

Flowing River, Hidden Danger

Wildlife have long enjoyed the cool relief and green habitat offered by the Nueces River as it flows through arid southern Texas. But recreationists recently discovered another way to enjoy the waterway—one that damages and destroys riverine resources. A conservationist describes the fight to keep off-road vehicles out of Texas's river beds.

BY SKY LEWEY

Check it out! Headlights under water!" shouted the driver of an off-road vehicle to a reporter from the *Wall Street Journal*. The driver was pointing to the truck following behind as he and the reporter plowed through the Nueces River in southwest Texas in the spring of 2002. A band of 13 vehicles was moving up the relatively shallow, rock-bottomed river. Some were climbing the gravel banks, throwing rocks and vegetation into the air, and others were charging through the water—all in a quest to see how far they could push their beefed-up machines. The reporter was there to better understand the growing popularity of the recreational use of off-road vehicles in Texas river beds and the developing public outcry against this trend. The trip resulted in two broken drive shafts, two broken axles, one failed transmission, and one lost wheel—all mishaps that lent excitement to the venture. Damage to the river was never considered.

Tooling off-road vehicles through the state's river beds was becoming an increasingly popular outdoor activity. One organized event boasted 108 vehicles wheeling in the rivers of Uvalde County in southwest Texas, intimidating fishermen, canoeists, and family picnickers and devastating the riverine resource.

Sky Lewey is resource protection and public affairs associate with the Nueces River Authority, based in Uvalde, Texas. Ms. Lewey has worked on environmental issues in the petrochemical industry, water and waste issues in rural Texas towns, international marketing of Texas's agricultural products, and community-based historic preservation and restoration. She is a fifth-generation rancher on the Nueces River and winner of the 2004 National Wetlands Award for Outreach and Education.

Off-road vehicles destabilize river banks by removing vegetation, loosening soil, prompting erosion, and generating silt. These disturbances can cause changes in stream morphology and alter water temperatures. The churning of gravel substrate by vehicle wheels disrupts the life cycles and food supplies of bottom-dwelling organisms and the webs of aquatic wildlife they support, and off-road vehicles also disturb fish and bird breeding grounds and other wildlife habitat.

These damaging activities were occurring in remote sections of headwater streams, out of the public eye; few people understood or were aware of their dangerous environmental impact. One of the areas significantly harmed by the off-road trend was the Nueces River Basin in southern Texas.

FRAGILE BEAUTY OF THE NUECES
The basin spans a wide range of ecosystems. At its upper end is the rugged hill country, laced with clear, spring-fed streams that feed the Nueces River. Southward is the rolling, chaparral-covered brush country. Further south, the river makes its way across the coastal plain, a 60-mile swath that borders the salty

coastal environs of the Gulf of Mexico.

Among the most biologically diverse areas of the basin are the coastal wetlands that huddle around the mouth of the Nueces. Originally grass- and prickly pear-covered marshes, these relatively flat lands now mostly are under cultivation. However, a narrow belt of marsh still flanks the river as it flows through the delta. Seven major estuary systems on Texas's Gulf coast benefit from the freshwater flows of the Nueces and its adjoining coastal basins, including the Aransas, Corpus Christi, and Nueces Bays, and the Upper Laguna Madre, one of only three hyper-saline lagoon systems in the world.

Sky Lewey, winner of the 2004 National Wetlands Award for Education and Outreach, gave the following remarks when accepting her award at a ceremony held at the Capitol in Washington, D.C., on May 20. Ms. Lewey is resource protection and public affairs associate with the Nueces River Authority, based in Uvalde, Texas.

Thank you. I am deeply honored and equally humbled to be here this evening accepting such a distinguished award from such a distinguished group of people. Never in my wildest dreams did I dream of such a thing.

When I told people back home about it, they gave me the strangest looks. *Wetland?* Southwest Texas is Dry Country, on the eastern edge of the Chihuahuan Desert. The Nueces River basin is big, 17,000 square miles and 24 watersheds. Our coastal wetlands, where the Nueces meets the Gulf of Mexico, are expansive and widely acclaimed. Conservation efforts have been in full swing down there for years and most people there understand the term *wetland*. But in the headwaters country, we have wet spots punctuating dry land. Water holes, creeks, and springs and spring-fed streams and seeps have special standing in local history and in people's hearts and in the lives of plants and animals. They were the nuclei of native civilization for thousands of years; they were the chosen spots for Spanish missions in the 1700s and U.S. Army posts a century later. They were the drawing card for early settlement, and now they are the centerfold in real estate catalogs, but they are seldom referred to as wetlands.

The rugged canyons of the Upper Nueces Basin are a desperate land, where life clings to water; only a fine line separates wetlands from dry lands, cactus from ferns, and thorn brush from buttonbush. In drought I have watched great blue herons and buzzards huddled together around drying potholes in the river's bed, one feeding on the live and the other waiting on the dead. A few weeks later, rushing chocolate floodwaters covered the same potholes. These are still—mostly still—natural rivers that run and flood and pulse and have their way with man. They are wetlands, special lands, and a resource I love.

