

PRESENTATION TO ZONING COMMISSION



"Sustainability refers to the efforts of society to meet the needs of present users without compromising the ability of future generations to meet their own needs"

ZONING COMMISSION
District of Columbia
CASE NO. 11-15
EXHIBIT NO. 1

Introduction:

- From its recent beginnings, the University has been making some notable gains in pursuit of a robust sustainability program
 - Three years ago, in recognition of the need to make sustainability and environmental awareness part of the fabric of the University, a task force was formed and recommended to the President, the formation of the Howard University Environmental and Sustainability Council; intent was to be an advisory body comprised of a wide constituency of the campus
 - Since that time, the University has actually created an Office of Sustainability with a an appointed Director responsible for the improvement of its efforts towards becoming a “greener” campus
 - The University is entering its second term of a MOU with the EPA that is intended to be a collaboration on areas such as community service, recruitment outreach, sustainability and education
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III. Progress to date

- A. Recycling Program: Started from a disjointed paper recycling program many years ago to a full fledged, comprehensive program today that includes paper, co-mingled containers, cooking oil and some computer equipment

Participated over the past two years in the national Recyclemania contest among higher education institutions and the Director of the Office of Sustainability is now on the national steering committee for Recyclemania

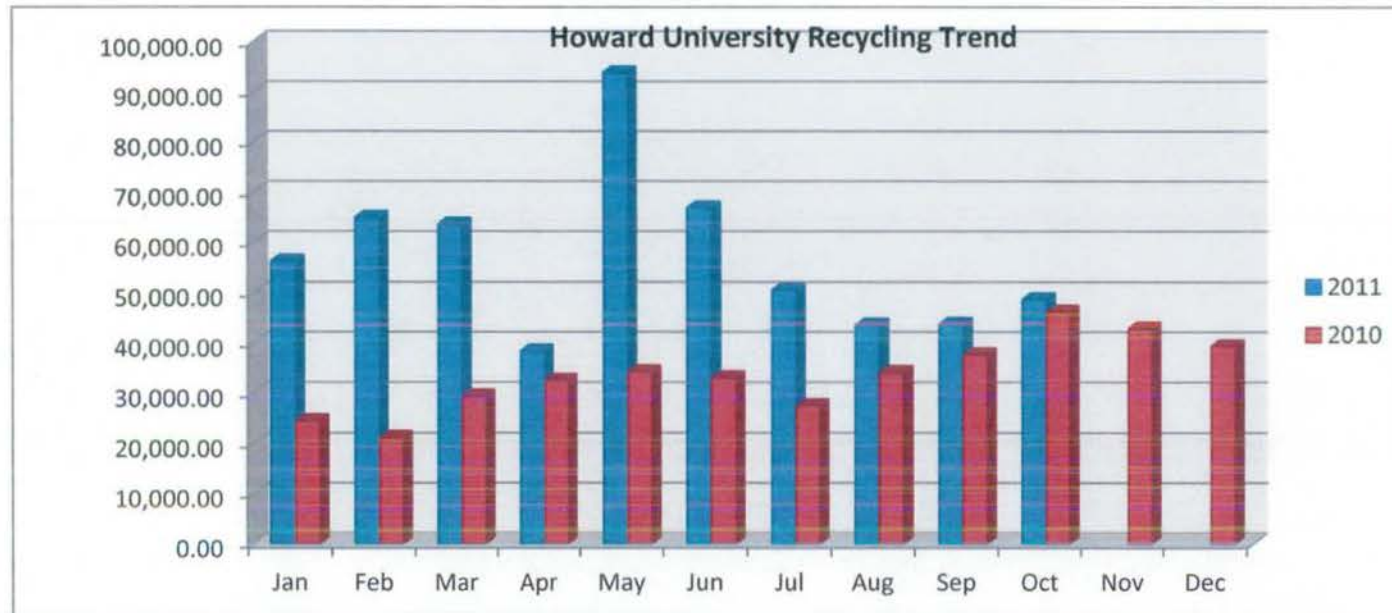
Recycling total has increased from about 5% to 15% of our solid waste and the effort is being tracked through EPA's "Wastewise" program



