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Somewhere Down There Is the Virgin River Chub. It's Delaying Mesquite's Flood Recovery. Some People Aren't Happy About That

Such as home owners, politicians, developers. Environmentalists, on the other hand ...

By Stacy J. Willis

Mesquite

The river: In January, it rose and spread out across the plain. In some areas, even as it receded, it opted for a new channel it created for itself. Officials tried to move it all the way back, and also took measures to ensure that it wouldn't be able to rise as it had before. It's now in a state of flux; in some areas, it's back where it was initially, due in part to the city's work and in part to its own receding; in other areas, it's closer to town and running in new channels it dug for itself.

After the Deluge

Heading northeast into the Mesquite area, bare desert gives way to Joshua trees and then to patches of greenery by soft canyons of red and tan, to fields of green farmland, and rows of wafer-thin suburban houses, to the garish Casa Blanca and Oasis casinos with big lighted signs and aqua-blue water fountains, and then to golf courses, all narrowing in on the meandering path of the Virgin River.

In retrospect, the whole city seems to lie in a flood plain, and seems a testament to the foolishness of humans, now that some 80 houses have been damaged by the swollen river, and three fairways lie partially submerged in its bed, and a park and a school and a sewer line have all been damaged by the flood.

It's been over a month.

Deloy Butterfield, 66, is on his knees, hammer in hand, trying to drive a nail into the soggy wood frame that holds up his stucco house. He's wearing a flannel shirt and trucker cap, sprigs of white hair stick out the sides. He's got a broad, tan face and his wife Virginia reminds visitors to speak loudly because he has trouble hearing.

The January flood ransacked his house, which stood at the corner of a subdivision of midrange custom stucco homes, its back porch opening up to a vacant lot and offering a view of the Virgin River he says used to be about a half mile away. He points—"See those cottonwoods way over there? That's where the river was." It has since receded to a channel of its own making back near those trees. "We didn't think we needed flood insurance."

The house is gutted. Water ran 4 feet high through it; there are no back doors; no carpet, no furniture, several missing interior walls; it's all but destroyed.

Behind what's left of the block wall that used to enclose his back yard, earth was moved by the river, and is now higher than it had been, creating a broad field of deep mud with long pools of standing water that Deloy is sure constitutes a health hazard. A dead fish lies in one, he says, but as he traipses around out back he can't find it. It smells rancid, though, and it won't be long before mosquitoes find their way to these pools—Deloy says he needs to get on the phone to the health district. If only he had a phone.

Next door, just a few steps across deep mud, Ron and Vonnie Marquardt, also in their 60s, are wearing jeans and tennis shoes and are working on their dream retirement home. The house was 10 months old. The couple spent all of their savings on it—they bought all new furniture, a new TV—laid the place out as their Shangri-la. Ron retired from his job as a truck driver in Minnesota and worked out the numbers—they could live on a fixed income for the rest of their years here. Now, they've got $75,000 worth of damage to fix and no other permanent shelter, and are considering going back to work.

On the day of the downpour, Ron says, he got a call at 6:15 a.m. from his neighbor across the street, Jim Williams, telling him that the river was rising fast and, unbelievably, it was stretching across the vacant field and into their neighborhood.

"We worked all day sandbagging," Ron says. City workers came and helped, but the river kept rising, and by late morning Ron had moved his prized Ford Thunderbird to higher ground; and by late afternoon, stacked their belongings on the countertops. The Marquardts closed the door and evacuated.

Two days of rain later, Ron returned and waded through water chest-deep to get to his front window, looked in, and saw his life's work submerged in the Virgin River, the only intact river in Nevada's Mojave Desert. The new furniture had been swept up with such force that it had been moved around, swirled; the refrigerator had been tipped. The countertops were underwater.

The Marquardts didn't have flood insurance either, as their property did not lie in an officially designated flood plain.

The city of Mesquite reacted to the flood fast. They came with bulldozers and earth-movers and began rechanneling the river away from these houses and the middle school, which now sits precariously near the riverbank a couple of miles downstream from the Butterfields and Marquardts. Before the flood, a half mile of ATV trails lie between the river and the school; during the flood, the river chipped away at that land, turning it into riverbed. After the city's work, the stretch behind the school is in flux—50 yards behind the building one can look down into the new channel cut by the river and see the remnants of a car that was washed downstream, now half-buried in soft mud. Further out, bulldozer tracks cut an unfinished channel aimed at moving the river's path back out.

