

Midland School, Los Olivos, California

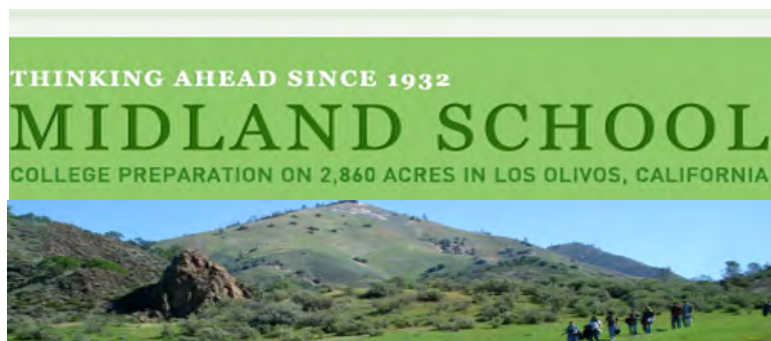
Education in “Closing-the-Loop”

Since 1932, Midland School has embraced a mission of distinguishing needs from wants at the core of its rigorous college preparatory education. Beginning in 2004-05, consecutive sophomore classes have helped to install a photovoltaic (PV) array on campus. As of 2010, the arrays total 20-kilowatt (KW) DC and meet almost 20 percent of the campus’ communal electricity needs.

Much of Midland’s produce comes from an 8-acre organic garden tended by faculty and students. Grass-fed cattle in school pastures provide organic beef to the students. Midland’s newly refurbished kitchen receives, serves and stores the bounty of its garden and pastures. Midland’s lights and appliances are energy efficient. Midland practices energy conservation and recycling through habits daily cultivated through the jobs program and in working to meet basic needs of food and warmth.

A Midland education is regenerative in that faculty and students balance consumption with production. Midland’s main product is informed students. But Midland also produces clean kilowatt-hours (kWh) and sustenance. Its food system is a closed loop; scraps from every meal are taken by students to the pigs or the garden compost, and students understand this tight nutrient cycling. Midland practices water conservation, native valley oak restoration, and sustainable grazing on its ranch. Midland’s place-based courses instill knowledge and love of the land. This campus is set on 2,860 acres, 2,727 of which have been preserved from development in perpetuity in a conservation easement held by the Santa Barbara Land Trust and the Trust for Public Land.

In 2009, Midland was awarded a Governor’s Award for Environmental and Economic Leadership, California’s highest environmental honor.



School Snapshot

2,860-acre college preparatory school focused on environmental stewardship as a core value

Climate Actions

- Uses energy efficient lighting and appliances
- Almost 20 percent of campus electricity is provided by student-installed solar panels
- Utilizes produce and livestock raised on-site with student and faculty participation
- Composts or feeds food scraps to livestock
- Teaches conservation and recycling as a core school value
- Practices water conservation
- Participates in native valley oak restoration

Cost of Solar Installation

- \$83,500 total for 20-kW solar array, offset by \$20,000 in A+ for Energy grants

Estimated Yearly

- Cost Savings: \$7,500 in electricity costs
- Greenhouse Gas Emission Reductions: 6.71 metric tons of CO₂e from solar panels



Every year since 2003, Midland’s sophomore class has installed a photovoltaic array on the 2,860-acre campus.

What Was the Cost of Midland's Solar Arrays?

The average cost of each of the five 3 kilowatt (kW) grid-tied solar arrays, installed over 5 years (2005-09) was about \$13,100, a cost kept low because Midland was able to purchase second-hand modules for the four arrays installed in 2006, 2007, 2008, and 2009. The total cost for these 5 arrays was approximately \$65,500. Midland received two BP A+ for Energy grants of \$10,000 each, one in 2005 and another in 2006, which helped fund the purchase of these arrays. The 6th 3.1-kW array, which helps power the well pumps, cost a bit under \$18,000.

What Actions Did Midland Take to Conserve Water?

Not only does Midland get its water from two of its very own wells, but its organic garden is augmented during wet seasons by a reservoir filled by the Alamo Pintado Creek. Every year since the pilot project in 2003, students have installed a 3-kW grid-tied array on campus, each array offsetting about 3 percent of Midland's communal electricity needs. As a result, all of Midland's water-pumping needs will be met with solar by 2013-14. The school has also implemented a drip tape irrigation in its garden, installed low-flush toilets (1.6 gpf) and urinals (1 gpf) in student bathrooms and faculty homes, and uses Energy Star front-load washing machines in all communal laundry rooms.

Midland School has set an excellent example for how environmental stewardship can yield such profound effects on the earth. Students and staff have united as one in order to take climate actions and reduce the school's carbon footprint.

Photo Credit: Midland School



Midland School has set itself apart from typical educational models by teaching independence, interdependence, and stewardship of the land in a unique hands-on atmosphere.

PROUD PARTNERS INCLUDE:



STATE OF CALIFORNIA
PUBLIC UTILITIES COMMISSION

"Exploring the outdoors and placing oneself on a topographic map, washing community dishes, tending a garden, or installing solar panels puts people in the cycle of life and materials. At Midland, the fruits and the waste of our labors are right in front of us, where we're more likely to take responsibility than we would by just flipping a switch to get what we need."

-Lise Goddard,
Director of Environmental Programs
Midland School



Photo Credit: Midland School

Midland School has six 3-kilowatt (kW) solar arrays, which were installed over a six-year period by students and faculty.

Contact Information

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