

## Issaquah School District

**Began participating in the Green Schools Program:**  
 April 2005

**Level One of the Green Schools Program:**  
 Achieved in February 2012

**Level Two of the Green Schools Program:**  
 Achieved in February 2013

**Level Three of the Green Schools Program:**  
 Achieved in May 2017

**Sustaining Green School recognition:**  
 Achieved for

- **2017-18**
- **2018-19**
- **2022-23**

2017-18 was the first year the program recognized districts at this program level



John Macartney, district resource conservation manager (center with award) with district Superintendent (right) and district director of facilities, receiving a King County Green Globe award in 2009 for district sustainability actions

## Overview

- The Issaquah School Board's *Citizenship* student learning goals include an expectation for "students to use natural resources in an efficient and sustainable way, ensuring the rights of future generations to enjoy a clean and resourceful planet."
- The district Superintendent and school board established sustainability as a major district goal and priority.
- The district and its 25 schools participated in and received help and resources as well as recognition from the Green Schools Program.
- District staff supported schools to engage students and staff in conservation actions.
  - Curriculum director Emilie Hard started the first district-wide Green Team comprised of school Green Team advisors, district food service staff, and district maintenance staff which met regularly to learn about sustainable practices and to plan district-wide conservation strategies and education. Emilie's successor Dawn Wallace continued leading the district Green Team meetings.



- A resource conservation manager program was started in 2001 by John Macartney, and the program was continued by Chris Bruno until 2022. The district resource conservation manager monitored solid waste, energy, and water utilities, improved energy and water efficiency, reduced energy and water costs, and led schools to improve waste prevention and recycling practices.
- Director of food services Brian Olson initiated durable serving-ware such as trays and utensils, food share tables, and food donation.

## Waste Reduction and Recycling (Level One)

- The district-wide recycling rate increased from about 20% to 50%, thanks to waste prevention and recycling practices in each school facility.
- Collectively, as of 2012, the 21 district schools recognized as Level One Green Schools annually were collecting more than 7,500 cubic yards of recyclable materials, 2,000 cubic yards of organics (including food scraps and food-soiled paper), and reducing garbage by over 10,000 cubic yards, thus reducing the district's garbage disposal costs.
- School cafeterias replaced disposable polystyrene trays with compostable or durable trays, and replaced plastic wrapped utensils with individual utensils.
- Each school improved recycling of paper, cardboard, bottles, cans, and cartons, and the district engaged students and staff in annual recycling kick-off events.
- In 2008, four schools started to collect organics for transport to Cedar Grove Composting facility. In those schools, garbage was reduced by 50% to 75%, depending on the school. By 2012, all 21 schools participating in the Green Schools Program were collecting organics.
- At the end of the school year, food services donated to a local food bank all unused food products that would reach expiration dates before September.
- Brian Olson, food services director, set up food share tables in all elementary schools so students could place unopened packaged items and whole fruits with



John Macartney, district resource conservation manager, oversees a cafeteria sorting station when it was first set up



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inedible peels for other students to take. Leftovers from the share tables, as well as apples and other fruit with edible skins and food items from school kitchens, were donated to Issaquah Food and Clothing Bank which provided weekly pickups before the pandemic.

- In the 2017-18 school year, the food bank picked up 7,848 pounds of food from the district's 15 elementary schools, plus food items from school kitchens.
- To reduce paper consumption, teachers used document cameras and projectors to deliver lessons, morning school bulletins were shared over intercoms, and family newsletters sent by email. Paper "good on one side" was collected in "GOOS boxes" in classrooms, offices, and workrooms to make the blank sides available for scratch paper or art projects.
- The district recycled electronic equipment, fluorescent bulbs and tubes, printed cartridges, cell phones, and batteries.
- The district supported recycling by buying recycled-content products, including 100% recycled paper products from a LEED Gold company.

## Energy Conservation (Level Two)

- The district's energy conservation strategies have reduced district-wide energy consumption by more than 20% from 2001-2013.
- Regular custodial trainings were an important component in district energy reductions.
- The district maintained a database of utility use and costs for each facility, and created facility profiles to determine if utilities were used efficiently. A Utility Manager software program tracked monthly billing and use for garbage, recycling, composting, energy, domestic water, irrigated water, and storm water, and generated graphs, reports, financial forecasts, avoided costs, and emissions data to help the district identify malfunctions or control problems in HVAC (heating, ventilation, air conditioning) equipment, water leaks, and other changes.
- From 2001 to 2013, even with building footage increasing 26.7%, energy reductions of 7.6% were realized, and 2,424.7 tons of CO<sub>2</sub> from energy use was prevented.



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- Most energy savings were achieved by controlling HVAC on/off times and scheduling after school and evening events. Additional reductions were achieved by adding or upgrading equipment and controls such as programmable thermostats on all portable classrooms, misers on vending machines, and CO2 sensors in HVAC systems. The district replaced inefficient boilers, heat pumps, air handlers, and digital controls.
- Collaborating with local utilities, audits and commissioning projects were performed to identify needed equipment maintenance or updates.
- District software automatically turned off the district's more than 11,000 computers each night.

