



# Town of Los Gatos

## Green Stormwater Infrastructure Plan

**Approved on: August 20, 2019**

**Approved by: The Town Council of the Town of Los Gatos**

**Prepared by:**

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*In compliance with Provision C.3.j.i.(2) of Order R2-2015-0049, NPDES Permit No. CAS612008*

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**LIST OF ACRONYMS**

ABAG	Association of Bay Area Governments
BASMAA	Bay Area Stormwater Management Agencies Association
BPMP	Los Gatos Bicycle and Pedestrian Master Plan
Caltrans	California Department of Transportation
CASQA	California Stormwater Quality Association
CIP	Capital Improvement Program
DOF	California Department of Finance
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
FY	Fiscal Year
GI	Green Infrastructure
GHG	Greenhouse Gas
GIS	Geographic Information System
GSI	Green Stormwater Infrastructure
IRWMP	Bay Area Integrated Regional Water Management Plan
LID	Low Impact Development
MRP	Municipal Regional Stormwater NPDES Permit
MS4	Municipal Separate Storm Sewer System
MTC	Metropolitan Transportation Commission
NPDES	National Pollutant Discharge Elimination System
O&M	Operation and Maintenance
PDA	Priority Development Areas
PCBs	Polychlorinated Biphenyls
PICP	Permeable Interlocking Concrete Pavers
PP	Permeable Pavers
Regional Water Board	San Francisco Bay Regional Water Quality Control Board
SCVURPPP	Santa Clara Valley Urban Runoff Pollution Prevention Program
SJWC	San Jose Water Company
State Water Board	State Water Resources Control Board
STORMS	Strategy to Optimize Resource Management of Stormwater
SWRP	Storm Water Resource Plan
SWRCB	State Water Resource Control Board
Town	Town of Los Gatos
Valley Water	Santa Clara Valley Water District
Water Board	San Francisco Bay Regional Water Quality Control Board
WVCWA	West Valley Clean Water Authority

## EXECUTIVE SUMMARY

The purpose of the Town of Los Gatos' (Town) Green Stormwater Infrastructure (GSI) Plan is to describe how the Town will gradually integrate GSI features into its urban landscape and stormwater conveyance systems over several decades. GSI uses vegetation, soils, and natural processes to manage stormwater runoff by utilizing "Low Impact Development" (LID) measures for a more sustainable storm drain system comprised of "green" infrastructure, allowing runoff to soak into the ground and be filtered by soil via infiltration. These facilities and features capture, store and treat stormwater using natural processes and recreates the predevelopment hydrology and landscape features of a particular project site.

The Town, as with other municipalities and agencies in the San Francisco Bay Area, is subject to the requirements of the Municipal Regional Stormwater National Pollutant Discharge Elimination System Permit (MRP), which became effective on January 1, 2016. Provision C.3.j of the MRP requires that Permittees develop and implement a long-term GSI Plan for the inclusion of GSI measures into storm drain infrastructure on public and (sometimes) private property, including streets, roads, parking lots, roofs, and other elements. This Plan must also demonstrate the Town's long-term commitment to GSI implementation to help reduce loads of pollutants of concern (e.g., mercury and PCBs) discharged to local waterways (per MRP requirements). The Plan must be completed, approved and submitted to the San Francisco Bay Regional Water Quality Control Board by September 30, 2019.

This Plan describes the Town's methodology to identify and prioritize areas for implementing GSI and estimates targets for the extent of the Town's area that will be addressed by GSI through the year 2040. The Plan includes maps of the Town's potential project opportunities and lays out the Town's GSI implementation strategy. Key mechanisms of the strategy include coordination with GSI regulations for private development projects to identify opportunities in adjacent public rights-of-way; identification of GSI opportunities in capital improvement projects; and aligning GSI goals and policies with other Town planning documents to achieve multiple benefits while also providing safer, sustainable, and attractive public streetscapes. The Plan contains guidance and standards for GSI project design and construction and describes how the Town will track and map constructed GSI projects while also making the information available to the public. Lastly, it explains existing legal mechanisms for implementation of the GSI Plan, and identifies potential sources of funding for the design, construction, and maintenance of GSI projects.

## 1. INTRODUCTION

Urban development has traditionally involved replacing natural landscapes with solid pavements and buildings, and using storm drain systems to carry increased amounts of stormwater runoff and pollutants directly into local streams. Green stormwater infrastructure (GSI), however, uses plants and soils to mimic natural watershed processes, capture stormwater and create healthier environments. Bay Area cities and counties are required by State and regional regulatory agencies to move from traditional (grey) stormwater conveyance systems to GSI systems over time. This GSI Plan serves as an implementation guide for the Town of Los Gatos (Town) to incorporate GSI into storm drain infrastructure on public and private lands where feasible over the next several decades.

### 1.1 Purpose and Goals of the GSI Plan

The purpose of the Town's GSI Plan is to demonstrate the Town's commitment to gradually transform its traditional storm drainage infrastructure to green stormwater infrastructure. The GSI Plan will guide the identification, implementation, tracking, and reporting of green stormwater infrastructure projects within the Town. The GSI Plan will be coordinated with other Town plans, such as the General Plan, Safe Routes to School Report and the Bicycle and Pedestrian Master Plan, to achieve multiple potential benefits to the community, including improved water and air quality, reduced local flooding, increased water supply, traffic calming, safer pedestrian and bicycle facilities, climate resiliency, improved wildlife habitat, and a more pleasant urban environment.

Specific goals of the GSI Plan are to:

- Align the Town's goals, policies and implementation strategies for GSI with the General Plan and other related planning documents;
- Identify and prioritize GSI opportunities throughout the Town;
- Establish targets for the extent of Town area to be addressed by GSI over certain timeframes;
- Provide a workplan and legal and funding mechanisms to implement prioritized projects; and
- Establish a process for tracking, mapping, and reporting completed projects

### 1.2 Town Description

The Town of Los Gatos occupies approximately 11.5 square miles and is located approximately fifty (50) miles south of San Francisco in Santa Clara County. Los Gatos is bounded on the north by the City of Campbell, south by the Santa Cruz Mountains and unincorporated Santa Clara County, east by the City of San Jose and west by the Cities of Monte Sereno and Saratoga. Los Gatos is characterized by hilly terrain located on the lower slope of the Santa Cruz Mountains at an elevation of 344 feet.

The Town incorporated in 1887 and has a jurisdictional area of 7,335 acres. In 2010, the Town had a population of 30,802, with a population density of 2,635 people per square mile and average household size of 2.35. As of 2019, according to the California Department of Finance (DOF)<sup>1</sup>, the estimated population for Los Gatos is 30,988.

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<sup>1</sup> Source: State of California, Department of Finance, E-1 Population Estimates for Cities, Counties and the State with Annual Percent Change — January 1, 2018 and 2019. Sacramento, California, May 2018. Online at <http://www.dof.ca.gov/Forecasting/Demographics/Estimates/e-1/>.

Los Gatos is home to Netflix, Roku and over 3,700 businesses, which serve residents and draw visitors to the restaurants, hotels, and shops within a pedestrian-oriented downtown setting. The Town provides excellent schools, a vibrant Downtown, dynamic neighborhood and diverse shopping experiences and also features many parks and greenbelt areas. Downtown Los Gatos is listed on the National Register of Historic Places and is the model of what communities strive to achieve in a downtown. Additional Town characteristics are provided in the following subsections.

### 1.2.1 Land Use

Los Gatos is predominantly built-out. Land uses within the Town, as defined in the General Plan, are provided in Table 1-1. The Town is primarily comprised of low-density residential land uses. Los Gatos has approximately 4,329 acres of woodland/forest communities, including riparian woodlands, oak woodlands, broadleaved upland forest, and non-native ornamental trees, that support a very green environment. Other land uses include commercial, office, light industrial, K-12 schools, open space and urban parks.

*Table 1-1 Land Uses within the Town of Los Gatos*

Land Use Category	Acres	Percent of Town Acreage
Residential – Single Family	5,911	51.2%
Residential – Multi-Family	407	6.5%
Commercial	164	2.6%
Office Professional	126	2%
Light Industrial	37	0.6%
Public/Quasi-Public	440	4.7%
Public Utilities	39	0.5%
Agricultural	112	1%
Open Space/Recreation	3,841	26.2%
Vacant	399	4.7%
<b>Total</b>	<b>11,476</b>	<b>100%</b>

### 1.2.2 Population and Growth Projections

The Town of Los Gatos is primarily a built-out community with few opportunities for new large-scale development to occur. The Town established growth/development forecasts as part of its General Plan Environmental Impact Report (EIR). The population growth of Los Gatos has remained fairly small and stable in the last three (3) decades.

Since 2010, the Town has experienced an annual growth rate of 0.5 percent with a total increase of less than 1,200 persons during that time, which is lower than the County’s rate of 1.2 percent. Similarly, according to the DOF, the housing stock in Los Gatos has grown by 250 units during this same

timeframe, an increase of approximately 0.2 percent on an annual basis. This, again, is lower than the increase in new housing in the County which saw an annual rate of 0.7 percent since 2010.

According to Plan Bay Area 2040, a regional transportation and land use roadmap for future growth adopted jointly by the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC), the Town is projected to increase by around 600 households through 2040.

### 1.2.3 Transportation and Street Types:

The Town's inventory of streets is classified based on capacity and intended purpose. Town-owned streets include arterial streets, collector streets, and local streets. The Town uses a Pavement Management System to identify and prioritize major preventive and corrective maintenance needs. Town streets are surveyed and rated on a biennial basis. Maintenance needs are identified by measuring observed pavement conditions against a Town standard for system-wide average pavement surface conditions and standards establishing road repair strategies with the condition rating for individual street segments.

In addition, the Town has private streets that provide direct access to private properties within a particular subdivision or development. Private streets are maintained and operated by Home Owners Associations or individual private landowners.

The California Department of Transportation (Caltrans) owns and maintains several freeways serving Los Gatos. These include California State Route (Highway) 17 (which is the southern extension of Interstate 880), Highway 85 and Highway 9. These highways provide north-south and east-west regional automobile access.

### 1.2.4 Water Resources and Water Supply:

Protection of water quality and the provision of adequate water resources is critical for the health and quality of life of Los Gatos residents and employees. Water quality is a regional issue that is regulated at the county, State and federal levels. The Town of Los Gatos does not own or operate a water utility. San Jose Water Company (SJWC) is the local water supplier in Los Gatos. The regional wholesale supplier of water to the South Bay Area is Valley Water (formerly called the Santa Clara Valley Water District), which derives water from local, recycled, and imported supplies. Some of Valley Water's water is supplied by local rainfall and groundwater. The rainwater is stored in ten local reservoirs and some of it is transferred to Valley Water's Groundwater Recharge Facilities. Valley Water owns and operates more than 30 groundwater recharge facilities. These facilities percolate both local and imported water into the groundwater aquifer.

One open water body is located within the Town: County owned and maintained Vasona Reservoir. Creeks in Los Gatos include perennial and ephemeral creek channels with above ground and underground reaches. Most of these creeks are considered part of the Guadalupe River watershed. Los Gatos Creek is one of the primary creeks in the area, flowing south to north into and out of the Vasona Reservoir.

### 1.2.5 Flood Potential

Some land within the Town of Los Gatos is located in special flood hazard areas. The land adjacent to a number of creeks, including Ross Creek, Los Gatos Creek, Smith Creek, and San Tomas Aquino Creek,

may be designated as “Areas of 100-year Flood” by FEMA. In areas with flood potential, the Town requires that new construction meets State and local standards for construction as mandated by the Uniform Building Code.

### 1.2.6 Stormwater Drainage System:

The Town of Los Gatos is served by an extensive man-made storm drainage system including pipe networks, ditches and culverts. These systems discharge into natural creeks, including Los Gatos Creek, Ross Creek, San Tomas Aquino Creek, and Smith Creek, which ultimately discharge into San Francisco Bay. The Town operates and maintains the drainage system and coordinates with surrounding jurisdictions and Santa Clara County to provide regional storm drainage for the Santa Clara Valley area. Drainage improvements are planned to enable additional development while preventing flooding.

