

# Yale University Athletics Sustainability Action Plan

March 2016

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## Sustainability at Yale

Yale University is dedicated to an integrated, comprehensive approach to policy and operations that balances ecosystem health with human health and economic viability in order to demonstrate that sustainability is both feasible and affordable. To accomplish this goal the University integrates sustainable practices into the fabric of institutional decision-making at all levels.

Each unit on campus has a unique cultural context. Successful implementation of sustainability goals will rely on efforts to refine tools and tactics to suit this diversity of disciplines and perspectives.

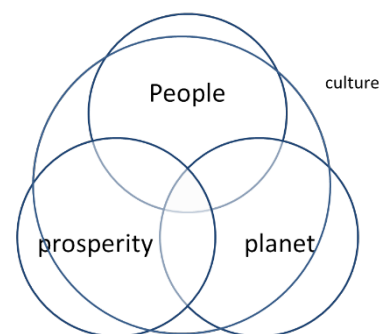


Figure 1: sustainability values

## This Document

As a component of leadership and capacity building, the Yale Sustainability Strategic Plan commits to establish and implement a sustainability action plan for Athletics. The plan is intended to support the Yale-wide goals while reflecting the operational contexts of Athletics.

This document offers overarching language about sustainability at Yale and indicates goals from the *Yale Sustainability Strategy Plan 2013-2016* that are particularly relevant to Athletics. It then suggests a brief set of initiatives related to the operations and mission of Athletics.

The Office of Sustainability will communicate with key staff members throughout Athletics on a regular basis to follow progress on the Action Items below and update this “living document” accordingly.

## Yale 2013-2016 Sustainability Strategic Plan

The *Yale 2013-2016 Sustainability Strategic Plan* contains 25 ambitious-yet achievable goals divided into five categories: energy and greenhouse gas emissions, natural and built environment, materials management, food and well-being, and sustainability leadership and capacity building. Several of these have sub-categories, as demonstrated in Figure 2.



**Figure 2 : Yale Sustainability Strategic Plan Categories**

The Plan is available in full online at [sustainability.yale.edu](http://sustainability.yale.edu). Goals that may be of particular interest to Yale Athletics include:

#### ENERGY & GREENHOUSE GAS EMISSIONS

- Goal Reduce energy consumption and greenhouse gas emissions 5% below 2013 levels by June 2016. This will result in more than a 20% total reduction in greenhouse gas emissions from 2005 levels.
- Goal Reduce university greenhouse gas emissions from university fleet vehicles by 80 tons of carbon dioxide equivalent per year below 2013 levels by June 2016.

#### NATURAL & BUILT ENVIRONMENT

- Goal Develop and implement sustainable land development and maintenance practices on the Yale campus by June 2016.

#### MATERIALS MANAGEMENT

- Goal Achieve a 10% reduction in paper and office supply purchases from 2013 levels by June 2016.
- Goal Achieve a 50% waste diversion rate by June 2016 via reuse, recycling, and/or composting strategies.
- Goal Implement strategies to reduce municipal solid waste with the intention to commit to an institutional total volume waste reduction target by January 2015.

#### FOOD & WELL-BEING

- Goal Reduce cleaning chemical usage on campus 30% from 2013 levels by June 2016.

#### SUSTAINABILITY LEADERSHIP & CAPACITY BUILDING

- Goal Establish a portfolio of sustainability action plans for schools and departments.

## **Yale Athletics: Mission Statement**

The mission of Yale varsity athletics is to attract outstanding student athletes, who aspire to undertake the challenge of a high-level education while proudly representing Yale University in the pursuit of championships. Through exceptional facilities and coaches, Yale Athletics ensures that our students learn the important values of leadership, integrity, discipline and teamwork. The aspiration is that in the course of preparation and competition, students enter a co-curricular laboratory for learning that will fit them to lead in all of their future endeavors.

## **Athletics and Sustainability**

There are several ways to explore the intersections of sustainability with athletics. Some overarching concepts include:

### *Teamwork*

Teamwork is central to the Yale Athletics mission, laying an excellent foundation for teamwork in various sustainability initiatives. By working together, students, coaches, and staff have the opportunity to make significant progress in waste reduction, energy reduction, greenhouse gas emissions reduction, and in supporting mindful sustainability practices.

### *Leadership*

Leadership in Athletics is not limited to the coaches, captains, and operational leaders—by holding themselves accountable, every Yale Bulldog can be a leader in sustainability, and in turn, set an example for other universities' athletics units.

### *Operations*

Yale is home to numerous Athletics facilities, many of which are up and running for a good portion of the day and night. Ensuring that these facilities are operating most efficiently requires the support of the students, coaches, and staff who occupy them.

## Successes to date and Opportunities

At the time of this writing, remarkable and robust efforts are underway to integrate sustainability into the operations of Yale Athletics. In order to recognize and build on these accomplishments, included here are a set of successes-to-date, which are followed by a set of suggested opportunities. Each of the Action Items listed here is labeled with the meta-categories listed in the *Yale Sustainability Strategic Plan*.

