Endangered earth

Summer 2006

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Keeping the Verde Green

Desert river named among nation's "10 most endangered" signals larger struggle to save West's waterways

Throughout the world, groundwater pumping imperils rivers and wetlands that flow from underground seeps and springs. Over time, pumping can parch river beds and devastate riparian habitat—a trend particularly dramatic in the arid Southwest, where it has contributed to riparian habitat loss of 90 percent or more.

In Arizona, rivers that have traditionally provided exceptional migratory bird habitat are drying up. The Salt River in Phoenix, the Santa Cruz in Tucson and the San Pedro River in southeastern Arizona are failing to thrive and, worse, are in places bone dry unless storm runoff is present.

This isn't an accident. Arizona water law—crafted before the population boom—does not legally acknowledge the connection between groundwater and surface water. Most states have rules that protect surface waters from the impacts of groundwater withdrawals, but Arizona, Texas and California are among those that do not.

Photo by Michael Collier

Arizona's Verde River was recently named one of the 10 most endangered in the country. It is just one of many western rivers critically imperiled by groundwater pumping to serve the insatiable thirst of sprawl.

Because Arizona water managers, politicians and developers falsely operate as though the connection doesn't exist, the Verde River now faces the same demise as many of Arizona's other struggling rivers.

The Verde River emanates from springs fed by the Big Chino aquifer near Paulden, in central Arizona. It winds east, then south, skirting the communities of Clarkdale, Cottonwood, Jerome, Sedona and Camp Verde. The Verde includes the only designated Wild and Scenic River segment in Arizona. After flowing some 170 miles, the river is corralled behind Horseshoe and Bartlett Dams, where canals coax it into the Phoenix area to provide drinking and irrigation water.

The looming problem is that the cities of Prescott and Prescott Valley intend to take 8,717 acre-feet of water per year—nearly 8 million gallons per day—from the

Verde *continued on back page...*

ADVOCACY SPOTLIGHT

Chris Kassar, *ORV Reform Campaign Coordinator*

Forest Rule Makes Way for Reform

Center leads citizen-based effort to curb off-road vehicle abuse on Southwest's national forest lands

Imagine that you are diagnosed with an illness. The illness has a cure, but you must act quickly and definitively to stop it from progressively worsening. Although you have the knowledge and ability to prevent further degeneration of your body, you choose to do very little and merely sit by as your health worsens.

This metaphor aptly describes the level of inaction that has allowed damage inflicted on our public lands by off-road vehicles (ORVs) to continue over the last three to four decades. Despite 35 years of warnings from governmental agencies and scientists—and even orders handed down by presidents—ORVs continue to wreak havoc on ecosystem health and remain a concern to conservation groups and land managers in the West.

Recognizing that ORVs are responsible for widespread and severe environmental damage, the U.S. Forest Service recently released a new rule to govern their use on national forests. Depending on how it is implemented and enforced, the rule has the potential to curb further damage and rejuvenate lands that have already been degraded.

Risky business

Few species or habitats are immune to the effects of off-road vehicle recreation, which include disturbance to vegetation, soil, air, water and other recreational users of our public lands. Although we discuss them separately, the actual environmental effects are cumulative and synergistic because seemingly small, individual impacts may result in large-scale changes, thereby altering the entire ecology of an area.

Many scientists suggest that motorized recreation is the greatest threat to wildlife on our public lands because it can alter habitat, cause harmful disturbance, and contribute to or directly cause animal deaths. Roads, routes and trails fragment habitat, restrict wildlife movement and gene flow, and increase human access to remote areas.

Photo by Chris Kassar

Redundant, user-created hill climbs on New Mexico's Santa Fe National Forest. A combination of steep slope and high use can result in major vegetation loss, severe erosion and rutting. The new rule closes national forests to cross-country travel to minimize this type of abuse.

