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4. NRDC's commitment to protecting the broad scope of the Clean Water Act dates back to the early years following passage of the Act in 1972. In the early 1970s, NRDC challenged as too narrow the Army Corps of Engineers' original interpretation of the scope of "navigable waters" under the Act. See NRDC v. Callaway, 392 F. Supp. 685, 686 (D.D.C. 1975). The Court adopted NRDC's arguments and ordered the Corps to "[r]evoke and rescind" its original Clean Water Act regulations and promulgate new regulations "recognizing the full regulatory mandate of the [Clean] Water Act." Id.

5. NRDC currently has over 550,000 members worldwide, with membership in all fifty states. These members use and enjoy wetlands, small streams and other waters of the United States in each of the 50 states and in every major river basin. Among these waters actively used by NRDC members are many streams and wetlands that, though not themselves recognized by the Corps of Engineers as "navigable in fact," are hydrologically connected by surface flow to navigable-in-fact waters (such streams and wetlands are referred to hereinafter as "Tributary Streams and Wetlands"). The uses of Tributary Streams and Wetlands by our members include use for flood control and drinking water, water filtration, fishing, shellfishing, boating, swimming, nature observation, photography, scientific study, and aesthetic appreciation. The attached letter from 85 stream scientists underscores the importance of the continued protection of these waters. Attachment A.

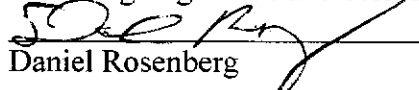
6. In every region of the country, NRDC members would be harmed by the loss and degradation of Tributary Streams and Wetlands, because their use of those resources would be impaired, reduced, or precluded.

7. NRDC members would also be harmed by losing public participation opportunities associated with discharge permits. NRDC members frequently participate in proceedings on discharge permit applications concerning proposed projects that would impair their use of waters. Such participation includes submitting written comments, testifying at public hearings, and meeting with agency officials.

8. I understand that plaintiffs are trying to narrow the scope of the Clean Water Act by excluding Tributary Streams and Wetlands from the Act's discharge provisions. If plaintiffs are successful, I am concerned that their lawsuit would exclude bodies of water where NRDC members live, recreate, and perform field research from the protections of the Clean Water Act. If this occurred, facilities would no longer be prohibited from discharging untreated sewage, oil and other pollutants into these waterbodies without a Clean Water Act permit. Moreover, facilities located near wetlands and small streams would no longer be required to prepare an oil spill prevention plan, thus removing a key safeguard Congress established to protect against oil spills. Such discharges threaten serious damage and contamination – and indeed destruction – of Tributary Streams and Wetlands, and would impair or preclude their recreational value for NRDC members.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on June 11, 2003.


Daniel Rosenberg

10 April 2003

Water Docket
Environmental Protection Agency
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ATTENTION Docket ID No. OW-2002-0050

We are submitting this letter as an official comment on the Advanced Notice of Proposed Rulemaking (ANPRM) on the Clean Water Act Regulatory Definition of "Waters of the United States" (Docket ID No. OW-2002-0050). The undersigned are professional aquatic scientists from over 40 states with broad knowledge and expertise in stream ecosystems including their physical structure, chemistry, and biology. The 85 scientists who have signed this letter include members of the National Academy of Sciences and its scientific Boards, individuals who have been or who are President of national scientific organizations, and leading researchers on the ecology, water quality, and biota of streams and rivers.

We are responding to the request in the ANPRM for information on "the extent of resource impacts to isolated, intrastate, non-navigable waters" and "the functions and values of wetlands and other waters that may be affected by the issues discussed in this ANPRM." We focus our comments on ephemeral, intermittent, and other headwater tributaries.

These headwater streams provide essential goods and services; their elimination from Clean Water Act jurisdiction would have an adverse impact on downstream ecosystems. Rivers are networks, and their downstream navigable portions are inextricably linked to small headwaters just as fine roots are an essential part of the root structure of a tree or our own circulatory system is dependent on the function of healthy capillaries. The small ephemeral stream is not isolated from the mighty river.

Scientific research on rivers and streams over the past several decades has been founded on the concept of the longitudinal connectivity of river networks, i.e. that ecological processes in large rivers reflect what is occurring in their headwaters as well as in adjacent floodplains, tributaries, and even downstream ecosystems (e.g. Hynes 1975, Vannote et al. 1980, Minshall et al. 1985, Junk et al. 1989, Ward 1989, Pringle 1997, Fausch et al. 2002). **Considering navigable rivers to be isolated from their ephemeral and intermittent headwaters (as implied in the ANPRM) stands in direct contradiction to long standing and robust scientific evidence.**

In the following five points, we discuss the scientific basis for our statement that removing ephemeral, intermittent and other small headwater streams from Clean Water Act jurisdiction will adversely impact our Nation's waters and make it less likely that we

can achieve the goal of the Clean Water Act , which is "to restore and maintain the chemical, physical and biological integrity of the Nation's waters."

1. A large fraction of the channels in a stream network do not flow year round. Because of limitations of current databases, the total length of small streams is seriously underestimated in the U.S. Therefore the proposed rulemaking will impact a much greater extent of critical aquatic habitat than currently estimated.

Calculations of the miles of stream channel impacted by this rulemaking will be underestimates of the actual length of channel impacted because small streams are not adequately captured in our national hydrography databases. These databases are derived from maps drawn at a scale of 1:100,000 (<http://nhd.usgs.gov>). Even maps drawn to a scale of 1:24,000 underestimate the true extent of small streams. For example, 1:24,000 scale maps identify only 21% of the stream channel length in the 728 km² Chattooga River basin in North Carolina (Hansen 2001) and 49% of the stream channels supporting salamanders in a Georgia watershed (M. Elliott, University of Georgia, personal communication). This shortcoming of nationwide data bases was recognized in a recent report on the state of the Nation's ecosystems, which noted that data on miles of small streams were not available for the nation (Heinz Center 2002). Even the streams indicated on topographic maps do not represent the true extent of streams in the landscape. Headwater streams shown on a map meet no clearly defined statistical characteristic of the extent of streamflow (Leopold 1994). The terms ephemeral, intermittent and perennial apply to a continuum of flow persistence. Intermittent streams can flow year round in very wet years. In river networks with glacial and alluvial sediments, streams without visible surface flow often remain flowing within their bed throughout the year, continuing geochemical processes and supporting a diverse array of often unique biota. Aquatic insect assemblages and salamander larvae requiring 9 - 18 months of flow can be found in many channels represented as intermittent streams on a topographic map (Meyer and Wallace 2001).

Available estimates show that a sizable fraction of channel length in a river network is in ephemeral, intermittent and headwaters streams, even though these represent underestimates of the true extent of these ecosystems. In arid states such as Arizona, 96% of stream miles have been classified as ephemeral or intermittent (Chapter 2, Table 3 in <http://www.adeq.state.az.us/environ/water/assess/305/index.html>). In one Arizona county where more extensive mapping has been done, 99% of stream miles have been classed as ephemeral or intermittent (J. Fonseca, Pima County Flood Control District, Tucson AZ, personal communication). Analysis of a 1:24,000 USGS digital line graph coverage of Utah's streams shows that 89% of the state's stream length is in intermittent and ephemeral channels (R. Hilderbrand, U. of Maryland, personal communication). Estimates based on 1:100,000 maps for Colorado classify 71% of stream miles as intermittent (L. Poff, Colorado State University, personal communication). Existing databases for Kansas list as intermittent 82% of stream miles in the state (Chou et al. 1999). In the arid and semi-arid West, even large rivers such as the Rio Grande do not flow continuously.

Intermittent streams are also significant in states that receive more rainfall. In Hawaii, headwater streams may flow continuously, but their lower reaches are intermittent and serve as barriers to invasion of exotic species; these have been called "interrupted streams" (Polhemus et al. 1992). In Alabama, 80% of stream miles in the National Forests are considered intermittent because they go dry during late summer or autumn, particularly during drought years (S. Chubb, U.S. Forest Service, personal communication). In western Kentucky, 75% of the second order streams flow only in February through May, but all have a resident community of chironomids and capniid stoneflies (D. White, Murray State University, personal communication). Intermittent streams in Michigan comprise 48% of the length of stream channels in the state (R. Cifaldi and J.D. Allan, University of Michigan, personal communication).

These examples illustrate the extent of intermittent channels in river networks throughout the Nation. Eliminating this large a fraction of stream networks from the protections offered by the Clean Water Act will profoundly alter the physical, chemical and biotic integrity of that network. Protection of the public good provided by our surface water resources requires protection of all elements of the river network including ephemeral, intermittent, and headwater streams.

2. Human activities in the watershed have resulted in significant loss of small streams.

Groundwater withdrawal for irrigation or other human uses and interception of recharge by impervious surfaces has resulted in significant lowering of the water table, which affects headwater streams by making perennial streams intermittent (Postel 1999). Channels without water can extend far downstream; for example, a channel of the Santa Cruz River near Tucson, Arizona, was dry for several decades because of groundwater pumping (Grimm et al. 1997), and water withdrawals from riverine aquifers have dewatered reaches of the Arkansas River (Ferrington 1993). Reaches of the Rio Grande no longer have water because of water withdrawal for human uses. As more of the landscape is covered with impervious surface, groundwater recharge is reduced, leading to lower baseflows which can lead to intermittent flow (Paul and Meyer 2001). In contrast, some intermittent streams have become perennial because of the continuous addition of effluent from municipal wastewater treatment plants (Paul and Meyer 2001).

The length of headwater streams in the landscape has been significantly reduced because of piping and filling activities done in the name of agriculture, mining, and development. For example, suburban development around Rock Creek in Maryland reduced the drainage density (m stream channel / m² watershed area) by 58% (Leopold 1994); drainage density of urban and suburban watersheds in the Chattahoochee River basin near Atlanta is one third less than drainage density in watersheds in this basin that are covered in forest and pasture (Meyer and Wallace 2001). At least 1450 km of streams were eliminated in the Southern Appalachians from 1986 - 1998 because of mountaintop removal valley-fill coal mining practices (U.S. Fish and Wildlife Service 1998). Untold miles of streams in the midwestern U.S. have been converted into drainage ditches that route water quickly out of the watershed. Because of their simplified channel structure,

they no longer provide the ecological services of unchannelized headwater streams (Brookes 1994). Recognizing the value of headwater systems and their vulnerability to human disturbance, an international group of scientists meets regularly to present recent research and to design improved management practices (e.g. Haigh et al. 1998). The loss of headwater streams has profoundly altered the structure and function of stream networks (Meyer and Wallace 2001). Elimination of small tributaries from Clean Water Act jurisdiction would lead to further loss and degradation of these systems to the detriment of the physical, chemical and biotic integrity of ecosystems downstream.

