

City of Alexandria, Virginia

Urban Forestry Program Improvements

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Alexandria's Urban Forest



- 30,000+ trees along streets, in landscaped parks and public properties.
- 10,000's more in natural areas and private property
- Strategic goal of 40% canopy cover by 2035.



Alexandria's Trees are Essential Climate Resilience Infrastructure



- Mitigates heat island by up to 9 degrees F
- Mitigates 669,000 cubic ft/year of stormwater runoff. (5 million gallons)
- Stores 11,000 tons of carbon (C)
- Sequesters an additional 363 tons C / year



Planting is currently driven by resident 311 requests



- Resident places planting request
- Staff inspects site and begins correspondence with resident
- Resident chooses tree species and locations
- Money leftover is used for staff directed planting

Resident request model does not support City objectives or values



- Skews composition of tree population to be less diverse, less native and more ornamental
- Biases planting resources towards residents that have the time, capability, and competency to engage with City staff
- Requires significant staff/contractor time per tree in driving, setup, phone calls, and email
- Resident 311 planting orders from FY2022 consisted of 62% small, ornamental trees



Redbud Vs. Willow Oak

Willow oak provides 1250 sq ft.
canopy after 20 years

Redbud provides 500 sq. ft.
Canopy

Alexandria's largest willow oak
stores 8x more C than our largest
redbud.



Proposed Proactive Planting Approach



- No longer accept 311 planting requests
- Staff use data, expertise and strategic goals / values to determine location, species, and timing of plantings
- Notify residents before planting

Improvements can be implemented without additional budget or staff

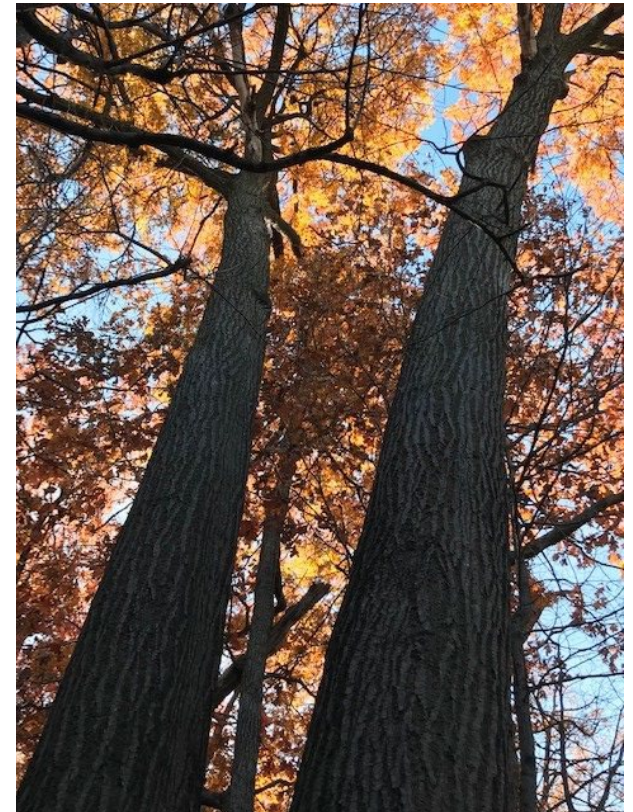


- Requires no new staff capacity
- Frees up significant staff time for other priorities
- Requires no extra funding to implement, though number of trees planted increases linearly with any additional funding secured
- Aligns with Urban Forest Master Plan recommendations 1, 4, and 15

Current Reactive Maintenance Approach Driven by 311s



- Staff inspect trees based on resident requests or emergency callouts
- Some proactive inspection of schools and parks
- Work assigned and handed off to contractor



