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Los Altos, California 94022-3087

M E M O R A N D U M

DATE: July 11, 2017

TO: City Council

FROM: Aida Fairman, Associate Civil Engineer

SUBJECT: GREEN INFRASTRUCTURE PLAN FRAMEWORK

The City of Los Altos' stormwater requirements are regulated by a Municipal Regional Stormwater NPDES Permit (MRP) from the Regional Water Quality Control Board (RWQCB). There are several new requirements in the new MRP that was adopted on November 19, 2015, one of which requires the City to prepare and approve a Green Infrastructure (GI) Plan Framework by June 30, 2017, describing specific tasks and timeframes for development of the GI Plan. The permit allows approval by the Permittee's governing body, mayor or city manager.

Green Infrastructure is defined by the MRP as infrastructure that uses vegetation, soils, and natural processes to manage water and create healthier urban environments. Examples of Green Infrastructure include: Landscape-based areas that use soil and plants to treat stormwater (e.g., bioretention or green roofs); pervious paving systems (e.g., interlocking concrete pavers, porous asphalt, and pervious concrete) that allow water to soak into the ground; rainwater harvesting systems (e.g., cisterns and rain barrels) that capture stormwater for non-potable uses such as landscape irrigation, etc.

There are many environmental and community benefits of green infrastructure. The primary benefits are the improvements of the quality of stormwater runoff and reduction of the quantity of runoff. Green infrastructure improves the quality of stormwater runoff through physical, biological, and chemical processes as water is filtered through soil or filtration media. The quantity of stormwater runoff is also reduced through plant uptake, evaporation, infiltration, or capture and use which improves river channels by reducing erosion on the banks. Landscape-based treatment affords community benefits such as reduced localized flooding and improved walkability and neighborhood aesthetics. Streets can be retrofitted with landscape-based green infrastructure that can be used to enhance multi-modal projects focused on pedestrian safety when installed as median buffers for protected bike lanes or traffic calming bulb-outs.

The Green Infrastructure Plan Framework will initiate the City's efforts toward evaluating opportunities to more comprehensively manage stormwater and provide multiple benefits for the environment and community.

The attached Approved City of Los Altos Green Infrastructure Plan Framework includes three major sections: Introduction, GI Plan Elements, and GI Plan Development Schedule. The introduction defines "green infrastructure", explains relevant regulatory requirements; and states the purpose of the GI Plan, which is to describe how the City will gradually transform its urban landscape and storm drainage system from traditional to green infrastructure.

The GI framework lists GI Plan goals associated with reducing, managing, capturing and treating stormwater. Additionally, the framework discusses the City's proposed approach of integrating with other plans; evaluation of funding options; adoption of policies, ordinances, and other legal mechanisms; and outreach. The second section of the Draft GI Plan Framework describes each of the required elements of the GI Plan. The final section, GI Plan Development Schedule, presents a list of required tasks and estimated completion dates, ranging from June 2018 to June 2019.

Attachment:
1. City of Los Altos Green Infrastructure Plan Framework

City of Los Altos
Green Infrastructure Plan Framework

Approved on: June 27, 2017

Prepared by: Chris Lamm, P.E. and Aida Fairman, P.E.

Approved by: Chris Jordan, City Manager

Submitted by:

City of Los Altos

One North San Antonio Road

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In compliance with Provision C.3.j.i.(1) of Order R2-2015-0049

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ABBREVIATIONS

BASMAA	Bay Area Stormwater Management Agencies Association
FY	Fiscal Year
GI	Green Infrastructure
LID	Low Impact Development
MC	Management Committee
MRP	Municipal Regional Stormwater NPDES Permit
NPDES	National Pollutant Discharge Elimination System
PCBs	Polychlorinated Biphenyls
Program	Santa Clara Valley Urban Runoff Pollution Prevention Program
SCVURPPP	Santa Clara Valley Urban Runoff Pollution Prevention Program
SWRP	Storm Water Resource Plan

1.0 INTRODUCTION

1.1 What is Green Infrastructure?

"Green Infrastructure" (GI), is infrastructure that uses vegetation, soils, and natural processes to manage water and create healthier urban environments. At the scale of a city or county, green infrastructure refers to the patchwork of natural areas that provides habitat, flood protection, cleaner air, and cleaner water. At the scale of a neighborhood or project site, green infrastructure refers to stormwater management systems that mimic nature by soaking up and storing water.

Examples of GI include resilient, sustainable systems that slow, filter, harvest, infiltrate and/or evapotranspirate runoff such as: landscape-based stormwater "biotreatment" using soil and plants ranging in size from grasses to trees; pervious paving systems (e.g., interlocking concrete pavers, porous asphalt, and pervious concrete); rainwater harvesting systems (e.g., cisterns and rain barrels); and other methods to capture and treat stormwater. These practices are also known as Low Impact Development (LID) site design and treatment measures.

GI roadway projects are typically called "Green Streets". Another term of art related to street design is "Complete Streets". This term comes from the transportation field and deals with the designing of streets that incorporate all modes of travel equally - in particular to increase safety and access for cyclists and pedestrians. The integration of the goals of both Complete Streets and Green Streets has coined several new terms such as "Living Streets", "Better Streets" and "Sustainable Streets". This movement recognizes that environmentally and holistically designed streets achieve many benefits: increased multi-modal travel and safety; clean water and air; climate change resilience and mitigation; placemaking and community cohesion; habitat and energy savings; and higher property values.

1.2 Stormwater Quality Regulatory Requirements

The City of Los Altos ("City" or "Los Altos") is subject to the requirements of the recently reissued Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) Permit for Phase I municipalities and agencies in the San Francisco Bay area (Order R2-2015-0049), also known as the Municipal Regional Permit (MRP), which became effective on January 1, 2016. The MRP applies to 76 large, medium and small municipalities (cities, towns and counties) and flood control agencies that discharge stormwater to San Francisco Bay, collectively referred to as Permittees.

Over the last 13 years, under 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 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. Construction of new roads is covered by

these requirements, but projects related to existing roads and adjoining sidewalks and bike lanes are not regulated unless they include creation of an additional travel lane.

