Ann Swanson: So my name is Ann Swanson and well I think I'm from this region. I've really only been here since 1983 and so I was born and raised in New York and then came here via New England via Vermont. Really it was a job with the Chesapeake Bay Foundation. I had graduated from graduate school and was looking for a job and some folks that I had worked with in Washington, D C at the National Wildlife Federation had suggested that I interview with the Chesapeake Bay Foundation. And at the time I had no interest in coming to this region. I was going back home to Vermont, but I did come down as a favor to them to interview and realized it was a phenomenal opportunity and just a really interesting time in the unfolding of the Bay restoration. So I came and now it's home.

When I applied for the job, which at the time, this was back in 1983 with the Chesapeake Bay Foundation because I worked for the Chesapeake Bay Foundation for four and a half years before coming over to the Chesapeake Bay Commission. The job that I was coming for, which was to be the grassroots director, a brand new opportunity where the Chesapeake Bay Foundation was going to build its grassroots support for advocacy. And it was Jennifer and Ted Stanley that had funded that position. So actually when I came down, one of the very first dinners that I ever had was a dinner with Ted and Jenny to meet them. And I remember at the end we just looked at each other and said, "We're friends for life". Incredible memories.

First of all, I think we went to every abortion rights March in Washington, D C together. We went to all kinds of civic engagement marches together above and beyond the environment. And then we did a huge number of evening programs where we brought stakeholders together to really understand the Chesapeake Bay and Ted and Jenny and I did a lot of those things together. Yeah.

In 1987, I interviewed for a job with the Chesapeake Bay Commission as its executive director and I started that work in April of 1988. So I've been doing it for almost 32 years. The Chesapeake Bay Commission is a tri-state legislative commission, so it's made up of House and Senate members and the governors from three States. And my job is to be their chief of staff. So I work in all three States, Maryland, Pennsylvania, and Virginia. And also at the congressional level to really work on the translation of science into policy, either in state law, state budgets, or the same with the Congress with federal law and federal budgets. And that's what I do. And the Bay Commission is a signatory to every Bay agreement. I actually have been a drafter of some of those agreements and many of the directives that support it. And so that's my work. My work is to really make sure that the Bay program is moving forward and that the body of law that supports the Chesapeake Bay restoration is comprehensive and coordinated and moving the ball forward.

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The people in this region are really extraordinary and there's a huge diversity of people that care about Chesapeake Bay and you end up working with so many different sectors. So I've worked on everything from invasive species in the ballast of ships to phosphate detergent bans to land use legislation to air regulations to blue crab management and more. And so what happens is each one of those have a very different sector. You might be dealing with corporate representatives at one moment and waterman at another, farmer's at another and of course all through it environmentalist's who have a almost religious conviction to protecting the environment. And so you always get to work with those people and it's quite extraordinary. And then to make, just the cherry on the sundae is of course you work with legislators. You work with elected officials who have dedicated their lives to trying to make government and policy better.

And hopefully over time you have an influence on them and get them to understand that good policy means environmentally responsible policy. And that's my job. My job is to turn people's attitudes towards the environment so that environment just becomes a central part of everything they do. Probably one of the things that I'm the most proud of in my career has to do with blue crab and really we brought an enormous number of stakeholders and scientists together to develop management targets and what they're called is thresholds. Places you don't want to go beyond in the management of a fishery and when you're doing that, of course what you have is you have a constituency of people who want to fish up the blue crabs. You have others who completely want to protect the blue crab. You have people who think they should just be able to take as many crabs as they want because they're just a private landowner.

You have people, each of whom have a unique attitude and they really think that their piece that they want is okay, and it's the others who may not be appropriately managing or appropriately addressing that fishery and the challenge is to really find that sweet spot where you must be protecting that animal in terms of longterm sustainability. You have to. But in the process you have to try to accommodate the interests of the people because those people have to be supportive of the management action or they're going to constantly be pushing back on it, eroding it, and so somehow you have to find that balance and that's a challenge. That's a challenge. And at times people don't like you at all.

I remember one time in Crisfield, they literally, one of the processing companies had hired these people to carry placards in Crisfield that said, "Ann Swanson opposed to waterman" when in fact, of course what I was doing was trying to figure out how could we manage the crabs. So there would always be crabs for waterman. There would always be crabs for us to eat and crabs just to sustain the population. But those things happen and you just have to develop a thick skin.

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What I would say is a couple of things. One is, think about who that decision maker is and why that decision maker might be interested in your topic. So if you want them to say protect open space and increase funding, you have to think about what are the open spaces near their house that have mattered in their life. How has that open space funding improved them or their constituencies? You have to start there because you have to address the issue from their perspective, not yours. You then have to show them additional information that might help them do their job better. Give them the facts that actually make them look smarter, that empower them because then they might actually do what you want them to do.

