



## Annual Report 2015-2016



Truman State University is proud to have endorsed the official [White House American Campuses Act on Climate Pledge](#), which defines our commitment to **#ActOnClimate** by investing our time and resources into sustainability measures.

*As institutions of higher education, we applaud the progress already made to promote clean energy and climate action as we seek a comprehensive, ambitious agreement at the upcoming United Nations Climate Negotiations in Paris. Although we are optimistic that world leaders will reach an agreement to secure a transition to a low-carbon future, we recognize the urgent need to act now to avoid irreversible costs to our global community's economic prosperity and public health. Today our school pledges to accelerate the transition to low-carbon energy while enhancing sustainable and resilient practices across our campuses.*

*Troy D. Paino, President  
Truman State University*



### Truman State University's Sustainability Principles:

- Acknowledging the interdependence of humanity & nature
- Embracing inter-generational stewardship
- Accounting for triple bottom line practices
- Conserving natural resources
- Striving to eliminate waste
- Investing in collaborative community-based projects
- Developing a closed-loop local food system
- Promoting multi-modal transportation
- Innovating - Evolving - Educating

### 2015-2016 Sustainability Committee

#### **Nancy Asher**

Director of Testing and Reporting & Associate Budget Officer

#### **Sally Herleth**

Human Resources & Staff Council Liaison

#### **Sue Limestall**

Director, Recreation Center

#### **Donna Liss, Chair**

CIO, Information Technology Services

#### **Lora Cunningham**

Director, Sodexo Food Services

#### **Karl Schneider**

Director, Facilities Management

#### **Lori Shook**

Design Project Manager, Campus Planning

#### **Dr. Alicia Wodika**

Faculty Member, Environmental Studies Minor Chair

#### **Dr. Michael Seipel**

Faculty Member and Chair, Ag Science Department

#### **Christopher Hornsey**

Student, SGA Environmental Affairs Committee Liaison

#### **Julia Goldman, Becca Elder**

Student, Environmental Campus Organization

#### **Judi Schweitzer**

Consultant, Sustainability Expert

#### **Ashley Young**

Community Representative, City of Kirksville

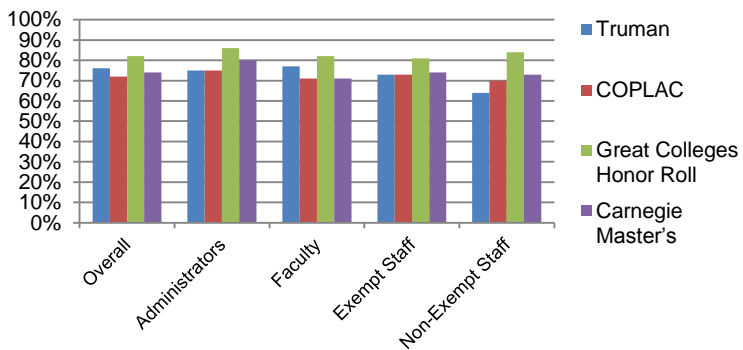
# Summary of Truman Sustainability Efforts

## Planning, Administration and Engagement

**Human Resources** - Investment in human resources is integral to the achievement of a healthy and sustainable balance between human capital, natural capital, and financial capital (the triple bottom line). Truman tries to address this balance in the following ways:

- Truman participated in the Great Colleges to Work For survey administered by *The Chronicle of Higher Education*.
  - COPLAC institutions also agreed to take this survey and have established a benchmark for the consortium (see graph at right).
  - Staff Council did further research with the survey results from non-exempt employees. Most of the issues related to promotional opportunities, and the President allocated at **\$10,000 Staff Development Fund** to assist employees with training to further their career opportunities.


**Overall Job Satisfaction & Support -- 43% Truman Response Rate**




**Coordination and Planning** - Truman is dedicating resources to sustainability coordination, incorporating sustainability into primary campus plans, and developing plans to move forward on sustainability. This is demonstrated through the following:

- Digital History - The Digital History intern completed a comprehensive update of the website, creating a solid foundation for all future interns.