SUSTAINABILITY AT HOWARD UNIVERSITY

2011

Month	Sorted Office Waste (SOW)	Mix Paper	Books	Cooking Oil	Cardboard	Pepsi	Cans & Bottles	Total
Jan	38,340	1,720	1,000	11,500	1,920	0	1,800	56,280
Feb	41,240	2,360	2,980	12,150	3,140	0	3,080	64,950
Mar	37,040	2,660	7,470	8,550	3,700	0	4,220	63,640
Apr	21,890	1,000	5,400	1,500	5,060	0	3,560	38,410
May	58,900	5,040	20,700	1,500	3,000	0	4,760	93,900
Jun	36,150	1,540	23,930	1,000	1,800	0	2,440	66,860
Jul	38,239	460	5,380	1,000	3,000	0	2,400	50,479
Aug	36,260	1,340	1,050	3,000	3,000	0	1,860	43,510
Sep	32,668	3,540	1,500	3,900	440	1,700	43,748	
Oct	29,260	6,800	1,500	4,000	860	6,220	48,640	
Nov							0	0
Dec								0
Totals Lbs	369,987.00	26,460.00	66,860.00	41,250.00	32,520.00	1,300.00	32,040.00	570,417.00
Total tons	184.99	13.23	33.43	20.63	16.26	0.65	16.02	285.21



	2011 Recycling	2010 Recycling
	Total	Total
Jan	56,280.00	24,520.00
Feb	64,950.00	21,200.00
Mar	63,640.00	29,480.00
Apr	38,410.00	32,500.00
May	93,900.00	34,240.00
Jun	66,860.00	33,060.00
Jul	50,479.00	27,540.00
Aug	43,510.00	34,180.00
Sep	43,748.00	37,700.00
Oct	48,640.00	46,120.00
Nov		42,780.00
Dec		39,300.00
TOTAL	570,417.00	402,620.00

RECYCLING DATA

III. Progress to date (cont'd)

B. Campuswide Sustainability Initiatives:

- Received UNCF grant to support recycling program and completion of green house gas inventory
- Installed green roof on Service Center building and working towards installation of a 150 kW Solar PV system on same
- Partnering for second year with Grainger to provide energy audit training program to students with a goal to develop energy saving projects
- Engineers Without Borders Howard chapter engaged in water treatment project in Kenyan village



III. Progress to date (cont'd)

B. Campuswide Sustainability Initiatives:

- Presently, on going competition between Howard, AU and GW targeting energy savings on pre-selected residence halls; sponsored by Alliance to Save Energy which has a DC grant to promote similar activities
- Students competitively selected to participate in recycling training with DCDPW
- Received two Home Depot grants that contributed to installation of first rain garden on campus



III. Progress to date (cont'd)

C. Energy Performance Contract:

- Completed a \$10 million energy saving retrofit project on ten university buildings which can potentially reduce our carbon footprint by approximately 5%; program included a solar hot water project for the swimming pool in Burr gymnasium.
- Conducting comprehensive energy audit of all campus buildings with a view to additional phases of the EPC Program





OBSERVING EARTH DAY

IV. Master Plan

A. LEED Requirements for Capital Projects

All capital projects to be designed to at least a LEED Silver standard; this would include any major building renovation

B. Landscaping:

- Planned aggressive (native) tree planting to improve canopy cover from the existing 5% to a targeted 40% to mitigate the adverse effects of the urban environment such as polluted runoff, air pollution and heat island effect
- Proposes enhanced, landscaped campus walkways to improve and encourage a pedestrian environment that promotes non-vehicular circulation and targeted congregation in special places

C. Low Impact Development Strategies



- Structural or non-structural devices to store or treat stormwater runoff to improve water quality
- Enhance infiltration of runoff water to augment groundwater recharge and stream base flow; include appropriately sized tree boxes, installing of rain gardens in the Lower Quad, a new green roof garden on the Undergraduate Library rooftop

