Planning & Transportation Commission

Staff Report (ID # 9997)

Report Type:	Study Session	**Meeting Date:**	1/30/2019

Summary Title: Green Stormwater Infrastructure Plan

Title: Study Session to Review and Provide Comment to Public Works Staff Regarding the Draft Green Stormwater Infrastructure (GSI) Plan. The Municipal Regional Stormwater National Pollutant Discharge Elimination System Permit (MRP), requires the City to develop and implement long-term GSI Plans 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. The Plan Must Be Completed and Approved by September 30, 2019. For More Information, Contact Pamela Boyle Rodriguez at Pamela.BoyleRodriguez@cityofpaloalto.org<<Title>>

From: Jonathan Lait

RECOMMENDATION

It is recommended that the Planning and Transportation Commission review and provide comments on the draft Green Stormwater Infrastructure Plan.

BACKGROUND

This informational report is intended to provide additional background to the Commission regarding the City of Palo Alto's (City) Green Stormwater Infrastructure (GSI) Plan (Plan), currently an 85% DRAFT version (see attached and posted at cityofpaloalto.org/gsi). In order to meet the timeline set by the Regional Water Quality Control Board (Water Board), the City Council must accept the new plan by June 30, 2019.

GSI uses vegetation, soils, and natural processes to manage stormwater runoff (Figure 1). Where feasible, the City hopes to gradually integrate GSI features into its urban landscape and stormwater conveyance systems over several decades. This process will, in time, create a more resilient, sustainable system that will carry out one or more of the following functions:

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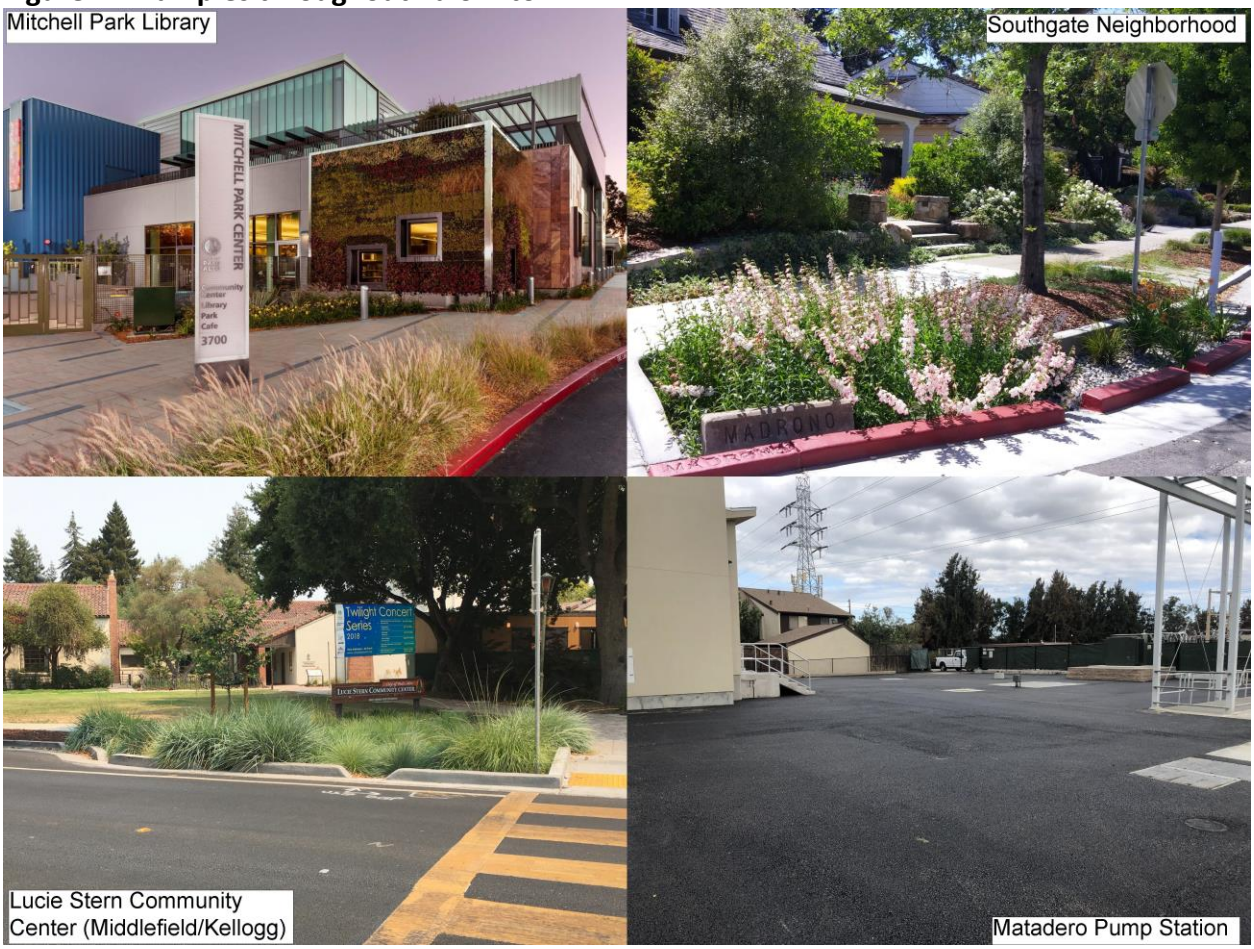
1) reduces, slows and detains runoff by dispersing it to vegetated areas;
2) promotes infiltration and evapotranspiration;
3) collects runoff for non-potable uses;
4) treats runoff using biotreatment and other GSI practices; and
5) incorporates landscaping features within areas that encourage more pedestrian and bicycle safety.

