Taking the Tide, Saving the Chesapeake Bay
*The Chesapeake Bay Foundation's biweekly, Tuesday morning podcast*

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**Title:** Episode 6, *Literally and Figuratively*

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**Summary:** CBF President Will Baker interviews Vice President for Education Tom Ackerman about the now and later virtues of immersing young people in outdoor learning.

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**BAKER:** Hi, I'm Will Baker, President of the Chesapeake Bay Foundation. Welcome to our continuing podcast series – Turning the Tide, Saving the Chesapeake Bay. I'm delighted to be here today with CBF’s relatively new VP for Education Tom Ackerman. Tom's had a lifelong history of working in education. In fact, I believe Tom, your father was an educator so you come from a family of educators.

**ACKERMAN:** That's true.

**BAKER:** Tom has been at CBF for 11 years and have been VP for Education since the start of the year.

**ACKERMAN:** It's an honor to take on the lead of the education program, which I've been a part of as you said, for 11 years. I think it's such a powerful program, we've got such a great staff, and it's really a unique program because of how we're able to do the things that we do, but also work in a larger organization that has so many resources around science, around policy, around communications. We can bring things to teachers and to students that no one else can.

**BAKER:** You might get to talk about how I got started at CBF, but let's go to you first. How'd you first learn about CBF, what was your first connection?

**ACKERMAN:** I started with CBF as a high school student! I went out to Smith Island and that really was a life-changing experience for me. I had been the kind of kid that spent time in nature but that really put all the pieces together for me. That led me to get a degree in Environmental Science, and I thought about how I could really make a difference, and that was in teaching. When I became a teacher, I started working with the Bay Foundation—I took my students out, I did restoration projects, and eventually got the opportunity to come here and work for the Bay Foundation.

**BAKER:** Life-changing experiences, I think we'll probably touch on that theme a couple of times. I'll talk a little bit about my early days. I started at the Chesapeake Bay Foundation as an intern, right out of college. One of the first things I did was to go on a teacher training trip. These were a number of teachers from Baltimore City. Some had never been on the water before, and many of them said that that trip was life-changing for them. One of them began to dedicate her life to environmental education, even working in the summers at a state park, and joined the
board of the Chesapeake Bay Foundation, and over the years has been one of our most dynamic board members. When she talks about what her students gain coming from inner-city Baltimore City schools, it's really extraordinary. The ability of you and your team to get to these kids, not only teach them about the Bay, but also help them develop academics, help them develop an interest in their surroundings and on, and on. My hats off to what you and your team do. What I really want to get you talking a little bit about is, how the heck do you do it?

ACKERMAN: The process of education at the Chesapeake Bay Foundation is really about getting our participants, whether they be students or teachers, in touch with the resource. We have to get them outside to understand what this is all about. As you mentioned, for a lot of our participants, this is the first time they're getting out on the water. Whether that be on one of our canoe trips, on one of our Chesapeake Bay workboats, on our skipjack, out on our Clagett Farm program, or at one of our green centers here in Annapolis or down on Virginia Beach. When students get out on our programs they have an opportunity to use state-of-the-art scientific equipment, they use watermen's tools, they use their own five senses, really to get a sense for whether the environment is healthy, what's happening with it. And then we teach them about the issues and a little bit about what they can do to make a difference. These experiences really are eye-opening for the students, they're eye-opening for teachers. We use that term "life-changing," but that's really the words of our participants coming back to us. It's an amazing experience for them. In many cases, they're able to bring that learning, that excitement, back home and back into the classroom.

BAKER: You're just about to finish up the work with the students for the spring and we're getting ready to start summer. Summer is a time for teacher training and even principals of schools. Tell us a little bit about what this summer will hold.

ACKERMAN: The core of our program is working with over 30,000 students a year across the entire watershed. But almost equally as important is the work that we do over the summer with teachers and principals. We'll work with 400-500 teachers and principals in courses, summer institutes, that actually qualify for graduate credit. These experiences, teachers and principals have told us, are some of the most valuable professional development that they've gotten in their careers on any topic. They learn how to use their local environment, use their river, use the Bay, to teach all sorts of lessons, and really get students not only to learn about the Bay and the important environmental message, but also to achieve a lot of their academic goals that they have around science, social studies, even language arts and math.

BAKER: Do I remember this correctly—30 one-week teacher training experiences, each for 15-20 teachers, they're out there for five or six days?

