need both new and old techniques," says Gregory Ebel, 33, who studies West Nile virus at the New York State health lab in Guilderland. "I completely agree with most of Calisher's points," adds Robert Lanciotti, 41, who helped tease out the West Nile pedigree at the Centers for Disease Control and Prevention in Fort Collins, Colorado. (And "I'd love to go on field trips," he adds.)

Ab Osterhaus, 53, of Erasmus University in Rotterdam, the Netherlands, says he agrees with the authors' basic point, but he thinks they're overly pessimistic. There may be a little imbalance right now, but Osterhaus is certain that people will discover that good virology takes both fancy new tricks and time-honored methods. "I'm not worried that the field is going down the tubes," he says.

Calisher is not so sure. "I'll keep stirring this pot," he promises. "There's too many people who think they don't need this old-fashioned stuff." –MARTIN ENSERINK

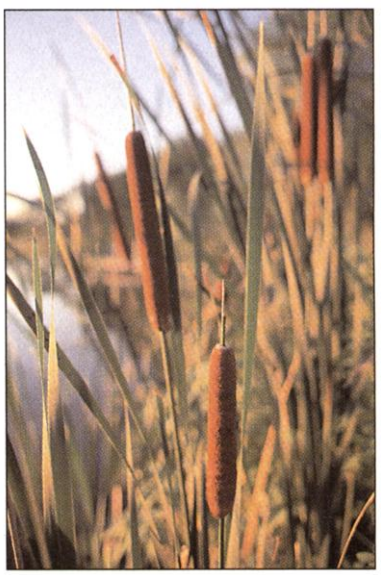
WETLANDS RESTORATION

Recreated Wetlands No Match for Original

The assumption that an artificial wetland can replace a natural one has shaped U.S. policy for the past decade. Now, in unusually blunt language, a new report by the National Research Council* (NRC) says that the current approach, designed to ensure "no net loss" of wetlands, is a failure and that humanmade ecosystems are often a poor substitute for the real thing. What's needed, the report says, are major changes to the system for designing and regulating replacement wetlands.

Environmental groups that have long criticized the current wetlands approach are delighted at the report's assertive tone. "This report changes the landscape on wetlands," says Julie Sibbing, wetlands policy expert for the National Wildlife Federation in Reston, Virginia. "We can't pretend [the policy] is working anymore."

The existing policy gives developers the option of building a subdivision or a shopping center on top of a water-logged spot—if it's unavoidable and they restore or create a marsh nearby. That compromise was struck some 2 decades ago after government officials realized that the country was losing its wetlands at an alarming rate. What's more, these swamps or marshes, once regarded as unhealthy and worthless, were actually key wildlife habitat and valuable resources for cleaning water and controlling floods. In 1980, the Environmental Protection Agency (EPA) revised its guidance on the amended 1972 Clean Water Act to stipulate that landowners who get a permit from the U.S. Army Corps of Engineers or a state agency to build on a marsh may need to make up for the damage. Agencies began to promote this so-called mitigation policy after the first Bush Administration embraced a goal of "no net loss" of the area and function of wetlands in the continental United States, now estimated at 42 million hectares. The policy was continued under President Clinton.



Cheap imitation? Developers often take the easy way out, building cattail ponds instead of more complicated wetlands.

The NRC expert committee, formed at the request of EPA, found that although various factors, including less destruction of wetlands for agriculture, have stemmed their overall loss, mitigation isn't working. According to the corps, 17,000 hectares of wetlands have been created for 9500 lost between 1993 and 2000. Yet despite almost double the area, "the goal of no net loss is not being met," says panel chair Joy Zedler, an ecologist at the University of Wisconsin, Madison.

One problem, the panel found, is that the corps doesn't keep very close tabs on the projects, and many are abandoned or never begun. Also, many of the recreated wetlands don't function in the same way as the original ones, which often depend on intermittent water flows to support a specific mix of plant and animal species (*Science*, 17 April 1998, p. 371). Moreover, some developers construct easily imitated types of wetlands such as cattail-lined ponds where they're "not naturally occurring," Zedler says.

The report recommends that wetlands that can't easily be replicated—like fens and bogs—be left alone. Wetlands that must be harmed should first be studied so that permit holders know what they're trying to reproduce. And before issuing a permit, regulators should look at the entire watershed to see if creating a different, more distant wetland would do more good in the long run than building an identical one nearby. To help accomplish these goals, the panel recommends a new database to track permits, a research program to find out what works, stricter enforcement, and long-term monitoring.

It's now up to the younger Bush Administration and Congress to turn the report into action by beefing up the corps' regulatory budget for wetland mitigation, now $125 million a year, says panel vice chair Leonard Shabman, an economist at Virginia Polytechnic Institute and State University in Blacksburg. The watershed approach will also require better coordination among various agencies. "It's not an easy thing to do," says Jeanne Christie, executive director of the Association of State Wetland Managers in Berne, New York. "We've been talking about this for years." –JOCELYN KAISER

KENNEWICK MAN

Missing Thighbones Suddenly Reappear

In the latest twist in the interminable tale of Kennewick Man, four leg bones that disappeared 4 years ago have apparently resurfaced at the Benton County sheriff's storage facility in Kennewick, Washington. The Federal Bureau of Investigation (FBI) promptly took over the bones, which were rediscovered last week at the same time a court case resumed over disposition of the 9300-year-old remains.

The bones, found on the shore of Washington's Columbia River in 1996, have been the object of a long-running tug-of-war between scientists who want to study them and Native Americans who want to bury them. Several federal agencies have mediated the dispute, and scientists are hoping that a ruling due soon from U.S. District Judge John

*Compensating for Wetland Losses Under the Clean Water Act, NRC, June 2001, www.nap.edu/books/0309074320/html

CREDIT: PHIL SCHERMEISTER/CORBIS