

2021 Regional Envirothon Current Issue Scenario: “Waste to Resources”

You are a team of foresters from the city of Fargo, ND. You are responsible for managing the community’s public trees: those in parks, on boulevards, and other greenways. This includes planting, pruning, mulching, maintaining, and removing diseased/damaged trees on public property. The city of Fargo’s tree inventory shows that trees in the community are comprised of almost 25% ash, 18% elm, 14.5% linden, 10% maple, and a mixture of other species. As a rule, no species should comprise more than 10% of the community tree population, to ensure that the tree population is healthy, resilient, and diverse. Fargo’s citizens love to spend time in Community Park, enjoying its many walking paths, climbing trees, sitting in the shade, and taking in the beauty of this public space with its many, beautiful trees. This park’s inventory matches the city’s inventory of species and its percentages.

Recently, there have been a number of trees in Community Park that have started to develop symptoms of Dutch Elm Disease (DED). Knowing the impact of this disease on American elms and how easily it can transfer via bark beetles and root grafting, you must remove these affected elm trees to prevent the spread. Initial estimates show 16 diseased American Elm trees (all with a DBH of about 24 inches), that have more than 25% of the tree crown damaged by DED. If trees need to be removed, usually you would haul the wood waste from tree removals to the city landfill; however, they have instituted new rules and are no longer accepting this. Because you are good stewards of the land and taxpayer dollars, you want to look into alternatives for utilizing this wood waste that would provide the best return on investment for the community.

When large trees are removed from public spaces like Community Park, usually there will be some discontent and questions from the public. It is your job to communicate with the public about why these trees need to be removed, and educate them on the threat of this disease and other invasive pests.

You must present your plan to the city council for their approval. Take the costs of removing these trees into consideration, what alternatives exist in the community, and decide what your recommendation is for handling the wood waste. You must also create a plan for replanting in these areas, being mindful of diversity and the potential impacts of other invasive pests/diseases. You must also develop a plan for educating the public on these topics.

*For reference, the city of Fargo is currently paying \$19.14 per diameter inch for tree removal. The average diseased elm is around 24 inches in diameter.

*To remove stumps, the current cost is \$150 per stump.

*Average cost for planting a new tree is \$150.