The City is subject to the requirements of the Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) Permit 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 municipalities and flood control agencies that discharge stormwater to the San Francisco Bay (Bay). Under the MRP and previous permits, new development and redevelopment projects on private and public property that exceed certain size thresholds have been required to mitigate water quality impacts by incorporating site design, pollutant source control and stormwater treatment measures. One of the requirements of the current MRP is to identify public (and potentially) private opportunities to integrate GSI measures on parcels, roofs, streets, parking lots, and other elements beyond the current threshold requirements. The GSI Plan serves to meet the MRP requirement and outlines how the City aims to transform its stormwater infrastructure and impervious surfaces over years to come.

Prior to Plan development, the Permit required the approval of the Green (Stormwater) Infrastructure Plan Framework (outline document) by June 30, 2017. The Framework document was signed by the City Manager and timely submitted to the Regional Water Quality Control Board (Water Board) by September 30, 2017 as an attachment to the City's 2017 Regulatory Annual Report.

Figure 1. Examples throughout Palo Alto



The GSI Plan contains certain mandatory elements (per the MRP) as well as other elements desired by the City. The GSI Plan elements are briefly listed below.

- Project Identification and Prioritization Process for planned and proposed projects
- Impervious Surface Targets
- Project Tracking System
- Construction Guidelines and Specifications
- Integration with Current and Future Plans
- Evaluation of Funding Options
- Implementation Plan & Schedule
- Outreach and Education

Internal and external collaboration during the Plan development process involved creating a GSI Workgroup, made up of staff from various City departments, with meetings that began in March 2017. In addition, GSI Plan updates have been presented regularly to the Stormwater Management Oversight Committee (SWMOC), which is made up of City Council-appointed residents and was formed to review expenditures of the City's Stormwater Management Fee.

Additional presentations to City Commissions and the public include: 1) Parks and Recreation Commission (Nov. 2018 and Jan. 2019); 2) Planning and Transportation Commission (Jan. 2019); and 3) a public meeting (tentatively planned for end of March). The 85% Plan has been posted on the City's GSI webpage (www.cityofpaloalto.org/gsi).

Finally, outreach efforts have included a City utility bill insert in August 2018 and the establishment of a City webpage (www.cityofpaloalto.org/gsi) to provide information about GSI and the Plan. The website will be periodically updated, and once available, the Draft GSI Plan will be posted on the webpage for review.

DISCUSSION

This presentation summarizes the 85% DRAFT version of the GSI Plan. The following briefly describes some of the key items that were addressed in the Plan as implementation actions to meet Permit requirements.