I grew up there, swimming in the Nueces's green depths, drinking from its springs, herding cattle from riparian thickets, and rebuilding water gaps on the tributaries, and I watched the resource suffer from overgrazing, overpumping, and overuse. But the worst abuse I have observed is an uninformed, unaware, insensitive love. Off-road vehicle recreation became an overnight sensation in these stream beds. There were enthusiasts coming from other states and events with over 100 vehicles. And they loved four-wheeling in the rivers: big rocks, little rocks, cliffs to climb and obstacles to maneuver, nice swimming holes, water to cool off an overheated engine, shade trees to mechanic under, and no people, no law, and no rules.

In Texas we do not like to apply regulation too hastily. And for good reason: it is a big state; statewide rules are usually not appropriate. Regulations that make sense near the Louisiana border are

often ridiculous on the New Mexico border. When Senate Bill 155 was voted out of committee at 11:38 p.m. on the eve of Mother's Day last year, we were sure that divine intervention had occurred. The following Monday the Democratic delegation went to Oklahoma, shutting down the 78th session. They returned just in time for the floor vote, and Senate Bill 155, an act protecting freshwater areas by banning motor vehicles from Texas rivers, passed with flying colors. It was one of the most popular pieces of legislation to come out of Austin last year. The rivers are recovering, rookeries are rebuilding, vegetation is returning, and stream channels are normalizing.

I kayaked over 100 miles during the summer and fall of 2001 to determine the extent of the problem and build a base for our education efforts. Seeing the river from water level gave me new insight. Awareness is not a possession; it is a process.

The Nueces starts near Rocksprings with an accumulation of spring-fed creeks and flows through rough and rocky canyons, gaining flow from and losing flow to the aquifers that lie below.

Out of the hill country and over the South Texas brushlands, once known as the Wild Horse Desert, it finds its course. Longhorns, mustangs, and free ranging desperados, characters right out of Lonesome Dove, drank from its waters. Some still do. The river seems to breed character. My home town of Uvalde has produced some characters, like Matthew McConaughey, the movie star; Franklin Delano Roosevelt's vice president, John Nance Garner; former Texas Governor Dolph Briscoe; Dale Evans, my favorite cowgirl; and Willis, Joe, Jess, and Doc, the Newton Boys, the outlaws.

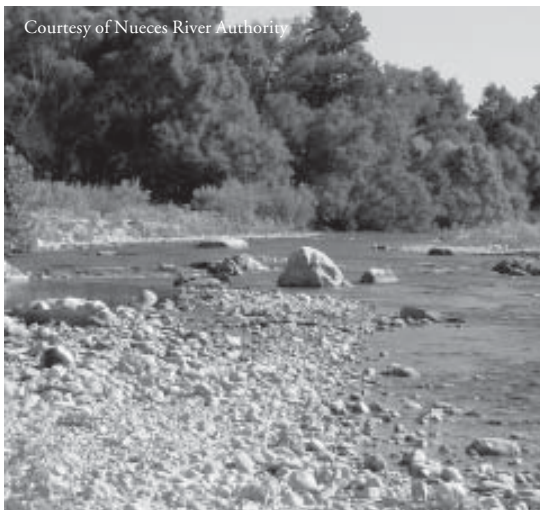
Neither the desperados, the train robbers, the vice-president, nor the Hollywood cowgirl would have dreamed that we would have the problems that we have now. The old ranching families are disappearing and their grazing lands are being transformed into recreational properties centered around a river view sometimes bulldozed through riparian forests. When geologic processes that are older than man reconfigure pools into riffles, backhoes attempt to replace the swimming holes. Public access points are numerous, but, unmanaged and unappreciated, many have become eyesores and trash dumps, testifying to public insensitivity. An untrained love of our rivers carries non-native invasive vegetation from over-landscaped banks and silt from mechanical disturbances and all manner of other things into the streams. The state senate's "act protecting freshwater areas" from off-road vehicle recreation is under attack from those who seek pleasure at the expense of our wetlands.

We cannot expect people to protect what they do not understand. People used to learn from the land; often their very existence depended on stewardship. But nowadays most kids would prefer to remain indoors playing video games 300 yards from a creek, their water piped into the house, having no idea where it comes from or why it is clean. The irony is that those living closest to these precious resources know the least about how to protect them. Instead of *dos* and *don'ts*, they need *hows* and *whys*. I have been taking this lesson to people for three years and have reached out to over 6,000. It works best to take them to the river, but we can't take them all, and they all need to know. We need help. I hope this award will help—help us find friends and funding to make sure they all know.

In 1935, the Texas legislature created a government agency to manage water resource protection and development interests in the basin. The Nueces River Authority was primarily created to finance and build municipal, industrial, and agricultural water supply and treatment systems in a vast area covering more than 17,000 square miles of drainage in southern Texas.

