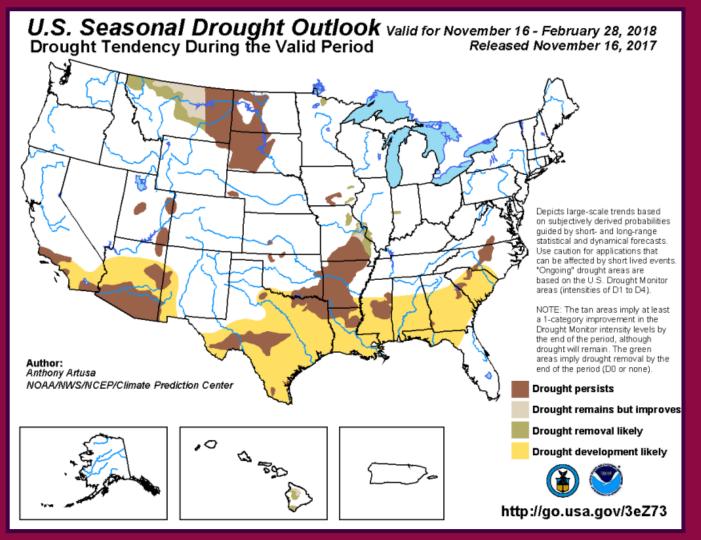






# Facilities and Services Office of Sustainability 2017 Annual Report



National Oceanic and Atmospheric Administration "Drought Outlook" November 16, 2017

### Be a Green Aggie at NMSU!

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All About Discovery! The

nmsu.edu

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Go Aggies!

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"Good management is the art of making problems so interesting and their solutions so constructive that everyone wants to get to work and deal with them."

Wait! Wait! Don't print me!

Go Green!

-Paul Hawken

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### 2017 Summary

2017 was the seventh year of the Office of Sustainability at NMSU. Paul Hawken's book Drawdown was published as the most comprehensive plan ever proposed to reverse global warming; students organized the Sustainability Design Challenge through the Aggie Innovation Space; it was our first year holding the Earth Day Fair at the Plaza de Las Cruces; finally (and sadly) the Environmental Education Center (EEC) closed its doors for seven months because Regents Row closed down. The EEC re-opened January 8, 2018 in Guthrie Hall, Room 109H.

#### Major NMSU Sustainability Accomplishments in 2017

- NMSU held to our promise to the University
  Earth Day Fair was a great success, planned Presidents' Climate Leadership Commitment and completed the Greenhouse Gas report, lowering our greenhouse gas emissions for the sixth year in a row.
- Installed a total of 50 hydration stations in 38 different buildings since 2012.
- Received our second Gold rating on the AASHE STARS\* report—yay team!

Go Aggies!

- in conjunction with city, county, and university offices at the Plaza de Las Cruces.
- Revised the Sustainability Initiatives to nine, focusing on energy conservation, waste reduction and water conservation as the top three most important initiatives according to our Sustainability Survey, conducted during the summer.

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\* Association for Advancement of Sustainability in Higher Education – Sustainability Tracking Assessment Reporting System

# **Office of Sustainability (OoS)**



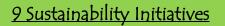


#### Mission Statement

To educate the NMSU community about climate change and to develop a common vision of sustainability through innovation, education, outreach, and action.

#### <u>Vision Statement</u>

To empower the NMSU community to care about the environment in which they live, work, and play and to carry that knowledge into their personal lives and for future generations.

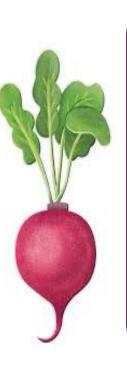


- 1. Relationships
- 2. Energy conservation
- 3. Waste reduction
- 4. Water conservation
- 5. Climate change resilience
- 6. Food and health
- 7. Green buildings
- 8. Transportation
- 9. Social justice

#### What is Sustainability at NMSU?

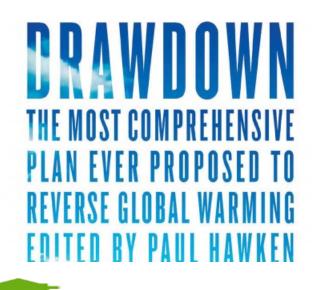
Sustainability at NMSU is a lifestyle and a responsibility. It features ways to improve and maintain the quality of human life while preserving the integrity, stability, and beauty of ecological systems for the future.

