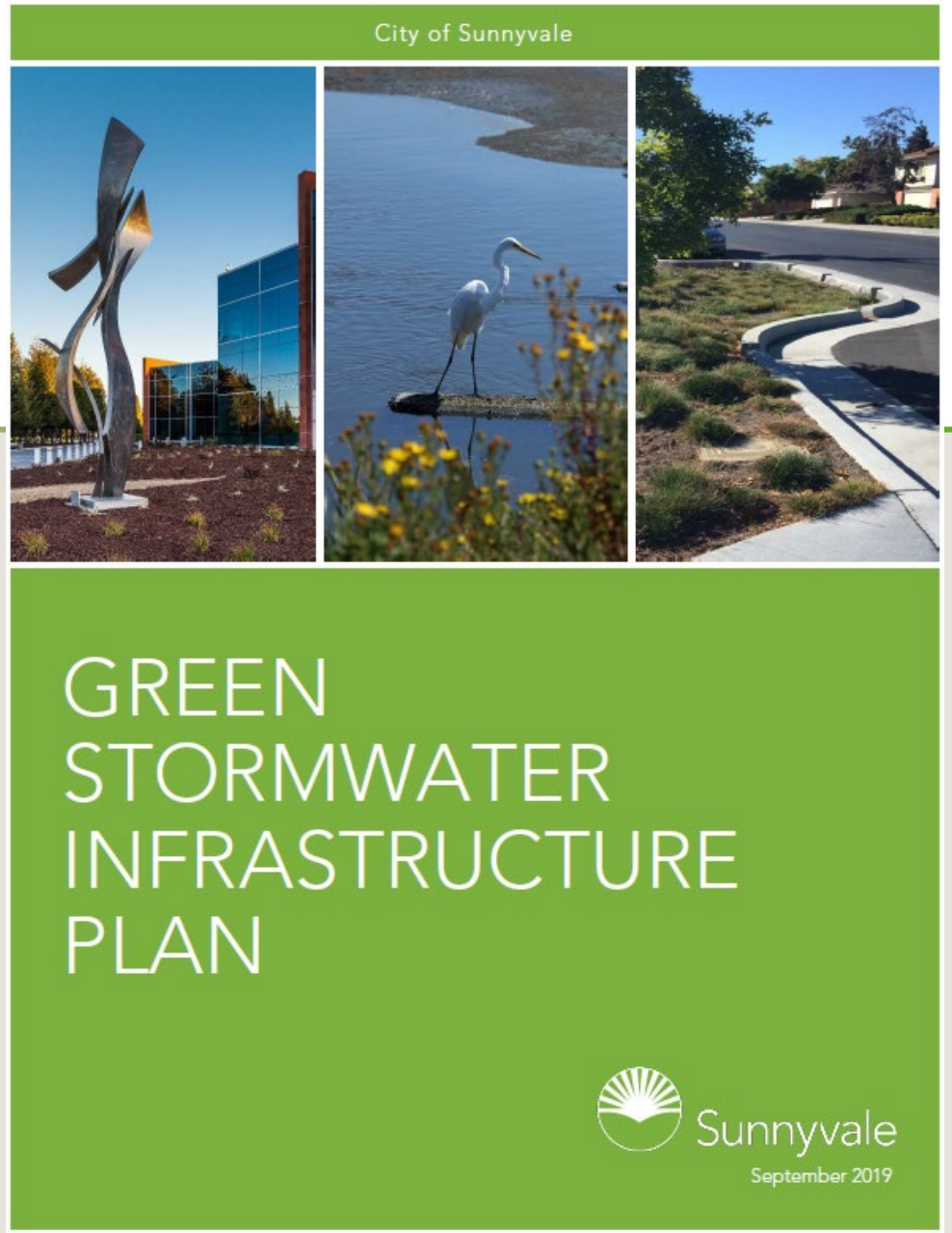
DRAFT

GSI Plan Update

Environmental Services Department
November 2025



Agenda

The Municipal Regional Permit

Provision C.3 – New & Redevelopment

GSI Plan Overview

Implementation

Challenges

Status

Municipal Regional Permit

MRP is a NPDES Permit

National **P**ollutant **D**ischarge **E**limination **S**ystem

NPDES Permits are required by The Clean Water Act and enforced by the Regional Water Board.

