TO: **PARKS AND RECREATION COMMISSION**

FROM: **PUBLIC WORKS DEPARTMENT**

DATE: **January 22, 2019**

SUBJECT: **SECOND UPDATE ON THE GREEN STORMWATER INFRASTRUCTURE PLAN (85% DRAFT)**

RECOMMENDATION

This informational report is intended to provide additional background to Commission members regarding the City of Palo Alto's (City) Green Stormwater Infrastructure (GSI) Plan (Plan), currently an 85% DRAFT version, that must be accepted by City Council by June 2019 as required by the Water Board. There is no staff recommendation at this time.

BACKGROUND

Per the first update provided on November 27, 2018 provided to Parks and Recreation Commission (Commission) members, GSI uses vegetation, soils and natural processes to manage stormwater runoff. The City plans to, where feasible, gradually integrate GSI features into its urban landscape and stormwater conveyance systems over several decades.

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). One of the requirements of the current Permit is to create a long-term GSI Plan that identifies public (and potentially) private opportunities to integrate GSI measures on streets, roads, parking lots, roofs, and other elements beyond the current threshold requirements. The (85%) 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 and outreach during the Plan development process continues with the staff-based a GSI Workgroup, as well as updates presented to the Stormwater Management Oversight Committee, and the Parks and Recreation (Nov. 2018 and Jan. 2019) and Planning and Transportation Commissions (Jan. 2019). The 85% will be posted on the City's webpage (www.cityofpaloalto.org/gsi).

DISCUSSION

At the Nov. 27, 2018 presentation to the Commission, the staff summarized general challenges to long-term successful implementation that had been identified during the GSI Plan development process. In addition, proposed solutions were provided to address some of the primary challenges. This presentation continues that discussion and provides further details through its summary of 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 document to incorporate GSI requirements, particularly those that affect the future of any impervious surfaces on City property, in the right-of-way, and storm drain infrastructure, by the end of the Permit term (end of calendar year 2020).

    b. City staff identified several City plans that will need to be updated in order to fully incorporate GSI requirements; staff will coordinate with the appropriate departments to amend any plans and documents.

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

        i. The City's BPTP successfully supported various goals and requirements, including those of the Comprehensive Plan, the Climate Action Plan, and the state Complete Streets Act and regional Sustainable Communities Initiative. When last adopted, the BPTP recommended that work began on another update five years later (in 2017).

        While a complete update will take longer than two years (the Permit deadline), an interim policy will be drafted in the short term to guide future Department of Transportation (DOT) projects. 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 provide the benefits of GSI and provide multiple benefits to highly-used transporation routes.

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

        i. 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, while considering the varying water table depths throughout the City. 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

   i. Since streets and associated impervious surfaces are direct stormwater runoff conduits, and there is a major focus to continuously provide City streets at excellent condition, 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 will 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. This policy will be adjusted over time as-needed and as funding becomes available.

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

   i. As required by the MRP, staff that manages CIPs, including construction, facility, infrastructure and utility upgrades (when feasible), in addition to O&M activities, must evaluate them for GSI opportunities. An internal policy will be established to direct staff to follow this process to ensure full staff participation.

2. Details and Specifications Manual

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

   b. *Action:*

      i. 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 need to be in place for staff to determine feasibility of the addition of GSI to a project, including physical constraints, and to avoid missed opportunities.
    b. *Action:*
        i. Establish a map-based and tracking process to vet future projects planned by the City to be evaluated for the opportunity to include GSI measures.
        ii. Conduct regular coordination meetings led by the Stormwater Program.
5. Education and Outreach
    a. Need for increased understanding of community-wide benefits of GSI (e.g., stormwater capture and reuse).
    b. *Action:*
        i. 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)
        i. WPG staff have a current contract 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)
        i. The City will contract with a consultant to expand upon the short-term analysis in fiscal years 20-21. These funding options would ultimately be used in combination to 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:*
        i. 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, all new and

redeveloped sites (both public and private) are required to install on-site LID, leading to a greater number of small-scale GSI throughout the City. This type of GSI will keep stormwater runoff on-site, while providing more affordable options to engineered treatment measures. However, the benefits of LID will decrease in non-residential areas where stormwater treatment may necessitate pollutant removal. Therefore, in FY2020, following the acceptance of this Plan, it would be a logical step to investigate other options to increase private property GSI such as:

1. Decreasing the size threshold trigger for stormwater treatment;
2. Setting performance-based standards, such as water quality improvement, with a specific timeframe, instead of focusing on the size of the GSI feature;
3. Providing incentives, such as expedited permitting and/or reduced permit fees, for projects that install measures beyond the requirement; and
4. Requiring new development projects of a certain size threshold, and that are already required to construct new right-of-way features, to also install GSI features.

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:*
        i. City staff will evaluate the integration of a rating and performance tool in FY2021, following the approval of the GSI Plan. In order 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, rating and performance tools will be evaluated. Such a tool can be integrated into the GSI evaluation process and follow projects through the design, construction and maintenance phases. further explore in FY2021.

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. 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 Regulatory Annual Report. The following is a brief schedule of the development and adoption of the GSI Plan.

Table 1. GSI Plan Adoption Timeline

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

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