
TTUSD Sustainability

— September 20, 2023 —

What is Sustainability?

“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

- UN World Commission on Environment and Development

Three Principles of Sustainability

- **Environmental**
 - *The commitment to conserving natural resources and protecting the universal ecosystem supporting human life, now and in the future*
- **Economic**
 - *Balancing economic growth and generating profit with the impact on the environment and people*
- **Equity/Social**
 - *Satisfying the current generation’s needs without compromising the future generation’s ability to satisfy their needs*

Board Policy and Beliefs

Board Policy and Beliefs

TTUSD has multiple Board Policies (BP) and Administrative Regulations (AR) that support and embody our vision of sustainability:

- BP 3510 - Green School Operations
- BP/AR 3511 - Energy and Water Management
- BP/AR 3511.1 - Integrated Waste Management
- BP 3540 - Transportation
- BP 3550 - Food Service/Child Nutrition Program
- BP 6142.5 - Environmental Education
- BP 7110 - Facilities Master Plan
- AR 7111 - Evaluating Existing Buildings

TTUSD emphasizes being conscious of our impact on the physical environment within one of our 13 District Beliefs:

***Belief 7:** The Lake Tahoe region is precious, and we value our physical environment and integrate this element into our educational goals.*

Resolution No. 18-2017-2018 Healthy and Environmentally Sound Schools

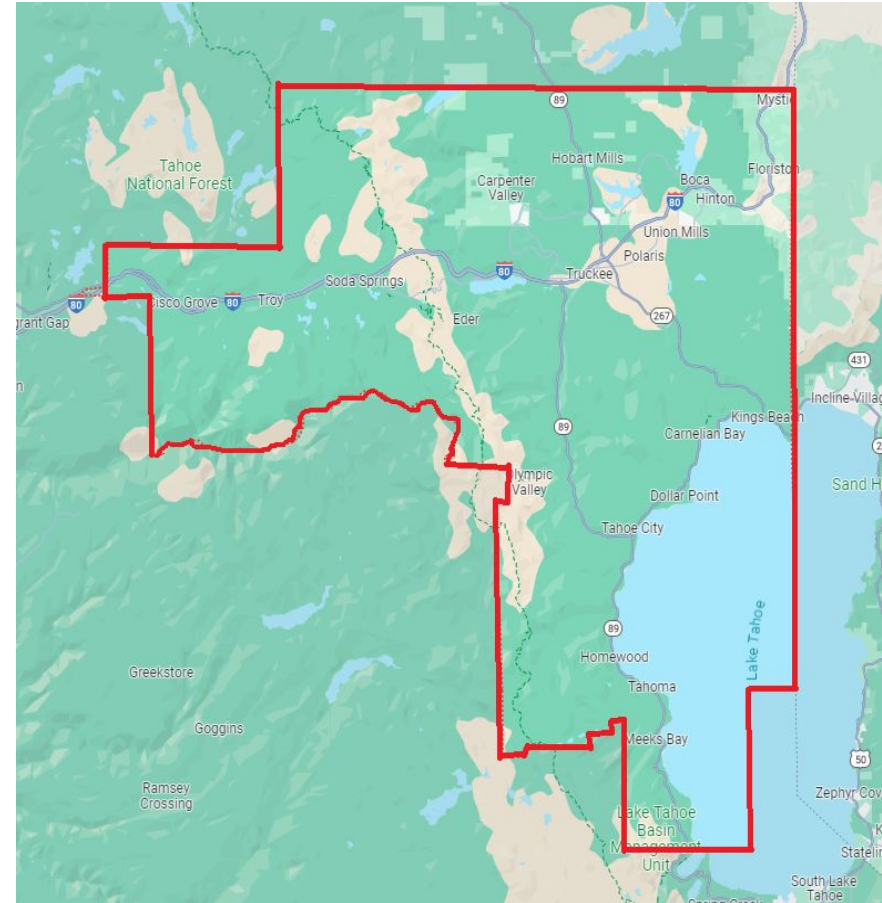
- **February 7, 2018 TTUSD Board of Trustees passed a resolution outlining the District's commitment to:**
 - Environmental education
 - Energy conservation
 - Alternative energy sources
 - Reducing dependency on auto travel
 - Encouraging sustainable practices

TTUSD is committed to an educational environment that not only sustains the existing natural beauty, but models and provides sustainability enriched learning opportunities for students so they can productively contribute to and make informed decisions as citizens in the 21st century.