Go Aggies!



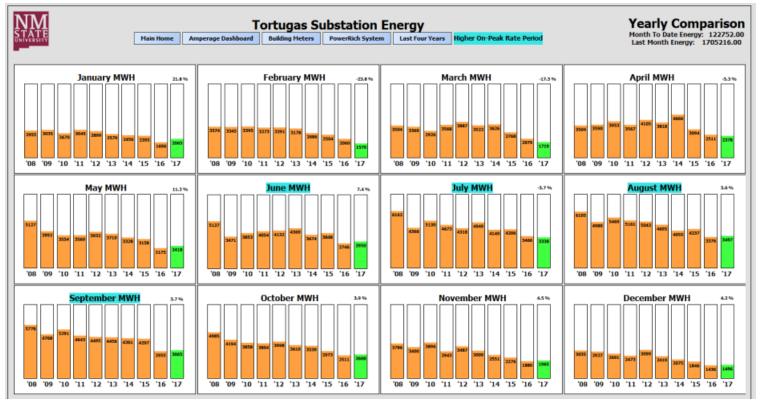
#### <u>Core Values</u>

- Respect and love for humanity and all living things
- Passion for the environment
- Integrity of actions
- Exemplify an understanding that the natural and built environments are intertwined
- Unity of purpose through collaboration and interaction of ideas



## **Energy Management**

#### Yearly Energy Cost Comparison — 2008 to 2017



MwH—Megawatt Hours

#### **Ten Energy Reduction Tips**

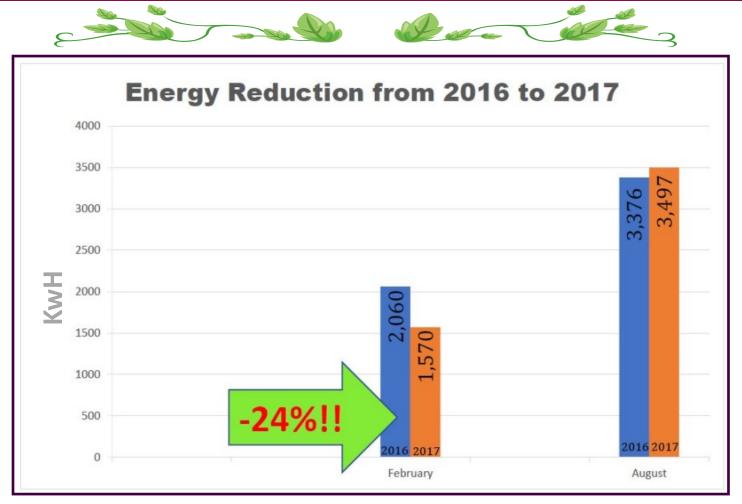
- 1. Wash clothes in cold water to save about \$65 a year
- 2. Install a programmable thermostat to save up to 10% on cooling and heating costs
- 3. Close window shades and blinds on the sunny side in summer to keep out the hot sun and open them in winter to bring in warm rays
- 4. Turn off all lights, appliances, and electronics not in use; a power strip turns off multiple items at once
- 5. Reduce energy use as much as 80% by switching to LED lightbulbs they are now really low in cost
- 6. Look for the Energy Star label you could save up to 30% on related electricity bills
- 7. Use low-flow faucets and shower heads to save on water bills
- 8. Clean or change filters regularly. A dirty furnace or A/C filter will slow down air flow and make the system work harder to keep you warm or cool
- 9. Reduce water heater temperature to 130° Fahrenheit

Go Aggies!

