

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

JAN 11 2006

OFFICE OF
WATER

Ms. Jeanne Christie
Executive Director
Association of State Wetland Managers
2 Basin Road
Windham, Maine 04062

Dear Ms. Christie:

I am writing in followup to my letter to you of January 9, 2006. That letter was in response to your December 19, 2005 request for information on a nationwide scale regarding the number of drinking water intakes and Clean Water Act (CWA) National Pollutant Discharge Elimination System (NPDES) permits on non-navigable tributaries and adjacent wetlands. As stated in the January 9th letter, for the past several years the Environmental Protection Agency (EPA) has been gathering data on these and related issues. The preliminary analysis of the data was not prepared for any particular matter, and though not final, we were pleased to share this data with you.

I am writing to clarify statements in the prior letter, explain how EPA's data relates to analyses of non-navigable waters in other studies, and emphasize that the preliminary estimates of non-navigable waters in the January 9th letter are based on very conservative assumptions that underestimate the full extent of non-navigable waters in the U.S. Although the January 9th letter noted that the estimates of non-navigable stream length were conservative, it did not fully explain the basis for that statement or the extent to which those estimates are conservative. Because EPA, as well as academics in the field of hydrology, are on record with substantially higher estimates of the extent of non-navigable streams in the U.S., it is necessary to understand how the data provided in the January 9th letter relate to other available information and reflect differing assumptions and groupings of stream types.

The methodology described in the January 9th letter was focused on the specific request in your letter, which was to identify, to the best of our ability, the extent of NPDES permitted dischargers and drinking water intakes on non-navigable tributaries. The analysis in the letter thus answered that question by considering publicly available datasets which could be matched with EPA's data on NPDES permits and drinking water intakes. Because navigability is not a parameter in the relevant national databases, EPA's analysis was based on the percentage of streams that are "start" reaches - i.e., generally first order streams, which are highly likely to be

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non navigable.¹ (As noted in our prior letter, we estimate that approximately 53% of total stream kilometers fall in this category.) However, since many higher order streams are also non-navigable, those figures are not a complete estimate of the extent of non-navigable waters in the U.S. Rather, they cover a subset of those waters. For that reason, EPA also analyzed NPDES permit and drinking water intake data for streams classified as “intermittent or ephemeral,” since these waters typically are non-navigable, and we estimated that approximately 59% of stream kilometers fall into this category. However, neither start reaches nor intermittent and ephemeral streams capture the full extent of non-navigable stream miles in the United States.

The fact that figures in the January 9th letter underestimate non-navigable stream length is confirmed by the fact that academics in the field of hydrology, as well as EPA in other contexts, are on record with substantially higher estimates of the extent of non-navigable streams in the U.S. For example, an often cited scientific study by Leopold² estimated that first and second order streams comprise 73% of stream length in the United States. In another example, in 1977, when the Clean Water Act amendments were being considered, EPA’s Acting Administrator testified before Congress that “roughly 98 percent of the stream miles covered” by the statute’s then-existing regulatory programs would be excluded if the stream-miles protected by the CWA extended only to waters that are “actually used for commercial transportation.”³ See also, L. Wood, *Don’t Be Misled: CWA Jurisdiction Extends to All Non-Navigable Tributaries of the Traditional Navigable Waters and to Their Adjacent Wetlands*, 34 *Envtl. L. Rptr.* 10187, 10192-10193 & n.32 (2004) (concluding that fewer than 1% of the stream-miles within the Missouri River watershed are traditional, navigable waters).

The estimate of first and second order streams in the Leopold study (73% of stream miles), like the estimates in the January 9th letter, does not capture the full extent of non-navigable waters, since many higher order streams are non-navigable. The Leopold study contained a higher figure than EPA’s preliminary analysis in the January 9 letter because it included first and second order streams (also typically non-navigable), while EPA’s analysis was generally limited to first order streams. The 98% figure cited by EPA’s Acting Administrator in 1977 is higher, because it included any stream not actually used for commercial navigation. These figures can provide some perspective on the range and types of non-navigable streams that have been considered.

¹ While some “start” reaches may be navigable-in-fact, such waters are relatively rare.

² Leopold, L.B., M. G. Wolman and J.P. Miller. 1964. *Fluvial Processes in Geomorphology*. W.H. Freeman, San Francisco.

³ Testimony of John Quarles, Acting Administrator of the U.S. Environmental Protection Agency [cite], March 3, 1977.

In sum, because of the purpose and design of the analysis described in our January 9th letter, the figures in that letter underestimate the actual percentage of stream miles in the U.S. that are non-navigable. I am pleased to provide this clarification of the information previously sent to you.

Sincerely,

A handwritten signature in dark ink, appearing to read "Benjamin H. Grumbles". The signature is written in a cursive style with a large initial "B" and "G".

Benjamin H. Grumbles
Assistant Administrator