Supplemental Table: Top-rated original and final tested metaphors for community member and scientist audiences. In some cases, the top-rated original metaphor was the same for both audiences, but edits differed based on interview data. Yellow highlighted text are words/phrases that two or more individuals identified as the most important part of the statement. Green highlighted text are edits driven by interview data. All metaphors are available in the attached original survey.

Restoration

- ORIGINAL BOTH: When we restore habitats in our wetlands, we are ensuring a healthy future for our ecological and human systems. We invest in this insurance policy so that plants and animals have enough habitat to thrive alongside humans as the environment changes.
- REVISED COMMUNITY: When we restore habitats in our wetlands, we are ensuring a healthy future for our ecological and human systems. We invest in this practice so that plants and animals have enough habitat to thrive alongside humans as the environment changes.
- REVISED SCIENTIST: When we restore habitats in our wetlands, we are ensuring a healthy future for our ecological and human systems. We invest in this insurance policy so that plants and animals have enough habitat to thrive alongside humans.

Restoration Cost

- ORIGINAL BOTH: Funding restoration projects now is our insurance against future environmental change: the more diverse insurance policies we have, in the form of types of habitats and ecosystems, the more prepared we are.
- REVISED COMMUNITY: Funding restoration projects now is our insurance against future environmental change: the more diverse insurance policies we have, the more prepared we are.
- REVISED SCIENTIST: Funding and completing restorations now is our insurance against future environmental change: the more diverse insurance policies we have, in the form of types of habitats and ecosystems, the more prepared we are.

Control Measures

- ORIGINAL BOTH: "Control measures" are used by everyday people when they weed their vegetable gardens. Weeds take away food and space from plants and animals, and "control measures" make sure that the species we want in an ecosystem can thrive. These control measures can help wetlands and vegetable gardens in the same way.
- REVISED COMMUNITY: "Control measures" are used by everyday people when they weed their vegetable gardens. Weeds take away food and space from plants and animals, and "control measures" make sure that the species we want in an ecosystem can thrive. These control measures can help wetlands and vegetable gardens in the same way.
- REVISED SCIENTIST: "Control measures" are used by everyday people when they weed their vegetable gardens. Weeds take away food and space from plants and animals, and "control measures" make sure that the species we want in an ecosystem can thrive. These control measures can help wetlands and vegetable gardens in the same way.

Levee Breaches

- ORIGINAL BOTH: Raised pieces of land called "levees" surround and contain water in a certain area, like a drinking cup. When water pours over levees in a "levee breach", the water can flow into surrounding areas like an overflowing cup.
- REVISED COMMUNITY: Raised pieces of land called "levees" surround and contain water in a certain area, like a drinking cup. When excess water pours over levees in a "levee breach", the water can flow into surrounding areas like an overflowing cup.
- REVISED SCIENTIST: Raised pieces of land called "levees" surround and contain water in a certain area, like a drinking cup. When water pours over levees in a "levee breach", the water can flow into surrounding areas like an overflowing cup.

Storm Surge

- ORIGINAL COMMUNITY: In calm, or stable conditions, waves are controlled by patterns, like a cyclist pedaling on flat ground. When a storm approaches a body of water next to a wetland, it can help to accelerate waves much like a cyclist riding downhill. They are still pedaling, but another force is helping them to move faster and stronger. Existing waves become stronger with storm surge.
- REVISED COMMUNITY: In calm, or stable conditions, waves are controlled by patterns, like a biker pedaling on flat ground. When a storm approaches a body of water next to a wetland, it can help to accelerate waves much like a biker riding downhill. They are still pedaling, but another force is helping them to move faster and stronger. Existing waves become stronger with storm surge.
- ORIGINAL SCIENTIST: Sitting next to a bathtub with a child sloshing water back and forth is very similar to how wetlands experience "storm surge". When the body of water next to a wetland has more movement than it usually does, the water can overflow into the wetland more than usual in a "surge" following a storm.
- REVISED SCIENTIST: Sitting next to a bathtub with a child sloshing water back and forth is very similar to how wetlands experience "storm surge". When the body of water next to a wetland has more movement than it usually does, the water can overflow into the wetland more than usual in a "surge" following a storm.

Sea Level Rise

- ORIGINAL BOTH: The ocean controls the circulation of heat and moisture through the climate system. When warmer temperatures turn ice into water worldwide, the capacity of our oceans increases. We can think of "sea level rise" as overflowing an already-full glass of water, but wetlands as the paper towels soaking up an overfilled glass of water. Wetland waterways and plant communities soak up the effects of sea level rise to protect coastal human communities.
- REVISED COMMUNITY: The ocean controls the circulation of heat and moisture through the climate system. When warmer temperatures turn land ice into water worldwide, the water in our oceans increases. We can think of "sea level rise" as overflowing an already-full glass of water, but wetlands as the paper towels soaking up an overfilled glass of water. Wetland waterways and plant communities soak up the effects of sea level rise to protect coastal human communities.
- REVISED SCIENTIST: The ocean controls the circulation of heat and moisture through the climate system. When warmer temperatures turn ice into water worldwide, the

volume of our oceans increases. We can think of "sea level rise" as overflowing an already-full glass of water, but wetlands as the paper towels soaking up an overfilled glass of water. Wetlands and plant communities soak up the effects of sea level rise to protect coastal human communities.