So I would say that the third is distill whatever it is. If you want them to do 10 things, don't approach all 10 things at once. It's too much. Particularly for somebody who's not working on open space, they might be an expert in plumbing, and so you have to give it in sort of biteble bites. And the other is show your own emotional attachment to the subject, not in a negative way, in a positive way. In other words, show them how that particular subject makes you happy. So bring happiness into the conversation because people like to be happy. [inaudible 00:08:59] like to be with you better if you're happy. Choose a job that you want to do and if you are doing a job that you don't want to do, search until you can find another because you spend so much time in your job that you might as well be having fun in your job.

That's number one. Number two is surround yourself with people smarter than yourself. Seek those people out and build relationships with them. Allow all that they know to sink in. And then in most people it's a give and take, which means if you want those people to interact with you, then find things that you know or connections that you have that will help them because relationships are give and take. And the more you stand them up, the more they will stand you up. And I feel really strongly about that. The third piece I would say is that for anyone is, people think that information is power and it is and you have to make a choice whether you want to hold that close or whether you want to share that information. And I would say to someone that information sharing is power instead of information holding.

And so again, what I would say is go forward and figure out what needs to be known and ways that you can share it with others to empower them. I would probably tell myself to pause more often and get outside. I love to be outside and it absolutely empowers me. And so what I would say is somehow figure out how to even be outside more because I think those interactions are very powerful. If I did it all over again, I might actually add a law degree to my portfolio. And the reason for that is most people that I know who are lawyers are also really gifted thinkers. Not all of them, but I've seen the ones that I deeply respect. They have an analytical ability that comes with legal training.

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And I didn't always understand that if you studied law, you didn't have to be a practicing lawyer, you could just be trained.

And so I might do that differently, but I don't know what I would drop because I'm trained in the sciences and I would never drop any, the ecological training and wildlife biology training, I would never drop it. So I don't know where I'd find the time to do that. But then again, I don't need to know because I'm here now instead of back then. Ted and Jennifer Stanley, they shaped my life in that they were the people who brought me to this region. And so they, through funding the Chesapeake Bay Foundation. So they've been powerful and they personally taught me that you needed to question authority. You needed to ask why not as much as why, why can't we do that? And they were really powerful there. Now since that time, they really decided to invest. They decided to invest heavily in environment, heavily in public broadcasting publicly and in issues that deeply matter.

And what I've seen is as a result, so many of the organizations in the region grew. They grew because Town Creek Foundation gave them the capacity to do that. And it's been powerful. That's one of the things, the Town Creek Foundation and a few others have been the real funders in this region. And without funding you can't get things done. And so essentially what they did was they translated their convictions into meaningful investments and that turned into action because those groups took action. I'm working with a group of people about 20 in total on a document, the top lessons learned in Chesapeake Bay. What have we learned now that we're 40 years into this? Because what's happened is we've had an enormous number of scientists, elected officials, NGOs all working collectively and collaboratively on Bay restoration and we've laid down a huge body of science that then supports the policies.

And so that's what we're doing. We're trying to dissect, okay what did we learn and how is it that the Bay restoration has evolved to be the world model really in large scale restoration? So for example, one of them that we've talked about is the importance of transparency. The transparency of the data has been really critical in the Bay program because essentially everybody's got to believe that that data is providing an honest and an accurate picture of what's going on. And at each step of that decision making, people need to understand why were the decisions made the way they were and what was the foundation of science that supports it. That way you're bringing the people with you and they understand why you're making the assumptions you are as you're making the predictions you are in terms of which practice to put where and also what the condition of the Chesapeake Bay might be if you implement certain practices.

So transparency's been key. A second one that we feel is vital is of course communications. Because in a 64,000 square mile watershed with 18 million

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people, how are you going to make them understand that the restoration is important and also that we're making progress and if we're not making progress, you need, again, to be really honest, really transparent. Why isn't it working? Because essentially if it's not working, then you've got a gap. And if you have a gap, then you need a new policy or new funding and the only way you're going to get either is if you bring those people along. So it's been really vital. Leadership, I talked about it a little bit earlier. It's like a Rubik's cube. It moves. And so you have to consider leadership at every level. The local community association leader, that person is really important and could affect not only local action, but also local elected officials.

The top dog leader, like the governor or a US Senator, house member, they're really important to the president of the United States is important. At a very crucial time, Ronald Reagan included the Chesapeake Bay in his state of the union. He needed a win. He needed to be looking good at the time this were the Gore such days, but still he included it. And so that leadership is at every scale. We're looking at other lessons. Funding. Funding is key. Goals. And with every goal you've got to figure out how are we going to measure progress? If you want a goal, then make it a very clear goal and make yourself accountable. How are we going to measure that progress over time, so it's not just a fictitious goal, it's not just a fluffy goal, it's a real goal? And with the Bay program, especially at 40 years, when you think about it, every year our science has gotten better.