- Student Sustainability Fee - The student sustainability fee committee received approval for its first slate of projects, including:
 




bottle refill




farm duplex solar panels



jet hand dryers



solar bench



rainwater harvesting system

**2 local food interns**

**30% recycled paper for residence halls**

- The President's Sustainability Action Committee engaged the STATS 376 class to assist with sustainability research on campus. The statistics class helped to gather data and performed analysis on the following issues:
  - Perceptions from new and graduating students regarding their knowledge about sustainability issues, and whether Truman influenced their thinking
  - Food cycle and local food issues
  - Ways in which Truman could become a more bicycle-friendly campus
  - Follow-up research on how to create a better working environment for employees
  - Students identified they wanted to have more "hands on" experiential learning opportunities, and these should be done as part of their coursework


**Public Engagement** - Volunteerism and the sense of compassion that community service helps develop are fundamental to achieving sustainability. Community engagement can help students develop leadership skills while deepening their understanding of practical, real-world problems. Activities included:



Truman was included on the President's Higher Education Community Service Honor Roll 2015 (and has been on the Honor Roll every year since 2006)

- Green Thumb Project - An AmeriCorps VISTA volunteer (funded by a grant from the Missouri River Coalition) was housed at Truman and participated with the local K-12 schools on nutrition education and community gardening efforts.
- The PSAC committee and the Environmental Studies Minor Committee are working together whenever possible, utilizing cross-committee membership among the groups.
- The University was named as a top volunteer-producing mid-sized university across the country by the Peace Corps. Truman was ranked **#19** in the nation.
- Civic Engagement - Truman promotes health-enhancing behaviors and positive coping skills to help students make better out-of-class choices. To do this, Truman established a Civic Engagement Committee to define programs and curricular experiences.

*Truman celebrated Constitution Day with an attempt to be the nations' largest group performing a simultaneous reading of the constitution.*



# Summary of Truman Sustainability Efforts (continued)

## Operations

**Transportation** - Moving toward sustainable transportation systems can reduce greenhouse emissions and other pollutants.

- Awarded **Honorable Mention** as a participant in the 2015 [Bicycle Friendly University](#) Program.
- Developed a plan for covered bicycle parking on campus.
- The City of Kirksville approved enhancements to the city-wide [hiking and biking trails](#).

**Grounds** - Campus grounds can be planned, planted, and maintained while minimizing the use of toxic chemicals, protecting wildlife habitat, and conserving water and resources.

- **Bear Creek Restoration - Riparian Buffer** - More trees and shrubs were planted along Bear Creek as part of the Riparian Buffer erosion project.
- **Establishing an Arboretum** on campus, have one [Tree Walk](#).
- Created a Google Map of all trees on campus, including information about each species.
- Received the [MO Arbor Award of Excellence in the Business/Institutional category](#). This was a group effort between Truman, the City, K-12 schools/Green Thumb, and our student environmental organization.



### Tree Campus USA

- annual award designation
- 25 trees planted, 13 removed, and 20 pruned over this past year

**Waste** - Truman is moving toward zero waste by reducing, reusing, recycling, and composting.

- The bunker for the city-wide glass recycling program is underway, and a collection bin is located on campus.
- Re-upholstered furniture in many locations, this is ongoing.
- Introduced battery recycling on a limited basis.



**Dining Services** - Truman is working in partnership with Sodexo to build a low impact food system.

- Investigating liability insurance options to support a local food partnership options with Sodexo.
- Two interns were hired with sustainability fee funds to work on the farm, ensuring local produce for "Market on the Mall" and other local venues.

**Air & Climate** - Truman is working to protect ecosystems and human health by minimizing atmospheric pollution and protect outdoor air quality.

- Light Pollution - A Truman faculty member is conducting an undergraduate research project into light pollution on campus, including strategies to mitigate the effects.

**Energy** - Implementing conservation measures and switching to renewable sources of energy can help save money and provide some protection from utility rate volatility. Recent Truman conservation measures include:

- Truman State University is proud to have endorsed the official [White House American Campuses Act on Climate Pledge](#), which defines our commitment to **#ActOnClimate** by investing our time and resources into sustainability measures.
- Truman entered into a \$10.5 million energy performance contract with an ESCO. The energy improvements will affect more than 25 buildings on campus, and will save over \$1 million annually, which will then be used to pay for the improvements.