1. Updates to City Plan and Policies

    a. Per the MRP, the City must update or modify all of its planning documents to incorporate GSI-related language by the end of the Permit term (end of calendar year 2020). The Plan describes all documents that were reviewed and to what extent each needs to be updated. Staff will coordinate with the appropriate departments to amend plans and documents. The following describes changes to plans and programs that staff intends to address first.

    b. *Action:* Comprehensive Plan

        The Comprehensive Plan serves as the primary tool for guiding the future development of the City. The 2017 update includes language to promote GSI and support the GSI Plan. However, there are opportunities to expand GSI language and to clearly connect this Plan to the GSI Plan. Staff recommends that a memo addressing the link with the GSI Plan be attached to the current Comprehensive Plan. Further integration of GSI language will be included in the next Plan update.

    c. *Action:* Bicycle and Pedestrian Transportation Plan (BPTP)

        Because the timeline of the next BPTP update is unknown, an interim policy will be drafted in the short term to direct that future Department of Transportation (DOT) projects be evaluted to include GSI. A subsequent phase would involve a comprehensive BPTP update to be led by the DOT, which would establish street design standards that not only consider pedestrian, bike and school safety, but also address the establishment of GSI.

    d. *Action:* Storm Drain Master Plan (SDMP)

The next update to the SDMP will include an analysis of how the integration of both traditional and green stormwater infrastructure (GSI) can be designed to provide adequate capacity for all size storms. The analysis will consider using GSI in areas that experience ponding as well as in combination with larger pipe infrastructure (designed to treat 10-year storms). As with the

BPTP, an interim policy will be drafted to ensure GSI is considered when storm drain infrastructure system improvements occur. When the SDMP is updated, GSI

language and the feasibility of GSI integration into the City's storm drain system will be included.

e. *Action:* Street and Sidewalk Improvements Program

Since streets and associated impervious surfaces are direct stormwater runoff conduits, it is a clear fit to integrate GSI into this program. This will not only meet MRP requirements, but also support meeting multiple Departmental goals. Although streets may sometimes be improved at the surface (some types of GSI are installed below the ground surface), it is important to nevertheless establish a standard that each project be assessed using GSI feasibility tools. Although a plan is not in place for this Program, a policy will be established to guide how all future improvements are constructed and designed in regards to GSI. This policy will be adjusted over time as needed and as funding becomes available.

f. *Action:* Capital Improvement Projects (CIPs)

As required by the MRP, staff that manages CIPs, including construction, facility and infrastructure improvements, and major utility upgrades, must evaluate projects for GSI opportunities. An internal policy will be established to direct staff to follow a GSI evaluation process to ensure full staff participation.

2. Details and Specifications Manual

   a. The City does not have standard engineering specifications or design guidelines for GSI features that can be used consistently for public and private projects.

   b. *Action:*

   The City will contract with a consultant to create City-specific engineering designs that will be vetted by all Departments. Watershed Protection Group (WPG) staff met with City staff in October 2018 to develop a list of criteria that will inform a Scope of Work for the Request for Proposals.

3. Maintenance and Monitoring Plan

   a. Current features at City facilities and right-of-way areas may not be maintained using best practices and, thus, may not be as effective as the intention of design.

   b. *Action:*

      i. The City will contract with a consultant to create a Maintenance & Monitoring Plan.

      ii. Coordinate the development and regular implementation of maintenance agreements for each public site. Responsibilities and best practices will be clearly identified and revisited on a yearly basis.

4. Internal Procedures

a. Standardized processes and tools need to be in place to guide staff in determining feasibility of the addition of GSI to a project and to avoid missed opportunities.

b. *Action:*

i. Establish a map-based, evaluation and tracking process to evaluate future (City) projects at the scoping phase for the opportunity to include GSI measures.

ii. Conduct regular coordination meetings led by the Stormwater Program to ensure this process is followed.

5. Education and Outreach

a. Need for increased understanding of community-wide benefits of GSI (e.g., stormwater capture and reuse).

b. *Action:*

The City will contract with a consultant to create an outreach strategy and plan with adequate tools to increase support for the implementation of the GSI Plan.