3. Ephemeral, intermittent and small headwater streams contribute to the physical integrity of the river network.

Small streams provide hydrologic retention capacity (i.e., the ability to hold and store water). Their contribution is apparent because when these small streams have been eliminated as a result of human activity, frequency and intensity of flooding increases downstream, and base flows are lower (e.g., Dunne and Leopold 1978). The increased frequency and intensity of flooding associated with replacement of small streams with impervious surfaces increases bank erosion, channel widening and incision, and other changes in channel form (Arnold et al. 1982). In San Diego, California, extensive channel erosion contributed two-thirds of the in-stream sediment load and resulted in loss of valuable urban land (Trimble 1997). An increase in flood frequency and magnitude negatively impacts the stream biota, particularly when this is combined with increasing sediment transport (e.g., Waters 1995). The loss of hydrologic retention provided by small streams in agricultural catchments, has resulted in increased transport of excess nutrients to downstream ecosystems (Steinman and Rosen 2000).

Small streams also contribute to the physical integrity of downstream ecosystems by retaining sediments. Sediment eroded from hillslopes during storms is stored in these small channels and released over a longer period of time to downstream ecosystems. If sediment retention is reduced in headwater channels, downstream sediment transport during storms will increase. Sediment accumulation in larger streams and rivers can affect fish feeding and spawning, aquatic insect communities, and overall stream productivity (Lemly 1982, Newcombe and McDonald 1991, Lenat and Crawford 1994, Waters 1995, Newcombe and Jensen 1996).

Organic debris dams are a prominent feature of headwater streams (e.g., Bilby and Likens 1980). They provide sediment retention, important habitat structure, and sites for critical metabolic activity (e.g., Steinhart et al. 2000). These functions are eliminated when headwaters are channelized, piped, or filled, which is more likely to occur if headwaters are removed from Clean Water Act jurisdiction.

Evidence for the importance of headwater streams in maintaining the physical integrity of downstream ecosystems can be seen by observing the consequences of their loss from the network. Filling of stream valleys by mountaintop removal valley-fill coal mining has resulted in a greater proportion of fine particles in stream sediments and an altered flow and temperature regime downstream of the filled valleys (Wiley et al. 2001). Substrate

particle size, water temperature, and flow regime are physical parameters with significant impact on the biota of a stream (Allan 1995). The value of the thermal refuge provided by very small streams is detailed under point 5 (below).

4. Ephemeral, intermittent and headwater tributaries are essential to the maintenance of the chemical integrity of navigable rivers.

The basic chemical composition of unpolluted streams draining a landscape is largely established in headwater streams (Gibbs 1970, Likens 1999, Johnson et al. 2000). These are the channels of the drainage network in closest contact with the soil and are the sites of extensive chemical and biological activity that influences water quality downstream.

Recent scientific research has demonstrated that small streams in the network are the sites of the most active uptake, transformation, and retention of nutrients (Alexander et al. 2000, Peterson et al. 2001). These streams are shallow, and water spends a longer time in contact with biologically and chemically reactive substrates in small, shallow channels. Once a chemical element enters a stream, the distance it travels downstream before being removed from the water column increases with increasing discharge as stream size increases (Peterson et al. 2001, Hall et al. 2001); hence destruction of small streams in the network results in increased downstream transport of nutrients. When headwater streams are eliminated, floodwaters are delivered more rapidly, and more of the nutrients being applied to farm fields or lawns are delivered to receiving systems downstream. Downstream waterways such as navigable rivers, lakes, estuaries, and coastal waters, may be sensitive to the resulting high nutrient concentrations with eutrophication as a likely consequence of loss of the nutrient retention capacity afforded by headwater streams. Nuisance algal blooms, deoxygenation of the water column, and fish kills are undesirable features of eutrophication. As an example of the ability of headwater streams to retain nutrients, recent studies have shown that 64% of the inorganic nitrogen entering a stream is retained or transformed in the headwaters (Peterson et al. 2001). Biofilms in small headwater channels are also sites of active uptake of inorganic (e.g., heavy metals) and organic (e.g., PCBs) pollutants (Schorer and Symader 1998). The chemical and biological transformations that occur in headwater streams (e.g., denitrification, microbial uptake, excretion of organic nitrogen) reduce the biological availability of nutrients exported downstream.

Small streams serve as buffers for larger rivers, reducing the amount of non-point source nutrients entering navigable rivers. Nutrients and contaminants enter streams from non-point sources primarily during storms, and it is during storms when ephemeral and intermittent streams are most likely to contain water. Hence the nutrient removal capacity of these small streams are engaged at the time when most nutrients are entering the stream network from non-point sources. Federal, state, and local programs are spending considerable sums of money implementing best management practices to reduce non-point source inputs of nutrients because these are a major threat to water quality (Wang et al. 2002). Eliminating protection for intermittent and ephemeral streams negates the efforts at non-point source nutrient reduction being done in support of the Clean Water Act.

5. Ephemeral, intermittent and headwater tributaries contribute to the biotic integrity of river networks by supplying food resources to downstream and riparian ecosystems and providing thermal refuges, spawning areas, nursery areas, and critical habitats for unique and economically valuable species.

a. Small streams supply food resources to riparian and downstream ecosystems.

Headwater streams are sites for physical and biological processing of inputs of organic matter from the watershed such as falling leaves (e.g., Wallace et al. 1997) and a source of energy for downstream reaches (Kaplan et al. 1980, Gomi et al. 2002, Piccolo and Wipfli 2002). The dissolved organic matter and fine particles exported from headwaters are important food resources for ecosystems downstream (Vannote et al. 1980, Piccolo and Wipfli 2002, Wipfli and Gregovich 2002). An example of the significance of this subsidy comes from fishless headwater streams in Alaska, where enough prey and detritus is exported from headwater streams to support 100 - 2000 young-of-the-year salmonids in each kilometer of salmon-bearing streams (Wipfli and Gregovich 2002). Degradation of small streams in the network is likely to result in reduced inputs of food resources for downstream ecosystems.

Invertebrate inhabitants of headwater streams are sources of food to fish, water shrews, and salamanders within the headwater reach. Additionally, emerging aerial adults of aquatic insects are often used as food by terrestrial species such as spiders, birds, and bats; they represent an important reciprocal link between streams and terrestrial biota (Fisher 1991, Gray 1993, Murakami and Nakano 2001, Nakano and Murakami 2001, Sanzone 2001, Sanzone et al. 2003). Fisher (1991) reported that flycatchers used a large portion of the insect biomass emerging from Sycamore Creek, Arizona. Insectivorous birds inhabiting the riparian zone of a prairie stream in Kansas required 57 – 87% of the daily emergence of adult aquatic insects from the adjacent stream (Gray 1993). Insects from intermittent streams may serve as an important food resource for bats (Seidman and Zabel 2001). Reciprocal subsidies between stream and terrestrial habitats are important for maintaining animal assemblages across landscapes (Nakano and Murakami 2001).

b. Small streams provide a thermal refuge at critical life history stages or during critical times of the year.

Small, spring-fed headwater streams can serve as thermal refuges for fishes, providing a refuge from freezing for stream fishes during winter (e.g., Power et al. 1999) and cool refuges for young-of-the-year during summer (e.g., Curry et al. 1997). Small streams serve as a thermal refuge for species that spend most of their lives in larger systems. The Arkansas darter, *Etheostoma cragini*, a federal candidate darter species, uses small first order streams as a summer time refuge from heat and drought in the Ozarks (Radwell 2001). Arkansas darter populations are also found in intermittent streams in Colorado, where their persistence depends upon deep pools fed by cool groundwater and temporarily isolated from other pools by dry stream channel (Labbe and Fausch 2000). Brook trout (*Salvelinus fontinalis*) in the Ford River in Michigan retreat to cooler

headwaters in summer (Hayes et al. 1998). Young-of-the-year brook trout that were spawned in a Wisconsin lake also migrated into small, groundwater-fed inlet streams and spent the summer there, where stream temperatures, sustained by groundwater, were consistently cooler than in the littoral zone of the lake during summer (Curry et al. 1997). Groundwater is often warmer than stream water during winter, so small spring-fed streams provide a refuge from freezing for stream fishes (Power et al. 1999). Given the climatic extremes of continental North America, access to thermal refuges such as those provided by small spring-fed streams is an important aspect of survival for stream fishes (Power et al. 1999).

c. Small streams serve as vital spawning habitats.

Small headwater streams provide essential breeding habitat for numerous species, many of which live in larger streams during most of the year. The trispot darter (*Etheostoma trisella*) spends most months in large perennial streams, but it moves upstream to spawn and attaches its eggs to submerged blades of grass in tiny rivulets that flow from ephemeral ponds in fields (Ryon 1986). The slackwater darter (*Etheostoma boschungii*) breeds in tiny streams, many of which are now small ditches flowing through pastures (Mettee et al. 1996). Trout production in a California stream was dependent on intermittent streams: over a 4 year period, 39 – 47% of all rainbow trout recruits in Sagehen Creek, California, came from an intermittent tributary that flowed only 4 months each year (Erman and Hawthorne 1976). Migratory cyprinid fishes were found spawning in intermittent tributaries of the Sacramento River (<http://www.ecst.csuchico.edu/~loggins/cyprin.html>). Recent research in West Virginia has demonstrated that, although adult brook trout were found in streams throughout the watershed, over 80% of brook trout reproduction occurred in headwater streams and intermittent seeps (Lamothe 2002). Degradation of those habitats would impact the viability of the brook trout population in the entire watershed.

d. Small streams serve as nursery habitat for juvenile fishes.

Intermittent streams provide rearing habitat for juvenile chinook salmon (Murray and Rosenau 1989, Richards et al. 1992, Scrivener et al. 1994). Juvenile coho salmon and steelhead also use intermittent streams as winter refugia (Peterson and Reid 1984). Small headwater streams serve as vital nursery areas for brook trout in a Michigan stream; the scientists conducting this study recognized “the importance of headwater streams as fish habitat and the need to maintain the integrity of these systems as a connector between the mainstem and their watersheds” (Hayes et al. 1998, p.184).

e. Small streams provide critical habitat for unique and threatened species.

Headwater streams provide unique habitats for numerous species. Their degradation and elimination from the network increases extinction vulnerability for aquatic invertebrate, amphibian, and fish species (e.g., Morse et al. 1993, Meyer and Wallace 2001). Ephemeral and intermittent streams can support a diverse and sometimes unique community of aquatic organisms. For example, in western Oregon, the number of

invertebrate taxa in intermittent streams exceeded that of permanent headwaters, and several undescribed species were associated with intermittent streams (Dieterich and Anderson 2000). Up to 60% of the taxa in intermittent Kansas streams were species with adaptations for intermittent flow that can be considered specialists for this type of stream (Chou et al. 1999). Candidates for threatened and endangered caddisflies in California are found in small spring streams (Erman and Nagano 1992). The proportion of federally at risk species is often high in headwater streams. For example, in the National Forests of Alabama, 70 of the 113 “at risk” aquatic species are primarily headwater stream or spring residents. These “at risk” taxa include crayfish, mussels, snails, amphibians, and fish (S. Chubb, U. S. Forest Service, Alabama, personal communication). The threatened Louisiana pearlshell mussel, *Margaritifera hembeli*, occurs only in small headwater streams with shallow gravel riffles (Johnson and Brown 2000, Bolden and Brown 2002). Some terrestrial species are also dependent on high quality headwater streams. For example, the Louisiana Waterthrush (*Seiurus motacilla*) shows a strong habitat preference for unpolluted headwater streams (Prosser and Brooks 1998).

