

TO: MAYOR, CITY COUNCIL AND CITY MANAGER

FROM: MARK MALONEY, PUBLIC WORKS DIRECTOR

DATE: JANUARY 16, 2020

SUBJ: PUBLIC WORKS MONTHLY REPORT

Public tree inventory results

In December of 2019 the Davey Resource Group completed an inventory of the city’s public trees. This included street right-of-way trees, park trees, and trees along the edges of unmaintained open spaces. Approximately 6,400 trees were inventoried as part of this effort. This included 5,164 street trees and 1,269 park trees. The top five species make up 41% of Shoreview’s public trees. They include green ash, blue spruce, white spruce, red maple, and crabapple

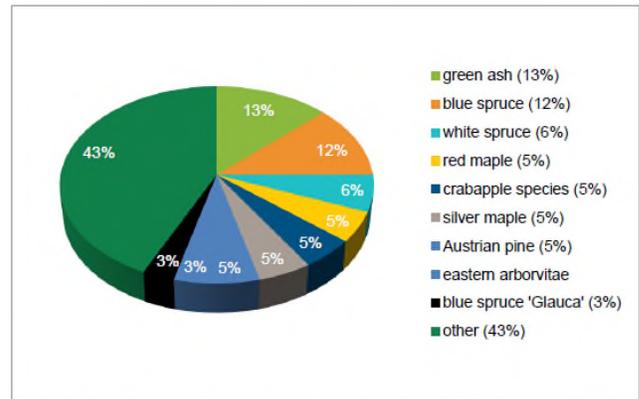


Figure 1. Tree species composition in the City of Shoreview.

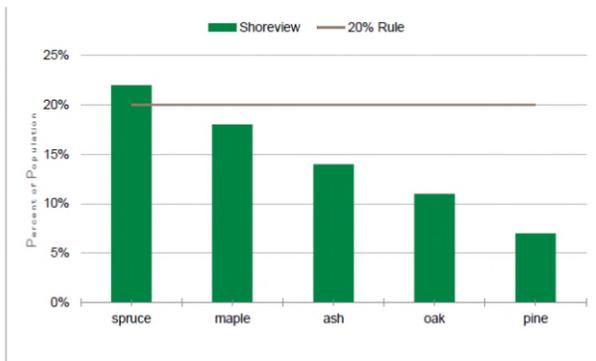


Figure 2. Top five genera in the City of Shoreview in relation to the 20% Rule.

varieties. A complete species breakdown can be seen in Figure 1. Generally, the rule for a well managed urban forest is to have no more than 10% of your trees in a single species, and no more than 20% in a single genus (ex. oak, ash). Currently, Shoreview has 13% green ash and 12% blue spruce that are over planted. In terms of genus, Figure 2 shows the breakdown from the inventory. Shoreview currently has 23% spruce trees and 18% maple trees planted publicly. As these species are also heavily

planted on private property, this data helps solidify staff’s long-time decision to not plant those genera or sell them in the annual tree sale.

Most of Shoreview’s public trees are in what’s called the “established” size class. These are trees that are between 9 and 17 inches in diameter at breast height (DBH), or 4.5 feet from the ground. 40% of public trees in Shoreview fall into that class. Figure 3 shows the breakdown of size classes across the city. The “Ideal” bars in the figure are based on general forestry guidelines that recommend most of a forest’s trees be



Figure 3. Age class distribution compared to Richards' (1983) ideal.

young (40%), some be established (30%), fewer be maturing (20%), and only 10% mature. The data shows that Shoreview should prioritize planting new trees in the coming years. The larger size classes of tree should balance out over time given the high percentage of mid-sized trees.

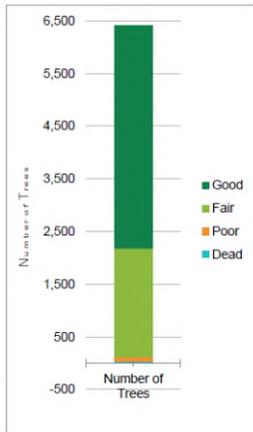


Figure 4. Overall condition of the inventoried population.

About two-thirds of public trees in Shoreview are in good condition. Most of the remainder are in fair condition, with only 91 trees out of 6,400 being in poor condition or dead. Most of the young and established trees were in good condition, with fair and poor being more prevalent in the mature tree class. Figure 4 shows a graphical breakdown of the tree conditions evaluated.

