

November 27, 2006

U.S. Army Corps of Engineers  
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RE: Docket # COE-2006-0005; ZRIN 0710-ZA02

**By email and submission through [www.regulations.gov](http://www.regulations.gov) on November 27; hard copy to follow by U.S. Mail**

Dear Mr. Olson:

The following comments are submitted on behalf of the Natural Resources Defense Council, the National Wildlife Federation, American Rivers, the Sierra Club, Earthjustice, New England Public Employees for Environmental Responsibility, the Citizens Committee to Complete the Refuge, Waterkeeper Alliance, and Defenders of Wildlife. As described in detail below, our organizations are troubled by the Army Corps of Engineers' (Corps') proposal to re-issue and expand several nationwide permits (NWP), and to promulgate six new NWP. 71 Fed. Reg. 56,258 (Sept. 26, 2006). In large part, these permits are unlawful and unwise, and must be either substantially modified or not re-issued. In brief summary, the following comments demonstrate that the proposed NWP are flawed in multiple ways.

First, they do not give sufficient consideration to the vitally important functions wetlands and streams serve, and the increasingly important role they will serve as fewer and fewer of these aquatic resources remain. More and more land is developed, which is generating more pollution and destroying the hydrology of the Nation's water resources. Among other concerns, this makes flooding and other extreme events more possible – a real concern, particularly as global warming worsens. The failure of the Corps to limit the use of general permits to fill and destroy natural wetlands and streams is particularly ironic in light of the damage and destruction wrought just last year by Hurricanes Katrina and Rita, which the Corps knows all too well.

Second, the Corps' proposal routinely flouts its obligation to limit general permits to activities that will not cause more than minimal adverse impact individually and cumulatively. In several instances, the Corps lacks data about the likely impacts or the data show that the impact is not minimal, and yet the agency allows unlimited or barely limited use of dozens of permits in a way that will affect or destroy stream and wetland resources.

Third, in a theme that is recounted throughout these comments, we are extremely concerned that the Corps has provided little, if any, scientific data or analysis to support its claims that these NWP have no more than a minimal adverse effect, individually or

cumulatively, on the environment. The decision documents that accompany the proposed NWP proposal are replete with repeated and rote statements that are not supported by any studies, reports, or data – and that often fly in the face of facts about the adverse environmental consequences of the NWP program that the Corps has been aware of for years.

Fourth, NWPs may not be used to cover activities that are not similar in nature, but a significant number of proposed permits fail to meet this criterion.

Fifth, although applicable requirements demand that impacts to waters of the United States be avoided and minimized before being allowed, the NWPs do not preserve this sequencing requirement.

Finally, a number of proposed permits contain unreasonable provisions that must be corrected.

Our organizations stand ready to work with the Corps to fix this mistaken approach to permitting activities that may affect waters of the United States. Please feel free to contact any of the undersigned with regard to these comments.

Sincerely,

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## **R. NWP D - Commercial Shellfish Aquaculture Activities**

The proposed NWP D would authorize discharges associated with the continued operation of commercial shellfish aquaculture in all waters of the U.S. for all shellfish aquaculture activities, including oysters, clams, geoducks, mussels, and scallops. The Corps does not include any limitation on the quantity of dredged or fill material that may be discharged, the acreage of the facility or of submerged aquatic vegetation (SAV), the densities at which shellfish may be produced and harvested, or the types of activities authorized.

Commercial shellfish aquaculture operations have the potential to cause more than minimal individual and cumulative adverse environmental impacts unless carefully monitored and regulated. One significant risk is the introduction and cultivation of non-native shellfish species (e.g., Asian oysters, *Crassostrea ariakensis*, into Chesapeake Bay waters). To the extent shellfish aquaculture operations are subject to federal CWA regulation, they should be subject to individual permit review and substantial additional study if they propose to introduce non-native shellfish species into the aquatic environment. (Email Communication from Bill Goldsborough, Fisheries Biologist, Chesapeake Bay Foundation, dated November 7, 2006). *See also* East Coast Shellfish Growers Association Legislative Agenda (Sept. 2005), available online at [www.ecsga.org/pages/ECSGA\\_Legislative\\_Agenda\\_%20Fall\\_2005.htm](http://www.ecsga.org/pages/ECSGA_Legislative_Agenda_%20Fall_2005.htm) (visited Nov. 26, 2006) (“Additional research is needed to ensure that the introduction of *C. ariakensis* will not have negative impacts on the environment and the native oyster.”).

Differences in shellfish cultures and their impacts are also not well understood. For example, there may be significant differences in nitrogen recycling between oysters grown on the bottom (a natural habitat) and oysters grown “off-bottom” on racks and floats. Oysters grown on bottom appear to establish a special symbiotic relationship with the sediment microbial community such that nitrogen is actually removed from the system via denitrification. On the other hand, there is some evidence that oysters grown “off-bottom” without the close proximity to the sediments may not accomplish the same nitrogen removal and may even promote nitrogen recycling back into the water column (though this recycled nitrogen was already in the water column in the form of phytoplankton biomass). Email Communication from Bill Goldsborough, Fisheries Biologist, Chesapeake Bay Foundation, dated November 21, 2006). These differences and their impacts should be further investigated prior to issuing NWP D.

