

Drainage Pump Station 01 Watershed

Drainage Upgrades & Green Infrastructure Project

Phase II: Street Improvements & Pipe Upgrades



Overview

The project area includes nine New Orleans neighborhoods: Broadmoor, Central City, Garden District, Lower Garden District, Irish Channel, St. Thomas Development, Touro, East Riverside, and Milan. These neighborhoods are located between the Central Business District and Uptown and within the Drainage Pump Station 1 (DPS 01) drainage district. Properties in these neighborhoods experience frequent localized flooding and repetitive losses due to regular weather events. The project area is bound by Broad Street to the north, Martin Luther King Boulevard and Melpomene Street to the east, Tchoupitoulas Street to the south, and Louisiana Avenue and Toledano Street to the west.

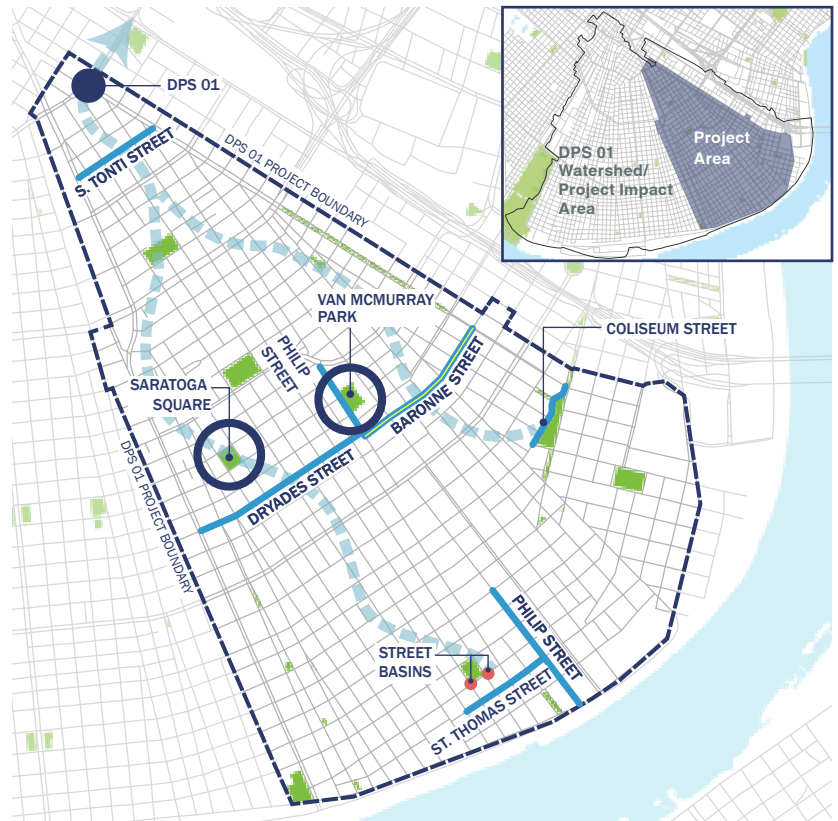
Implementing green infrastructure, along with new pipe drainage connections throughout the project area, will provide widespread benefits to the project area and the adjacent upriver neighborhoods.

Phase II

Phase II of the project consists primarily of the design and implementation of stormwater management and transportation improvements within the public right-of-way. This includes the introduction of facilities such as street basins, parking lanes with permeable pavement, separated bike lanes, and storm sewer replacement. Aside from the work anticipated for the rights-of-way, Phase II also includes using two public open spaces as stormwater parks: Van McMurray Park and Saratoga Square. The street and park improvement locations, which are found throughout the project area, were selected based on a number of factors, but most importantly due to the flood reduction benefits they offer to the overall study area.

Funding

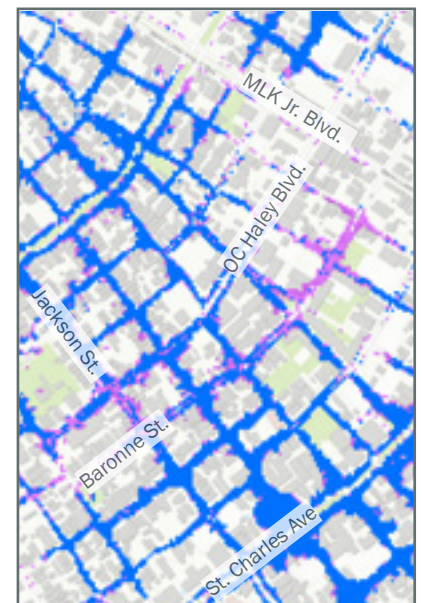
The City of New Orleans has secured \$50 million in Federal funding from FEMA through the Hazard Mitigation Grant Program (HMGP) to implement green and grey infrastructure in the project area to alleviate localized flooding. Green infrastructure will serve to detain stormwater, thereby allowing the existing drainage system to function more effectively.



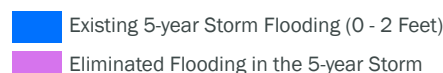
Project Area



Reduction in Flooding near Saratoga Square



Reduction in Flooding near Baronne Street



Why Green Infrastructure?

- Temporarily stores stormwater to reduce localized flooding
- Infiltrates water into the ground to stabilize soils
- Improves water and air quality
- Reduces the stress on the pumps and pipe drainage system



Proposed improvements to Baronne Street from MLK Jr. Boulevard to Philip Street

Issues

The project's main issues in the study area include frequent and intense rain storms that occur several times a year, aging infrastructure, both of which contribute to localized flooding causing property damage. As is the case in most urban areas with intense rainfall events, older and undersized catch basins, pipes, and pumps cannot keep up with the amount of stormwater runoff entering the drainage system. Upgrading these infrastructure facilities is costly and highly disruptive. The opportunity arose to better neighborhoods to become more resilient urban environments by implementing both green and grey infrastructure.

Benefits

The roadway projects in Phase II are designed to improve upon existing drainage patterns that currently rely solely on surface flow, catch basins, and storm drains. The roadway projects will facilitate in the collection, detention, and infiltration of stormwater by acting as sponges that will capture and store runoff and remove it from the surface.

Capital Improvement Program: The City and Sewerage and Water Board of New Orleans are working together to implement an unprecedented capital improvement program to restore the City's damaged infrastructure. Using a combination of local and Federal funds, the \$2B program will be the most comprehensive that our region has seen in a generation. Work will include more than 200 individual projects and consist of repairing all or portions of about 400 miles of roadway. For more information about the Capital Improvement Program, please visit roadwork.nola.gov.

In some instances, pervious pavement will be installed in the gutter of the street to reduce standing water along curb lines. Infiltration trenches will also be used where there are no existing curbs to allow stormwater to flow through aggregate layers and into upgraded drainage pipes below the surface. Further benefits will be offered on Baronne Street by the inclusion of a pervious asphalt bike lane and an urban bioswale. The urban bioswale along Baronne Street will be planted with native trees that will aid in the interception and uptake of stormwater, reduce the urban heat island effect, and introduce a continuous tree canopy to the corridor while simultaneously providing detention for stormwater.

The stormwater parks in Phase II are designed to capture stormwater that falls on the sites, as well as extract stormwater from the surrounding drainage pipes. The stormwater at Van McMurray Park will enter the site and be detained in subsurface storage. This temporary detention allows the City's drainage system a chance to catch up.

The proposed Phase II improvements will reduce localized flooding allowing a previously flooded 5 miles of roadway to remain passable during a 5-year storm event.

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