### 1.2.7 Open Space, Agriculture and Vacant Land:

The “Open Space/Recreation” land use designation refers to indoor and outdoor recreational facilities, including public open spaces such as regional parks, community centers, playgrounds and neighborhood parks, country clubs, and natural open spaces. After “Residential Single-family” land use, Open Space/Recreation comprises the second highest percentage of total land in Los Gatos. There are approximately 1,624 acres of open space in the Town. Much of this acreage is contained in four (4) large facilities: St. Joseph’s Hill, Sierra Azul Open Space, Vasona Lake County Park and La Rinconada Country Club.

According to the Santa Clara County Assessor’s Office, about 64 acres of land in Los Gatos is currently devoted to agricultural uses.

Approximately 292 acres within the Town are vacant parcels of varying sizes. Most of the vacant acreage in Los Gatos is located in the hillside single-family residential area on the eastern side of the Town. Parcels here are generally larger than they are elsewhere in Los Gatos, and a number of significantly sized parcels are vacant. Generally, vacancies are more common in residential areas of Los Gatos than in commercial areas, although a few small, isolated commercial vacancies exist.

## 1.3 Regulatory Context

### 1.3.1 Federal and State Regulations and Initiatives

The U.S. Environmental Protection Agency (EPA) has authority under the Clean Water Act to promulgate and enforce stormwater related regulations. For the State of California, EPA has delegated the regulatory authority to the State Water Resources Control Board (State Water Board), which in turn, has delegated authority to the San Francisco Bay Regional Water Quality Control Board (Regional Water Board) to issue National Pollutant Discharge Elimination System (NPDES) permits in the San Francisco Bay Region. Stormwater NPDES permits allow stormwater discharges from municipal separate storm sewer systems (MS4s) to local creeks, San Francisco Bay, and other water bodies as long as they do not adversely affect the beneficial uses of or exceed any applicable water quality standards for those waters. Since the early 2000’s, the EPA has recognized and promoted the benefits of using GSI in protecting drinking water supplies and public health, mitigating overflows from combined and separate storm sewers and reducing stormwater pollution, and it has encouraged the use of GSI by municipal agencies as a prominent component of their MS4 programs.

The State and Regional Water Boards have followed suit in recognizing not only the water quality benefits of GSI but the opportunity to augment local water supplies in response to the impacts of drought and climate change as well. The 2014 California Water Action Plan called for multiple benefit stormwater management solutions and more efficient permitting programs. This directive created the State Water Board's "Strategy to Optimize Resource Management of Stormwater" (STORMS). STORMS' stated mission is to "lead the evolution of storm water management in California by advancing the perspective that storm water is a valuable resource, supporting policies for collaborative watershed-level storm water management and pollution prevention, removing obstacles to funding, developing resources, and integrating regulatory and non-regulatory interests."

These Federal and State initiatives have influenced approaches in Bay Area municipal stormwater NPDES permits, as described in Section 1.3.2.

### 1.3.2 Municipal Regional Stormwater Permit

The Town is subject to the requirements of the Municipal Regional Stormwater NPDES Permit (MRP) for Phase I municipalities and agencies in the San Francisco Bay area (Order R2-2015-0049), which became effective on January 1, 2016. The MRP applies to 76 municipalities and flood control agencies that discharge stormwater to San Francisco Bay, collectively referred to as permittees.

Over the last thirteen (13) years, under Provision C.3 of the MRP and previous permits, new development and redevelopment projects on private and public property that exceed certain size thresholds ("regulated projects") have been required to mitigate impacts on water quality by incorporating "Low Impact Development" (LID) measures, including site design, pollutant source control, stormwater treatment and flow control measures as appropriate. LID treatment measures, such as rainwater harvesting and use, infiltration, and biotreatment, have been required on most regulated projects since December 2011.

Provision C.3.j of the 2016 MRP requires the Town to develop and implement a long-term GSI Plan<sup>2</sup> for the inclusion of LID measures into storm drain infrastructure on public and private lands, including streets, roads, storm drains, parking lots, building roofs, and other elements. The GSI Plan must be completed and submitted to the Regional Water Board by September 30, 2019.

While Provision C.3.j of the MRP contains the GSI program planning and analysis requirements, other provisions (C.11 and C.12) establish a linkage between public and private GSI features and required reductions of pollutants in stormwater discharges. Permittees in Santa Clara County (County), collectively, must implement GSI on public and private property to achieve specified pollutant load reduction goals by the years 2020, 2030, and 2040. These efforts will be integrated and coordinated countywide for the most effective and resource-efficient program. As an indication as to whether these load reductions will be met, Permittees must include in their GSI Plans estimated "targets" for the amounts of impervious surface to be "retrofitted" as part of public and private projects (i.e., redeveloped or changed such that runoff from those surfaces will be captured in a stormwater treatment system or GSI measure) over the same timeframes (2020, 2030, and 2040).

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<sup>2</sup> Although the MRP uses the term green infrastructure (GI), the agencies within Santa Clara County, including the Town of Los Gatos, prefer to use the term green stormwater infrastructure (GSI). Therefore, the term GSI is used in this document.

A key part of the GSI definition in the MRP is the inclusion of GSI systems at both private and public property locations. This has been done in order to plan, analyze, implement and credit GSI systems for pollutant load reductions on a watershed scale, as well as recognize all GSI accomplishments within a municipality. The focus of the GSI Plan is the integration of GSI systems into public buildings, parks, parking lots, and rights-of-way (e.g. road or bike path). However, the GSI Plan also establishes opportunities to include GSI facilities at private properties or in conjunction with private development, so they can contribute to meeting the target load reductions on a county-wide level as well as implement GSI on a larger scale.

## 1.4 GSI Plan Development Process

### 1.4.1 Regional Collaboration

The Town of Los Gatos participates in the West Valley Clean Water Authority (WVCWA), a cooperative effort of the Cities of Campbell, Monte Sereno, and Saratoga and the Town of Los Gatos ([www.cleancreeks.org](http://www.cleancreeks.org)). These four municipalities, also referred to as the West Valley Communities, work together as a group to control discharge of polluted stormwater into local creeks and the San Francisco Bay. The WVCWA also collaborates with the [Santa Clara Valley Urban Runoff Pollution Prevention Program](#) (SCVURPPP), West Valley Sanitation District, and the Santa Clara County Fire District.

The West Valley Communities jointly prepared a GSI Plan Framework (Framework), a work plan describing the goals, approach, tasks, and schedule needed to complete their GSI Plans. Development of the Framework was a regulatory requirement (Provision C.3.j.i(1) of the MRP) to demonstrate the Town's commitment to completing the GSI Plan by September 30, 2019.

The Town of Los Gatos is also a member of the [Santa Clara Valley Urban Runoff Pollution Prevention Program](#) (SCVURPPP), an association of thirteen cities and towns in the Santa Clara Valley, the County of Santa Clara, and Valley Water that collaborate on stormwater regulatory activities and compliance. This partnership allows sharing of resources toward permit compliance and collaboration on projects of mutual benefit. SCVURPPP provided technical guidance, templates, and completion of certain GSI Plan elements at the countywide level. SCVURPPP guidance and products are discussed in more detail in relevant sections of the GSI Plan.

The Town, via SCVURPPP, also coordinated with the Bay Area Stormwater Management Agencies Association ([BASMAA](#)) on regional GSI guidance and received feedback through BASMAA from MRP regulators on GSI expectations and approaches. BASMAA members include other countywide stormwater programs in Alameda, Contra Costa, and San Mateo Counties, and area-wide programs in the Vallejo and Fairfield-Suisun portions of Solano County, whose participating municipalities are permittees under the MRP.

### 1.4.2 GSI Plan Development and Adoption

The GSI Plan development process began with the preparation of the GSI Framework. As discussed in Section 1.5.1, this was a collaborative effort by the WVCWA. The document, titled "Green Infrastructure Plan Framework, West Valley Communities: Campbell, Los Gatos, Monte Sereno, and Saratoga", was reviewed and approved for submittal to the Regional Water Quality Control Board by the Los Gatos Town Manager on June 16, 2017.

The Town worked with WVCWA and a consultant team to develop the GSI Plan. The Plan was presented for approval to the Town Council on August 20, 2019.

### 1.4.3 Education and Outreach

One of the first and most important steps in the development of the GSI Plan is educating a municipality's department staff, managers, and elected officials about the purposes and goals of green infrastructure, the required elements of the GSI Plan, and steps needed to develop and implement the GI Plan and get their support and commitment to the Plan and this new approach to urban infrastructure. Another important first step is local community and stakeholder outreach to gain public support. The West Valley Communities including Los Gatos began this process in FY 15-16 and FY 16-17 by completing the following tasks:

- Convened interdepartmental meetings with relevant department staff and management to discuss GSI requirements and assigned tasks.
- Discussed with appropriate department staff the MRP requirements to analyze proposed capital projects for opportunities to incorporate GSI and completed the first list of planned and potential GSI projects.
- Provided training to department staff on GSI requirements and strategies using the GSI workshops and other training tools developed by SCVURPPP.
- Informed elected officials with an informational memo to raise awareness of the goals and requirements in the MRP and the concepts, intent and multiple benefits of GSI.
- Worked with WVCWA and SCVURPPP to study and possibly develop a GSI resource center within the West Valley Communities to demonstrate GSI projects specifically for smaller communities.
- Participated on the stakeholder work group for developing a Storm Water Resource Plan (SWRP) for the Santa Clara Basin.
- Coordinated with SCVURPPP on a comprehensive outreach and education program. Key audiences include: the general public (countywide, and in the neighborhood or municipality where GSI projects are located); the development community (e.g., developers, engineers, landscape architects, and contractors); and elected officials.

In addition, the Town has coordinated with SCVURPPP on a countywide outreach and education program about GSI for the general public<sup>3</sup>, which includes a GSI website, public presentations, and radio and online advertising to promote GSI features.

The Town of Los Gatos will continue to conduct internal education and outreach about GSI as the GSI Plan is implemented and seek community input as specific projects are designed and constructed. In addition, the West Valley Communities will continue to conduct the following education and outreach activities as part of the GSI Plan:

- Keep elected officials updated on GSI Plan implementation
- Provide outreach to the general public and development community in coordination with SCVURPPP

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<sup>3</sup> <http://www.mywatershedwatch.org/residents/green-streets/>

- Conduct internal training, as needed, and send staff to SCVURPPP training sessions

## 1.5 GSI Plan Structure and Required Elements

The remainder of the GSI Plan is structured as follows:

- Chapter 2 provides the definition, purpose, and benefits of GSI, and describes the different types of GSI facilities.
- Chapter 3 describes the relationship of the GSI Plan to other planning documents and how those planning documents have been updated or modified, if needed, to support and incorporate GSI requirements. For documents whose desired updates and modifications have not been accomplished by the completion of the GSI Plan, a work plan and schedule are laid out to complete them.
- Chapter 4 outlines the materials being developed by SCVURPPP and the Town to provide guidelines, typical details, specifications and standards for municipal staff and others in the design, construction, and operation and maintenance of GSI measures.
- Chapter 5 presents the methodology and results for identifying and prioritizing areas for potential GSI projects.
- Chapter 6 outlines the Town’s strategy for implementing prioritized potential GSI projects within the next ten (10) years and through 2040, presents targets for the amounts of impervious surface to be “retrofitted” with GSI within the Town by 2020, 2030, and 2040, and discusses the variety of mechanisms to be employed by the Town in order to implement the GSI Plan, including future planning, tracking, and funding.

The GSI Plan elements required by Provision C.3.j.i.(2) of the MRP and the section of the document in which each component can be found are summarized in Table 1-2 below.