ORV use can have indirect impacts on vegetation by contributing to surface damage, vegetation stripping and spread of invasives. Direct impacts may include breaking, cutting and crushing of foliage, root systems or seedlings, and disruption of root systems due to stresses induced in the soil. These impacts can be felt by plants ranging in size from grasses to trees.

Soil is a key component of life in the natural world. Impacts to the amount and quality of soil greatly affect vegetation, wildlife, human communities, and entire ecosystem functions and processes. Data suggests that ORVs cause detrimental and lasting impacts to soils, and all ecosystems and soil types are vulnerable to damage from ORVs.

Of particular concern in the Southwest is damage to aquatic areas and riparian corridors. Motorized travel through or adjacent to rivers, streams, lakes or meadows decreases water quality, increases sedimentation and cloudiness, and alters water flow patterns, thereby damaging critical habitat for endangered species such as the southwestern willow flycatcher.

A rule is born 30 years late

Our public lands are being subjected to unprecedented intrusion as motorized access increases in scope and popularity, quickly becoming motorized "excess." In 2004, Forest Service Chief Dale Bosworth identified unmanaged recreation, specifically off-road vehicle (ORV) use, as one of four "key threats" facing national forests. As a result, the Forest Service released the "Travel Management Rule" in November 2005.

The final rule directs each national forest to work with the public to identify and designate

Photo by Chris Kassar

Successful route closure in the Benson Ridge area, Lincoln National Forest, NM. Previously, this route traveled through a drainage and caused damage to a wet area. Closure signs in combination with logs decrease the appearance of a trail. No tracks appear beyond or around the closure.

Forest Fact: Habitat destruction and the spread of alien species have been ranked as the two greatest threats to biodiversity. Off-road vehicles contribute to both of these.
(Wilcove D. S., D. Rothstein, J. Dubow, and A. L. E. Phillips. 1998. Quantifying threats to imperiled species in the United States. Bioscience 48: 1-15.)

routes, trails and areas that are suitable for motor vehicle use. The new rule reverses the long-standing policy in many national forests that ORV use is permitted wherever signs are not posted prohibiting it. Instead, ORV use will now only be permitted on routes identified on a "travel use map" published by the agency. In theory, this change will cut down on cross-country travel while minimizing the practice whereby forest users remove signs and then claim ignorance regarding the status of a closed area.

While the rule makes a positive step toward better management of ORVs, it ultimately fails to provide the total protection needed for resources and people on public lands. Our major concerns regarding ORVs and implementation of the rule include the following:

- Other users – Planning focused only on motorized use will not alone achieve balance and reduce conflicts between motorized recreation and hikers, hunters, horsemen and other quiet users.
- Environmental impacts – Unmanaged ORV use is a great threat to the ecological integrity of our public lands because it damages soil, vegetation, wildlife, and water and air quality.
- Scale of impacts – ORVs cover a lot of ground precisely because they are motorized vehicles. The scale of their impacts, in terms of both noise and ground disturbance, is therefore relatively great among recreational uses.
- User-created routes – One of the most damaging impacts to public land is the proliferation of unplanned trails due to repeated cross-country travel. The new rule does not prevent the continued creation and use of unauthorized, "renegade" routes on national forest lands. In fact, the Forest Service may actually reward damaging behavior by including "renegade" routes in the designated system.

Photo courtesy of Dave and Laura Denali

Tracks through a meadow on the Apache-Sitgreaves National Forest, Ariz. Wet areas, including meadows and riparian corridors, are particularly vulnerable to motorized travel because the soil is more sensitive and water quality downstream can be affected. Riparian areas provide important habitat for many species, especially in the arid Southwest.

- Enforcement and funding – The Forest Service already has limited ability to maintain its current system of roads and trails. Now the agency is being asked to consider designating thousands more miles of user-created motorized routes that will require similar maintenance and more enforcement to prevent off-route driving and riding.