Permits contain limits, restrictions, & prohibitions on what can be discharged into waterways

Applies to 79 Bay Area counties and agencies.

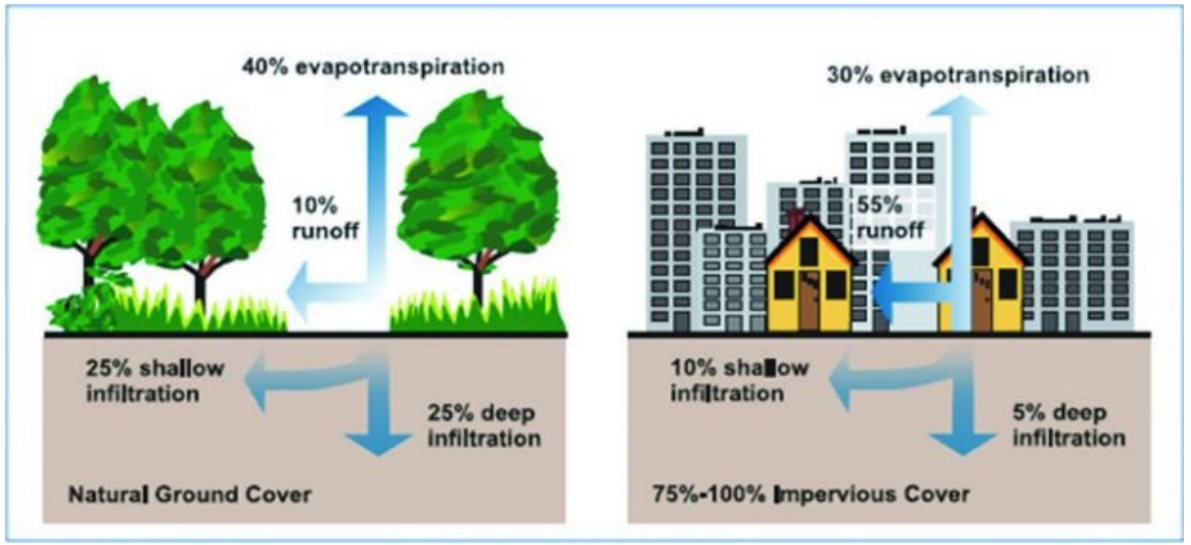
Contains private and public land development requirements (C.3) and GSI planning requirements.

Other provisions contain requirements for reducing loads of certain pollutants of concern in stormwater (e.g., mercury, PCBs, pesticides, and trash)

CALIFORNIA Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

Provision C.3 – New and Redevelopment

New Development and Redevelopment projects above certain impervious surface thresholds are required to manage stormwater runoff onsite using Low Impact Development (LID) measures or Green Stormwater Infrastructure (GSI).



LID & GSI

Intended to allow more rainwater to soak into the ground

Reduces flows over impervious surfaces

Can Provide Treatment

Stormwater Treatment Measures can provide some treatment to run off from impervious surface

Green Stormwater Infrastructure (GSI)

Systems that use vegetation, soils, and natural processes to manage water and create healthier urban environments.

GSI is a range of natural and engineered measures:

- Infiltration
- Tree well filters
- Pervious pavement
- Rainwater harvesting & storage
- Bioretention Areas

Used for reducing and managing stormwater runoff from impervious surfaces to improve water quality

C.3 LID Requirements

Source Controls:

- Permanent features or practices that reduce pollutant sources

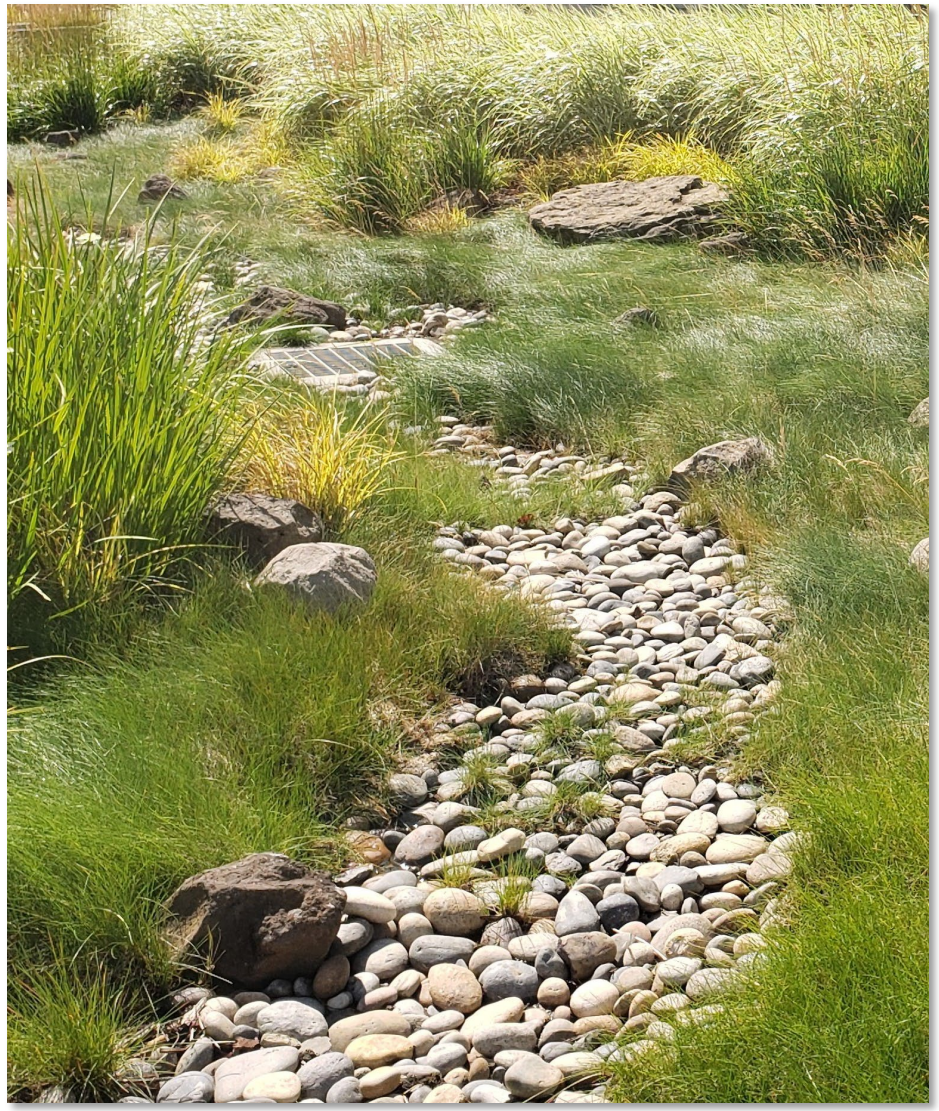
Site Design:

- Design features that reduce impervious surfaces or disconnect impervious surfaces and preserve natural areas/open space.

  Site Design measures help reduce the size of treatment measures

GSI Treatment Measures:

- Infiltration, evapotranspiration, rainwater harvesting/use, and biotreatment/bioretention areas



Potential Additional Benefits

GSI projects *can* achieve multiple benefits

Flow reduction

Urban greening

Traffic calming

Climate benefits

Flood resiliency

Pollutant reduction

GSI Plan Overview

Purpose

Guide incorporation and implementation of GSI on public and private lands in coordination with City plans.

Meant to ensure municipal processes and ordinance allow and encourage implementation of GSI