*Table 1-2 Summary of GSI Plan Elements required by Provision C.3.j.i of the MRP*

MRP Provision	GSI Plan Elements	GSI Plan Section
C.3.j.i.(2)(a)	Project Identification and Prioritization Mechanism	Chapter 5
C.3.j.i.(2)(b)	Prioritization Output	Section 5.3
C.3.j.i.(2)(c)	Impervious Surface Targets	Section 6.6
C.3.j.i.(2)(d)	Completed Project Tracking System	Section 6.7
C.3.j.i.(2)(e,f)	Guidelines and Specifications	Chapter 4
C.3.j.i.(2)(g)	Alternative Sizing Requirements for Green Street Projects	Section 4.1
C.3.j.i.(2)(h,i)	Integration with Other Municipal Plans	Chapter 3
C.3.j.i.(2)(i)	Workplan for Integration of GSI Language into Town Planning Documents	Section 3.1.3
C.3.j.i.(2)(j)	Workplan for Early Implementation Projects	Chapter 6.3

C.3.j.i.(2)(k)	Evaluation of Funding Options	Section 6.5
C.3.j.i.(3)	Legal and Implementation Mechanisms	Section 6.4

## 2. WHAT IS GREEN STORMWATER INFRASTRUCTURE?

In natural landscapes, most of the rainwater soaks into the soil or is taken up by plants and trees. However, in developed areas, building footprints and paved surfaces such as driveways, sidewalks, and streets prevent rain from soaking into the ground. As rainwater flows over and runs off these impervious surfaces, this “urban runoff” or “stormwater runoff” can pick up pollutants such as motor oil, metals, sediment, pesticides, pet waste, and litter. It then carries these pollutants into the Town’s drainage system, which flows directly to local creeks and San Francisco Bay, without any cleaning or filtering to remove pollutants. Stormwater runoff is therefore a major contributor to water pollution in developed areas.

As areas develop, the increase in impervious surface also results in increases in peak flows and volumes of stormwater runoff from rain events. Traditional “gray” stormwater infrastructure, like portions of the Town’s drainage system, is designed to convey stormwater flows quickly away from developed areas. However, the increased peak flows and volumes can cause erosion, flooding, and habitat degradation in downstream creeks to which stormwater is discharged, damaging habitat, property, and infrastructure.

### 2.1 Green Stormwater Infrastructure

A new approach to managing stormwater is to implement green stormwater infrastructure. GSI uses vegetation, soils, and other elements and practices to capture, treat, infiltrate and slow urban runoff and thereby restore some of the natural processes required to manage water and create healthier urban environments. GSI facilities can also be designed to capture stormwater for uses such as irrigation and toilet flushing.

GSI integrates building and roadway design, complete streets, drainage infrastructure, urban forestry, soil conservation and sustainable landscaping practices to achieve multiple benefits. At the city/town or county scale, GSI is a patchwork of natural areas that provides habitat, flood protection, cleaner air, and cleaner water. At the neighborhood or site scale, GSI comprises stormwater management systems that mimic nature and soak up and store water.<sup>4</sup>

### 2.2 Benefits of Green Stormwater Infrastructure

GSI can provide multiple benefits beyond just managing rainfall and runoff. These benefits include environmental, economic, and social improvements.

GSI measures can mitigate localized flooding and reduce erosive flows and quantities of pollutants being discharged to local creeks and the San Francisco Bay. Vegetated GSI systems can beautify public places and help improve air quality by filtering and removing airborne contaminants from vehicle and industrial sources. They can also reduce urban heat island effects by providing shade and absorbing heat better than paved surfaces, and provide habitat for birds, butterflies, bees, and other local species. When GSI facilities are integrated into traffic calming improvements such as curb extensions and bulb-outs at intersections, they can help increase pedestrian and bicycle safety and promote active transportation, which in turn can result in improved human health.

GSI facilities designed with extra storage can capture stormwater for later use as irrigation water or non-potable uses such as toilet flushing and cooling tower supply, thus conserving potable water supplies.

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<sup>4</sup> <https://www.epa.gov/green-infrastructure/what-green-infrastructure>

Widespread implementation of GSI potentially offers significant economic benefits, such as deferring or eliminating the need for some gray infrastructure projects. By providing more storage within the watershed, GSI can help reduce the costs of conveyance and pumping of stormwater. When cost-benefit analyses are performed, GSI is often the preferred alternative due to the multiple benefits provided by GSI as compared to conventional infrastructure.

### 2.3 Types of Green Stormwater Infrastructure Facilities

Integrating GSI into public spaces typically involves construction of stormwater capture and treatment measures in public streets, parks, and parking lots or as part of public buildings. Types of GSI measures that can be constructed in public spaces include: (1) bioretention; (2) stormwater tree well filters; (3) pervious pavement, (4) infiltration facilities, (5) green roofs, and (6) rainwater harvesting and use facilities. A description of these facility types is provided below.

#### 2.3.1 Biotreatment/Bioretention

Bioretention areas are depressed landscaped areas that consist of a ponding area, mulch layer, plants, and a special biotreatment soil media composed of sand and compost, underlain by drain rock and an underdrain, if required. Bioretention is designed to retain stormwater runoff, filter stormwater runoff through biotreatment soil media and plant roots, and either infiltrate stormwater runoff to underlying soils as allowed by site conditions, or release treated stormwater runoff to the storm drain system, or both. They can be of any shape and are adaptable for use on a building or parking lot site or in the street right-of-way.



*Figure 2-1 Stormwater curb extension, Hacienda Avenue, Campbell (Source: City of Campbell)*

Bioretention systems in the streetscape have specific names: stormwater planters, stormwater curb extensions (or bulb-out), and stormwater tree well filters (described in the next section).

A stormwater curb extension (Figure 2-1) is a bioretention system that extends into the roadway and involves modification of the curb line and gutter. Stormwater curb extensions may be installed midblock or at an intersection. Curb bulb-outs and curb extensions installed for pedestrian safety, traffic calming, and other transportation benefits can also provide opportunities for siting bioretention facilities. Parking lots can accommodate bioretention areas of any shape in medians, corners, and pockets of space unavailable for parking.

A stormwater planter is a linear bioretention facility in the public right-of-way along the edge of the street, often in the planter strip between the street and sidewalk. They are typically designed with vertical (concrete) sides. However, they can also have sloped sides depending on the amount of space that is available.

#### 2.3.2 Stormwater Tree Well Filters and Suspended Pavement Systems

A stormwater tree well filter is a type of bioretention system consisting of an excavated pit or vault that is filled with biotreatment soil media, planted with a tree and other vegetation, and underlain with drain

rock and an underdrain, if needed. Stormwater tree well filters can be constructed in series and linked via a subsurface trench or underdrain. A stormwater tree well filter can require less dedicated space than other types of bioretention areas.

Suspended pavement systems (Figure 2-2) may be used to provide increased underground treatment area and soil volume for tree well filters. These are structural systems designed to provide support for pavement while preserving large volumes of uncompacted soil for tree roots. Suspended pavement systems may be any engineered system of structural supports or commercially available proprietary structural systems.

Stormwater tree well filters and suspended pavements systems are especially useful in settings between existing sidewalk elements where available space is at a premium. They can also be used in curb extensions or bulb-outs, medians, or parking lots if surrounding grades allow for drainage to those areas. The systems can be designed to receive runoff through curb cuts or catch basins or allow runoff to enter through pervious pavers on top of the structural support.



*Figure 2-2 Stormwater tree well filter conceptual examples: modular suspended pavement system (left), column suspended pavement system (right). (Courtesy of City of Philadelphia Water Department)*

### 2.3.3 Pervious Pavement

Pervious pavement is hardscape that allows water to pass through its surface into a storage area filled with gravel prior to infiltrating into underlying soils. Types of pervious pavement include permeable interlocking concrete pavers, pervious concrete, porous asphalt, and grid pavement. Pervious pavement is often used in parking areas or on streets where bioretention is not feasible due to space constraints or if there is a need to maintain parking. Pervious pavement does not require a dedicated surface area for treatment and allows a site to maintain its existing hardscape.

There are two (2) types of pervious pavers: Permeable Interlocking Concrete Pavers (PICP) and Permeable Pavers (PP). PICP (Figure 2-3) allows water to pass through the joint spacing between solid pavers, and PP allows water to pass through the paver itself and therefore can have tighter joints. Porous asphalt and pervious concrete are similar to traditional asphalt and concrete, but do not include fine



*Figure 2-3 Permeable Pavers, Mayfield Playing Fields, Palo Alto (Source: City of Palo Alto)*

aggregates in the mixture, allowing water to pass through the surface. All types are supported by several layers of different sizes of gravel to provide structural support and water storage.

#### 2.3.4 Infiltration Facilities

Where soil conditions permit, infiltration facilities can be used to capture stormwater and infiltrate it into native soils. The two primary types are infiltration trenches and subsurface infiltration systems.

An infiltration trench is an excavated trench backfilled with a stone aggregate and lined with a filter fabric. Infiltration trenches collect and detain runoff, store it in the void spaces of the aggregate, and allow it to infiltrate into the underlying soil. Infiltration trenches can be used along roadways, alleyways, and the edges or medians of parking lots. An example of an infiltration trench is shown in Figure 2-4.



*Figure 2-4 Infiltration trench, San Jose (Source: City of San Jose)*

Subsurface infiltration systems are another type of GSI measure that may be used beneath parking lots or parks to infiltrate larger quantities of runoff. These systems, also known as infiltration galleries, are underground vaults or pipes that store and infiltrate stormwater while preserving the uses of the land surface above parking lots, parks and playing fields. An example is shown in Figure 2-5. Storage can take the form of large-diameter perforated metal or plastic pipe, or concrete arches, concrete vaults, plastic chambers or crates with open bottoms. Prefabricated, modular infiltration galleries are available in a variety of shapes, sizes, and material types that are strong enough for heavy vehicle loads.



*Figure 2-5 Subsurface infiltration system, (Source: Conteches.com)*

#### 2.3.5 Green Roofs

Green roofs are vegetated roof systems that filter, absorb, and retain or detain the rain that falls upon them. Green roof systems are comprised of a layer of planting media planted with vegetation, underlain by other structural components including waterproof membranes, synthetic insulation, geofabrics, and underdrains. A green roof can be either “extensive”, with 3 to 7 inches of lightweight planting media and low-profile, low-maintenance plants, or “intensive”, with a thicker (8 to 48 inches) of media, more varied plantings, and a more garden-like appearance. Green roofs can provide high rates of rainfall retention via plant uptake and evapotranspiration and can decrease peak flow rates in storm drain systems because of the storage that occurs in the planting media during rain events. An example is shown in Figure 2-6.



*Figure 2-6 Green Roof at Fourth Street Apartments, San Jose (Source: EOA)*

### 2.3.6 Rainwater Harvesting and Use

Rainwater harvesting is the process of collecting rainwater from impervious surfaces and storing it for later use. Storage facilities that can be used to capture stormwater include rain barrels, above-ground or below-ground cisterns, open storage reservoirs (e.g., ponds), and various underground storage devices (tanks, vaults, pipes, and proprietary storage systems). The captured water is then fed into irrigation systems or non-potable water plumbing systems, either by pumping or by gravity flow. Uses of captured water may include irrigation, vehicle washing, and indoor non-potable use such as toilet flushing, heating and cooling, or industrial processing.

The two most common applications of rainwater harvesting are 1) collection of roof runoff from buildings; and 2) collection of runoff from at-grade surfaces or diversion of water from storm drains into large underground storage facilities below parking lots or parks. Rooftop runoff usually contains lower quantities of pollutants than at-grade surface runoff and can be collected via gravity flow. Underground storage systems typically include pre-treatment facilities to remove pollutants from stormwater prior to storage and use.



*Figure 2-7 Rainwater Harvesting cistern, Environmental Innovation Center, San Jose (Source: City of San José)*



*Figure 2-8 Subsurface vault for rainwater harvesting, under construction (Source: Conteches.com)*

### 3. INTEGRATION WITH OTHER PLANNING DOCUMENTS

To ensure the success of the GSI Plan and its implementation, its goals, policies and implementation strategies should align with the Town's General Plan and other related planning documents. The MRP requires that municipal agencies review such documents and include in their GSI Plans a summary of any planning documents aligned with the GSI Plan or updated or modified to appropriately incorporate GSI requirements. The GSI Plan must also include a workplan identifying how GSI measures will be included in future plans.

#### 3.1 Town Planning Document Review

The Town completed a review of its existing planning documents to determine the extent to which GSI-related language, concepts and policies have been incorporated. The plans that were reviewed are listed below:

- General Plan (Overall)
- Sustainability Plan
- Bicycle and Pedestrian Plan
- North Forty Specific Plan
- Hillside Specific Plan
- Albright Specific Plan

The following sections provide a brief discussion for each plan and identify whether GSI-related language is included in the plans. A prioritized workplan for the integration of GSI language into existing and future Town planning documents is provided in Section 3.2.

