

Fueling a passion

Story and photos by Larry Edsall



Colleen Crowninshield's passions appear to be polar opposites.

As manager of the Pima Association of Governments' Tucson Regional Clean Cities Coalition,

Crowninshield's mission is to wean Americans from their dependence on imported oil as an energy source.

But as a woman who drag races a highly modified 1970 Chevrolet Nova, Crowninshield burns through specially blended and very expensive petroleum racing fuel in measures not of miles per gallon but of gallons per mile. Each time Crowninshield drives the quarter-mile drag strip at Southwestern International Raceway, her Nova named Ruby vaporizes at least a gallon of gasoline.

Asked about trying to balance such seemingly opposing passions, Crowninshield responds that she loves what she does—at work and at play—and, she adds, “I can assure you, I balance them very well.”

Spend just a few moments in conversation with her and you'll have no doubts in regard to her sincerity. Learn that last year the coalition she manages helped people find alternatives to the consumption of 12 million gallons of petroleum fuel and you'll have no problem forgiving Ruby's transgressions.

Crowninshield shares her passion for energy independence with an evangelist's zeal, though her sermon isn't fire and brimstone

but more of a quiet conversation during which she expresses both her strongly held beliefs in and her genuine enthusiasm for exploiting alternative sources of energy.

After just a few minutes of such conversation, you're not left feeling guilty for your past petroleum-fueled sins so much as you're seriously considering a solar water heater and eagerly awaiting an opportunity to drive a vehicle run by a cleaner fuel.

In fact, you might well wonder if we might become energy independent if only we could find a way to bottle Crowninshield's enthusiasm and pour it into our fuel tanks.

IT'S A FRIDAY NIGHT "TEST AND TUNE" SESSION at the drag strip just southeast of Tucson, and the first thing you notice as Crowninshield and her husband, Brian, arrive isn't Ruby the Nova sitting on a trailer but the body-wrapped Chevrolet Avalanche pickup truck that pulls that trailer. The Avalanche is a flex-fuel vehicle, which means it can run on regular unleaded gasoline or on E85, a blend of 85-percent

ethanol and 15-percent gasoline.

The Avalanche is Crowninshield's daily driver, provided by General Motors through the automaker's involvement with the state of Arizona and the national Governors' Ethanol Coalition program. The truck's ability to run on domestically produced ethanol fuel is proclaimed in the bright green, yellow and blue hues of the truck's skin-tight wrapper. Many drivers of flex-fuel vehicles rarely put ethanol into the tank, but Crowninshield assures anyone who asks that she operates the truck exclusively on ethanol unless she's in a locale where that fuel is not available.

It wasn't long ago that ethanol wasn't publicly available anywhere in Arizona.

In 1998, Crowninshield was part of the team of Pima County staffers who helped organize the Tucson Regional Clean Cities Coalition, one of 90 such regional coalitions in the United States. When the coalition's coordinator retired in 2001, Crowninshield was offered the manager's position. Just four years later, she was honored by the US

Department of Energy as Coordinator of the Year. The award included a trip to France to speak at an international symposium and the use for a year of a vehicle powered by ethanol.

There was only one problem: There was no place in Arizona that offered the public sale of ethanol fuel.

Thanks to Crowninshield and the coalition of more than 75 government agencies, businesses, schools, tribes, air bases and individuals she coordinates, that quickly changed.

Tucson became the site of the first such ethanol station, not just in Arizona but in the Western United States. In 2007, in preparation for Super Bowl XLII in Phoenix, the National Football League's so-called green Super Bowl, Crowninshield helped convince the sports league to use ethanol-powered vehicles in its official transportation fleet, which meant someone had to open the first public ethanol station in Phoenix.

Today, she notes with pride, “there are 15... no,” she counts to herself, “make that 17” such retail outlets in Arizona.

THOUGH SHE WAS BORN IN 1965, CROWNINSHIELD'S CHILDHOOD was one most people of her generation would associate with an earlier and bygone era, one of hands-on hard work and of never being frivolous in the consumption of energy.