During the inventory, maintenance needs for each tree were also assessed. Based on that assessment, Shoreview has 16 trees that are priority 1 removals, and 35 that are priority two removals. These are trees that should be removed, and the priority level ranges from 1 to 3 with 1 being the most urgent. Trimming recommendations were also noted, with 81 trees classified as being priority 1 for trimming needs and 438 trees classified as priority 2 for trimming. Over 5,500 trees were classified as needing routine trimming. This data highlights for staff that more resources might be needed in order to undertake forestry maintenance work. Currently the city does routine trimming on street trees in one section of the city each winter. The city is generally broken into seven sections, so the trimming cycle is quite long. If winter weather events are more frequent, plowing and other efforts take precedent over tree trimming.

Finally, the inventory also focused on the tangible benefits of Shoreview's trees. Using i-tree software from the U.S. Forestry Service, the Davey Resource Group was able to quantify a total annual benefit of \$695,880 from the city's public trees. This is money saved in building cooling, stormwater management, and improving air quality. Stormwater management was one of the largest tree benefits seen in Shoreview. It was calculated that the city's 6,400 trees intercept 8,283,712 gallons of stormwater each year. Additionally, those same trees remove 9,566 pounds of pollutants from the air and sequester 827 tons of carbon.

ENVIRONMENTAL SERVICES

Environmental Quality Committee (EQC)

The EQC 2020 Speaker Series kicks off in February with Stacy Boots Camp from the Center for Energy and Environment (CEE) speaking on the benefits of energy efficiency in your home, and programs offered to residents by CEE. Stacy will speak at 7pm on Wednesday, February 19 in council chambers. The March speaker will be Melissa King from the Board of Water and Soil Resources (BWSR). Melissa will speak on BWSR's new Lawns to Legumes program that is offering financial assistance to residents across the state who plant pollinator friendly plants on their properties. This event will occur on Wednesday, March 18 at 7pm in council chambers. A third speaker will present on solar installations, both at the city and resources for residents, but that has yet to be scheduled.

The EQC continues to work on their efforts for organics collection at the Slice of Shoreview event this year. Staff recently secured SCORE incentive funding to help cover the cost of

compostable service items and dumpster service for the event. This funding should help get vendors on board with the new initiative without having to spend money out of their pockets for the often more expensive compostable items.

Forestry

The public tree inventory has been completed and the data is currently undergoing quality checks. Once the data is ready, the city will have access to individual tree assessment data, by location, and a year's worth of the Davey Resource Group's software "TreeKeeper". This management system was demoed for Public Works and Parks staff in December and appeared to be user friendly and a good way to keep the inventory up to date. It will be important for all tree removals, plantings, and trimmings to be updated into the software as they occur to keep the inventory accurate and useful. Staff is working on a plan to achieve that across disciplines and departments.

Diseased tree removals are ongoing this winter. With the warmer weather through December, the ground hasn't been as frozen as needed for some larger or inaccessible removals. Staff has been working with the city's contractor, Precision Landscape and Tree, on scheduling these removals and coordinating with residents. Precision will be the city's contractor through February 2022 after signing their contract amendment earlier this month.

Water conservation

In 2019 the city pumped and distributed 85 million fewer gallons of water than in 2018. This is a huge accomplishment for the city and staff is very grateful to residents and businesses that helped achieve this milestone. Here's to more savings in 2020!

Recycling

There were some issues with recycling over the holidays due to weather cancellations and slow pick-ups due to a high volume of extra materials post holiday season. Staff is continuing to work on outreach for Eureka Recycling mobile app to help with these issues. The app alerts users to cancelled collections, weather delays, and even shows what you can and can't put in your recycling cart! This is helpful for communication because the city doesn't currently have the ability to notify all residents of a cancellation or delay. App advertisement is currently happening in the Eureka annual mailer (delivered last week), on the city's website, and in ShoreViews publications. It was previously advertised on mailed utility bills.

The city's new weekly recycling collection should also help address issues like those that occurred in late December/early January. Staff has fielded about 10 calls and emails from residents upset about the change to weekly collection. Generally they are older residents who don't generate as much recyclable material as those with large families. Overall, reception to the new weekly collection schedule has been positive.

Staff is also currently working on planning for the spring 2020 Cleanup Day. Outreach is being developed, as is a map of the new site location, and interested parties are being informed of the upcoming change. Staff has also been working with Arden Hills staff on ideas for them going forward. Spring Cleanup Day will be held on May 16, 2020.

Wildlife

The Victoria Valley Orchard bow hunt has concluded. No deer were harvested this year. Late spring frosts caused the apple crop to fail. Without that food source, deer were not spending time in the hunt area. An aerial survey of the deer population will be conducted by Ramsey County in January.