Every year our transparency is better. Our accountability and our ability to verify, which means every year it gets harder because our goals, we know how to measure them, which means we know how to measure our failure. And then you have to swallow it or you have to correct. You have to say, no this is unacceptable. And you need to bring the people with you. So which you probably see is all of these different rules are deeply intertwined, because if you're going to have goals and you're going to be measuring progress, then you better have good communications and you better have the leadership coming along with you. The scientific foundation for decision making, science right now particularly is not always popular, but it's a really popular with us. And in the end that science keeps us honest. It keeps us honest and it also keeps us adaptable.

The science is emerging, our ability to understand things is emerging and so we need to constantly be able to shift course as science provides us with new information. With oysters for example, recent science is showing us that alternative substrate rock for example, works. That you can use rock to be rebuild oyster reefs. And so, in this day and age where we have a limited amount of shell, in order to rebuild those oyster reefs, we need to be able to adapt. We need to use new things. But the rock, the watermen have a hard time with rock because it tears up their gear. Okay, so then what's the science? That

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we grind the rock finer. So you see the science-based decision making then, couples with that communication skill that working with the stakeholders with the feedback loops and essentially it's an important adaptive. You have to practice adaptive management as you proceed.

Where also the modeling, the monitoring, the analysis. They're all critical. The monitoring, it keeps us honest. How good is the water? If for all the modeling you've done in all the decision making you've done and all the BMPs you've deployed, is the water better and it's the monitoring that's going to tell us that. Same with oysters, same with crabs, same with the living resources. It's the monitoring in the water. The population assessments that keep us honest. Do we really have more than we want? Do we do have cleaner water? And so that's really important. Keeping science independent. Science has to be independent from policymaking. They have to be able to give us the answers and give us the uncomfortable answers so they can't be so closely tied to the political process that they're muzzled. They can't. And that's really important. And then I guess accountability, I've talked about it a little bit.

The accountability is really, really important. You've got to have a accountability system that essentially can withstand political pressure because again, it has to do with that honesty in the management of your system and the ability to swallow whole if you were wrong, if you made the wrong assumption or even if your management strategy isn't working and you need to shift. And so in the Bay region, it's those things that have defined this restoration and it needs to moving forward and for every time there's a challenge to our restoration. It's these principles that hopefully will keep us whole, keep us solid so that we move forward. We've taken on an incredibly difficult thing. We're trying to reduce the pollutant load of 18 million people. So 18 million people have decided to move in to the most productive estuary in North America. The watershed of the most effective estuary in North America, that 18 million people, they are providing for an incredible impact and we're trying to mitigate that impact.

And that's not an easy thing. Since I moved to the region, there were 12 million people. There are now 18 million people, so the population grew by half and in that time we've cut the pollution by half. So that's an incredible achievement. But if you're trying to get through the Pearly Gates and you're asked the question, "Did you achieve your goal?", it is a resounding "No" and you're not going to get through those Gates because you still have half the pollution remaining. And so it's that next half that's going to be so difficult and it's that next half where we need to keep these lessons learned alive. We need to keep that transparency, keep that communication, keep that high level of leadership, et cetera, because the next half is going to be harder than the half we've already achieved.

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The only way that we're going to be able to do it is to get more sectors involved. The agricultural sector is key. About 75% of the remaining pollutant load is likely to come from agriculture, which means not only do we need to get the agricultural community more involved, but every other community needs to understand how much we need to shore up that agricultural effort and support them. People need to understand that if we want the agricultural pollution reduction, we're going to have to help them with more technical assistance. We're going to have to help them with more funding. We're going to help have to help them with more policies that promote conservation on agricultural land. It has to be that just the assumption of America that with agriculture, comes conservation of that landscape and water quality best management practices. It's not unique to the Chesapeake. The entire world is grappling with that. So what we do in the Chesapeake will matter globally.

If we're going to get those reductions, we've got to do a much better job controlling our storm water and our agricultural loads. That's a challenge in this region. So with that, we somehow need to have much bigger populations of people caring about the environment. 10% 20% that's not enough. That's not enough. And we in our region, we're considered to have a very informed environmental population, but it might be 10% who really understand what a watershed is. 10% isn't enough. If somebody told me that I could have 10% of my dinner, I'd be hungry. So it's not enough. We need a lot more people really knowledgeable.

