

Annual Report 2014-2015



Entered into a \$10.5 million Energy Performance Contract in the Spring of 2015

Energy Performance Contract

(see details on page 4)

Benefits:

- Enhancements to buildings throughout
- Improvements to quality of environment in Pickler Library
- Further enhances the University commitment to a safe research environment in laboratories

INVESTING IN ENERGY-EFFICIENCY IMPROVEMENTS



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

2014-2015 Sustainability Committee

Nancy Asher

Coordinator of Testing and Reporting and Associate **Budget Officer**

Sally Herleth

Human Resources & Staff Council Liaison

Chloe Jackson

Student, Environmental Campus Organization

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

Committee

Dr. Michael Kelrick

Faculty Member, Biology Department

Adrian Wheeler

Student, Student Government Environmental Affairs

Committee Liaison

Judi Schweitzer

Consultant, Sustainability Expert

Summary of Truman Sustainability Efforts

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.
- 2014-2015 Sustainability Events -
 - Sustainability Series Speakers -
 - Fall Marcin Jakubowski
 - Environmental Studies -
 - Fall Truman Celebrates Leopold and the Green Fire screening
 - Spring Environmental Studies Conference
 - Student-sponsored Earth Week activities:
 - Mon: Do-It-Yourself Projects/Scavenger Hunt
 - o Tue: Environmental Health Day
 - Wed: Environmental Justice Day/Local Foods Dinner and guest speaker
 - o Thu: Animal Appreciation Day
 - o Fri: Earth Week Bash
 - Sat: Conservation Day and Bear Creek Tree planting
- Sustainability Learning Community Fall 2015 marked the first semester of the new Residence Life learning community in the BNB residence hall.

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:

- Offering 15 Sustainability-focused & 66 Sustainability-related courses, representing a TOTAL of 81 courses across 14 DEPARTMENTS.
- A minor in Environmental Studies.
- An online Sustainability Certificate.

Sustainability-Focused Courses

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

Planning, Administration and Engagement

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:

 Green Thumb Project - Last year, two AmeriCorps VISTA volunteers (funded by a grant from the Missouri River Coalition) were housed at Truman and participated with the local K-12 schools on community gardening efforts and education.

In 2015, the Green Thumb Project was awarded a 2-year grant from the EPA to continue working in partnership with Truman State University and the local K-12 School System.

- Truman worked with other COPLAC schools on the "Commitment
 to Place" project, focusing on civic engagement activities. The
 PSAC committee and the Environmental Studies Minor Committee also
 agreed to work together whenever possible, and established crosscommittee 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.



Truman was included on the
President's Higher Education
Community Service Honor Roll 2014
(and has been on the Honor Roll
every year since 2006)

Summary of Truman Sustainability Efforts (continued)

Planning, Administration and Engagement (continued)

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:

- The President's Sustainability Action Committee continued working on the tactical plan, with a goal to achieve the STARS Silver rating by the end of the 2011-2015 Strategic Plan.
- Student Sustainability Fee The student body voted in a sustainability fee of \$5 per student per semester for students taking at least 6 credit hours. The fee is effective beginning the Fall 2015 semester.
- Digital History Hired an intern to create a digital history of sustainability activities at Truman.

40.3% Response Rate 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:

- In response to the 2013 employee survey, the PSAC worked with Human Resources and Staff Council to implement a flextime scheduling program for non-exempt staff. Flextime schedules are now an approved work option.
- A new "Balance in Your Life" brochure was created by the Wellness Committee.
- Truman participated in the Great Colleges to Work For survey administered by The Chronicle of Higher Education.

Job Satisfaction & Support		77% Truman	83% 2015 Honor Roll	74% Carnegie Masters
77% Truman Overall	97% Admini- strators	72% Faculty	85% Exempt Staff	68% Non-Exempt Staff

Operations

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

Submitted an application to become a Bicvcle Friendly University. Awarded Honorable Mention status.

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

- Working to maintain and enhance the University grounds by establishing an arboretum on campus, including the creation of a "tree walk" map.
- Truman once again received designation as a Tree Campus **USA.** Approximately 27 new trees were planted/replaced, with additional trees and shrubs planted along Bear Creek as part of the erosion project.



Bear Creek Restoration -Beta Beta Beta Goal: Ten Years - 10,000 Trees **Dining Services** - Truman is working in partnership with Sodexo to build a low impact food system.

- Introduced the free-style drink cup (reusable cups with a chip that tracks refills based on the drink plan purchased).
- Using a new floor cleaner that doesn't require soap.
- Sodexo investigated using the Farm Stand as a local GAP/GHP certified producer, but it isn't appropriate at this time.