In karst regions, small streams contribute to the recharge of subterranean phreatic and cave aquifers that harbor unique species. For example, small streams in the Ozarks enter caves that harbor threatened and endangered species of cave fishes, crayfishes, amphipods and other organisms. The water quality and quantity in these small streams is important to the continued existence of the subterranean fauna (Elliot 2000).

Ephemeral and intermittent streams provide vital habitat for amphibians, many of which are state and/or federally threatened and endangered, such as Chiricahua leopard frog, lowland leopard frog, California red-legged frog, and Arroyo toads. The Pacific tree frog and black salamander rely on intermittent streams during part of their life cycle (Reid and Ziemer 1994). Many amphibian species are most abundant in intermittent streams, perhaps because they offer freedom from predators (Reid and Ziemer 1994). In the Mattole watershed in California, Pacific giant salamander (*Dicamptodon tenebrosus*) and black salamander (*Aneides flavipunctatus*) are more abundant along intermittent streams (Welch et al. in review). A native amphibian of the Mojave Desert, the red-spotted toad (*Bufo punctatus*) is dependent on the ephemeral nature of water in small spring-fed streams (Bradford et al. in press). Over half (16 of 29) amphibian genera in the Southeast have species that live in small streams, seeps, bogs or swamps (Dodd 1997). Many stream salamanders require headwater seeps and small streams in forested habitats to maintain viable populations (Petranka 1998). Plethodontid salamanders are extremely diverse in Appalachia, and their lungless condition appears to be an adaptation for small headwater streams, which are their principal larval habitat, where they spend from a few months to five years (Beachy and Bruce 1992). Riparian ecosystems adjacent to small headwater streams are sensitive to stream degradation, and these ecosystems can be sites of high biodiversity in watersheds; e.g., six amphibian species use them as habitat in Douglas fir forests in western Washington (Wilkins and Peterson 2000).

Headwater streams also provide habitat for several endangered fish species in the southeastern U.S. Etnier (1997) identified sixteen fish taxa occurring in first and second order southeastern streams, a quarter of which are jeopardized because of non-point

source pollution or extremely limited range. The imperilment of fishes in the western US has been related to the degradation and loss of intermittent streams (Moyle and Nichols 1973, Moyle and Williams 1990). Five native fish species were found using intermittent streams in the Sacramento River basin: Sacramento squawfish (*Ptychocheilus grandis*), hardhead (*Mylopharodon conocephalus*), hitch (*Lavinia exilicauda*), speckled dace (*Rhinichthys osculus*) and Sacramento sucker (*Catostomus occidentalis*) (<http://www.ecst.csuchico.edu/~loggins/cyprin.html>).

Just as estimates of the extent of ephemeral, intermittent and small headwater streams in the US are likely underestimates of true extent, so are estimates of headwater species at risk a likely underestimate (Burkhead and Jelks 2000). Estimates of the numbers of threatened and endangered invertebrate species are very conservative because of insufficient knowledge of the fauna, inadequate numbers of practicing taxonomists able to identify new species, and absence of recent comprehensive surveys (Morse et al. 1997, Burkhead and Jelks 2000, Strayer 2000). It is likely that there are many new species and unrecognized ecological relationships in small streams, especially those tightly linked with groundwater (Strayer 2000). These are the very ecosystems that are threatened by this proposed rulemaking.

In conclusion, ephemeral, intermittent, and small headwater streams are an integral part of a river network; they are not isolated from the larger navigable channels in the network. They provide ecological goods and services of value to society.

Although they may not have a direct hydrologic connection to a navigable river during all months of the year, they have a direct impact on the physical, chemical, and biotic integrity of navigable rivers. To summarize the main points of our discussion, which we have supported by over 85 references to the scientific literature: the extent of ephemeral, intermittent and small headwater streams is great but poorly quantified; they are being profoundly altered by human activities; they impact the physical integrity of larger rivers because they alter rates of runoff and retain sediments; they impact downstream chemical integrity by their capacity for nutrient and contaminant uptake, retention and transformation; they impact biological integrity of the stream network by providing food resources, thermal refuges, spawning sites, nursery areas for juveniles, and habitat for unique biota. **On the basis of decades of scientific research, we conclude that ephemeral, intermittent, and small headwater streams CANNOT be considered isolated or unrelated to the ecological integrity of navigable waterways. The changes discussed in the proposed rulemaking and guidance document will degrade rather than maintain and improve the quality of U.S. waters. If our nation hopes to achieve the goals of the Clean Water Act, ephemeral, intermittent and small headwater streams should remain under its jurisdiction.**

Sincerely,

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15, 2003), Sierra Club and its members submitted a substantial portion of the more than 137,000 comments advocating a broad definition of navigable waters under the Clean Water Act. Comments submitted by the organization, as well as by its members, urged the agencies not to narrow the scope of waters covered by the Act, and to continue to protect streams and wetlands under the Act.

4. Sierra Club currently has over 700,000 members nationwide. These members are organized into 67 geographically based chapters, representing each of the fifty United States and Canada. A list of Sierra Club chapter websites is included as Attachment A. Each chapter is in turn subdivided into local member groups, which focus their activities on a particular local area. For example, there are thirteen Sierra Club chapters in California. The Angeles Chapter alone comprises sixteen groups, which provide recreational opportunities and respond to environmental issues and member concerns throughout the state. See <http://angeles.sierraclub.org/home.html> (visited May 29, 2003). Similarly, the Florida Chapter comprises sixteen local groups. <http://florida.sierraclub.org/groups.asp> (visited May 29, 2003).

5. Sierra Club members use and enjoy wetlands, small streams and other waters of the United States in each of the 50 states and in every major river basin. Among the waters actively used by Sierra Club members are many streams and wetlands that, though not themselves recognized by the Corps of Engineers as "navigable in fact," are hydrologically connected by surface flow to navigable-in-fact waters (such streams and wetlands are referred to hereinafter as "Tributary Streams and Wetlands"). The uses of Tributary Streams and Wetlands by Sierra Club members include use for flood control and drinking water, water filtration, fishing, shellfishing, boating, swimming, nature observation, photography, scientific study, and aesthetic appreciation. An estimated twenty percent of Sierra Club members are regular anglers, and an even larger proportion participate in water sports including kayaking, canoeing, and swimming.

6. Sierra Club sponsors at the national level over 350 outings in each of the 50 states and around the world each year. <http://www.sierraclub.org/outings/national/> (visited May 29, 2003). Numerous additional outings are organized by the local chapters. A description of these outings is available at <http://www.sierraclub.org/outings/chapter/> (visited May 29, 2003). Each year, many of these national and chapter trips occur in Tributary Streams and Wetlands. Sierra Club chapters and groups also conduct public outreach and educational programs that teach our members and the general public how to monitor water quality, and those trips also bring the public to wetlands and small streams. Additional information about the Sierra Club water sentinels program is available at http://www.sierraclub.org/planet/200210/water_sentinels.asp (visited May 29, 2003).

7. In every region of the country, Sierra Club members would be harmed by the loss and degradation of Tributary Streams and Wetlands, because their use of those resources would be impaired, reduced, or precluded.

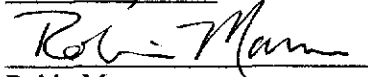
8. Sierra Club members would also be harmed by losing public participation opportunities associated with discharge permits. Sierra Club members frequently

participate in proceedings on discharge permit applications concerning proposed projects that would impair their use of waters. Such participation includes submitting written comments, testifying at public hearings, and meeting with agency officials.

9. I understand that plaintiffs are trying to narrow the scope of the Clean Water Act by excluding Tributary Streams and Wetlands. If plaintiffs are successful, I am concerned that their lawsuit would exclude bodies of water where Sierra Club members live, recreate, and perform field research from the protections of the Clean Water Act – including its key safeguards addressing discharge of pollutants and oil spill prevention. If this occurred, facilities would no longer be prohibited from discharging untreated sewage, oil and other pollutants into these waterbodies without a Clean Water Act permit. Moreover, facilities located near wetlands and small streams would no longer be required to prepare a Clean Water Act oil spill prevention plan, thus removing a key safeguard Congress established to protect against oil spills. Such discharges threaten serious damage and contamination – and indeed destruction – of Tributary Streams and Wetlands, and would impair or preclude their recreational value for Sierra Club members, and also impair the Sierra Club's outings program in such waters.

I declare under penalty of perjury that the foregoing is true and correct. Executed on

June 5, 2005.



Robin Mann

Attachment A to Robin Mann Declaration

Sierra Club Chapters in the United States¹

Alabama:	http://alabama.sierraclub.org/
Alaska:	no website available
Arizona:	http://arizona.sierraclub.org/
Arkansas:	http://arkansas.sierraclub.org/
California:	http://angeles.sierraclub.org/home.html http://kernkaweah.sierraclub.org/ http://lomaprieta.sierraclub.org/ http://lospadres.sierraclub.org/ http://motherlode.sierraclub.org/ http://redwood.sierraclub.org/ http://sandiego.sierraclub.org/home/index.asp http://sanfranciscobay.sierraclub.org/chapter/index.html http://sangorgonio.sierraclub.org/ http://santalucia.sierraclub.org/ http://tehipite.sierraclub.org/ http://toiyabe.sierraclub.org/ http://ventana.sierraclub.org/current/index.shtml
Colorado:	http://www.rmc.sierraclub.org/
Connecticut:	http://connecticut.sierraclub.org/
Delaware:	http://delaware.sierraclub.org/
Washington, D.C.:	http://www.dc.sierraclub.org/
Florida:	http://florida.sierraclub.org/
Georgia:	http://georgia.sierraclub.org/
Hawaii:	http://www.hi.sierraclub.org/
Idaho:	http://idaho.sierraclub.org/
Illinois:	http://illinois.sierraclub.org/
Indiana:	http://hoosier.sierraclub.org/
Iowa:	http://iowa.sierraclub.org/
Kansas:	http://www.kssierra.org/
Kentucky:	http://kentucky.sierraclub.org/
Louisiana:	http://louisiana.sierraclub.org/
Maine:	http://maine.sierraclub.org/
Maryland:	http://maryland.sierraclub.org/
Massachusetts:	http://www.sierraclubmass.org/
Michigan:	http://michigan.sierraclub.org/
Minnesota:	http://www.northstar.sierraclub.org/
Mississippi:	No website available
Missouri:	http://missouri.sierraclub.org/
Montana:	http://montana.sierraclub.org/
Nebraska:	http://nebraska.sierraclub.org/
Nevada:	http://nevada.sierraclub.org/
New Hampshire:	http://www.nhsierraclub.org/
New Jersey:	http://njsierra.enviroweb.org/
New Mexico:	http://riogrande.sierraclub.org/
New York:	http://newyork.sierraclub.org/

¹ All websites were visited June 5, 2003.