##### 3.1.1 General Plan

The Town of Los Gatos General Plan is a policy document to assist and guide local decision makers. The General Plan explains how the Town's natural resources and physical features are to be maintained and enhanced and directs how the Town incorporates them into infill projects, new projects, and community investments. The 2020 General Plan was adopted in January 2011. The 2020 General Plan includes broad language requiring compliance with requirements in the stormwater permit and stormwater best management practices. However, it does not include GSI-related language. A General Plan update is currently in progress.

##### 3.1.2 Sustainability Plan

This Sustainability Plan, developed in 2012, is a key tool in implementing the 2020 General Plan. It is a detailed, long-range strategy to achieve sustainability in transportation and land use, energy, water, solid waste, and open space. The Sustainability Plan addresses the major sources of greenhouse gas (GHG) emissions in Los Gatos and sets forth a detailed and long-term strategy that the Town and community can implement to achieve the GHG emissions reduction target. It does not include specific GSI-related language.

### 3.1.3 Bicycle and Pedestrian Master Plan

The Los Gatos Bicycle and Pedestrian Master Plan (BPMP), developed in 2017, proposes an enhanced bicycle and pedestrian network that expands safe access to key community destination points. It does not include GSI-related language.

### 3.1.4 North Forty Specific Plan

The North Forty Specific Plan, developed in 2015, establishes appropriate land uses, development standards, urban design concepts, and architectural design guidelines for the specific plan area. The development projects and new streets in the North Forty Specific Plan area will be regulated under Provision C.3 of the MRP and will be required to implement Low Impact Development source control, site design and stormwater treatment. Therefore, additional language supporting GSI implementation is not required.

### 3.1.5 Hillside Specific Plan

The purpose of the Hillside Plan (1978) is to make recommendations for future development in the Hillside planning area. The current Hillside Specific Plan does not include language supporting GSI. However, a substantial portion of the Hillside Specific Plan area is steeper than a 50% slope, and either inaccessible or virtually undevelopable. Therefore, the Town does not plan to implement GSI in the Hillside Specific Plan area.

### 3.1.6 Albright Specific Plan

The Albright Specific Plan, developed in 2013, establishes the policies and development standards for the development of the 21.6-acre project site located at 90-160 Albright Way and 14600 Winchester Boulevard. Specified within the plan are items such as design guidelines pertaining to the site design, sustainability and streetscape landscaping. The plan also required that stormwater runoff from the project’s new impervious surfaces be conveyed towards and filtered through a collection of bioretention areas and self-retaining treatment basins, and that future development within the Specific Plan implement additional bioretention areas as needed.

## 3.2 Workplan for Integrating GSI Language into Existing and Future Town Planning Documents

Some Town plans could benefit from the inclusion of additional GSI-related language. The following plans will be updated in accordance with each document’s scheduled update in the table below:

*Table 3.1. Workplan for Integration of GSI Language into Existing Town Planning Documents*

Name of Plan To Be Updated	Anticipated Date of Completion/Update
General Plan	2020
Sustainability Plan	TBD
Bicycle and Pedestrian Master Plan	TBD

When preparing new planning documents, the Town will review GSI Plan requirements during the planning process to ensure that GSI requirements and policies are incorporated. Examples of GSI related language can be found in SCVURPPP’s Model Green Infrastructure Language for Incorporation into Municipal Plans (2016).

### 3.3 Regional Plans

The Town is collaborating with SCVURPPP, Valley Water, and other agencies on several large-scale planning efforts including those described below.

#### 3.3.1 Santa Clara Basin Stormwater Resource Plan

A collaboration between SCVURPPP and Valley Water during 2017 and 2018, the Santa Clara Basin Storm Water Resources Plan (SWRP) supports municipal GSI Plans by identifying and prioritizing potential multi-benefit GSI opportunities on public parcels and street rights-of-way throughout the Basin (i.e., Santa Clara Valley) and allows them to be eligible for State bond-funded implementation grants. The SWRP includes a list of prioritized GSI opportunity locations for each SCVURPPP agency, including Los Altos. As described in section 5.2, the Town’s GSI Plan builds on the SWRP output to further identify, evaluate, and prioritize potential projects.

#### 3.3.2 Valley Water’s One Water Plan

The Watershed Division of Valley Water is leading an effort to develop an Integrated Water Resources Master Plan to identify, prioritize, and implement activities at a watershed scale to maximize established water supply, flood protection, and environmental stewardship goals and objectives. The “One Water Plan” establishes a framework for long-term management of Santa Clara County water resources, which eventually will be used to plan and prioritize projects that maximize multiple benefits. The One Water Plan incorporates knowledge from past planning efforts, builds on existing and current related planning efforts; and coordinates with relevant internal and external programs. The One Water Plan has five (5) goals:

1. **Valued and Respected Rain** – Manage rainwater to improve flood protection, water supply, and ecosystem health.
2. **Healthful and Reliable Water** – Enhance the quantity and quality of water to support beneficial uses.
3. **Ecologically Sustainable Streams and Watersheds** – Protect, enhance and sustain healthy and resilient stream ecosystems.
4. **Resilient Baylands** – Protect, enhance and sustain healthy and resilient baylands ecosystems and infrastructure.
5. **Community Collaboration** – Work in partnership with an engaged community to champion wise decisions on water resources.

Tier 1 of the effort, for which a draft plan was completed in 2016<sup>5</sup>, is a countywide overview of major resources and key issues along with identified goals and objectives. Tier 2 (2016 to 2020) will include greater detail on each of the County’s five major watersheds, including the West Valley Watersheds in which the Town of Los Gatos is located. The Town’s GSI Plan aligns with the goals of the One Water Plan

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<sup>5</sup> Santa Clara Valley Water District. 2016. One Water Plan for Santa Clara County. An Integrated Approach to Water Resources Management. Preliminary Draft Report 2016.

and may be able to coordinate with specific projects yet to be identified in the West Valley Watershed area.

### 3.3.3 Bay Area Integrated Regional Water Management Plan

The Bay Area Integrated Regional Water Management Plan (IRWMP) is a comprehensive water resources plan for the Bay region that addresses four functional areas: 1) water supply and water quality; 2) wastewater and recycled water; 3) flood protection and stormwater management; and 4) watershed management and habitat protection and restoration. It provides a venue for regional collaboration and serves as a platform to secure state and federal funding. The IRWMP includes a list of over three hundred (300) project proposals, and a methodology for ranking those projects for the purpose of submitting a compilation of high priority projects for grant funding. The Santa Clara Basin SWRP was submitted to the Bay Area IRWMP Coordinating Committee and incorporated into the IRWMP as an addendum. As SWRP projects are proposed for grant funding, they will be added to the IRWMP list using established procedures.

## 4. GSI DESIGN GUIDELINES, DETAILS, AND SPECIFICATIONS

The MRP requires that the GSI Plan include general design and construction guidelines, standard specifications and details (or references to those documents) for incorporating GSI components into projects within the Town. These guidelines and specifications should address the different street and project types within the Town, as defined by its land use and transportation characteristics, and allow projects to provide a range of functions and benefits, such as stormwater management, bicycle and pedestrian mobility and safety, public green space, and urban forestry.

The Town, along with other SCVURPPP agencies, helped fund and provided input to the development of countywide guidelines by SCVURPPP to address the MRP requirements and guide the implementation of GSI Plans. The resulting SCVURPPP GSI Handbook (Handbook) is a comprehensive guide to planning and implementation of GSI projects in public streetscapes, parking lots and parks. The Handbook consists of two parts, the contents of which are described in the following sections. The Town intends to use this Handbook as a reference when creating Town -specific guidelines and specifications to meet the needs of the various departments.

### 4.1 Design Guidelines

Part 1 of the Handbook provides guidance on selection, integration, prioritization, sizing, construction, and maintenance of GSI facilities. It includes sections describing the various types of GSI, their benefits, and design considerations; how to incorporate GSI with other uses of the public right-of-way, such as bicycle and pedestrian infrastructure and parking; and guidelines on utility coordination and landscape design for GSI. In addition, the Handbook also provides guidance on post-construction maintenance practices and design of GSI to facilitate maintenance.

Part 1 also contains a section on proper sizing of GSI measures. Where possible, GSI measures should be designed to meet the same sizing requirements as Regulated Projects, which are specified in MRP Provision C.3.d. In general, the treatment measure design standard is capture and treatment of 80% of the annual runoff (i.e., capture and treatment of the small, frequent storm events). However, if a GSI measure cannot be designed to meet this design standard due to constraints in the public right-of-way or other factors, the Town may still wish to construct the measure to provide some runoff reduction and water quality benefit and achieve other benefits. For these situations, the Handbook describes regional guidance on alternative design approaches developed by the Bay Area Stormwater Management Agencies Association (BASMAA) for use by MRP permittees.

### 4.2 Details and Specifications

Part 2 of the Handbook contains typical details and specifications that have been compiled from various sources within California and the U.S. and modified for use in Santa Clara County. The Handbook includes details for pervious pavement, stormwater planters, stormwater curb extensions, bioretention in parking lots, infiltration measures, and stormwater tree wells, as well as associated components such as edge controls, inlets, outlets, and underdrains. It also provides typical design details for GSI facilities in the public right-of-way that address utility protection measures and consideration of other infrastructure in that space.

### 4.3 Incorporation of SCVURPPP Details and Specifications into Town Standards

The Town will refer to the GSI Handbook for typical details as needed, as well as the SCVURPPP GSI Guidelines and Specifications for design of GSI projects. Over time, the Town may choose to customize

some commonly used details and incorporate these into Town Engineering Design Standards and Standard Plans.

## 5. GSI PROJECT PRIORITIZATION AND IMPERVIOUS TARGETS

To meet the requirements of the MRP, the Town's GSI Plan must contain a project identification and prioritization mechanism. The mechanism must include the criteria for prioritization and outputs that can be incorporated into the Town's long-term planning and capital improvement processes.

This chapter describes different GSI project categories considered within the Town, followed by a description of the process employed by the Town to identify public lands that offer opportunities to implement GSI and prioritize those opportunities, and the results of the process.

### 5.1 Project Types

GSI project types that have been or may be implemented in the Town fall into the following categories: Early Implementation Projects, C3 Regulated Projects, Green Streets, LID Retrofits, and Regional Projects. All categories, except C3 Regulated projects, are considered GSI capital projects, and are primarily public projects under control of the Town. Green Streets, LID Retrofits, and Regional Projects are the focus of the prioritization process described in Section 5.2, but all five GSI project types are considered as part of the Town wide GSI strategy presented in Chapter 6. Several factors, such as change in scope of work, funding, site conditions, etc. determine the ability of the Town to implement GSI capital projects.

#### 5.1.1 Early Implementation Projects

Early Implementation Projects are GSI projects that have already been implemented by the Town or are planned for implementation in during the permit term (i.e., before December 2020), or have been identified as the Town as having potential for GSI.

#### 5.1.2 Regulated Projects

C3 Regulated Projects are those implemented as part of new and redevelopment within the Town, both private and public, that must meet the post-construction stormwater treatment requirements per Provision C.3 of the MRP. Regulated projects include private development or redevelopment projects, such as multi-family residential buildings, commercial office buildings, or shopping plazas, as well as public projects, such as libraries, police stations, and parking lots, exceeding the impervious surface thresholds.

#### 5.1.3 LID Projects

LID projects mitigate stormwater impacts by reducing runoff through capture and/or infiltration and treating stormwater on-site before it enters the storm drain system. LID projects may include bioretention facilities, infiltration trenches, detention and retention areas in landscaping, pervious pavement, green roofs, and systems for stormwater capture and use. For the purposes of the GSI Plan, LID projects are GSI facilities that treat runoff generated from a publicly-owned parcel on that parcel.

#### 5.1.4 Regional Projects

Regional projects capture and treat stormwater runoff from on-site and off-site sources, including surface runoff and diversions from storm drains. Benefits of regional stormwater capture projects can include flood risk reduction, stormwater treatment and use, and groundwater recharge. These projects may take a variety of forms such as detention and retention basins and subsurface vaults and infiltration galleries. The site characteristics will determine what types of regional projects are feasible, e.g., whether a project is on-line or off-line from the storm drain network, whether it is desirable to change

the functionality of the site, whether the project is above ground or underground, and the size of the project.