On the road to a solution

Although ORV riders are a minority user group, they are very vocal and active in securing areas for recreation and representing their interests. The Center's ORV Reform Campaign is working to ensure that members of the conservation community, "quiet users," wildlife and plants have a voice in this process.

You can support our campaign to protect special places from further damage associated with off-road vehicles by joining our team of Off-road Vehicle Reform Advocates to represent conservation interests for each forest in the Southwest. We will continue training volunteers to make them more effective participants in the planning process, and we will run field trips and restoration projects to teach volunteers about the impacts of ORVs while they directly contribute to creating on-the-ground solutions for our forests.

We will also continue working with agencies and concerned citizens to positively influence the planning process: creating enforceable and sustainable recreational opportunities that afford protection to wildlife and habitat, and to those who want to experience and preserve wild places without motors.

Chris Kassar has worked with the Center since the release of the U.S. Forest Service's Travel Management Rule in November 2005. She has met with staff for every national forest in Arizona and New Mexico; organized collaborative workshops bringing together conservationists, federal land managers, off-road vehicle riders, horsemen, and hunters and anglers; documented areas of concern in each forest; and conducted public outreach to educate people about the effects of ORV use. This summer, she has begun partnering with other organizations to run educational field trips and restoration projects.

If you would like to be involved in creating positive change for our national forests, please contact Chris at ckassar@biologicaldiversity.org or visit www.endangeredearth.org/orv.

PROGRAM NEWS...

Court victory protects eagles from condos

The Center recently scored a major victory in our long-running lawsuit over a proposed condominium complex on southern California's Big Bear Lake.

The Marina Point project would have placed high density condos in prime bald eagle habitat. In June, a federal judge agreed with the Center and our partner Friends of Fawnskin that the project would harm the lake's bald eagles in violation of the Endangered Species Act.

Although bald eagles are recovering throughout the country, they are conspicuously declining in southern California. The judge noted that intensive development is the primary cause of this decline.

In addition to permanently halting the development, the judge fined the developer $1.3 million for violations of the Clean Water Act. The Center had shown how the developer had repeatedly used permits for emergency shoreline repairs to accomplish its development goals rather than to actually protect the shoreline, and had performed work for long stretches without permits at all. The judge also pointed out how the developer's actions in the lake "significantly degraded" shallow water habitat that the eagles depend on.

Originally filed in 2004, the Center's suit went to a five-day trial in August 2005 with final arguments in December. We received tremendous assistance in this case from Bernice Conn and Michael Geibelson, pro bono lawyers from the firm of Robins, Kaplan, Miller and Ciresi, and from two excellent summer interns, Angela Lipanovich and Jonathan Evans.

Petition seeks emergency listing for delta smelt

Although currently listed as "threatened" under the U.S. Endangered Species Act, delta smelt populations are declining at an alarming rate in the San Francisco Bay Delta. The Center, in coalition with the Bay Institute and Natural Resources Defense Council, filed a petition in March requesting emergency listing of the delta smelt as "endangered."

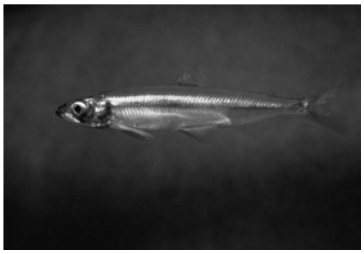

Photo by B. Moose Peterson, USFWS

Delta smelt

The delta smelt is a small, translucent fish found in shallow open waters of the upper reaches of the San Francisco Bay and the Sacramento-San Joaquin Delta. An "indicator" species for ecosystem health and water quality, delta smelt require specific habitat types, freshwater flow, water temperature and salinity to complete their complex life cycle.

Upon listing the smelt as threatened in 1993, the U.S. Fish and Wildlife Service established that diversion and export of fresh water from the Delta, loss of habitat, impaired water quality from pesticides, and increased competition and predation from other species were responsible for the smelt's downward trend. Current smelt populations are only 2.4 percent of what they were in 1993, and recently published analyses indicate that the species has a 50 percent probability of going extinct in the next 20 years.