In 2015-2016, the solar panels produced 108 kW of usable electricity. This resulted in a **reduction of CO<sub>2</sub> emissions by**

**113.5 tons**

See the [Utility Dashboard](#)



The energy improvements will:

- Reduce water consumption by over 8 million gallons annually - this amount of water would fill nearly 14 Olympic-sized pools
- Reduce natural gas consumption by over 50,500 MCF annually
- Reduce electrical consumption by nearly 7.5 million kW per hour annually
- Reduce our annual carbon footprint by 20,990,000 lbs of CO<sub>2</sub>
- Reduce annual emissions by an amount equal to:
  - The electricity used by 1,310 homes for one year
  - 1,071,293 gallons of gasoline consumed
  - Annual emissions of 2,004 passenger vehicles
  - The carbon sequestered annually by 7,804 acres of US forest

## Summary of Truman Sustainability Efforts (continued)

### Education and Research

**Co-Curricular Education** - Engaging students in sustainability issues through co-curricular activities allows students to deepen and apply their understanding of sustainability principles. Activities Truman has undertaken include:

- Continued providing sustainability hints and tips during new student orientation.
  - 2015-2016 Sustainability Events -
    - Campus Sustainability Day - Fall  
*Environmental Health 362 organized and managed Campus Sustainability Day.*
    - Environmental Studies - Spring 2016
      - Environmental Studies Conference
      - Student Research Conference presentations
      - Earth Week - Spring  
Theme - *The Ripple Effect*
- Activities -
- Local Foods dinner and fundraiser for the Take Root Café.
  - Earth Week Bash
  - Arbor Day Celebration (Campus & City Shared Events) - Tree planting and tree walk events for the newly established campus arboretum



- Truman students organized the NEMO A.C.T organization working on social justice and sustainability issues within the Kirksville Community.

**Curriculum** - By training and educating future leaders, scholars, workers, and professionals, higher education institutions are uniquely positioned to prepare students to understand and address sustainability challenges. Truman participates in this educational mission through:

- Civic Engagement Project - Several Truman faculty, working on a SENCER (Science Education for New Civic Engagement and Responsibilities) grant, are working to incorporate civic engagement into STEAM courses. This has resulted in the creation of a Faculty Fellow in Civic Engagement, and this fellow works through the Academic Professional Development Center (APDC).
- The minor in Environmental Studies was retooled and approved by the Faculty Senate. It has been updated to accommodate more in-class and experiential opportunities.

The classes established for experiential opportunities include ENVS 340 (Practicum in Environmental Studies) and ENVS 471 (Internship: Environmental Science). PSAC will use the ENVS 471 internship to pilot the establishment of a student sustainability office in the 2016-2017 academic year.

The minor requires at least 15 Total Hours, including:

- at least two credits of community learning;
  - at least nine credits on-campus;
  - at least six credits at the 300+ level, and
  - at least one course (three or more credits) from two of the three areas: Science, Social Science, and Arts and Humanities.
  - No more than 6 credits from any prefix other than ENVS may be counted towards the minor.
  - All courses may double count with a student's major, minor, or LSP requirements.
- An online Sustainability Certificate (currently inactive).
  - Offering 15 Sustainability-focused & 66 Sustainability-related courses, representing a **TOTAL of 81 courses across 14 DEPARTMENTS.**

#### Sustainability-Focused Courses

- Concentrate on the concept of sustainability including its social, economic, and environmental dimensions; or
- Examine an issue or topic using sustainability as a lens

#### Sustainability-Related Courses

- Incorporate sustainability as a distinct course component or module;
- Concentrate on a single aspect of sustainability; or
- Address a sustainability principle or issue

## TREE & LAND CONSERVATION



Tree Campus USA since March, 2014



1 Arboretum with Tree Walk  
(in progress)

Bear Creek Restoration:  
**Riparian Buffer**

1 University Rain Garden

"Paino Pear" turns 6

Number of trees on campus  
and select areas at the  
University Farm  
(excluding Bear Creek area)

1,683

## CARBON EMISSIONS

**CO<sub>2</sub> avoided**  
113,5 tons per year  
through production of  
**SOLAR** electricity

Reduced carbon emissions  
by purchasing local food  
**380 miles**  
Loffredo max distance  
**430 miles**  
Sysco max distance

Employee and Student  
**Ride-Share Programs**



Bike Co-op &  
**2015 Bicycle Friendly  
University Honor Roll**

## WASTE REDUCTION

**300 lbs.**

Approximate amount of food  
waste composted per day



Ongoing Recycling

Paper & Cardboard  
Plastic Bottles  
Aluminum  
Toner Cartridges  
Electronics  
Metal/Steel Cans  
Batteries (limited)  
Surplus Auctions

**TOBACCO-FREE  
CAMPUS**  
Since July 1, 2015

**AIR &  
CLIMATE**

## CIVIC ENGAGEMENT

Truman on President's  
Higher Education  
Community Service  
Honor Roll every year  
since 2006



Teach **81** Courses across **14** Departments  
**15** Sustainability-Focused Courses  
**66** Sustainability-Related Courses