### 5.1.5 Green Street Projects

Green street projects are GSI opportunities in the public right-of-way that capture runoff from the street and adjacent areas that drain to the street. The technologies used for green streets are similar to those used in LID projects but are limited to designs that can be used in the right-of-way. Green street projects may include bioretention (e.g., stormwater planters, stormwater curb extensions or stormwater tree filters), pervious pavement, and/or infiltration trenches. Green street GSI features can be incorporated into other improvements in the right-of-way, including complete streets designs and improvements for pedestrian and cyclist safety.

## 5.2 Identification and Prioritization Process

The Town of Los Gatos GSI opportunity identification and prioritization process involved two steps. The first step was the screening and prioritization methodology used in the Santa Clara Basin SWRP (see Section 3.2.1) to identify and prioritize GSI opportunities on public parcels and street segments within the region. The second step in the process involved overlaying Town-specific priorities and planning areas onto the regional prioritization results to align the results of the SWRP prioritization process with the Town's priorities. These steps are described in detail below.

### 5.2.1 Step 1: Stormwater Resource Plan Prioritization

Building on existing documents that describe the characteristics and water quality and quantity issues within the Santa Clara Basin (i.e., the portion of Santa Clara County that drains to San Francisco Bay), the SWRP identified and prioritized multi-benefit GSI opportunities throughout the Basin, using a metrics-based approach for quantifying project benefits such as volume of stormwater infiltrated and/or treated, and quantity of pollutants removed. The metrics-based analysis was conducted using hydrologic/ hydraulic and water quality models coupled with Geographic Information System (GIS) resources and other tools. The products of these analyses were a map of opportunity areas for GSI projects throughout the watershed, an initial prioritized list of potential project opportunities, and strategies for implementation of these and future projects.

The process began by identifying and screening public parcels and public rights-of-way that can support GSI. Project opportunities were split into the three categories described above – LID, regional, and green streets projects -- because of fundamental differences in GSI measures used, project scale, and measures of treatment efficiency. Screening factors are presented in Table 5-1.

After the identification of feasible GSI opportunity locations, screened streets and parcels were prioritized to aid in the selection of project opportunities that would be the most effective and provide the greatest number of benefits. In addition to physical characteristics, several special considerations were included in the prioritization methodology to consider coordination with currently planned projects provided by agencies, as well as consideration of additional benefits that projects could provide. A discussion of the screening and prioritization process for each project category is presented in the subsequent sections.

*Table 5-1 Screening factors for parcel-based and right-of-way project opportunities*

Screening Factor	Characteristic	Criteria	Reason
<b>Parcel-based</b>			
Public Parcels	Ownership	County, City, Town, Valley Water, State, Open Space Agencies	Identify all public parcels for regional stormwater capture projects or onsite LID retrofits
	Land Use	Park, School, Other (e.g., Golf Course)	
Suitability	Parcel Size	≥ 0.25 acres	Opportunity for regional stormwater capture project
		< 0.25 acres	Opportunity for on-site LID project
	Site Slope	< 10 %	Steeper grades present additional design challenges
<b>Right-of-Way</b>			
Selection	Ownership	Public	Potential projects are focused on public right-of-way opportunities
Suitability	Surface	Paved	Only roads with paved surfaces are considered suitable. Dirt roads were not considered.
	Slope	< 5%	Steep grades present additional design challenges; reduced capture opportunity due to increased runoff velocity
	Speed	≤ 45mph	Excludes higher speed roads such as major arterials and highways

*LID and Regional Stormwater Capture Project Opportunities*

The screening criteria for LID and regional projects were ownership (focusing only on public parcels), land use, and site slope. As shown in Table 5.1, parcel size was used to determine whether a location could support a regional or LID project.

Parcels that met the screening criteria were prioritized based on physical characteristics such as soil group, slope, and percent impervious area, proximity to storm drains, proximity to flood-prone creeks and areas, proximity to potential pollutant sources, whether they were in a priority development area, whether they were within a defined proximity to a planned project, and whether the project was expected to have other benefits such as augmenting water supply, providing water quality source control, re-establishing natural hydrology, creating or enhancing habitat, and enhancing the community. Prioritization metrics for LID project scoring and regional project scoring are shown in separate tables in

Appendix A. The result of the parcel prioritization was a list and map (Figure 5-1) of potential project locations based on the above criteria. This list was reviewed and updated by the Town as part of Step 2 Town-Specific Prioritization (Section 5.2.2).

#### *Green Street Project Opportunities*

The screening criteria for green streets projects in the public right-of-way were ownership, surface material, slope, and speed limit (Table 5-1). The screened public right-of-way street segments were then prioritized based on physical characteristics, proximity to storm drains, proximity to flood-prone creeks and areas, proximity to potential pollutant sources, whether they were in a priority development area, whether they were in proximity to a planned project, and whether the project was expected to have other benefits (similar to LID and regional projects). Prioritization metrics for green streets projects are shown in Appendix A.

The initial prioritization process resulted in a large number of potential green streets project opportunities within the Santa Clara Basin. In order to identify the optimal locations for green street projects, the street segments in each municipality's jurisdiction with scores in the top 10 percent of ranked green street opportunities were identified and mapped. The public parcels and top 10 percent street segments in, and owned by, the Town with potential for GSI are shown in Figure 5-1. Although school properties are owned by the school districts and not the Town, these areas are also shown on the map as there may be future opportunities to coordinate on GSI projects. The projects from the SWRP on property owned by the Town or public school districts as shown on Figure 5-1 were carried over into Step 2 Town-Specific Prioritization (Section 5.2.2).

This subset of projects from the SWRP was carried over into Step 2 Town-Specific Prioritization (Section 5.2.2).

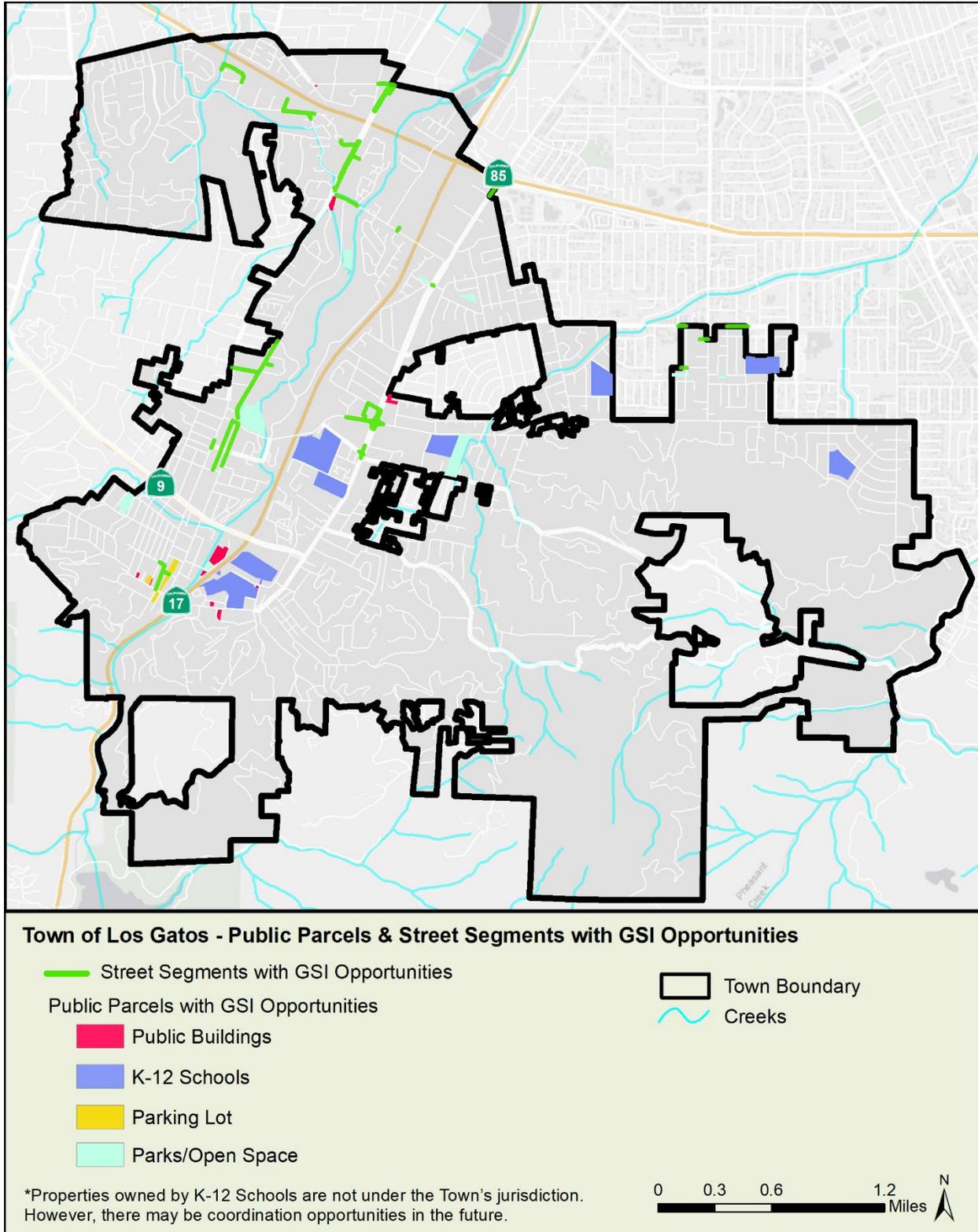


Figure 5-1 Town of Los Gatos Public Parcels and Street Segments with GSI Opportunities (Source: Santa Clara Basin SWRP)

### 5.2.2 Step 2: Town-Specific Prioritization

The results of the SWRP project identification and prioritization process for the Town of Los Gatos were mapped in GIS, and then additional priorities for the Town were overlaid on that map, as described below.

#### *Specific Plan Areas*

The Town's General Plan identifies two Specific Plan areas: North Forty Specific Plan and Hillside Specific Plan. The Specific Plans establish appropriate land uses, development standards, urban design concepts, and architectural design guidelines for the areas. The two Specific Plan areas are shown in Figure 5-2.

The development projects and new streets in the North Forty Specific Plan area will be regulated under Provision C.3 of the MRP and will be required to implement Low Impact Development source control, site design and stormwater treatment. Additional GSI implementation within this area is not required; however, there may be some opportunities on adjacent existing streets to incorporate GSI.

A substantial portion of the Hillside Specific Plan area is steeper than a 50% slope, and either inaccessible or virtually undevelopable. Therefore, the Town does not plan to implement GSI in or near the Hillside Specific Plan area.

The Albright Specific Plan, established after the last General Plan update, requires that future development within the Specific Plan implement additional bioretention areas. Opportunities for GSI implementation in the public right-of-way will be evaluated as applications are received.

#### *Green Stormwater Infrastructure in Industrial Areas*

Stormwater runoff from industrial areas can contain pollutants such as metals, chemicals, trash, oil and grease. GSI installations in public streets near industrial areas may help remove these pollutants from stormwater runoff. Old industrial areas (i.e., industrial areas developed before 1980) located in the Town of Los Gatos are shown in Figure 5-3. As these industrial areas are redeveloped, the Town will explore installing GSI features in the public right-of-way.

### 5.3 Prioritization Output

A compilation of the factors involved in prioritizing the Town's opportunities for GSI projects is shown in Figure 5-4. The parcel-based and green street project opportunities as identified by the SWRP prioritization are overlaid here along with the Town's North Forty Specific Plan area, Hillside Specific Plan Area, and the Industrial Areas.

An implementation plan is described in Section 6 to guide the identification, development, design, and construction of GSI projects.