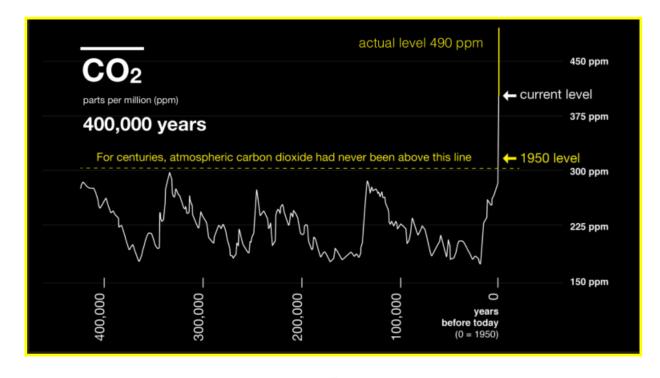
10. Seal air leaks and insulate to save up to 20% on heating and cooling bills, while increasing home comfort



### **Energy Management**



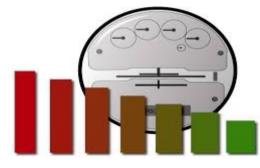
Above is a chart showing two critical months for utilities



Go Green!

Go Aggies!

## **Energy Management**



Go Aggies!





Solar is rated #10 in the UN Sustainable Development Goals to reverse climate change

Go Green!

## **Green Buildings**



We have **506,914** total gross square feet of LEED certified buildings campus-wide. 9 Gold and 8 Silver rated buildings



Go Green!

NMSU LEED Certified Buildings by Year		
Year	Building	Rating
2009	Alamogordo Health Sciences Center	Gold
2010	Football Coaches Office	Silver
2011	Alamogordo Advanced Technology Ctr.	Gold
	DACC East Mesa Ph. 5	Gold
	DACC Gadsden Center	Gold
	Gardiner Hall	Silver
2012	Addition to NMDA	Gold
	Carlsbad Allied Health	Silver
	Chamisa Phase II	Gold
2013	American Indian Student Center	Silver
	ASNMSU Center for the Arts	Gold
	Barnes + Noble	Gold
	DACC Hatch Center	Silver
	East Mesa Ph. 6/7	Silver
	Health and Social Services Annex	Gold
2014	DACC Sunland Park	Silver
2016	HJ Undergraduate Learning Center	Silver

Note: There were no new buildings LEED certified in 2017

Go Aggies!

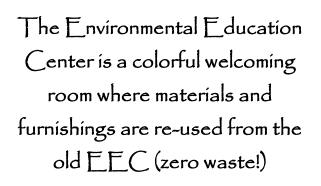
# **Environmental Education Center**

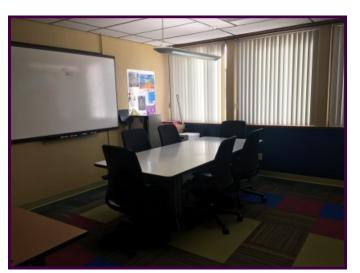
When the Environmental Education Center was closed in May 2017 due to Regents Row being shut down, we searched and searched for the perfect place to relocate. Guthrie Hall Room 109H, off the west building lobby, was our solution. Enjoy these pictures of the newly remodeled center—and then come visit!



The Office of Sustainability has soft seating and welcoming colors for casual conversations





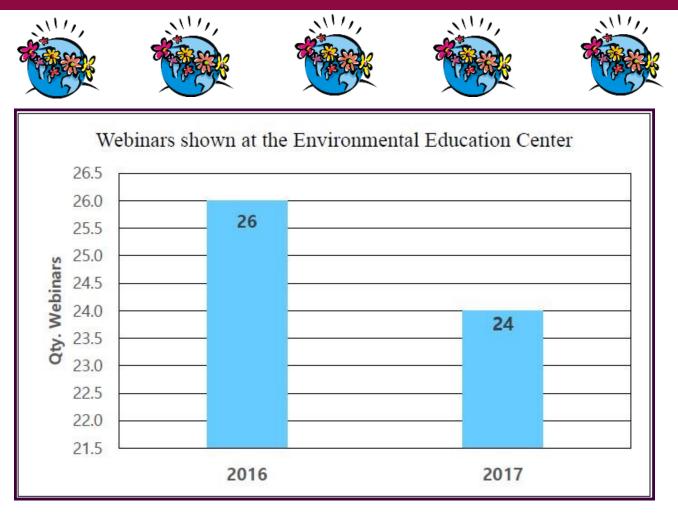


Go Aggies!

