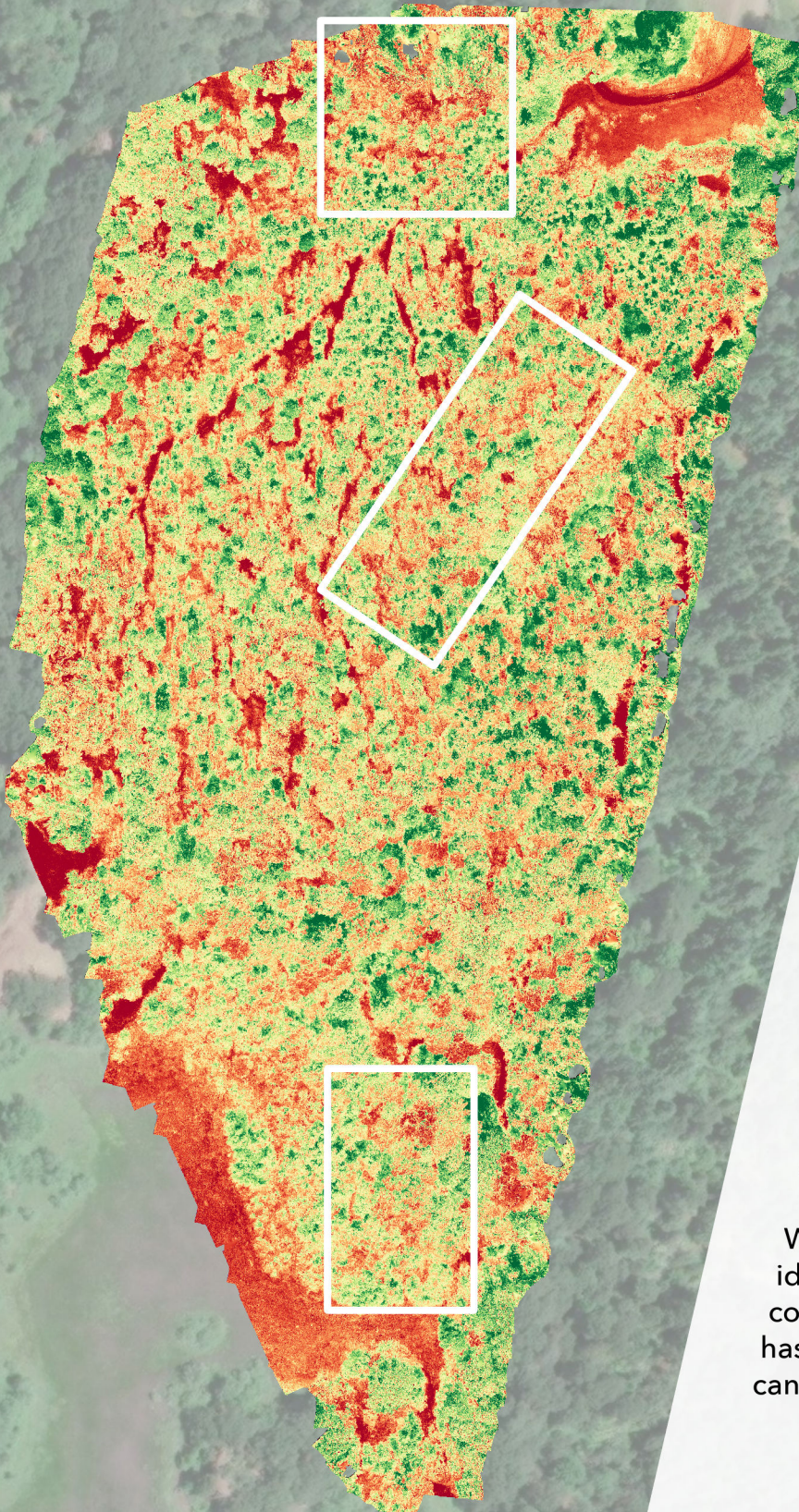


# Monitoring Tree Health with NDRE



While NDVI has been popular for monitoring vegetation health, the increased accessibility of multispectral sensors has increased the use of the NDRE index. While NDVI is calculated with visible red light and near-infrared bands, NDRE utilizes the red edge band. This narrows the range of values being compared, creating a more sensitive and less saturated scale. In addition, the red edge tells us more about the chlorophyll content of the leaves, making it more effective for monitoring more mature vegetation.

In this imagery, the NDRE was calculated and manually examined to identify the groups of stressed trees within the white boxes. The NDRE layer was compared to the RGB imagery to exclude areas of bare ground, which report as low values. In addition, the vegetation was examined to exclude low ground cover or shrubs, as the trees are the features of interest.

With these areas of poor tree health identified, ground inspections can be conducted more efficiently. Once action has been taken in these areas, their health can be compared and monitored over time.