Statement of Grace Chris
Student Delegate from Vermont
Youth Watershed Summit (October 6-10, 2002)

Before the Senate Environment and Public Works Committee
October 8, 2002

Good morning and thank you, Senators, for allowing me to speak about clean water before this committee while I'm attending the Youth Watershed Summit. My name is Grace Chris, I'm 13 years old and I live in Vermont. I am both honored and very, very nervous this morning.

I came here from the state of Vermont, also known as the Green Mountain State for the beautiful hills that cross the state north to south. Throughout the Green Mountains and its adjacent lowlands are miles of streams and rivers and acres of ponds and lakes. These waterways nourish the green of the mountains and in turn support the wildlife, farm life, and human life whose habitat is the state of Vermont. The fall foliage for which Vermont is famous draws water from Vermont earth and creates jobs for Vermonters involved in the tourist industry. The sweet maple syrup from Vermont Sugar Maple trees starts out as clean water in the many Vermont watersheds. Cows drink Vermont water and give us world famous Cabot cheese and Ben and Jerry's ice cream. Agriculture, hunting and fishing, trees and tourists, recreation, business and industry, and daily Vermont quality of life all depend on maintaining the abundance and cleanliness of Vermont's waters.

My classmates and I, and all the other kids attending the Youth Watershed Summit, are doing something back home to help protect the waters that bring life to our states. This week in Maryland we've all come together to share evidence of our efforts to protect our water. We already know that thirty years ago you did something very important by creating The Clean Water Act, and for thirty years Americans have benefited from that important legislative accomplishment. My teacher was a senior in High School when you passed the Clean Water Act in 1972. This week he's here with me and the other students and teachers at the Summit to share in a celebration of what this Senate helped create 30 years ago. We're hoping to demonstrate that the effort to protect the world's waters continues through us and the work we do back home.

I'm an 8th grade student at The Hartford Middle School in White River Junction, Vermont. My school is located about one-half mile from the point where the White River flows into the Connecticut River. Upstream from us, the White River Watershed collects rain and runoff from the many, many tributaries that flow through the forests, farmlands, and towns of Bethel, Randolph, Rochester, Stockbridge and Sharon, and many, many other beautiful small Vermont villages of central Vermont. The activities we conduct and allow along these waterways determine the present and future health and abundance of these waters. The work of our State and Federal employees and the many local volunteers is very important in protecting the White River Watershed. My classmates and I are a part of that group effort, and I'm here to tell you a little bit about what we are doing to fulfill the Clean Water Act's goals.

As water flows through my watershed, it's drawn out for various uses and then returned in various states of contamination. Also, rain water and snow melt carry manure, road salt and many other chemicals from fields and roads and parking lots into the watershed through "non-point source pollution." Business, industry, breweries and cider mills, sewerage treatment plants, schools, hospitals, private homes and vacation homes often add materials and chemicals to the waterways through identifiable pipes, or "point source pollution." The disease causing bacteria E. coli, cancer-causing heavy metals, poisonous industrial wastes and road salts all contribute to changes in the water quality in my watershed. Fish and other animal populations, drinking water sources and favorite swimming holes benefit or suffer from what you and I and others do, or fail to do, in and around our waterways. Most of the water uses are necessary and very important and need to continue. Volunteers and professionals follow the fate of these waters through water quality monitoring programs and stream bank restoration projects. Small towns pass budgets to upgrade sewerage treatment plant facilities or adopt low salt policies for their roads, and students collect tires and trash from streams and ponds during Vermont's Green Up Day on the first Saturday in May. Together, we use and sometimes abuse our watersheds through our daily activities. Together, we have a responsibility to undo the damage that our waters are subjected to every day. The Clean Water Act gives us the authority to clean up our waters, but it is we individuals who must put forth the effort to repair, restore and maintain our watershed water quality. I want to thank you for all you do as Federal leaders and lawmakers, and I want to tell you what we are doing.

My school is a pioneer in the use of Geographic Information System , or (GIS), and Global Positioning Systems, or (GPS) technologies in Vermont. We are learning how to collect data and display data in spatial, or map formats. We can take fish collection data, E. coli population data, soil type and land use data, or pH and water temperature data collected in our watershed and show it as a map. We can ask important questions about the relationships among these water quality factors, and then display those relationships in multi-colored maps. The spatial display of these data may reveal patterns that better explain what is going on in the watershed. Right now my group's work has been to look for relationships among the land use on the shores of the streams and riverbanks, the soil types on those shorelines, and the E. coli populations in the downstream waters. We've found that the E. coli populations are higher in water

that has less forest vegetation along the shoreline. However, we don't see a clear relationship between Prime Agricultural Soils on the shoreline and high E. coli populations in the nearby water. Our GIS analysis has begun to reveal some relationships among water quality factors in our watershed, and it's created some new questions for us to investigate in the future. What we expected to find was not exactly what we found, and we want to know why. So, we'll keep on working at it and training other kids how to do this work.

We are just young people, but young people with an interest in our watershed. We've been lucky to work with groups like the Vermont Institute of Natural Science (VINS), the White River Partnership, and Vermont Fish and Wildlife. They have taught us about GIS and shared their water quality data with us. Together we are creating a Community Mapping Program to help local community leaders use GIS technologies to plan for their community's future and manage its resources wisely. Our teacher has received training from groups associated with NASA and the Environmental Protection Agency. Now, we'd like to count on continued support from you, the United States Senate, through thoughtful legislation, to help my school and other schools protect the White River Watershed and every other watershed in every other state. I hope my testimony here today contributes to that goal.

Again, I'm very honored to have been invited to talk to you about clean water. Together, I hope we'll continue to be responsible citizens and support the 1972 Clean Water Act for at least another thirty years. Thank you very much, and goodbye.