The EEC has a conference area that seats 10, a big white board and energy-efficient lighting. Anyone on campus can reserve the room.

Call joni to reserve the room 6-7563

# **Environmental Education Center**<sup>10</sup>



Due to the closing of the Environmental Education Center spring 2017, the quantity of webinars went down a bit. Instead, the sustainability manager went out to campus to talk directly with students, faculty and staff. We had one-on-one dialogues on energy reduction,

waste reduction, and water conservation, which are the top three topics that the Office of Sustainability focuses on.







Faculty and students watching an AASHE webinar at the EEC

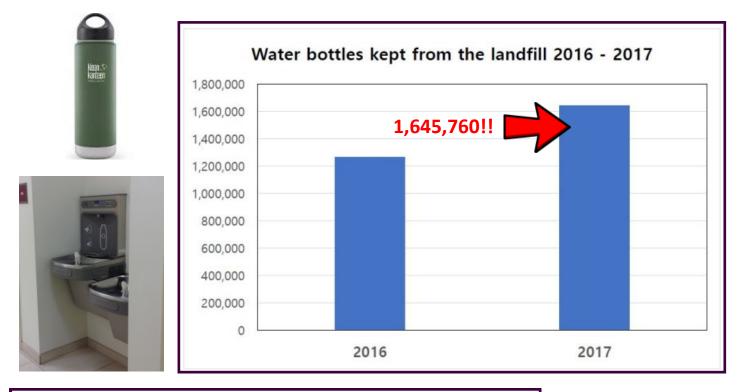
Go Green!

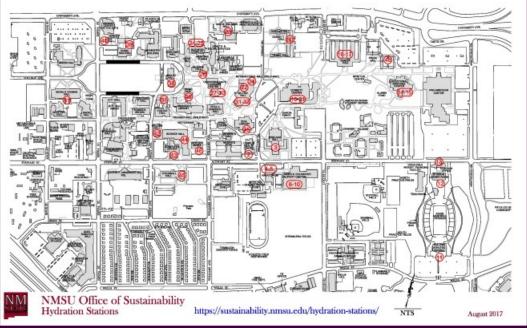
#4 of the UN <u>Sustainable Development Goals</u>, to reverse global warming, is a plant-rich diet

Go Aggies!

## **Waste Reduction**

Our first hydration station was installed in 2012. By the end of 2017, **50 hydration stations were installed** in 38 buildings on main campus. Most people in the US still don't bother to get bottles into the recycling bin (only 25% do!), so by using our own reusable water bottles we are lowering the amount of items in our land-fills, thus cutting NMSU's tipping fees. Good news—the **Environmental Education Center at Guthrie Hall gives away free water bottles**—stop by to get one and fill 'er up.





It takes 50 years for a polystyrene coffee cup to break down in the landfill. Gaaggghhhh!



Go Green!

By the end of the fall semester 2017 we had a total of 50 hydration Stations on campus. This map was drawn by engineering student Mark Allen

Go Aggies!

### **Earth Day Fair**



Partnering with the city, county, and other volunteers we held our first Earth Day Fair at the downtown plaza



March for Science joined the Earth Day Fair with 250+ attendees

Go Aggies!





Earth Day 2017 was at the Plaza de Las Cruces for the first time; above is the site plan designed and drawn by our Sustainability Manager

*"We have a single mission to protect and hand on the planet to the next generation."* 

- Francois Hollande President of France, at COP21



Advertising the Earth Day Fair with a big sign on campus

Go Green!

### **Outreach and Events**



Southwest Environmental Center gala—joni drew the site plan for the annual fundraising gala

Go Aggies!





Sustainability Manager "talks green" at the annual New Faculty Orientation

Go Green!

