

2023/24 FY Priority Projects Proposed, but Not Funded

<u>Biochar</u> - Market Analysis and Near-Term Priorities/Commercial Readiness Strategy. This project was previously chosen as a project to fund; however, the contract failed to go through. NOTE: USBI is planning on doing work in this space from a national perspective. \$50,000 estimate
<u>Biofuels</u> - Forest Biofuels Production Feasibility and CO2 Sequestration 2023 Update: Conduct an assessment of realistic commercialization timelines and individual plant capital cost estimates. Include consideration of infrastructure necessary for transportation and energy. \$100,000 - \$130,000 estimate
Biofuels - Red Rock - Conduct an interim case study of lessons learned. \$40,000 - 50,000 estimate
Biomass - Nonmerchantable Wood and Structural Wood Products: Look into using nonmerchantable wood as a fill between structural layers of wood. \$120,000 estimate
Biomass - Determine the short-lived climate pollutant benefits available to the state from its forest biomass strategy and how they can be better integrated into policy discussions. \$50,000 estimate
<u>Biomass Piles</u> – Continue/expand the ongoing burn-pile survey, to provide data on all business-as-usual fates of residue, which could improve GHG quantification methodology. \$75,000 estimate for remote work; \$250,000 estimate for boots on the ground
<u>Biomass Piles</u> – Assess the volume and management of residential burning (under 10 acres) to help inform public perception and to understand how fire starts from these activities as well as the volume of human exposure to smoke from such activities. \$200,000 estimate
 <u>Biomass Piles</u> - Quantify the hidden emissions of woody biomass left in the forest by directly measuring CO2 and methane emitted from forest biomass piles in the field and identify factors controlling aerobic and anaerobic decomposition from that biomass. \$450,000 estimate
Brownfields and Log Sprinkling – In consultation with knowledgeable industry representatives, extend and combine current work and that of UC Davis EPM students to help the state better characterize potential log deck sprinkling sites and identify any that appear to be particularly ready for development and use. \$50,000 estimate
Brownfields – Identify processes to prioritize brownfield sites and identify state regulations that are barriers as well as possible solutions to the barriers. \$250,000 - \$300,000 estimate
<u>Chain-of-Custody</u> - Identify the potential range of feasible applications for spectral microtags as a chain-of-custody tool in the forest products sector and where best to apply microtags for tracking within the forest-sourced biomass material and/or liquid. \$50,000 - \$150,000 estimate
<u>Chain-of-Custody</u> Certification: documentation from point of origin (including out-of-state and international feedstock sources) – Define what would be needed to implement such a program. Project could be a lit review, chain-of-custody verification procedure/recommendations, and/or technology/tools to support robust tracking system. \$65,000 estimate
 Heavy equipment – Survey of forestry equipment in state and analysis of additional needs to meet pace and scale demands. Include operators and businesses that will manage the equipment. \$25,000 - \$50,000 estimate for stratified random sample \$50,000 - 100,000 estimate for a more in-depth survey

Housing – Conduct overall building performance whole building lifecycle assessments for four 1,400 sqft single family homes: same layout, dried-in shell plus interior walls; one conventional light frame w/ traditional insulation, one conventional light frame w/ wood fiber insulation, one mass timber, and one wood wool cement. \$13,000 - \$27,000 estimate Housing - Explore, promote, and adopt concepts for advanced wood building materials in energy efficiency retrofits and modernization of existing building stock. Examples: Energiesprong (a Dutch company) and EcoWorks (a German company). \$200,000 - \$250,000 estimate NOTE: I'm looking into grant program development for this, which will dictate if we can implement this project. I plan to know for the March meeting. Housing - Develop and initiate an Affordable by Design Home Construction Challenge to explore and promote advanced wood building materials and construction technologies. Precedent: California Mass Timber Building Competition (2019) \$50,000 - \$75,000 estimate for cost to administrate the competition. Option 1: estimate based on remaining Institute budget – Have a pot of money with prize money distributed among the winning projects. Option 2: \$75,000 estimate for award money for 3 winners - Have a small pot of money with nonmonetary benefits, similar to the Boston Accelerator, where a given jurisdiction was 100% on board with putting winning projects to the front of the line for permitting, review, etc. The winning teams get a small amount of money (i.e. \$25K) in addition to the jurisdiction benefits. Mapping – Map major infrastructure for prospective companies/projects, including, roads, rails, ports, brownfields, etc. \$75,000 - \$100,000 estimate – for a detailed map that can be updated over time \$30,000 estimate for static map Mass Timber - Research the optimal material from in-state, high-hazard forests (20in DBH or less) and burned timber to be used in "CA Grown Restoration Wood" mass timber panels to help inform and advance in-state production of mass timber. \$150,000 estimate