

Lehman College Sustainability Goals

ENERGY

Energy 1 - Short Term Goal

Goal	To replace incandescent lamps with compact fluorescent or other similar lower energy utilizing lamp.
Timeline	Completed at the end of 2009
Goal Summary	<ul style="list-style-type: none"> • <i>Objective</i>- To replace less efficient and higher energy using lamps with more efficient lower energy lamps • <i>Metrics for success</i>-Reduced energy use • <i>Baseline</i> – current electric use and cost • <i>Current Practice</i> – Incandescent lamps utilize more energy than compact fluorescent or LED lamps • <i>Costs & funding</i>- College’s Operating Budget • <i>Implementing agents</i> – Lehman College B&G Department
Actions to be taken	<p><i>Step by step outline of actions to be taken to achieve the goal</i></p> <ul style="list-style-type: none"> • Identify quantity to be purchased in each current fiscal year • Request funding • Purchase lamps • Distribute and/or install new lamps • Properly dispose of incandescent lamps

Energy 2 - Intermediate Term Goal

Goal	<ul style="list-style-type: none"> • Installation of solar thermal panels on the Science Facility Building for domestic water heating. • Installation of solar thermal panels on the APEX Building for pool and domestic water heating.
Timeline	<ul style="list-style-type: none"> • Science Facility Expected to be completed and fully on line by 2012. • APEX expected to start design 2010 (subject to NYS approval) and to be completed and fully on line by 2012.
Goal Summary	<ul style="list-style-type: none"> • <i>Objective</i>- Decrease energy usage by utilizing solar thermal for domestic, pool and potentially other water heating. • <i>Metrics for success</i>-Reduced energy use • <i>Baseline</i> – current fuel & electric use and cost • <i>Current Practice</i> – Utilize high pressure steam generated in the central heating plant, reduced to low pressure steam to heat water which is stored in storage tanks for use. • <i>Costs & funding</i>- NYS Capital Allocations • <i>Implementing agents</i> – CUNY/DASNY
Actions to be taken	<p><i>Step by step outline of actions to be taken to achieve the goal</i></p> <ul style="list-style-type: none"> • Implementation has partial funding. • Complete documents for bidding. • Bid project • Construct project

Energy 3 - Long Term Goal

Goal	To replace existing window air conditioning systems, computers and other electronic and a/v equipment with energy star rated equipment and to replace CRT screens with LCD monitors.
Timeline	The program began prior to 2008 and continues each year with a bulk replacement of window air conditioning units, computers, printers, monitors and copiers. And will most likely continue into 2017.
Goal Summary	<ul style="list-style-type: none"> • <i>Objective-</i> To continue to replace equipment with more efficient models • <i>Metrics for success-</i>Reduced energy use • <i>Baseline</i> – current electric use and cost • <i>Current Practice</i> – Older equipment utilizes more energy than newer, energy star rated equipment • <i>Costs & funding-</i> College’s Operating Budget • <i>Implementing agents</i> – Lehman College B&G Department and Information Technology Resources Department
Actions to be taken	<p><i>Step by step outline of actions to be taken to achieve the goal</i></p> <ul style="list-style-type: none"> • Identify quantity to be purchased in each current fiscal year • Request funding • Purchase equipment • Distribute and/or install new equipment • Properly dispose of obsolete equipment and e-waste.

Energy 4 - Long Term Goal

Goal	To upgrade the heating, cooling and power plant and upgrade controls to all electronics to achieve a 20% reduction in energy use while increasing the output to accommodate increased heating, cooling and power requirements needed for expanded facilities as determined by the 2000 Master Plan and 2009 Space Study (amendment to the 2000 MP)
Timeline	Expected to be completed and fully on line by 2017
Goal Summary	<ul style="list-style-type: none"> • Objective- Expand and upgrade the central heating, cooling and power plant for increased load and reduce energy consumption by 20% • Metrics for success - fuel oil (in gallons), natural gas (in BTUs) and electricity (in kilowatts). • Baseline – current college fuel oil, natural gas & electric use. • Current Practice – Boilers are from the 1960's and not efficient, Chillers are steam driven and power plant is from the late 1970's. • Costs & funding- NYS Capital Allocation • Implementing agents – CUNY/DASNY
Actions to be taken	<p><i>Step by step outline of actions to be taken to achieve the goal</i></p> <ul style="list-style-type: none"> • Consultant report with existing usage and recommended upgrades has been submitted to Lehman, CUNY & DASNY • Implementation has partial funding. • Complete Central Heating, Cooling and Power Plant documents for bidding. • Bid project • Construct project in a phased approach so as not to interfere with full and safe operation of the plant.