A new section of the MRP requires Permittees to develop and implement long-term Green Infrastructure (GI) Plans for the inclusion of LID measures in storm drain infrastructure on public and private lands, including streets, roads, storm drains, parking lots, building roofs, and other elements. The GI Plan must be completed by September 30, 2019. As part of the GI planning process, the MRP requires Permittees to adopt a Green Infrastructure Plan Framework (Framework) by June 30, 2017 and submit it to the Regional Water Quality Control Board (Water Board) by September 30, 2017. The Framework, a work plan for completing the GI Plan, must at a minimum include a statement of purpose, tasks and timeframes to complete the required elements of the GI Plan.

Other sections of the MRP include requirements for municipalities to control pollutants of concern to water quality in stormwater discharges, including polychlorinated biphenyls (PCBs), mercury, trash and pesticides. LID measures incorporated into green infrastructure can help remove these pollutants from stormwater runoff. For this reason, the MRP establishes a new linkage between public infrastructure retrofits and required reductions in discharges of certain pollutants, specifically PCBs and mercury. Over the next few decades, Permittees must reduce the loads of PCBs and mercury in stormwater discharges through various means, with a portion of these load reductions achieved through the installation of GI systems. Permittees in Santa Clara County, collectively, must implement GI on public and private property to reduce mercury loading by 16 grams/year and PCB loading by 37 grams/year by 2020. The load reductions will continue in future permits. Therefore, these efforts will be integrated and coordinated countywide for the most effective program. Other pollutants, including trash and pesticides, should also be coordinated with the GI program since, when properly designed, constructed and maintained, biotreatment systems may also be credited towards trash and pesticide reduction goals.

A key part of the GI definition in the MRP is the inclusion of both private and public property locations for GI systems. This has been done in order to plan, analyze, implement and credit GI systems for pollutant load reductions on a watershed scale, as well as recognize all GI accomplishments within a municipality. However, the focus of the GI Plan and Framework is the integration of GI systems into public rights-of-way. The GI Plan is not intended to impose retrofit requirements on private property, outside the standard development application review process for projects already regulated by the MRP, but may provide incentives or opportunities for private property owners to add or contribute towards GI elements if desired.

1.3 Purpose of Green Infrastructure Plan and Framework

The purpose of the City's GI Plan is to describe how the City will gradually transform its urban landscape and storm drainage systems from "gray" to "green"; that is, shift from traditional storm drain infrastructure, where stormwater runoff flows directly from impervious surfaces into storm drains and receiving waters, to a more resilient,

sustainable system that reduces and slows runoff by dispersing it to vegetated areas, promotes infiltration and evapotranspiration, collects runoff for nonpotable uses, and treats runoff using biotreatment and other green infrastructure practices. The GI Plan will also be used to demonstrate the City's long-term commitment to implementation of green infrastructure to help reduce loads of pollutants of concern, particularly mercury and PCBs, discharged in stormwater to local waterways. The GI Plan will be coordinated with other City plans, such as land use, transportation, parks, urban forestry, and sustainability plans, to achieve multiple potential benefits to the community, including improved water and air quality, reduced flooding, increased water supply, traffic calming, safer pedestrian and bicycle facilities, climate resiliency, improved wildlife habitat, and a more pleasant urban environment.

The purposes of this Framework are to:

1. Provide some background on the MRP requirements for GI Planning;
2. Describe the purpose, goals, and tasks to develop the City's GI Plan; and,
3. Outline the time frames for the creation of the City's GI Plan and other GI tasks required in the MRP.

This Framework was reviewed and approved for submittal to the Water Board by the City Manager for the City of Los Altos.

This Framework is submitted by the City in compliance with MRP Provision C.3.j.i.(1).

1.4 City of Los Altos Description and Background

Incorporated in 1952, the City of Los Altos is located in Santa Clara County, and has a jurisdictional area of 7 square miles. According to the 2010 Census, it has a population of 28,976[1], with a population density of 4,466.8 people per square mile and average household size of 2.61. Los Altos is a residential community served by seven small retail districts. The General Plan for the City of Los Altos is the primary source of long-range planning and policy direction used to guide growth and preserve the quality of life within the community. The General Plan was adopted in 2002 and embodies what the City is now and what it hopes to be in 2020. The next update of the General Plan is planned for 2019.

Figure 1. The Seven Business Areas of Los Altos. Source: City of Los Altos, Bicycle Transportation Plan, Alta Planning + Design, Inc. April 10, 2012

[1] The California Department of Finance estimates the City's population to be 31,402 as of January 1, 2017.

The City's characteristics can be described as follows:

Land Use

Los Altos is a predominantly single-family residential community, with limited commercial, park, and public land areas. Los Altos maintains its semi-rural character by confining businesses and retail operations to seven business districts (Figure 1) located in downtown and along Foothill Expressway and El Camino Real. Outside these business districts are large residential areas with centrally located neighborhood schools.

As a developed community with a well-established land use pattern, Los Altos is unlikely to change in any significant way. Los Altos has little opportunity for additional growth or major land use changes. Future growth will occur with the development of the few remaining vacant parcels and the redevelopment of currently developed parcels. Table 1 shows the current land uses based on the 2002 General Plan. The City's Land Use map is included in Figure 2.

