



**Monmouth University**  
**Environmental Assessment:**  
**MOU Semiannual Report**  
**March 25, 2010**



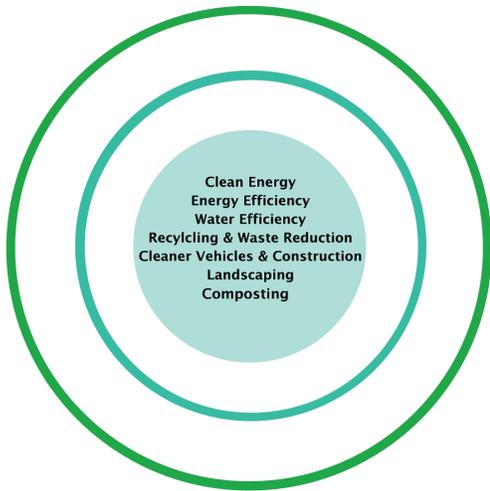
**Environmental Protection Agency**  
**Region 2**

Andrew Bellina, PE  
*Senior Policy Advisor*  
212-637-4126

Jose Pillich  
*Research Analyst*

## Accomplishments

Reductions of 5072 MTCO<sub>2</sub>e



## Memorandum of Understanding

On January 16, 2009, Monmouth 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 Monmouth University has resulted in reducing energy, water and solid waste production across campus operations.

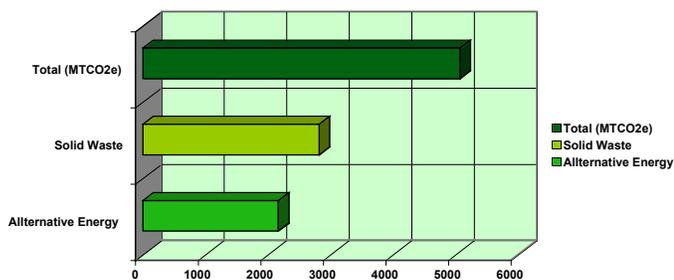
## Reduction in Environmental Footprint

In the last year, Monmouth University has provided two update reports documenting its 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 5072 MTCO<sub>2</sub>e.

\*Metric Ton Carbon Dioxide Equivalent

Environmental Metrics	Total Sector (MTCO <sub>2</sub> e)
Green Landscaping	2
Transportation	6
Energy Conservation	34
Water Conservation	43
Alternative Energy	2168
Solid Waste	2819
Total (MTCO <sub>2</sub> e)	5072

## High Impact Initiatives



## Continous Improvements

The environmental footprint generated for Monmouth University is an estimate based on current knowledge. EPA is receptive to having a dialogue with its partners about different methods of analyzing certain data metrics. In addition, certain environmental data points cannot be converted to carbon dioxide equivalents because scientific models do not currently exist. Calculation methodologies are improving as more and more is learned regarding greenhouse gas production and properties.

Accomplishments

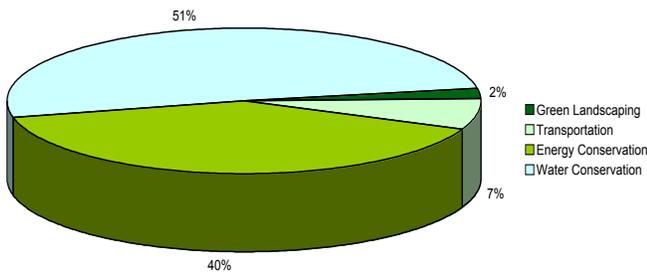
Reductions of 5072 MTCO<sub>2</sub>e

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

Secondary Initiatives



Accomplishments

Reductions of 5072 MTCO<sub>2</sub>e

Greenhouse Gas Equivalencies

What does the reduction of 5072 MTCO<sub>2</sub>e represent ?

The organization's effort is equivalent to any of the following statements:

- Annual greenhouse gas emissions from 970 vehicles



- Carbon dioxide emissions from 570,529 gallons of gasoline



- Carbon dioxide emissions from 11,795 barrels of oil consumed



- Carbon dioxide emissions from the electricity use of 616 homes for one year



- Carbon dioxide emissions from 211,333 propane cylinders used for home barbeques



- Carbon dioxide emissions from 67.7 tanker truck's worth gasline



- Carbon dioxide emissions from the energy use of 432 homes for one year