So actually, yeah. So when I talk about agriculture, basically you've got different types of agriculture and so that's an important point. Each type of agriculture has its own ability to control its pollutant runoff. If you're talking about crop land for example, they've done things like no-till where instead of tilling the land and constantly exposing loose earth to be to run off instead you essentially drill the next seed into the ground and you don't disturb the soil.

And so you essentially plant the new crop without exposing loose soil. That's very, very powerful. You also put in, for example, grassed waterways that help so the runoff channels in areas that are actually grassed holding the soil tight. If it's livestock, in the livestock areas, you want to be able to manage the manure. Not only in manure pits so that then you could apply it at the right time of year. You don't want to be applying it at the wrong time of year when the plants can't uptake the nutrients from the manure. But you also only want to put it on fields that need that manure that aren't saturated with phosphorus, for example, which there's a lot of phosphorus in manure. And so you have to think about not just the pile of manure you have, but also what you're going to do with it and where are you going to put it. So it's advantageous.

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Because manure is an incredible resource. Incredible. It's like gold because it helps with the soil structure. It puts organics back into the soil, which then allow those soils to better absorb not only nutrients, but also water and runoff. So it's a really good thing used in the right place. But if you put it on saturated soil, then it's not good and the nutrients run off. So in agriculture we have to just make sure that each type of agriculture is managing its landscape and its livestock to reduce runoff. That's what we need to do. And it's a challenge. It's a challenge. And what you can tell just from my answer is that, that's not going to happen without technical assistance. In the same way that if I came to you and I said, "Please, I need you to manage your yard better", you would "Say, how come show me, come show me".

And if I came to your yard and I actually showed you some things you could do, I bet I would have a much higher chance that you do them. Because I literally showed you, I didn't just give you a brochure because the brochure might not apply to your house. It's the same with a farm. Each farm is individual. Each farm needs that technical assistance. Each farm needs a nutrient management plan unique to that farm. And that's what we need to do and we need to have every single farm have a nutrient management plan that they're following. Every citizen can help. And if somebody says to me, well, I recycle, that is not what I'm talking about because what I'm talking about is the management of your land as a mini ecosystem. So what you want to do on that property, the first thing you want to focus on, how do I get the water infiltrating into my property instead of running off it?

So you want to look at your property and you want to think about where are your hard surfaces and which ones could be changed, what hard surface could actually be changed so that the water could flow through? So a good example is for our house, we took all of the rooftops, which I want to be impervious, I want my roof impervious, I don't want my roof to be leaking. But all of the gutters we changed. So the gutters went into a rain garden. The gutters went into a garden where the water would slowly percolate into the gardens instead of runoff into the adjacent waterway. The second thing you want to do is you want to look at your property and you want to figure out where is it that I can plant a tree. Even one tree matters. One tree matters. If you can plant two, great, but the more trees you can plant, the better.

Think about it from a carbon perspective, they're the best thing that you can possibly plant. They are a natural filter. The second thing is those trees are helping to bring water and essentially bring that water down and into the earth. They're creating oxygen in their photosynthesis. You want those trees, but they're also habitat. They're extraordinary habitat for birds, for animals of all kinds and also for the food chain. If you can plant an Oak in our region, if you can. From all the science, they say that the Oak is the best of the micro

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ecosystems, but if you don't want to treat that big, that's fine. Plant a different tree. If you can plant something with a food source, great for the animals. So you see an individual can do these things, you can and it's not that hard. And so to me that's what you have to do.

Then of course recycle. Compost if you can. Reduce your waste stream. Turn off your lights when you don't need them, don't use extra water. All those things matter because imagine doing the math. If every single person, planted a tree, you'd have 18 million more trees. So do the math. If everyone turned off their faucet when they're brushing their teeth, you have an amazing number of gallons of water. I have no idea how many gallons. I think it's incumbent upon all of us to show each person how they could help in a small way and make them feel good about the small way they helped. You can't expect somebody who's working as in a different field to be doing huge things for the environment, but they can all help in a small way. And each one of us, if we were to reach out and just help a group of people understand how they can help in a small way that would matter.

The other thing is everybody's busy, but the one thing they can do is they can vote and voting for elected officials who care about the environment, who care about social issues. It matters, that matters. So if you want to multiply your impact and you feel personally you cannot help then vote right and if you get somebody strong in there, they're going to do the heavy lifting for you. I vote, I definitely vote. I guess the thing I want to close on is that in this region there have been science leaders, there have been congressional leaders, there have been state leaders, there's been NGO leaders and if you try to dissect it and say who is it that really led, it's almost impossible because there are so many. So I think in the Bay region we need to almost look at it like a Rubik's cube where there is constant shifting leadership and that gives us our stability because you can't just take out one leader or take out one organization and stop the movement. That the movement is as strong as all of those leaders put together.

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