Policy No.: Section: Title:

Date Adopted: Date Revised: 830 OPERATIONS COMPREHENSIVE ENVIRONMENTAL IMPACT REDUCTION PLAN (CEIRP) 6/3/11 11/6/20

R830 COMPREHENSIVE ENVIRONMENTAL IMPACT REDUCTION PLAN

Energy Conservation and Management

All aspects of LMSD operations will utilize the principle of using the least amount of energy practical. Energy efficient equipment (e.g. Energy Star certified) will be deployed whenever and wherever feasible. Energy consumption will be further minimized by turning equipment off when not in use. Minimizing energy use will be a priority at all steps of development and implementation of district educational and operational programs and responsibilities.

<u>Energy Coordinator</u>: The Board directs the Superintendent to appoint an Energy Coordinator within the Operations Department to assist in the implementation of the policy.

- The Superintendent, acting with the Director of Operations and the Energy Coordinator will develop and implement short and long-range strategies in the areas of energy conservation.
- The Energy Coordinator will maintain accurate records of energy consumption and cost of energy and provide information to the Board, administrators and staff on the goals and progress of the energy conservation program.
- The Energy Coordinator is responsible to ensure that the various energy management systems at each building are being used to maintain an efficient energy operation on a daily basis.
- The Energy Coordinator shall perform routine energy audits of all facilities and communicate the audit results to the appropriate personnel. Energy audits will focus on verifying occupant behavior is consistent with the intent of the goals of reducing energy use and overall environmental impact.
- The building principal will be accountable for energy management in his/her building, with routine energy audits being conducted to ensure energy management guidelines are being followed. Each building principal and building-based Environmental Committee will work with the Energy Coordinator. (See below for structure of administrative and building-based committees.)

General Provisions

Policy No.: Section: Title:

Date Adopted: Date Revised: 830 OPERATIONS COMPREHENSIVE ENVIRONMENTAL IMPACT REDUCTION PLAN (CEIRP) 6/3/11 11/6/20

- Classroom doors should remain closed when HVAC is operating. Doors and windows between conditioned space and non-conditioned space/the outdoors must remain closed at all times while the HVAC systems are in heating or cooling mode. Windows should remain closed to maintain indoor air quality year around, but may be opened as a temporary measure to address system failure until repairs are made.
- Data loggers and other monitoring equipment will be used to monitor temperature, light levels and other indoor air quality conditions throughout the District's buildings to ensure compliance with energy guidelines.
- Exhaust fans shall be turned off during unoccupied hours except where necessary to control temperature, humidity, or fumes in areas such as gyms, locker rooms, auditoriums, kiln rooms, science rooms, computer labs, and storage areas
- Office equipment (printers, typewriters, radios, laminators, etc.) shall be switched off each night and during unoccupied times. The Information Services Department will issue specific guidelines concerning copiers and printers – some are required to remain turned on but put themselves into a sleep mode.
- The Information Services Department will use software to centrally control power consumption of computers and related equipment. All computers, computer monitors, local printers, LCD projectors and speakers shall be turned off each night. The information Services Department will determine which mission critical equipment must be powered at all times, e.g., servers and network electronics.
- All copiers and other large equipment should be programmed for the energy saver mode using the power management feature. Ensure the monitor sleeps after 10 minutes of inactivity.
- Appliances such as microwaves, refrigerators, coffee pots and hot plates will not be kept in classrooms or offices. These items will be consolidated into common areas such as staff lunchrooms and teacher prep areas. Such appliances are subject to removal if they do not meet local fire safety codes. Appliances required for the curriculum (i.e., FCS, science) and those required for students with special needs are exempt from this policy.

•

Policy No.: Section: Title:

Date Adopted: Date Revised: 830 OPERATIONS COMPREHENSIVE ENVIRONMENTAL IMPACT REDUCTION PLAN (CEIRP) 6/3/11 11/6/20

- During times when the school is occupied solely by custodians, heating and air condition set points will be partially set back to save energy, yet provide conditions suitable for custodial work.
- Vending machines and non-essential food service equipment will be shut down during summer months when school is not in session.
- Custodians will check to insure all windows are closed prior to securing the building at night.
- Energy consumption in each building will be monitored and reviewed monthly by the Operations Department. Anomalies will be reported to administration and building principal(s) for investigation. Energy trends will be reported annually to the Board.
- To complement the District's energy management program, the District shall develop and implement a preventive maintenance and monitoring plan for its facilities and systems, including electrical, HVAC, building envelope and moisture control.

Air Conditioning Equipment

During unoccupied times, the air conditioning equipment shall be set back, except as may be necessary to adequately prepare a room for later use. The unoccupied period begins when the occupants leave the area at the end of the school day.