"The river was [originally] about 40 feet wide," Brian Montgomery, city manager, says. "At the peak of flooding, it was a mile and a half wide." After expanding to that width, the river changed course, moving inward on the city, cutting a new channel and leaving big sand bars that threatened to further push the water into town in the event of another large flow. City officials merely wanted to rechannel the Virgin back to where it had been, Montgomery says—a safe, or safer, distance from homes, schools and golf courses. Montgomery says it was the appropriate response to an emergency situation.

"If we have another large rain, or the spring runoff comes early, this would be disastrous," he says of the way the Virgin had chosen to reroute itself. So they put in "a few dikes and some measures to move it … and a

narrow channel (in some areas)."

Homes Vs. Habitat

But the sight of bulldozers in the riverbed was alarming to environmentalists. A few locals snapped pictures of giant earth-moving machines not only moving the Virgin away from buildings, but, they say, ripping out natural habitat that is necessary for the survival of several endangered species of fish and birds. Environmentalists estimated that the city had actually bulldozed about 80 acres of critical habitat for protected species in the flood's aftermath on January 11. The city had gone so far as to blast dynamite along riverbanks in an attempt to reconfigure the channel. One of those environmentally concerned picture-snappers contacted the Center for Biological Diversity, a Tucson-based environmental advocacy group, and shortly thereafter, federal officials were notified that the City of Mesquite may have gone too far, and may be intending to go even further to tame the river, and that the Center would sue the Bureau of Land Management and/or the U.S. Fish and Wildlife Service for failing to protect the animals' habitats if the work wasn't stopped. Federal agencies halted the city's work.

Montgomery says the city would be happy to work out a plan to protect the animals, but that time was of the essence—if another torrential rain came, or the spring runoff at Zion started, the city was in danger from the way the river had rerouted itself.

That sense of urgency doesn't wash with Daniel Patterson, a desert ecologist with the Center for Biological Diversity. "They've bulldozed mature habitat," Patterson says on the phone from Tucson, after visiting Mesquite a week earlier. "The city felt like they had to have some kind of response, but it goes way beyond that. We didn't have a problem with their emergency response, but they're re-engineering the entire river. They're not looking at the situation realistically. They're looking at it through the eyes of a bulldozer driver.

"They acted in an illegal way by bulldozing it. Our involvement has put them in check, it's knocked them down. They want to put a sterile channel through there, and that's not going to fly," Patterson says. "This is a violation of federal law [the Endangered Species Act]."

Due to development and human population increases in the southwest generally, Patterson says, "we've lost 90 percent of desert riparian habitat." The city of Mesquite, he says, seems bent on eliminating the rest.

"The city of Mesquite has made poor planning decisions about flood plains," Patterson says. "They're fools. ... They need to get smarter about learning how to live with the river and plan before they build. They could have a real natural attraction there, but instead they were using the land [near the river] for off-road vehicle abuse. That's the city's approach."

"Those houses shouldn't have been built," he says of those that were flooded. Patterson describes city officials as acting out of a post-flood panic, particularly as they look ahead to even more development. He says officials, now keenly aware of the river's potential to act wildly, may have taken the flood as an opportunity to go ahead with plans to cleanly channelize it without proper consideration of the environmental impacts. "The city has been saying for a while that they wanted to do something to the Virgin River," Patterson says.

That's the Way the River Works

The Virgin River flows 154 miles from above Zion National Park to Lake Mead, and creates the least-disturbed ecosystem of its size and type in the Southwest. The watershed provides habitat to more than 350 species of fish, amphibians, reptiles, birds and mammals. Eighty-one of those species are listed as sensitive, threatened or endangered—"an indication that things are out of balance" according to a 2004 study by the

Southern Nevada Water Authority. The Southwest willow flycatcher, the woundfin fish and the Virgin River chub fish are among the federally protected endangered species living in the area right now.

While the flycatcher and woundfin can be found in limited numbers in other habitats, the Virgin River chub lives only in the Virgin River.

The chub is a minnow. It can grow up to 12 inches long, and its life span is probably 10 to 15 years. It's a bottom feeder, feeding on invertebrates and algae. Except for the tiny ones, nothing eats the Virgin chub, and nothing eats or kills it except humans as they mess with its habitat.

The Virgin River chub benefits from the river's natural change in path. The river is operating naturally by swinging out across flat land to make a new path—that's the way rivers works, says James Deacon, UNLV retired professor of environmental studies. Deacon has studied desert fish for 40 years. Floods are nature's way of re-setting; of cleaning out and gathering new soil to pull from.