WATER

Water 1 – Short Term Goal

Goal	Install motion activated faucets in bathrooms phase I.
Timeline	Achieved by December 2009
Goal Summary	<ul style="list-style-type: none"> • <i>Objective</i> – Install motion activated water faucets in bathrooms in order to save water, and reduce number of surfaces touched per user. • <i>Metrics for success</i> – Replacement of at least 40% of total faucets. • <i>Baseline</i> – In 2007 there were no motion activated faucets on campus. • <i>Costs & funding</i> – \$63,000 for 130 faucets at \$300 each, and \$200 per installation. Lehman College Operating Budget. • <i>Implementing agents</i> – Lehman in-house plumbers and/or outside plumbing contractor
Actions to be taken	<ul style="list-style-type: none"> • Receive proposal from vendor • Send out to bid • Award contract • Install new faucets

Water 2 – Medium Term Goal

Goal	Replace water meters with transducers in order to track water use.
Timeline	Achieved by 2012
Goal Summary	<ul style="list-style-type: none"> • <i>Objective</i> – Install transducers throughout campus so that water use can be measured going forward. • <i>Metrics for success</i> – installation of nine (9) transducers. • <i>Baseline</i> – At the start of this project there were no functioning water meters on campus • <i>Current Practice</i> – not tracking annual water usage • <i>Costs & funding</i> – \$8,000 per transducer and \$5,000 each to install. Lehman operating budget • <i>Implementing agents</i> – Lehman in-house plumbers and/or outside plumbing contractors.
Actions to be taken	<p><i>Step by step outline of actions to be taken to achieve the goal</i></p> <ul style="list-style-type: none"> • Receive proposal from vendor • Send out to bid • Award contract • Install transducers • Have them report to the Building Management System

Water 3 - Medium Term Goal

Goal	Replace all faucets on all sinks campus wide with automatic faucets
Timeline	September 2009 – September 2011
Goal Summary	<ul style="list-style-type: none"> • <i>Objective</i> – Reduce water consumption by replacing leaking or inoperative faucets with automatic faucets that will shut off • <i>Metrics for success</i> – Reduced water consumption • <i>Baseline</i> – Annual water consumption • <i>Current Practice</i> – Most faucets are original to the building and are leaking or left running. • <i>Costs & funding</i> – Lehman B&G O&M Budget • <i>Implementing agents</i> – Lehman College – B&G
Actions to be taken	<p><i>Step by step outline of actions to be taken to achieve the goal</i></p> <ul style="list-style-type: none"> • College baseline data • Purchase 1/3 quantity of faucets needed • Select method of installation • Phase I completed 2009

Water 4 – Medium Term Goal

Goal	Decrease water use by treating and re-using gray water to flush toilets in the New Science Facility Phase I. This goal is an important component of the College's LEED Strategy for the Science Facility.
Timeline	Achieved by 2012.
Goal Summary	<ul style="list-style-type: none"> • Objective – decrease water consumption by using gray water to flush toilets • Metrics for success – less freshwater use per occupant as compared to other campus facilities. • Baseline – estimated number of gallons if using current system. • Current Practice – use fresh water to flush toilets. • Costs & funding – Lehman Science Facility Capital Construction Budget. • Implementing agents – Plumbing Contractors.
Actions to be taken	<p><i>Step by step outline of actions to be taken to achieve the goal</i></p> <ul style="list-style-type: none"> • Have project consultants look at water savings • Design a system to treat rain water stored from roof and site drains • Include in project • Bid and construction with Phase I Science Facility

