

**UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS**

AMERICAN WATERWAYS OPERATORS, <i>et al.</i> ,)	
)	
Plaintiffs,)	
)	
v.)	Civil Action No. 10-10584-DPW
)	
DEVAL PATRICK, in his capacity as Governor of)	
Massachusetts; and KENNETH L. KIMMELL, in)	
his capacity as Commissioner of the Massachusetts)	
Department of Environmental Protection,)	
)	
Defendants.)	
)	

DECLARATION OF DR. JOSEPH E. COSTA

I, Joseph E. Costa, PhD, declare and state as follows:

1. I am the Executive Director of the Buzzards Bay National Estuary Program, a position that I have held since 1989. I have personal knowledge of the matters that I discuss in this Declaration, including the economic and environmental costs of oil spills, and, in particular, the costs associated with the April 27, 2003 Bouchard B-120 spill in Buzzards Bay, Massachusetts, which I discuss below.

2. The Buzzards Bay National Estuary Program (NEP) is an advisory and planning unit of the Massachusetts Office of Coastal Zone Management. The primary function of the Program is to provide funding and technical assistance to municipalities and citizens to implement the recommended actions contained in the 1991 Comprehensive Conservation and Management Plan for Buzzards Bay—the blueprint for protection and restoration of water quality and living resources in the Bay and its watershed. As Executive Director, I am responsible for overseeing staff and budget, program development, production and review of technical reports, public

outreach, coordination of program activities with state, federal, and local regulatory and non-regulatory agencies, and the formulation of environmental coastal policies.

3. Prior to becoming Executive Director of the Buzzards Bay National Estuary Program, I held positions as a post-doctoral research associate with the Boston University Marine Program located at the Marine Biological Laboratory in Woods Hole, Massachusetts, as a research assistant and graduate and undergraduate teaching fellow at Boston University, and as an environmental and computer consultant. I received a Bachelor of Arts from the University of California, Berkeley. I received a PhD in Marine Biology from Boston University.

Bouchard No. 120 Oil Spill and Its Costs

4. On April 27, 2003, the tugboat *Evening Tide* towed the tank barge Bouchard No. 120 less than 1/4 of mile west of the buoy G1, which marks the navigation channel at the entrance of Buzzards Bay.¹ At the time, Bouchard No. 120 was loaded with approximately 98,903 barrels of No. 6 Fuel oil (Gross Observed Volume [at shipping temperature] or the equivalent of 4,153,923 gallons of oil). As a result of the *Evening Tide*'s departure from the recommended navigation route, the tank barge struck a submerged rock hazard west of marker G1, which tore a 12-foot gash in the bottom of the hull and caused the discharge of an estimated 98,000 gallons of No. 6 fuel oil into the Bay (this is the value the U.S. Coast Guard determined to be the most credible estimate). Because of shifting winds and rough seas, oil continued to wash ashore for more than two weeks, eventually impacting more than 90 miles of the shoreline. Assessment and cleanup work began shortly after the spill. The emergency response phase of the cleanup, overseen by the U.S. Coast Guard, concluded in September 2003. The non-emergency response phase of the

¹ See National Oceanic and Atmospheric Administration (NOAA) Nautical Chart 13218, available at <http://www.charts.noaa.gov/OnLineViewer/13218.shtml> (last visited March 10, 2011).

cleanup, conducted by a private contractor under Massachusetts General Law Chapter 21E (known as the Massachusetts Oil and Hazardous Material Release Prevention and Response Act) and with oversight from the Massachusetts Department of Environmental Protection, was completed in 2009, although most of the on-the-ground cleanup activities ended in 2007.

5. Based on the most current data available to me, Bouchard Transportation Company, Inc. (Bouchard) and its related corporate affiliates have incurred at least \$80,204,923 in costs to date because of the 2003 spill. The basis for this calculation follows and is summarized in a table below:

(a) As of 2004, Bouchard had incurred \$37.23 million in direct cleanup costs during the emergency cleanup phase. This total includes \$35.5 million reported by Bouchard's claims adjuster plus \$1.73 million billed through the National Pollution Funds Center principally for agency expenses. There was also an additional \$2.5 million in claims submitted by municipalities and private persons, including commercial fisherman, for cleanup related expenses, private damages, and loss of income. I do not know what costs were incurred during the non-emergency phase of the cleanup, that is, the phase that was conducted between September 2003 and 2009 to comply with the Massachusetts Oil and Hazardous Material Release Prevention and Response Act (Chapter 21E).

(b) On March 10, 2004, Bouchard agreed to plead guilty to violating the federal Clean Water Act and the Migratory Bird Treaty Act. As part of that agreement, Bouchard agreed to pay a \$10 million criminal penalty, \$1 million of which was suspended and ultimately waived because Bouchard complied with specified terms of probation. In addition to the penalty, in a separate criminal action, the first mate of the

tugboat *Evening Tide* also plead guilty for the same violations and was sentenced to 5 months in jail in 2005.

(c) In July 2010, Bouchard agreed to pay \$11,450,000 to settle a private class action lawsuit filed in the U.S. District Court for the District of Massachusetts. The class consisted of persons who had a property interest in waterfront property located in Buzzards Bay at the time of the spill, but excluding any property in Mattapoissett, Massachusetts.

(d) On November 15, 2010, the United States, the Commonwealth of Massachusetts, and the State of Rhode Island filed a proposed Consent Decree resolving some of the governments' claims for natural resource damages arising from the oil spill. In the proposed Consent Decree, Bouchard has agreed to pay \$6,076,393 in natural resource damages and has acknowledged payment of \$1,573,530 to the governments to reimburse them for their costs of assessing the damages. Notably, the proposed Consent Decree does not resolve the governments' claims for damages related to the endangered Roseate Tern and certain other bird species, which are still being assessed.