Transportation

TTUSD Transportation - What do we do?

Using a fleet of 35 school buses, TTUSD transports over 2,200 students per day in a District that encompasses over 725 miles. On average, each school bus replaces 72 car trips taking students to school per day. That is a total of 1,368 car trips per day.



History of Lowering TTUSD School Bus Emissions

2005

Replaced 10 buses with new buses equipped with computer-controlled engines.

2010–2014

Began deploying newer buses with integrated diesel particulate filters and selective catalyst reduction, lowering nitrogen oxide (NOx) emissions by 80%.

Retrofitted all buses older than 2006 with diesel particulate filters, lowering particulate matter (PM) emissions by 85%.

2006–2008

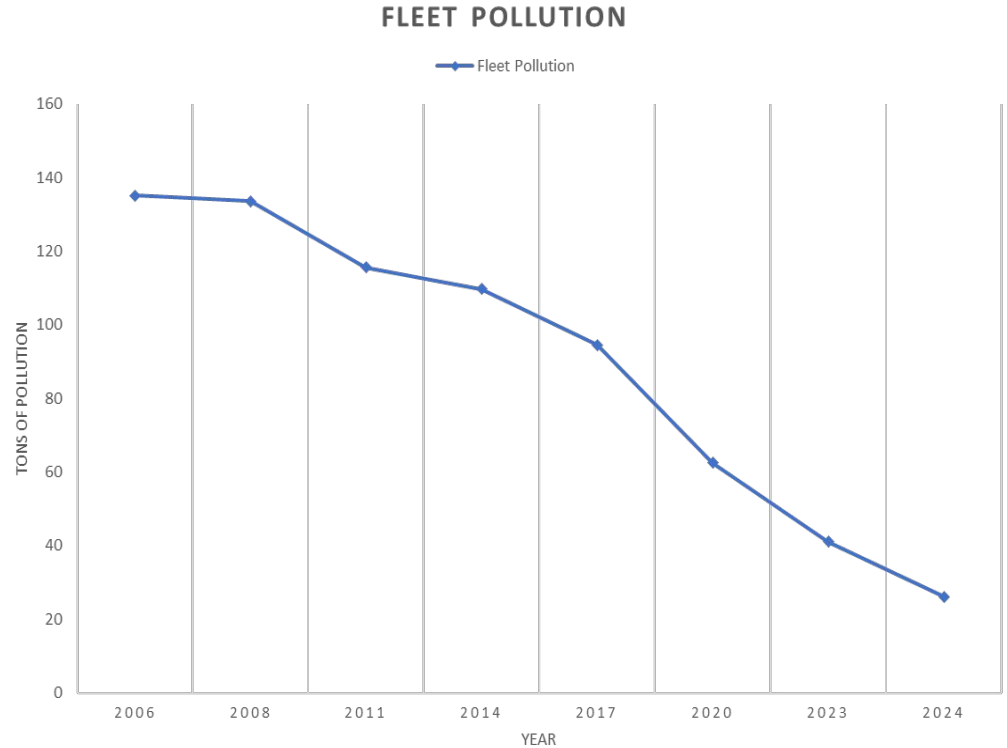
Aggressively replaced multiple older diesel school buses with new clean diesel school buses, lowering total tailpipe emissions.

2017–2023

How far have we come?

- As of today, TTUSD has lowered annual tailpipe pollution by 92.5 tons when compared to 2005.
- In 2024, TTUSD is on track to lower its tailpipe pollution by an additional 14.9 tons.
- By the end of 2024, TTUSD will have lowered tailpipe pollution by 107.4 tons when compared to 2005.

**Fleet data based on a 180-day school year with each bus operating for 6 hours per day*



Considerations

- **TTUSD encompasses over 725 square miles and most buses drive over 150 miles every school day.**
 - Current EV buses with the capacity required for our operation only have a 120 mile range.
 - Heater usage and cold weather can lower range up to 41% in EV vehicles.
- **School bus replacement requires considering multiple factors.**
 - Safety - Priority #1 is safety for all bus riders. Range is an important factor to ensure safe student transportation.
 - Longevity - Transportation is a large investment and a net benefit for the community. Buses must be a durable and long lasting investment.