North Carolina: <http://sierraclub-nc.org/chapter/index.shtml>
North Dakota: No website available
Ohio: <http://ohio.sierraclub.org/>
Oklahoma: <http://oklahoma.sierraclub.org/>
Oregon: <http://oregon.sierraclub.org/>
Pennsylvania: <http://pennsylvania.sierraclub.org/>
Rhode Island: <http://www.sierraclubri.org/>
South Carolina: <http://southcarolina.sierraclub.org/>
South Dakota: <http://southdakota.sierraclub.org/>
Tennessee: <http://tennessee.sierraclub.org/>
Texas: <http://texas.sierraclub.org/>
Utah: <http://utah.sierraclub.org/>
Vermont: <http://vermont.sierraclub.org/>
Virginia: <http://virginia.sierraclub.org/>
Washington: <http://cascade.sierraclub.org/>
West Virginia: No website available
Wisconsin: <http://wisconsin.sierraclub.org/>
Wyoming: <http://wyoming.sierraclub.org/>

Sierra Club Chapters in Canada

British Columbia <http://www.sierraclub.ca/bc/>
Prairie <http://prairie.sierraclub.ca/>
Eastern Canada <http://www.sierraclub.ca/eastern/>
Atlantic Canada <http://www.sierraclub.ca/atlantic/>

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

<p>AMERICAN PETROLEUM INSTITUTE,</p> <p style="padding-left: 40px;">Plaintiff,</p> <p style="padding-left: 40px;">v.</p> <p>UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, et al.</p> <p style="padding-left: 40px;">Defendants.</p>	<p>)</p> <p>)</p> <p>)</p> <p>)</p> <p>)</p> <p>)</p> <p>)</p> <p>)</p> <p>)</p> <p>)</p> <p>)</p> <p>)</p> <p>)</p>	<p>Civil No. 02-2247 PLF (and consolidated cases Nos. 02-2249 PLF and 02-2254 PLF)</p>
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DECLARATION OF FRANCIS J. WELSH

I, Francis J. Welsh declare as follows:

1. I have resided in Phoenix, Arizona for thirty-six years. I am – and since 1995 have been – a member of the Sierra Club. I have served on the Executive Committee of the Grand Canyon Chapter of the Sierra Club. I have also served as Vice Chair for Conservation and Chair of the Grazing Committee for the Grand Canyon Chapter.

2. I am a civil engineer registered in Pennsylvania and Arizona. I was an employee of the U.S. Army Corps of Engineers for several years. I have long studied the effects of mining and dams on wilderness areas, and in 1985 I wrote a book on the subject titled How To Create a Water Crisis. My professional experience has given me insight into the effects of water flow and groundwater pumping.

3. Through frequent visits over the course of many years, I have become familiar with Haunted Canyon, Pinto Creek, and Lake Roosevelt. Haunted Canyon is a shaded, perennial desert stream at 3,000-foot elevation flowing out of the Superstition Wilderness, approximately sixty miles east of Phoenix. Haunted Canyon flows into Pinto Creek, a high-desert stream originating in the Pinal Mountains with ephemeral, intermittent and perennial stretches. Pinto Creek then flows through the Tonto National Forest and drains into Lake Roosevelt. Lake Roosevelt is the major source of drinking water for Phoenix. I have never seen a boat on either Haunted Canyon or Pinto Creek and I understand from information published by the Army Corps of Engineers that neither of these waterbodies is identified as a navigable water under the Rivers and Harbors Act. <http://www.spl.usace.army.mil/regulatory/permitprog.html> (viewed May 29, 2003).

4. Pinto Creek supports some of the highest quality and rarest riparian communities in the Southwest. Many cottonwood, willow, ash and sycamore trees grow alongside Pinto Creek. The Creek and adjacent vegetation provide habitat for many aquatic and wildlife species, including the rare yellow-billed cuckoo. Both the endangered Southwest willow flycatcher and the threatened bald eagle nest downstream of Pinto Creek, along the shores of Roosevelt Lake. Hundreds of birders – including many Sierra Club members – recently came to Pinto Creek from around the nation to witness the migration of the eared trogon, a rare neo-tropical bird, through Haunted Canyon and Pinto Creek.

5. I camp and hike along Haunted Canyon and Pinto Creek several times each year. I derive tremendous pleasure from looking at aquatic life in the water, and also from viewing birds and other wildlife in and alongside the creek. Moreover, two or three times a year I lead hikes for various environmental organizations (including the Sierra Club and Natural Resources Defense Council), the media and congressional aides along Pinto Creek and Haunted Canyon. I lead these groups so that they can learn about and enjoy the unique flora and fauna of the area. I intend to continue camping, hiking and leading educational outings with at least the same frequency in the future.

6. Pinto Creek and Haunted Canyon provide a highly used recreation area for other Sierra Club members. Moreover, members of both the Sierra Club and Natural Resources Defense Council have told me that they visit Lake Roosevelt to view bald eagles, the Southwest willow flycatcher and other unique flora and fauna in and around the lake.

7. I am aware that the Clean Water Act prohibits discharges of pollutants into waters of the United States without a permit. This requirement ensures that such discharges – which can destroy or seriously damage waterbodies, especially sensitive areas like Haunted Canyon and Pinto Creek – are subject to permitting, mitigation, public review, and environmental scrutiny.

8. Pinto Creek is threatened by a proposed open-pit copper mine by the Carlota Copper Company. The proposed mine will cover an area of over 3,000 acres and mine an estimated 100 million tons of ore from four open pits. Carlota plans to divert 5,400 feet (over one mile) of Pinto Creek around the largest of the open pits. The stream would be redirected through a proposed new artificial channel. The proposed mine includes an elaborate pump and discharge operation, whereby the company will pump warm water out of underground aquifers and discharge it into Haunted Canyon. The proposal does not contemplate any treatment of the groundwater between pumping and discharge, even though the discharged water exceeds EPA's temperature standards for Haunted Canyon. Carlota also plans to discharge copper-laden waters associated with its wasterock facility from an outfall into Pinto Creek.

9. Carlota has applied for a Clean Water Act discharge permit for the pump and discharge operation and the discharges associated with the wasterock facility. EPA initially issued the discharge permit – which includes a number of discharge requirements and conditions – on July 24, 2000. Pursuant to this permit, no discharges may occur until the mining company performs reclamation work which will reduce copper loadings into Pinto Creek

from upstream sources by an amount equal to or greater than the projected copper loadings from the proposed mine. The permit also includes a number of monitoring conditions, and provides that the receiving water may not exceed state water quality standards for either temperature or copper.

10. The Sierra Club and other environmental organizations have appealed the discharge permit on two occasions, and the permit is stayed pending these appeals. Dependent on the resolution of the most recent appeal, the permit may be revised to include more protective conditions on discharge.

11. I understand that plaintiffs are trying to narrow the scope of the Clean Water Act by excluding streams that are not "navigable in fact." I am concerned that plaintiffs' lawsuit would exclude Haunted Canyon and Pinto Creek from the discharge prohibition of the Clean Water Act. Without this prohibition, the Carlota Copper Company could discharge groundwater with elevated temperatures into Haunted Canyon and discharge copper-laden water into Pinto Creek without a Clean Water Act discharge permit. Such a result would remove a key safeguard Congress included in the Clean Water Act to reduce and eventually eliminate such discharges, would eliminate the opportunity of Sierra Club and its members to participate in permit proceedings such as the appeal described above, and would undo any permit improvements achieved through such participation.

12. I am concerned that mining would harm waterbodies where I camp, hike and lead educational outings, thereby impairing my recreational experience, or even causing me to curtail or abandon my recreational use of Haunted Canyon and Pinto Creek. Discharge of waters with elevated temperatures and copper into those waterbodies would harm aquatic life and wildlife that depend on the water, thus reducing my opportunity to view that aquatic life and wildlife. Moreover, elimination of the Clean Water Act permit requirement would eliminate my opportunity to participate in the permitting process by, for example, appealing permit decisions to the Environmental Protection Agency and/or the state permitting authority.

I declare under penalty of perjury that the foregoing is true and correct. Executed on

6/04/03

Francis J. Welsh

Francis J. Welsh

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

AMERICAN PETROLEUM INSTITUTE,)
)
)
 Plaintiff,)
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 v.) Civil No. 02-2247 PLF
) (and consolidated cases
) Nos. 02-2249 PLF and
) 02-2254 PLF)
 UNITED STATES ENVIRONMENTAL PROTECTION)
 AGENCY, et al.)
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 Defendants.)
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DECLARATION OF JAMES W. WOODWORTH, JR.

I, James W. Woodworth, Jr. declare as follows:

1. I am an Urban Water Specialist at Natural Resources Defense Council ("NRDC"). I am also a member of the organization and have been since April 2002.
2. I reside – and have resided – in Washington, D.C. for two years. I reside on Ontario Road, N.W., one mile from Piney Branch, an intermittent tributary of Rock Creek.
3. There are many intermittent streams in Washington, D.C. These streams include Piney Branch and Hickey Run. Piney Branch is a tributary of Rock Creek. It runs for one mile through a strip of forested parkland, entering Rock Creek from the East above the National Zoo. Hickey Run is a western tributary of the Anacostia River. It runs for less than one mile, discharging into the Anacostia River just above Kingman Lake. I have never seen a boat on either Piney Branch nor Hickey Run and I understand based on information provided by the Army Corps of Engineers that neither Piney Branch nor Hickey Run are on the Corps' list of waters considered navigable under the Rivers and Harbors Act.
4. I recreate regularly along water bodies in Washington, D.C. I run and bike ride along Rock Creek and the Potomac River several times each week. I hike, trail-run, walk, and bike weekly along tributaries in the Rock Creek and Anacostia watersheds, including Piney Branch and Hickey Run. I also regularly sea kayak on the Potomac and Anacostia rivers and elsewhere in the Chesapeake Bay. When I am engaged in these activities, I enjoy observing the water and looking for wildlife in and alongside the water. I derive

immense pleasure, strength and inspiration from these activities. I plan to continue to recreate in these areas with at least the same frequency in the future.

5. I personally know many other NRDC members that enjoy hiking, running and biking along creek trails throughout the Rock Creek and Anacostia watersheds. I personally have taken other NRDC members out on the Anacostia River in kayaks and canoes.