Water 5 – Long Term Goal

Goal	Decrease water use by replacing toilets with fixtures with water efficient flushing systems and replacing urinals with waterless.
Timeline	2017
Goal Summary	<ul style="list-style-type: none"> • <i>Objective</i> – decrease water consumption by establishing a program to replace all toilets with fixtures that use less water and replacing urinals with waterless fixtures. • <i>Metrics for success</i> – reduced consumption • <i>Baseline</i> – estimated number of gallons currently used. • <i>Current Practice</i> – only ADA compliant fixtures are low flow • <i>Costs & funding</i> – A combination of capital, hard dollar and maintenance funds • <i>Implementing agents</i> – Lehman College/Outside Plumbing Contractor
Actions to be taken	<p><i>Step by step outline of actions to be taken to achieve the goal</i></p> <ul style="list-style-type: none"> • Collect baseline data • Determine best production solutions and price data • Determine installation cost and establish program timeline • Secure multi-year funding for the project • Purchase fixtures and materials. • Select installing contractor • Complete each year's purchase/installation.

Water 6 – Long Term Goal

Goal	Decrease water use by treating and re-using gray water to flush toilets in the New Science Facility Phase II and potential to expand campuswide.
Timeline	2017
Goal Summary	<ul style="list-style-type: none"> • <i>Objective</i> – decrease water consumption by using gray water to flush toilets • <i>Metrics for success</i> – water treatment will be monitored • <i>Baseline</i> – estimated number of gallons used by current system • <i>Current Practice</i> – use fresh water to flush toilets • <i>Costs & funding</i> – Lehman Science Facility Capital Construction Budget • <i>Implementing agents</i> – Plumbing Contractors
Actions to be taken	<p><i>Step by step outline of actions to be taken to achieve the goal</i></p> <ul style="list-style-type: none"> • Have project consultants look at water savings • Design a system to treat rain water stored from roof and site drains • Include in Science Facility project phase II and include a constructed wetland for training/educational purposes. • Bid and construction with Phase II Science Facility • Look at potential to install similar systems in all buildings campuswide

TRANSPORTATION

Transportation 1 - Short Term Goal

Goal	To purchase an electric vehicle for on campus use for maintenance and trash hauling
Timeline	Completed in 2009
Goal Summary	<ul style="list-style-type: none"> • <i>Objective-</i> To reduce emissions and gas consumption • <i>Metrics for success-</i>Reduced energy use and gas emissions. • <i>Baseline</i> – current gasoline use and greenhouse gas emissions • <i>Current Practice</i> – Gasoline truck used for gas hauling and maintenance activities • <i>Costs & funding-</i> College’s Operating Budget • <i>Implementing agents</i> – Lehman College B&G Department
Actions to be taken	<p><i>Step by step outline of actions to be taken to achieve the goal</i></p> <ul style="list-style-type: none"> • Identify best product to be purchased • Request funding • Purchase vehicle • Utilize vehicle as often as possible

Transportation 2 - Intermediate Term Goal

Goal	To purchase bicycles for maintenance use on campus.
Timeline	Completed by 2011
Goal Summary	<ul style="list-style-type: none"> • <i>Objective-</i> To reduce emissions and gas consumption • <i>Metrics for success-</i>Reduced energy use and gas emissions and increased productivity. • <i>Baseline</i> – current gasoline use and greenhouse gas emissions • <i>Current Practice</i> – Gasoline truck used for gas hauling and maintenance activities • <i>Costs & funding-</i> College’s Operating Budget • <i>Implementing agents</i> – Lehman College B&G Department
Actions to be taken	<p><i>Step by step outline of actions to be taken to achieve the goal</i></p> <ul style="list-style-type: none"> • Identify best product to be purchased • Request funding • Purchase bikes (possibly in phases over 2-3 years) • Utilize vehicles as often as possible

Transportation 3 – Intermediate Term Goal

Goal	To purchase and install more bicycle racks on campus to encourage more faculty, staff and students to ride bicycles to the campus.
Timeline	Completed by 2012
Goal Summary	<ul style="list-style-type: none"> • <i>Objective-</i> To reduce emissions and gas consumption • <i>Metrics for success-</i>Reduced energy use and gas emissions and increased bicycle use as a means to travel to campus. • <i>Baseline</i> – current gasoline use and greenhouse gas emissions • <i>Current Practice</i> – automobile • <i>Costs & funding-</i> College’s Operating Budget • <i>Implementing agents</i> – Lehman College B&G Department
Actions to be taken	<p><i>Step by step outline of actions to be taken to achieve the goal</i></p> <ul style="list-style-type: none"> • Identify best product to be purchased • Request funding • Purchase bike racks • Periodically check and track usage

