

sity of Toronto dean of arts and sciences Carl Amrhein, argue that the only solution is to flood the CFI's forthcoming grants competition with a host of applications that would test its definition and, thus, force the fund to spell out its rules. But others argue against trying to squeeze the field's needs into CFI's criteria for support and urge their colleagues to campaign for either a new foundation for the social sciences or a new program on infrastructure within SSHRC. The research in-

frastructure needs of the social sciences "differ substantially" from the machinery-and-mortar model of the natural and biomedical sciences, says Serge Courville, a geographer at Laval University in Quebec.

Gaffield says the community must fight against the notion that it is somehow "virtuous" to pay for research tools out of pocket. Like others, he's concerned that if universities use their endowment monies to pay for the maintenance and research costs associ-

ated with the new infrastructure grants awarded by CFI, the shift in funds will reduce the resources available for other research areas. "Rather than trying to fit a square peg in a round hole," Gaffield argues, Ottawa should simply create a separate infrastructure program to address the "unique needs of the social sciences and humanities."

—Wayne Kondro

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## ECOLOGY

### New Wetlands Proposal Draws Flak

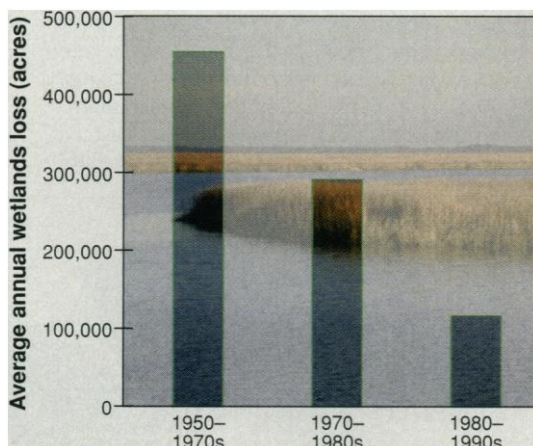
Environmentalists and some ecologists are assailing draft regulations that they claim could open up to development many now-protected wetlands, including swamps, bogs, and seasonal marshes. The guidelines, written by the U.S. Army Corps of Engineers, have also sparked concern among other federal agencies with jurisdiction over wetlands policy.

The Corps proposal is supposed to replace an existing scheme that itself has come under fire for being too developer-friendly. Known as Nationwide Permit 26, it originally gave fast-track approval for building on parcels of up to 4 hectares of wetlands that fall into two categories regarded as ecologically less valuable: "headwater" and "isolated." Federal regulations have slowed wetlands loss considerably in recent decades (see chart). But environmentalists claim that the rules aren't protective enough—particularly Permit 26, which the Natural Resources Defense Council (NRDC) vilifies as "the single largest source of wetlands destruction in America." Now NRDC attorney Andrew Caputo contends that a draft of the new permit procedure, leaked to the press last month, would make matters worse by potentially opening up all nontidal wetlands to development. The Army Corps has fired back, saying its critics are jumping to faulty conclusions. After a public review, the agency insists, the final plan will protect more wetlands than ever before.

Experts have argued ever since Permit 26 was started 21 years ago that there is no valid scientific reason for singling out "headwater" and "isolated" wetlands as less valuable than those near lakes or streams. Lending a high-profile voice to these concerns, a National Research Council (NRC) panel in 1995 noted that these wetlands "are not necessarily less valuable or less functional than other wetlands are" and recommended a review of "the rationale for extensive use" of Permit 26. The Corps promised it would do just that.

Under the proposal, the new permits would leave only tidal wetlands untouched. While

the proposal would eliminate the arbitrary boundary between types of nontidal wetlands, it fails to offer guidelines for weighing the relative ecological value of a given parcel. Instead, the proposal would simply reduce the maximum size for many permits to 1.2 hectares, instead of 4. Permits would be granted according to 16 classes of activities, such as home-building and mining, and for larger projects developers would have to submit a mitigation



**Shifting tide?** Environmentalists say new rule could reverse gains in wetlands protection.

plan to "offset" the lost hectares.

These proposed changes have set off alarm bells at other agencies briefed on the proposal. In a 12 January memo to the Corps, officials from the Environmental Protection Agency, the National Marine Fisheries Service, and the U.S. Fish and Wildlife Service protested that any protection gained by limiting the amount of wetlands available would be lost by opening all nontidal wetlands to potential development. They also argued that the new approach "lacks any data that would support the draft proposed permits." Without those data, it's impossible to say whether the new permits would destroy fewer hectares of ecologically valuable wetlands—or more—than do the current permits, one agency official says. "We're in this netherworld of not having the data on which

to base conclusions," he says.

Academic scientists who have seen the draft are upset, too. "It would relax the protection of clean water in the U.S.," says ecologist Mark Brinson of East Carolina University in Greenville, who served on the 1995 NRC panel. Like the agency scientists, Brinson says the Corps seems to have arbitrarily chosen threshold measurements without regard for wetland type. Scientists also decry the notion that mitigation can make up for losses, says ecologist Joy Zedler of the University of Wisconsin, Madison, because some wetlands "are far easier to re-create than others."

The Army Corps contends its critics have rushed to judgment before it could make its case. Michael Davis, an Army deputy assistant secretary, told *Science* that the Corps has assembled data on permit usage to back up its draft proposal, which it plans to present to other agencies later this month. The leaked version is only "preliminary," Davis says; a revised proposal will be aired for public comment in the *Federal Register* in March. A final rule, scheduled for release in December, "will be more protective than what we have today," says Davis, in part because field officers who issue permits will be expected to impose additional restraints on development when necessary.

But this rather arcane debate over permits may soon be "overshadowed," says Jon Kusler, executive director of the Association of State Wetland Managers. The reason: A series of federal court decisions have come to conflicting conclusions about which wetlands are protected under the law covering the permits, the Clean Water Act. Kusler says the issue may be headed to the U.S. Supreme Court, but he predicts Congress may ultimately have to clarify which wetlands it wants to protect under the act. Whatever protection strategy emerges is unlikely to satisfy wetlands ecologists, who acknowledge that they don't have a concrete plan of their own. "Many of us would have liked a moratorium on damage to wetlands and aquatic habitats until we could show that those damages would not be far-reaching in time and space," Zedler says.

—Jocelyn Kaiser