6. I am aware that the Clean Water Act prohibits discharges of oil and other pollutants into waters of the United States. I am also aware that the Clean Water Act includes oil spill planning and prevention requirements to safeguard against oil spills and to prevent oil from entering the water and causing damage.

7. I am knowledgeable about the nature and causes of pollution in the District's waters. I am aware from the 2002 D.C. Storm Water Management Plan that there are 57 automotive service shops in the Hickey Run Watershed, DC Dep't of Health, Storm Water Management Plan (2000) 5-36, and I have personally observed many automotive facilities in close proximity to Hickey Run. I am also aware from the 2000 Water Quality Report to U.S. EPA and Congress that Hickey Run has been contaminated by oil and gas leaks from above-ground storage tanks associated with these facilities. DC Dep't of Health, 2000 Water Quality Report to U.S. EPA and Congress Pursuant to Section 305(b) Clean Water Act (2000) App'x C at 29-30.

8. I understand that plaintiffs are trying to narrow the scope of the Clean Water Act by excluding streams that are not "navigable in fact" from the Act's safeguards. If plaintiffs are successful, I am concerned that their lawsuit would exclude intermittent streams in D.C. – such as Hickey Run – from the protections of the Clean Water Act. If this occurred, automotive facilities would no longer be prohibited from discharging oil and other pollutants into these tributaries without a Clean Water Act permit. Moreover, such facilities would no longer need to prepare a Clean Water Act spill prevention plan, thus removing a key safeguard Congress established to protect the public against oil spills.

9. If an automotive facility discharged oil into Hickey Run, it would affect an area where I hike and bike. An oil spill would create an unattractive sheen on the water, thus making Hickey Run less pleasant to look at and offending my aesthetic values. An oil spill may also harm the wildlife species in and around Hickey Run as well as downstream in the Anacostia River and Kingman Lake, impairing my ability to view that wildlife. Therefore, I am concerned that elimination of the discharge prohibition and spill prevention requirements of the Clean Water Act will impair my ability to enjoy Hickey Run and water bodies downstream.

10. Based on my personal observations and knowledge, I am aware that there are point source discharges of raw sewage and polluted stormwater runoff to Rock Creek, Piney Branch, the Potomac River, and the Anacostia River during and after rain events. These discharges are limited by National Pollutant Discharge Elimination System ("NPDES") permits, issued to the District of Columbia Water and Sewer Authority. As an Urban Water Specialist at NRDC, I have been very active in study, investigation, and advocacy

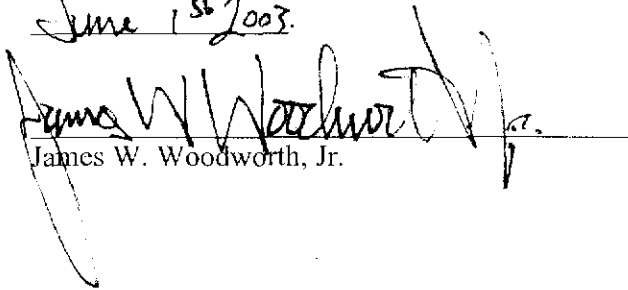
directed at protecting and enhancing water quality in the District's streams and rivers. For example, I have been trying to convince the D.C. Water and Sewer Authority to adopt stronger measures to reduce discharges into these streams. To that end, I have attended meetings and submitted comments advocating more stringent discharge permit limitations.

11. I am concerned that plaintiffs' lawsuit would exclude Piney Branch from the discharge prohibition of the Clean Water Act. Without this prohibition, facilities could discharge untreated sewage and other pollutants into Piney Branch without seeking a Clean Water Act permit. Such a result would remove a key safeguard Congress included in the Clean Water Act to address ongoing impairments like those afflicting Piney Branch, and would even allow worsening of those impairments through increased discharges.

12. If discharges into Piney Branch were prolonged or increased, my recreational activities along that stream would be impaired. Prolonged or increased sewage discharges would produce a strong odor, murky water conditions, floating debris, and unsanitary conditions, thus making Piney Branch less pleasant to look at and offending my aesthetic values. Prolonged or increased discharges also threaten harm to wildlife that lives in and around the creek, impairing my ability to view that wildlife. Prolonged or increased discharges of untreated sewage and other pollutants along Piney Branch – a tributary where I hike, trail-run, walk and bike – would interfere with my enjoyment of these activities. Moreover, elimination of the Clean Water Act permit requirement would eliminate my opportunity to participate in the permitting process by, for example, submitting comments to the Environmental Protection Agency.

I declare under penalty of perjury that the foregoing is true and correct. Executed on

June 1st 2003.


James W. Woodworth, Jr.

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

AMERICAN PETROLEUM INSTITUTE,)
)
)
 Plaintiff,)
)
)
 v.) Civil No. 02-2247 PLF
) (and consolidated cases
) Nos. 02-2249 PLF and
) 02-2254 PLF)
 UNITED STATES ENVIRONMENTAL PROTECTION)
 AGENCY, et al.)
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 Defendants.)
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DECLARATION OF MARCHANT WENTWORTH

I, Marchant Wentworth declare as follows:

1. I am – and since 1991 have been – a member of the Sierra Club. I currently serve as Chair of the Clean Water Committee of the D.C. Chapter of the Sierra Club. I also sit on the chapter Executive Committee. I have held these positions for two years.

3. I reside on Kennedy Street, N.W., in Washington, DC. I have lived in D.C. for 58 years. My home is located one-quarter mile from Rock Creek, one-half mile from Piney Branch Creek, and two miles from Foundry Branch Creek. I also live approximately five miles from the Anacostia River.

4. There are many intermittent streams in Washington, D.C. These streams include Piney Branch and Foundry Branch. Piney Branch is a tributary of Rock Creek. It runs for one mile through a strip of forested parkland, entering Rock Creek from the East above the National Zoo. Foundry Branch runs for 0.8 miles through Glover Archibald Park before entering the Potomac River below Reservoir Road. I have never seen a boat on either Piney Branch nor Foundry Branch and I understand from information provided by the Army Corps of Engineers that neither Piney Branch nor Foundry Branch are on the list of waters considered navigable under the Rivers and Harbors Act.

5. I recreate alongside many small tributaries throughout the District. For instance, I hike along Piney Branch approximately once each week. I also hike along the Grover-Archibald trail – which borders Foundry Branch Creek – at least once every three months. I fly kites in the park beside the Anacostia River and bicycle frequently along the Anacostia River and throughout Rock Creek Park. While participating in these activities, I enjoy viewing the water and looking for wildlife. I derive immense pleasure, strength

and inspiration from these activities. I plan to continue these recreational activities with at least the same frequency in the future.

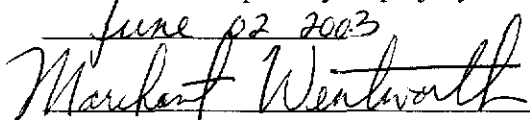
6. I am aware that the Clean Water Act prohibits discharges of pollutants, including sewage, into waters of the United States. Through the activities described in this declaration, I have developed extensive familiarity with the Clean Water Act's requirements concerning discharge permits.

7. Since 1969, I have been very active in efforts to reduce discharges into D.C. waters. To that end, I have attended numerous meetings and prepared numerous public comments seeking more protective discharge permits. I have personally observed combined sewage outfalls throughout the District. I regularly visit outfalls throughout the District to see if they are discharging untreated waste into the tributaries of the Rock Creek and Anacostia watersheds. I monitor the sewage outfall at Piney Branch once every two weeks.

8. I understand that plaintiffs are trying to narrow the scope of the Clean Water Act by excluding streams that are not "navigable in fact" from the Act's safeguards. If plaintiffs are successful, I am concerned that their lawsuit would exclude Piney Branch and Foundry Branch from the protections of the Clean Water Act. If this occurred, facilities would be allowed to discharge untreated sewage and other pollutants into Piney Branch and Foundry Branch without a Clean Water Act permit. Such a result would remove a key safeguard Congress included in the Clean Water Act to address ongoing impairments like those afflicting Piney Branch and Foundry Branch, and would even allow worsening of those impairments through increased discharges.

9. Prolonging or increasing discharges into Piney Branch and Foundry Branch would adversely affect waters where I regularly recreate. Prolonged or increased sewage discharges would produce a strong odor, murky water conditions, floating debris, and unsanitary conditions, thus impairing my enjoyment of hiking along Piney Branch and Foundry Branch. Uncontrolled discharges into Piney Branch would also affect my enjoyment of Rock Creek, into which Piney Branch flows. Prolonged or increased discharges also threaten harm to wildlife that lives in and around the creek, impairing my ability to view that wildlife. Prolonged or increased discharges of untreated sewage and other pollutants along Piney Branch – a tributary where I hike, trail-run, walk and bike – would interfere with my enjoyment of these activities. Moreover, elimination of the Clean Water Act permit requirement would eliminate my opportunity to participate in the permitting process by, for example, submitting comments to the Environmental Protection Agency.

I declare under penalty of perjury that the foregoing is true and correct. Executed on

June 02 2003

Marchant Wentworth

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

AMERICAN PETROLEUM INSTITUTE,

Plaintiff,

v.

UNITED STATES ENVIRONMENTAL PROTECTION
AGENCY, et al.

Defendants.

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) Civil No. 02-2247 PLF
) (and consolidated cases
) Nos. 02-2249 PLF and
) 02-2254 PLF)

DECLARATION OF CYNTHIA L. RANK

I, Cynthia L. Rank, declare as follows:

1. I am – and since April 1999 have been – a member of Sierra Club. I am – and since April 2003 have been – a member of Natural Resources Defense Council. Prior to rejoining these organizations, I was previously a member of each organization for many years during the 1980s and 1990s.

2. I reside in Rock Cave, West Virginia. My home is at the headwaters of the Little Kanawha River in Upshur and Lewis County. There are mountain-top removal sites within fifteen miles to the south of my residence and acid-mine drainage sites within ten miles to the north. Mountaintop removal is a process whereby the top of a mountain is removed to expose the subsurface coal seam, and large quantities of the removed rock and soil are dumped into nearby valleys, burying the streams that run through those valleys. Acid mine drainage occurs when sulfur-bearing rock and coal is brought into contact with water, causing sulfuric acid pollution that dramatically increases acidity, killing aquatic life, contaminating a drinking water source, and making the stream unappealing to look at and unhealthy to recreate in.

3. Laurel Run is a small stream that traverses my property. It is fed by three small tributaries and continues for three miles before it drains into the Little Kanawha River. The Environmental Protection Agency has classified Laurel Run as a high-quality stream that supports tremendous biological diversity. It is also very fragile because it has a relatively low pH (5.2). Laurel Run has never been used for recreational or commercial boating and I understand from information published by the Army Corps of Engineers that Laurel Run is not on the Corps' list of waters considered navigable under the Rivers

Exhibit 6 □

02-cv-02247 (PLF) & 02-cv-02254 (PLF)

and Harbors Act. <http://www.lrh.usace.army.mil/or/permits/section10.asp> (viewed May 29, 2003).

