



## Item No. 2 Town of Atherton

### **CITY COUNCIL STAFF REPORT – STUDY SESSION**

**TO: THE HONORABLE MAYOR AND CITY COUNCIL  
GEORGE RODERICKS, CITY MANAGER**

**FROM: ROBERT OVADIA, PUBLIC WORKS DIRECTOR**

**DATE: JUNE 5, 2019**

**SUBJECT: RECEIVE AN UPDATE ON THE PREPARATION OF THE GREEN  
INFRASTRUCTURE PLAN AND PROVIDE FEEDBACK**

### **RECOMMENDATION**

Receive an update on the development of the Town's Green Infrastructure Plan and provide feedback.

### **BACKGROUND**

The Town is required to reduce pollutants in stormwater runoff from its municipal storm drains in compliance with the San Francisco Bay Regional Water Quality Control Board's Municipal Regional Stormwater Permit (MRP). Provisions of the MRP require permittees, including the jurisdictions in San Mateo County, to develop a Green Infrastructure Plan for Stormwater (Plan) that outlines how permittees will shift from traditional "gray" storm drain infrastructure – which channels runoff directly into receiving waters without treatment – to a more resilient and sustainable "green" storm water system that captures, stores and treats stormwater before channeling it to receiving waters or infiltrating into the ground, when viable. Examples of green infrastructure (GI) include, but are not limited to, landscape-based areas that use soil and plants to treat stormwater (e.g., bioretention planters or green roofs); pervious paving systems (e.g., interlocking concrete pavers, porous asphalt, and pervious concrete) that allow water to soak into the ground; and rainwater harvesting systems (e.g., cisterns and rain barrels) that capture stormwater for non-potable uses such as landscape irrigation.

For this Permit term, the Plan is being required, in part, as an alternative to expanding the definition of Regulated Projects prescribed in Provision C.3.b to include all new and redevelopment projects that create or replace 5,000 square feet or more of impervious surface areas and road projects that just replace existing impervious surface area. In addition to managing runoff in a more sustainable fashion, the Plan must be designed to collectively achieve specific reductions in mercury and polychlorinated biphenyls (PCBs) in stormwater runoff by 2020 and 2040, per the MRP.

At its meeting on January 16, 2019, the Council approved a contract with Community Design + Architecture for preparation of the Town's Green Infrastructure Plan.

## **ANALYSIS**

As noted above, the MRP requires that permittees plan the transition from traditional "gray infrastructure" to "green infrastructure". The Town's rural character, predominant single-family residential zoning and current policies provide some advantages and disadvantages in regard to the transition. Advantages include heavy tree canopy, pervious shoulder requirements, and the often longer distances stormwater has to flow into "gray" drainage infrastructure which can allow for infiltration. Disadvantages include limited public and private redevelopment projects subject to the stormwater treatment requirements in the MRP, few public parcels to integrate green infrastructure, constrained rights of ways, restrictions regarding curbs that are typically used as a perimeter for street adjacent bioretention facilities, and limited drainage system for biotreatment systems to connect to.

It is important to note that the Town is currently in the preliminary design stage for a water capture and treatment facility at Cartan Field. Though the water capture facility would collect initial flows from the Atherton Channel upstream of Cartan Field for treatment, completion of the project is uncertain and the Town's GI Plan must include the potential that the project does not move forward to completion. Also, the Town Center project has been designed to include stormwater treatment measures. Even with the completion of the Cartan Field water capture project and the completion of the Town Center improvements, additional improvements will be required to meet the Town's 2040 pollution reduction requirements.

In addition, some of the public and private schools located in Town are planning to modernize their facilities, and some of this work may fall under Regulated Project requirements. While the Town would be able to include these treatment measures towards its pollution reduction target, the Town cannot rely on unknown treatment facilities and the timing of such potential facilities. The Town could consider partnering with the schools to add and/or expand stormwater treatment at their sites to help the Town meet its MRP requirements.

CD+A has been reviewing Town policy and master plan documents, such as Zoning, Municipal Codes, Drainage Criteria, Holbrook Palmer Park Master Plan, Drainage Master Plan Update and Bicycle and Pedestrian Master Plan, as well as the Town's roadway configurations to develop policy recommendations that would assist in the transition from gray to green infrastructure. The intent is to take advantage of current policies that already lean towards green infrastructure, such as the Town's Heritage Tree Ordinance that protects the tree canopy, and pervious shoulder policy and enhance and incorporate additional policies to further the installation of treatment facilities. Feedback is requested regarding some of the policy recommendations in these documents, as well as new policy considerations discussed below.

