

“There is not a village in America, however badly planned at first, or ill-built afterwards, that may not be redeemed, in a great measure, by the aid of shade trees in the streets ... and it is never too late or too early to project improvements of this kind.”

Andrew Jackson Downing (1815-1852)

AGENDA

CITY OF PORTSMOUTH

TREES AND PUBLIC GREENERY COMMITTEE

8:00 AM – Wednesday, November 13, 2024

City Hall Conference Room A and via Zoom

To register in advance for this webinar via Zoom:

https://us06web.zoom.us/webinar/register/WN_6Mqo_nV0TJS3Fe0mgvB3vA

After registering, you will receive a confirmation email containing information about joining the webinar.

1. Acceptance of Minutes of September Meeting
2. Tree Removal Requests

Removal requests:

- 826 South Street: 1 red oak, poor condition, City request, removal recommended by City. This tree has a significant lean over the road, and a recent sidewalk installation has likely damaged roots. The canopy is in decline overall and there are shoots throughout, suggesting stress. My fear is the tree will fail due to its excessive lean and poor vigor.
- 151 Clinton Street (on Stark Street): 1 cherry, fair condition, resident request, removal recommended by City. This tree has declined recently due to abnormal weather in the spring. Structural issues such as cavities and rot near attachments points of major limbs exist.
- 10 McClintock Avenue (on Woodworth Avenue): 1 ash: poor condition, resident request, removal recommended by City. The tree is showing signs of EAB. I’ve observed bark blanding and exit holes in the upper crown.
- 21 Pleasant Street: 2 ash, poor condition, removal recommended by City. Both trees are showing signs of EAB. I’ve observed bark blanding, exit holes, and significant dieback.
- 2 Market Street (on Pleasant Street): 2 Norway maple, poor condition, removal recommended by City. These trees are in various states of decline. Both have declined significantly in the central portion of the crown.

3. Update on City’s ongoing tree maintenance and planting plans
4. Discussion of Heat Island study
5. Old Business

6. New Business

Next Meeting: Wednesday, December 11, 2024

Respectfully Submitted,

Peter J. Loughlin, Chair

Attachments: October Minutes
Heat Island Study by Urban Forestry Intern Mariely Duran

**MINUTES of the
City of Portsmouth
Trees and Public Greenery Committee Meeting
October 9, 2024**

Members Present: Chair Peter Loughlin; Vice-Chair Patricia Bagley; Director of Public Works Peter Rice; City Arborist Maxwell Wiater; Members Dennis Souto, Michael Griffin, and Deborah Chag

Members Excused: A. J. Dupere, Assistant Mayor Joanna Kelley

Chair Loughlin called the meeting to order at 8:00 a.m.

1. Acceptance of the Minutes of the September 11, 2024 meeting minutes.

*The September 11 minutes were **approved** as submitted.*

Note: the tree removal requests were not reviewed in order because a few residents were present to discuss their trees. The Committee started with 47 Elwyn Avenue, 8 Greenleaf Avenue, and 4 Fairview Drive, and then reviewed the other requests in order.

2. Tree Removal Requests

698 Sagamore Rd: 1 red maple, poor condition, resident request, removal recommended by City. The tree is in decline, and there has been some recent root damage caused by the road project.

Mr. Wiater said the tree was in decline and had mechanical damage at its base due to construction. He suggested that it be pruned at the same time that another red maple next to it was planned to be pruned, and then monitored.

Chair Loughlin asked for a motion. *Ms. Chag moved to recommend pruning and monitoring the maple, seconded by Mr. Souto. The motion passed unanimously*

4 Fairview Dr: 1 European beech, poor condition, resident request, removal recommended by City. The tree has been declining following road work and extensive pruning from Eversource.

The resident Jeremiah Johnson was present and said they had two European beech trees on their property. He said the beech tree in question had trauma to its roots due to the road reconstruction project. He said the power lines were brought up right against the tree because the pole was set further onto his property. He said a leader was removed but the tree's canopy was depleting and he was concerned about his property's safety. He noted that half of the tree belonged to him and the other half belonged to the City. Mr. Wiater agreed that the tree should be removed.

Chair Loughlin asked for a motion. *Mr. Souto moved to recommend removal of the tree, seconded by Mr. Griffin. The motion passed unanimously.*

420 Lafayette Rd: 1 crab apple, poor condition, resident request, removal recommended by City. There are some structural issues at the base of this tree.