- Air conditioning start times may be adjusted (depending on weather) to ensure classroom comfort when school begins.
- Window air conditioning units should be turned off when rooms they serve are not occupied. Custodians will check rooms to insure window units are off when not occupied and prior to securing the building at night.
- Outside air dampers shall be closed during unoccupied times.
- Ceiling fans should be operated only during occupied times.
- •

Policy No.: Section: Title:

Date Adopted: Date Revised: 830 OPERATIONS COMPREHENSIVE ENVIRONMENTAL IMPACT REDUCTION PLAN (CEIRP) 6/3/11 11/6/20

• Air conditioning should not be utilized in classrooms, empty offices, gyms, cafeterias, etc. during the summer months unless they are being used for summer school, being cleaned or being used for an approved outside user group. However, air conditioning can be employed as needed to prevent indoor air quality problems or damage to the building.

Heating Equipment

- During unoccupied times, the space temperature shall be 55 degrees F. This may be adjusted during extreme weather.
- All domestic hot water systems shall be set no higher than 110 degrees F or 140 degrees F for cafeteria dishwashing service.
- The use of portable heaters is a fire hazard and thus distract staff are prohibited from using them in any District building. Concerns about heating levels, cold spots, drafts, etc. should be reported to the building Head Custodian for action. The Operations Department may choose to provide approved space heaters on a temporary basis to correct heating problems.

<u>Lighting</u>

- Lighting in unoccupied areas will be turned off during the work day. Teachers shall make certain that lights are turned off when leaving the classroom unoccupied. Special purpose lights with long warm up times, such as most gym lighting, may be left on between classes.
- Natural lighting shall be used where appropriate. Shades or blinds shall be used to filter excessive sunlight/prevent excessive heating during the cooling season.
- All exterior lighting shall be turned off during daylight hours.
- Gym and auditorium lighting shall not be on unless these areas are in use.
- All lights will be turned off when students and staff leave at the conclusion of the workday. Custodians will only turn lights on while cleaning a space.

•

Policy No.: Section: Title:

Date Adopted: Date Revised: 830 OPERATIONS COMPREHENSIVE ENVIRONMENTAL IMPACT REDUCTION PLAN (CEIRP) 6/3/11 11/6/20

• Custodians will confirm lighting is off in restrooms, closets, storage areas, mechanical spaces, attics and crawl spaces, provided switches are present, when not in use and prior to closing the building each night

Space Temperatures

Space temperature will be maintained within the following ranges. The inability of mechanical systems to meet this requirement will be addressed by a high priority work order. If a space is within the ranges shown below, no adjustments will be made, except to meet individual student needs as required by law.

- 1. Heating Season (occupied)
 - a. Classrooms, Library, Auditorium, and Offices: 68 degrees F, +/- 1 degree. Elementary school classrooms will be kept at 70 degrees F, +/- 1 degree.
 - b. Hallway: 63-67 degrees F.
 - c. Gymnasiums: 65 degrees F, +/- 1 degree.
 - d. Swimming Pool: 78-83 degrees F.
- 2. Heating Season (unoccupied)
 - a. All Spaces: 55 degrees F
- 3. Cooling Season (occupied) for spaces with air conditioning
 - a. All Spaces: 76 degrees F, +/- 1 degree
- 4. Cooling Season (unoccupied)
 - a. All Spaces: AC will be set to 85 degrees F

Energy Conservation Projects

•

• The Operations Department will include projects that will result in energy savings when proposing each year's Five-Year Facilities Improvement Plan. The primary effort will be on projects where the simple payback period is approximately five years or less.

<u>Alternative Fuel Vehicles:</u> The district will review and refine the practice of employing alternative fuel vehicles in district operations.

Policy No.: Section: Title:

Date Adopted: Date Revised: 830 OPERATIONS COMPREHENSIVE ENVIRONMENTAL IMPACT REDUCTION PLAN (CEIRP) 6/3/11 11/6/20

- Develop a procurement strategy for purchasing bio-diesel, order the new fuel and begin using it in diesel-powered equipment. Monitor advancements in bio-fuels and evaluate alternative bio-fuels practices.
- Plan for purchase of new CNG vehicles to replace those that have reached the end of their useful lives. Seek grants to pay for the difference between the cost of a conventional bus and a CNG bus. Consider alternative fuel vehicles such as CNG if available, when purchasing replacements for service vans and other support vehicles.
- Maintain and improve operation of the CNG fueling facilities. Continue to seek rebates and/or grants to assist in reducing the cost of this fuel.
- Monitor technology advancements in transportation and assess suitability for school district use. Consider pilot programs and other evaluation methods.

