Montclair State University
Environmental Assessment:
MOU Semiannual Report
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Environmental Protection Agency
Region 2

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Memorandum of Understanding

On June 17, 2008, Montclair State University signed a Memorandum of Understanding (MOU) pledging to become an environmental steward by implementing a number of green initiatives that would reduce its carbon footprint and further improve our planet’s environment. This partnership with the United States Environmental Protection Agency (EPA) and Montclair State University has resulted in reducing energy, water and solid waste production across campus operations.

Reduction in Environmental Footprint

In the two years, Montclair State University has provided three updates documenting their green initiatives. The EPA has analyzed the submitted information and generated an environmental footprint for the organization. Due to the progressive green efforts of the organization, the university has managed to reduce its carbon footprint by 337 MTCO2e.

<table>
<thead>
<tr>
<th>Environmental Metrics</th>
<th>Total Sector (MTCO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Landscaping</td>
<td>n/a</td>
</tr>
<tr>
<td>Transportation</td>
<td>9</td>
</tr>
<tr>
<td>Energy Conservation</td>
<td>23</td>
</tr>
<tr>
<td>Water Conservation</td>
<td>30</td>
</tr>
<tr>
<td>Alternative Energy</td>
<td>4</td>
</tr>
<tr>
<td>Solid Waste</td>
<td>271</td>
</tr>
<tr>
<td>Total (MTCO2e)</td>
<td>337</td>
</tr>
</tbody>
</table>

*Metric Ton Carbon Dioxide Equivalent

Continous Improvements

The environmental footprint generated for Montclair University University is an estimate based on current knowledge. Certain environmental data points cannot be converted to carbon dioxide equivalents because scientific models do not currently exist. As calculation methodologies improve, future environmental assessments will be updated to include any greenhouse gas reduction estimates.
Reduction in Environmental Footprint

EPA used the following environmental conversion models to calculate metric tons of carbon dioxide equivalents:

• Greenhouse Gas Equivalencies Calculator allows different units to be inputted to convert the efforts into scenarios that can be easily communicated to the public
• GHG Conversion Tool May 2009 is a more comprehensive tool that can convert a wide ranging of reduction initiatives like electricity conversation, green energy, fuel substitution, green chemistry, water conservation and materials management
• RECON Model can be used to examine the energy impacts of purchasing, manufacturing of post-consumer recycled content
• Warm Model is used to examine the greenhouse impacts of solid waste issues related to recycling, combustion, composting and landfilling
Greenhouse Gas Equivalencies

What does the reduction of 337 MTCO2e represent?
The organization’s effort is equivalent to anyone of the following statements:

• Annual greenhouse gas emissions from 64 vehicles

• Carbon dioxide emissions from 37,908 gallons of gasoline

• Carbon dioxide emissions from 784 barrels of oil consumed

• Carbon dioxide emissions from the electricity use of 41 homes for one year

• Carbon dioxide emissions from 14,042 propane cylinders used for home barbeques

• Carbon dioxide emissions from 4.5 tanker truck’s worth gasoline

• Carbon dioxide emissions from the energy use of 29 homes for one year