MOORPARK COLLEGE SUSTAINABILITY UPDATE

ACCOMPLISHMENTS

REDUCING UTILITY COSTS AND RELIANCE ON FOSSIL FUELS BY INVESTING IN RENEWABLE ENERGY SOURCES

CONTINUING DISTRICTWIDE PAPERLESS INITIATIVES

PROMOTING CLIMATE FRIENDLY FOOD SERVICE INITIATIVES, INCLUDING THE ELIMINATION OF SINGLE USE PLASTICS

UPGRADING EXTERIOR AND INTERIOR LIGHTING

CONDUCTING TIMELY REPAIRS TO FACILITIES AND IMPLEMENTING EFFICIENCIES FOR SUSTAINABILITY

SUPPORTING COLLEGE-BASED GREEN/SUSTAINABILITY INNITIATIVES

ENERGY EFFICIENCY

- Reduced energy use by **72.04%** over 2002 baseline
- Upgrade of interior lighting to LED with lighting controls & motion detectors
- Upgrade of EMS/BMS to improve HVAC efficiency
- Improvement in HVAC efficiency by replacing od equipment with new, higher efficiency models
- (Sustainable energy) Installation of solar panels on north campus Lots AA, A, B, & C (3.184 MW of solar PV renewable energy production) Completed in June 2023
- UV-C lighting on all campus HVAC systems which has improved the efficiency of the cooling coils, enhancing their ability to transfer heat
- Improvement in HVAC efficiency by replacing old equipment with new, higher efficiency models
- LI battery energy storage system with 2 250kW inverters each with 500kWh

WASTE MANAGEMENT

- Worked collaboratively with the City of Moorpark to implement SB 1383
- Separate campus collection of ‘recyclables’ in all classrooms and offices
- Installation of a campus trash compactor, thereby reducing the frequency of waste management truck visits resulting in **50%** carbon footprint reduction from trash hauling
- Participation in e-waste recycling
- Installed **25** hydration stations across campus preventing more than **731,540** single use plastic bottles from entering the waste stream
- Leveraging of technology to increase paperless options by converting **250,000** plan sheets into accessible online documents

WATER REDUCTION

- Achieved **50%** reduction in irrigation water use over 2013 baseline, saving **35,943,212** gallons of water in 2023 alone
- Irrigation 100% monitored for leaks with flow sensing devices that shut down valves when excessive flow detected
- Upgrade of irrigation control system capable of more precise weather data & reporting, resulting in greater precision in amount of water needed to sustain plant life
- Use of mobile apps to monitor and operate irrigation system from remote areas
- Dedicated technician for campus irrigation systems, ensuring efficient water use
- Deployment of sensors in turf areas for that monitor soil temperature and moisture levels for greater efficiency & water savings
- Replacement of sprinklers campus-wide with built-in pressure regulator to control output and reduce unnecessary runoff
- Replacement of all irrigation controllers to most current water management programming technology
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- 100% ultra-low flow restroom fixtures used on campus saving **3,624,500** gallons in 2024

FOOD

- Food truck has increased use of biodegradable packaging while maintaining student-friendly pricing
- Food trucks have electrical outlets nearby, making it possible to plug into the campus grid
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- Food truck offers healthy, meatless options
- Student-run, faculty- and staff-supported organic vegetable garden – produce is distributed at campus Food Pantry
- Actively seeking new, healthy food choices to be located with the Campus Center eliminating the need for food trucks

OUTREACH

- Active Campus Environment Advisory Committee which regularly discusses issues of sustainability
- ASMC Director of Sustainability
- LEED accredited Director of Facilities, Maintenance, & Operations (FMO)
- Butterfly Project – raise and repopulate endangered species on EATM campus
- Campus-wide events supporting Earth Day
- Collaboration with the City of Moorpark on the implementation of SB 1383

SUSTAINABILITY ENHANCEMENTS UNDERWAY

- Installation of 156 EV Charging Stations
- Upgrade of EMS/BMS to improve efficiency of the HVAC Equipment campus-wide
- Purchase existing LI battery energy storage system with 2 250kW inverters each with 500kWh from Engie to obtain 100% of energy storage savings benefit
- Transitioning from fossil fueled to battery-operated equipment in maintenance and grounds as much as possible
- Replacement of fossil-fueled vehicles with hybrid vehicles
- Continue adding hydration stations at locations across campus
- Upgrade of existing HVAC equipment with new more efficient and environmentally sustainable HVAC equipment

CHALLENGES & BARRIERS TO SUSTAINABILITY EFFORTS

Competing funding demands for crumbling existing building infrastructure maintenance and implementation of new sustainability initiatives such as replacement of athletic fields with artificial turf – **a $10,000,000 investment that could save 30% on irrigation water**

Lack of dedicated staff to implement full-scale sustainability plan

Cessation of State Scheduled Maintenance funding impacts replacement of early sixties HVAC systems requiring complete redesign and replacement seven major buildings – **a $40,000,000 investment**

Effects of inflation on construction costs and continuing Covid-era supply-chain delays on major HVAC and electrical components

Future impacts of recent southern California fires on construction products and potential labor shortages

Completion of SB 1383 implementation requiring **an investment of $639,000 for compliant trash receptacles**

NEXT STEPS

- Utilize existing capital improvement budget to affect repairs and upgrades to building HVAC systems, plumbing systems, and roofing
- Identify locations and complete the installation for additional hydration stations
- Identify funding sources for significant projects that will dramatically impact water usage such as artificial turf for athletic fields
- Integrate sustainability into classroom learning outcomes in more departments
- Increase student engagement in campus environmental projects/work

ONGOING OPPORTUNITIES

- Replacement of more landscaping with drought-resistant, native, and Mediterranean species
- Incorporation of ‘dry’ bioswales appropriate to environment
- Use of sustainable landscaping for campus, decreasing water utilization while increasing accessibility
- Continue use of green cleaning products
- Develop food options for students with sustainability and nutrition in mind
- Continue replacing fossil fueled vehicles with more sustainable options