2.09 UNIVERSITY GREEN OPERATIONS PLAN

EXECUTIVE SUMMARY

The University of South Alabama will strive to be a leading green advocate in South Alabama. An important component of that goal is a focus on greening the university's operational procedures, policies and activities.

Two core values of the University Facilities Division are sustainable design and environmental stewardship. Through assessment and action, we will educate our employees, students, and surrounding community in methods for improving operational performance and lessening the University's impact on the environment.

The University's facilities department has taken a holistic approach to developing a set of strategies to improve environmental performance, using the LEED® (Leadership in Energy and Environmental Design) Green Building Rating System™ as a guideline and various reference standards including Green Seal, Environmental Choice™ Program and EPA’s Environmentally Preferable Purchasing.

We have identified key environmental issues related to transportation, water and energy use, University consumables, indoor air quality and University construction. The resulting "Green Operations Plan" (the Plan) is a set of policy statements, implementation strategies which will guide the University toward significant reductions in its environmental footprint.

The following plan includes goals, policies, assessment, and strategies for implementation of the green policy for the university campus.

1 - TRANSPORTATION

Goal: Decrease green house gas emissions associated with employee and student transportation to the University and on campus transportation.

Policies:

A. Assessment: assess transportation habits used by employees, and students and associated green house gas emissions.
B. Mass Transit and Cycling: increase alternative modes of transportation with walking, cycling and mass transit.
C. Fuel Efficient University Vehicles: When possible purchase or lease only hybrid vehicles or clean diesel.

A: Assessment

Strategies-Survey employee and student transportation habits and collect commuting data.

B: Mass transit and cycling

Strategies-Provide funding of and support employee public transit and route sharing. Provide dedicated bike paths throughout campus. Encourage cycling through on-site storage facilities. Include shower and storage facilities in all new construction per LEED (Sustainable Site, Credit 4).

C: Fuel efficient university vehicles

Strategies-Buy or lease hybrid or natural gas vehicles for any University vehicles.

D: Offset air travel emissions

Strategies-Assess air miles traveled on business trips to determine environmental impact. Offset air mile emissions with purchase of carbon credits or tree planting.
2 - OFFICE WATER USE

Goal: Decrease office water consumption.

Policies:

A. Assessment: assess current office water use.
B. Water Efficient Plumbing Fixtures: install only water efficient plumbing fixtures.

A: Assessment

Strategies- Calculate approximate office water use with LEED Water Efficiency Credit 3 calculator.

B: Water Efficient Plumbing Fixtures

Strategies- Install water efficient faucet aerators in all sink faucets (0.5 gpm). Install water efficient plumbing fixtures in any new campus build-out including waterless urinals, and dual flush toilets.

3 - OFFICE ENERGY USE

Goal: Decrease office energy consumption and associated green house gas emissions.

Policies:

A. Assessment: assess current office energy consumption.
B. Reduce Lighting Energy Consumption: decrease office energy consumption associated with lighting.
C. Reduce Office Equipment Energy Consumption: decrease office energy consumption associated with computers, office equipment and appliances.
D. Purchase Green Power: purchase renewable energy to offset office power use.
E. Reduce Heating and Cooling Loads:
F. Reduce Building Equipment Loads:

A: Assessment

Strategies- Calculate University's total energy consumption. Provide metering at individual buildings.

B: Reduce Lighting Energy Consumption

Strategies- Use only energy efficient lamps. Specify fluorescent or LED lighting. Use low mercury content lamps. Reduce hours of light operation. Retrofit older, less efficient T-12 lights with T-8s. Replaced existing fluorescent, metal halide and incandescent lamps with energy efficient LED lamps. Installed occupancy sensors at all light switches and restroom fans.

C: Reduce Office Equipment Energy Consumption

Strategies- Consider power usage of computer equipment when making purchasing decisions to continually increase power use efficiency. Institute office-wide policy of computer “standby” mode. Replace existing CRT monitors with LCD monitors. Replace Desktops with laptops for all employees when appropriate. Use Energy Star rated equipment and appliances. Prohibit electric space heaters. Remove lights from vending machines on campus. Install occupancy sensors at all light switches. Replace chilled water fountains with compressor less types.