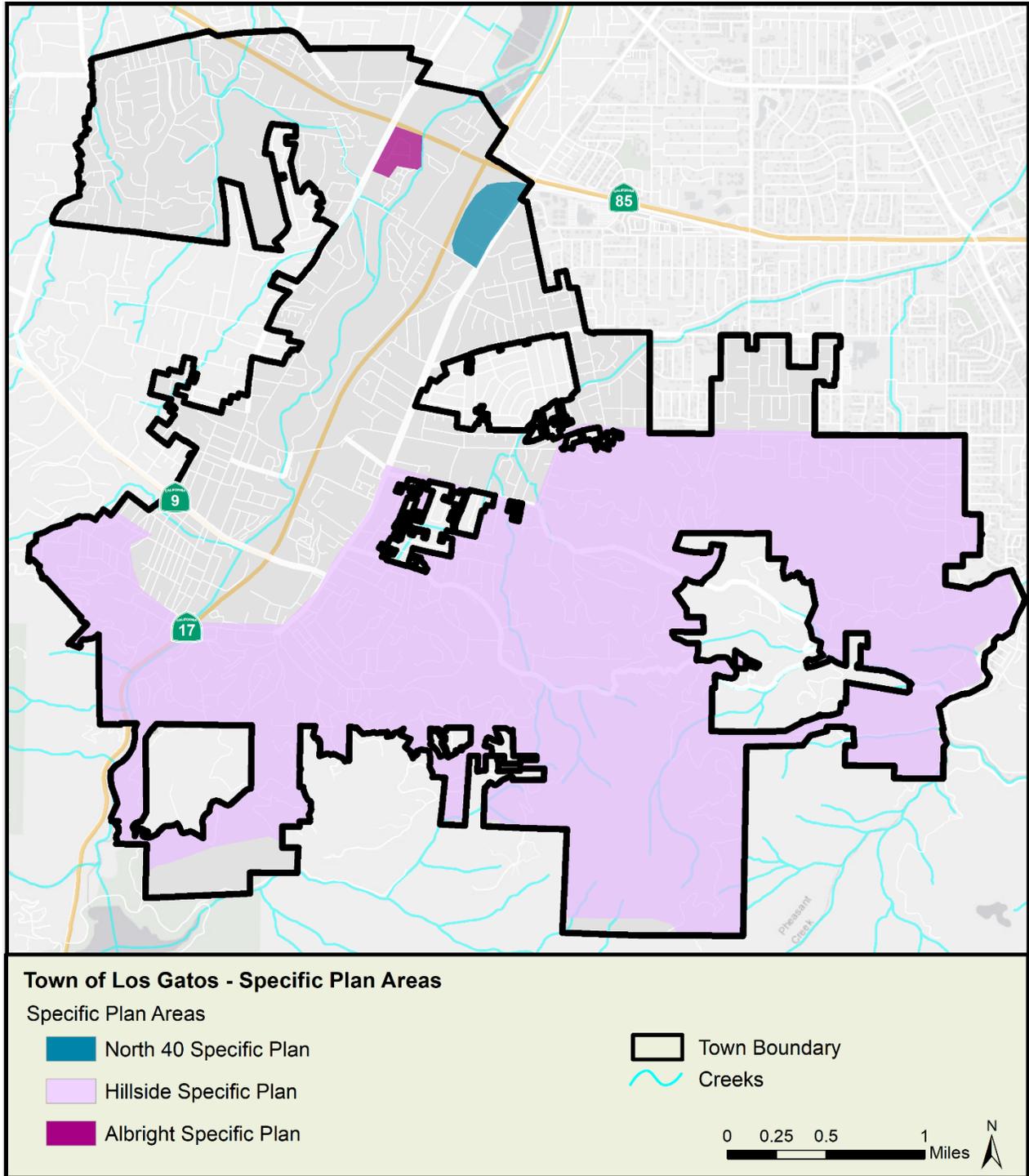


Figure 5-2 Town of Los Gatos Specific Plan Areas (Source – Town of Los Gatos General Plan)

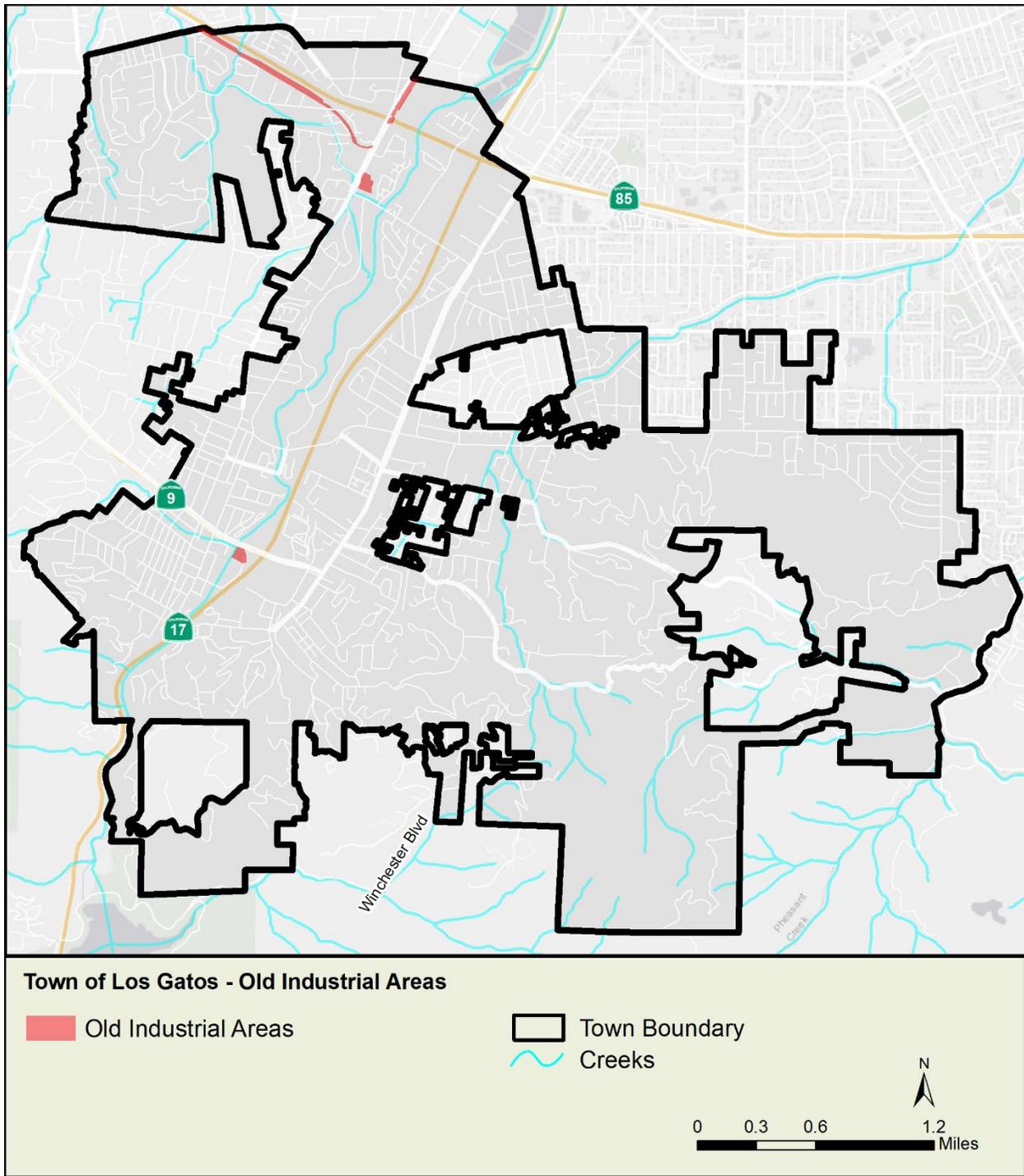


Figure 5-3 Town of Los Gatos Old Industrial Areas (industrial areas developed prior to 1980) (Source: SCVURPPP)

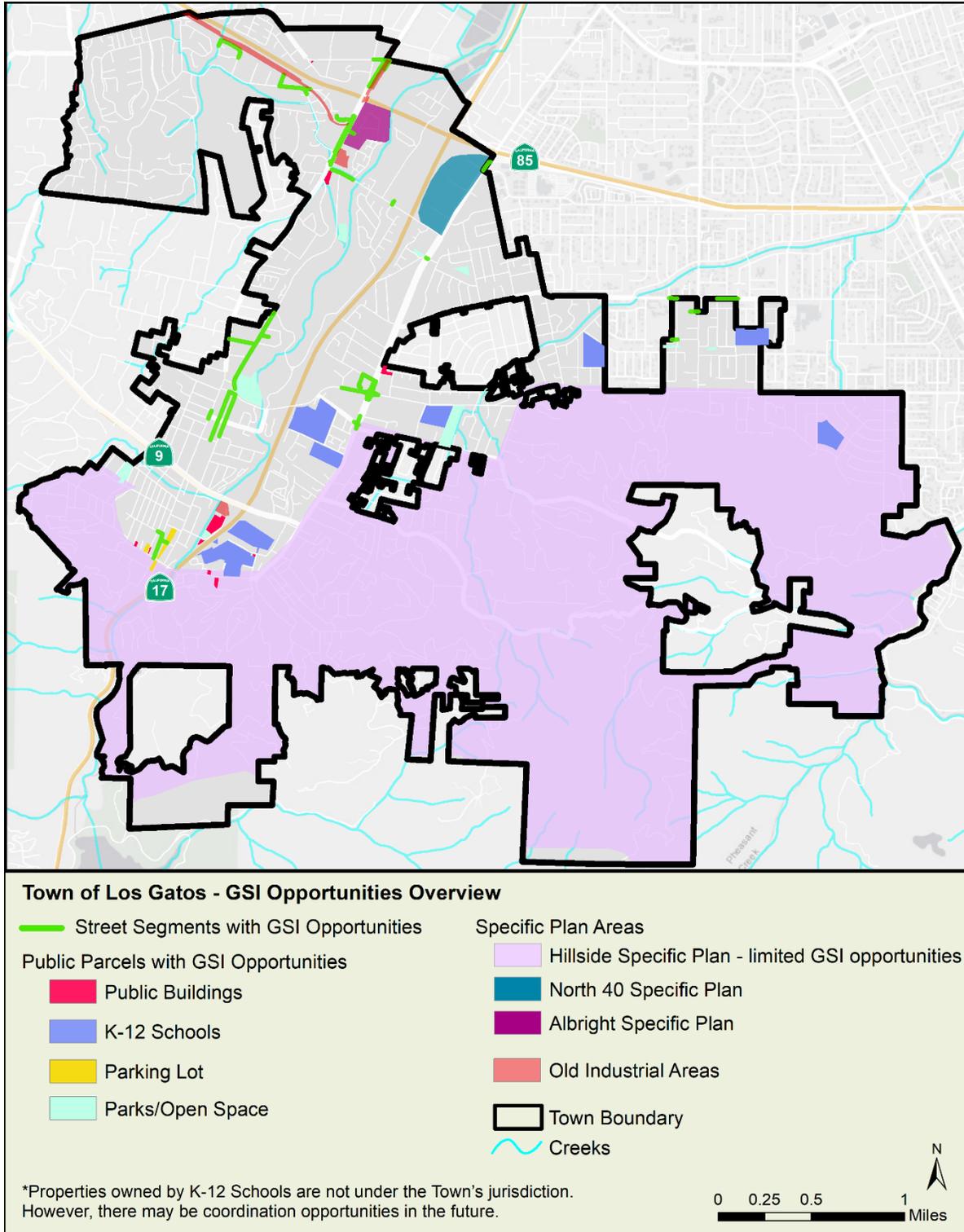


Figure 5-4 Town of Los Gatos GSI Opportunities Overview

## 6. GSI IMPLEMENTATION PLAN

This chapter provides an overall strategy and steps for implementing GSI within the Town of Los Gatos over the long term. The implementation plan has the following components: (1) the Town-wide GSI strategy; (2) a workplan to identify and complete Early Implementation projects (3) a workplan for identifying additional, future GSI opportunities (4) the legal and funding mechanisms that enable implementation, (5) estimated targets for the amounts of impervious surface to be “retrofitted” (i.e., redeveloped with GSI facilities to treat runoff from impervious surfaces), and (6) the technical tools that ensure the tracking of implemented projects.

### 6.1 Town-wide GSI Strategy

As Los Gatos considers the future needs of the Town and the community it serves, achieving environmental sustainability is an important goal. GSI is a concept and tool that Los Gatos will use to make the built environment more environmentally sustainable. The implementation of GSI jurisdiction-wide will occur over several decades and into the next century, therefore long-range planning is essential in determining the prioritization and strategy for the most cost-effective use of limited public funds.