## Water Conservation (Level Three)

- The district included water conservation strategies in annual custodian trainings.
- When cost effective, the facility services department replaced broken fixtures with water-efficient fixtures. The capital projects department used the same criterion when outfitting new school facilities.
- The district resource conservation manager checked water meter readings during monthly review of utility bills, noting trends and opportunities for conservation.
- Green Team students worked with Cascade Water Alliance on a school facility water audit and found 90% of classroom sink faucets had flow rates of 12.5 gallons per minute. After installing .5 gallon per minute faucet aerators, the water flow decreased by 95%.
- The district reduced domestic water use by 40.4% and irrigation by an average of 20% annually. The majority of domestic water savings was achieved by controlling urinal auto flush systems that operated 24/7. The district installed 1.6 gallon per flush low-flow toilets and 1 pint per flush urinals in all new and renovated buildings.
- Liquid soap dispensers were replaced with foam soap district-wide which reduced water use, soap costs, and maintenance.
- For campus landscaping maintenance, mulch was applied as needed.



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- District grounds staff used leaf blowers instead of water to clean sidewalks and other concrete areas of school grounds.
- To conserve water, irrigation system controllers automatically adjusted irrigation based on evapotranspiration rates, humidity, temperature, and rainfall.
- School landscapes and gardens were planted with native drought-resistant plants and many playfields had turf or sand requiring no irrigation.
- In most schools, stormwater runoff was managed with retention ponds. School rain gardens and ponds retained, filtered, and returned water to local aquifers.
- These systems provided student-learning opportunities about water cycles and wetlands ecosystems. Since surface water lessons were included in curriculum, local water districts eliminated surface water charges from district water bills.

## Other sustainable practices

- Several schools started no-idle zones to reduce emissions from vehicles picking up students. District bus drivers turned off buses when parked at schools.
- Issaquah was one of the first districts in the nation to reduce its bus fleet exhaust pollution and greenhouse gas emissions through filters and containment of crankcase oil fumes. These actions reduced toxic emissions and fine carbon particle pollution by over 50%.
- The King County SchoolPool program and City of Issaquah helped schools promote walking, busing, and carpooling to school.
- To protect student, visitor, and staff health, in 2002 the custodial department started using peroxide-base cleaners at different strengths to clean and sanitize all facilities. Custodians used flat mops with microfiber heads to clean secondary school cafeteria tables, and a back-pack flat mop wax applicator which cut wax use in half.
- The district used LEED guidelines as it selected cleaning products and equipment. In addition to being LEED approved, Tennant floor scrubbers and carpet machines were selected because they used minimal water and were slip rated. Old machines were replaced by LEED approved Ech2o machines which used electrically charged water.



## Sustaining Green School District recognition

To receive recognition as a Sustaining Green School District, the district sustained and built on its Level One through Three practices.

- In the 2017-18 school year, district food services switched from single-use disposable plastic utensils to washable, durable utensils, with 13 elementary schools using metal utensils in their cafeterias, thanks to the coordinated efforts of the lead custodian, kitchen staff, lunchroom monitors, and student volunteers.
  - Custodians and student volunteers helped students place used utensils in collection bins and kitchen staff handled washing. Lunchroom monitors reminded students how to sort utensils after lunch.
  - As a result, an annual reduction of about 30,000 disposable utensils was realized.
- Although some conservation practices were paused during the Covid-19 pandemic, district and school staff brought back many practices by spring 2023. For example, district food services restarted use of durable, washable utensils in elementary schools, and restarted food share tables in elementary schools. In addition, with guidance and resources from the Green Schools Program, conference and staff rooms in the district's administrative building set up recycling, organics, and garbage bins side by side, labeled with signs indicating what should be placed in each bin.
- By spring 2023, all 25 district schools participating in the program had benefited from Green Schools Program assistance and resources, and had received recognition as Level One Green Schools. In addition, 23 of the 25 schools had been recognized as Level Two Green Schools, and 22 schools had been recognized as Level Three Green Schools and Sustaining Green Schools.

## Awards

- In 2016, the district received a U.S. Green Ribbon School District award for district-wide sustainability achievements.



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- In 2015, the district received the Washington State Green District Leader award, which was based on U.S. Green Ribbon School criteria, for district achievements in Pillar 1 (reduced environmental impact and costs) and Pillar 3 (effective environmental and sustainability education).
- In 2009, the district received a King County Green Globe award for district-wide resource conservation practices and education.
- In 2009, King County Earth Hero at School awards were presented to Issaquah Middle School, and to teacher Hank Klein and custodian Michael Getty with Challenger Elementary School. See school success stories to learn about other awards received by schools, teachers, custodians, and student Green Teams in Issaquah School District.

## Comments

“The King County’s Green School Program does a great job demonstrating how humans are intrinsically linked to environmental systems and consumption.

Students learn to track garbage and recycling volumes, and to change their behavior to reduce solid waste, reduce energy use, and reduce water use.”

- **John Macartney**, resource conservation manager, 2014

“I’m very pleased with how our schools have made waste reduction and recycling part of their school culture. King County Green Schools Program has helped students and staff in all schools progress from recycling some paper, cans, and plastic bottles to recycling nearly all our paper, cans, and plastic bottles, as well as establishing compostable materials collection in nearly all of our schools.”

- **John Macartney**, resource conservation manager, 2012