4. I use surface stream water from Laurel Run for cooking and drinking on a daily basis. I also walk alongside the stream, listen to it, and sit by it almost daily. On hot days, I sit with my feet in the stream, splash in the water, and watch water skimmers gliding across the surface. I take family members on hikes along the stream when they visit. I derive tremendous pleasure from these activities. Laurel Run provides a place of meditation and consolation. I intend to continue drinking water from Laurel Run and recreating in and alongside the stream with at least the same frequency in the future.

5. In 1979, I helped form a group called "Friends of the Little Kanawha" to protect and monitor water quality in Laurel Run, its tributaries, and neighboring surface waters. The members monitored thirty sites along the headwaters of the Little Kanawha River for a variety of chemical parameters on a monthly basis. We continue to monitor Laurel Run and its headwaters several times each year.

6. I am aware that the Clean Water Act prohibits discharges of pollutants without a permit. Permitting authority over discharges of dredged or fill material has been assigned to the Army Corps of Engineers under section 404 of the Act. Permitting authority over discharges associated with a mine's active area, holding area, preparation plant, and coal storage has been assigned to the Environmental Protection Agency and delegated to the West Virginia Department of Environmental Protection under section 402 of the Act. These Clean Water Act requirements ensure that such discharges – which can destroy or seriously damage the functions of streams – are subject to permitting, public review, environmental scrutiny and mitigation.

7. Surface and mineral rights at the head of Laurel Run, along with the mineral rights beneath my property, are held by Consolidation Coal Company. Consolidation Coal Company initiated investigatory mining activity and its predecessor-in-interest filed a permit application for a mining project in this area. Mining activity has been dramatically increasing throughout West Virginia in recent years, and I am concerned that mining will soon occur in the Laurel Run area as well.

8. I understand that plaintiffs are trying to narrow the scope of the Clean Water Act by excluding streams that are not "navigable in fact." If plaintiffs are successful, I am concerned that their lawsuit would exclude Laurel Run from the discharge prohibition and permit requirements of the Clean Water Act. Absent these safeguards, mining companies could discharge dredged or fill material into Laurel Run without a Clean Water Act permit.

9. If Laurel Run were excluded from the Clean Water Act, mining companies like Consolidation Coal Company would no longer need to seek a Clean Water Act permit before discharging dredge or fill material into the stream, thus eliminating a key safeguard against destruction or damage of the stream. Mining is highly damaging to stream hydrology and quality, and in recent years has completely obliterated many

streams in West Virginia coal country. I am concerned that mining would destroy or damage Laurel Run, harming my drinking water source and depriving me of the aesthetic pleasure I derive when looking at and wading in the stream.

I declare under penalty of perjury that the foregoing is true and correct. Executed on

June 2, 2003.

Cynthia L Rank
Cynthia L. Rank

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

AMERICAN PETROLEUM INSTITUTE,

Plaintiff,

v.

UNITED STATES ENVIRONMENTAL PROTECTION
AGENCY, et al.

Defendants.

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) Civil No. 02-2247 PLF
) (and consolidated cases
) Nos. 02-2249 PLF and
) 02-2254 PLF)
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DECLARATION OF REGINA M. HENDRIX

I, Regina M. Hendrix declare as follows:

1. I am – and since 2001 have been – a member of the Sierra Club. I was previously a member of the organization for many years throughout the 1980s and 1990s. I rejoined the Sierra Club because I support its efforts to oppose mountaintop removal projects.

2. I reside in Charleston, West Virginia. I moved to West Virginia because I was seeking a place to enjoy natural beauty and relaxation. This beauty is threatened by mountaintop mining, an extremely environmentally destructive mining method that cuts the top off of mountains and dumps massive amounts of rock and earth into adjacent valleys, burying and destroying the streams that run through those valleys. I regularly view this destruction during my frequent visits to the West Virginia mountains.

3. Kayford Mountain is a heavily mined mountain range in Kanawha and Raleigh County, West Virginia, with peaks as high as 2,898 feet. The unmined portion of the range supports a diverse ecosystem, including a variety of oak, cherry and sumac species. Kayford Mountain provides habitat for deer, turkey, black bear, birds and amphibians. Numerous small and intermittent tributaries of the Coal River and the Kanawha River traverse the mountain range. I do not believe that these streams have ever been used for boating and in my view they are not capable of transporting a boat. I understand from information published by the Army Corps of Engineers that none of the tributaries of the Coal River or the Kanawha River are on the Corps' list of waters considered navigable under the Rivers and Harbors Act.
<http://www.lrh.usace.army.mil/or/permits/section10.asp> (visited June 4, 2003).

4. I recreate and socialize on and within view of Kayford Mountain nearly every month. When there, I walk along the streams that traverse the mountain and enjoy looking at the scenery. I also

take many pictures of the streams. I spend time visiting with a friend who lives in the area. He organizes outdoor public gatherings to picnic, socialize and enjoy live music several times a year. I attend nearly all of these events. I derive tremendous pleasure and inspiration from these activities. I plan to continue hiking, taking pictures and socializing on and within view of Kayford Mountain with the same frequency in the future.

5. I am aware that the Clean Water Act prohibits discharges of pollutants without a permit. Permitting authority over discharges of dredged or fill material has been assigned to the Army Corps of Engineers under section 404 of the Act. Permitting authority over discharges associated with a mine's holding area, preparation plant, and coal storage has been assigned to the Environmental Protection Agency and delegated to the West Virginia Department of Environmental Protection under section 402 of the Act. These Clean Water Act requirements ensure that such discharges – which can destroy or seriously damage the functions of streams – are subject to permitting, public review, environmental scrutiny and mitigation.

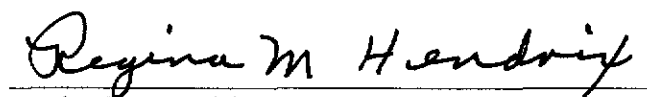
6. I am particularly concerned about a proposed mountaintop removal project by the Catenary Coal Company on a 711-acre project area in Kayford Mountain South. The proposed mine would generate 72.4-million cubic yards of excess spoil, which would be deposited in three separate valley fills, seriously damaging or completely destroying three intermittent headwater streams totaling 10,770 linear feet. The project is projected to continue for 8.8 years.

7. Catenary Coal has applied for an individual section 404 permit from the Army Corps of Engineers and a section 402 discharge permit from the West Virginia Department of Environmental Protection. Those applications are currently pending.

8. I understand that plaintiffs are trying to narrow the scope of the Clean Water Act by excluding streams that are not "navigable in fact." If plaintiffs are successful, I am concerned that their lawsuit would exclude the intermittent streams on Kayford Mountain from the discharge prohibition and permit requirements of the Clean Water Act. Absent these safeguards, Catenary Coal could discharge dredged or fill material into the streams on Kayford Mountain without a Clean Water Act permit.

9. Mining on Kayford Mountain would destroy or seriously damage at least three headwater streams there, each of which is among the streams I regularly view during my recreational activities described above. Such destruction and damage would deprive me of the aesthetic pleasure I derive when hiking, taking pictures, and visiting with friends on that mountain. The noise from the mountaintop removal project would impair my socializing. It would also cause me considerable distress to see more of West Virginia's spectacular landscape destroyed.

I declare under penalty of perjury that the foregoing is true and correct. Executed on June 4, 2003.



Regina M. Hendrix

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

AMERICAN PETROLEUM INSTITUTE,)
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Plaintiff,)
)
)
v.) Civil No. 02-2247 PLF
) (and consolidated cases
) Nos. 02-2249 PLF and
) 02-2254 PLF)
UNITED STATES ENVIRONMENTAL PROTECTION)
AGENCY, et al.)
)
Defendants.)

DECLARATION OF WILLIAM B. McCABE

I, William B. McCabe declare as follows:

1. I reside in Valley Head, West Virginia. I am – and since July 2002 have been – a member of Natural Resources Defense Council. I am – and since 2000 have been – a member of the Sierra Club. Previously, I was a member of the Sierra Club for many years since the 1970s, and rejoined in 2001 because I support the efforts of the West Virginia Sierra Club chapter to oppose mountaintop removal projects.

2. I am currently the West Virginia Mining Committee Chair for the Sierra Club. I try to educate Sierra Club members about the environmental harm caused by coal mining. I coordinated an educational campaign with the West Virginia Chapter Chair and seven community groups to produce a brochure on mountaintop removal. We have distributed 30,000 copies of that brochure throughout the region.

3. I am very concerned about mountaintop removal mining activity in West Virginia. Mountaintop removal mining is an extremely destructive mining method that cuts the tops off of mountains and dumps massive quantities of rock and earth into adjacent valleys, burying and destroying the streams that run through those valleys. Rivers are also poisoned by the toxic coal slurry sludge that escapes processing plants associated with mountaintop removal operations. Mountaintop removal mining destroys streams, communities and property values.

4. Kayford Mountain is a heavily mined mountain range in Kanawha and Raleigh County, West Virginia, with peaks as high as 2,898 feet. The unmined portion of the range supports a diverse ecosystem, including a variety of oak, cherry and sumac species. Kayford Mountain provides habitat for deer, turkey, black bear, birds and amphibians.

Exhibit 8□

02-cv-02247 (PLF) & 02-cv-02254 (PLF)

Numerous small and intermittent tributaries of the Coal River and the Kanawha River traverse the mountain range. I do not believe that these streams have ever been used for boating and in my view they are not capable of transporting a boat. I understand from information published by the Army Corps of Engineers that none of the tributaries of the Coal River or the Kanawha River are on the Corps' list of waters considered navigable under the Rivers and Harbors Act.

<http://www.lrh.usace.army.mil/or/permits/section10.asp> (viewed May 30, 2003).

5. I recreate several times each month on and within view of Kayford Mountain. I regularly take photographs and gather wildflowers along the banks of streams flowing down Kayford Mountain. Several times each winter, I hike on and within view of Kayford Mountain. I also attend outdoor public gatherings at the Stanley Heirs Park – which is located on Kayford Mountain – several times each year. I derive tremendous pleasure and inspiration from these activities and intend to continue hiking, photographing and socializing on and within view of Kayford Mountain with at least the same frequency in the future.

6. I am aware that the Clean Water Act prohibits discharges of pollutants without a permit. Permitting authority over discharges of dredged or fill material has been assigned to the Army Corps of Engineers under section 404 of the Act. Permitting authority over discharges associated with a mine's holding area, preparation plant, and coal storage has been assigned to the Environmental Protection Agency and delegated to the West Virginia Department of Environmental Protection under section 402 of the Act. These Clean Water Act requirements ensure that such discharges – which can destroy or seriously damage the functions of streams – are subject to permitting, public review, environmental scrutiny and mitigation.