The Town’s GSI implementation strategy consists of the following:

- **GSI in Planning Documents** – As described in Section 3, the Town will include GSI goals and policies in their General Plan and other planning documents. The Town may also potentially create a policy for parks and public works projects to consider GSI with all public projects.
- **Evaluation of CIP projects for opportunities** – The Town will continue to review its CIP list annually for opportunities to incorporate GSI into CIP projects and evaluate the feasibility of such projects. The Town has established a process for CIP review to avoid missing GSI opportunities (see Section 6.2).
- **Evaluation of Opportunities Identified in the Stormwater Resource Plan** – The public parcels and street segments identified in the SWRP (See Section 5.1 of this report) are opportunity areas for GSI projects. The Town will use the SWRP list to help identify potential project locations for GSI implementation.
- **Coordination with Private Development** – The Town will explore working with private property developers to install green infrastructure facilities in public rights-of-way near the properties they are developing, such as along street frontages.
- **Evaluation of non-CIP project opportunities** - As awareness of GSI increases, municipal staff or local community members may also identify and recommend GSI project opportunities. These projects will be considered using the methodology described in Section 6.3.
- **Regulated projects** – The Town will continue to implement requirements for regulated projects under Provision C.3 and track completed projects as described in Section 6.7.

### 6.2 Process for Identifying and Evaluating GSI Project Opportunities

As stated in Section 6.1, the Town will use various mechanisms to identify GSI opportunities in capital projects.

The Town will use the guidance developed by BASMAA<sup>6</sup> (Attachment C) to evaluate capital projects to determine the potential for the inclusion of GSI measures at the project planning level. The evaluation may include site reconnaissance, drainage area delineation, cost analysis, etc. If not already in the CIP list, projects identified through this process will be included in the CIP list when it is updated. Projects with a GSI component may be included in the CIP as funded or unfunded projects. An unfunded project's inclusion in the CIP demonstrates that it is a Town priority pending adequate funding.

The Town will map all potential GSI project opportunities to determine their proximity to green street or parcel-based project opportunities identified in the SWRP (Section 5.2.1). Potential GSI projects that are adjacent to the SWRP opportunity areas may be eligible for state bond funding.

Projects with opportunities for GSI measures may be submitted to the SWRP during the SWRP update process if they are not already included in the SWRP. This will allow those projects to be eligible for future state bond funding. The SWRP will likely be updated in the 2022-2023 timeframe. At this time, SCVURPPP will reach out to all member agencies to provide their project lists for prioritization and inclusion in the updated SWRP.

### 6.3 Workplan for Early Implementation Projects

As discussed in Section 5.2.2 of this GSI Plan, Provision C.3.j. of the MRP requires that the Town identify, prepare, and maintain a list of GSI projects that are planned for implementation during the permit term, and infrastructure projects that have potential for GSI measures. The list is reviewed and submitted with each Annual Report to the Regional Water Board. The Town has not identified any Early Implementation Projects to date.

The Town will continue to review its CIP list annually, using the SWRP prioritization, as well as the guidance developed by BASMAA for identifying opportunities to incorporate GSI into CIP projects.

### 6.4 Legal Mechanisms for GSI Implementation

Provision C.3.j.i.(3) of the MRP requires permittees to "Adopt policies, ordinances, and/or other appropriate legal mechanisms to ensure implementation of the Green Infrastructure Plan in accordance with the requirements of this provision."

As described in Section 1.3.2, the Town of Los Gatos and other municipalities subject to Provision C.3 of the MRP must require post-construction stormwater control measures on regulated development projects. Post-construction stormwater controls reduce pollutants from flowing to streams, creeks, and the Bay and help address local flooding by reducing peak flows. Section 22.30.035. - New development/redevelopment of the Town's Municipal Code provides legal authority for the Town to require regulated private development projects to comply with MRP requirements.

GSI projects are typically not regulated projects (although they must conform to the sizing and design requirements contained in Provision C.3, except under certain circumstances) and they are primarily public projects under control of the Town. As part of the GSI Plan process, the Town reviewed its existing policies, ordinances, and other legal mechanisms related to the implementation of stormwater NPDES

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<sup>6</sup> BASMAA Development Committee (2016) Guidance for Identifying Green Infrastructure Potential in Municipal Capital Improvement Program Projects. May.

permit requirements and found that it has sufficient legal authority to implement the GSI Plan. Adoption of the GSI Plan by the Town Council will further strengthen the authority.

## 6.5 Evaluation of Funding Options

The GSI Plan prioritizes specific projects for near-term integration into CIPs and long-term integration into Town planning efforts. Implementation of these projects is contingent upon the Town identifying funding sources for GSI planning, design, construction, and maintenance.

The total cost of GSI includes costs for planning, capital (design, engineering, construction) and ongoing expenditures, including operations and maintenance (O&M), utility relocation, and feature replacement. It is likely that no single source of revenue will be adequate to fund implementation of GSI, and a portfolio of funding sources will be needed. There are a variety of approaches available to help fund up-front and long-term investments. This section discusses the Town's current stormwater management funding sources and then describes additional funding strategies available to implement GSI that are being considered by the Town for future funding.

### 6.5.1 Current Funding Sources for GSI Program Elements

The Town of Los Gatos currently uses a combination of federal and state grants and local revenues to fund construction of projects in its capital improvement program (CIP) and other projects.

### 6.5.2 Potential Future Funding Options

As required by the MRP, the Town analyzed possible funding options to raise additional revenue for design, construction, and long-term operation and maintenance (O&M) of GSI projects. The Town used the guidance on stormwater funding options developed by SCVURPPP (2018) as a reference for conducting its analysis. Table 6-1 summarizes the funding options that will be considered by the Town as the Plan is implemented. For each type of funding mechanism, the table provides a brief overview and specifics related to GSI, pros and cons, and applicability to funding planning, capital, and/or long-term O&M costs.

Table 6-1 Potential GSI Funding Options

Section/Overview	GSI Specifics	Pros	Cons	Type of Funding
<b>Parcel Taxes:</b> revenue stream through taxing property or other system.	Can be used to set up, fund and maintain a stormwater program and MRP compliance.	<ul style="list-style-type: none"> <li>Well understood tax</li> <li>Stable revenue stream over many years</li> <li>Legally reliable</li> <li>Can also be done by mail.</li> </ul>	<ul style="list-style-type: none"> <li>High political threshold</li> <li>Vulnerable to competition with other measures on the ballot.</li> <li>Considerable effort and resources required with uncertain odds of success.</li> </ul>	<ul style="list-style-type: none"> <li>Planning</li> <li>Capital</li> <li>O&amp;M</li> </ul>
<b>Property-related Fees:</b> fees on real property.	<ul style="list-style-type: none"> <li>Fee on property contributing stormwater runoff to MS4.</li> <li>Can be used to set up, fund and maintain a stormwater program and MRP compliance.</li> </ul>	<ul style="list-style-type: none"> <li>Most-commonly used mechanism for funding stormwater programs.</li> <li>Easier to pass with 50% threshold and mailing process.</li> </ul>	<ul style="list-style-type: none"> <li>Property-based fees must use a standardized methodology for calculating the fee.</li> <li>Considerable effort and resources required with uncertain odds of success.</li> <li>Approval process is more time consuming and expensive for staff.</li> <li>Schools may have large fees and public schools may be exempt from fees depending on the agency's specific ordinance.</li> </ul>	<ul style="list-style-type: none"> <li>Planning</li> <li>Capital</li> <li>O&amp;M</li> </ul>
<b>Development Impact Fees:</b> paid by an applicant seeking approval of a development project.	Could potentially be used to fund retrofits of adjacent public right-of-way areas with GSI as part of development or redevelopment projects.	Cost for retrofitting streets can be leveraged through development activities.	If a fee is found to not relate to the impact created by the development project, or to exceed the reasonable cost of providing the public service, then the fee may be declared a "special tax" subject to approval by a two-thirds majority of voters.	<ul style="list-style-type: none"> <li>Planning</li> <li>Capital</li> </ul>

Section/Overview	GSI Specifics	Pros	Cons	Type of Funding
<p><b>Grants:</b> one time funds that require an application from a funding agency.</p>	<p>Could be used to plan, design and/or build GSI.</p>	<p>Can fund programs or systems that would otherwise take up significant general fund revenues.</p>	<ul style="list-style-type: none"> <li>• Usually a one-time source of funding only.</li> <li>• May need to create new programs and systems for each grant.</li> <li>• Usually have strings attached for matching funds and other requirements.</li> <li>• Little control over timing of applications and payment can lead to difficulties in coordination with other programs and grants.</li> <li>• Can be very competitive and resource intensive to apply.</li> <li>• No guarantee of success.</li> <li>• Post-project O&amp;M costs must be borne by the agency.</li> </ul>	<ul style="list-style-type: none"> <li>• Planning</li> <li>• Capital</li> </ul>
<p><b>Benefit Assessment and Community Facility Districts</b></p>	<p>Typically used to build and/or maintain facilities such as GSI improvements and/or services.</p>	<p>Can be used to fund maintenance and operations.</p>	<p>Requires property owners and/or businesses to agree that the need is present and that they should be (at least partially) responsible for funding it.</p>	<ul style="list-style-type: none"> <li>• Capital</li> <li>• O&amp;M</li> </ul>
<p><b>Business Improvement Districts</b></p>	<p>Businesses and property owners tax themselves and manage the funds to build or maintain GSI assets.</p>	<p>Can provide sense of ownership and pride in the neighborhood when results are visible.</p>	<p>Can burden businesses, property owners and others to the extent that they are unwilling to approve other funding measures.</p>	<ul style="list-style-type: none"> <li>• Planning</li> <li>• Capital</li> <li>• O&amp;M</li> </ul>

Section/Overview	GSI Specifics	Pros	Cons	Type of Funding
<p><b>Integration with Transportation Projects:</b> transportation funding is leveraged to cost-effectively include stormwater quality elements.</p>	<p>Installation and maintenance of GSI facilities as part of integrated roadway programs.</p>	<ul style="list-style-type: none"> <li>Roadway projects have more funding than stormwater programs and are generally more popular with the public.</li> <li>Complete and green streets may be more popular with the public than traditional car-focused streets.</li> <li>Green streets may be less expensive than traditional streets based on a life cycle cost analysis.</li> </ul>	<ul style="list-style-type: none"> <li>Roadways have been designed in certain ways with expectations of costs and purposes for decades.</li> <li>Many roadways are in poor condition and there is not enough funding to fix them all.</li> <li>GSI is perceived as an “added” cost which, could reduce the number of roadways that can be maintained.</li> <li>Transportation funding is often restricted to certain roadway construction elements.</li> </ul>	<ul style="list-style-type: none"> <li>Planning</li> <li>Capital</li> </ul>
<p><b>Alternative Compliance:</b> Allows developers the flexibility to build, or fund through payment of an in-lieu fee, off-site stormwater treatment systems for regulated projects or set up credit trading programs.</p>	<p>Leveraging development activities to build and maintain GSI systems. In lieu fees can be used by developers who would rather make a lump sum payment and quickly complete their compliance requirements. Credit trading programs can incentivize non-regulated properties to retrofit impervious surfaces.</p>	<ul style="list-style-type: none"> <li>Gives flexibility to site GI systems in locations that optimize pollutant loading reduction and other benefits to the community.</li> <li>Allows for off-site stormwater treatment when stormwater management requirements can’t be met within a regulated project site.</li> <li>An in-lieu fee and/or credit trading system can be used to achieve additional retrofits and installation of GSI.</li> </ul>	<ul style="list-style-type: none"> <li>Can be difficult to come up with viable alternative locations for GSI installations.</li> <li>Can be difficult to quantify how much a developer should pay upfront for long-term maintenance costs that the municipality will bear.</li> <li>May require agencies to modify the stormwater sections of their municipal codes to allow for the creation and/or use of the desired options/programs.</li> </ul>	<ul style="list-style-type: none"> <li>Planning</li> <li>Capital</li> <li>O&amp;M</li> </ul>

Section/Overview	GSI Specifics	Pros	Cons	Type of Funding
<p><b>Existing Permittes</b>  <b>Resources:</b> Utilize general funds for GSI.</p>	<p>Could be used to plan, design, build and/or maintain GSI.</p>	<p>Voter approval or new revenue sources not required.</p>	<ul style="list-style-type: none"> <li>• GSI must compete with many other municipal priorities and essential services.</li> <li>• Normally not a viable option for substantial GI implementation.</li> </ul>	<ul style="list-style-type: none"> <li>• Planning</li> <li>• Capital</li> <li>• O&amp;M</li> </ul>
<p><b>Volunteer Programs:</b> provide community-based volunteer labor for specific tasks.</p>	<p>Use volunteer programs to help build or maintain GSI facilities.</p>	<ul style="list-style-type: none"> <li>• A low-cost source of labor.</li> <li>• Educational program for community.</li> <li>• Can build support for a stormwater fee or other funding source.</li> </ul>	<ul style="list-style-type: none"> <li>• Can be time intensive for staff to set up and administer.</li> <li>• May not be dependable in the long run</li> <li>• May result in loss of municipal control depending on program specifics.</li> </ul>	<ul style="list-style-type: none"> <li>• Planning</li> <li>• Capital</li> <li>• O&amp;M</li> </ul>

## 6.6 Impervious Area Targets

As mentioned in Section 1.3.2, the focus of the GSI Plan is the integration of GSI systems into public rights-of-way. However, the MRP (Provisions C.11 and C.12) establishes a linkage between public and private GSI features and required reductions of pollutants in stormwater discharges. To help estimate the pollutant load reductions that can be achieved by GSI during the 2020, 2030, and 2040 timeframes, the MRP requires that Permittees include in their GSI Plans estimated targets for the amounts of impervious surface to be “retrofitted” (i.e. redeveloped with GSI facilities to treat runoff from impervious surfaces) as part of public and private projects during the same timeframes.

