



Memorandum

TO: TRANSPORTATION AND
ENVIRONMENT COMMITTEE

FROM: Kerrie Romanow

SUBJECT: SEE SUBJECT BELOW

DATE: May 22, 2018

Approved

Kerrie Romanow

Date

23 May 2018

SUBJECT: CITY OF SAN JOSE GREEN INFRASTRUCTURE PLAN UPDATE

RECOMMENDATION

Accept this status update on the green infrastructure plan development.

OUTCOME

This report provides the Committee with an update on green infrastructure plan requirements and progress pertaining to plan development.

BACKGROUND

Water enters the City's storm sewer system through approximately 32,000 storm drain inlets. Stormwater flows are conveyed without treatment to local creeks and streams and ultimately to the San Francisco Bay. These flows are comprised of rainfall runoff, excess irrigation water, and other outdoor water that collect pollutants as they run across rooftops, sidewalks, driveways, streets, and landscaping. Green infrastructure is an approach that uses vegetation, soils, and natural processes to filter the runoff and reduce pollutants. It can also reduce localized flooding, enhance traffic safety improvements and walkability, improve neighborhood aesthetics, and reduce the urban heat island effect. The May 23, 2017 staff report to Council, [Approval of the City of San Jose Green Infrastructure Plan](#), further describes the benefits of green infrastructure.

The City's National Pollutant Discharge Elimination System (NPDES) municipal regional stormwater permit (Stormwater Permit) outlines requirements to protect the local creeks and streams. Specifically, the Stormwater Permit compels the City to implement best management practices to control and reduce non-stormwater and polluted stormwater discharges to the storm drains to the maximum extent practicable. The comprehensive Stormwater Permit is organized into 22 provisions and includes mandates that the City:

- reduce the discharge of pollutants to storm drains from routine municipal operations;

- ensure appropriate site design and treatment measures to manage stormwater runoff quality and quantity from new and redevelopment project sites;
- inspect construction sites, and industrial and commercial facilities that could potentially contribute to stormwater pollution;
- prohibit and ensure that illicit discharges are detected, controlled and eliminated; to implement control methods for pollutants of concern such as Polychlorinated Biphenyls (PCBs), pesticides, mercury, and other metals; and
- conduct monitoring to track water quality status and trends.

Green Infrastructure Plan Drivers

Green infrastructure requirements have been included in the Stormwater Permit for several years, imposing new development and redevelopment projects of a certain size to construct stormwater treatment measures to control pollutant discharges. While these regulated developments have been addressed on a project by project basis, the City as a whole, with a particular focus on public right-of-ways and properties which can encompass large areas of impervious land with associated runoff, have not been addressed in a comprehensive way.

Recognizing this gap, the Stormwater Permit added a requirement for a plan to address the issue. Provision C.3 of the Stormwater Permit specifically requires that the City develop a Green Infrastructure Plan for incorporating green infrastructure design elements into public and private lands. Additionally, the Baykeeper consent decree, effective August 11, 2016, obligates the City to develop a Comprehensive Load Reduction Plan describing how the City will reduce stormwater containing bacteria from entering the storm sewer system, distinguishing it from the Stormwater Permit Green Infrastructure Plan requirements which focus on reducing PCBs and mercury. The Green Infrastructure Plan and Comprehensive Load Reduction Plan requirements are similar as they are both intended to be plans that provide reasonable assurance that pollutant loads will be reduced. Because the elements of the two plans are so similar, City staff plan to incorporate the Comprehensive Load Reduction Plan into a single Green Infrastructure Plan.

From an internal perspective, the Green Infrastructure plan aligns with the direction the City is moving toward, with plans such as the Climate Smart San Jose Plan and the Complete Streets Plan, and the smart growth concepts outlined in the General Plan 2040. Similar to these large comprehensive planning documents, the Green Infrastructure Plan is a large undertaking for a city of San Jose's size and requires careful planning and coordination among multiple departments to complete and obtain Council approval of the plan by the Stormwater Permit deadline of September 31, 2019. The City competitively secured the professional consultant services of Paradigm Environmental, supported by subconsultants Lotus Water and EOA, to assist with the development of the Green Infrastructure Plan. These consultants were selected for their expertise in green infrastructure planning and pollutant reduction modeling. The staff report to Council on October 31, 2017, [Master Consultant Agreement with Paradigm Environmental for Green Infrastructure Planning and Reasonable Assurance Analysis](#), provides additional information about the firm and the procurement process.