Opportunities Moving Forward

- TTUSD continually evaluates new technologies to limit our vehicles' impact on our delicate region.
- In 2023, TTUSD was awarded 4 new EV school buses with charging infrastructure. These buses will be implemented in early 2024.
- TTUSD is committed to safe and effective transportation for our students. TTUSD will continue to implement new green technologies, like EV, as the technology and range continues to improve.



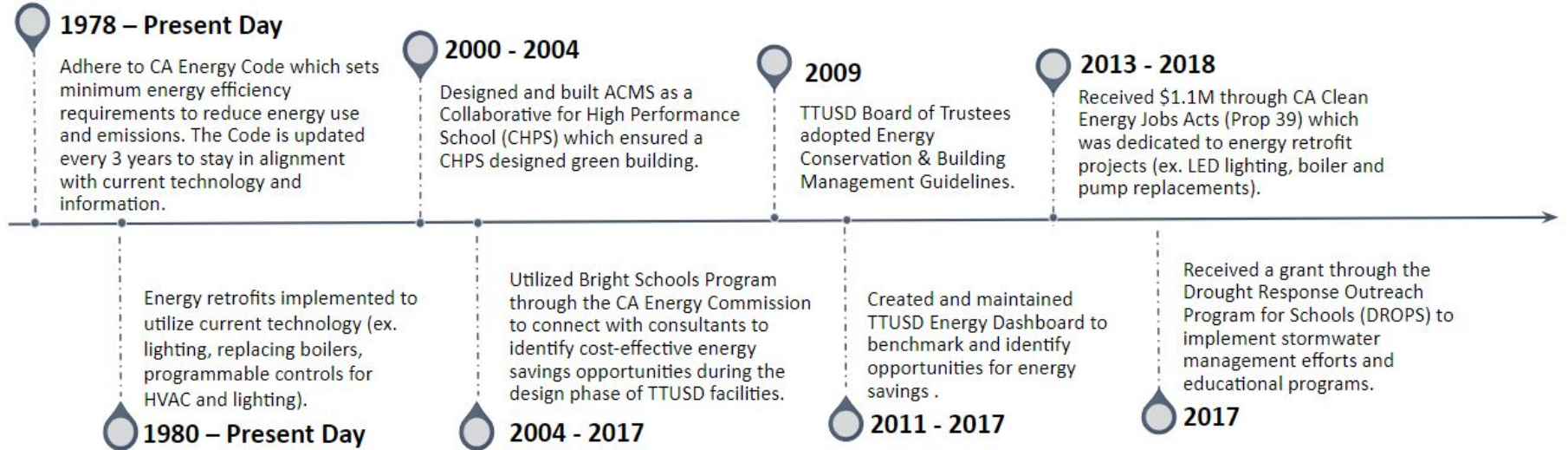
Facilities, Maintenance & Operations

TTUSD Facilities & Maintenance - What do we do?

- **Manage all TTUSD construction projects from conception to completion**
- **Maintain 14 campuses**
 - 945,000 combined building square footage
 - 122 acres maintained
- **Maintenance and upkeep of all TTUSD physical structures and grounds, which includes:**
 - Mechanical/HVAC
 - Electrical/Lighting
 - Plumbing
 - Interior finishes and furniture
 - Athletic fields and playgrounds
 - Parking lots and landscaping maintenance
 - Building envelope



History of Energy Efficiency Projects to TTUSD Facilities



TTUSD Green Awards & Recognition

- **2005**
 - Alder Creek Middle School Collaborative for High Performance Schools Design Project Recognition
- **2017**
 - CA Green Ribbon District, Gold Level
- **2018**
 - CA Green Ribbon District, Green Achiever Level
- **2018**
 - U.S. Dept. of Education Green Ribbon School District



Incorporation of Green Products & Practices

Green Products

- Copy paper (30% recycled)
- Restroom paper products
 - Forest Stewardship Council (FSC) Certified, Green Seal Certified, Ecologo
- Select cleaning products (ex. all purpose cleaner, glass cleaner, hand soap, etc.)
 - Green Seal Certified

Practices

- Digital school flyers through PeachJar
- Electronic forms through IK-12
 - 38,000 sheets of paper saved!
- Recycling & waste management
 - Material specific disposal bins at school sites
 - Paper, cardboard, aluminum, organic waste, plastic, batteries