(e) In December 2010, Bouchard agreed to pay \$12,375,000 to settle a private class action lawsuit filed in the Massachusetts Superior Court in Plymouth, Massachusetts. The class consisted of persons who owned residential property in Mattapoissett, Massachusetts at the time of the spill.

Expense Category	Estimated Cost
Federal Cleanup Costs	\$37,230,000.00
Costs to meet State oil and hazardous material cleanup law	Unknown
Third Party Claims (estimated)	\$2,500,000.00
Criminal Fines	\$9,000,000.00*
Natural Resource Damages (partial)	\$7,649,923.00
Federal Court Class Action Lawsuit	\$11,450,000.00
State Court Class Action Lawsuit	\$12,375,000.00
Total	\$80,204,923.00

* Amount of the \$10 million federal criminal penalty that Bouchard paid, as noted in paragraph 5(b) above.

6. The \$80 million figure does not capture all of the potential costs that have been or will be incurred in the future. For example, the calculation does not include costs associated with salvage and the lost cargo. In addition, the responsible party costs associated with the assessment and cleanup during the non-emergency phase of cleanup, as well as legal costs, are not included because I am not familiar with those costs and, to the best of my knowledge, the responsible party has not publically disclosed them. Finally, the costs associated with the Federal and State governments' claims for natural resource damages related to Roseate Terns and other birds are not included because they have not yet been resolved. However, those damages could be substantial because the oil spill caused the deaths of almost 500 birds, some of which are species listed as endangered. As a result of these unaccounted for costs, the final calculation of all of the costs associated with the Bouchard spill will surpass the \$80 million estimate noted above, likely falling in the range between \$82 and \$100 million.

Comparative Oil Spill Cleanup Costs

7. In addition to calculating the costs attributable to the Bouchard oil spill, I have also compared the cleanup costs for the Bouchard spill to the cleanup costs for other prior oil spills. My expectation from the beginning of the spill was that the Bouchard spill would likely be one of the most expensive spills to clean up on a per gallon basis for any spill over 50,000 gallons. That expectation was based on the unique factors associated with Buzzards Bay and the type of oil spilled. Those factors include the fact that Buzzards Bay is a confined body of water surrounded by land on most sides. Because of this unique geographical characteristic, a large percentage of any oil spilled within the Bay is likely to wash ashore rather than float out to sea. In addition, the conspicuous and sticky nature of the Number 6 oil that spilled in Buzzards Bay, the widespread dispersal of the spilled oil, and the fact that the Buzzards Bay shoreline is one of the most densely populated and heavily utilized shorelines on the East Coast meant that, not only would this oil spill affect a significant number of people, but also that those people would likely demand that the person or entity responsible for the oil spill (e.g., Bouchard and its related entities) clean up all of the oil.

8. My subsequent comparative analysis of earlier spills has borne out my original hypothesis. Briefly, as part of my analysis, I compared the costs to clean up the Bouchard spill in Buzzards Bay with the costs to clean up the 1989 *Exxon Valdez* spill in Prince William Sound, Alaska, one of the most expensive spills to clean up on a per gallon basis up until 2003. The *Exxon Valdez* incident resulted in the discharge of 10,836,000 million gallons of crude oil (at least 100 times greater than the Bouchard spill) and cost \$2.5 billion in 1989 dollars or \$3.8 billion in 2003 dollars to clean up (cost adjusted for inflation based on the Consumer Price Index). Based on these inputs, it cost approximately \$351 to cleanup each gallon of spilled oil in

the *Exxon Valdez* spill. On the other hand, the Bouchard oil spill resulted in the discharge of an estimated 98,000 gallons of oil and cost at least \$37.73 million to cleanup.² Based on these inputs, it cost approximately \$385 to clean up each gallon of spilled oil in the Bouchard spill. The chart below summarizes this information and information from some other oil spills prior to the 2003 spill in Buzzards Bay.

Accident	Year	Oil Type	Volume Spilled	Clean-up Costs, Adjusted for Inflation	Cost / Gallon	Penalties (adjusted to 2003 dollars)
Exxon Valdez, Prince William Sound Alaska	1989	Crude	10,836,000	\$3,800,000,000	\$351	\$165,000,000
Bouchard 120, Buzzards Bay	2003	No. 6	98,000	\$37,730,000	\$385	\$10,000,000*
North Cape, Moonstone Beach RI	1996	No. 2	828,000	\$6,600,000	\$8	\$8,500,000
World Prodigy, Narragansett RI	1989	No. 2	294,000	\$29,992,500	\$102	Not Available
American Trader, Huntington Beach, CA	1990	Crude	397,236	\$19,600,000	\$49	\$5,300,000

* This amount represents the total federal criminal penalty. As explained above in paragraph 5(b), one million of this amount was ultimately waived.

² For purposes of this analysis, I assumed that \$500,000 of the \$2.5 million paid out for third party claims (see ¶ 5(a) above) were to reimburse local municipalities for costs they incurred responding to and assisting with the cleanup of the oil spill. The figure I used above (\$37.73 million) reflects the sum of the cleanup costs noted in paragraph 5(a) above (\$37.23 million) and the \$500,000 noted here. I believe that this figure likely underestimates the total cleanup costs because Bouchard has itself stated both that it has paid over \$36 million and that it has paid over \$38 million in cleanup costs.

9. I, Joseph E. Costa, PhD, have read the above statement consisting of 8 pages, and I certify under penalty of perjury that the foregoing is true and correct. Executed on March 11, 2011.

JOSEPH E. COSTA, PhD
Executive Director
Buzzards Bay National Estuary Program
Massachusetts Office of Coastal Zone
Management