MAINTENANCE ACTIVITIES

All maintenance personnel attended a Commercial Driver's License and Load Securement training put on by MnDOT. Representatives from MnDOT came to our facility to present the training in our lunchroom/training room. The crews also worked together to collect all the fire extinguishers at the maintenance center, the wells, booster station and treatment plant and all the parks buildings and all the trucks and equipment so the required annual inspection could be completed. Public works maintenance crews work together preparing equipment for plowing operations and for two water main break repairs. In the last month there have been 3 full crew plowing events. The crews are preparing for another significant event this weekend. As always, as soon as streets and cul de sacs are cleared, crews begin plowing trails and sidewalks. After each of the plowing operations and water main break repairs, vehicles and equipment are cleaned and inspected and prepared for the next event. Jamie Meyer and Mike Coyle attended an Underground Utilities Inspector Training.

The Street Division work program for the last month included:

- Preparing and pre-treating streets before each predicted snow fall. Salting and treating streets as necessary during and between each plowing event.
- Between snow plowing events, street crews have been repairing mailboxes and street signs damaged throughout snow plowing operations.
 - Sod damage that occurs this time of the season is noted and repaired later in the spring.
- Street crews have been trimming boulevard trees and trimming along trails.
 - Part of the trimming process is chipping the limbs and brush that have been trimmed.
 - They have also been chipping the Christmas trees as they come into the maintenance center.
- Sign maintenance continues as time allows.
 - The seasonal banners throughout the Commons area were changed to the winter banners.
- Street crews were called to check on 6 street lights that were failing
 - Street crews were able to repair 2 of those lights
 - Signature Lighting was called in to repair 3 of those lights
 - Xcel energy was responsible for 1 light.

Over the past month the Utility Division work program reflected:

- Each day Utility personnel inspect all the wells, lift stations, water towers, the booster station and the water treatment plant. Regular/routine scheduled maintenance is performed and any necessary repairs are completed as needed.
 - Crews have been cleaning the well houses and changing oil in the pumps.

- Crews plow and maintain access to all wells, lift stations and towers.
- Utility crews continue to respond to location requests by marking underground City utilities in proposed excavation areas.
- Drinking water samples are collected and analyzed as required by the Minnesota Department of Health.
- All of the City's approximately 10,000 water meters are read every month. It takes one person approximately one week to drive the streets to collect all the water meter reads through radio transmission. That data is use for water billing statement as well as the WaterSmart customer portal.
- As time permits crews have been inspecting manholes and sewers and repairing hydrants and hydrant flags as needed.
- Crews responded to an alarm at south Lexington lift station and three guys had to come in after 10 pm to pull the pumps to clean and repair them. Once the pump was repaired the station ran without further issues.

The Department of Corrections crew continues to clean the Maintenance Center and its grounds twice a week. The crew has been splitting it's time between parks, streets and utilities. They have been removing brush and trees in parks and removing buckthorn as time allows. When working with street crews they are trimming and removing trees and brush along trails and ponds. They have begun shoveling and cleaning around fire hydrants for the utility division.

PROJECT UPDATES

Wabasso Neighborhood Reconstruction – Project 19-01 – Work on the project was suspended due to the weather. Final grading and installation of sod in the restored areas will be completed in the spring of 2020.

County Road E Trail and Water Main Extension – Projects 19-03 & 19-05 – Work on the project was suspended due to the weather. Grading of the remaining section of trail and paving of the entire trail will be completed in the spring of 2020.

Schutta Road Sewer Improvements – Project 19-06 – Work on the project was suspended due to the weather. Final restoration of the disturbed areas including the installation of pavement on Schutta Road will be completed in the spring of 2020.

North Owasso Blvd Reconstruction – Project 19-07 – The City's consultant for the project is continuing to meet with residents located in the project area to answer questions and meet on the property, if needed. Staff is also working with residents to acquire easements that are needed for the project. It is expected the work for the project will begin in the spring of 2020.

2019 Street Light Replacement – Project 19-08 – The contractor is in the process or ordering the materials for the project. It is expected the work for the project will begin in the spring of 2020.

2019 Sanitary Sewer Rehabilitation – Project 19-09 – All work for the project is complete. Staff is working with the contractor on the final pay estimate for the project. It is expected the final pay estimate will be submitted to the Council for consideration in February.

Suzanne/Gramsie Stormwater Improvements – Project 20-01 – The City's consultant is currently working on the final design for the project and it is expected plans and specifications will be presented to the Council for consideration in February. The new storm drainage lift station is scheduled to be constructed and operational in 2020.

Edgetown Acres Reconstruction – Project 20-02 – Staff is currently working on the Feasibility Report, which will be presented to the Council for consideration at the February 3 meeting.

REGULAR COUNCIL MEETING
JANUARY 21, 2020
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