(Opposite page) Colleen Crowninshield awaits her turn at the starting line. (Above top) Crowninshield and her red Nova get ready to do a burnout that heats her car's rear tires to enhance their grip for their upcoming run against a green Mopar. (Above left) Colleen Crowninshield makes sure she's comfortable in her car's cockpit (right), which is purpose-built for racing, including a special drag racing transmission.

Home was among extended family on a California cattle ranch in the foothills west of Yosemite National Park. The local school had two rooms. The house had no telephone. It did have a television, though only two stations could be accessed.

Each week her father would bring fresh milk from the local dairy farm where he worked a second job. Colleen's mother would separate cream from the milk and on Tuesday nights would pour the cream into Mason jars, add a little sugar, screw on the caps and hand a jar to each child. The children were to shake those jars as they watched *Happy Days*, *Laverne & Shirley* and, if necessary, *Three's Company*.

To make it seem more like a game than the butter-churning chore it was, during each commercial break Colleen's mother would call out “left,” “right,” or sometimes “left-left,” or “right-right” with the children passing the jars back and forth in the designated direction, the churning to resume at the end of the commercial break.

Eager for an environment that offered more than one traffic light, Colleen left the rural community after high school, moving to

Tucson, where a half-sister lived. She attended junior college, had three children, and worked for the county government.

Her husband, Brian, a Pima County construction inspector, grew up as a car guy. His father owns a 1955 Chevrolet Bel Air and a '67 Camaro SS/RS convertible. Brian's first car was a 1968 Camaro SS/RS that he sold when he went to college. Brian's brother has a 1970 Mustang Mach I. Brian and Colleen are restoring a '68 Camaro RS and a 1970 Nova SS that Brian bought from the original owner. They recently purchased a 1968 Olds Cutlass 442 clone as a future restoration project for Brian and their son, James.

“He's always wanted a race car, and we finally got to the point we could do it,” said Colleen, noting that Ruby is something she and Brian can do together, just the two of them. “I put in a lot of hours at work and this is just for us—he and I together.”

Brian found the red 1970 Nova on eBay and realized its long-time owner had put a lot into modifying it for drag racing—fortifying its 355-

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cubic-inch V8 engine with Dart heads, a full roller camshaft, Arias pistons with six-inch H-beam rods that connect them to a Nitrodad crankshaft, 13:1 compression, a special 350 drag racing transmission, 5500 stall converter with a transmission brake, 5:13 rear gear and drag slick tires. The car also was equipped with a nitrous oxide system to boost its power output for a quick but sudden burst of speed.

Brian was surprised when the car didn't draw any bids, but remained interested enough in the Nova that the Crowninshields and their drag racing friends Mark and Geanine Ballard (he won the track Sportsman division championship last year in his Chevelle while she races a supercharged Camaro) set off on a weekend getaway together, towing an empty trailer from Tucson to just north of Albuquerque, New Mexico, to take a look at the car.

As they were pulling a cover off the car, Colleen was falling in love, immediately naming the car Ruby and telling Brian to get his money out before the Nova's owner changed his mind.

COLLEEN CROWNINSHIELD KNOWS A LOT ABOUT GETTING PEOPLE to change their minds, and about helping them find alternatives to burning petroleum.

She can talk about a company that joined the coalition, decided it was going to all electric vehicles, and in the meantime was con-

The green light on the "Christmas tree" (upper left) signals that the quarter-mile race is underway. Though the engine in the Nova (top right) burns through gallons of racing fuel each time it sprints the quarter-mile at full speed, the truck that tows the car to and from the track (lower left) runs on and proclaims the benefits of home-grown ethanol fuel. Racing fuel for serious drag cars is kept in a special fuel cell (lower right).

verting its diesel-powered trucks to biodiesel fuel. Or about the firefighter who joined the coalition and convinced his department to switch to biodiesel for its fire trucks.