<u>Pedestrian Access to Schools</u>: for those students living close to schools and not entitled to busing, the District will promote walking and bicycling to schools (as opposed to parent transportation).

- Participate in Lower Merion Township long term municipal planning efforts to improve walkability throughout the community.
- Educate students and promote safe walking to school through techniques such as the "walking school bus."

Municipal Solid Waste (MSW) Reduction and Management

All aspects of LMSD operations will follow the principles of refuse, reduce, reuse, and recycle. Waste management will be a priority at all steps of development and implementation of district educational and operational programs and responsibilities. Communication and coordination with Lower Merion Township, as appropriate, is required.

<u>Food Services</u>: To the maximum extent feasible, reusable, recyclable, and compostable dishes, cups and cutlery will be used for food and beverages at all district functions and school cafeterias. Waste-free lunches and bulk serving will be used, where practical, over individual packaging, including the elimination of the use of plastic water bottles.

Policy No.: Section: Title:

Date Adopted: Date Revised: 830 OPERATIONS COMPREHENSIVE ENVIRONMENTAL IMPACT REDUCTION PLAN (CEIRP) 6/3/11 11/6/20

<u>Waste Reduction</u>: The district will expand efforts to increase the current amount of material being recycled.

- <u>Refuse and Reduce</u>: Every effort will be made, annually, to reduce consumption of products, energy, and resources.
- <u>Reuse</u>: Every effort will be made to reuse materials that already exist. The district will consider the reusability of any product prior to its purchase.
- <u>Recycling</u>: Plastics #1-7, paper and cardboard, glass, aluminum, and batteries, will be diligently recycled at all district facilities. Evaluate the current recycling program and take steps to encourage more recycling. This can be done with awareness campaigns, waste stream audits, and making more recycling containers accessible.

<u>Plastic Water Bottles</u>: Every effort will be made to reduce the use of plastic water bottles within the District and encourage the use of reusable water bottles. Individual schools will develop programs to encourage student use of refillable water bottles.

<u>Reducing Paper Usage</u>: The District will take steps to reduce the use of paper in day-to-day operations. Such strategies include printing fewer electronic documents, streamlining administrative processes to eliminate paper, printing on two sides of a page, and reducing margin size and re-using paper for alternate purposes such as note pads and packing material.

Water and Soil Conservation and Management

The District will make every effort to implement best practices, on an on-going basis, for water and soil conservation and management through effective storm water management and collection, reuse of gray water, erosion control, native landscaping, and building-based mechanical systems (plumbing) that reduce fresh water consumption.

<u>Water-related equipment</u>: Any and all plumbing fixtures, etc. that need to be replaced, will be replaced with units that use the least amount of fresh water including equipment that can effectively use grey water.

<u>Landscaping</u>: Wherever feasible, the District will set aside permanently natural landscaping and wildlife habitats on District property. Grounds-care procedures will be implemented, and

Policy No.: Section: Title:

Date Adopted: Date Revised: 830 OPERATIONS COMPREHENSIVE ENVIRONMENTAL IMPACT REDUCTION PLAN (CEIRP) 6/3/11 11/6/20

materials utilized, that reduce and minimize the use of grounds treatment products and soil amendments. District personnel will be trained in best-practice techniques, e.g. tree planting and gardening.

<u>Erosion Control</u>: The district will employ soil erosion prevention and best-practice remediation techniques at all its properties.

<u>Storm Water Runoff</u>: Every effort will be made to minimize storm water runoff using best practice techniques, e.g. rain gardens, retention basins, capture and use of grey water.

Air Quality Management

The District is committed to and responsible for the maintenance of a safe and healthy learning/working environment and will do so following the U.S. Environmental Protection Agency's Tools for Schools Indoor Air Quality Program, OSHA guidelines, and other applicable laws and regulations.

<u>Green Cleaning</u>: The district will adopt a green cleaning program whose goal will be to clean facilities in a manner that impacts human health as little as possible.

• A green cleaning program will be implemented in the new high schools using equipment, products, and cleaning techniques that have the least impact on the environment. This program will be expanded to other schools as quickly as feasible. The district will meet the standards contained in the LEED for Existing Buildings standard.

Storage of Cleaning and Grounds Treatment Products

• Cleaning products and grounds treatment products will be stored in areas isolated from cross-ventilation with occupied spaces. Custodians, Groundskeepers, and other appropriate employees will be trained in the proper dilution and use of products used for cleaning, pest control, water treatment, etc.

Preventive Maintenance Program

• The Operations Department will maintain a preventive maintenance program that emphasizes cleanliness and filter effectiveness for HVAC equipment.