"The fish knows how the river acts and are especially well adapted to it," Deacon says. "They are not adapted to a river made by a backhoe."

If channeled by men, the river can become too swift, cover too much ground too fast, and become inhabitable for the fish.

"The [ecological] system is so complex that the range of variability the fish are adapted to, including flooding, are specific. The changes that take place in all of the life in the system is purposefully reset by the flood. When you try to make the river go in a different direction, you're disturbing that. The woundfin and the Virgin River chub need a river that periodically floods, creates a new channel, wipes out whatever was in the old channel, and after it has been scoured, it transports huge amounts of sediment from upstream."

It's a delicate process that nature is conducting with astounding accuracy, and trying to counter that with manmade channeling disturbs the process. Besides, Deacon says, people should have known not to build so close to the river.

"The Virgin is especially well known to flood," Deacon says. "We do all kinds of things thinking we're going to be able to control the river ..."

Still, in the aftermath of what some biologists say was a "hundred year flood," people like the Butterfields and Marquardts are hard-pressed to worry about the future of the Virgin River chub. When Butterfield was making his way through his floor-less house, he says he wasn't so sure why the future of this particular minnow mattered, given the tragedy he's facing. It's a sentiment that echoes loudly, not just among flood victims, but among developers and city officials, indeed among a growing population of people settling in newly developed areas in the west.

"For those folks [flood victims], it undoubtedly is much more important for them to have a house than for the fish to have their habitat," Deacon says. "But to the general 'Why should we care?' question, the human species is overexploiting the ability of the earth to support us, to sustain the self-interest of humanity. We are diminishing the capacity of the earth to support life, and that includes us.

"When the woundfin or chub is endangered, it means that there is a system on Earth that is no longer working, and that is critical to humans, too.

"It's critical for the future, critical that we address it. It's more critical than health care or Medicare reform. We think we can diminish the capacity of the Earth to sustain life, and collectively, the lifestyle we live today cannot

be sustained. We must change.

"Most people would say, 'Yeah, it's important to keep the Earth operating in as sustainable way.' But on a national level, we have the most antienvironmental and antiscience political leadership that's ever existed in my lifetime. [Some scientists] feel the [administration] is suppressing, distorting and eliminating scientific studies pervasively."

Growing Pains

When the BLM auctioned 13,300 acres of land in Lincoln County on the north side of Mesquite last week, it was less than 24 hours after a U.S. district judge lifted a federal injunction that required the BLM to complete an environmental impact study before releasing a portion of it for sale. The judge noted a conflict between the environmental concerns and federal mandate that the land be sold by February 12.

While animals like the chub seem to be tapering off, the human community within the Virgin River watershed is growing rapidly—Mesquite's population over the past four years has increased by 4,690 residents to current official estimates of 16,180 (as of July 1, 2004)—an increase of 41 percent. The city drew about 1.7 million visitors last year. Land values are escalating rapidly; developers are eyeing the vacant desert an hour and a half from Vegas as a gold mine.

The Lincoln County undeveloped land went at auction for $47.5 million—way, way above its appraised value of $12.4 million. (The Bush administration recently proposed that it acquire 70 percent of BLM land sales revenue from Nevada; but the BLM has said that the Lincoln County land sale is not affected by that.)

Mesquite Mayor Bill Nicholes expressed concern—not for the environment, but for the city. The city hadn't yet addressed the pull on city services that the development of the land might have; it wasn't yet prepared to accommodate the infrastructure. Planning to manage the onslaught of growth and manage the environment so that it best suits the needs of humans takes a little time, and more than once government agencies here have failed to plan accordingly.

The neighborhood in which the Butterfields and Marquardts lived was at one time designated a flood plain by the Federal Emergency Management Agency (FEMA), and in much of the 1990s, home owners in that area were required by their lenders to carry flood insurance. However, a few years ago, FEMA removed the flood plain designation on that area. Home owners, eager to cut down on their insurance premiums and comforted by FEMA's decision, dropped their flood insurance.

FEMA Flood Program Manager Mike Shore says the agency changes designations at the request of local governments, who do so at the request of developers, and usually in coordination with some structural work—either the waterway is reinforced or rechanneled or dammed, or the land itself is raised to a level that is deemed less flood-prone—the Marquardts say their property was earth-filled and raised about 4 feet before their house was built. The whole process of changing a FEMA flood designation is bureaucracy heavy and involves the planning approval process of local governments, Shore says. "And that did happen in the last few years there," he says.