### Successes to date

#### ENERGY & GREENHOUSE GAS EMISSIONS<sup>1</sup>

- In December 2014, temperature set-points were reset at the **Kenney Center at Yale Bowl**, to more adequately represent the use of the space. We should see reductions in electricity consumption going forward—in August 2015, the Yale Bowl consumed 11,606 KWh of electricity, versus 19,088 KWh in August 2014. This month-to-month example shows a 39% decrease in electricity consumption.
- At the **Gilder Boathouse**, temperature set-points were reset, the lights in the trophy room and coaches area were replaced by LED bulbs, and the boat bay heaters were placed on automatic control. We should see reductions in electricity consumption going forward.
- The Nest, a programmable thermostat with app-based controls, was installed at the **McNay Family Sailing Center**. Additionally, the 65-watt floodlights and metal halide lamps were replaced by LED bulbs and fixtures. So far, we are seeing evidence of decreased electricity consumption, with a 3.3% reduction between August 2014 and August 2015, and a 24.5% reduction between September 2014 and September 2015.
- In the summer of 2015, temperature set-points were reset at **Smilow Field Center**. Reductions in electricity consumption were immediately apparent: in August 2015, Smilow consumed 1,680 KWh of electricity, versus 12,240 KWh in August 2014. This month-to-month example shows an 86% decrease in electricity consumption.
- Temperature set-points were also reset at **Reese Stadium** in the summer of 2015, and the electricity impacts will be examined over the course of the fiscal year.
- High efficiency HVAC units were added to the Yale field locker rooms and batting cages.

#### NATURAL & BUILT ENVIRONMENT

- The Yale Athletics Department is exploring best practices for use on its athletics fields, reviewing and considering the possibilities of reduced-risk pest control products, organic turf care, pesticide-free fields, and converting certain fields to eco-friendly artificial turf.

#### MATERIALS MANAGEMENT

- Bulldog Sustainability launched a paper towel composting pilot in Spring 2014 in the Israel Fitness Center. Yale Facilities has since taken over the initiative, contributing positively to our materials reduction.

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<sup>1</sup> Please note that the percent reductions shown here are examples of discrete months; a comprehensive analysis will need to take place at the conclusion of fiscal year 2016.

- Bulldog Sustainability organized clothing drives during the 2014-2015 academic year, and will do so again during the 2015-2016 academic year, thus underscoring the importance of reuse at Yale.

## SUSTAINABILITY LEADERSHIP & CAPACITY BUILDING

- A Sustainability Athletics Task Force began convening in November 2014, to consider a Sustainability Action Plan for Athletics.
- Bulldog Sustainability oversees a Green Team Certification program, encouraging best sustainability practices among the student teams, while also providing friendly competition.

## Opportunities

Goals below are defined as Short-term, Mid-term, or Long-term. Indented bullets indicate suggested strategies to support goals.

All efforts should be tracked, measured, and made transparent to relevant stakeholders in Athletics and throughout the University.

## ENERGY & GREENHOUSE GAS EMISSIONS

- Pursue LED lighting and other lighting upgrades in spaces that are occupied 100 hours or more per week (e.g. Ingalls Rink, Brady Squash Center, JLA, PWG, and RTH) (Mid-term)
- Reduce energy consumption 5% from June 2013 by June 2017. (Mid-term)
  - Audit and develop strategies for **Payne Whitney Gym, Reese Stadium, Yale Field, and Yale Bowl.**
  - Audit and develop strategies for **Smilow Field House.**
  - Audit and develop strategies for **Gilder Boathouse** as part of the Yale Carbon Charge.
- Conduct analysis of fleet practices to identify opportunities for emissions reduction by September 2016. (Mid-term)
  - Explore smaller, more fuel efficient transportation for sailing team.
  - Explore more efficient shuttle bus practices.
- Join efforts to install solar panels at the **Cullman-Heyman Tennis Center.** (Long-term)

## NATURAL

- Draft and implement a contract for acorn clearing with Walden Hill by Fall 2017. (Mid-term)
- Explore possibility of additional urban meadow locations. (Mid-term)
- Evaluate efficiencies of corral space, and create and implement an action plan by August 2017. (Long-term)
  - Short-term goal: Create action plan by June 2016.
  - Long-term goal: Implement plan by August 2017.
  - Increase composting (for brush) space.
  - Create more room for centralized bulk deliveries.

## MATERIALS MANAGEMENT

- Reduce paper purchasing 10% from June 2015 levels by June 2017. (Mid-term)

- Create and implement education and outreach efforts for scanning game day materials.
- Pilot “Zero Waste Game Days” at various games and matches on campus. Refine the program and strive to hold at least one “Zero Waste Game Day” per sport, per season by October 2018. (Long-term)
  - Conduct waste audits for various games, starting with Reese Stadium in Spring 2016. (Short term)
  - Develop sustainable tailgating standards for all Yale games by Fall 2016. (Mid-term)
    - Distribute recycling bags to tailgate participants.
  - Create action plan for Hospitality Village “Green Day” by June 2016. Implement action plan in Fall 2016. (Mid-term)
  - Engage concessionaire to reduce production of trash at games (Yale Bowl, Reese Stadium, John Lee Amphitheater, Baseball Field, Ingalls Rink) by Spring 2018.
  - Develop strategies for greening summer tournaments by Spring 2017.

## **COMMUNICATIONS**

- Create a communication strategy for disseminating information about all sustainability efforts to colleagues by June 2016. (Short-term)

### *Energy & Greenhouse Gas Emissions*

- Create a communication strategy for fans about all sustainability upgrades, and include tips for how they can make differences themselves by December 2016. (Mid-term)

### *Natural Environment*

- Create a communication strategy about acorn removal program by Fall 2017. (Mid-term)
- Implement signage for any new urban meadows. (Mid-term)

### *Materials Management*

- Create PSA videos asking people to clean up trash at games by June 2016. (Short-term)
- Print information about waste/recycling on the backs of parking passes and/or tickets by October 2016. (Mid-term)