Written by the Sustainability Commission, the following guidelines have been adapted for residential planting to ensure that Richfield's tree canopy is healthy and resilient to changing pressures, provides for local wildlife, contributes to climate mitigation goals, equitably meets the needs of residents, and adds to the beauty of our city. The original recommendations address municipal planting as well.

1. **Choose native tree and shrub species over non-native species**: Native pollinators and other wildlife depend on native trees and plants for their life-cycle needs. Non-native species pose a risk of becoming invasive and out-competing native plants. Preferentially choose tree and shrub species native to Minnesota or neighboring states – including choosing landscaping cultivars of native trees rather than European/Asian cultivars – to increase the benefits our trees provide. (Resources: MN DNR list of native trees; National Wildlife Federation Native Plant Finder tool to identify locally native trees and shrubs that support native insects and birds)

2. **Plant trees that will be resilient to climate change**: Choose healthy tree stock and plant species that are projected to thrive under changing climate conditions (for example, choosing low vulnerability native species from this Twin Cities tree vulnerability assessment). This may mean planting a diverse species mix of Minnesota native species along with regionally native tree species from more southerly states. This could also include sourcing trees from genetic populations south of the Twin Cities, so they are more adapted to warmer conditions.

3. **Encourage species diversity**: Plant a diverse tree species mix to help prevent loss to tree pests and diseases. Vary tree species to help prevent total loss of trees in an area if a species-specific pest or disease comes through (such as emerald ash borer). Spread oaks trees out to prevent root grafting, which can spread the oak wilt fungus from tree to tree. Incorporate a mix of small, medium, and large tree and shrub species to add variety to the landscape and maximize tree density in small areas. Plant fruit and nut producing trees and shrubs in places where they will not cause a nuisance (such as backyards rather than along boulevards) to provide a source of food for wildlife and residents alike.

4. **Use trees as a tool to mitigate climate change and decrease energy bills:** Trees absorb carbon dioxide from the atmosphere, a greenhouse gas that is causing climate change, and store it long-term as carbon in their trunks, branches, roots, and soils. Trees also provide shade to homes and buildings, which can reduce the need for air conditioning use in the summer. Choose long-lived tree species and use care to select the "right tree for the right place" so that trees can grow for a long time, storing carbon and decreasing energy demands.

5. **Consider shade needs when choosing tree planting sites:** Plant a mix of fast and slow-growing shade trees to provide for short- and long-term shade needs. Plant larger/more mature saplings when possible to accelerate shade production.

6. **Consider tree aesthetics across all seasons to contribute to Richfield's natural beauty:** Where the above criteria are met, consider aesthetic choices that will encourage residents to spend more time outdoors. Choose species mixes that will complement one another throughout the seasons – spring flowers, lush summer foliage, fall colors, evergreens in wintertime – and create welcoming natural spaces.

7. **Plan for long-term tree care and maintenance:** Consider site conditions that may impact tree health – such as amount of pavement nearby, road salt exposure, potential flooding risk, and pest/disease susceptibility – and choose resilient trees for higher-risk sites. Invest in long-term tree care, including pest and disease prevention, fertilization and watering, and incorporation of "soft landings" (leaf litter retention or native grasses under trees in fall/winter) to retain soil moisture and provide overwintering sites for pollinators.