The State Water Project, federal Central Valley Project and thousands of private water diversions take as much as 65 percent of the Delta's total freshwater inflow each year. Water export combined with increased pesticide use has dramatically altered the Delta, California's largest estuary and an important component of the state's water system—harming both wildlife and human health.

Delta smelt are not the only imperiled species in the Delta; scientists have also documented alarming declines of longfin smelt, threadfin shad, striped bass, and white and green sturgeon. The Center's San Francisco Bay and Tributaries Campaign is working to eradicate use of harmful pesticides, and to educate the public about healthy water ecosystems.

Jurassic fish finally gains protection

Chances to recover a prehistoric fish got a boost in June, when the Sacramento River population of green sturgeon gained protection as a "threatened" species under the Endangered Species Act.

This hard-won victory is the result of years of concerted research, education and litigation work by the Center.

Green sturgeon feed in estuaries and bays and return to fresh water upriver to spawn. After decades of overfishing and decline, the number of sturgeon spawning in the Sacramento River precipitously dropped by 95 percent between 2000 and 2005, and biologists estimated that only 25 females made it upriver to spawn this year.

Dams, water diversions, logging, agriculture and pesticides contribute to the sturgeon's continued and alarming decline, polluting its habitat and eliminating deep pools that this giant fish needs to survive.

The green sturgeon is among the largest and longest living species found in fresh water, living up to 70 years and weighing up to 350 pounds. One of the world's most ancient fish species, it emerged in its current form more than 200 million years ago and still resembles a Jurassic creature today—with a skeleton that is more cartilage than bone, and rows of bony plates instead of scales.

Photo by Dan W. Gotshall

Green sturgeon

The Center has been twice forced to sue the Bush administration to gain protection for the sturgeon, and unfortunately, this struggle is not over. The administration refused to protect the species' northern population in the Eel, Klamath and Columbia Rivers, and refused to grant

the more appropriate "endangered" status to the southern population. The Center will keep pressing for full protection of the magnificent green sturgeon to ensure that one of nature's great wonders continues to grace our rivers and seas.

Pocket mouse petition seeks stronger help for habitat

The Center and Sierra Club filed a scientific petition in May to protect the Palm Springs pocket mouse under the Endangered Species Act.

One of seven subspecies of Southern California's "little pocket mice," the Palm Springs pocket mouse has lost most of its native habitat throughout its Coachella Valley range.

Major factors in the degradation and fragmentation of the subspecies' habitat include agriculture, urban sprawl, energy projects, off-road vehicles, invasive weeds, pollution and groundwater depletion.

Because of these imminent threats to its survival, the Palm Springs pocket mouse is one of 27 species that would be afforded protection under the Coachella Valley Multiple Species Habitat Conservation Plan. However, that plan was sent back to the drawing board in June when the City of Desert Hot Springs refused to join other Coachella Valley cities in approving it.

With the plan faltering, the pocket mouse remains unprotected. The Center's petition aims to gain immediate protection for the subspecies by adding it to the federal endangered species list, which will also put in place significantly stronger legal protections for the pocket mouse and its habitat than it would receive under the conservation plan alone.

Commission rules against first Anza-Borrego powerline plan

The Center and partners celebrated this spring when the California Public Utilities Commission made an early ruling against San Diego Gas and Electric's unnecessary, harmful and controversial proposed "Sunrise Powerlink" transmission line.

The Powerlink is a major electrical transmission line project slated to run from the Imperial Valley desert to the north coastal City of San Diego through Anza-Borrego Desert State Park and other protected lands.