7. I am particularly concerned about a proposed mountaintop removal project by the Catenary Coal Company on a 711-acre project area in Kayford Mountain South. The proposed mine would generate 72.4-million cubic yards of excess spoil, which would be deposited in three separate valley fills, seriously damaging or completely destroying three intermittent headwater streams totaling 10,770 linear feet. The project is projected to continue for 8.8 years.

8. Catenary Coal has applied for an individual section 404 permit from the Army Corps of Engineers and a section 402 discharge permit from the West Virginia Department of Environmental Protection. Those applications are currently pending.

9. I understand that plaintiffs are trying to narrow the scope of the Clean Water Act by excluding streams that are not "navigable in fact." If plaintiffs are successful, I am concerned that their lawsuit would exclude the intermittent streams on Kayford Mountain from the discharge prohibition and permit requirements of the Clean Water Act. Absent these safeguards, Catenary Coal could discharge dredged or fill material into the streams on Kayford Mountain without a Clean Water Act permit.

10. Mining on Kayford Mountain would destroy or seriously damage at least three headwater streams there, each of which is among the streams I regularly view during my recreational activities described above. Such destruction and damage would deprive me of the aesthetic pleasure I derive when gathering wildflowers, taking pictures, hiking, and visiting with friends on that mountain. Also, the noise and dust from the mountaintop removal project would further impair my recreational activities.

I declare under penalty of perjury that the foregoing is true and correct. Executed on

_____.

William B McCabe 6/04/03

William B. McCabe

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

AMERICAN PETROLEUM INSTITUTE,)
)
Plaintiff,)
)
)
v.) Civil No. 02-2247 PLF
) (and consolidated cases
) Nos. 02-2249 PLF and
) 02-2254 PLF)
UNITED STATES ENVIRONMENTAL PROTECTION)
AGENCY, et al.)
)
Defendants.)

DECLARATION OF JULIAN W. MARTIN

I, Julian W. Martin declare as follows:

1. I am – and since December 2002 have been – a member of Natural Resources Defense Council. I am – and since 1998 have been – a member of the Sierra Club.

2. I have lived in Charleston, West Virginia almost continuously since 1936. I love the state because of its beautiful mountains and streams. These resources are threatened by mountaintop removal mining, an extremely environmentally destructive mining method that cuts the tops off of mountains and dumps massive quantities of rock and earth into adjacent valleys, burying and destroying the streams that run through those valleys. I can see evidence of mountaintop removal mining operations within twenty miles of my home.

3. I have long protested mining proposals throughout the state. I regularly attend and speak at public hearings; write letters to the editor in the Charleston Gazette; demonstrate against coal companies; and write to permitting authorities, including the Army Corps of Engineers, the Environmental Protection Agency, the Office of Surface Mining, and the West Virginia Department of Environmental Protection.

4. Kayford Mountain is a heavily mined mountain range in Kanawha and Raleigh County, West Virginia, with peaks as high as 2,898 feet. The unmined portion of the range supports a diverse ecosystem, including a variety of oak, cherry and sumac species. Kayford Mountain provides habitat for deer, turkey, black bear, birds, amphibians and myriad microorganisms. Numerous small and intermittent tributaries of the Coal River and the Kanawha River traverse the mountain range. I do not believe that these streams have ever been used for boating and in my view they are not capable of transporting a

boat. I understand from information published by the Army Corps of Engineers that none of the tributaries of the Coal River or the Kanawha River are on the Corps' list of waters considered navigable under the Rivers and Harbors Act.
<http://www.lrh.usace.army.mil/or/permits/section10.asp> (visited May 30, 2003).

5. I regularly recreate and socialize on and within view of Kayford Mountain. I picnic, hike, visit the cemetery, and socialize with friends in this area at least six times per year. During these outings, I enjoy walking alongside and observing the intermittent streams that traverse Kayford Mountain. I derive tremendous pleasure and inspiration from these activities. As the outreach chairman for the West Virginia Highlands Conservancy, I also take groups on educational tours of the project area. I lead these tours approximately six times per year. I intend to continue participating in these activities with at least the same frequency in the future.

6. I am aware that the Clean Water Act prohibits discharges of pollutants without a permit. Permitting authority over discharges of dredged or fill material has been assigned to the Army Corps of Engineers under section 404 of the Act. Permitting authority over discharges associated with a mine's holding area, preparation plant, and coal storage has been assigned to the Environmental Protection Agency and delegated to the West Virginia Department of Environmental Protection under section 402 of the Act. These Clean Water Act requirements ensure that such discharges – which can destroy or seriously damage the functions of streams – are subject to permitting, public review, environmental scrutiny and mitigation.

7. I am particularly concerned about a proposed mountaintop removal project by the Catenary Coal Company on a 711-acre project area in Kayford Mountain South. The proposed mine would generate 72.4-million cubic yards of excess spoil, which would be deposited in three separate valley fills, seriously damaging or completely destroying three intermittent headwater streams totaling 10,770 linear feet. The project is projected to continue for 8.8 years.

8. Catenary Coal has applied for an individual section 404 permit from the Army Corps of Engineers and a section 402 discharge permit from the West Virginia Department of Environmental Protection. Those applications are currently pending.

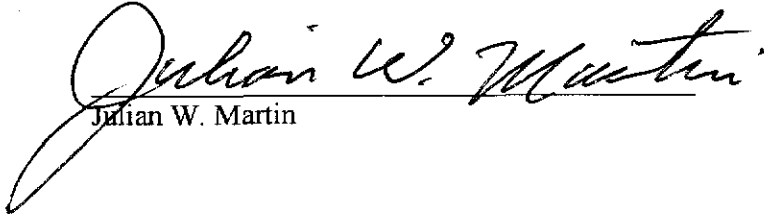
9. I understand that plaintiffs are trying to narrow the scope of the Clean Water Act by excluding streams that are not "navigable in fact." If plaintiffs are successful, I am concerned that their lawsuit would exclude the intermittent streams on Kayford Mountain from the discharge prohibition and permit requirements of the Clean Water Act. Absent these safeguards, Catenary Coal could discharge dredged or fill material into the streams on Kayford Mountain without a Clean Water Act permit.

10. Mining on Kayford Mountain would destroy or seriously damage at least three headwater streams there, each of which is among the streams I regularly view during my recreational activities described above. Such destruction and damage would deprive me of the aesthetic pleasure I derive when picnicking, hiking, and visiting with friends on

and within view of that mountain. Also, the noise from the mountaintop removal project would impair my socializing. Moreover, elimination of the Clean Water Act permit requirement would eliminate my opportunity to participate in the permitting process by, for example, submitting comments on Clean Water Act discharge permit applications.

I declare under penalty of perjury that the foregoing is true and correct. Executed on

6-2-03


Julian W. Martin

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

AMERICAN PETROLEUM INSTITUTE,)
)
Plaintiff,)
)
v.) Civil No. 02-2247 PLF
) (and consolidated cases
) Nos. 02-2249 PLF and
) 02-2254 PLF)
UNITED STATES ENVIRONMENTAL PROTECTION)
AGENCY, et al.)
)
Defendants.)

DECLARATION OF MICHAEL WELCH

I, Michael J. Welch declare as follows:

1. I am – and since 2001 have been – a member of the Sierra Club.
2. I have resided in Auburn, Maine since 1985. My home is approximately eight miles from Gully Brook in Lewiston, Maine. My office is approximately one-half mile from Gully Brook.
3. Gully Brook is a tributary of the Androscoggin River in Lewiston Maine. I have never seen a boat on Gully Brook and I understand from information published by the Army Corps of Engineers that Gully Brook is not on the Corps' list of waters considered navigable under section 10 of the Rivers and Harbors Act. <http://www.nae.usace.army.mil/> (Regulatory Permitting: "Are You Planning Work in a Waterway or Wetland?" at 4) (visited May 30, 2003).
4. I regularly observe the Androscoggin River at and immediately downstream of its confluence with Gully Brook. I bike along River Road – which runs alongside the Androscoggin River immediately downstream of its confluence with Gully Brook – at least ten times per year. I travel along Lincoln Road and cross over the South Bridge in Auburn several times each year. I also kayak on the Androscoggin River past its confluence with Gully Brook about once each year. During each of these activities, I view the mouth of Gully Brook, and the portion of the Androscoggin River downstream of Gully Brook. I plan to continue biking, walking, driving and kayaking on and alongside the above-mentioned portion of the Androscoggin River with at least the same frequency in the future.
5. I derive tremendous pleasure from my recreation in and alongside the Androscoggin River. I enjoy looking at the Androscoggin River and its tributaries when I am biking, traveling along Lincoln Road or the South bridge, or kayaking. I look for a pair of eagles that nest nearby and

regularly fly over the Androscoggin River. I also enjoy looking at the sun and trees reflecting on the water.

6. I am aware that the Clean Water Act prohibits discharges of pollutants, including oil, into waters of the United States. I am also aware that the Act includes oil spill planning and prevention requirements to safeguard against oil spills and to prevent oil from entering waters of the United States and causing damage.

7. I am aware that there are many facilities that store large quantities of petroleum in close proximity to Gully Brook. For instance, I know that Pepperell Associates is located on 550 Lisbon Street, approximately 500 feet from Gully Brook. I understand from information published by the National Response Center that a spill occurred on October 17, 1996, when a boiler-tank gasket ruptured, releasing 300 gallons of number six heating oil onto the boiler room floor, through a combined sewage and stormwater overflow, and into Gully Brook and the Androscoggin River. I am aware that the spill caused a noticeable sheen on the surface of both Gully Brook and the Androscoggin River, with the oil sheen on the Androscoggin River extending for approximately one mile from its confluence with Gully Brook.
http://www.nrc.uscg.mil/reports/cgi/rwccgi60.exe?foia_bmp+inc_seq=364682 (visited May 30, 2003).

7. I understand that plaintiffs are trying to narrow the scope of the Clean Water Act by excluding streams that are not navigable in fact. If plaintiffs are successful, I am concerned that their lawsuit would exclude Gully Brook from the protections of the Clean Water Act. If this occurred, facilities like Pepperell Associates would no longer be prohibited from discharging oil and other pollutants into Gully Brook without a Clean Water Act permit. Moreover, such facilities would no longer need to prepare a Clean Water Act spill prevention plan, thus removing a key safeguard Congress established to protect the public against oil spills.

