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CAPITAL PROJECTS

CARING FOR YOUR INFRASTRUCTURE TO KEEP KIRKLAND HEALTHY, SAFE AND VIBRANT

A downtown Kirkland resident pushes her groceries along the Kirkland Avenue sidewalk. Tree roots have pried the panels upward, creating challenging walking conditions for many travelers.

Tree roots have eroded the accessibility of Kirkland Avenue's sidewalk. The City has plans to repair it. Those plans require the removal of 12 trees.

Hours before Sterling Cassel encountered Kirkland Avenue's disjointed sidewalk on Jan. 28, he accompanied his 89-year-old mother-in-law on a stroll around downtown.

"She uses a walker to get around," he says. "So accessibility was on my mind."

As a downtown business owner, Cassell had walked the stretch between the Kirkland Library and the Kirkland Performance Center countless times. But his experience with his mother-in-law just a few hours earlier helped him to see just how inaccessible that section of sidewalk had become.

"It occurred to me that between the KPC, the pool, the senior center and the library, that sidewalk is a main thoroughfare and it was heaved with root intrusion," he said.

So he wrote the City of Kirkland a note, via www.repd.us/kirkland.

"It would be impracticable for a person in a wheelchair to negotiate this stretch of sidewalk ..." Cassell wrote. "Is

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there a plan to repair the sidewalk heaving?"

The answer is yes.

The City of Kirkland is planning in summer to restore accessibility to this section of sidewalk.

Contractor's crews will remove the five-foot sidewalk on the north side of Kirkland Avenue between the Kirkland Library and the Kirkland Performance Center.

In its place, they will pour an eight-foot sidewalk that will accommodate a wider volume and variety of traffic.

"This section of sidewalk receives a lot of foot traffic," says Laura Drake, supervisor of Kirkland's capital improvement program. "So we want to make sure the new sidewalk is accessible to everybody, but also to a lot of people at once."

Kirkland Avenue's sidewalk restoration is one of 54 city-wide improvements funded by the $20 car tab increases the Kirkland City Council implemented in 2024. And it is part of a $2.1 million capital project aimed at impoving accessibility in four downtown locations: The others are at two crosswalks on Lake Street and one on State Street.

Wrong place for trees

The cost of the Kirkland Avenue sidewalk, however, cannot be measured in dollars alone. For this project, it must also be measured in trees. The City will have to remove 12 trees—a mix of Sweetgums, Zelcova, Oak and Pear trees—that line the sidewalk and nearby crosswalk.

The reason: Construction will fatally injure them.

"This was never the right place for these trees," said Ryan Fowler, a 17-year certified arborist and manager of Kirkland's streets and ground division. "Urban environments already present challenging conditions for street trees. But the space originally alotted to these trees was never sufficient."

The Zelcova at the Kirkland Library, for example, outgrew its planter area long ago. In response, its roots have buckled the curb, the street's pavement and the sidewalk. Its canopy outgrew its space, as well, blinding drivers to the Third Street intersection's stop light just west of it.

Planting the Sweetgums between the sidewalk and the street left their aggressive roots with one source for consistent water: the joints between the sidewalk panels.

Tree roots protrude beneath the Kirkland Avenue sidewalk, near the Kirkland Performing Arts Center. The street trees—a combination of Sweetgum, Zelcova, Pear and Oak trees—continue to dismantle the sidewalk between the Kirkland Library and the performing arts center. The City is planning to rebuild the sidewalk this summer.

"Sweetgums are now known to have an aggressive root system that can cause significant damage to sidewalks," Fowler says. "When planted in constrained, compacted spaces without proper root barriers, their roots often lift sidewalks, fill sidewalk joints and damage nearby pavement, leading to cracking and long-term structural damage."

To mitigate the harm, the City has tried a piecemeal approach. In 2009, for example, Kirkland's maintenance division replaced one of