Table 1. General Plan Land Use in the Los Altos Planning Area

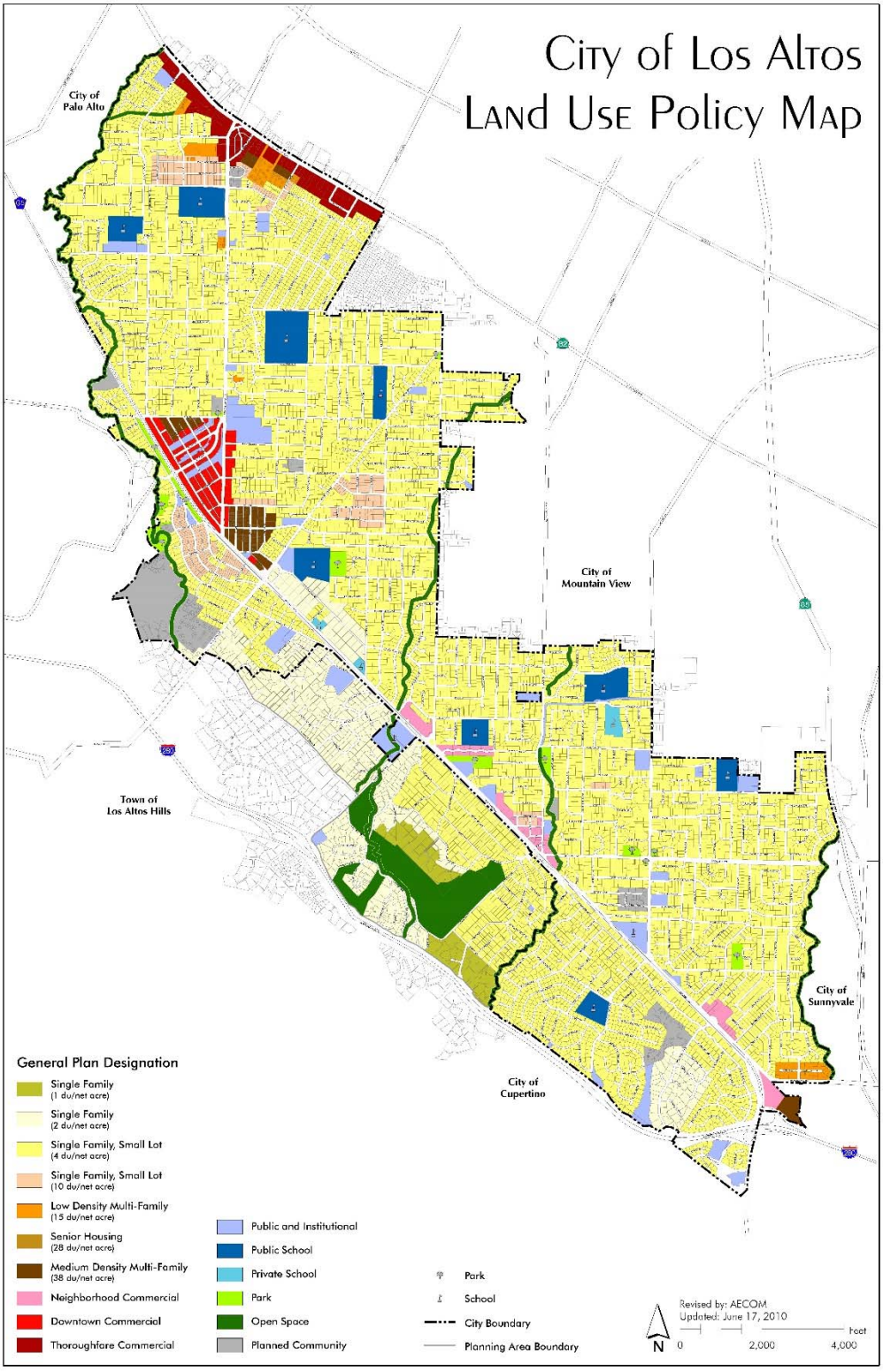
Land Use	Net Acres in Planning Area	Percentage of Land in Planning Area
Single-Family Large Lot	429	11%
Single-Family Medium Lot	2,598	67%
Single-Family Small Lot	83	2%
Low Density Multi-Family	34	1%
Medium Density Multi-Family	45	1%
Neighborhood Commercial	37	1%
Downtown Commercial	42	1%
Thoroughfare Commercial	59	2%
Public School Land	120	3%
Private School Land	34	1%
Public and Institutional	113	3%
Utilities		
Parking		
Parks	32	1%
Other Open Space	127	3%
Planned Community	93	3%
Total		100%

Open Space Resources

The City's open space resources include public parks, publicly-owned open space, conservation easements along portions of creeks, off-road bicycle paths/trails, and

privately-owned open space and recreation facilities. This land use designation accounts for approximately 127 acres of land.

Figure 2. Land Use Policy Map, City of Los Altos



Streets and Transportation

The City is located immediately adjacent to the regional facilities of Interstate 280 and SR 85 and is served by two subregional facilities: Foothill Expressway and El Camino Real (State Route 82). Pedestrian and bicycle facilities are concentrated on the major streets with some off-street paths to provide intra-City travel. Most local streets do not include sidewalks. Established bus transit service also provides travel opportunities for community residents and employees, and provides links to Caltrain passenger rail and VTA light rail service.

The City contains approximately 107 miles of public streets. Only the streets designated as arterial, collector, local collector, and local streets are under the jurisdiction of the City. Caltrans maintains and has jurisdiction over all freeways and state routes, while the Santa Clara County Roads and Airports Department controls all intersections along Foothill Expressway.

The City's Collector Traffic Calming Plan recommends vegetated bulb-outs, roundabouts and mini roundabouts as traffic calming devices for collector streets. As collector streets are developed, they will offer opportunities to implement GI.

Geographic Characteristics

Los Altos is relatively flat. The surface soils within the City's boundaries consist of mostly Group C soils[2]. Given the high percentage of Group C soils, it is likely that most GI facilities within the City will be landscape-based stormwater "biotreatment" areas with limited infiltration. Pervious pavement systems that do not accept a large amount of runoff from adjacent impervious areas are also feasible under these conditions.

Stormwater Drainage System

The City has an estimated 55 linear miles of storm drain pipes (12 inches in diameter and larger). Runoff captured by the storm drain networks is discharged into four creeks: Hale, Stevens, Adobe, and Permanente. To create a rural aesthetic, many streets in Los Altos do not have traditional suburban curb and gutter, and instead have unpaved areas along the street shoulder. This layout allows some runoff to soak into the ground before it reaches a catch basin and enters a conventional storm drain system.