The Town worked with SCVURPPP staff to develop a methodology to predict the extent and location of privately- and publicly-owned land areas that will be redeveloped in their jurisdictions and whose stormwater runoff will be addressed via GSI facilities, and to derive impervious surface targets for GSI retrofits associated with these redevelopment projects. The methodology and results are described in Sections 6.6.1 and 6.6.2 below.

### 6.6.1 Methodology

The first step in the process used historic development trends to estimate the acres of redevelopment that will occur in the Town by 2020, 2030, and 2040 from redevelopment of privately- and publicly-owned parcels that would trigger C.3 requirements under the current MRP (i.e. C.3 regulated projects). Stormwater runoff associated with these parcels will be addressed via GSI facilities, as required by the permit.

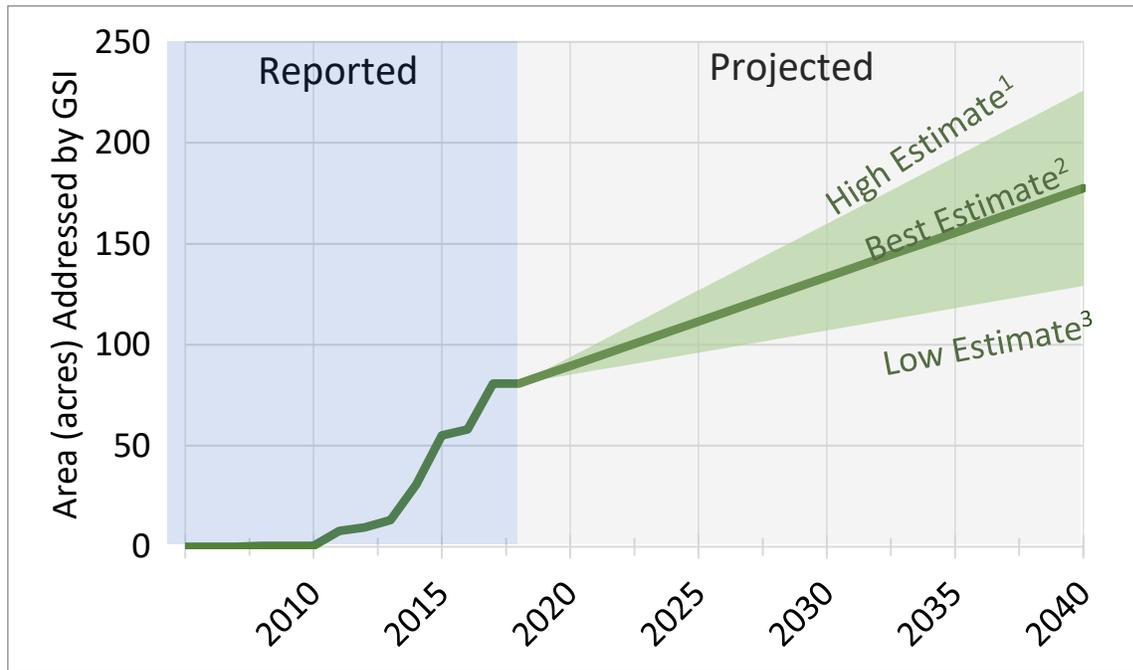
The second step was to estimate the acres of impervious surface associated with future redevelopment of these private and public parcels. To do this, it was necessary to predict the likely locations and types of land areas that are anticipated to be addressed by GSI in the future. Growth patterns and time horizons for development, along with algorithms to identify which parcels were likely to redevelop, resulted in preliminary estimates of the land area that is predicted to be addressed by GSI facilities in the Town of Los Gatos by 2020, 2030, and 2040. Using the current land uses of the predicted locations of GSI implementation and associated impervious surface coefficients for each land use type, estimates of the amount of impervious surface that would be retrofitted with GSI on privately-owned parcels were developed.

The methodology focused on parcel-based redevelopment as the location and timing of projects in the public right-of-way is uncertain and the contribution to overall impervious surface treated by GSI expected to be minor relative to the acreage treated by C.3 projects.

### 6.6.2 Results

Using the methodology described above, a predicted redevelopment rate of 4.4 acres per year was calculated for the Town of Los Gatos. “Best” estimates of the magnitude of land areas that is predicted to be addressed by future GSI facilities by the 2020, 2030, and 2040 milestones were calculated using this rate. “High” (i.e., 50% > “best”) and “Low” (i.e., 50% < “best”) estimates of future GSI implementation were also calculated to provide a range of potential redevelopment levels and account for uncertainty in the “Best” estimate. Figure 6-1 and Table 6-2 present the outputs of the analysis and represent the total acreage known to be addressed by GSI in Los Gatos through 2018, and the best

estimate of the cumulative land area that will be addressed in 2020 (90 acres), 2030 (134 acres), and 2040 (178 acres) by GSI on private and public parcels in the Town of Los Gatos.



<sup>1</sup>High estimate – 150% of Best Estimate; <sup>2</sup>Best estimate – rate of redevelopment based on 6-year average (2007-2012); and <sup>3</sup>Low estimate – projected from 50% of “Best Estimate”

**Figure 6-1. Existing and projected cumulative land area (acres) anticipated to be addressed via GSI facilities installed via private redevelopment in the Town of Los Gatos by 2020, 2030, and 2040**

**Table 6-2 Projected cumulative land area (acres) anticipated to be addressed via GSI facilities via private redevelopment in the Town of Los Gatos by 2020, 2030, and 2040**

Year	Low <sup>1</sup>	Best <sup>2</sup>	High <sup>3</sup>
Existing GSI <sup>4</sup>	-	81	-
2020	85	90	94
2030	107	134	160
2040	129	178	226

<sup>1</sup>Low estimate – projected from 50% of “Best Estimate”; <sup>2</sup>Best estimate – rate of redevelopment based on 6-year average (2007-2012); and <sup>3</sup>High estimate – projected from 150% of “Best Estimate”; <sup>4</sup>Total area addressed by parcel-based redevelopment projects with GSI completed as of 2018 (excludes non-jurisdictional and green street and regional projects).

### 6.6.3 Impervious Surface Retrofit Targets

Provision C.3.j.i.2.(c) of the MRP requires the Town to develop (and include in its GSI Plan) targets for the amount of impervious surface from public and private projects to be retrofitted by 2020, 2030 and 2040. Using the projected redevelopment rate for the Town (Section 6.6.2), current land uses of the predicted locations of GSI implementation selected using a redevelopment model, and associated

impervious surface coefficients for each land use type, estimates of the amount of impervious surface that would be retrofitted with GSI on privately and publicly-owned parcels were developed.

Table 6-3 lists the impervious surface percentage for each land use class, based on impervious surface coefficients typically utilized, and the estimated impervious surfaces that are predicted to be retrofitted by 2020, 2030, and 2040 in the Town via GSI implementation on private and public parcels: 68 acres by 2020, 74 acres by 2030 and 110 acres by 2040. Note that these predictions do not include impervious surface that may be addressed by projects in the public right-of-way, and that these predictions have a high level of uncertainty because future redevelopment rates may increase or decrease relative to the historic development trends that the rate for Los Gatos was based on. Therefore, actual impervious surface addressed by GSI by the various milestones may increase or decrease relative to what is presented in Table 6-3.

**Table 6-3 Actual (2002-2018) and predicted (2019-2040) extent of impervious surface retrofits via GSI implementation on private and public parcels in the Town of Los Gatos by 2020, 2030, and 2040**

Previous Land Use	% of Area Impervious <sup>a</sup>	Retrofits via GSI Implementation									
		2002-18		2019-20		2021-30		2031-40		Total (2002-40)	
		Total Area (acres)	Impervious Area (acres)	Total Area (acres)	Impervious Area (acres)	Total Area (acres)	Impervious Area (acres)	Total Area (acres)	Impervious Area (acres)	Total Area (acres)	Impervious Area (acres)
Commercial	83%	33	28	5	4	2	1	30	25	71	59
Industrial	91%	15	13	-	-	3	3	2	1	19	18
K-12 Private Schools	67%	-	-	8	5	-	-	2	1	10	6
Residential - High Density	82%	10	8	-	-	-	-	2	1	12	10
Residential - Low Density	47%	11	5	-	-	2	1	<1	<1	14	6
Residential - Rural	10%	4	<1	-	-	3	<1	1	<1	7	1
Retail	96%	4	4	-	-	-	-	7	6	11	10
Open Space	1%	3	<1	-	-	33	<1	-	-	36	0.4
<b>Totals</b>		81	59	13	9	43	6	43	36	180	110
<b>Cumulative <sup>d</sup></b>		81	59	93	68	136	74	180	110		

<sup>a</sup> Source: Existing Land Use in 2005: Data for Bay Area Counties, Association of Bay Area Governments (ABAG), January 2006

<sup>b</sup> Development totals from 2002-2018 may include new development of open space and vacant properties.

<sup>c</sup> The total area for 2019-2020 is based on facilities that are currently under construction or planned to occur prior to 2020 and not the Phase I redevelopment rate and may therefore deviate from the “Best” acres presented for 2020 in Table 1.

<sup>d</sup> Totals in this table differ slightly from predictions presented in Table 6-2 due to the inclusion of entire parcels in this table, as opposed to more generic “land areas” projections presented in Table 6-2.

## 6.7 Project Tracking System

A required component of the GSI Plan is to develop a process for tracking and mapping completed public and private GSI projects and making the information available to the public. The Town will continue to implement existing internal tracking procedures for processing public and private projects with GSI, meeting MRP reporting requirements, and managing inspections of stormwater treatment facilities. In addition, the Town will provide data to SCVURPPP for countywide tracking of completed public and private GSI projects.

### 6.7.1 SCVURPPP Project Tracking System

SCVURPPP has developed a centralized, web-based data management system, with a connection to GIS platforms, for tracking and mapping all GSI projects in the Santa Clara Valley. This product is called the SCVURPPP Green Stormwater Infrastructure (GSI) Database. The GSI Database provides a centralized, accessible platform for municipal staff to efficiently and securely collect, upload, and store GSI project data, and enhances SCVURPPP's ability to efficiently and accurately calculate and report water quality benefits associated with GSI projects. It also allows portions of the GSI project information to be made publicly available.

### 6.7.2 Town Project Tracking System (Regulated and GSI)

The Town is following the process described below to collect and track project information:

- Information on regulated projects is collected using the SCVURPPP C.3 Data Form. A table on the project plan sheets is used to collect data on site design or treatment measures installed for each drainage management area.
- Collected information is entered into a spreadsheet. This spreadsheet is updated as the project moves through the Town's approval process. After the project is constructed, the spreadsheet is used to manage treatment measure inspections and enforcement actions.
- The same spreadsheet will be used to collect and track information on non-regulated GSI projects.

Town staff will collect and manage information on GSI projects locally using the data management systems described above, and upload it annually to the SCVURPPP GSI Database for tracking and mapping.