The authority has no regulatory authority over water resources; rather, its strength and influence lie with its committed staff and its board of directors. The latter is composed of respected members of various communities who are interested in water resources and committed to resource preservation. Since its inception, the authority

People living near rivers affected by off-road vehicle traffic began to talk about the destruction they had witnessed, and a grassroots conservation group emerged. “We were all watching the resource degrade before our eyes, each of us thinking we had a unique and isolated problem with off-road vehicles,” said Jeannie Dullnig, president and organizer of Stewards of the Nueces. “When we began talking to our neighbors up and down the Nueces and its tributaries, and then to people on other rivers in Texas, we found that they were experiencing the same thing.” The Stewards organization has expanded from group of 10 concerned landowners to an organization with more than 150 members who represent all the streams that form the



has had a strong history of water resource protection. However, the problem of off-road vehicles in the Nueces’s headwater streams presented a new type of challenge. The authority’s board realized that the welfare of basin residents, as well as the health of the basin’s coastal areas, are closely connected to the health of the river’s headwaters. These winding stream beds and the rolling hills that surround them, areas so critical to the river system, offer perfect conditions for exciting, rough-terrain driving—and were suffering for their abundance. The board directed the authority’s staff to do what it would take to address this problem.

ORGANIZING TO PROTECT RIVERINE RESOURCES

On the heels of increasing complaints from riverside landowners, recreationists, and environmentalists about off-road vehicle traffic in river beds, the Nueces River Authority hosted a public forum on November 28, 2000, in Uvalde, Texas, to examine the issue and determine which local, state, or federal rules and agencies could address it. County judges and sheriffs joined representatives of the state’s three resource protection agencies for a lively discussion in a large meeting room filled to capacity with citizens. It became clear that no laws existed to prohibit this form of recreation and no government entity was responsible for protecting state-owned river beds from damage caused by off-road vehicles.

Nueces’s headwaters. “We thought [that] once we brought the issue to the attention of government authorities, our job would be done. We were wrong,” Dullnig continued. “It was just the beginning.”

The Stewards joined the Nueces River Authority in a 20-month campaign to create awareness and seek a solution to the off-road vehicle problem. The groups began encouraging the state to pass legislation banning recreational vehicles from state-owned river beds, and prominent landowners and politicians rapidly joined the effort. Texas’s agriculture commissioner took a personal interest in the issue and organized a formidable coalition that included Audubon Texas, the Hill Country Conservancy, the Lone Star chapter of the Sierra Club, National Wildlife Federation, the San Marcos River Foundation, the Texas chapter of the Wildlife Society, the Texas Farm Bureau, the Texas Rivers Protection Association, the Texas Sheep and Goat Raisers Association, the Texas and Southwestern Cattle Raisers Association, the Texas Water Conservation Association, and the Texas Wildlife Association. This coalition became the vanguard of a quickly expanding group of citizens and organizations across Texas devoted to protecting and banning off-road vehicle activities from the state’s rivers.

In January 2003, an influential senator from Laredo filed Senate Bill 155, an act to ban motor vehicles from river beds owned by the state of Texas, and the real legislative push began. The river authority

and other groups showed legislators in the state house and senate multimedia presentations, photos, and color postcards that revealed the devastation caused by off-road vehicles. Ironically, the most incriminating pieces of evidence were photos and trip reports publicly available on websites of off-road vehicle clubs. In May 2003, Senate Bill 155 passed; it was one of the most popular bills of the legislative session. The ban took effect in January 2004.

PROMOTING RESOURCE STEWARDSHIP

Today, many dedicated conservation organizations are working to preserve and restore the bays and estuaries associated with the Nueces

education and outreach programs that explain the issue and the importance of preserving rivers in natural condition. The authority successfully opposed two attempts to site the state's first low-level radioactive waste disposal facility near the Nueces River and also prevented an industrial waste disposal project from being built within two miles of a major water supply reservoir.

The Nueces River Authority has been successful because it has not conformed to the stereotype of government resource management agencies—that is, unresponsive, over-staffed, over-funded, and afraid to stretch statutory authority or take on controversial or unorthodox issues. In fact, because of its small size, limited staffing and funding,

Courtesy of Stewards of the Nueces



and its adjoining coastal basins. The Coastal Bend Bays and Estuaries Program, an environmental organization based in Corpus Christi, is a leader in long-term planning and management of the resources along Texas's Gulf coast. The program uses education and outreach to reduce habitat loss and improve freshwater inflows and water and sediment quality. The Texas State Aquarium, also in Corpus Christi, inspires appreciation and wise stewardship of the Gulf of Mexico through education, conservation, and rehabilitation projects.

The Nueces River Authority works with these organizations and others to pursue its mission of protecting regional water resources. Since 1991, it has implemented the state's Clean Rivers Program, a water quality monitoring and assessment program that tracks nonpoint source pollution in the basin's 24 sub-watersheds. The authority also tackles the nonpoint source pollution problem through public

and largely rural setting, the authority hasn't been forced to operate as a typical Texas water district, mainly concerned with building water supply infrastructure. Rather, it has found a niche in doing what it can to protect the water resources within its service area. A prominent member of the Texas State Senate, noted for his work in environmental protection, once described the authority as a "shining star" among the state's resource agencies. Hopefully the authority's recent successes and unique approaches can serve as models for other resource agencies in the state and nationwide, prompting them to act as advocates for responsible environmental stewardship. ■

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