ACKERMAN: That's correct, five or six day courses. We're running them all across the watershed—Pennsylvania, Maryland, Virginia, DC. We're coordinating with our school system partners to make sure we're training our teachers in relevant content, and then we're teaching them how to connect back with their local communities and their local providers to help bring these experiences to their students.
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**BAKER:** The importance of this, as I understand it, is while the students are with us on a field trip, whether one-day, two-day, three-day field trip, we're really the instructors, but the teachers are with us. But what we hope is that the teachers put the field trip into a continuum of learning. They're working with students before the field trip, and after, and that's why this teacher training is so important.

**ACKERMAN:** That one-day or three-day field experience is a touchstone for those students and that's where the magic really happens. But our partnerships with teachers allow us to extend that back into the classroom and back into their local community, where we're hoping students will investigate local issues and take action to help protect the Chesapeake Bay.

**BAKER:** You touched briefly on the various centers we have, from Pennsylvania, to Virginia, DC, one-day programs, three-day programs – give us a sense of some of the most unique of these centers, cause they are really some extraordinary places. Tell us a little bit about the places where we're teaching kids.

**ACKERMAN:** Like I said, it's really about getting students out into the environment and we have some very unique platforms for doing that. We have a [112-year old skipjack](#) that sails out of Annapolis where students really get into the history of the Bay along with the science. We have an [organic farm](#) that students work on, learning about agriculture and the environment, but also helping us raise vegetables that eventually go to a CSA that supports a food bank in Washington.

**BAKER:** CSA?

**ACKERMAN:** A [Community Supported Agriculture](#) program. We also have the [Merrill Center](#) in Annapolis which was the [first Platinum LEED building](#). Students explore that, we even have architecture students come in and explore that. We have a [new living building](#) in Virginia Beach which is our latest and greatest platform for education, which is another exciting opportunity.

**BAKER:** What about Smith, and Tangier, and Fox Islands? Draw us a picture about what it's like to get a student out onto Fox Island.

**ACKERMAN:** In many ways the island centers are really the jewel of our education program, the heart of our education program. Students come out for three days and are immersed in the environment, literally and figuratively. They have an opportunity to explore the vibrant watermen's communities of Tangier Sound, to learn how important it is for them to take good actions in their part of the watershed so that we can continue to have vibrant communities that depend on healthy water quality. Those experiences are the experiences from which students come back truly changed. They're changed for their lifetimes and those students go onto become the elected officials, the community organizers, the homebuilders, the farmers, who carry a passion for the Chesapeake Bay with them for the rest of their lives.

**BAKER:** They're learning biology by harvesting their own seafood and eating it right out of the Bay.
ACKERMAN: Yes, they're using those watermen's tools, they're figuring out what's living there, they're learning why it's important, they're learning what impacts those living systems by getting their hands dirty, by smelling, by tasting, by seeing, by talking to people, by really immersing themselves in the environment. It's a pretty incredible experience, and I'd encourage the Podcast listeners to check out our website and see some video and pictures of those students in action.

BAKER: Even applied mathematics.

ACKERMAN: Sure!

BAKER: You can do just about anything. And they're keeping journals, they're writing – I've read some incredible poems that they've written while they're on the field trips, from the heart.

ACKERMAN: Very true.

BAKER: Let me ask you just a little bit about environmental policy that relates to CBF's education work. The concept or the term, "No Child Left Inside," is one that we've been talking about for years. We think of this as how we can turn this shopping mall generation and return them to the generation that loves to play outside, learn outside, be exposed to the outside. Also the concept of environmental literacy. Talk a little bit about No Child Left Inside and environmental literacy.

ACKERMAN: We've recognized that we've got dual challenges and you referred to both of them. One is that kids are spending more time in front of screens. Some statistics say as many as 60 hours a week in front of some sort of screen. That's at the cost of spending time outdoors. In a single generation we've gone from kids who spend most of their free time outside in unstructured play to most of their time in front of an electronic device. That's unfortunate and has ramifications for all of us. The other piece is that school systems have really ratcheted down in terms of how they're delivering instruction. They're very assessment driven, you hear a lot about testing, preparing for tests, and that's resulted in a lot of instruction, environmental literacy or environmental education, being cut from the curriculum. A number of years ago CBF spearheaded an effort nationally to really call attention to this, and to call attention to the fact that that instructional practice is really misguided in terms of what we're trying to get kids to do. When you take students outside, that's a fantastic learning experience, learning opportunity. There's no greater teachable moment in my mind. Not only are kids engaged, in the data gathering, in the experience that they're having, but then you can extend that into investigating their community, investigating their local environment, in a way that really encourages kids to develop the job skills that colleges and career fields are looking for right now. You see the whole education system looking for opportunities for kids to build communication skills, collaboration, creative thinking, critical thinking...