The Sustainability Manager volunteers time for outreach to many different organizations in the area. Here are a few 2017 highlights:

- Critiqued two DACC architecture class projects during both semesters; critiqued environmental students projects for Asombro Institute; taught local Girl Scout troop about waste reduction and recycling
- Evaluated the Las Cruces Green Chamber of Commerce "Green Business Award"
- Volunteered on the **Bicycle Friendly Community Task Force** with the City of Las Cruces and local bicycle enthusiasts
- Volunteered on **Integrated Pest Management** committee with Burrell College of Osteopathic Medicine to lower use of pesticides in the community
- Co-chaired Earth Day Fair at the Plaza de Las Cruces; this was the first time this event was planned with city, county, student, and community volunteers
- Spoke to many NMSU classes and groups (Engineering, Ag Extension, English, Pre-architecture, Communication Studies, and others) about ways to be a Green Aggie
- Co-chaired a proposed "Regional Sustainability Council" that will bring together environmentallyminded groups from Las Cruces, El Paso, and Juarez
- Joined the RaMP Up "Recycle More Partnership" committee to discuss recycling in the city, county, and on campus; also discussed was "China's Green Wall"

### **Outreach and Events**



From Paul Hawken's "Drawdown" we learn that educating girls is the sixth most important way to fight climate change.



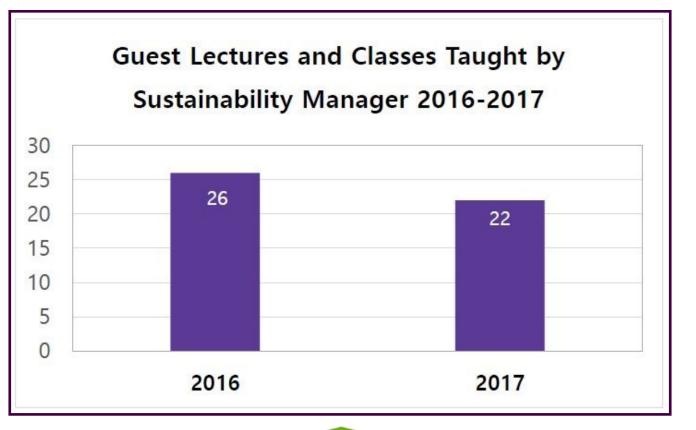
We met a sustainably-minded student, Diana O'Brien, at a tabling event

Go Aggies!



Dr. newcomer teaching Green Construction engineering class taught by professor Kenny Stevens

Go Green!



### **Outreach and Events**





Pat Desimio and Lea Wise-Surguy Desimio presenting at the first MESA Meal \$250,000 agricultural research grant

Go Aggies!

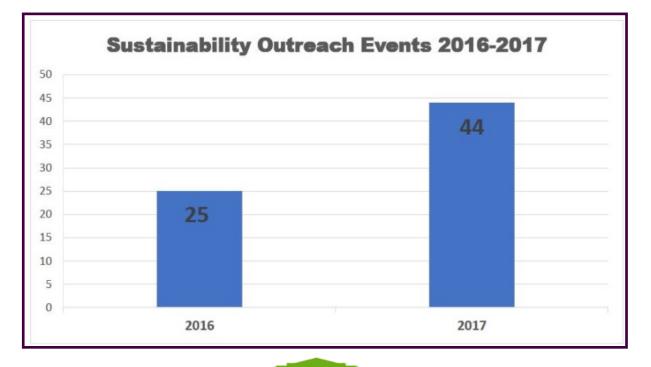


RampUP Recycling volunteers talking about China's Green Wall



Integrated Pest Management community outreach with Burrell College of Osteopathic Medicine

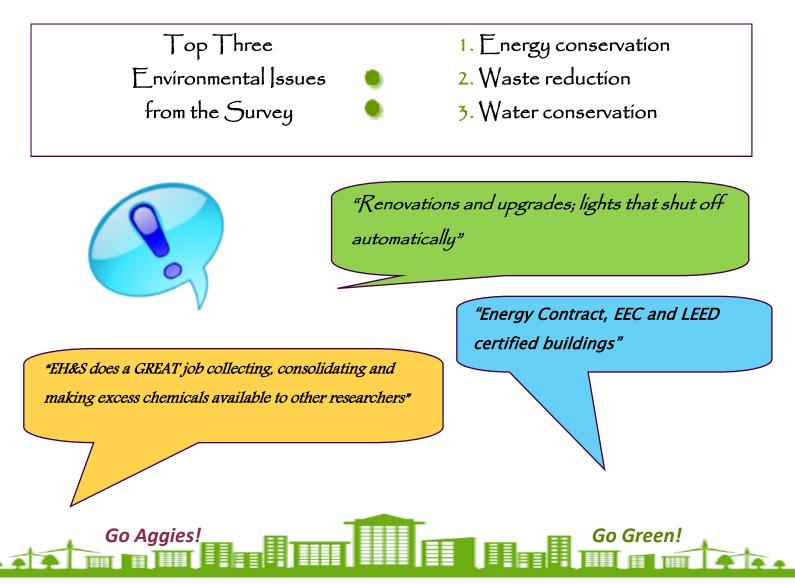
Go Green!