Transportation 4 - Long Term Goal

Goal	To incentivize use of public transportation as a primary means to commute to campus for students, faculty and staff.
Timeline	Completed by 2017
Goal Summary	<ul style="list-style-type: none"> • <i>Objective-</i> To reduce emissions and gas consumption and the number of vehicles traveling to campus and to promote ride sharing • <i>Metrics for success-</i>Reduced energy use and gas emissions and vehicles traveling to campus • <i>Baseline</i> – current vehicles with parking permits on campus • <i>Current Practice</i> – single passenger vehicles • <i>Costs & funding-</i> Lehman College/CUNY/State of NY/City of NY • <i>Implementing agents</i> – Lehman College
Actions to be taken	<p><i>Step by step outline of actions to be taken to achieve the goal</i></p> <ul style="list-style-type: none"> • Determine best method to incentivize use of public transportation • Identify funding sources • Request funding • Make incentives available to college community

Education
&
Outreach

Education & Outreach 1 - Short Term Goal

Goal	Host, sponsor and promote conferences aimed at providing information or educating about alternative solutions related to sustainability i.e., alternative technology vehicles, etc.
Timeline	Lehman was host to the CUNY Center for Sustainable Energy 4 th in 2008 and 5 th in 2009 annual Alternative Technology Vehicle Conference and hopes to continue that sponsorship for years to come.
Goal Summary	<ul style="list-style-type: none"> • <i>Objective</i>- To serve as a center for sustainability education and outreach for the College, University and NYC community • <i>Metrics for success</i>- Increasing the numbers and type of events hosted by Lehman on the campus • <i>Baseline</i> – Currently hosting the Alternative Technology Vehicle conference • <i>Current Practice</i> – Make resources, staff and space available • <i>Costs & funding</i>- College’s Operating Budget • <i>Implementing agents</i> – Lehman College
Actions to be taken	<p><i>Step by step outline of actions to be taken to achieve the goal</i></p> <ul style="list-style-type: none"> • Meet with Conference Promoter • Determine facility, staff, resource and other needs • Coordinate effort and campus resources/departments • Provide support before, during and after the event • Properly dispose of incandescent lamps

Education & Outreach 2 - Short Term Goal

Goal	<p>Encourage Student involvement and participation in Sustainable topics and issues:</p> <ul style="list-style-type: none"> • Establish a Student Environmental Club on Campus • Lehman Student participation in the Governors Island Science, Art Exhibition and Speaker Series sponsored by the CUNY Institute for Sustainable Cities.
Timeline	Achieved in December 2009
Goal Summary	<ul style="list-style-type: none"> • <i>Objective</i> – Have students participate in exhibitions, conferences and competitions. And encourage student involvement and participation by establishing the Student Environmental Club • <i>Metrics for success</i> – Participation in at least one sustainability exhibition. The environmental club was established in Fall 2009 with a student advisor and recognition by the student governing body. Pending funding and space allocation in either spring 2010 or Fall 2010. • <i>Current Practice</i> – None • <i>Costs & funding</i> – None required • <i>Implementing agents</i> – Professors and Students
Actions to be taken	<p><i>Step by step outline of actions to be taken to achieve the goal</i></p> <ul style="list-style-type: none"> • Completed

Education & Outreach 3 - Intermediate Term Goal

Goal	To establish a new undergraduate Interdisciplinary Major in Environmental Science in the Department of Environmental, Geographic and Geologic Sciences (EGGS).
Timeline	The Department expects to submit to all governing bodies for approval over the next year and expects to begin accepting student in the program Fall 2010.
Goal Summary	<ul style="list-style-type: none"> • <i>Objective-</i> To create an interdisciplinary major in Environmental Science • <i>Metrics for success-</i> Student enrollment • <i>Baseline</i> – Currently offering an undergraduate minor in Environmental Science • <i>Costs & funding-</i> Lehman College Operating Budget • <i>Implementing agents</i> – Department faculty. The Faculty within the Department conduct research in fields of carbon silicate and diamond inclusions; application of GIS to the urban environment, public health, and environmental justice; water chemistry and quality; and seafloor morphology and plate kinematics, with funding from the National Science Foundation, the National Oceanographic and Atmospheric Administration, New York City Department of Parks, and the National Institute of Environmental Health Sciences.
Actions to be taken	<p><i>Step by step outline of actions to be taken to achieve the goal</i></p> <ul style="list-style-type: none"> • Develop curriculum. • Submit to Governing Bodies for approval • Include courses in Undergraduate Bulletin