Issues with current approach



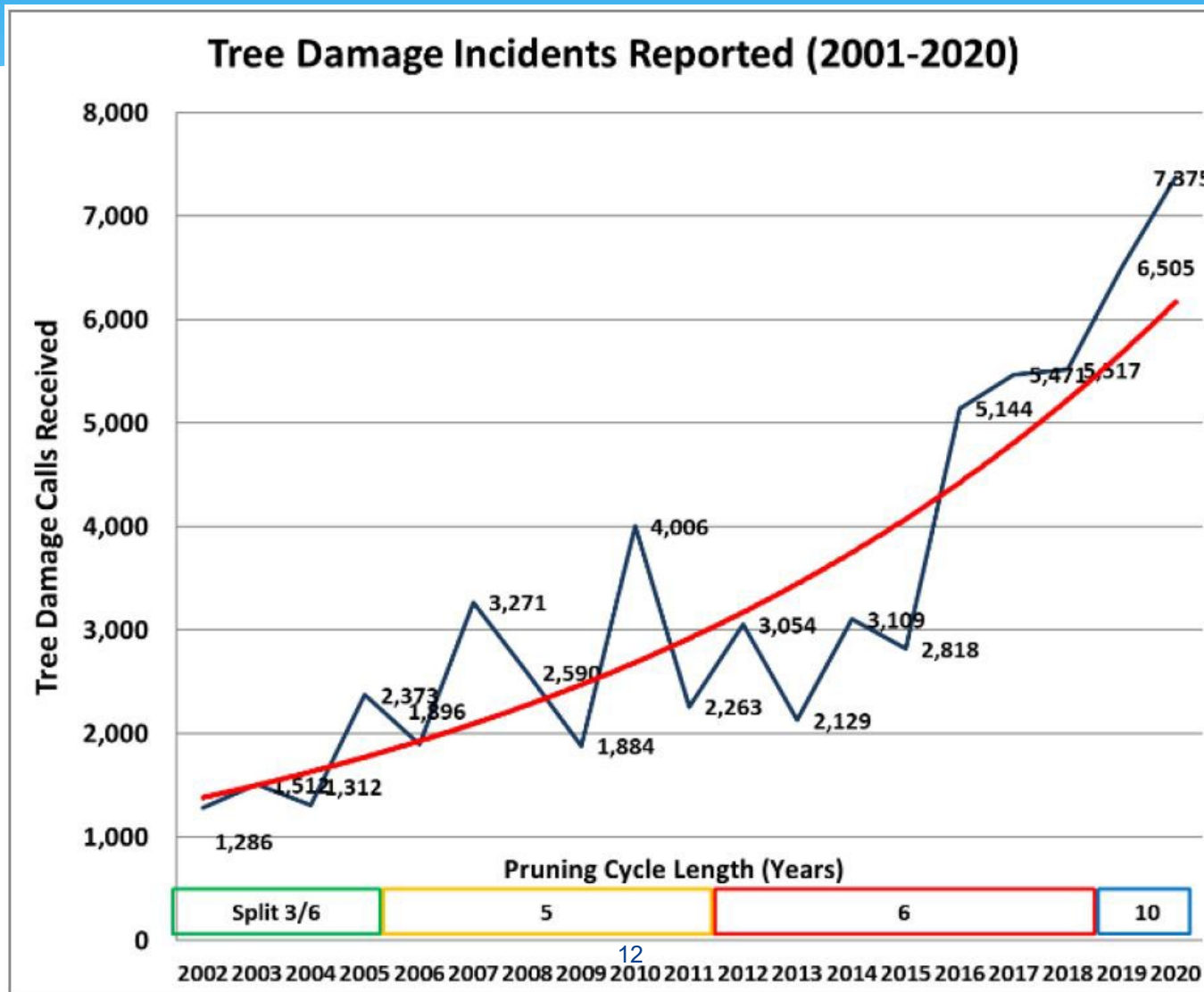
- Biases maintenance towards residents with time, competence, and capability of engaging with City staff
- Requires significant staff/contractor time per tree in driving, set-up, phone calls and email
- It is potentially 2x more expensive per tree.
- Increases risk and liability by reacting to rather than preventing failures

Proposed Proactive 'Scheduled' Maintenance Approach



- Each tree receives juvenile prune for structure at age three by staff or contractor
- All trees maintained by systematic maintenance cycle. Frequency of care determined by budget.
- Cycle rotates through city from small area to small area
- Staff inspects and builds work to be completed by contractor
- Aligns with Urban Forest Master plan recommendations 23, 38.

MK Wis. tree failures increase as proactivity decreases



MK Wis. service requests increase as proactivity decreases



Request Pruning



Scheduled maintenance program will require additional funding



- \$328,000 in annual funding for 10 year inspection cycle requested FY 2023
- An additional \$140,000 would fund a 7 year cycle.
- An additional \$328,000 would fund a 5 year cycle

Proposed Next Steps



- Strategic planting program could begin FY 2023. Existing 311 planting requests will be honored
- Scheduled tree maintenance cycles could begin FY2023
- Present to City Council
- Public updates through website and outreach program to be determined