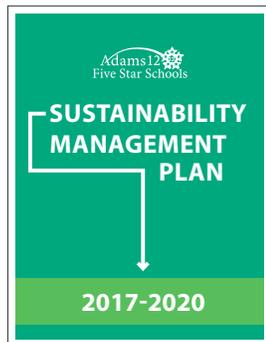


# Five Star Sustainable

Adams 12 Five Star Schools // Sustainability Report

Summer 2017



## New Adams 12 Five Star Schools Sustainability Management Plan

The new Sustainability Management Plan was made possible thanks to the hard work of a committee of over 30 Five Star employees and external partners. We can now track our progress toward more sus-

tainable operation of our schools and greater stewardship from our students and staff by working toward the goals set out in the district's first Sustainability Management Plan (SMP). Comprised of four larger focus areas, each with multiple goals to be accomplished over the next three calendar years, the SMP will provide guidance, facilitate conversation and ensure accountability around energy, water, waste and student and community engagement.



Stay tuned for future communication regarding specific goals within the SMP, and small sub-committees that will be established to meet the complex goals. If you have any questions or wish to be involved on one of the sub-committees, please contact Shannon Oliver at [shannon.t.oliver@adams12.org](mailto:shannon.t.oliver@adams12.org).

### IN THIS REPORT

- New District Sustainability Management Plan
- Solar Decathlon and Colorado Energy Day
- Energy Challenge
- Composting Pilot
- Baseline Comparison
- Green Team Recruitment

Energy and Sustainability is responsible for managing utility use and for promoting Social, Economic and Environmental Sustainability for the district. Between 2009 and 2016, the team has implemented conservation measures that have reduced energy costs by \$1.1 million annually. The team has begun work on a strategy to eventually achieve a district goal of Zero-Waste and Zero-Net-Energy.

We're taking steps to "go green." That means our schools and district departments are working to be wise stewards of our resources. Learn how we are being energy smart – and how you can do your part.

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THORNTON, CO 80241  
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## Learn about energy

Below are two FREE opportunities to get our students involved in learning about energy in our region, and the future of home architecture and how to integrate sustainability into building a home.



### Energy Day Colorado

**SEPTEMBER 23, 2017**

*Location: East High School, Denver.*

- First annual for Colorado and covers all aspects of energy, geared toward student learning.
- Opportunity for STEM team or group to present or host a booth.
- Opportunity for ALL students and grades to attend.

[Find more information online.](#)



### DOE Solar Decathlon

**OCTOBER 5-15, 2017**

*Location: Pena Station off the RTD A Line*

- Teams from around the world build and present sustainable houses.
- Middle school-specific education days October 5, 6, 12 and 13.
- Great STEM or any middle school student learning experience!

[Find more information online.](#)

## Energy Challenge

Interested in how energy is used in your school?

Want to help save money and reduce your school's environmental footprint?

**THINK YOUR SCHOOL CAN LOWER THEIR ENERGY  
THE MOST AND WIN UP TO \$25,000?**

If you answered yes to any of those questions, then you should participate in the ReNew Our Schools Energy Challenge that will take place this spring semester. [For more information online.](#)

### *Important details:*

- Green Teams compete against other Green Teams in the Five Star District.
- Focus on school electricity use and how to reduce it on a daily basis for one month.
- Use dashboard to view real-time energy use.
- Winning school gets prize up to \$25K to spend on energy efficient improvements at their school!

If you have a team and want to participate, or would like to get a team going at your school to participate, contact Shannon Oliver at [shannon.t.oliver@adams12.org](mailto:shannon.t.oliver@adams12.org).



**CENTER FOR  
ReSource Conservation**

ReNew Our Schools



## Breaking down the compost pilot

During the 2017-2018 school year, several schools will participate in a composting pilot to demonstrate costs, benefits and how much waste we might be able to divert from the landfill. Here is a breakdown of the pilot:

### **What is composting?**

Compost is the result of organic material (dead plants, paper and food scraps for example) breaking down over time. Composting allows us to take these materials out of the normal waste stream, and capture the nutrients in them to use as a supplement to soil for growing new plants and vegetables.

### **Who is in the pilot?**

There are currently four schools participating in the pilot: Hulstrom K-8, Hunters Glen Elementary, Rocky Top Middle and Horizon High.

### **How will the pilot work?**

Food scraps and paper wastes from the participating schools will be collected during lunch by a team of staff and students. As students finish their lunch meal, these items will be collected in a roll-off tote that will then be collected several times a week and removed from the school.



## Baseline Comparison

Metric	Baseline Value	2016-17 Value	Units
 Total Electricity Use	38,131	39,079	MWh/yr
Total Natural Gas Use	1,638,595	1,466,022	Therm/yr
Energy Use Intensity	67.1	63.9	kBtu/ft2
Renewable Energy Offset	6.4	10.0	%
Greenhouse Gas Emissions	35,748	35,246	tonne CO2e/yr
Bus Fleet Fuel Efficiency	5.44	5.42	Gal/VMT
 Total Indoor Water Use	41,341	44,400	kGal/yr
Total Outdoor Water Use	183,282	196,847	kGal/yr
 Student Engagement*	29	29	No. of Teams
 Waste Diversion Rate*	16.9	16.9	%

\*Baseline Value and 2016-2017 value are the same as the 2016-2017 fiscal year represents the baseline period for these metrics.

## THE SUSTAINABILITY TEAM

### Chris Wilderman

#### Director of Safe and Sustainable Schools

Chris worked previously for Adams 12 Five Star Schools as the Security Manager before moving to Boulder Valley School District for five years as the Director of Operations, Security and Environmental Services. Eager to return to Five Star Schools, Chris took on the role of Director of Safe and Sustainable Schools at the beginning of this fiscal year. He will help lead the sustainability team, facilities, operations, community use, environmental and security.

### Shannon Oliver

#### Assistant Director of Energy and Sustainability

Shannon began with Five Star Schools in February 2016 and brings over seven years of experience in environmental regulatory compliance and energy efficiency for the oil and gas industry. He has a Bachelor of Science in Environmental Health from Colorado State University and a Master in Public Health — Global Environmental Health from Emory University. Shannon is excited to work with district students and personnel to achieve meaningful reductions in energy use, water use and help improve waste reduction efforts.

### Terry Clymer

#### Energy Engineer

Terry began with Five Star Schools in March 2008 and brings over 35 years of experience in energy management. He has a Bachelor of Science in Mathematics with a minor in Computer Science from Central State University of Oklahoma. Terry is a great resource for energy reduction in the district.

### Justin Price

#### Water Resource Specialist

Justin Price now has almost three years of experience operating our irrigation systems. He came to us with prior grounds experience, military service and landscape design experience. Justin will focus on managing one of Colorado's most precious resources by ensuring our irrigation systems are watering adequately without over watering, as well as by moving toward more sustainable and low-water use landscapes.

## Calling all Green Teams

**Your Sustainability Team wants to know what YOU are doing in your schools.**



Do you have an active Green Team in place? Do you want to organize a Green Team at your school?

Send us updates on your activities, let us help with project ideas or collaborate with another existing Green Team on a project for your community.

### Have a Green Team?

- Participate in the spring Energy Challenge (*Page 2*)
- Reach out for ideas on recycling
- Organize a community project

**Want a Green Team? Let us help you!**

Email: [shannon.t.oliver@adams12.org](mailto:shannon.t.oliver@adams12.org)

Reach out to other teams: [green-teams@adams12.org](mailto:green-teams@adams12.org)