Water Quality

- ORIGINAL BOTH: A wetland acts as a Brita water filter, purifying water as it passes through the habitat. The animals and plants work together to take out things they want, and even some things they don't use, to clean the water they live in.
- REVISED COMMUNITY: A wetland acts as a Brita water filter, purifying water as it passes through the habitat. The animals and plants work together to take out things they want, and even some things they don't, to clean the water they live in.
- REVISED SCIENTIST: A wetland acts as a Brita water filter, purifying water as it passes through the habitat. The animals and plants work together to take out things they want, and even some things they don't use, to clean the water they live in.

Carbon Sequestration

- ORIGINAL COMMUNITY: A wetland acts as a sponge to soak up nutrients from the air, land, and sea. Carbon comes from natural and human sources, through decomposition and human inputs from burning coal, oil, and natural gas. Soaking up carbon, a wetland helps the Earth by holding onto carbon until the "sponge is wrung out", or the wetland becomes unhealthy.
- REVISED COMMUNITY: A wetland acts as a sponge to soak up nutrients from the air, land, and sea through processes like photosynthesis and consumption. Carbon comes from natural and human sources, through decomposition and human inputs from burning coal, oil, and natural gas. Soaking up carbon, a wetland helps the Earth by holding onto carbon until the "sponge dries out", or the wetland loses its beneficial plants and animals.
- ORIGINAL SCIENTIST: A wetland accepts deposits of carbon from natural and human sources as a "carbon bank" for safekeeping. Carbon comes from natural and human sources, through decomposition and human inputs from burning coal, oil, and natural gas. Protecting wetlands helps us keep this carbon bank secure.
- REVISED SCIENTIST: A wetland accepts deposits of carbon from natural and human sources as a "carbon bank" for safekeeping. Carbon comes from natural and human sources, through decomposition of plant and animal matter and human inputs from burning coal, oil, and natural gas. Protecting wetlands helps us keep this carbon bank secure.

Nutrient retention

- ORIGINAL BOTH: A wetland acts as a sponge to soak up nutrients from the air, land, and sea. Nutrients come from natural and human sources, through decomposition and human inputs from runoff. Some animals and plants seek out wetlands to use these nutrients. A healthy wetland is a wet sponge, always cycling nutrients for its residents to take advantage of.
- REVISED COMMUNITY: A wetland acts as a sponge to soak up nutrients from the air, land, and sea. Nutrients come from natural and human sources, through decomposition and human inputs from runoff. Some animals and plants seek out wetlands to use these

nutrients. A healthy wetland is a wet sponge, always bringing in nutrients for its residents to use.

- REVISED SCIENTIST: A wetland acts as a sponge to soak up nutrients from the air, land, and sea. Nutrients come from natural and human sources, through decomposition and human inputs from runoff. Some animals and plants seek out wetlands to use these nutrients as food. A healthy wetland is a wet sponge, always bringing in nutrients for its residents to take advantage of.

Wetland productivity

- ORIGINAL COMMUNITY: Wetlands are the ultimate social network. Plants and animals exist in complex webs of interaction, producing food and structuring habitat to welcome even more participants to join their network.
- REVISED COMMUNITY: Wetlands are the ultimate social network. Plants and animals exist in complex webs of interaction, producing food and creating habitat to welcome even more participants to join their network.
- ORIGINAL SCIENTIST: Wetlands are food factories for many types of animals and plants. Some animals and plants require one, simple component of their food, while others need complex components to make a tasty meal. Wetlands have all required parts of the assembly line to produce lots of types of food for their inhabitants.
- REVISED SCIENTIST: Wetlands are food factories for many types of animals and plants. Some animals and plants require one or two components of their food, while others need many components to make a tasty meal. Wetlands have all required parts of the assembly line to produce lots of types of food for their inhabitants.

Species of concern

- ORIGINAL COMMUNITY: Some wetlands have very special habitats that have unique nursery qualities found nowhere else in the world. Often, rare animals and plants rely on these nurseries to stay healthy for generations. We have a responsibility to help rare, or species of concern, by preserving wetland habitats.
- REVISED COMMUNITY: Some wetlands have very special habitats that have unique nursery qualities found nowhere else in the world. Often, rare and vulnerable animals and plants rely on these nurseries to stay healthy for generations. We have a responsibility to help rare, or species of concern, by preserving wetland habitats.
- ORIGINAL SCIENTIST: Because of human actions, some animals and plants have become "canaries in the coal mine". We have a responsibility to use our resources to understand why they are not doing well, and try to help them.
- REVISED SCIENTIST: Because of human actions, some animals and plants have become "canaries in the coal mine". We have a responsibility to use our resources to understand why they are not doing well, and try to help them.

Resource use

- ORIGINAL BOTH: Responsibly using the resources that wetlands provide preserves a way of life for community members. Hunting, fishing, and gathering are not only sustainable activities, they hold a cultural significance for peoples who have long occupied these lands.

- REVISED COMMUNITY: Responsibly using the resources that wetlands provide continues a way of life for community members. Hunting, fishing, and gathering are not only sustainable activities, they hold a cultural significance for peoples who have long occupied these lands.
- REVISED SCIENTIST: Responsibly using the resources that wetlands provide preserves a way of life for community members. Hunting, fishing, and gathering are not only sustainable activities, they hold a cultural significance for peoples who have long occupied these lands.