Mr. Wiater said the resident was concerned about the cavities in the base of the tree. Mr. Wiater said he agreed and recommended the tree's removal.

Chair Loughlin asked for a motion. *Vice-Chair Bagley moved to recommend removal of the crab apple, seconded by Mr. Griffin. The motion passed unanimously*

47 Elwyn Ave: 1 peach tree, fair condition, resident request. The tree is messy and has been a nuisance in the past for sidewalk and road clearance. The tree is afflicted with a fungal disease.

The resident Chris Hackett was present. He said he could not park in front of his house due to the tree going out to the road, but his main concern was that when the fruit came in, the tree turned into a liability. Mr. Wiater said the tree had a fungal infection and that peach trees were messy. He said he had planned to do a heavier reduction prune on the tree in the winter when the tree was in its dormant state. Mr. Hackett said he couldn't maintain the lawn due to the tree.

Chair Loughlin asked for a motion. *Mr. Souto moved to recommend removal of the tree. Ms. Chag seconded the motion with the suggestion that the tree be replaced. The motion passed unanimously.*

10 Sewall Rd: 1 sugar maple, poor condition, resident request, removal recommended by City. This previously multi-stem tree had a leader removed for line clearance. The large necrotic portion of the trunk is an opening for decay and disease that will never seal. These issues can spread to the included area of the remaining tree.

Mr. Wiater said one of the tree's stems was removed for an Eversource clearance, but he was concerned that the decay from one side of the tree would enter the other side. He said the tree was a good candidate for removal and replacement.

Chair Loughlin asked for a motion. *Vice-Chair Bagley moved to recommend removal of the tree, seconded by Mr. Griffin. The motion passed unanimously.*

104 Thornton St: 1 Norway maple, good condition, resident request. Resident is requesting this removal because it is crowding the honey locust and zelkova.

Mr. Wiater said he told the resident that the City could prune the three trees on the lot, but the resident insisted that the Norway maple be removed. Mr. Wiater said the Norway was crowding the other two trees but that he could do reductions on the tree and clean up the space for all three trees. He said the Norway maple had no structural issues or cracks and everything looked fine, and he saw no reason to remove it.

Chair Loughlin asked for a motion. *Mr. Rice moved to prune and monitor the Norway maple, seconded by Vice-Chair Bagley. The motion passed by a vote of 6-1, with Mr. Wiater voting in opposition.*

8 Greenleaf Ave: 1 red maple, poor condition, removal recommended by City. The tree has a large central column of decay, and it has been pruned heavily by Eversource. The removal of this tree is required for the sidewalk project on Greenleaf Ave.

City resident Michael Gregory of 183 Hillside Drive was present and said he wanted the tree removed. Mr. Wiater said the tree had a huge column of decay through its center and thought it should be removed, including the fact that the sidewalk was going in. It was further discussed. He said four trees remained to be removed for the sidewalk project.

Chair Loughlin asked for a motion. *Mr. Souto moved to recommend removal of the red maple, seconded by Vice-Chair Bagley. The motion passed unanimously*

Islington St at Plains Ave: 1 Norway maple, fair condition, removal recommended by City. There is a decent portion of deadwood and decline through the central canopy. The tree is growing vigorously toward the utility lines. Tree requires significant pruning for clearance.

Mr. Wiater said there was some dieback and deadwood in the tree's central canopy. He said the tree leaned over the sidewalk and road toward a utility line, so it would have to be raised up quite a bit to get the deadwood out and do some pruning. He said he recommended removal because after all the necessary pruning, there wouldn't be much of the tree left. He said the tree was on a site for replanting in the spring.

Chair Loughlin asked for a motion. *Mr. Griffin moved to recommend removal of the Norway maple, seconded by Vice-Chair Bagley. The motion passed unanimously*

Market St Elevated Walkway on Shearwater Dr: 1 red maple, good condition, two Norway spruce poor condition, removals recommended by City. The two spruces have bittersweet growing throughout the canopies, which has affected the foliage. The site in which these trees are planted is restrictive and not ideal for maintenance. Heavy pruning is needed for clearance from the walkway structure.

Mr. Wiater said the three trees were near the bridge extending from the ballfield to the residential area. He said the two spruces should be removed because there would not be much left to them after pruning for clearance, but the maple did not have to be removed and could be pruned instead. He said he put up all three trees for removal consideration because there were homes being built and the trees would be difficult to reach and prune after the homes were built. Mr. Rice said the bridge would require removal or significant maintenance, and he suggested removing all three trees.

