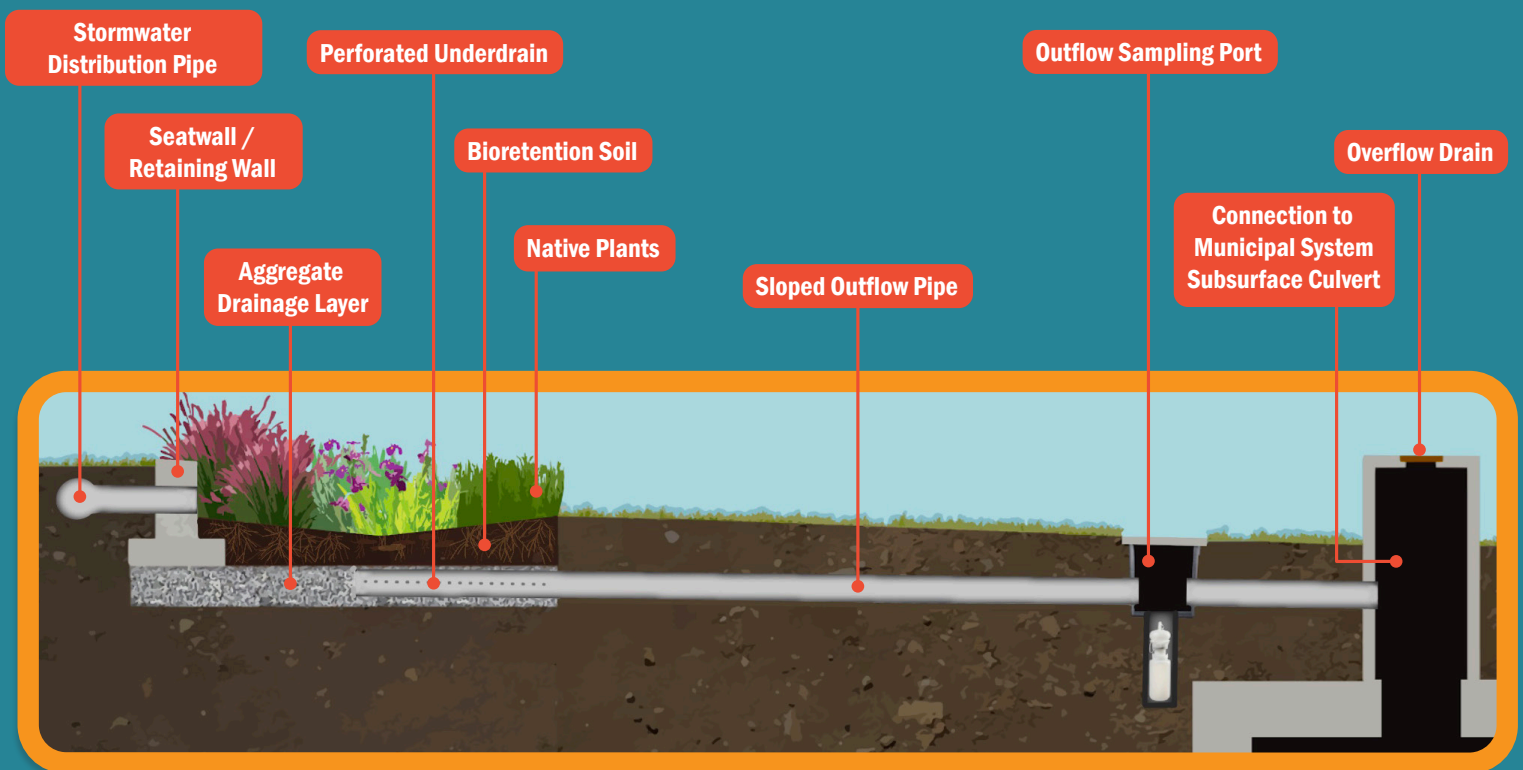


- A** Site inflow stormwater runnels
- B** Concrete wall acts as a retaining wall, seatwall, and stormwater distributor
- C** Bioretention cells are planted depressions that detain, filter, and promote infiltration of stormwater. The cells provide both surface and subsurface stormwater storage, while plant roots and sandy bioretention soil filter pollutants.
- D** Native trees are climate resilient, provide shade and habitat, and uptake stormwater. Fiber soils help prevent compaction of the soil around the trees, creating a healthier root system.
- E** Porous flexible paving is an interlocking pavement grid system that is filled with aggregate allowing stormwater to infiltrate into the ground.
- F** Permeable pavers are installed on a bed of aggregate and have aggregate-filled joints, allowing stormwater to infiltrate between them and into the soil below. This helps reestablish a natural hydrologic balance while filtering pollutants.
- G** Detention basin with a stormwater storage capacity of approximately 7,460 cubic feet.
- H** Outflow stormwater samplers
- I** Overflow drain
- J** 50 new trees
- K** Berm creates detention basin
- L** Detention basin outflow



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The site is located adjacent to Bayou St. John, between Toulouse Street and Orleans Avenue, with Moss Street along its eastern border. The new design features a small berm along the west side of the site that will temporarily detain water, working in concert with the natural topography to create a dry detention pond. The pond will be able to store over approximately 7,460 cubic feet of stormwater. A metered outlet box over an existing surface drain in the dry pond will allow the water to slowly release into the drainage system as capacity is available. An additional outflow point will funnel water into a pipe that will distribute the runoff into four other types of green infrastructure equally: a bioretention cell, native trees planted in bioretention soil with fiber soils, pervious flexible pavement, and permeable concrete pavers.



Four featured green infrastructure (GI) facilities will be analyzed for three years after construction to determine their potential to improve stormwater quality. The stormwater is distributed to each GI facility via pipe, where it is detained, filtered, and infiltrates into the ground.

As the stormwater infiltrates, it enters a perforated pipe that flows toward the outflow drain, which is tied into an underground box culvert. Water flows from the box culvert into the larger city drainage system, and ultimately into Lake Pontchartrain.

A sampling port is built into each outflow pipe, which allows scientists to collect and test stormwater samples to compare how each GI facility improves the quality of the site's runoff. Scientists will analyze the results to understand the benefits of each GI facility for future installations.