D: Purchase Green Power

Strategies- Purchase 100% green power (or phase in-green power within a set timeframe)

E: Reduce Heating and Cooling Loads

Modify setback points in public areas of campus buildings. Use on demand, continuous flow water heaters. Establish a standard operating schedule for buildings. Set back temperatures in large classrooms and auditoriums when not in use. Use holiday shut down or set back of buildings HVAC systems.
F: Reduce building Equipment Loads

Use elevators with regenerative drives and hibernation features. Install solar window film and sun shades on exteriors to reduce radiant heat gain in buildings. Optimized air-conditioning and heating systems in buildings by installing energy management controls and variable speed drives on pump and fan motors and fine-tuning after installation. Retrofit high temperature water system with more efficient heat exchangers. Replaced inefficient pumps with newer, high efficiency ones.

4 - OFFICE CONSUMABLES

Goal: Minimize office waste stream and adopt green procurement strategies.

Policies:

A. Assessment: assess current office procurement strategies.


D. Environmentally Friendly Janitorial Supplies: use environmentally friendly janitorial supplies and sustainable cleaning methods.

E. Environmentally Friendly Office Furniture and Finishes: use environmentally friendly furniture and furnishings.

F. Environmentally Friendly Office Supplies: use environmentally friendly office supplies.

G. Recycling Program: incorporate a University recycling program and educate employees and students on recycling methods.

A: Assessment

Strategies-Review current purchasing polices with office manager.

B: Environmentally Friendly Office Paper


C: Environmentally Friendly Kitchen Supplies

Strategies-Use reusable kitchen supplies as first option (i.e. ceramic coffee mugs and dishes). Paper towels that are Green Seal Certified and made from 100% recovered materials (minimum 40% Post-consumer). Disposable tableware (cups and plates) must be: Biodegradable, Compostable, Recyclable, Made of 100% paper, Non-bleached (if available), No plastic packaging/packing materials. Disposable stir straws must be biodegradable and compostable. Coffee filters that are unbleached.

D: Environmentally Friendly Janitorial Supplies

Strategies- Cleaning supplies that are Green Seal Standard GS-37. Carpet Cleaner that is biodegradable and must not contain butyl cellusolve. Plastic trash bags to be made of (10-100%) post-consumer recycled material. Hand soap should not contain antimicrobial agents, except where required by health codes. Bathroom tissue and paper towels that are Green Seal Certified and made of 100% recovered materials. Bathroom tissue should contain a minimum of 20% post-consumer waste; paper towels should contain a minimum of 40% post-consumer waste. Choose unbleached paper towels first; process chlorine free (PCF), second; elemental chlorine free (ECF), third. Select packaging having minimum environmental impact: made of recycled and recyclable materials; imprinted with safe inks; and containing no toxic metals, dyes, inks or fragrances. Avoid products which are packaged in outer
cartons that are inappropriately sized or which contain excessive inner packaging materials. Seek items having the largest amount of product. Select high-capacity hard wound roll towels (800 feet or more).

E: Environmentally Friendly Office Furniture and Finishes

**Strategies**—Furniture manufacturers must be ISO 14000 registered and Green Guard IAQ certified. All manufacturers should be using renewable resources and have recycled content in their products. All furniture must be low VOC emitting. Carpet manufacturers must be ISO 14000 registered. Preferred manufacturers should have 20% or higher overall recycled content. Specifications should include reclamation at the end of the carpets life. Carpet must pass CRI’s Green Label Indoor Air Quality Test Program for low-emitting material. Millwork must be fabricated from agrifiber instead of MDF and all finishes should be water-base. All composite woods and agrifiber products must contain no added ureaformaldehyde resins. All wood should be FSC certified. Paint must not exceed limits of Green Seal Standard GS-11 requirements for low-emitting VOC and chemical component limits. Textiles must be produced from recycled material, plant-based materials, natural fibers, or fully compostable materials. Adhesives and Sealants must meet or exceed Regulation 8, Rule 51 of the BAAQMD and the SCAQMD #1168 on VOC’s for sealants and sealant primers. Must contain no urea formaldehyde.