Chair Loughlin asked for a motion. *Mr. Rice moved to recommend removal of the three trees, seconded by Mr. Souto. The motion passed unanimously.*

680 Peverly Hill Rd (Public Works near fuel pumps): 2 ash, good condition, removal recommended by City. These two trees need to be removed to facilitate the building expansion.

Mr. Wiater said the two ash trees needed to be removed because the building was being extended. He noted that the trees were also near other ash trees that had EAB.

Chair Loughlin asked for a motion. *Mr. Souto moved to recommend removal of the two ash trees, seconded by Mr. Griffin. The motion passed unanimously.*

3. 2025 Tree Planting Species Selection

Mr. Wiater said there were 150 trees on the Species Selection list and that large tree species were being favored. He said he felt that there was a good variety of trees. He said he was at the New England ISA Conference in Rhode Island and they discussed tree planting species for the present and the future and talked about the trees that were on the list. He said there was a bare root tree provider at the conference and that he would look at his catalog for trees to be planted in 2026 and try to get trees that do well in warmer climates. Vice-Chair Bagley asked why the hardy rubber tree needed a wide planting strip. Mr. Wiater said any tree would be better off with greater space, and it was further discussed. Ms. Chag asked if some of the trees on the list were intended for Bartlett Street. Mr. Wiater said he had a meeting the following week where trees for Bartlett Street, Sagamore Avenue, the new skate park, the Phase 2 Pannaway project, and Wibird Street would be discussed. Ms. Chag asked if there would be a larger green space at the end of the Bridge Street parking lot. Mr. Rice said he was leaning toward hardscape, given the amount of traffic. It was further discussed.

4. Tree Planter Door Hanger Draft

Mr. Wiater showed the committee a sample of the door hanger and said there might be more information incorporated into it. Mr. Rice suggested that Mr. Wiater's contact number be included, and Mr. Wiater agreed.

5. Update on City's Ongoing Tree Maintenance and Planting Plans

This was discussed during the Item 3 discussion about Tree Planting Species Selection.

6. Old Business

There was no old business discussed.

7. New Business

Ms. Chag said there was a lot of conflict between trees and infrastructure in the downtown area and asked if the project was almost completed. Mr. Rice said the city was 400 years old with infrastructure in places that were 150 years old and had several collapsed sewer lines and so on. He said things continued to be built and required

maintenance and that trees in an urban environment had to be removed at times as part of the process.. Ms. Chag asked if there could be educational signs placed in the Vaughan Mall area to explain to the public what the City was doing in that area and why. Mr. Rice said there were many public meetings to make the public aware of ongoing projects and that his department was stretched very thin, but he said the committee could put up educational signs with the City Manager's approval if they wanted to.

Next meeting: Wednesday, November 13, 2024

The meeting **adjourned** at 8:56 a.m.