Many have questioned SDG&E's motive to construct a high capacity segment of line from near El Centro to the project's midpoint near Warner Springs, when it proposes only smaller capacity lines from there to San Diego, and why the line would run so far north only to turn south to serve San Diego. SDG&E documents reveal that the Powerlink is just phase one of an audacious master plan to run large capacity lines from El Centro to Orange County, thereby opening the California market for top-dollar resale of cheaply generated power from Sempra Energy's fossil fuel power plants in Mexico.

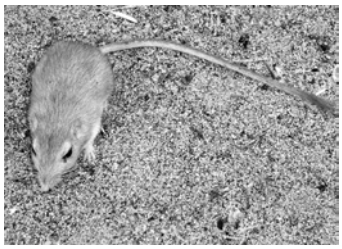

Photo by Sam Stewart

Palm Springs pocket mouse

The commission's decision means the loss of nearly four months of expensive efforts by SDG&E to secure approval of the line and follows numerous filings against the project by the Center, Sierra Club, and other groups, communities and businesses.

The groups opposed SDG&E's application on the grounds that it omitted important information on route location, cost and environmental impacts; that it violated California environmental laws and commission rules; and that SDG&E's proposed approval process would subvert public participation.

The Center is poised to challenge a new project application expected in August. For more information, visit www.biologicaldiversity.org/swcbd/PROGRAMS/sprawl/sunrise-powerlink.html.

The Center also supported activist Kelly Fuller's 78-mile hike along the Powerlink's proposed path, spotlighting the project's threats to fragile lands and their wildlife. Read about her walk at www.kdfuller.blogspot.com.

Corals at risk from warming added to list

The National Marine Fisheries Service (NMFS) announced in May that two corals native to Florida and the Caribbean are at risk of extinction and awarded them protection under the Endangered Species Act.

Elkhorn and staghorn corals were the primary components of coral reef ecosystems throughout Florida's waters and the Caribbean for nearly 500,000 years.

Photo by Adam Laverty

Elkhorn coral

NMFS scientists concluded in March 2005, however, that coral abundance has declined by more than 97 percent since the 1970s throughout significant portions of the species' ranges: a rate of loss unmatched in Earth's known history. Later in 2005, record high ocean temperatures caused Caribbean corals to suffer the worst mortality event on record, further decimating the species.

If these losses are not arrested and reversed, these irreplaceable lifeforms could go extinct within the foreseeable future—and with them the loss of billions of dollars in tourist, recreational, medicinal and subsistence income.

NMFS scientists believe that the unprecedented decline of these corals is primarily due to the combined effects of disease, thermally induced bleaching, and physical destruction from storms. The best available science indicates that each of these threats has been exacerbated and accelerated by a driving force: global warming. As sea temperatures rise, bleaching events and high-intensity storms may become more frequent, and coral diseases may become more virulent and deadly.

The decision to list elkhorn and staghorn corals as "endangered" responds to an administrative petition filed by the

PROGRAM NEWS...

Center more than two years ago documenting the species' decline and the need to arrest global warming in order to save them from extinction.

Extraordinary Hawaiian insects protected

The U.S. Fish and Wildlife Service announced in May that 12 species of Hawaii's endemic picture-wings—small insects in the Drosophilidae family known as the "birds of paradise" of the insect world—will receive protection under the Endangered Species Act.

Five years overdue and spurred by legal action by the Center, these protections ensure that land managers have the most effective tools available to combat destruction of the species' habitat and reduce predation from non-native insects.

Hawaiian picture-wings are perhaps the most extraordinary group of known Hawaiian insects, representing one of the most remarkable cases of specific adaptation to local

Photo by Kevin Kaneshiro

Hawaiian picture-wing

conditions found in any group of animals on Earth. The study of Hawaiian picture-wings has contributed greatly to scientific understanding of biology and evolution, and recent research has determined that Hawaiian picture-wings and their associated ecological communities have traits that are enormously important in the search to cure diseases such as West Nile virus, AIDS and even cancer.