The City's Storm Drain Master Plan, updated in 2016, establishes a prioritized capital improvement program to reduce the risk of flooding within the City. High priority Improvements recommended include repairs to ditches, and upgrades to storm drain pipes, manholes, and inlets. The City's Maintenance Services Division maintains the storm drain system.

[2] The NRCS has classified soils into four hydrologic soil groups (A, B, C, and D) according to their infiltration rates. Group A soils have low runoff potential when thoroughly wet and typically consist of sand or gravel type soils. Group B soils are moderately well draining when thoroughly wet and consist of loamy sand or sandy loam textures. Group C soils have moderately high runoff potential when thoroughly wet and consist of loam, silt loam, sandy clay loam, clay loam, and silty clay loam textures. Group D soils have high runoff potential when thoroughly wet and consist of clayey textures.

Water Supply

All domestic and commercial water in Los Altos is supplied by the California Water Service Company, and financially supported by user fees. Currently, 28 percent of the City's water comes from well water and 72 percent comes from Santa Clara Valley Water District (SCVWD) sources, which include underground aquifers, reservoirs, and the San Joaquin-Sacramento River Delta. The City does not anticipate a significant increase in water demand in future years.

Special Planning Areas

The City's land use patterns are well established, and will generally remain unchanged, particularly with regard to the City's residential neighborhoods. However, the General Plan identifies the following Special Planning Areas to achieve land use changes and associated economic development and housing goals:

- Downtown
- El Camino Real Corridor
- Foothill Plaza
- El Retiro

Figure 3 shows these Special Planning Areas. Within each of these Special Planning Areas, the City is introducing the concepts and opportunities for increasing land use density and intensity to better achieve specific objectives for these areas. For example, the El Camino Real corridor has been identified in the current General Plan Land Use Element update process as an area where affordable housing can be created as properties redevelop. Incentives to build housing along El Camino Real, such as allowing additional building stories and increasing allowable floor area, are included in the draft Land Use Element update. Disincentives to build commercial-only projects are also included. Similar mixed-use development incentives are also being considered for other business districts in Los Altos. Another example is the El Retiro area, which was developed as a Planned Community resulting in a combination of grouped single-family, multiple-family developments and the maintenance of Jesuit Retreat buildings resulting in a substantial open space dedication. As the other areas are developed, they may offer opportunities to implement GI measures.

Specific Plans

The City has adopted Specific Plans for the following three neighborhoods:

- Sherwood Gateway
- Loyola Corners
- Downtown Urban Design Plan

The intent of these Specific Plans is to provide comprehensive planning policies and development guidelines to guide the continuing development and revitalization of these neighborhoods. Incorporation of GI could be explored as the Specific Plans are updated.

Growth Projections

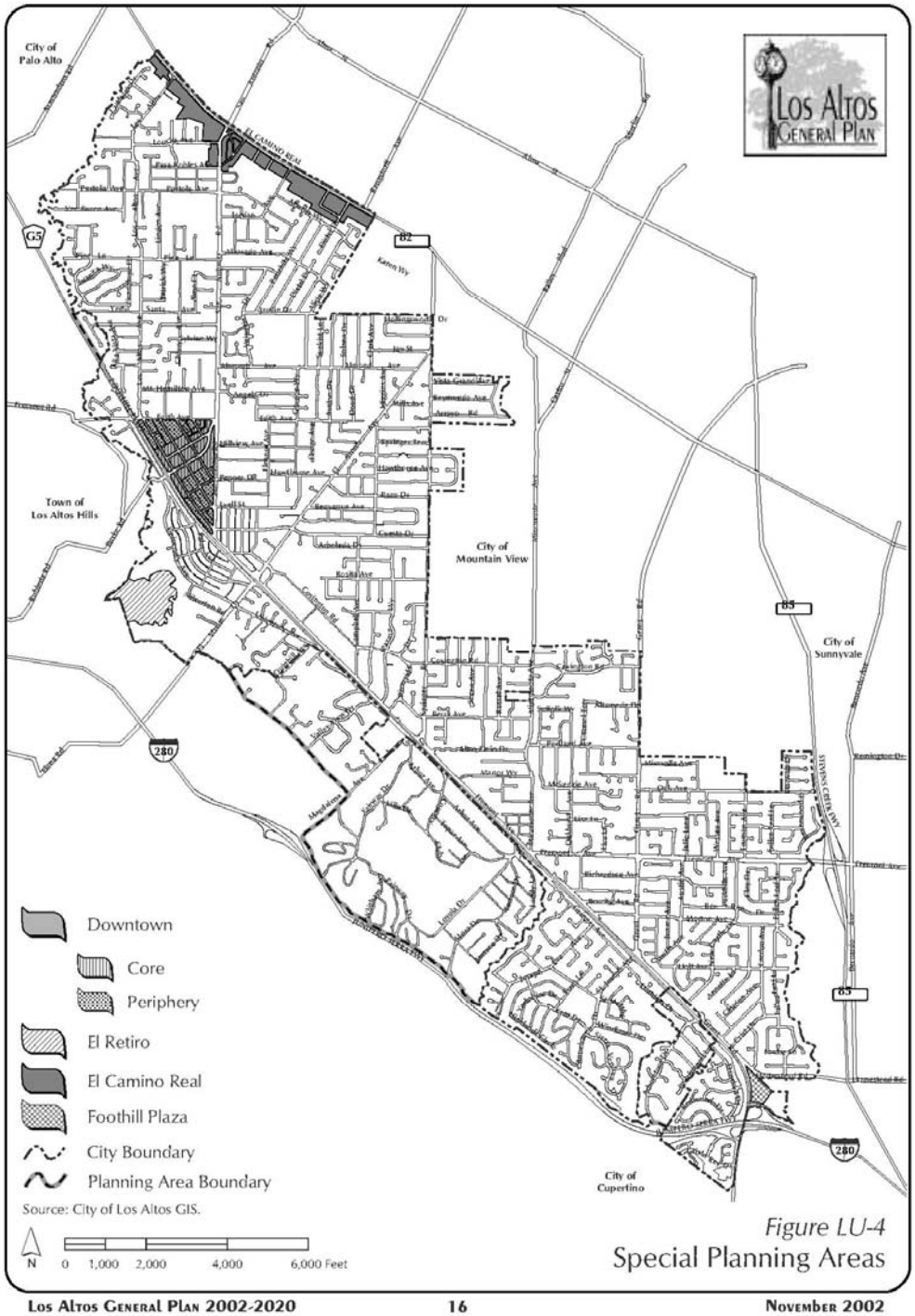
On May 26, 2015, the City Council adopted the 2015-2023 Housing Plan Element. The Housing Element provides clear policy and direction for making decisions pertaining to zoning, subdivision approval, housing allocations, and capital improvements.