## **Sustainability Survey**



We hired a consultant to conduct a **sustainability survey** to see what people at NMSU feel is important for the Office of Sustainability to focus on. Students, faculty and staff were all invited to participate in the survey. Nine lucky people got a gift card to Barnes & Noble as a thank you for taking the survey and helping to guide our future. The following are the top three results and a few comments.



## **Sustainability Council**

#### Join the fun, volunteer, and learn about sustainability at NMSU!



**Council Leadership Team** 

Co-chairs: joni newcomer and Jalal Rastegary Operations: Heidi Frohnapfel Education: Dave Dubois and Luis Rios Outreach and Engagement: Vacant Education and Programs: joni newcomer

The Council Leadership Team consists of volunteer members. We are always looking for people to join us and help make a difference for the planet. To volunteer please contact joni newcomer, Sustainability Mgr. at <u>newcomer@nmsu.edu</u>

### Our meetings are every first Tuesday of the month from 8:30 - 9:30 a.m. in Milton Hall Room 85.



Dr. Rolando Flores, Dean of the College of Agriculture Environmental and Consumer Sciences, enthralls us with his knowledge of waste reduction in cheese production



Go Aggies!



NMSU Utilities Director, Pat Chavez, gives Council members a tour of the Satellite Chiller Plant

"You cannot get through a single day without having an impact on the world around you. What you do makes a difference, and you have to decide what kind of difference you want to make."

—Jane Goodall



Raquel Garzon, Extension Specialist, speaking about the "Carbon Footprint of Eating"

## **2017 in Pictures**



Hort Forum students selling some of their "home-grown" plants



Anthony Rendon introducing Aggie Innovation Space "Sustainability Design Challenge"



The sustainability manager volunteered to teach a local girl scout troop about waste reduction

Go Aggies!



Art in Public Places at the Chihuahuan Desert Garden with solar charging stations under the shade structure

"The first rule of sustainability is to align with natural forces, or at least not try to defy them."

- Paul Hawken



Dr. Carruthers showing off his new reusable water bottle!

Go Green!

## Acknowledgements

#### Special thanks to the following people:

Carol Campbell Olga Holguin Suzanne Montes Heather Watenpaugh

#### **Individuals**

Mark Allen Pat DeSimio

Dave Dubois

- Heidi Frohnapfel
- Dael Goodman
- Joyce Newcomer Gosnell
- Befekadu Habteyes
- Carrie Hamblen
- Irene Holguin

Patrick Kenney

Jack Kirby

Lisa LaRocque

Michelle Lebsock

Eric Magrane

Go Aggies!

Jack McCoy

Suzanne Michaels Eric Morgan Anthony Rendon Loui Reyes Darío Silva Moxie Stroud April Ulery

#### Thanks to the following organizations:

OASIS (Organization of Aggie Students Inspiring Sustainability) ESSO (Environmental Science Student Organization) Horticulture Forum, Plant and Env. Sciences student club The Central and Satellite Utility Plant operators Sustainability Council volunteers

To those of you doing work behind the scenes, I am deeply grateful for your help and your love and care of Mother Earth.



"The good thing about science is that it's true whether or not you believe in it."

-Neil DeGrasse Tyson

Go Green!







For more information about the NMSU Office of Sustainability and Environmental Education Center please call 575.646.7563 or visit Guthrie Hall, Ste. 109H

sustain@nmsu.edu www.sustainability.nmsu.edu www.facebook.com/NMSUSustainability