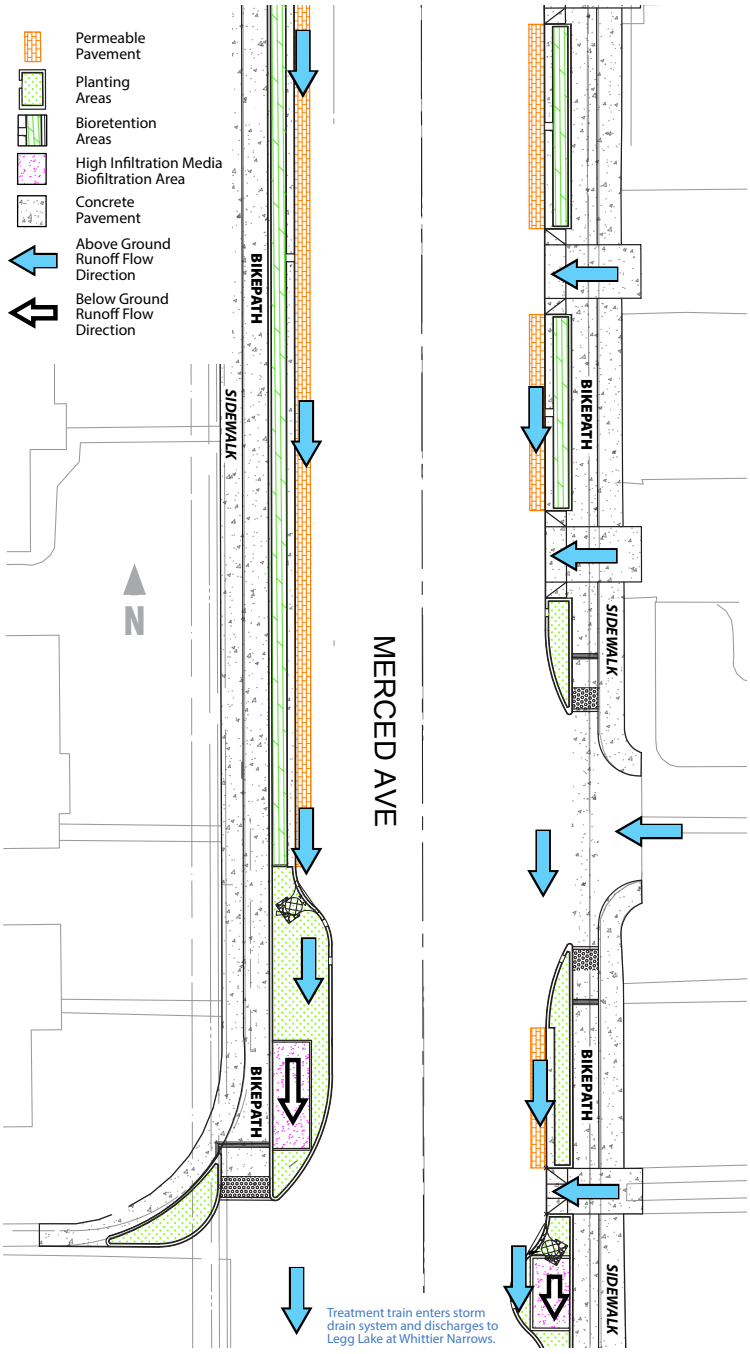
MERCED AVE GREENWAY

Process Flow Schematic
Safe Clean Water Program

Existing Conditions: The drainage management areas (45.71 acres) along the 0.65-mile Project site generate 68,600 ft^3 of runoff in an 85th percentile, 24-hr storm event. Land use varies throughout the project area where impervious surfaces make up 89% of the north commercial/industrial end and 41% of the south residential end. Water runs off properties into a traditional curb/gutter system along Merced Avenue and flows in a southern direction into conventional catch basins that are connected to the City's storm drain system, discharging into Legg Lake at Whittier Narrows Recreation Area.

Project Improvements: Sample section of the Greenway delineates treatment train and flow of street runoff. See 100% design plans for sizing specifications and construction details.

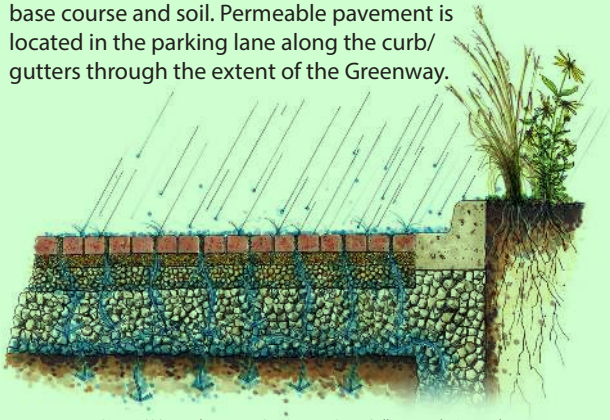


Treatment Train Storm Water BMPs:
4,187 ft^2 - Bioretention Areas (conventional)
2,643 ft^2 - Bioretention Areas (with underdrain)
1,907 ft^2 - High Infiltration Media Biofiltration Areas
10,420 ft^2 - Permeable Pavers (with infiltration chambers)
11,078 ft^2 - Planting Areas (sump 6" stormwater)
132 new street trees

TOTAL DESIGN VOLUME CAPTURED: 21.5 AFY

1

Permeable pavement is the first line of treatment, intercepting sheet flow from adjacent properties and infiltrating runoff into the underlying reservoir base course and soil. Permeable pavement is located in the parking lane along the curb/gutters through the extent of the Greenway.



USDA-NRCS (Natural Resources Conservation Service); illustration by Doug Adamson.

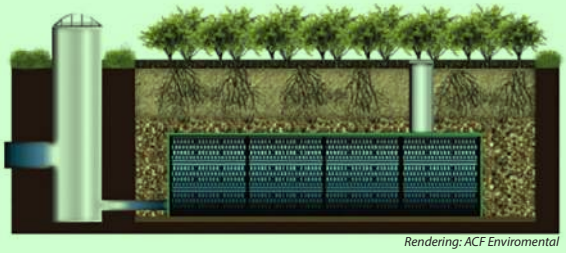
2

Once the permeable pavement is saturated, excessive water flow will be diverted into a second line of treatment through the gutter and into **planting areas** (6" sump) and larger **bioretention areas** from a series of curb cuts. Depth to groundwater goes from 45 ft on the north end of the street down to 6 ft on the south end; therefore, there are a combination of both offline and online bioretention areas depending on the location.

Rendering: Alta Design + Planning, Inc.

3

High infiltration media biofiltration areas are placed on eight select street corner bulbs-outs to capture and treat larger flows before the water enters the storm drain system and discharges to Legg Lake at Whittier Narrows. The FocalPoint System media is highly porous and allows for infiltration rates at 100 in/hr.



Rendering: ACF Enviromental