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

- The grant for a city-wide glass recycling program was awarded to the City of Kirksville, and Truman students and PSAC collaborated on this effort. Work on building the bunker will take place in the spring of 2016.
- Re-upholstered furniture in many locations, this is ongoing.
- Investigated battery recycling options.

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

- As of July 1, 2015, Truman is a tobacco-free campus.
- Truman is reducing emissions from stationary combustion: 2013: 11,346 tons of CO₂ 2015: 10,909 tons of CO₂
- Truman is reducing emissions from purchased electricity: 2013: 25,464 tons of CO₂ 2015: 24,017 tons of CO₂

Summary of Truman Sustainability Efforts (continued)

Operations (continued)

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 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.

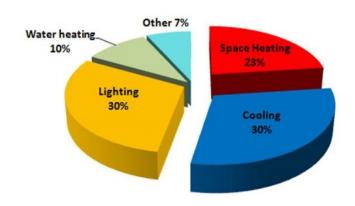
In 2014-2015, the solar panels produced 108 kW of usable electricity. This resulted in a reduction of CO₂ emissions by 113.5 tons

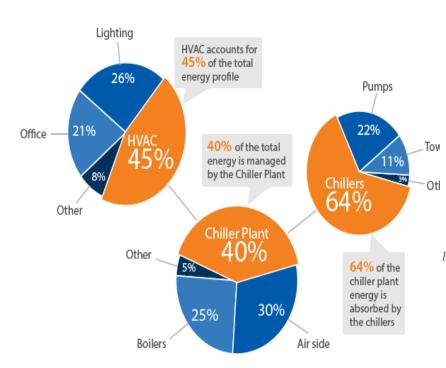
See the Utility Dashboard



Typical Energy Usage in Facilities

Courtesy U.S. Department of Energy





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 CO₂
- 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

Major Improvements Included in the Project:

Water Efficiency – Annual savings >\$64,500

Lighting Improvements – Annual savings >\$150,000

Weatherization – Annual savings >\$8,400

Controls – Annual savings >\$370,250

Laboratory Fume Hood System Improvements – Annual savings >\$198,500

Heating and Cooling Plant Equipment Replacements – Annual savings >\$34,000

Heating, Cooling and Ventilating System Improvements – Annual savings >\$67,000

Steam System Improvements – Annual savings >\$96,000

TREE & LAND CONSERVATION



Tree Campus USA since March, 2014



Bear Creek Restoration: Ten Years-10,000 Trees

1 University Rain Garden

"Paino Pear" turns 5

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

1,671

CARBON EMISSIONS

CO2 avoided

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



Co-op

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 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 2014 Established in BNB Residence Hall-

ENERGY CONSERVATION

Managing Usage

ALL Buildings

Collect solar, electric, gas, and water data in a

Utility Dashboard

power

80%

93% Server Desktop

power savings 100%

Computers meeting savings EPEAT Gold

standard

Renewable Energy

5 Solar Arrays

can generate

125 kW

Of Electricity per year

Bulldog Biodiesel

Fuels all equipment at the University Farm (Since 2008)

\$10.5 million

Energy Performance Contract (started in Spring 2015)

AFFILIATIONS & PARTNERSHIPS





SILVER Rating (unofficial preliminary rating)

- Member, Midlands Sustainability Forum
- Truman Student Sustainability Fee (established 2015)
- Truman Civic Engagement, Wellness, and Environmental Minor Committee Representation & Staff Council Liaison
- Partner with Various Truman Student Organizations

RESPONSIBLE FOOD PRACTICES

Dining Practices

Vegan Dining Trans-fat Free Trayless Dining **Meatless Monday** Re-usable Mug Discount Re-usable Containers No-Fry Fridays Recycled Content Napkins Free-style Drink Cups

Garden Partnerships

University Farm

Communiversity Garden Green Thumb Project (Truman interns teaching in K-12 school)

> 33 20'x20' community garden plots

Farm-to-Table Program (see next page)

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.



Communiversity Garden -

The Communiversity 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

Sodexo supports the Local Foods initiative by purchasing produce from the Truman Farm (and other local sources)

Post-consumer food waste composting is done in three Residence Halls and the Student Union.

Compost is delivered to the Farm for use in the garden. Leftover food grease is also delivered to the Farm for the Bulldog Biodiesel program.

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

Compost Project

The <u>Compost Project</u> 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.

Truman "Rot Riders"

Truman students ride bicycles with trailers and collect 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 all 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