F: Environmentally Friendly Office Supplies

**Strategies**—Binders to be plastic covered paperboard: plastic (typically vinyl) at least 25% total recycled content; paperboard at least 90% total recycled content, with 75% post-consumer. Paper-covered paperboard: 90% total recycled content with at least 75% post-consumer. Cardboard: 100% post-consumer content. Solid plastic: HDPE, at least 90% post-consumer content; PET, 100% post-consumer content; other plastics, at least 80% post-consumer content. Clipboards must have 100% total recycled content with at least 50% post-consumer. Highlighters and markers must be water-based, certified AP non-toxic, conforming to ASTM D-4236. When purchasing dry-erase or permanent markers, choose “low odor” or choose refillable. Correction fluid must be water-based, non-toxic and ozone-safe. Envelopes (large) Kraft Paper: 50% total recycled content with at least 30% post-consumer. Paper: 50% total recycled content with at least 30% post-consumer. Alternative Fiber: 50% “tree-free” content, with the balance post-consumer recycled content. Plastic: 25% total recycled content, all post-consumer. File folders must have 100% total recycled content with at least 30% post-consumer content. Index Cards must have 100% total recycled content with at least 50% post-consumer. Labels must have 50% total recycled content with at least 60% post-consumer. Pens must be refillable as the first choice, preferably with the construction materials containing recycled or biopolymer content Single-use must be 100% total recycled content with at least 50% post-consumer, or choose biopolymer for pen barrels that is also biodegradable. Pencils must have 100% total recycled content with at least 60% post-consumer. Presentation Transparencies must have 50% total recycled content with at least 25% post-consumer. Self Stick notes must have 100% total recycled content with at least 30% post-consumer. Toner Cartridges must be re-manufactured. Plastic Office Waste and Recycling Receptacles must have 20-100% post-consumer content. Steel Office Waste and Recycling Receptacles must have 16% post-consumer content, 25-30% total recovered materials content.

G: Recycling Program

**Strategies**—Incorporate office paper, cardboard, glass, plastic and aluminum & metal as part of the University recycling program. Educate staff on importance of recycling and proper procedures of recycling. Post signs encouraging people to recycle. Post signs delineating what is recyclable and what is not recyclable. Introduce recycling policies and procedures at new employee orientation.

5 INDOOR AIR QUALITY

**Goal**: Increase quality of indoor air.

**Policies**:

A. **Assessment**: assess current office indoor air quality.

B. **Housekeeping**: adopt green house keeping procedures.

A: Assessment
Strategies- Review current indoor air quality by means of an Industrial Hygiene Specialist. Test office air quality to determine concentrations of CO2, Formaldehyde, Particulates (PM 10), TVOC and 4-PCH.

B: Housekeeping

Strategies- Use approved Green Seal Standard GS-37 products for cleaning supplies.

6 - UNIVERSITY RENOVATIONS AND NEW CONSTRUCTION

Goal: Make a positive impact on the built environment and contribute to sustainable communities.

Policies:

A. Assessment: Include sustainability issues when assessing renovation or new construction.

B. LEED Silver: All new University construction must receive a minimum LEED Silver certification.

A: Assessment

Strategies- All new construction and renovation will be designed to conform to current LEED guidelines.

B: LEED Silver

Strategies- Goal of all construction is to achieve LEED Silver certification.

7- PRESERVATION OF GREEN SPACE

Goal: Set aside permanent green space.

Policies:

A. Assessment: Include sustainability issues when assessing proposed sites for new construction.

A: Assessment

Strategies- University policy will be that campus land suffer "no net loss of forest canopy," ensuring every time a tree is removed, trees be replanted to maintain the same forest canopy.