Considerations

- **Retrofits of Existing Buildings**
 - Major system changes can lead to considerable disruptions in student learning environments
 - Design and compatibility challenges
- **Early Adopter vs. Early/Late Majority**
 - Ensuring technology and products have been sufficiently tested for our specific environment
- **Solar**
 - Structural upgrades to existing roofs would be necessary
 - Solar panels would need to withstand Tahoe/Truckee snow loads
 - Space to safely shed snow from panels
 - Battery backup facility space
- **Prioritization**
 - Weighing increased costs of being green vs. need for additional facilities

Opportunities Moving Forward

- **New TTUSD Position, Project Manager and Energy Conservation/Sustainability Coordinator**
 - Conduct utility audit to set benchmarks since Measures E & U
 - Explore reviving & maintaining the Energy Use Dashboard
 - Utilize findings to identify areas of opportunity
 - Update the 2009 TTUSD adopted Energy Conservation Guidelines
 - Research green/sustainable grant opportunities
 - Staff re-education on efficient operations of facilities
 - Increased participation in regional climate conversations/committees
- **Facilities Master Plan**
 - Currently collecting community input in community survey
 - Includes specific question on lowering TTUSD's district-wide carbon footprint

Food & Nutrition Services



TTUSD
FOOD
AND
**NUTRITION
SERVICES**
FRESH & LOCAL

Vision Statement

Our vision is to teach every student to seek, grow, and prepare delicious nourishing food. We hope to empower students to make choices that positively influence their health, community, and the environment.

Good nutrition and learning go hand in hand. Our department is a team of food and nutrition professionals dedicated to students' health, well-being, and their ability to learn. We support learning by promoting healthy habits for lifelong nutrition and fitness practices. All meals, foods, and beverages sold or served at schools meet or exceed state and federal requirements which are based on the USDA Dietary Guidelines. We provide all students with access to a variety of affordable and appealing foods that meet their health and nutrition needs.

TTUSD School Food Service - What do we do?

- **Cook, bake and serve breakfast and lunch for all TTUSD schools and select partners**
 - Twelve (12) TTUSD school sites including students and staff
 - Partners include:
 - Sierra Expeditionary Learning School, Truckee Head Start, Kings Beach Preschool
 - Serve approximately 4,500 daily meals
 - With the CA Meals for All program implemented during the 22-23 school year, we've seen the number of meals served increase by 70%
- **Employ a staff of 27**



History of Food Service Sustainability Efforts

2012

- Began scratch cooking operations
- Implemented salad bars at all schools
- Formed partnerships with SWEP & Tahoe Food Hub
- Moved to 100% biodegradable trays and boats at all schools
- Committed to ENERGY STAR rated equipment replacement program
- Started Wellness Policy Committee
 - Updated board policies with sustainability practices included



Scratch Cooking Operations - Deeper Dive

- Cook-from-scratch model promotes sustainability by allowing for local food sourcing, waste reduction, and lower environmental impact. It also creates valuable learning opportunities for students.
- Shifted employees from part-time, non-benefited to full-time positions allowing ample time to cook, bake, serve, and wash dishware.
- Removed individual condiment packets and straws.
- Purchase items in bulk as much as possible.
- Expanded plant-based menu options such as tofu tacos, chickpea spinach penne, veggie bowls, and more.



History of Food Service Sustainability Efforts

2013 - 2022

- Introduced and expanded reusable trays and silverware at elementary schools
- Began organic waste separation in kitchens
- Created share tables in all cafeterias
- Committed to values added procurement
 - Seeking locally grown, organic produce, meats, and grains
- Supported TTUSD community throughout the COVID-19 pandemic with free scratch cooked meals
- Introduced bulk milk dispensers with reusable cups at several school sites



Values Added Procurement - Deeper Dive

- **In alignment with the the National Farm to School Network, Center for Good Food Purchasing, and Chef Ann Foundation, TTUSD Food Services is working to establish a just and equitable food system.**

The values include the following:

- Purchasing local and organic produce, grains, legumes and meats from vendors within 150 miles of TTUSD school boundaries.
- Procuring hormone free, California produced bulk milk from Clover Dairies in Sonoma and Strauss Organic Dairies.
- Sourcing ingredients from farms and businesses that utilize regenerative farming practices.
 - The regenerative agriculture movement focuses on adopting indigenous agricultural practices contributing to ecological restoration, climate change mitigation, community development, economic growth, and enhanced well-being.
- Purchasing from farms that have been historically marginalized including farms owned by BIPOC, disabled persons, Veterans & LGBTQIA.