The City of Los Altos developed growth/development forecasts as part of its Housing Element. The growth projection scenarios for population and/or additional square footage of residential and non-residential buildings in the Housing Element are as follows:

- Per the California Department of Finance, the City's population is projected to grow to 32,800 in 2040.
- According to the Regional Housing Needs Allocation (RHNA[3]), the City of Los Altos has a total housing construction need of 477 units and an annual need of about 68 units. There is currently a total of 43.10 acres of vacant or underutilized land in Los Altos with the capacity to yield 739 units of new housing across all income categories.

[3] The RHNA was adopted by ABAG in May 2008, and includes projections for the period of January 1, 2014 to October 31, 2022.

Figure 3. Special Planning Areas, City of Los Altos



1.5 City of Los Altos's Goals and Overall Approach

The City of Los Altos's approach to green infrastructure planning will be consistent with the City's General Plan, which focuses on stimulating new economic growth, revitalizing older areas, assuring public safety, finding new uses for underutilized land, and enhancing the City's amenities and environmental resources. The City's approach will also be guided by various existing plans that support the implementation of green infrastructure.

The City's approach to identifying areas suitable for green infrastructure will be based on the following priorities:

- Implementation of existing plans and policies – Goals and policies supporting green infrastructure are included in the following Plans:
    - Los Altos Climate Action Plan – Measure 4.1 in the City's Climate Action Plan recommends that the City "continue to manage stormwater runoff with green infrastructure such as bioswales and other Low-Impact Development strategies".
    - Los Altos Pedestrian Master Plan – Section 5.1.4 of the Pedestrian Master Plan focuses on Green Infrastructure and Low Impact Development, and recommends incorporating GI and LID features on alternative walkways, and on routes where children access school grounds.
    - Los Altos Collector Traffic Calming Plan – The Traffic Calming Plan recommends vegetated bulb-outs, roundabouts, and mini roundabouts as traffic calming devices for collector streets. The Plan also recognizes that these features will help reduce stormwater pollution.
    - Shoulder Paving Policy – The City is in the process of updating its 2016 Shoulder Paving Policy which as proposed will require GI features in landscaped area adjacent to the shoulder paving area or driveway.

As development occurs, the City will ensure that opportunities for implementing green infrastructure are explored and identified, consistent with these existing Plans.

- Public-Private Partnerships – The City may require new and typically larger development projects, that are already being required to construct new sidewalk, landscaping, curb, gutter, pavement and/or other improvements on the frontages of their properties in the public right of way, to construct GI systems in those areas to control runoff from the impervious surfaces within and adjacent to the project boundary.
- Community Outreach and Engagement – The City will work with its Environmental Commission and local community groups to gather support for GI features during street improvements, or as traffic calming measures. These groups may also help encourage single-family home owners to include GI features (e.g., rain barrels or rain gardens) in their yards and landscapes.

2.0 GREEN INFRASTRUCTURE PLAN ELEMENTS & APPROACH

2.1 Summary of Required Elements

To meet MRP requirements, the City of Los Altos's Green Infrastructure (GI) Plan will need to contain certain mandatory elements:

- **Project Identification and Prioritization Mechanism:** The GI Plan must describe the mechanism by which the Los Altos will identify, prioritize and map potential and planned projects that incorporate green infrastructure components in different drainage areas within the City. These include public and private projects that may be implemented over the long term, with milestones for implementation by 2020, 2030, and 2040. The mechanism must include the criteria for prioritization and outputs that can be incorporated into the City's long-term planning and capital improvement processes.
- **Prioritized Project Locations and Timeframes:** The GI Plan must contain the outputs resulting from the identification and prioritization mechanism described above, such as lists and maps of prioritized projects and timeframes for implementation. The outputs must also include "targets" or estimates of how much impervious surface within the City of Los Altos will be converted or "retrofit" to drain to a green infrastructure feature, such as a vegetated area or stormwater capture or treatment facility, by the 2020, 2030, and 2040 milestones.
- **Completed Project Tracking System:** The GI Plan must describe the City's process for tracking and mapping completed public and private projects and making the information available to the public.
- **Guidelines and Specifications:** The GI Plan must include general design and construction guidelines, standard specifications and details (or references to those documents) for incorporating green infrastructure components into projects within the City of Los Altos. These guidelines and specifications should address the different street and project types within the City 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, urban forestry, etc.
- **Integration with Other Plans:** The GI Plan must describe its relationship to other planning documents and efforts within the City and how those planning documents have been updated or modified, if needed, to support and incorporate the green infrastructure requirements. If any necessary updates or modifications have not been accomplished by the completion of the GI Plan, the GI Plan must include a work plan and schedule to complete them.
- **Evaluation of Funding Options:** The GI Plan must include an evaluation of funding options for design, construction, and long-term maintenance of prioritized green infrastructure projects, considering local, state and federal funding sources.

In addition, the City of Los Altos must adopt **policies, ordinances, and/or other appropriate legal mechanisms** to allow implementation of the GI Plan. The City must also **conduct outreach and education** to elected officials, department managers and

staffs, developers and design professionals, and the general public as part of development and implementation of the GI Plan and implementation of specific projects within the GI Plan.

2.2 Approach to Completion of Required Elements

The City of Los Altos is committed to working within its Public Works and Planning Departments and with the Santa Clara Valley Water District and SCVURPPP to complete the required GI Plan elements described in Section 2.1. This section describes the City's approach to each required element.