USFWS's decision to federally protect the 12 species recognizes that habitat destruction and loss of their host plants are the primary causes of the picture-wings' imperilment. Endangered Species Act protections will be essential to address these threats, because the Act protects not only the species themselves but also the habitat upon which they depend for survival.

Fuel economy standards challenged

Global warming has been delivering higher temperatures, more droughts and floods, melting sea ice and glaciers, increasingly powerful hurricanes, increased incidence of disease, and other worldwide impacts that threaten the diversity of life on Earth. Rising gas prices and increasing concern about our nation's reliance on imported oil would appear to have created the perfect storm for forward progress.

Fortunately, we already have a law meant to address these issues: the Energy Policy and Conservation Act of 1975, which requires the National Highway Traffic Safety Administration (NHTSA) to set fuel economy standards for SUVs and pickup trucks at the "maximum feasible level."

Technology exists today to raise average fuel economy to 40 miles per gallon for all passenger vehicles. Doing so for SUVs and pickup trucks within 10 years would save 600 million tons of carbon dioxide emissions per year and nearly 4 million barrels of oil per day by 2020—far more than could be recovered from the Arctic National Wildlife Refuge at peak production, or than is currently imported from the Persian Gulf.

Unfortunately, the NHTSA rejected this common-sense approach and instead raised gas mileage requirements only slightly to a projected fleet-wide average of 24.1 miles per gallon by 2011, an improvement of only 1.9 miles per gallon over four years for gas-guzzling SUVs and pickup trucks. The administration's rulemaking also failed to include any meaningful analysis of these vehicles' contribution to global warming, as required by law.

In April, the Center filed suit challenging the agency's failure to consider global warming and its impact on biodiversity in setting the impermissibly low standards.

Because approximately one-third of the nation's greenhouse gas emissions come from the transportation sector, and because SUVs and pickup trucks currently account for nearly half of all passenger vehicles on the road, a victory leading to higher fuel economy standards would be one of the single most important steps in reducing U.S. greenhouse gas pollution. ■

BE AN E-ACTIVIST FOR ENDANGERED SPECIES

We typically use this space to tell you the latest about where the Endangered Species Act stands against attempts in Congress to cut the heart out of the law. But political winds are ever-shifting, and the latest news out of Washington, D.C. unfolds faster than we can keep our supporters updated in our quarterly *Endangered Earth*.

You and other people all over the country play a critical role in our battles to block bad legislation and other efforts by the administration and its congressional allies that would undermine protections for the things we care about most.

That's why we want to tell you about a new tool we've set up to help keep you involved and informed with the best information about what's happening in endangered species politics—and what you can do to help. Our Endangered Species Act Web page now includes both a weekly roundup of endangered species issues in the news, and a monthly update straight from our legislative director in D.C. detailing the latest developments in our work to save the Endangered Species Act and other key environmental protections.

You can check out the latest updates at biologicaldiversity.org/swcbd/PROGRAMS/esa/index.html. Or better yet, visit our action network page and sign up to automatically receive links to these and other updates, as well as e-alerts that let you weigh in with decision makers at the click of a button.

You'll join thousands of members whose responses to our alerts have stopped special interests from running roughshod over our wildlife and wild places. Come on board at actionnetwork.org/BIODIVERSITY/home.html.

Taking it to the Streets

Movie openings set stage for outreach

We're more accustomed to taking our cause to the courts or to Congress, but twice this summer, we've taken it to the movies.

Volunteers in 14 states and 27 cities helped make the Center's "Give a Hoot" campaign a success this May, gathering 700 petition signatures and educating countless citizens about the plight of imperiled owls.

At the San Francisco opening of *An Inconvenient Truth*, staff talked to theater-goers about the plight of polar bears that are losing their sea-ice habitat to global warming.

The campaign coincided with the movie release of *Hoot*, which is about three young friends taking on developers to defend owls and their habitat.