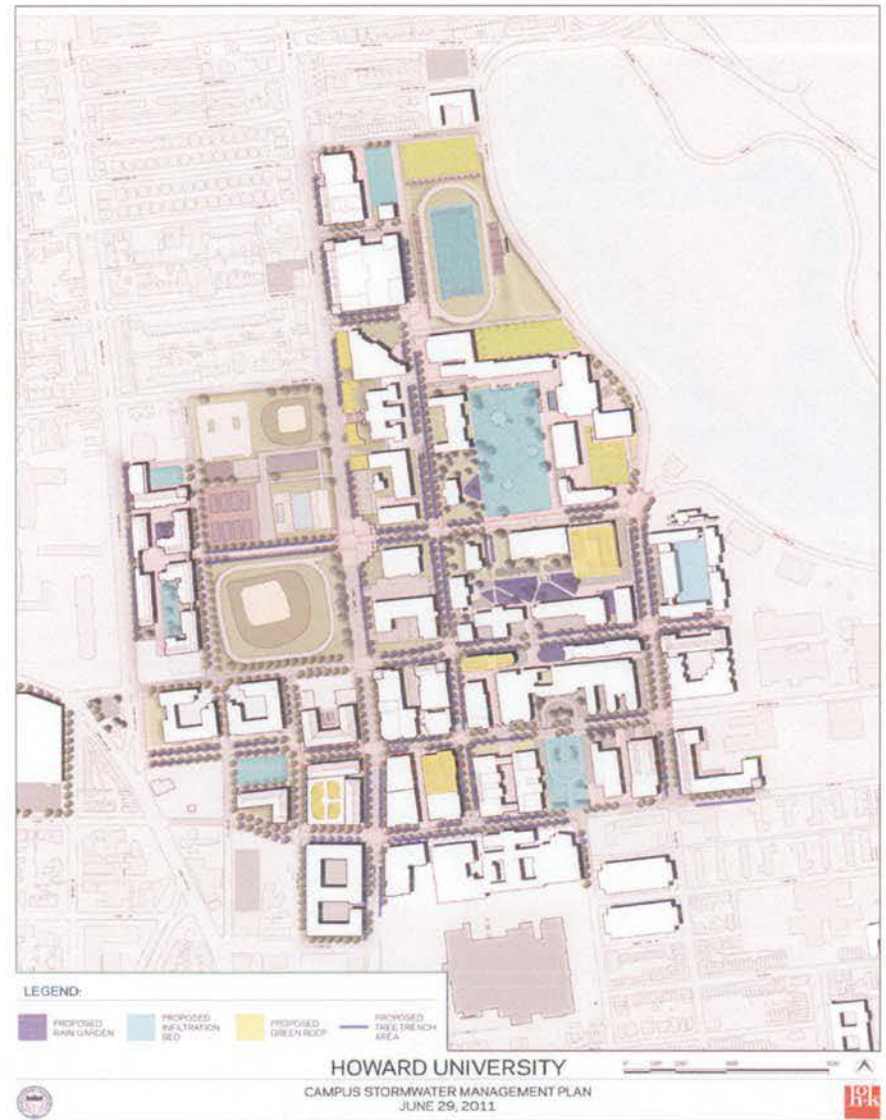
PROPOSED LOW IMPACT DEVELOPMENT STRATEGIES (LIDs)

Vegetated Roof	79,125 SF
Rain Gardens	11,580 SF
Infiltration Beds	52,500 SF
Tree Trenches	48,098 SF

All combined, the LID strategies can mitigate over 1 million gallons of stormwater for the 2 year storm

Additionally, the pre-development sites for many of the proposed new buildings are parking lots which were constructed prior to new SWM regulations. The development of these sites will of necessity include present requirements for SWM with significant benefits for quantity and quality of our storm water runoff

- Proposed Rain Garden 
- Proposed Infiltration Bed 
- Proposed Green Roof 
- Proposed Tree Trench Area 





HOWARD UNIVERSITY ENVIRONMENTAL & SUSTAINABILITY COUNCIL

The proposed University Sustainability Strategic Plan includes the goals shown below:

➤ By 2015:

- 20% reduction in paper consumption
- 10% reduction in water consumption
- 25% volumetric decrease in petroleum fuels
- A zero-waste goal for all major construction projects and facilities operations
- Closer alignment with STARS (Sustainability Tracking, Assessment and Rating System) requirements

➤ Greenhouse Reduction Goals:

- 20% by 2020
- 50% reduction by 2030



SUMMARY OF MAJOR ELEMENTS:

- ROBUST RECYCLING
- LEED REQUIREMENTS
- ENERGY AND WATER CONSERVATION
- LID PRACTICES
- EDUCATION AND RESEARCH
- TDM
- EMBRACING OF STARS

We consider these strategies to be in alignment with DC's own goals for sustainability and will continue to work in tandem with their designated objectives