Or about attending an air quality task force meeting in the border town of Nogales and hearing officials tell about how the local sewer system kept backing up because so much grease was being dumped down drains. Crowninshield and her coalition went to work with the Arizona Department of Environmental Quality, put the communities—Nogales, Arizona and Nogales, Sonora, Mexico—together with the University of Arizona and Mexico's Instituto Tecnológico college, which helped educate restaurant owners about capturing their fry grease, and bringing in the US Environmental Protection Agency to help fund a system that converts that grease into biofuel, which is being used to power the Tecnológico border school bus.

Crowninshield loves finding such regional solutions. She notes that it makes no sense to burn imported petroleum to transport corn-based ethanol from the Midwest to the Southwest, though, if it comes down to it, when her 11-year-old son is of the age for military service, "I'd prefer that my son guard a

corn field in Iowa rather than an oil field in Saudi Arabia."

Corn can be grown in Arizona as well, but it takes a lot of the Southwest's precious supply of water, and is best used for feeding people rather than fuel tanks. So Crowninshield is proud of the coalition's support for projects such as those at the University of Arizona to develop ethanol from sweet sorghum, a crop that doesn't need a lot of water, and from algae.

Though she's passionate about moving people toward cleaner and non-petroleum fuels, she rolls her eyes when people talk about going "green" and bristles when she hears calls for going "carbon neutral."

"Let's just work to be 'carbon better,'" she pleads.

She believes in taking what she calls "baby steps." For example, two years ago when Marc Lappit needed to replace the two driver's education cars at Amphitheater High School, he wanted to do so with alternative fuel vehicles. The coalition helped Lappit work with American Honda to buy natural gas-powered Civics and the FuelMaker home refueling equipment that fuels them from a standard, household natural gas line. Crowninshield's goal: expose new drivers to a clean fuel alter-

native so they "can make an informed decision when the time comes for them to buy a car." But such "baby steps" add up. In 2007, the Tucson Clean Cities Coalition could point to helping the region find alternatives that saved five million gallons of petroleum. In 2008, those baby steps accelerated; the savings grew to 12 million gallons.

"You can change the mindset of people," she said. "I want people to know there are alternatives."

THOSE ALTERNATIVES INCLUDE A NEW FUEL SOURCE FOR RUBY, who they towed to Tucson and took to the strip to see what she could do. Brian drove for a few passes, then asked Colleen if she'd like to try. She was overwhelmed by the noise—since cured by installation of mufflers—and was frightened when the nitrous kicked in—that bottle has been removed. But she was thrilled by the rush of adrenalin as the "Christmas tree" starting light flashed green and she and Ruby raced down the track.

"It was much more exciting than I thought it might be," she said. Colleen and Ruby have turned the quarter-

mile in 11.80 seconds at a top speed of 117 miles per hour.

Colleen's biggest surprise has been how the presence of a woman at the starting line seems to ratchet up a male competitor's already intense competitive drive. "They don't like getting beaten by 'a girl,'" she's learned.

Colleen's goal is to become skilled enough to break that 12-second barrier on a consistent basis. She did an 11.989 at 116.75 mph on her first run at the Friday Test and Tune session.

Brian's pride in Colleen's racing is obvious, and he enjoys getting the car ready, making adjustments—sometimes significant repairs—between runs, and walking alongside the car, coaching Colleen as she and Ruby make their way along the "staging" lane that leads racers to the strip's starting line.

Once there, however, it's just Colleen, Ruby, the Christmas tree—and a competitor in the adjacent lane.

Once she's consistently in the 11s—she did a run in 12.137 at 116.17 later that Friday evening—Colleen wants to participate in the Southwestern track's team racing program.

She and Brian also plan to convert Ruby to run on ethanol, now a locally produced fuel in Arizona and not only cleaner burning but much less expensive than racing gasoline. Brian already has an engine that he's preparing for Ruby's conversion into an alternative fueled and very fast vehicle ■

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