6. Funding

a. Although the City's residents have demonstrated their high level of commitment to stormwater issues by voting to implement a stormwater management fee to fund stormwater projects in the City, a limited proportion is allocated for GSI.

b. *Action*: Short-Term Funding Needs and Opportunity Analysis (Phase 1)

WPG staff has contracted with a consultant to conduct a short-term analysis by late spring of 2019. This analysis will identify several methods that may serve as best-fit, feasible options for the City. This analysis will also identify lessons learned and questions to be further explored during the long-term funding needs and opportunity analysis.

c. Action: Long-Term Funding Needs and Opportunity Analysis (Phase 2)

The City will contract with a consultant to expand upon the short-term analysis in fiscal years 20-21. These funding options would ultimately help fund both construction and maintenance of GSI features.

7. Private Property Opportunities

a. GSI implementation is limited to public property in the 85% GSI Plan.

b. *Action:*

In order to increase the impact of GSI throughout the entire City, it is imperative to consider the establishment of additional requirements for private property, as well as creation of incentives that will reward property owners for installing and maintaining GSI beyond requirements. Through the update of Chapter 16.11 of the Municipal Code (to be adopted by Council by July 2019), (most) new development and redeveloped sites (both public and private) will be

required to install on-site low impact development (LID). LID is a subset of larger-scale GSI systems, which focuses on practices that can be employed at the site-level to

control stormwater. This translates into designing a site to reduce impervious cover, or at least retain the pre-development impervious cover at the same amount, therefore limiting the amount of runoff created on the site. Site design can include disconnecting downspouts and diverting site runoff to landscaping or other permeable features to infiltrate all or the majority of runoff (created by large or long-term storms), thereby managing the amount of pollutants and flows created on-site.

LID, however, generally focuses on reducing site runoff rather than removing or treating stormwater runoff pollutants. Therefore, in FY2020, following the acceptance of this Plan, it would be a logical step to investigate other options to increase private property GSI, which can also be designed to decrease pollutant loads to creeks and the Bay. Examples of options to be explored include, but are not limited to, the following:

i. Decreasing the size threshold trigger for stormwater treatment;

ii. Providing incentives, such as expedited permitting and/or reduced permit fees, for projects that install measures beyond the requirement; and

iii. New development projects are sometimes required to construct new or improve right-of-way features via requirements from other City divisions. Projects that meet a set of criteria (to be determined) could be required to also install GSI features in the right-of-way.

8. Rating and Performance Tools

    a. The design, construction, and maintenance of current GSI features is not evaluated in a way that provides transparency to the use of public funds or effectiveness.

    b. *Action:*

    City staff will evaluate the integration of a rating and performance tool in FY2021, following the approval of the GSI Plan. Rating and performance tools can be used to holistically manage complex projects that can meet multiple objectives of various departments, support the City's Comprehensive and Sustainability Plans (among others), and provide accurate, data-supported results to the public. Such a tool can be integrated into the GSI evaluation process and follow projects through the design, construction and maintenance phases.

ENVIRONMENTAL REVIEW

This is a planning study and therefore does not require California Environmental Quality Act review, because the Plan does not meet the definition of a project under Public Resources Code

21065. An environmental assessment in accordance with CEQA will be prepared for each constructed project.

NEXT STEPS

The GSI Plan must be adopted by City Council by June 30, 2019 in order to meet the required MRP timeline. The following is a brief schedule to complete the development of and ensure City Council's acceptance of the GSI Plan.

Table 1. GSI Plan Timeline

Task	Due Date
(50%) DRAFT GSI Plan	June 2018
1st Parks and Recreation Commission presentation	November 2018
(85%) DRAFT GSI Plan	January 2019
2nd Parks and Recreation Commission presentation	January 2019
Planning and Transportation Commission presentation	January 2019
FINAL DRAFT GSI Plan (100%)	March 2019
Finalized GSI Plan for CITY COUNCIL Acceptance	April 2019
CITY COUNCIL Acceptance of GSI Plan	June 2019

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