"But keep in mind that flood insurance is available throughout the community whether in the high-risk flood plain or not," Shore says. "We strongly encourage them to carry it. A quarter of our flood claims are in areas beyond high risk."

Says Patterson, "Everybody knows FEMA doesn't know what they're doing. They shouldn't use FEMA data. They're fools."

Informed Risk

The bright green seventh fairway of Mesquite's Coyote Springs golf course is half-covered in beige silt. From the bridge on Riverside Road on a sunny day a month later, the river down and partially rechanneled away from the development, it seems that the golf course was built in the river, or at least side by side and on even ground with it; it seems, standing over it now in retrospect, like a foolhardy undertaking—putting a multimillion-dollar residential and golf development so close to a river that runs wild across a plain.

"Yes, we knew it was in a flood plain," says Daren Walker, Coyote Springs project superintendent. "We took that risk." It's going to cost Coyote Springs about $4 million to cover that bet and repair the course.

At the edge of the golf course in the riparian habitat, there's a nesting place for the endangered Southwestern willow flycatcher.

"We've been on top of this from the very beginning," Walker says. "We're well-informed and we want to make sure the golfers don't jeopardize those birds. We've had to work with U.S. Fish and Wildlife before we even started building that golf course. The flycatchers come in May to September every single year, and we've had an agreement to preserve their habitat on our property."

Shepherding the Land

"I think it's about how you feel about natural resources," says Mesquite resident Nancy Hall, driving her Toyota Tacoma to the river. On the dash, she's got a figurine of a desert tortoise. "The city is saying, 'This is for our use instead of the habitat.'"

Hall moved west from Orlando more than 10 years ago, and worked as a waitress in the Virgin River Casino. Her interest in the environment was spawned at an event when a government official looked out over BLM land and said, It's your land—"I'd never thought about it that way. But it is my land. And I want to take care of it." Hall's environmental epiphany of realizing that the land was hers made her a shepherd of it.

She's now a wilderness monitor and bird-watcher, an advocate for the Center for Biological Diversity and a woman who will go out and pick up trash at remote wilderness sites.

"There are a lot of people here who would welcome a Wal-Mart and a lot more rooftops. But there are others who came here because it was a small town and respect the natural environment around it," she says.

On the back of her truck is a sticker that says, "Nevada is not a Wasteland." Although the message is aimed at the federal attempt to store nuclear waste here, Nevadans might well consider the broader implication, she says. When President Bush eyes the unsold land in Nevada as a way out of his national debt, you can bet he's not thinking of the beauty and health of the desert.

About the city's post-flood work, says Hall, officials overstepped their bounds. "I feel for the [flood victims]. But they shouldn't have bought houses there. And the city should have had a biologist down there first, before bulldozing," she says. "Mother Nature knows what she's doing."

S.O.L.

And so they negotiate: man and Mother Nature, developers and city planners, planners and environmentalists, residents and federal agencies ... man and Mother Nature.

Agencies are working out a plan to protect the animals while allowing flood-control work—but not fast enough

for those who live near the river.

“They’re more worried about the animals than they are about the people,” Deloy says. “Right now, we’re the endangered ones.”

“We’re afraid [to make major repairs] until they get the river stabilized. We’re all sitting here waiting. If the Zion snow melts, and they haven’t finished redirecting the river, well why should we fix our homes before that?” Marquardt says.

And so they wait, in temporary rooms provided by the Red Cross and Salvation Army, or in an RV provided by their grown children, they wait.

Williams says he’s strongly considering “locking the front door and driving away,” considering it a total loss and trying to start over in his 70s.”I think it’s terrible. I think they’re nuts,” he says of environmentalists’ efforts.

Right after the flood, some Canadian tourists came through the area. “They said, ‘Well, be glad your government will fix your house.’ And I said, ‘My government isn’t going to fix my house.’ They were flabbergasted that our government will do nothing to help us. We’re S.O.L.”

FEMA sent out inspectors, who told the residents they would be in touch within the week—that was four weeks ago. FEMA’s Shore says, “We’re processing that request as fast as we can.”

“I’ve paid taxes since I was 15 years old,” says Marquardt. “I served two years in Vietnam, and the government is sending money to help the tsunami victims halfway across the world, and I’ve gotten no help from the government and it’s been a month. ... We’re going to have to go back to work, I guess. Get jobs to pay for this.”

Somebody will end up paying for it, whether it’s the Virgin chub or taxpayers or the Marquardts or developers. And it’s a cycle not likely to end soon; not likely to end with one big flood that came to a small, hyper-developing town built on the last intact river in Nevada’s Mojave Desert.