2.2.1 Outreach and Education

One of the first and most important steps in the development of the GI 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 GI 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 City of Los Altos began this process in FY 15-16 and FY 16-17 by completing the following tasks:

- Public Works staff attended the SCVURPPP GI workshop titled "Developing Your Green Infrastructure Program and Identifying Opportunities to Turn Gray to Green" on April 25, 2016 in Campbell. The workshop included presentations on developing and implementing municipal GI Plans, review of public projects for identifying GI opportunities, and a group exercise to review an example CIP project list for GI opportunities.
- Public Works staff attended the SCVURPPP annual C.3 workshop, titled "Low Impact Development and Green Infrastructure – Meeting New Requirements" on June 9, 2016 in Palo Alto. The workshop covered basic C.3 training, updates on new requirements in the MRP, a panel on C.3 implementation, vendor presentations on pervious paving and stormwater treatment products, and an afternoon session on design, construction and maintenance considerations for pervious paving.
- Public Works staff attended the SCVURPPP GI workshop titled "Green Infrastructure Design and Implementation" on April 19, 2017 in Cupertino. The workshop included GI design guidelines; implementing GI projects; overview of the forthcoming SCVURPPP GI Handbook; and GI landscape and maintenance considerations.
- Provided in-house training to Planning and Public Works Department staff on GI requirements, strategies, and opportunities on May 3, 2016.
- Convened interdepartmental meetings with affected department staff and management to discuss GI requirements and assigned tasks.

- Discussed with Planning Department staff the MRP requirements to analyze proposed capital projects for opportunities to incorporate GI, and completed the first list of planned and potential GI projects.
- Coordinated with SCVURPPP on a comprehensive outreach and education program. Key audiences include: the general public (countywide, and in the neighborhood or municipality where GI projects are located); the development community (e.g., developers, engineers, landscape architects, and contractors); and elected officials. Incorporated the materials produced by SCVURPPP into outreach efforts on the local level.

The City of Los Altos will conduct or continue to conduct the following education and outreach activities as part of development of the GI Plan:

- Continue to hold inter-department and committee meetings to get input on the GI Plan.
- Conduct outreach to the local community and other stakeholders to get input and support for the GI Plan.
- Conduct outreach to the general public and development community in coordination with SCVURPPP.
- Continue to conduct internal training as needed, and send staff to SCVURPPP trainings.
- Engage elected officials with presentations on GI during a study session or regular meeting to raise awareness of the goals and requirements in the MRP and the concepts, intent and multiple benefits of GI.

2.2.2 Project Identification and Prioritization

The City of Los Altos will use the following approaches to identify, prioritize and map potential and planned projects that incorporate green infrastructure components in different drainage areas within the City.

a. **Coordination with the Santa Clara Basin Stormwater Resource Plan:** The Santa Clara Valley Water District (District) and SCVURPPP obtained a Proposition 1 Stormwater Grant Program planning grant to develop a Stormwater Resource Plan (SWRP) for the Santa Clara Basin. The SWRP will support the development and implementation of GI Plans within the Basin (including the City of Los Altos's GI Plan) through identification of local and regional opportunities for GI projects and development of modeling tools for estimating pollutant load reductions over future timeframes. The resulting maps and tools will be available for local use by participating municipalities.

   The SWRP will also produce a list of prioritized GI projects eligible for future State implementation grant funds. Building on existing documents that describe the characteristics and water quality and quantity issues within the Santa Clara Basin, the SWRP will identify and prioritize multi-benefit GI projects 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 will be conducted using hydrologic/hydraulic and water quality models coupled with GIS resources and other tools. The products of these analyses will be a map of opportunity areas for GI projects throughout the watershed, an initial prioritized list of potential projects and strategies for implementation of these and future projects. The list of potential projects within City of Los Altos will then be incorporated into the City's list for its GI Plan.

A fact sheet on the SWRP is provided in Appendix A.

b. **Review of Capital Improvement Program Projects for Green Infrastructure Opportunities:** As required by the MRP, the City of Los Altos has begun to prepare and maintain a list of public and private GI projects that are planned for implementation during the permit term, and public projects that have potential for GI measures. The first such list was submitted with the FY 15-16 Annual Report. These lists will be used to provide potential projects for inclusion in the SWRP development and incorporation into the GI Plan.

c. **Use of Additional Tools to Identify, Prioritize and Map Potential GI Projects:** The City will use GIS maps of its storm drain system to help identify, prioritize, and map potential GI projects.

The GI Plan will also describe the tools and approaches used, the criteria for prioritization, and the outputs that can be incorporated into the City's long-term planning and capital improvement processes.

2.2.3 Prioritized Project Locations and Timeframes

The GI Plan will include the prioritized list of projects and map of locations within the City of Los Altos's jurisdiction resulting from Task 2.2.2 above, as well as timeframes for implementation. The outputs will also include "targets" or estimates of how much impervious surface within the City will be converted or "retrofit" to drain to a green infrastructure feature, such as a vegetated area or stormwater treatment facility, or converted to pervious surfaces, by the 2020, 2030, and 2040 milestones. The City of Los Altos will work with SCVURPPP on a methodology for estimating these targets, and will apply the methodology to estimate the City's specific targets.

2.2.4 Completed Project Tracking System

This section of the GI Plan must describe the City of Los Altos's process for tracking and mapping completed public and private projects and making the information available to the public. The City will work with SCVURPPP to develop a consistent countywide approach to tracking and mapping completed projects and estimating expected PCB and mercury load reductions resulting from these projects.

2.2.5 Guidelines and Specifications

The City of Los Altos will support and participate in the SCVURPPP process to develop and adopt GI Design Guidelines and Specifications for streetscapes and other public infrastructure. A set of model Guidelines and Specifications will be developed at the countywide level which will be used as a reference by Los Altos. The City will evaluate

the model Guidelines and Specifications for consistency with its own local standards, and revise existing guidelines, standard specifications, design details, and department procedures as needed.