BAKER: Critical thinking is one that keeps hitting me.
ACKERMAN: And we're not doing it in schools. But when kids get involved in environmental literacy, when they get involved in real world problem solving, that's where the real learning happens.

BAKER: On environmental literacy, one state has even passed a graduation requirement that all students have to meet a certain level of environmental literacy.

ACKERMAN: That's true, in Maryland we have worked with our partners to help the state board see the value of making sure that every student is able to participate in these kind of environmental literacy programs, and so there is a high school graduation requirement now. At CBF we don't just push the policies though, we are working at the state level with our partners and at the local level with our school system partners, to help them do this in a robust way, to really support them through helping them develop curriculum, through helping them train their teachers, and helping them implement this with students, really get their students outside doing these investigations.

BAKER: It's extraordinary. The Board of Education for the state of Maryland has passed and is now implementing an environmental literacy requirement for high school graduation. As I understand it, it's not a one-size mandate for all local jurisdictions. Local jurisdictions can develop their own ways to get it done under a general framework from the state.

ACKERMAN: That's true. Much like many of our other educational initiatives, the school systems are given standards that they need to figure out how to get to. We're proud at the Chesapeake Bay Foundation to say that twelve of the largest jurisdictions in Maryland have come to partner with us and the University of Maryland to develop that curriculum because we're seen not only as experts in the field of environmental policy, but also as experts in the field of environmental education.

BAKER: In Virginia we're starting down that path as well, but we're not quite to the same level.

ACKERMAN: We've been working with some tremendous model programs in Virginia. We have a flagship program with Virginia Beach City Public Schools and we're looking to extend that to some schools in rural and urban environments with some new partnerships that are spinning up with Hampton City Schools and Rockham County Public Schools.

BAKER: DC and Pennsylvania, watch out they'll be next.

ACKERMAN: That's right.

BAKER: I want to touch on one final topic and then I want to ask you to look out in the future and give us a little sense of where you think we're going to go. Student leadership – that's another area where your program has been developing expertise.

ACKERMAN: We're very excited about our re-imagined student leadership program. It's another area where we're really moving forward and investing new energy. We don't just want to
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take our student leaders and teach them about Bay issues and Bay content. We want to give them the tools to make a difference in their communities when they go back and take this information and do something with it. These student leaders actually presented to the executive committee of the Bay program and challenged them to do something about it. They showed the steps that they were taking and then Maryland Governor Martin O'Malley, he said, 'You students have really laid it out, you've put the challenge at our feet and now it's on us to do something.' Elected officials, adults, the public, really respond to the youth as a voice of environmental restoration and protection.

BAKER: I've been to one of those executive council meetings every year for the last 25 years and I was at this one. When the students we're speaking, they each spoke without notes for about five or six minutes a piece, you could've heard a pin drop. And you're absolutely right, they didn't just tell what they knew, they challenged the governors—these are the people who are responsible at the highest levels, the governors of all the states and the EPA Administrator. It was a remarkable moment, and the pride I had, knowing that these were Chesapeake Bay Foundation students, was just immense. My hat's off to you and your team. Last question—how do you spell success? Look out ten years, 20 years, 30 years—what's going to be different, thanks to the work you and your team have done?

ACKERMAN: I think success in the long-term is really a citizenry that understands the issues that we're facing and that's ready to make good choices. I don't think there's anybody out there that is intentionally polluting the Chesapeake Bay, but we have broken systems in place and economic incentives that are backwards. I think that when we get our students out there who understand what's going on and they're influencing their families and their communities, then we can start putting in place those systems, we can start doing business in a way that's Bay-friendly, in a way that's friendly to the environment. I think success in 30 years looks like the Chesapeake Bay region being a modern society, with all the trappings and 17 or 20 million people, living in harmony with the environment, and the rest of the world looking at it and saying, 'This is the way it can be done.' I think that starts at the citizen level and I think that also includes making good choices by government officials, but those government officials are responsive again to the citizens. I think that's what success looks like.

BAKER: Those government officials in 30 years are out on a boat with you and your staff, today. It's a generational environmental ethic that we're after. Well Tom, thank you very much, this is Will Baker, President of the Chesapeake Bay Foundation. We invite you to give us your feedback, go on our website, even e-mail us at chesapeake@cbf.org. Thanks very much.