ANALYSIS

Green Infrastructure Plan Development Status

The Green Infrastructure Plan will describe how the City will shift from directing stormwater flows from impervious surfaces into storm drain infrastructure, where the stormwater runoff is not treated and discharges directly into receiving waters, to a system where stormwater runoff is slowed, infiltrated, used, and/or treated prior to discharge to receiving waters. The Green Infrastructure Plan will be a planning level document to help guide the City with implementation of green infrastructure which will be done for City projects through the capital improvement program.

The Stormwater Permit and consent decree specify several required elements to be included in the Green Infrastructure Plan. Staff has made progress toward completing several of them. The following paragraphs provide a description of the Green Infrastructure Plan elements and progress to date.

Process for Tracking Completed Projects

The Green Infrastructure Plan must describe how the City will track completed projects and calculate pollutant and flow reductions to demonstrate compliance with the Stormwater Permit and consent decree. The City's consultant, Paradigm, is analyzing how much green infrastructure will be required to meet pollutant reduction requirements. Staff is updating existing databases used by the Public Works, Planning, Building, and Code Enforcement, and Environmental Services to gather details on projects that will be incorporated into the calculation of potential pollutant reduction. In addition to tracking existing projects, the Stormwater Permit also requires that the Green Infrastructure Plan contain target projections for the amount of impervious surface that will be treated with green infrastructure by 2020, 2030, and 2040. The City, along with other Bay Area stormwater agencies, are evaluating methods to estimate how much impervious surface, from public and private properties will be redeveloped and include green infrastructure. This will help agencies determine the estimated progress toward meeting the Stormwater Permit pollutant reduction requirements.

Mechanism to Prioritize and Plan Green Infrastructure Projects

The Green Infrastructure Plan will contain a prioritization of green infrastructure project locations. Staff is focusing initial green infrastructure project site selection on regional project opportunities that have the potential to capture and treat runoff from large areas of the City which will provide certain economies of scale as well as be more apt to provide multiple-benefits. These multi-benefit regional projects will not only provide water quality benefits, but also provide other community benefits such as water supply, flood control, and recreation enhancements. It is important to see which sections of the City can be included in large regional projects before identifying smaller project opportunities (e.g. green streets) because small project opportunity areas may fall within a large project area. The plan will include conceptual

descriptions with information such as the water volume treated and amount of pollutants reduced. The inclusion of these project descriptions in the plan will also position the City for future grant funding opportunities. Staff is currently using a project site prioritization map-based tool, to help identify potential City-initiated green infrastructure project locations. The tool scores parcels and street segments based on criteria such as the size of drainage area, property size, and soil type.

Standard Specifications for Incorporating Green Infrastructure into Projects

Green infrastructure design guidance is also a requirement of the Stormwater Permit. The Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP), which consists of thirteen towns and cities subject to the Stormwater Permit, is leading an effort to develop regional design guidance. Regional cooperation allows for the process to benefit from a wide variety of experiences that one City may not be able to provide. It also will result in a document that promotes consistency throughout the region which can help make construction and maintenance activities more predictable and easier to manage. City staff is engaged in the process and is actively participating in regional workshops and interdepartmental meetings to inform the regional effort.

Update of Planning Documents

The Stormwater Permit requires existing planning documents, such as the General Plan, to be updated to include appropriate green infrastructure requirements. This update will ensure that existing and future City planning documents are consistent on green infrastructure requirements and goals for both. The Green Infrastructure Plan consultant is currently reviewing existing municipal plans to determine necessary updates. The Environmental Services Department will coordinate with partner departments to ensure appropriate cross-references and consistency. For example, the Green Infrastructure Plan will reference the City's Complete Streets Plan for general streetscape guidance, but the Green Infrastructure Plan will separately provide more detail on designing green infrastructure into a right-of-way area.

