California Department of Forestry and Fire Protection (CAL FIRE) Urban and Community Forestry is tasked in state law (Urban Forestry Act of 1978) with developing better ways to utilize urban forest resources. The best use is urban wood utilization, which also meets the state’s goals of greenhouse gas (GHG) reduction and diversion of green waste from landfills. The Urban Wood Rescue Program at Sacramento Tree Foundation serves communities throughout the metropolitan region. The Cutting Edge phase of this program targets underserved communities for participation in job training and internships. Targeting will begin within neighborhoods close to the yard identified as the most disadvantaged. Through partnership with at-risk youth training organization Green Tech Education & Employment, the program will identify and train people throughout Sacramento, while better utilizing trees that are removed in the region, keeping them out of landfills, and reducing greenhouse gas emissions by 3,478 metric tonnes. The new Urban Wood Rescue yard at The Depot Park in Sacramento sits within a disadvantaged community (86%)¹.

Considered the “City of Trees,” Sacramento has a rich history of planting, caring for, and celebrating the community’s tree canopy. The City has benefited from growing one of the best urban forests in the world and has received environmental, economic, health, and psychosocial community benefits. However, until recently, the dead and diseased trees, which have given so much to the community throughout their lives, were simply tossed away. In fact, the vast majority of public and private trees removed in the urban area were discarded in landfills, with small percentages converted to mulch, fireplace wood, or utilized as biofuel for cogeneration power plants. These sub-optimal practices eroded each tree’s lifetime positive impact by releasing GHG back into the atmosphere. Urban wood recovery in the greater Sacramento region was an issue seemingly without a solution.

After spending more than 35 years contributing to the City’s efforts to grow the best regional urban forest in the nation, the Sacramento Tree Foundation recognized that maximizing a tree’s benefits after its natural life ended was the missing piece in optimizing the benefits and services of the urban forest. Through a $498,303.30 grant received from CAL FIRE’s 2015 Greenhouse Gas Reduction Funding, Urban Wood Rescue was born. Initial grant funds were spent out by December 2018. The goals of this fledgling program are to: 1) reduce the urban wood waste stream and the resulting carbon emissions by diverting select logs to a milling and drying operation; 2) transform the waste stream into usable products, unique works of art, and basic lumber; and 3) develop a sustainable business model to grow and continue this program long into the future.

With additional 2018 grant funding of $730,131.60, implementation of this phase will result in a GHG net benefit increase of 3478 MT CO2e, specifically through a new initiative called the Carbon Partners Program. The Carbon Partners component of the Urban Wood Rescue’s Cutting Edge phase will increase the program’s ability to store and sequester carbon by growing the expertise of and collaboration between urban wood recovery entrepreneurs. This will increase the number of partners participating in urban wood recovery/reuse and carbon tracking, garner more public interest and involvement in reusing and purchasing urban wood products through job training and internship opportunities, and give rise to a tree replacement and maintenance program for removed trees. Anticipated outcomes for the Cutting Edge phase of the program include 2,000 logs processed by partners (in addition to 5,000 logs processed in-house), which is based on real-world information gathered over the past six months from local operators. (Please note that the business as usual GHG net benefit from wood processing is not included in this application since that would be redundant. The tree planting GHG benefit is included.)

The project has real time tracking of logs received and processed and is recorded using SmartSheet. This data is also collected for accounting purposes (in-kind donation receipts as well as for cost basis analysis). iTree Planting will be used to report GHG benefits, which will be extended through the replacement of the removed trees (333 trees will be replanted). Tree species and location assumptions for tree planting is based on Sacramento Tree Foundation’s 35 years of experience in urban tree planting campaigns. GPS coordinates and other growth information will be recorded for each tree and compiled in the Sacramento Tree Foundation GIS system. The trees will be monitored for health and growth rate during the three-year establishment period, and reports will be produced annually. The project uses both the urban wood utilization GHG methodology and the tree planting GHG methodology of the California Air Resources Board to achieve the expected GHG emissions reductions. It is believed that after the current grant funding, the program will be self-sustaining.

1 https://www.urbanwoodrescue.com/
2 www.greentechedu.org