NUTRITION

Nutrition 1 – Short Term Goal

Goal	Include language in the RFP for Food Service Vendors making sustainability part of the contract to be implemented as soon as possible. By the end of 2010 to have a robust sustainable foodservice operation in place.
Timeline	The new contract was awarded and effective as of Fall 2009, the week before the start of the fall semester to Nayyarsons' who would like to begin implementation of a sustainable foodservice operation as soon as they fully settle in and have depleted the stock of supplies they purchased from the previous vendor.
Goal Summary	<ul style="list-style-type: none"> • <i>Objective</i>- To incorporate sustainability as a term of the agreement with the food service vendor • <i>Metrics for success</i>- Implementation of a full blown sustainability program in food service operations and point of sale • <i>Baseline</i> – Our current contract does not contain these terms. • <i>Current Practice</i> – recycling is the only current practice in food service • <i>Costs & funding</i>- Foodservice Vendor • <i>Implementing agents</i> – Foodservice Vendor
Actions to be taken	<p><i>Step by step outline of actions to be taken to achieve the goal</i></p> <ul style="list-style-type: none"> • Identify aspects of sustainability to be incorporated into food service operations, i.e., food waste composting, elimination of use of Styrofoam, etc. • Develop strategies • Implement strategies

Nutrition 2 - Medium Term Goal

Goal	Establish an on campus farmers market to bring fresh fruits and vegetables to members of the College and surrounding community.
Timeline	By the latest 2011, but hopefully by Fall 2010.
Goal Summary	<ul style="list-style-type: none"> • <i>Objective</i>- To provide access to fresh, locally grown fruits and vegetables. • <i>Metrics for success</i>- Sales • <i>Baseline</i> – nothing is in place. • <i>Current Practice</i> – nothing is set up on campus • <i>Costs & funding</i>- Foodservice Vendor • <i>Implementing agents</i> – Foodservice Vendor
Actions to be taken	<p><i>Step by step outline of actions to be taken to achieve the goal</i></p> <ul style="list-style-type: none"> • Identify vendors • Develop strategies • Implement strategies

Nutrition 3 - Medium Term Goal

Goal	To provide information on nutritional content for all items sold in the cafeterias and to make a larger selection of fruit and health snacks available campuswide. NOTE: The foodservice vendor has established an internship with the Health Sciences Department to utilize students in the Dieticians program to provide the nutritional content information for food served in the cafeterias.
Timeline	By 2012 the latest.
Goal Summary	<ul style="list-style-type: none"> • <i>Objective</i>- To provide information to consumers to make informed decisions about food selection. • <i>Metrics for success</i>- Sales should increase on healthy options and decrease on less healthy options. • <i>Baseline</i> – nothing is in place. • <i>Current Practice</i> – information is not available and there are limited healthy snacks available. • <i>Costs & funding</i>- Foodservice and snack Vendor • <i>Implementing agents</i> – Foodservice and snack Vendor
Actions to be taken	<p><i>Step by step outline of actions to be taken to achieve the goal</i></p> <ul style="list-style-type: none"> • Have the foodservice committee meet with vendors to establish a program and develop a plan • Implement plan

PROCUREMENT

Procurement 1 - Short Term Goal

Goal	<ul style="list-style-type: none"> • To have all departments on campus utilize the e-procurement system to submit purchase requisitions electronically thus reducing paper and form use. • To purchase only green cleaning products for B&G • To purchase products made from recycled materials when ever possible • To purchase only printers and copies capable of duplex (double sided) copying. • Remind the College Community to set their printer defaults to double sided printing
Timeline	Completed in 2009
Goal Summary	<ul style="list-style-type: none"> • <i>Objective-</i> to reduce paper use, purchase only green products or products made from recycled produces • <i>Metrics for success-</i>Reduced energy use, paper use and material use/generation • <i>Baseline</i> – partially implemented • <i>Current Practice</i> – some but not all products were either recycled or green • <i>Costs & funding-</i> College’s Operating Budget • <i>Implementing agents</i> – Lehman College Purchasing & B&G Department
Actions to be taken	<p><i>Step by step outline of actions to be taken to achieve the goal</i></p> <ul style="list-style-type: none"> • Identify Departments not utilizing e-procurement, train and implement use • Implement the program designed by B&G for green cleaning • Purchase appropriate products • Only make products available for purchase with recycled materials content

