Plain Script: Sea Level Rise

{*Cue "Earth with Vegetation" slide*}

Welcome. My name is _____ and I'm an educator here at_____. This is our planet.

{*Cue "People Around the World Working on Solutions" slide*}

I'm here to talk with you about how people like you and me are coming together in their communities to address an important challenge of our time. The issue is rising sea levels. Increasingly, people are recognizing our shared responsibility to take action to protect our ocean and coastal habitats. To safeguard these places that we all depend on, we need to address the cause of the rising sea.

{*Cue "Facebook Friendships" slide*}

And if we want to think for just a moment about the ways we can come together to protect our planet, here is a representation of just 1% of pairs of friends on Facebook. It's amazing to think about how this kind of interconnection can allow people to work together on big issues and the big solutions that address them.

But first, it's important for us to understand those big issues. So let's talk about what sea level rise is and why it is happening.

{*Cue "Earth at Night" slide*}

Take a look at this photograph. In this image, we see our planet from space at night. This view reveals places around the world that are using electric lighting.

To generate electricity, we usually burn fossil fuels, including coal, oil, and natural gas. For example, most of the electricity used in the United States is generated by burning coal.

Burning fossil fuels releases carbon dioxide into the atmosphere. And while "regular" levels of CO_2 are a necessary part of life on earth, here we are talking about "rampant" levels of CO2 – excessive amounts of the gas.

When this rampant CO2 goes into the atmosphere, it builds up and acts like a heat-trapping blanket. In the same way that a blanket traps the heat from a person's body, the "blanket effect" of rampant CO2 traps Earth's heat and warms the atmosphere and the ocean. {*Model a blanket covering the globe using hand gestures*}

As the ocean warms, it expands and takes up more space. This process is called thermal expansion – warmer water expanding. That's a major reason why the ocean is rising.

And, of course, another reason that the ocean is rising is that warmer global temperature is causing ice caps and glaciers to melt.

Rising seas affect people all around the world. We are all familiar with the images of beach homes destroyed and streets flooded near the coast. But it's not just people who live on the coast who are affected. Because coasts are such an important resource for transportation, what affects the coasts affects us all. Let me show you an example.

{*Cue "Air Traffic" slide*}

This representation shows air traffic around the world. You can see the number of airports that are located on the coast.

Businesses around the world use these airports to transport supplies – the things we all use everyday. These airports are used by our friends, neighbors, and family.

As the ocean rises, it will cover some of these airports, disrupting the entire system. And of course, it's not just airports that are on the coast. Shipping, railroads, and other infrastructures that we all depend upon are there too. Because we are all affected, we all have a stake in protecting the world's coastlines, wherever they may be.

Sea level rise is already affecting many local ecosystems – and the human systems that depend on them. For example, tide gauges show that sea level rise in Baltimore has been nearly double the global average during the 20th century. In fact, experts predict that by 2015, the sea level will rise in Maryland by over 2 feet.

Let me show you the impact that sea level rise has already had in Maryland.

{*Cue "Flooded Marshes" slide*}

Chesapeake Bay islands have disappeared in recent memory. And, each year, there are over 500 acres of shoreline lost to erosion. If sea level continues to rise, tidal wetlands along the coasts would be flooded.

{Cue *"Marsh Wildlife" slide*}

Wetlands are important because they provide critical nursery grounds for commercially important fish and shellfish. They are also feeding grounds for ducks and geese, and home to other wildlife like otters and beavers and even people like you and me. These are all very good reasons to protect the coastline!

Now that we understand the problem – rising sea levels – we can talk about something more hopeful: the fact that people like us are already working together to tackle the underlying cause of the problem. People are finding a variety of ways to reduce the use of fossil fuels, so that we can slow down, and eventually stop, the "blanket effect" caused by rampant carbon dioxide.

For example, in Baltimore, with funding from the state of Maryland, the city launched the Baltimore Energy Initiative to streamline and expand the city's energy conservation programs, build awareness, and help rally communities around the issue. The initiative is helping businesses make their buildings more energy efficient. And, it is training neighborhood leaders to be "Energy Captains." Energy Captains help their neighbors access free energy-saving equipment for their homes and lead by example for how to

conserve energy. So far over 15,000 Baltimore residents and business owners have participated, and this is helping the city use 15% less energy by 2020.

And, of course, it's not just Baltimore. There are similar programs in Chicago (Neighborhood Energy Challenge) and Oregon (Neighborhood Sustainability Stewards) and in Europe (Energy Neighborhood). In cities, towns, and rural communities around the world, people are taking action to address sea level rise- and climate change, one of the greatest challenges of our time.

{*Cue "Facebook Friendships" slide*}

In an interconnected global society like ours, we can work together more easily than ever before. And we can also spread the word about important problems, and sensible solutions, quickly and easily. Let's talk about what we can do together to protect the places we depend on, and protect the habitats of the other species we share the planet with. Let's talk about what we all can do in our communities to help decrease the release of carbon! What ideas do you have to reduce energy use? {*Discuss ideas with audience*}

Shortened Script: Sea Level Rise

Shortening strategies: Cutting sentences and words. There aren't any "beats" in this narrative to trim!

{*Cue "Earth with Vegetation" slide*}

Welcome. My name is _____ and I'm an educator here at_____. This is our planet.

{*Cue "People Around the World Working on Solutions" slide*}

I'm here to talk with you about how people like you and me are coming together to address an important challenge: the fact that the level of the sea is rising.

{*Cue "Facebook Friendships" slide*}

And if we want to think for just a moment about the ways we can come together to protect our planet, here is a representation of just 1% of pairs of friends on Facebook. It's amazing to think about how this kind of interconnection can allow people to work together on big issues and the big solutions that address them.

But first, it's important for us to understand those big issues. So let's talk about what sea level rise is and why it is happening.

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