

# A Cleaner World: 5 Ways to Help the Planet

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For Toyota, sustainability is about more than just cars. It's about embracing emerging technologies that give people more opportunities to move — safely, responsibly and in harmony with the environment. And [Toyota's Environmental Challenge 2050](#) offers a comprehensive roadmap to achieving these core goals:

- Eliminate CO2 emissions from our vehicles by over 90% from 2010 levels
- Go beyond tailpipe emissions to eliminate CO2 in the entire life cycle of the vehicle
- Eliminate CO2 emissions from our operations
- Minimize and optimize our water usage
- Help create a recycling-based society that reduces or eliminates the need for landfills and the pollution they create
- Support biodiversity and operate in harmony with nature to create a healthy planet

“We have an obligation to reduce our carbon footprint, but also to do what's right for the community around us,” says Kevin Butt, Toyota's general manager of environmental sustainability. From reducing energy and water consumption to educating the next generation, here are five ways we're evolving our business for a more sustainable future.

## 1. Preserving our national parks with old car batteries

Reducing CO2 emissions from our vehicles has long been a priority at Toyota. A low-carbon future includes hybrid technology, improving fuel efficiency and prioritizing electrification: Toyota and Lexus have 15 advanced technology vehicles on the market in North America.

But putting that many electric cars on the road is creating a new waste product in the form of used batteries. Toyota's solution: Find a way to repurpose degraded batteries at the end of their useful life. The company is using old Camry hybrid Ni-MH (Nickel-Metal Hydride) batteries to help store power collected from the solar array at the Lamar Buffalo Ranch in Yellowstone National Park. The site had been using propane and diesel fuel to run backup generators when solar didn't provide enough juice. "We don't want power lines running through Yellowstone," Butt says about efforts to keep the park off the grid. "I don't think there's a more pristine, beautiful place in the world. Wake up in the morning, take a look at that valley, it's incredible. It makes you appreciate what we're really trying to do all this for."



## **2. Establishing recyclable water systems**

According to the U.S. EPA, the average American family uses more than 300 gallons per day at home. “Water is one pillar of the Toyota Environmental Challenge 2050,” explained Butt. “Water is a critical resource for our company, and we are committed to doing our part and helping others.” As part of that commitment, Toyota has set four goals focused on water conservation: eliminate water waste, establish systems with 100 percent recycled or reused water, spread the word about conservation to community members and nonprofits, and help our major suppliers adopt the same goals.

Toyota’s new North American headquarters in Plano, Texas, was a great place to start. We installed a rainwater harvesting system that at the time of installation was the largest commercial system in the U.S. The bottom line? Toyota’s North American manufacturing plants recycled or reused 148 million gallons of water in 2018. Those savings could provide water for 1,351 American families for a full year. But there are broader efforts. Toyota, in partnership with the Wyland Foundation, has continued to sponsor the National Mayor’s Challenge for Water Conservation. Since the campaign’s launch in 2012, U.S. residents have pledged to conserve 12.3 billion gallons of water.

## **3. Teaching a recycle-first mindset**

Recycling is a habit that takes time to instill. And for some, it’s a challenge to remember to put waste in those little blue containers. But the use of raw materials — from boxes, plastic wrapping and disposables like coffee cups and straws — has increased at approximately twice the rate of the population in the past century.

That’s why Toyota is promoting a recycle-first mindset with a three-step plan: conserve natural resources by increasing the use of sustainable materials and extend the life of vehicle parts, eliminate waste disposal by reusing and recycling, and share our insights with others. These actions have taken hold at Toyota facilities across the world. In fact, a team at Toyota’s Indiana assembly plant, Toyota Motor Manufacturing Indiana (TMMI), significantly reduced raw material use by decreasing the amount of PVC sprayed onto Sienna underbodies — a savings of 24,000 pounds per year in materials.



#### **4. Promoting biodiversity in North America**

To promote living in harmony with nature in North America, Toyota is working to protect species, conserve habitats and share our insights with partners and local communities. First, Toyota is taking care of its own backyard. The company currently sustains around 1,000 acres set aside at 12 sites engaged in conservation programs certified by the Wildlife Habitat Council (WHC), including grasslands, wildflower meadows, pollinator gardens and forests.

Toyota is also taking the effort global, helping preserve areas like the Galapagos Islands, 500 miles off the coast of Ecuador. “We all think of the Galapagos as this island that Charles Darwin was on, and it was very pristine. But human activity has endangered that whole archipelago,” says Butt. “So, we were able to go down and actually work with them through our know-how of waste management practices to put them in a much better position to prevent contaminating the island.”

#### **5. Partnering for a sustainable future**

“Toyota is a large company, however, we are still only one entity in a global economy ” says Butt. But when the company shares its expertise with other groups, these solutions can be scaled to a larger degree, he adds.

In one central environmental initiative, Toyota partners annually with the National Environmental Education Foundation to sponsor National Public Lands Day (NPLD) — the largest single-day volunteer effort for public lands in the U.S. In September 2017, Toyota’s involvement made volunteerism possible at 2,100 NPLD sites,

where 169,000 volunteers gave 680,000 hours of service worth \$16.7 million.

The company's outreach also includes working with suppliers to help them reduce their operational carbon emissions. For example, Ryder has already replaced 29 diesel trucks that move goods for Toyota's assembly plant in Kentucky with heavy-duty trucks that use renewable compressed natural gas.

Increased mobility—whether walking or rolling—doesn't have to mean leaving a conspicuous footprint.