Many young people took part in the event, including an entire class from Tucson's Pima Partnership High School. These high school students were inspired to take action after hearing a Center staff presentation on the threats confronting the local cactus ferruginous pygmy owl, and they worked in the Arizona heat to collect more than 100 petition signatures calling for the owl's protection.

Participants also included two Center members who donned owl costumes at events in California, as well as a real, live owl in Minnesota that is part of the Global Owl Project's educational program. A theater owner in Maine distributed our educational material to every moviegoer who purchased a ticket to *Hoot*, and the campaign was highlighted in the most widely read blog in the United States, the *Daily Kos*.

We hit the theaters again in June for the San Francisco opening of *An Inconvenient Truth*, Al Gore's critically acclaimed film on global warming. The film emerges at a crucial time for the nation to sit up and take notice of the impacts of global warming on biodiversity, and it offered a perfect platform to educate moviegoers about species already in dire straits due to climate change.

One Center staffer sweated out the summer day in a polar bear costume, fittingly calling attention to the increasing decline of polar bears whose Arctic sea-ice habitat is melting out from under them. Center staff and volunteers handed out information and talked to curious passers-by about our campaigns to protect polar bears and other climate-threatened species under the Endangered Species Act, as well as our work to bring about more progressive and responsible national energy policy.

Tucson teenagers armed with petitions inspired passers-by to give a hoot about endangered owls.

The two events reached thousands of moviegoers with the message of protecting wildlife and wild places—a message we hope will inspire action long after the end credits have finished scrolling. ■

Endangered earth

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Or visit the "join us" page on our secure server: www.biologicaldiversity.org

On occasion, we trade our mailing list with organizations that share our mission. If you would prefer that your name not be exchanged, please contact us.

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Keeping the Verde Green *continued from front page*

Big Chino aquifer and transport it through 45 miles of pipeline into new, thirsty developments. U.S. Geological Survey hydrologists calculate that between 80 and 86 percent of the waters in the upper Verde come from the Big Chino and predict that this project eventually will dry up the first 24 miles of the river. Meanwhile, the nearby town of Chino Valley is also ramping up groundwater-dependent development.

The Verde nurtures habitat essential to numerous native species. The most productive nests of the southwestern desert nesting bald eagle survive there. The endangered southwestern willow flycatcher also uses habitat along the Verde. Declining native fish species—including the razorback sucker, Colorado pike-minnow, loach minnow and spikedace—may be unable to survive the expected streamflow losses.

The threat to the Verde is so imminent that it has drawn national attention: a 2006 American Rivers report recently named it one of America's Most Endangered Rivers. But in spite of the concern expressed by a growing number of citizens, Prescott and Prescott Valley have stubbornly refused to protect the river.

In December 2004, the Center filed a notice of intent to sue the two cities for Endangered Species Act violations on the grounds that although they require permits from the Army Corps of Engineers prior to pipeline construction, the cities have not provided protections for listed species along the Verde River. If the cities refuse to develop conservation plans, the lawsuit will move forward.

To preserve waterways and wetlands in Arizona and throughout the West, state and local water laws must integrate groundwater and surface water management. Updating arcane water laws will take sustained pressure from citizens. We must start making our case with the Verde River.

Please write to the mayors of Prescott, Prescott Valley and Chino Valley and demand that they develop conservation measures to protect the Verde—or abandon these damaging water projects. Also contact Senator John McCain to request his support for further Verde River protections. See www.savetheverde.org for contacts and more information about our Verde River campaign, or call Michelle Harrington, Rivers Program Director at (602) 628-9909. ■

We fondly remember U.S. Geological Survey scientist Laurie Wirt, who died June 26, 2006. Ms. Wirt's research was invaluable to the Center's efforts to protect the Big Chino aquifer and Verde River. She was principled and brave in her work to both understand and protect the Verde River watershed, and she will be greatly missed by all who knew her.

Cover article by Michelle Harrington and Renee Guillory