**Sustainability Learning Community**  
Established in BNB Residence Hall ] since  
**2014**

## ENERGY CONSERVATION

Managing Usage

**ALL Buildings**  
Solar, electric, gas, and water  
data are collected and stored  
in the online Utility Dashboard

<b>80%</b> Server power savings	<b>93%</b> Desktop power savings	<b>100%</b> Computers meeting EPEAT Gold standard
--	---	---

**\$10.5 million**  
**Energy Performance Contract** (started in Spring 2015)

Renewable Energy

**5 Solar Arrays**  
can generate  
**125 kW**  
of electricity per year

**Bulldog Biodiesel**  
Fuels most equipment  
at the University Farm  
(Since 2008)

## AFFILIATIONS & PARTNERSHIPS

- Member, Midlands Sustainability Forum
- SGA Environmental Sustainability Fee (established 2015)
- Truman Civic Engagement, Wellness, and Environmental Studies Minor Committee Representation & Staff Council Liaison
- Partner with Various Truman Student Organizations
- Recycling, Bike Co-Op, and Arbor Day Partnerships with the City and Community Opportunities - Sheltered Workshop



## RESPONSIBLE FOOD PRACTICES

Dining Practices

Vegan Dining  
Trans-fat Free  
Trayless Dining  
Meatless Monday, No-Fry Fridays  
Re-usable Mug Discount

Re-usable Containers  
Recycled Content Napkins  
Free-style Drink Cups

**Farm-to-Table  
Program** (see next page)

Garden Partnerships  
University Farm  
Communiversity Garden

Green Thumb Project (Truman  
interns teaching in K-12 school)  
**33** 20'x20' community garden  
plots

**Buy Local –**

[Sodexo](#) strives to use local foods whenever possible. Besides utilizing local produce from the University Farm, Sodexo’s suppliers out of Des Moines IA and Olathe KS ensure a large supply of local products from producers following the Guidelines for Good Agricultural Practices and Good Handling Practices.



**The Green Thumb Project –**

Truman has a formal partnership with the Ray Miller School (grades 3-5) whereby Truman students help guide gardening efforts at the school.



**Communiversy Garden -**

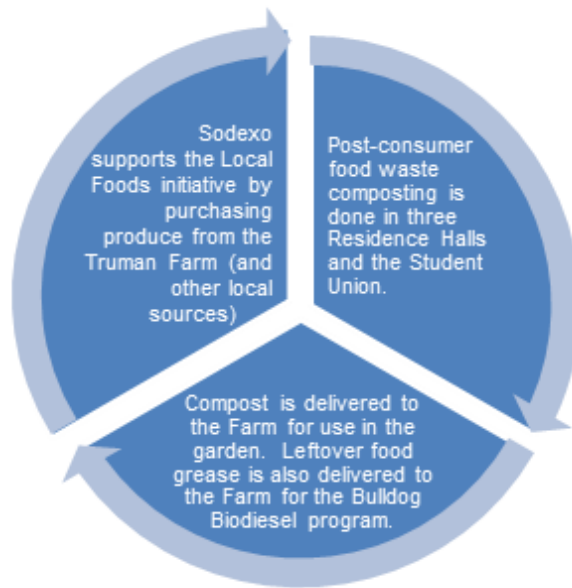
The Communiversy Garden, started in 2010, is an organic garden managed by students on campus. All produce from the garden is shared among students and the community.

**Community Garden -**

33 20’x20’ garden plots are available at the University Farm for anyone interested.



**Farm-to-Table Program**



**Truman is working in partnership with Sodexo to build a sustainable food system.**

**Compost Project**

The [Compost Project](#) is managed by a student intern receiving independent study credit; Truman students are responsible for gathering, weighing, and processing the waste into compost. (In addition to Truman sites, waste is gathered from local restaurants.)



**Approximately 300 lbs of food waste is composted per day.**

The “[Rot Riders](#)” are dedicated Truman students who ride bicycles with trailers collecting food waste from homes in the city. This waste is added to the compost.



**Bulldog Biodiesel**

Agriculture Science purchased a BioPro190 automated processor and produces biodiesel with waste vegetable oil donated by several cafeterias and community restaurants.

**When temperatures are above freezing, Bulldog Biodiesel fuels most equipment used on the Truman Farm.**

**Food Recovery Challenge**

- Reduce purchasing & waste fees **by 5%.**
- Support the local community by feeding people, not landfills.
- Reduce our environmental impact and greenhouse gas emissions