The Guidelines and Specifications will also include the results of the regional analysis of alternative approaches to sizing GI facilities where project constraints (e.g., limited space in public right-of-way, utility conflicts, etc.) preclude fully meeting the permit-required sizing criteria for such facilities. This regional project being conducted by BASMAA is expected to be completed in late 2017.

2.2.6 Integration with Other Municipal Plans

The City of Los Altos has reviewed its existing municipal planning documents and identified which documents need to be updated or modified to support and/or be consistent with the GI Plan, and the timing for those updates or modifications. A summary of the results of the municipal plan review and the schedule for updates or modifications is presented in Table 2 below. If any necessary updates or modifications have not been accomplished by the completion of the GI Plan, the GI Plan will include a work plan and schedule to complete them.

Table 2. Schedule for Municipal Plan Updates for Green Infrastructure

Name of Plan	Last Updated	Next Projected Update	Includes Language to Support GI?	If No, Date to Complete GI Update
General Plan: Infrastructure and Waste Disposal Element	November 2002	TBD	Some	TBD
Collector Traffic Calming Plan	June 2011	None Planned	Some	N/A
Climate Action Plan	December 2013	None Planned	Yes	N/A
Pedestrian Master Plan	August 2015	None Planned	Some	N/A
Storm Drain Master Plan	April 2016	None Planned	Yes	N/A
Bicycle Transportation Plan	April 2012	2022	No	
Sherwood Gateway Specific Plan	February 2008	None	No	N/A
Loyola Corners Specific Plan	November 2016	*	No	
Downtown Design Plan	December 2009	**	No	

* Administrative guidelines presently under development by staff as directed by the City Council.
** The City might update its Downtown Design Plan, pending the outcome of the City's Downtown Vision process in the Summer of 2017.

2.2.7 Evaluation of Funding Options

The City of Los Altos currently uses a combination of federal and state grants and general funds to fund construction of projects in its capital improvement program (CIP)

and other projects. General funds are used for public street, parking lot and building maintenance; maintenance of stormwater control measures installed at public projects; and maintenance of other landscaped areas (e.g., parks, medians, public plazas, etc.)
The City of Los Altos will analyze possible funding options to raise additional revenue for the projects that will eventually be included in the agency's GI Plan, including capital and operation and maintenance (O&M) costs of these projects. The City will use the guidance on stormwater funding options being developed by SCVURPPP as a reference for conducting its analysis. Options for capital project funding include the State Proposition 1 Stormwater Grant Program implementation grants, Prop 1 IRWMP grants, California Urban Rivers Grants.

Additional funding options that may be explored by the City of Los Altos include:

- **Treatment at an Offsite Location** – An alternative compliance option in which a private Regulated Project (one required to treat runoff from created and replaced impervious surface on the project) would instead treat runoff from an equivalent amount of impervious surface offsite, potentially in the public right-of-way, in LID treatment facilities it would pay to construct (and/or maintain). That is, the private developer would fund and oversee construction of a potential green infrastructure project identified by the City of Los Altos.
- **Payment of In-Lieu Fees** – An alternative compliance option in which the developer of a private Regulated Project, in lieu of constructing LID treatment facilities on-site, would pay equivalent in-lieu fees for construction and maintenance of a regional or municipal stormwater treatment (green infrastructure) facility.
- **Public-Private Partnerships** – An option in which green infrastructure facilities are jointly funded by the municipality and a private organization or land owner for the benefit of both parties.

2.2.8 Adoption of Policies, Ordinances, and Other Legal Mechanisms

The City is in the process of updating its Municipal Code Chapter 10.20, Stormwater Pollution Prevention Measures, to be consistent with its current NPDES permit requirements and will incorporate discussion of GI as appropriate. The City is in the process of updating its Shoulder Paving Policy which as proposed will require GI in landscaped areas adjacent to the shoulder paving area or driveway.

The City will continue to review its existing policies, ordinances, and other legal mechanisms related to current planning procedures and implementation of stormwater NPDES permit requirements to identify which documents may need to be updated or modified to help implement the GI Plan, and the timing for those actions. All needed updates, modifications, or new mechanism(s) will be completed and adopted (if necessary) by September 30, 2019.

In its 2019 Annual Report, the City will describe any updates to ordinances, policies, plans or programs that were made to implement the GI Plan and associated programs.

2.2.9 Completion and Adoption of the GI Plan

The City of Los Altos will draft its GI Plan to contain all of the elements described above, obtain reviews and approvals by various departments, governing bodies, and the public as needed, and submit the GI Plan to the Water Board by September 30, 2019. Internal deadlines to complete and adopt the GI Plan are presented in Table 4 below.

Table 3. Schedule for Completion and Adoption of GI Plan

Task	Department/Group	Deadline
Prepare draft GI Plan	Public Works	October 2018
Review draft GI Plan	Public Works, Planning	December 2018
Approve draft GI Plan	Public Works, Planning	February 2019
Public input on draft GI Plan	Public Works/City Residents	March 2019
Review/consider draft GI Plan	City Manager	May 2019
Approve final GI Plan	City Council	June 2019

3.0 GREEN INFRASTRUCTURE PLAN DEVELOPMENT SCHEDULE

This section describes the time frames for completion of the tasks presented in Section 2 to develop and adopt the City's GI Plan.

Task No.	Green Infrastructure Plan Development Task	Responsible Organization(s)/ Department(s)	Estimated Completion Date
2.2.1	Outreach and Education	Public Works	Ongoing
2.2.2	Project Identification and Prioritization a. Coordination with the Santa Clara Basin Stormwater Resource Plan b. Review of Capital Improvement Program Projects for Green Infrastructure Opportunities c. Use of Additional Tools to Identify, Prioritize and Map Potential GI Projects	Public Works and Planning	June 2018/Ongoing
2.2.3	Prioritized Project Locations and Timeframes	Planning, Public Works	June 2018
2.2.4	Completed Project Tracking System	Public Works	December 2018
2.2.5	Guidelines and Specifications	Public Works	December 2018
2.2.6	Integration with Other Municipal Plans	Public Works, Planning	June 2018
2.2.7	Evaluation of Funding Options	Public Works	June 2018
2.2.8	Adoption of Policies, Ordinances, and Other Legal Mechanisms	Public Works	June 2019
2.2.9	Completion and Adoption of the GI Plan	Public Works	June 2019

The Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP or Program)[1] and the Santa Clara Valley Water District (District) are developing a Storm Water Resource Plan (SWRP) for the Santa Clara Basin. The development of the SWRP will be coordinated with the District's current efforts to develop its Integrated Water Resources Master Plan, called the One Water Plan.