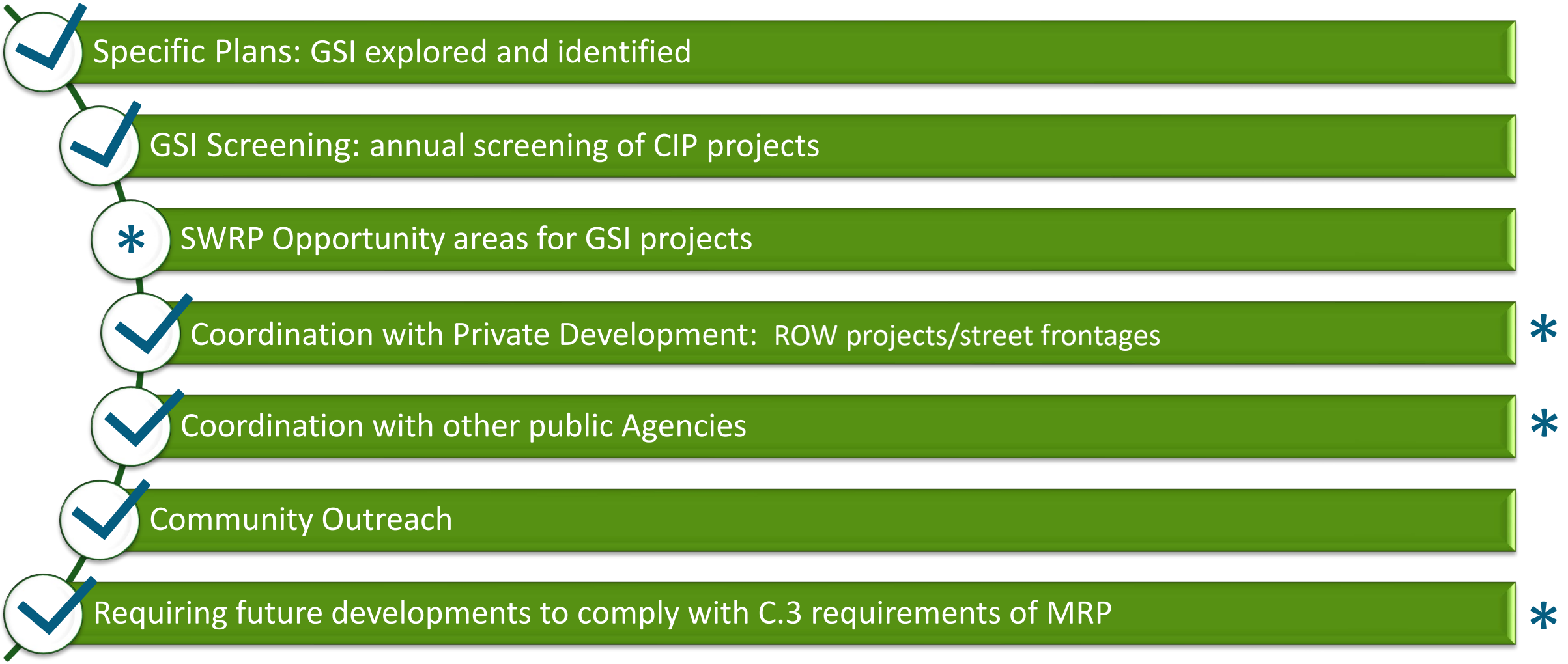
Requirement of the Municipal Regional Permit (2.0)

Development

Framework completed and approved in 2017

GSI Plan was approved September 2019

2019 GSI Plan Implementation



Challenges

Space

Variable & High Costs

Presence of conflicts - utilities or other structures

New Regulations

Ongoing Maintenance

MRP 3.0 Parcel Based Regulated Projects

- C.3 is applicable to parcel-based development or redevelopment
- Threshold for impervious surface created/replaced reduced to 5,000 SF for most projects
- Must Include any impervious surface created/replaced in public ROW as part of the project (e.g., sidewalk, street frontage)
- Includes renovation of public/private parking lots and other pavement (down to top of base course)
- *New category* – regulates detached single-family homes at 10,000 SF threshold

C.3.j.(2) – Numeric Implementation *(or the Extra 5 acres)*

Retrofit Assignment: **5 acres of additional Stormwater Treatment**

"Required to implement, or cause to be implemented, green infrastructure projects within jurisdictions which are not already defined as Regulated Projects."

