Cool Technology Used to Inventory City Trees

At the September 20 meeting, Warren Payne, parks supervisor, provided Council with information on *TreePlotter,* a web-based comprehensive GIS tree management software application for field data collection and data management. Operations staff use this information to plan their work, monitor and assess trees.

Trees are plotted on a map in the field or in the office with any web connection. Information collected for each tree includes common and Latin name, location, condition, size, required maintenance tasks, and an inspection cycle. The program can generate reports on trees and calculate ecosystem benefits provided by the trees such as estimate of air quality, carbon, and stormwater benefits.

Our operations department has inventoried almost 3,700 tree locations, mostly in parks and on boulevards; there are many boulevards and other public areas yet to be inventoried. Large tracts of urban forest areas such as Top Bridge Park or the Parksville Wetlands are also not yet inventoried.

In 2020, with an upgrade to the software, the program is now being used to inventory other park assets such as benches, garbage cans, memorial bench and tree program, and facility attributes. There are many opportunities to use *TreePlotter* as an asset management program and in fact, there are so many layers to *TreePlotter*, we are still learning what it can do.
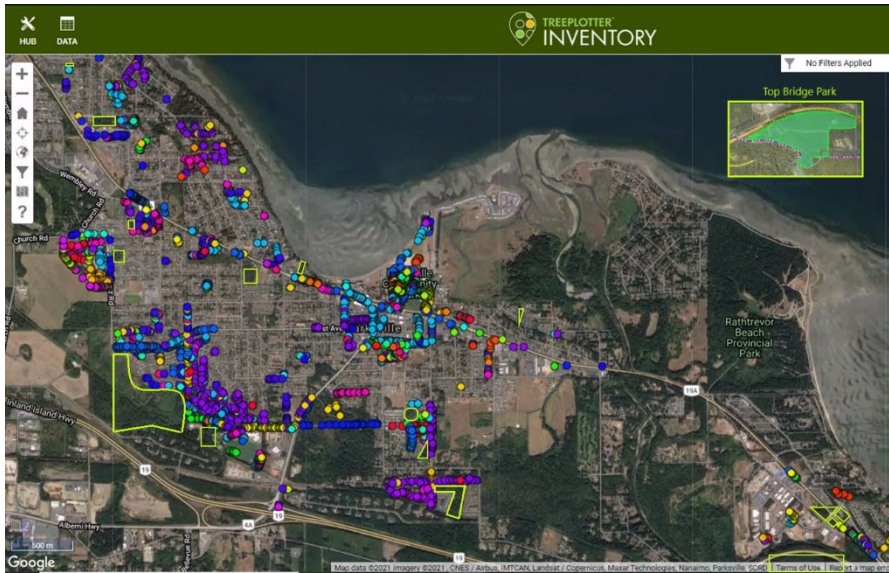
We recently announced consultant, Diamond Head, have undertaken an urban forest strategy for the City. Prior to starting the strategy to determine what our urban forest would be in the future; we knew it would be important to establish a baseline or status of the City's current urban forest. A significant part of establishing the baseline centered around establishing an inventory of City tree assets. We look forward to completing an inventory of all City trees and integrating that information into the urban forest strategy.
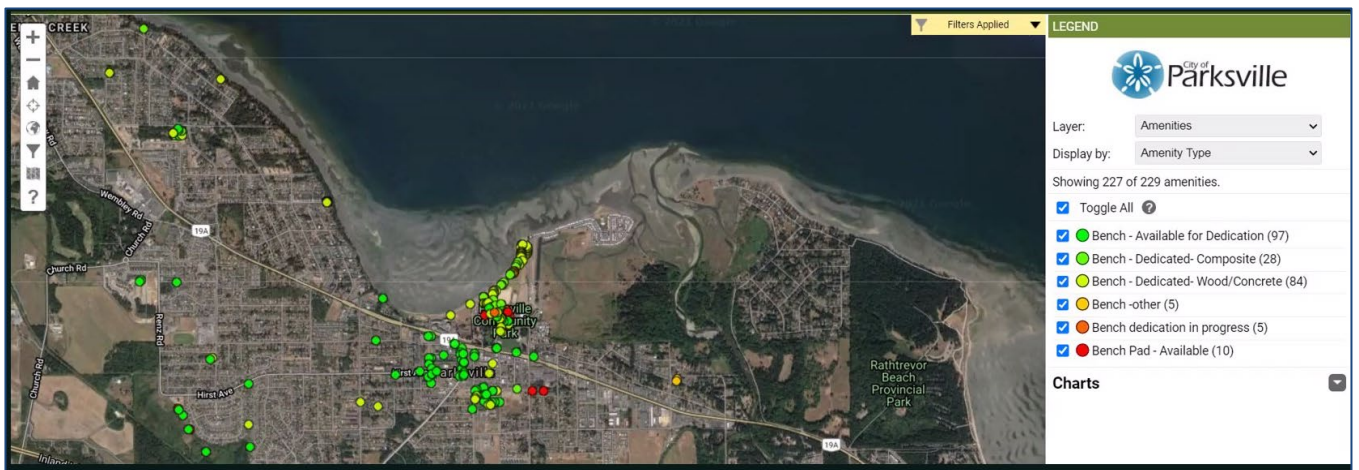
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For more information:

Deb Tardiff, Manager of Communications   dtardiff@parksville.ca; 250 954-3073

Map shows inventoried trees

Map shows City benches

Total Tree Value and Savings

Total Monetary Benefit: $284,786

Benefits are only calculated for trees with defined species, DBH (cm), and land use based on i-Tree research. Totals are annual amounts.

Stormwater Monetary Benefit
$30,381

Runoff Prevention (Gallons)
2,812,740

Property Value Total
$212,468

Energy Savings
$12,757

Energy Saved (kWh)
200,588

Natural Gas Savings
$19,749

Heat Prevention (Therms)
21,783

Air Quality Monetary Benefit
$3,732

Pollutants removed (lb)
1,944

Carbon Monetary Benefit
$5,697

Carbon Stored (lb)
759,628

Carbon Sequestered (lb)
372,545

Carbon Avoided (lb)
442,319

Shows the total value of 3,643 trees