What is a Storm Water Resource Plan?

Traditional approaches to storm water management include implementing best management practices to reduce urban runoff pollutants, and providing measures to treat runoff from private and public development projects before it enters the storm drain system. A new approach to storm water management is to recognize storm water as a resource, and implement multi-benefit **Green Infrastructure projects.** These projects use vegetation, soils, and natural processes to capture runoff, reduce the quantity of pollutants and runoff entering the storm drain system, help recharge ground water, prevent flooding, and result in other ecological and community benefits.

A **Storm Water Resource Plan** is a document that describes the local watershed, identifies water quality issues, and uses a metrics-based approach to identify local and regional Green Infrastructure (GI) projects that can be implemented to improve local surface water quality through enhanced storm water management.

Storm Water Resource Plan and Permit Requirements

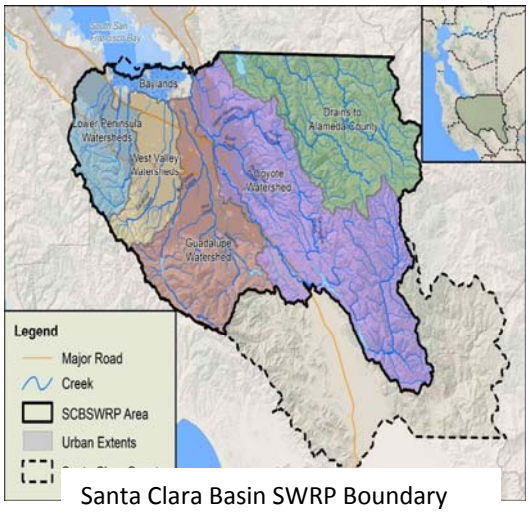
The Municipal Regional Stormwater Permit (MRP) requires each SCVURPPP Co-permittee to develop and implement a long-term GI Plan that describes how the agency will identify and implement local GI projects. The SWRP will support these GI Plans by identifying and prioritizing multi-benefit GI projects throughout the Santa Clara Basin. The main products of the SWRP will include:

- A map of opportunity areas for runoff capture and use throughout the basin on a watershed basis;
- An initial prioritized list of potential multi-benefit GI projects; and
- Strategies for implementation of these and future projects.

Further, since only projects that are included in a storm water resource plan are eligible to receive State bond funding for implementation, projects identified in the Santa Clara Basin SWRP will be able to receive future grant funding.

Geographical Boundaries

The area that will be addressed by the SWRP comprises portions of the Santa Clara Basin and the Alameda Creek Watershed that are within the boundaries of Santa Clara County. This area drains to the San Francisco Bay and fully encompasses 13 local cities and towns, and four major sub-watersheds, including Coyote Creek, Guadalupe River, West Valley and Lower Peninsula watershed areas, in addition to the Baylands area.



Santa Clara Basin SWRP Boundary

[1] SCVURPPP is an association of thirteen cities and towns in Santa Clara Valley, the County of Santa Clara, and the Santa Clara Valley Water District (Co-permittees) that share a common NPDES Municipal Regional Permit (MRP) to discharge stormwater to South San Francisco Bay.

SWRP Development Budget

The development of the SWRP is being funded by a Prop 1 grant from the State Water Resources Control Board (SWRCB) to the District. The total amount of available grant funding is $471,708. SCVURPPP and its Co-permittees are providing an in-kind match of $473,125.

SWRP Development Team

The SWRP will be developed by staff from SCVURPPP and the District, as well as technical consultants as needed for specified tasks. A **Technical Advisory Committee** (TAC) consisting of participants from Co-permittee agencies, US EPA (Region 9), SWRCB, San Francisco Bay Regional Water Quality Control Board, and Stanford University will provide technical support for SWRP development.

Stakeholder Involvement

The SWRP development process will include active stakeholder involvement. Stakeholders will be solicited from diverse local organizations, including not-for-profits, open space districts, and water supply/quality agencies. Stakeholder meetings will be held to solicit stakeholder input. In addition, one or more public workshops will be held to obtain feedback from the public on the draft SWRP.

SWRP Development Process

The following key tasks will be implemented to develop the SWRP:

- Existing information, related plans, hydrologic and hydrogeologic data, design criteria, and available GIS data needed for evaluating watersheds and identifying/prioritizing potential projects will be collected.
- Hydrologic/hydraulic models, water quality models and other GIS-based decision support tools will be evaluated to select the appropriate tools and modeling approach to identify projects, conduct the metrics-based benefit analyses to prioritize projects, and track project implementation.
- A process for identifying and prioritizing potential project opportunities using a metrics-based analysis of project benefits will be developed. Using this approach, potential multi-benefit project opportunities will be identified.
- The identified potential projects will be screened further for feasibility of construction and potential for runoff volume reduction/capture and pollutant load reduction.
- The selected models and tools will be applied to the list of potential projects to quantify runoff capture (water supply benefit) and pollutant removal effectiveness (water quality benefit). The list of potential projects will be further analyzed for additional benefits, such as: creating/restoring wetlands and/or riparian habitat; providing instream flows; increasing park and recreation lands and recreation opportunities; providing urban green space; increasing tree canopy; reducing heat island effect; improving air quality; and maximizing flood management. The outcome of this task will be a prioritized list of multi-benefit projects.
- Conceptual project designs will be developed for up to 10 selected high priority projects.
- An implementation strategy will be developed. It will include a method for tracking and reporting the implementation of priority projects.

The Final SWRP Document will be completed and submitted to the SWRCB by December 2018.