Maintenance and Monitoring Plan

The consent decree requires the City to develop a maintenance and monitoring plan. It will describe how the City ensures green infrastructure is maintained such that it sufficiently meets the goals of the consent decree. It will explain the City's approach, generally the type of treatment systems, specific activities, and data tracking. The maintenance and monitoring plan will help the City establish consistent standards for proper maintenance and enforcement. The consultant is currently developing an outline of the plan. The Environmental Services Department will collaborate with partner departments responsible for implementing the maintenance and monitoring plan to determine how the plan can best support their work.

Evaluation of Funding Options

The Green Infrastructure Plan also must include an evaluation of funding options such as federal, State, and local grants and new taxes or other levies. The Environmental Services Department presented funding options to Council on December 19, 2017 in the [Storm Sewer Funding Alternatives](#) report. SCVURPPP and the Santa Clara Valley Water District are also leading a regional effort to develop a Stormwater Resource Plan that will position the City and other Santa Clara County co-permittees to apply for State Water Resources Control Board Storm Water Grant Program (SWGP) Proposition 1 funding. SCVURPPP anticipates completing an administrative draft of the Stormwater Resource Plan by the end of May 2018. The next SWGP Proposition 1 Grant is expected to be in early 2019.

Project Schedule Milestones

The Stormwater Permit requires that the Green Infrastructure Plan be completed by September 30, 2019. The Environmental Services Department is working with partner departments and consultants to meet the submittal deadline.

| Date | Action |
|---------------|---|
| November 2018 | Consultant and staff complete the first full draft of the Green Infrastructure Plan for interdepartmental review. |
| February 2019 | Green Infrastructure Steering Committee reviews and approves Green Infrastructure Plan. |
| June 2019 | T&E reviews and considers final draft Green Infrastructure Plan. |
| August 2019 | City Council approves final draft Green Infrastructure Plan. |

EVALUATION AND FOLLOW-UP

Staff will return to the Transportation and Environment Committee to update the status of Green Infrastructure Plan development in 2019 and for ultimate approval of the Green Infrastructure Plan in summer 2019.

PUBLIC OUTREACH

This memorandum will be posted on the City's Council Agenda website for the June 4, 2018 Transportation and Environment Committee Meeting. Staff will include public outreach as part of regional project development and is evaluating the approaches used by other established municipal green infrastructure programs and our City's unique needs to determine how best to plan and proceed with outreach.

May 22, 2018

Subject: Green Infrastructure Plan Update

Page 6

COORDINATION

This memo has been coordinated with the Departments of Planning, Building and Code Enforcement, Public Works, Transportation, Parks, Recreation and Neighborhood Services, Office of Economic Development, the Airport, the City Attorney's Office, and the City Manager's Budget Office.

Staff have additionally convened a green infrastructure steering committee and working group comprised of representatives from City departments including the departments of Planning, Building and Code Enforcement (PBCE), Public Works (PW), Transportation (DOT), Parks, Recreation and Neighborhood Services (PRNS), Office of Economic Development (OED), and the Airport to ensure close collaboration amongst key City departments impacted by the plan.

COST SUMMARY/IMPLICATIONS

The final Green Infrastructure Plan will guide the implementation of the Baykeeper consent decree settlement that requires the City to implement projects identified in the Green Infrastructure Plan totaling at least \$100 million over a 10-year period. However, the amount of money and time needed to meet pollutant reduction requirements in the Stormwater Permit are anticipated to extend beyond the \$100 million dollars and 10-year period. Additional funds will be needed to support the ongoing construction, operation, and maintenance of green infrastructure, which will be brought forward as part of future budget processes.

CEQA

Not a project (PP17-009): Staff Reports, Assessments, Annual Reports, and Informational Memos that involve no approvals of any City action.

/s/

KERRIE ROMANOW
Director, Environmental Services

For questions, please contact Napp Fukuda, Deputy Director of Environmental Services, at (408) 793-5353.