Policy No.: Section: Title:

Date Adopted: Date Revised: 830 OPERATIONS COMPREHENSIVE ENVIRONMENTAL IMPACT REDUCTION PLAN (CEIRP) 6/3/11 11/6/20

• The Operations Department HVAC technicians will monitor and adjust ventilation rates in occupied spaces as part of a preventive maintenance program.

Integrated Pest Management (IPM)

• The district will continue to follow an integrated pest management program. (Refer to Board Policy 716.)

Idling:

- The District will enforce policies to reduce idling of school buses and other district vehicles, regardless of whether they are on District property.
- The district will include information about excessive idling of personal vehicles in materials prepared and distributed to students, parents, and employees.

Purchasing

- The district will purchase energy saving appliances, electronics, and other products labeled with the EPA Energy Star standards when feasible. All new construction and equipment purchases shall comply with Energy Star or similar rating guidelines.
- All attempts will be made to buy materials that have been locally produced—within 500 miles of LMSD—and/or produced with as much locally supplied, recycled and recyclable content as possible. Factors such as cost and quality of alternate products will be included in the evaluation.
- When possible, products will be purchased in concentrated or bulk form to reduce packaging. Recyclable packaging content will also be a consideration.
- The district will review its purchasing policies to decrease the amount of products being purchased that contain or release chemicals such as VOC's and refrigerants that can pose a health risk to building occupants or adversely affect the environment. Factors such as cost and quality of alternate products will be included in the evaluation.

Policy No.: Section: Title:

Date Adopted: Date Revised: 830 OPERATIONS COMPREHENSIVE ENVIRONMENTAL IMPACT REDUCTION PLAN (CEIRP) 6/3/11 11/6/20

• All attempts will be made to buy post-recycled and recyclable products in an effort to reduce the district's overall waste stream. Materials that are not recyclable will be minimized. The district will seek to purchase products made of renewable and/or recycled materials whenever practical.

Administrative and Building-Based Committee Structure

- 1) The Superintendent or the Superintendent's designee will form, and participate with, a group that represents all aspects of Administration to implement the CEIRP
 - This committee will meet three times per school year, more if needed, to implement and monitor green initiatives and programs, as well as to discuss and present new ideas.
 - The Superintendent will make implementation of the LMSD Comprehensive Environmental Impact Reduction Plan an expectation of building principals in their respective buildings.
 - It is the intent of this policy that the Administration work closely with and support the activities of the Lower Merion School District Green Council. The Green Council is a district wide group of volunteer employees, parents, and students who seek to make a positive, measurable difference in the environmental practices and their related economic advantages to the Lower Merion School District community and township at large. The Green Council seeks to develop collaborative relationships with other groups and individuals to expedite the process of environmental change and strives to integrate environmental education programs throughout the K-12 curricula.
- 2) The Director of Operations or his designee will form, and participate with, a group that represents all aspects of Operations to implement the CEIRP
 - This committee will meet once per quarter, more if needed, to implement and monitor green initiatives and programs, as well as to discuss and present new ideas.
- 3) Implementing the CEIRP in schools
 - •

Policy No.: Section: Title:

Date Adopted: Date Revised: 830 OPERATIONS COMPREHENSIVE ENVIRONMENTAL IMPACT REDUCTION PLAN (CEIRP) 6/3/11 11/6/20

- Building Principals in each school will form, and participate with, a volunteer Environmental Committee that represents a diverse group of school employees from various departments, grades, and job titles.
 - This building-based committee should be formed from the existing Green Council participants in the building.
 - This committee will meet three times per school year, more if needed, to implement and monitor environmental impact reduction initiatives and programs, as well as to discuss and present new ideas.
 - Time will be given by the district for this committee to meet in accordance with Professional Responsibility Profile (PRP) Plan guidelines and requirements. The committee will report its activities to the Administration and to the Green Council for review and support of content and implementation.
 - \circ $\,$ This committee will be charged with promoting the implementation of the CEIRP in its building.
 - This group will work collaboratively with the student Environmental Club.
- Building Principals in each school will promote the formation of student groups (club, committee, etc.) advocating environmental stewardship that will promote programs that support implementation of the CEIRP
 - This group will receive support similar to other student clubs or activities.
 - The focus of the student environmental clubs shall be to raise awareness of how the school's daily activities impact the environment and how that impact can be reduced. The building should consider awareness programs such as daily announcements, student group presentations during advisories, grade level assemblies, and energy and water conservation awareness weeks. The student environmental clubs should periodically report to and work collaboratively with the building Environmental Committee for review and support.
- 4) The District will collaborate with the LMEA to garner that organization's support, energy, and ideas
 - The Green Council will seek and facilitate the LMEA's ongoing support and participation in implementation of the CEIRP