

MEMORANDUM



Bellevue Parks &
Community Services

Date: June 8, 2021

To: Parks & Community Services Board

From: Geoff Bradley, Natural Resource Manager
Rick Bailey, Forest Management Program Supervisor
Parks & Community Services

Subject: Forest Health Assessment (FLAT) Project Update
(Informational – no Board action requested)

At your Tuesday, June 8, 2021 Parks & Community Services Board meeting, we will present information about a project currently underway that utilizes the Forest Landscape Assessment Tool (FLAT) model to assess the current ecological health of approximately 2,000 acres of undeveloped open space that is managed by the Natural Resource Division.

Background

The City of Bellevue Natural Resource Division provides site management of approximately 2,000 acres of undeveloped forested public open space properties within the City of Bellevue. These open space properties are geographically distributed throughout the city and consist of upland forests, lowland forests, steep slopes, meadows, shorelines, wetlands and riparian corridors. These properties are managed for a wide variety of community benefits including recreation, wildlife habitat and ecosystem functions such as stormwater retention, air and water filtration and carbon sequestration.

In 2008, the Natural Resource Division recognized the need to analyze the health of these open space properties to assist in prioritizing management goals and to help allocate resources more effectively. This led to the implementation and development of various forest health assessment models that were available at the time, including the use of the Urban Forest Effects Model (UFORE) and creation of the Forest Condition Assessment Model (FCAM). These plot-based assessment models provided the Natural Resource Division with good baseline information, however, they did not provide a comprehensive inventory of the entire open space system. Data collection also proved to be labor intensive which made follow-up sampling and monitoring unfeasible due to limited resources.

In 2013, the first edition of the Forest Landscape Assessment Tool (FLAT) Field Manual was published and made available for use. FLAT provides a mechanism of performing a rapid

assessment of ecological conditions of undeveloped forested land that is less labor intensive and more cost efficient compared to more traditional models. Most importantly, FLAT provides a comprehensive baseline assessment of an agency's entire open space system and can be readily adapted for monitoring progress over time. Several public agencies in the Puget Sound region have successfully used data collected through FLAT to develop forest stewardship plans, prioritize restoration funding and efforts, and monitor restoration success over time. The availability of this rapid assessment model provided the Natural Resource Division a tool to efficiently evaluate the ecological conditions of all managed open space acreage, and as such, the decision was made to proceed with implementing FLAT here in Bellevue.

Funding, Consultant Selection, Deliverables, Project Schedule

In 2019, the Natural Resource Division received a \$50,000 King Conservation District grant to help supplement half of the \$100,000 project estimate. Through an open and competitive process, The Watershed Company was selected in the spring of 2020 as our consultant to implement the FLAT analysis, and a total contract value was negotiated at \$103,000. The remaining \$53,000 difference is being matched through the Natural Resource Tree Settlement fund which is a fund dedicated toward forest restoration efforts. This project will have no fiscal impact to current operational and capital budgets.

Project deliverables will include the following:

1. GIS Mapping & Data: One (1) electronic copy of shape file(s) compatible with ArcGIS/ArcMap version 10.3.1 or newer.
2. Natural Resource Stewardship Plan: One (1) electronic copy in PDF format and four (4) bound hard copies.
3. Site Specific Enhancement Plans: One (1) electronic copy in PDF format and two (2) bound hard copies.

Detailed information about the project scope will be presented during the Board meeting. This project is currently scheduled to be completed by the fall of 2021.

Conclusion

As population, traffic, and housing densities in Bellevue continue to increase, so will the need for healthy open space and natural areas to help mitigate the effects of urbanization. Urban forests provide tree canopy that helps intercept and detain storm water, buffer land uses, conserve plant and animal habitat, and protect air and water quality. To ensure that these benefits continue, our public forests must be managed with the same skill and diligence as any other community resource. The implementation of this FLAT project and production of a Natural Resource Stewardship Plan reflects the City's commitment toward delivering a healthy open space system for the benefit of current and future Bellevue residents.