8. If oil spilled on Gully Brook, it would harm a portion of the Androscoggin River that I regularly view while biking, walking, driving, and kayaking. An oil spill would create an unattractive sheen on the water, thus making the river less pleasant to look at and offending my aesthetic values. An oil spill would also threaten harm to the eagles downstream from Gully Brook, impairing my ability to view them. In addition to its adverse impacts on my recreational and aesthetic enjoyment of the Androscoggin River and Gully Brook, an oil spill would also cause me property damage by bringing my kayak into contact with corrosive petroleum. Therefore, I am concerned that the elimination of the discharge prohibition and spill prevention requirements of the Clean Water Act will impair my ability to enjoy Gully Brook and my property interests.

I declare under penalty of perjury that the foregoing is true and correct. Executed on

June 21, 2003



Michael J. Welch

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

AMERICAN PETROLEUM INSTITUTE,)
)
)
 Plaintiff,)
)
)
 v.) Civil No. 02-2247 PLF
) (and consolidated cases
) Nos. 02-2249 PLF and
) 02-2254 PLF)
 UNITED STATES ENVIRONMENTAL PROTECTION)
 AGENCY, et al.)
)
)
 Defendants.)
)

DECLARATION OF CAROLYN PATRICIA MERRILL

I, Carolyn Patricia Merrill declare as follows:

1. I am a member of the Sierra Club. With the exception of a few short gaps in the mid-1990s, I have been a member of the Sierra Club since 1982.
2. I have lived in Memphis, Tennessee for the past 36 years. My home is less than one mile from Nonconnah Creek and the Nonconnah Bottomland.
3. Nonconnah Creek is a tributary of the Mississippi River. It flows through Shelby County and the City of Memphis, Tennessee. The water level in Nonconnah Creek varies throughout the year. There is little to no flow throughout the entire creek in the fall. When it rains, water flow is extremely quick. Rock structures beneath the bridges that straddle the creek limit passage year-round. I understand based on information provided by the Army Corps of Engineers that Nonconnah Creek is not on the Corps' list of navigable waters under the Rivers and Harbors Act.
4. I cross over and observe Nonconnah Creek several dozen times each year. Some of these observations occur in East Memphis and some in South Memphis. I derive pleasure from looking at the water when I pass over it. I also enjoy looking at the ducks and other birds that are in and alongside the Creek. I intend to continue walking along the banks and crossing over Nonconnah Creek with at least the same frequency in the future. I may participate in these activities more often in the future, as there are plans to establish a greenway along the length of the creek.
5. I am aware that the Clean Water Act prohibits discharges of pollutants, including oil, into waters of the United States. I am also aware that the Act includes oil spill planning

and prevention requirements to safeguard against oil spills and to prevent oil from entering waters of the United States and causing damage.

6. I am also aware that there are many facilities that store large quantities of petroleum in close proximity to Nonconnah Creek. For instance, I know from information published by the National Response Center that the Valley Products Company is located on East Brooks Road, approximately one-half mile from the creek. I understand that a storage tank ruptured at Valley Products Company in December 1998, discharging 4,800 gallons of off-road diesel into a drainage ditch and Nonconnah Creek. I understand that oil from the spill traveled approximately 2 1/2 miles down Nonconnah Creek, reaching McKellar Lake. http://www.nrc.uscg.mil/reports/cgi/rwcgi60.exe?foia_bmp+inc_seq=468931

7. I understand that plaintiffs are trying to narrow the scope of the Clean Water Act by excluding streams that are not "navigable in fact" and their adjacent wetlands. If plaintiffs are successful, I am concerned that their lawsuit would exclude Nonconnah Creek from the protections of the Clean Water Act. If this occurred, facilities like Valley Products would no longer be prohibited from discharging oil and other pollutants into Nonconnah Creek without a Clean Water Act permit. Moreover, such facilities would no longer need to prepare a Clean Water Act spill prevention plan, thus removing a key safeguard Congress established to protect the public against oil spills.

8. If oil were discharged into Nonconnah Creek, it would harm the portion of the creek that I view in South Memphis. An oil spill would create an unattractive sheen on the water, thus making the creek less pleasant to look at and offending my aesthetic values. An oil spill would also threaten harm the ducks that live on the creek, impairing my ability to view them. Therefore, I am concerned that the elimination of the discharge prohibition and spill prevention requirements of the Clean Water Act will impair my ability to enjoy Nonconnah Creek.

9. My home is less than two miles from the Nonconnah Bottomland. The Nonconnah Bottomland is a 33-acre wetland area that drains into Nonconnah Creek via a surface water connection. The Bottomland is a unique wetland habitat in the midst of a highly developed urban area.

10. I observe the Nonconnah Bottomland from a Tennessee Valley Authority easement located immediately adjacent to the wetland approximately five times each year. I derive tremendous pleasure from viewing the wetland, including wildflowers and birds in the wetland area. I value the aesthetics, open space, ecological and other values of the wetland. I intend to continue observing the wetland with at least the same frequency in the future.

11. I am aware that the Clean Water Act prohibits discharges of pollutants without a permit, which – in the case of the discharge of dredged or fill material – is to be sought from the Army Corps of Engineers under section 404 of the Act. This requirement ensures that such discharges – which can destroy or seriously damage the functions of

wetlands – are subject to permitting, public review, environmental scrutiny and mitigation.

12. I am concerned that plaintiffs' lawsuit would exclude the Nonconnah Bottomland from the discharge prohibition and permit requirement of the Clean Water Act. Absent these safeguards, developers could discharge dredged or fill material into the Nonconnah Bottomland without a Clean Water Act permit.

13. Indeed, a developer has already proposed building a residential subdivision in the Bottomland, thereby destroying its current character as an ecologically productive wetland. Pursuant to the Clean Water Act, the developer has applied for a section 404 permit authorizing this development. Over 100 individuals, including myself and many other Sierra Club members, have submitted letters to the Army Corps of Engineers opposing the application.

14. If the Nonconnah Bottomland was excluded from the Clean Water Act, this and other developers would no longer need to seek a Clean Water Act permit before discharging dredge or fill material into the wetland, thus eliminating a key safeguard against destruction or damage of the wetland. If the proposed subdivision – or other development involving extensive discharges into the Nonconnah Bottomland – were built, the Bottomland would be destroyed or damaged, depriving me of the aesthetic pleasure I derive when looking at that wetland. Moreover, elimination of the Clean Water Act permit requirement would eliminate my opportunity to participate in the permitting process by, for example, submitting comments to the Corps.

I declare under penalty of perjury that the foregoing is true and correct. Executed on
May 30, 2003

Carolyn Patricia Merrill

Carolyn Patricia Merrill

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

AMERICAN PETROLEUM INSTITUTE,

Plaintiff,

v.

UNITED STATES ENVIRONMENTAL PROTECTION
AGENCY, et al.

Defendants.

)
)
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)
) Civil No. 02-2247 PLF
) (and consolidated cases
) Nos. 02-2249 PLF and
) 02-2254 PLF)

DECLARATION OF LINDA C. MODICA

I, Linda C. Modica declare as follows:

1. I reside in Washington County outside of Jonesborough, Tennessee and have resided in Washington County for the past nineteen years.

2. I am a member of the Sierra Club. With the exception of a three-month gap in 2001, I have been a member of the Sierra Club since 1981. I am Chair of the State of Franklin Group of the Tennessee Chapter of the Sierra Club. As chair, I am responsible for establishing the Group's priorities for activism, organizing program meetings to inform Group members and the general public about issues that confront Upper East Tennessee's environment, and setting the agenda for monthly strategy meetings. Also, I am – and since earlier this month have been – a member of Natural Resources Defense Council ("NRDC"). I was previously a member of NRDC from 1995 through April 2001.

3. Indian Creek is a tributary of the South Fork of the Holston River. Indian Creek's headwaters are in the Cherokee National Forest. It continues through the national forest, travels northwest through an agricultural area and drains into the South Holston River at Boone Lake, a dammed reservoir that provides recreation. I have never seen a boat on Indian Creek and I understand from information published by the Army Corps of Engineers that Indian Creek is not on the Corps' list of navigable waters under the Rivers and Harbors Act. <http://www.orn.usace.army.mil/cof/navtr.html> (viewed May 30, 2003).

4. I cross over and travel immediately alongside Indian Creek less than one-quarter mile above its confluence with the South Fork of the Holston River at least six times each year. This is one of the most scenic routes in Upper Tennessee. I derive pleasure from looking at the creek. In particular, I look at the clarity of the creek's water, and also look for great blue herons in the water. I intend to continue viewing the above-mentioned portion of Indian Creek with at least the same frequency in the future.

5. Over the past few summers, I have led outings for the "Sierra Cubs" day camp at Boone Lake, which is downstream of Indian Creek. I play with the children at a park immediately alongside the Lake. I also help them collect and identify aquatic life from the Lake. I also fish in Boone Lake about once a year. I intend to continue these activities with at least the same frequency in the future.

6. I am aware that the Clean Water Act prohibits discharges of pollutants, including oil, into waters of the United States. I am also aware that the Act includes oil spill planning and prevention requirements to safeguard against oil spills and to prevent oil from entering waters of the United States and causing damage.

7. I am also aware that there are facilities that store large quantities of petroleum in close proximity to Indian Creek. For instance, I know that General Shale is located on Mountain View Road, approximately three-quarters of a mile from the creek. I understand from information published by the National Response Center that a 10,000-gallon storage tank valve was left open on April 5 of this year, discharging 2,800 gallons of diesel fuel into Indian Creek. I understand that oil from the spill traveled approximately 2 1/2 miles down Indian Creek.

http://www.nrc.uscg.mil/reports/cgi/rwcgi60.exe?foia_bmp+inc_seq=641393 (viewed May 30, 2003).

8. I understand that plaintiffs are trying to narrow the scope of the Clean Water Act by excluding streams that are not "navigable in fact." If plaintiffs are successful, I am concerned that their lawsuit would exclude Indian Creek from the protections of the Clean Water Act. If this occurred, facilities like General Shale would no longer be prohibited from discharging oil and other pollutants into Indian Creek without a Clean Water Act permit. Moreover, such facilities would no longer need to prepare a Clean Water Act spill prevention plan, thus removing a key safeguard Congress established to protect the public against oil spills.

9. If oil were discharged into Indian Creek, it would harm the portion of the creek that I view when crossing over and traveling alongside it. An oil spill would create an unattractive sheen on the water, thus making the Creek less pleasant to look at and offending my aesthetic values. An oil spill may also harm the wildlife that live on and near the creek, impairing my ability to view them. Therefore, I am concerned that the elimination of the discharge prohibition and spill prevention requirements of the Clean Water Act will impair my ability to enjoy Indian Creek.

10. If a spill reached Boone Lake, it would threaten harm to the portion of the lake where I take the Sierra Cub campers. An oil spill would harm the aquatic life in the water, impairing my ability to identify aquatic insects with the children. It would also harm the fish in Boone Lake, impairing my ability to fish there.

I declare under penalty of perjury that the foregoing is true and correct. Executed on

June 9, 2003.

Linda C. Modica
Linda C. Modica