RECYCLING

Recycling 1 - Short Term Goal

Goals	<ul style="list-style-type: none"> • To put into practice a robust and campus wide program of recycling. • To reduce paper waste by encouraging double-sided printing, electronic document submissions, e-books and publications throughout campus. • To insist that all departments implement electronic purchasing
Timeline	Completed in f.y. 2009
Goal Summary	<ul style="list-style-type: none"> • <i>Objective-</i> To engage the entire college community in recycling efforts, waste reduction efforts and conservation measures • <i>Metrics for success-</i> proper sorting of waste locally, less paper use, and e-procurement will be the only means for • <i>Baseline</i> – currently B&G handles waste is separated and placed in proper containers at the loading dock. Where recycling bins and receptacles are located on campus waste is being separated from recyclables. “Mt. Trashmore” for campus sustainability day illustrated that in some locations waste is being co-mingled with recyclables, many members of the college community utilize single sided printing and paper purchase orders were still used. • <i>Current Practice</i> – Many community members are not properly sorting waste from recyclables or reducing paper use. • <i>Costs & funding-</i> College’s Operating Budget • <i>Implementing agents</i> – Lehman College B&G Department
Actions to be taken	<p><i>Step by step outline of actions to be taken to achieve the goal</i></p> <ul style="list-style-type: none"> • Begin a program of education about proper sorting • Have the appropriate departments and divisions advise faculty and staff of the paper reduction requirement of double sided printing and/or utilizing e-documents whenever possible and enforce electronic requisitioning. • Request funding for additional recycling receptacles • Purchase receptacles and locate all around campus exterior, interior halls, lobbies, classrooms and offices. • Verify sorting waste from recyclables is actually occurring.

Recycling 2 - Short and Intermediate Term Goal

Goal	To continue composting grass, leaves, etc. on campus and to add food waste composting to the mix.
Timeline	Completed in 2010
Goal Summary	<ul style="list-style-type: none"> • <i>Objective-</i> To start with composting kitchen food waste and expand to include all food waste. • <i>Metrics for success-</i> minimal waste from foodservice • <i>Baseline</i> – All food waste is disposed of. • <i>Current Practice</i> – All food waste is tossed with the trash • <i>Costs & funding-</i> College’s Operating Budget/Foodservice Vendor • <i>Implementing agents</i> – Lehman College B&G Department /Foodservice Vendor
Actions to be taken	<p><i>Step by step outline of actions to be taken to achieve the goal</i></p> <ul style="list-style-type: none"> • Investigate options for composting food waste • Determine best method to safely compost food waste • Purchase equipment • Put a program into effect starting with kitchen food waste • Educate students, faculty and staff about properly sorting food waste from other waste. • Expand composting to include all food waste.

Recycling 3 - Short, Intermediate and Long Term Goal

Goal	To recycle all things whenever, wherever possible, including building materials, carpet, furniture, computers, metal cabinets, equipment, etc.
Timeline	Completed in 2009 and on-going.
Goal Summary	<ul style="list-style-type: none"> • <i>Objective-</i> To institute a policy of recycling that goes beyond consumables and includes building materials, carpet, furniture, computers, etc. • <i>Metrics for success-</i> more items are recycled or re-used that disposed of. • <i>Baseline</i> – Currently computers are recycled. • <i>Current Practice</i> – Computers are recycled rather than trashed. • <i>Costs & funding-</i> College’s Operating Budget • <i>Implementing agents</i> – Lehman College B&G Department
Actions to be taken	<p><i>Step by step outline of actions to be taken to achieve the goal</i></p> <ul style="list-style-type: none"> • Investigate methods for recycling various products • Contact vendors and determine best method • Identify products to be recycled rather than trashed. • Put a program into effect