Other risks include potential adverse impacts to tidal wetlands and to submerged aquatic vegetation. *See* U.S. Army Corps of Eng’rs, Draft Decision Document: Nationwide Permit D, at 15, available online at [http://www.usace.army.mil/cw/cecwo/reg/nwp/NWP\\_D\\_2007\\_draft.pdf](http://www.usace.army.mil/cw/cecwo/reg/nwp/NWP_D_2007_draft.pdf) (visited Nov. 26, 2006) (“Activities authorized by this NWP may alter the habitat characteristics of tidal waters, decreasing the quantity and quality of fish and wildlife habitat.”). *See also* Environmental Assessment and Essential Fish Habitat Assessment for Corps permit application of Mohegan Aquaculture (demonstrating potential impacts to essential fish

habitat and suggesting avoidance of SAV locations and water quality monitoring as permitting conditions to reduce adverse environmental impacts) (attached). While SAV may recolonize an area after oyster culture has been established (and presumably as a result), it does not necessarily follow that oyster culture and other shellfish aquaculture activities do not adversely impact SAV that existed prior to initiation of the aquaculture activity. (Based on email communication from Bill Goldsborough, Fisheries Biologist, Chesapeake Bay Foundation, dated November 21, 2006).

The Corps acknowledges that “[c]ommercial shellfish aquaculture activities often take place in, and are found to co-exist with, intertidal areas that are occupied by submerged aquatic vegetation (i.e., vegetated shallows).” 71 Fed. Reg. at 56,275. Yet, rather than propose a requirement to avoid SAV, the Corps proposes only a PCN and only for facilities located in more than 10 acres of SAV.

In addition, commercial shellfish aquaculture operations can adversely affect water quality. According to the Corps’ draft decision document, “[l]arge populations of the species raised through commercial shellfish aquaculture activities can increase nutrients and other pollutants in the water.” Draft Decision document at 18. *See also id.* at 22 (“Commercial shellfish aquaculture activities can affect . . . water clarity, chemical content, dissolved gas concentrations, pH, and temperature. The operation of these activities can change the chemical and physical characteristics of the waterbody by introducing suspended or dissolved chemical compounds or sediments into the water”).

To limit these potential adverse environmental impacts, the Corps proposes only to require a PCN, and only for facilities greater than 25 acres, facilities located in more than 10 acres of submerged aquatic vegetation, where new areas would be opened up for use, or for dredge harvesting in areas inhabited by submerged aquatic vegetation. As explained in our discussion above, the PCN process is not a permissible or effective mechanism for ensuring minimal impacts. Moreover, it provides too little information and too much discretion to Corps districts to ensure that they will assert their discretionary authority to require individual permit review for all commercial shellfish aquaculture operations that may, individually or cumulatively, result in more than minimal adverse environmental effects.

The Corps’ reliance on compensatory mitigation to offset the adverse environmental impacts associated with commercial shellfish aquaculture operations is also misplaced. *See* NWP D Draft Decision Document at 16. Compensatory mitigation for tidal wetland and SAV losses are unlikely to replace lost functions and values. *See supra* (discussion of mitigation). Similarly, the Corps assertion that General Conditions 2-5 (aquatic life movements, spawning areas, migratory bird breeding areas, and shellfish beds) will actually minimize adverse environmental impacts is too optimistic, given the limitations of the PCN process and the failure of many Corps districts to enforce these general conditions.

## **1. The Corps has failed to assess the adverse environmental effects of NWP D.**

The Corps recognizes that it lacks the information necessary to determine the individual and cumulative impacts of these aquaculture activities, asking for public comment on “the potential beneficial and adverse effects that commercial shellfish aquaculture activities have on the aquatic environment.” 71 Fed. Reg. at 56,275. The Corps also commits its divisions to conducting reviews every five years to collect data on these activities in bays and estuaries in their jurisdiction to ensure minimal individual and cumulative impact.

The Corps’ failure to understand or evaluate the potential adverse impacts of NWP D are readily apparent in its Federal Register notice and draft decision document. The Corps implies, with no justification, that since shellfish require healthy ecosystems for their growth and productivity, that commercial shellfish aquaculture will improve water quality and generally foster an overall net increase in aquatic resource functions. 71 Fed. Reg. at 56,275. Yet at the same time, the Corps’ decision document acknowledges that “[l]arge populations of the species raised through commercial shellfish aquaculture activities can increase nutrients and other pollutants in the water.” NWP D Draft Decision document at 18.

The Corps’ cumulative impacts discussion is sparse and without scientific support. But even as far as it goes, it suggests the potential for more than minimal adverse environmental effects. The Corps estimates that NWP D would authorize 485 aquaculture activities over 5 years and adversely impact 870 acres of waters of the U.S. Draft decision document at 14. The Corps does not analyze the types of waters likely to be impacted by NWP D, but it seems likely that most of the estimated 870 acres to be impacted will be estuarine waters.

The Corps fails to assess the potential adverse impact of expanding NWP D to include expansion of shellfish aquaculture operations. Consequently, the Corps clearly can not authorize expansion under this NWP without much more thorough impact assessment.

## **2. Action Needed**

While we acknowledge that commercial shellfish aquaculture, properly regulated, *may* provide net environmental benefits, the environmental impacts of various aquaculture practices and locations are not well enough understood to provide for their careful regulation. The Corps cannot issue this NWP unless and until it can study the cumulative impacts of these facilities on waters of the U.S. and establish terms and conditions sufficiently protective to ensure minimal impact. In the meantime, shellfish aquaculture facilities can continue to be permitted through NWP 27 (for native species restoration activities) or through individual permits.

NWP limitations that should be considered if and when the Corps pursues NWP D in the future should include: a prohibition on non-native species, a requirement to avoid impacts to SAV, limits on the quantity of dredged or fill material, limits on shellfish densities, and a requirement for water quality monitoring.