Because of the issues, disadvantages and difficulties previously noted, additional strategies will

need to be considered to help the Town meet the reduction targets. Otherwise, the Town will need to implement green infrastructure facilities in Holbrook Palmer Park and within streets to be able to meet the stormwater treatment targets. A key consideration will be the degree to which the Town would be responsible for the transition as compared to private development. Many cities are shifting the burden to private development, typically commercial and residential subdivisions, by not only requiring treatment of on-site generated runoff, but increasingly to treat the runoff flows along the right-of-way fronting the development. Though it may make sense for the Town to construct and maintain green infrastructure concurrently within intersections or with corridor improvements, such as reconfiguration of the Atherton Avenue/Alameda intersection or corridor improvements along El Camino Real, improvements in other areas may be challenging. In addition to the construction costs, maintenance costs and individual aesthetic considerations will be a challenge for the Town. Property owners are currently responsible to maintain their frontages and property owners and developers currently have the flexibility to design their frontages to their aesthetic with limited restrictions regarding the height and placement of improvements. Should the Town take on installation, it would likely be responsible for maintenance, including removal of debris, correcting potential clogging, trimming plants, ensuring irrigation performance, and performing weed control.

The various stormwater programs in the SF Bay region have begun conversations with the Regional Water Quality Control Board regarding renewal of the MRP. Initial indications are that the definition of Regulated Projects will likely change to reduce the create/replace threshold for impervious area from 10,000 square feet for most projects to 5,000 square feet and to potentially eliminate the exclusion for single family residential projects that are not part of a subdivision or planned development.

## **GREEN INFRASTRUCTURE PLAN STATUS**

CD+A has provided recommended language changes to various Town policy documents to include reference to the GI Plan and its requirements including the following:

- Draft General Plan Update, to be incorporated with the current update.
- Municipal Code, to be considered with the adoption of the GI Plan.
- Water Efficiency and Landscape Ordinance, to be considered with the adoption of the GI Plan.

Other sections of the GI Plan have been or are being developed, including identification and evaluation of potential funding opportunities, and prioritization criteria and factors for green infrastructure facilities. In addition, CD+A is currently in the process of reviewing the Town's Drainage Criteria and Grading and Drainage checklist and Town Standard Specifications. They are also preparing some typical details to provide guidance for certain green infrastructure features. These typical details are anticipated to include:

- Pervious shoulder – though still allowing for flexibility by the property owner, better defining the pervious shoulder requirement to include an infiltration trench/gallery. Landscaped and non-landscaped options would be provided.
- Drainage discharge outlet – this would require an infiltration trench/gallery for private party discharges (typically from detention systems) that would allow for some infiltration prior to surface flows to the right-of-way/pervious shoulder.
- Roadside rain garden – to treat storm flows as they approach a drainage inlet.

CD+A has also advised that the Town should consider including integration of green infrastructure policies and guidance in the following documents when they are next updated, after GI Plan adoption:

- Townwide Drainage Master Plan
- Climate Action Plan
- Bicycle and Pedestrian Master Plan

## **POLICY OPTIONS**

To assist in completing the draft Green Infrastructure Plan, input is needed from the Council regarding priority focus areas and the potential of moving ahead of the Regional Water Quality Control Board's permit requirements regarding development/redevelopment.

Priority focus areas:

- Implementation of Bicycle and Pedestrian Master Plan Improvements – when developing plans to implement Class II bikeways (that require pavement widening) and/or installation of pedestrian pathways, consider the feasibility of installing green infrastructure along side or as a buffer for the pathway.
- Implementation of intersection improvements – incorporate green infrastructure into the improvements, particularly when reconfiguring to redesign or eliminate “pork-chop islands”
- Utilize green infrastructure as traffic calming devices – corner or mid-block planter extensions
- Place bioretention planters or infiltration trenches along streets where impacts to existing trees would be limited
- Require full-site residential developments to incorporate GI along the street frontage
- Require full-site residential developments to incorporate on-site stormwater treatment measures (meeting C.3 guidelines) as a supplement to or to assist in meeting their detention requirements
- Require residential improvements that create or replace 10,000 square feet or more of impervious area to install on-site stormwater treatment measures (meeting C.3 guidelines).

- Reach out to institutional facilities to partner in developing or expanding green infrastructure facilities on the institutional facilities including subsurface infiltration systems, bioretention, pervious pavement, or regional projects.
- Stormwater treatment credit distribution for the proposed water capture facility at Cartan Field.
- Coordination with the Countywide program to request greater consideration for maintenance and enhancement tree canopy coverage for stormwater treatment credits.

### **FISCAL IMPACT**

None at this time.

### **PUBLIC NOTICE**

Public notification was achieved by posting the agenda, with this agenda item being listed, at least 72 hours prior to the meeting in print and electronically. Information about the project is also disseminated via the Town's electronic News Flash and Atherton Online. There are approximately 1,200 subscribers to the Town's electronic News Flash publications. Subscribers include residents as well as stakeholders – to include, but be not limited to, media outlets, school districts, Menlo Park Fire District, service providers (water, power, and sewer), and regional elected officials.

### **COMMISSION/COMMITTEE FEEDBACK/REFERRAL**

This item \_\_\_\_ has or X has not been before a Town Committee or Commission.

- \_\_\_\_ Audit/Finance Committee (meets every other month)
- \_\_\_\_ Bicycle/Pedestrian Committee (meets as needed)
- \_\_\_\_ PMC - Civic Center Advisory Committee (meets as needed)
- \_\_\_\_ Environmental Programs Committee (meets every other month)
- \_\_\_\_ Park and Recreation Committee (meets each month)
- \_\_\_\_ Planning Commission (meets each month)
- \_\_\_\_ Rail Committee (meets every other month)