Current Status

Implementation is ongoing

Driven by MRP Requirements

No missed opportunities

C.3 Requirement - Annual project screening in collaboration with DPW

Regional collaborative efforts

Countywide as well as Bay Area Region

Maintenance of publicly-owned GSI

Motivated by Provision C.21 Asset Management

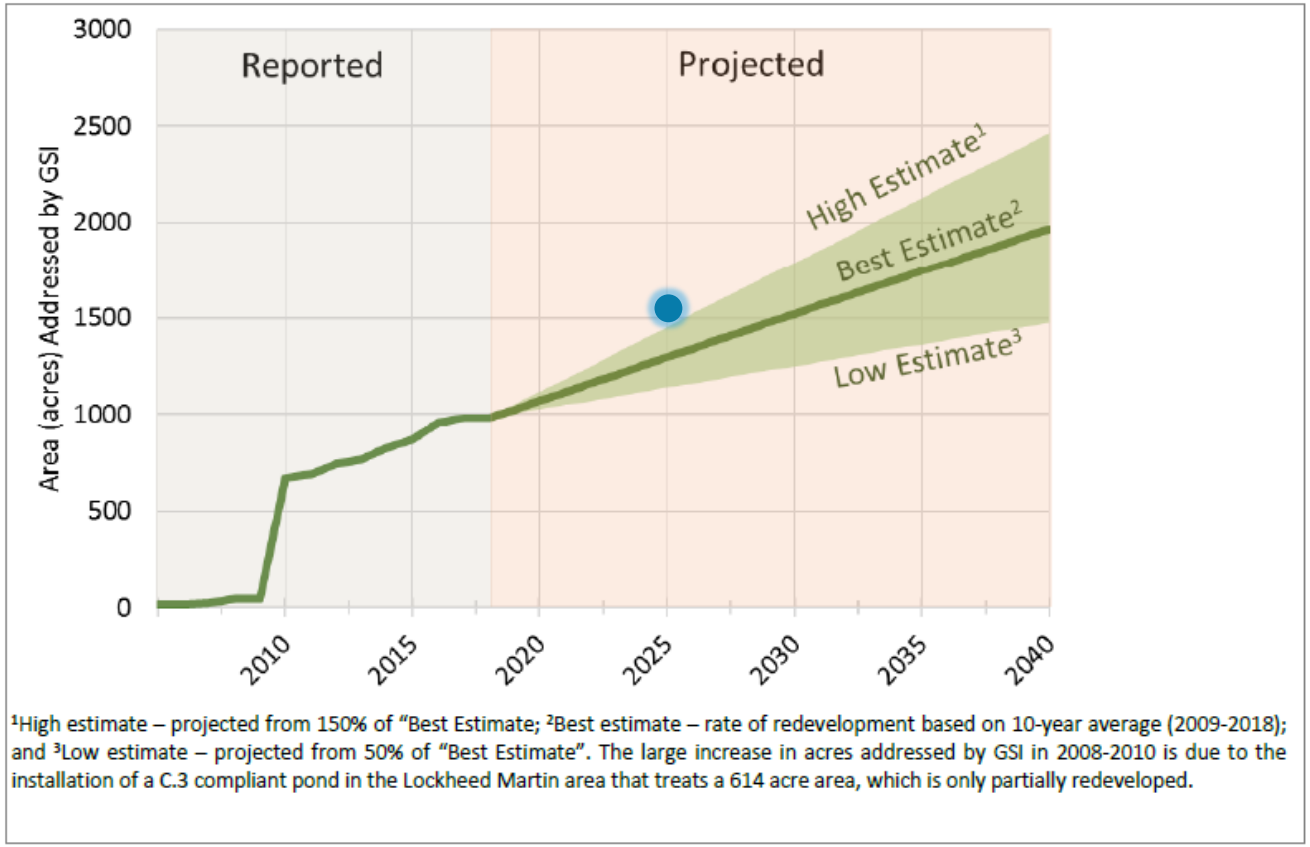
County Stormwater Program LID Monitoring

Requirement of Provision C.8 of the MRP

GSI Plan Projection & Status

1576 Acres

GSI implemented in Sunnyvale as of 2024



[1]High estimate – projected from 150% of "Best Estimate; [2]Best estimate – rate of redevelopment based on 10-year average (2009-2018); and [3]Low estimate – projected from 50% of "Best Estimate". The large increase in acres addressed by GSI in 2008-2010 is due to the installation of a C.3 compliant pond in the Lockheed Martin area that treats a 614 acre area, which is only partially redeveloped.

Year	Low[1]	Best[2]	High[3]
Existing GSI[4]	-	979	-
2020	1,024	1,069	1,114
2030	1,249	1,519	1,789
2040	1,474	1,969	2,464

Projected cumulative land area (acres) anticipated to be addressed via Green Stormwater Infrastructure facilities via private development in Sunnyvale by 2020, 2030, 2040.

Questions