TWIN PEAKS



WINDMILL FARM & VINEYARD



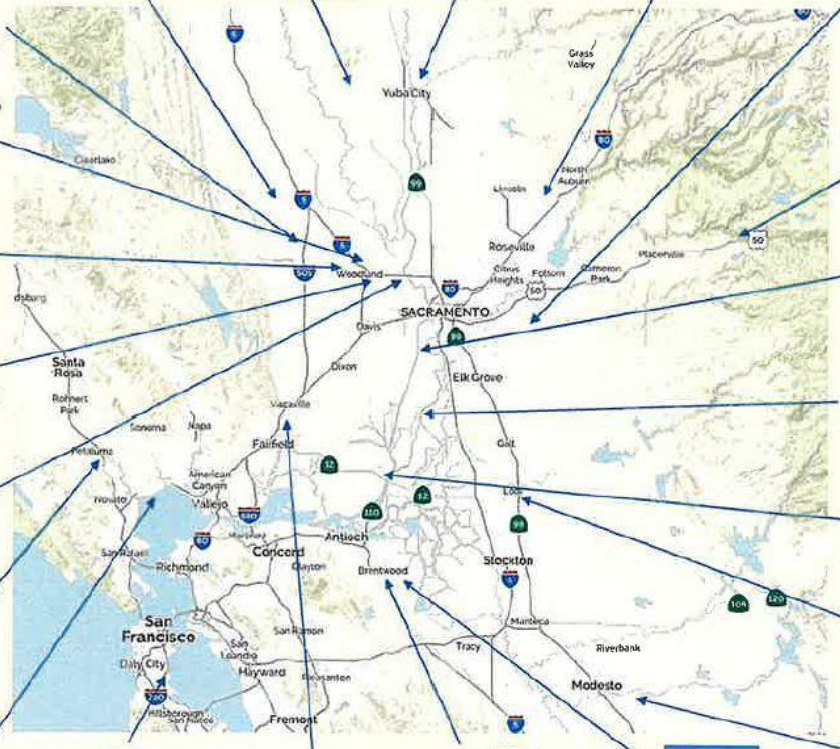
The Perfect Purée OF NAPA VALLEY



Larsen Apple Barn



DAVID J. ELLIOT & SON



NORTH LAKE TAHOE FOODSHED



MAP LEGEND



FARM



MINI-HUB



HUB ROUTE

Considerations

- **Limited lunch periods contribute to food waste**
- **Rising food costs due to inflation, climate change, and impact on crops**
- **Increase in staffing needs**
 - Meal participation has recently doubled
 - Reusable trays, utensils, and cups must all be washed by staff
 - Scratch cooking requires more staffing resources

Opportunities Moving Forward

- Expand milk dispensers to all school sites
- Implement “Farm to School” projects
- Re-implement reusable trays, plates, and silverware at KBE, GES, TLE, NTS, and ACMS
- Monitor waste and increase menu taste test/feedback opportunities for students
- “Happy or Not” feedback terminals
- Student Nutrition Clubs!



Community Partnerships & Ways to Get Involved

Environmental Education Incorporation

- **SWEP Educational Partnerships**

- In-classroom programs
- Hands-on field trips
- Green Teams, Eco Action, and Envirolution Clubs

- **Farm to School Education**

- Harvest of the Month
- Visits from regional farmers and chefs in the classrooms to educate on locally grown agriculture and sustainable farming
- Staff trainings on sustainable agriculture and sustainable practices
- Culinary trainings on scratch cooking

- **Trails & Vistas**

- Outdoor education field trips

Community Partnerships

TTUSD partnerships with local agencies and businesses contribute to our continued sustainability efforts and improvements:

- Sierra Watershed Education Partnerships (SWEP)
- Shane McConkey Foundation
- Tahoe Food Hub
- Produce Plus
- Sagehen Creek Field Stations, UC Berkeley
- Tahoe Forest Hospital
- Town of Truckee
- Truckee Donner Public Utility District
- North Tahoe Public Utility District
- Tahoe City Public Utilities District
- Liberty Energy
- Tahoe Truckee Sierra Disposal
- CA Department of Food & Agriculture

Ways to Get Involved

Join Us!

- Facilities Master Plan
- Wellness Committee
- Sierra Watershed Education Partnerships
- Don't Drop the Top - Community Sort
 - September 30th & October 1st at TES
- School Green Teams

**Take the Facilities
Master Plan Survey
Now!**