Submitted,

Joann Breault
Trees and Greenery Committee Minutes Taker

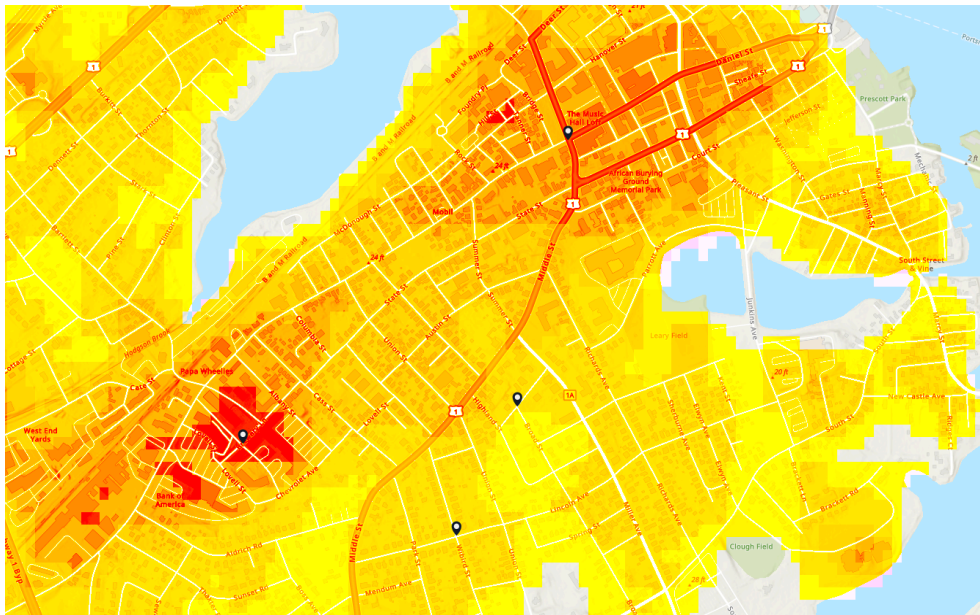
Draft



City of Portsmouth

Urban Heat Islands

When pavement and lack of tree cover create regions within an urban environment that are warmer than the surrounding area.



Causes of Urban Heat Islands

- * Lack of Natural Landscape
- * Deforestation or Removing Trees
- * Urban Geometry, Building Structure
- * Dark Surfaces, Pavement

Ways to Mitigate Impacts

- * Increasing tree and vegetation cover, protecting developed trees and greenspaces
- * Installing green roofs and cool roofs to reduce heat and reflect sunlight away
- * Using reflective or permeable cool pavements

Negative Impacts

- * Increased Energy Use
- * Elevated Emissions and Pollution
- * Heat Induced Health Risk
- * Impaired Water Quality

More Sources: <https://www.epa.gov/heatislands>

Urban Heat Island Project - Summer 2024

Our goal?

- * Identify possible heat islands in the neighborhoods of Portsmouth, NH.
- * Observe a connection between tree coverage and temperatures.

What did we do?

- * Created a heat map, with data from 2023, to identify our areas of interest.
- * Identified four areas of interest with different densities of tree coverage.
- * Set up two cameras that recorded surface temperature and air temperature at the four specific locations.
- * Collected surface temperature data, air temperature data, and recorded the tree coverage for each of the four locations.

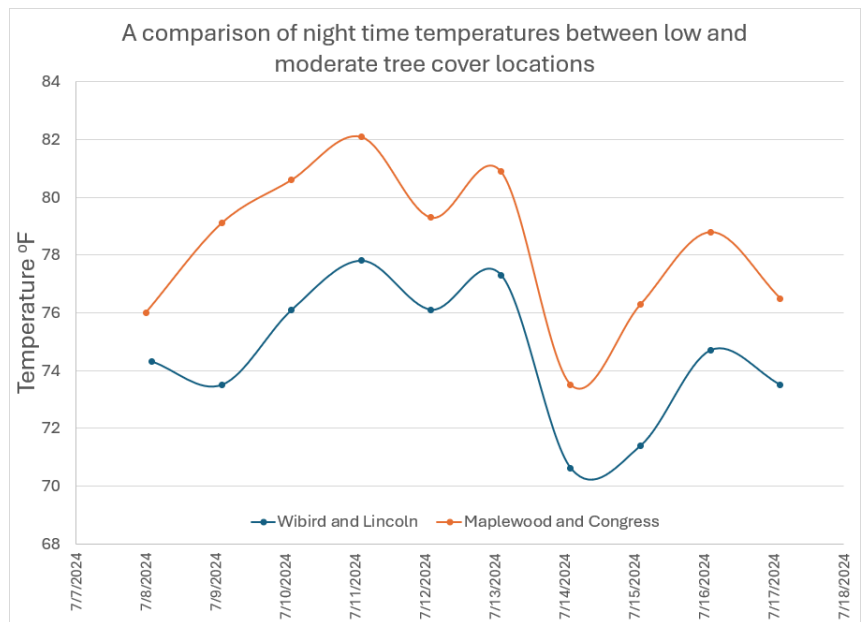
What were the results?

* During the night, heat absorbed in the day by buildings and pavement is released slowly. This process leads to higher night time temperatures, which more accurately reflects urban heat islands.

* Maplewood Ave and Congress St is a location with sparse tree coverage.

* Wibird St and Lincoln Ave is a location with denser tree coverage.

* Night time temperatures at Wibird St and Lincoln Ave were noticeably lower.



What does this signify?

- * The results indicate that there is a relationship between temperature and tree coverage.
- * A lack of tree coverage can result in higher surface and air temperatures which can create heat islands throughout a city.
- * To further avoid the threat of heat islands and their negative impacts, we must protect the trees we have and implement mitigation techniques.