EBB and FLOW

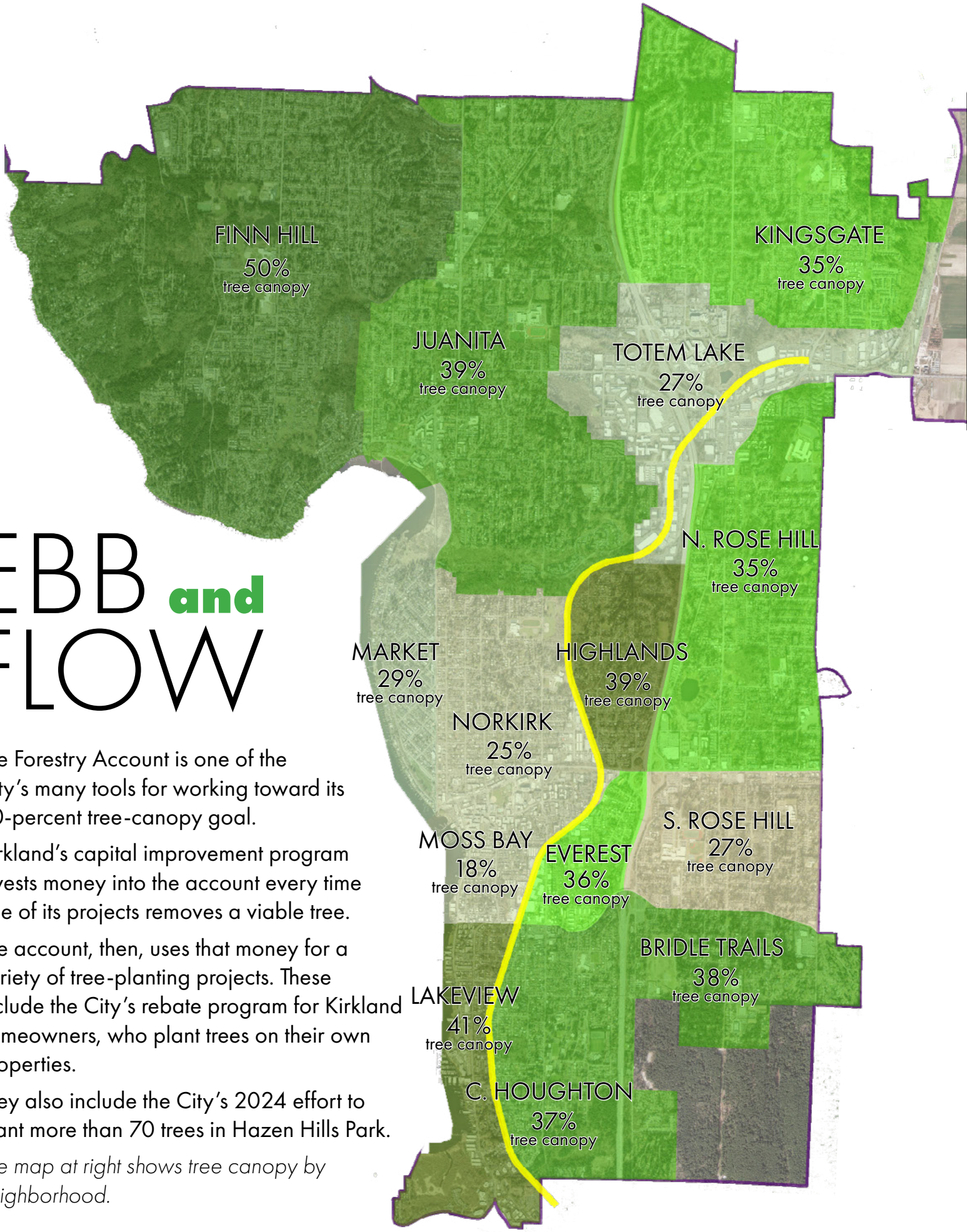
The Forestry Account is one of the City's many tools for working toward its 40-percent tree-canopy goal.

Kirkland's capital improvement program invests money into the account every time one of its projects removes a viable tree.

The account, then, uses that money for a variety of tree-planting projects. These include the City's rebate program for Kirkland homeowners, who plant trees on their own properties.

They also include the City's 2024 effort to plant more than 70 trees in Hazen Hills Park.

The map at right shows tree canopy by neighborhood.



Kirkland Avenue's dangerously disjointed sidewalk panels. A few years later, roots had already pried the new panel out of place, re-creating an old tripping hazard.

"Removal, then, becomes the only sustainable remedy," Fowler says.

Nowadays and in many urban environments, arborists can lure roots away from sidewalks and streets with better planting techniques, such as root barriers and under-pavement soil systems, called bio-retention cells, which prevent soil compaction.

Those techniques require money and space. And Kirkland Avenue is out of space.

"Even with bio-retention cells and root barriers, that section of Kirkland Avenue is not a good candidate for trees," Fowler says. "There's too many conflicts and not enough space."

Using funds from the forestry account, the City planted 70 trees in 2024 to improve habitat around the creek that runs through Hazen Hills Park.

Beneath the sidewalk and the street, are networks of cables and pipes—water, sewer, stormwater and communications infrastructure—that prevent re-planting.

To the north is Peter Kirk Park, where the City is planning to renovate its pool and poolhouse.

"At this point, we don't know where exactly that project will be planting trees," Fowler said. "The last thing we want is to plant replacement trees for the Kirkland Avenue sidewalk project and then have to rip them out for the pool renovation project."

For these reasons, the City will not replant trees along this section of Kirkland Avenue.

Restoring Kirkland's tree canopy

Fortunately, the City has a process for making things right for the Kirkland Avenue trees it'll have to remove.

And that process is part of the City's strategy for keeping within reach of its goal of a 40 percent city-wide tree canopy.

Any time the City, private developers or landowners remove a tree, Kirkland's code requires them to either replace it in the same location—or pay for its replacement elsewhere in the city.

The Kirkland Avenue sidewalk project, for example, is contributing $18,000 for the dozen trees it is removing. The City will use that money to plant a dozen trees where they can thrive.

One of the most tree-intensive capital projects the City has pursued recently is the Northeast 85th Street multi-modal pathway. That project removed 122 viable trees—most of them Cottonwoods and Poplars.

It is replacing half of them on-site and paying to plant the other half elsewhere in city.

This practice, along with other efforts, such as Kirkland's tree rebate program, helps to compensate for the trees that urban progress must inevitably remove.

"It's a constant challenge of maintaining the built environment and, at the same time, protecting trees," says Anna Heckman, Kirkland's environmental program manager. "And that's the purpose of this program."

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—ANNA HECKMAN,

Kirkland's environmental program manager