energy consumption in a typical Hutchinson home by approximately 4.3% (or 3585 CF of natural gas per year) from the loss of winter tree canopy wind shielding. This estimate was calculated by interpolating within the slope associated with the relationship between percent urban tree canopy within the 500 foot comprehensive parcel buffers and heating energy use. This distance had the lowest correlation from the Full Model Reduced Sample HeatingSet2. This model, sample, and set combination had the most distances with low correlations.

With the same 4% loss of urban tree canopy, cooling energy use for a typical Hutchinson home could increase by approximately 8.6% (or 122.8 kWh of electricity per year) from the loss of neighborhood microclimate benefits of ash. The microclimate cooling estimate was calculated by interpolating within the slope associated with the relationship between percent urban tree canopy within 1500 foot comprehensive parcel buffers and cooling energy use. This distance had the lowest correlation from the Full Model Full Sample CoolSet3. This model, sample, and set combination had nearly as many distances with low correlations as other combinations yet had a higher sample size.

The shade impact to specific homes from ash canopy loss would have a lot of variation dependent on tree placement around each given home. Averaging the shading benefit across the community and using the same interpolation method as above, a 4% reduction in urban tree canopy would raise