Decreased Vulnerability		Neutral	Increased Vulnerability	
Large Decrease in Vulnerability to Identified Environmental Changes	Small Decrease in Vulnerability to Identified Environmental Changes	Minimal Increase/ Decrease in Vulnerability to Identified Environmental Changes	Small Increase in Vulnerability to Identified Environmental Changes	Large Increase in Vulnerability to Identified Environmental Changes
Large Increase in Area of Habitat Type	Small Increase in Area of Habitat Type	Minimal Increase/ Decrease in Area of Habitat Type	Small Decrease in Area of Habitat Type	Large Decrease in Area of Habitat Type

Natural Habitat Vulnerabilities

Scenario A Increased extreme river flow events & Decreased tidal prism	Scenario B Increased extreme river flow events & Increased tidal prism
Beaches & Sand Dunes **Key Factors affecting Habitat Type Vulnerability:** Consistent sediment supply	
Increased extreme events deliver high sediment yields to beaches and dunes, increasing overall habitat area. However, a mostly closed river mouth will limit the total amount of sediment reaching the beaches and dunes, keeping the increase in habitat area small.	Increased extreme events deliver high sediment yields to beaches and dunes, increasing overall habitat area. Additionally, an open river mouth will allow the majority of sediment to reach the beaches and dunes, making the increase in habitat area large.
Open Tidal Channels & Mudflats **Key Factors affecting Habitat Type Vulnerability:** Open river mouth	
Mostly closed river mouth limits marine influence, decreasing habitat area. In addition, an increase in sediment aggradation, due to the mostly closed mouth, will elevate the land, limiting how far tidal influence reaches inland (i.e., land rises faster than the sea), making the decrease in habitat area large.	Open river mouth and increased tidal prism increase marine influence, leading to an increase in habitat area. However, the increased extreme events lead to increased freshwater inputs, keeping the increase in habitat area small.
Salt Marsh **Key Factors affecting Habitat Type Vulnerability:** Open river mouth ♦ Saltwater inputs ♦ Consistent sediment supply	
Mostly closed river mouth and decreased tidal prism will limit the amount of saltwater influence, decreasing habitat area. In addition, increased extreme events will increase freshwater inputs, making the decrease in habitat area large.	Open river mouth and increased tidal prism will increase the saltwater influence. However, increased extreme events will increase the amount of freshwater inputs, meaning the habitat area will remain about the same.
Salt Flats **Key Factors affecting Habitat Type Vulnerability:** River mouth status ♦ Saltwater inputs ♦ Evaporation	
Mostly closed river mouth will lead to high salinity as water trapped behind the river mouth evaporates, increasing habitat area. Additionally, extreme events will increase sediment aggradation in the lower valley, as sediment is trapped behind the mostly closed river mouth, helping to increase habitat area. However, increased extreme events will occasionally open the river mouth altering salinity and aggradation of sediment, keeping the increase in habitat area small.	Open river mouth coupled with an increased tidal prism and SLR, along with increased extreme events will lead to frequent coastal flooding and inundation, with persistent flooding not allowing time for evaporation of flooding waters to occur, leading to a small decrease in habitat area.
Wetland-Upland Transition Zone **Key Factors affecting Habitat Type Vulnerability:** Extreme river events ♦ Freshwater inputs	
Increased extreme events increasing freshwater inputs will expand riparian and fresh- brackish habitats, encroaching on transition zone habitat, causing a large decrease in habitat area.	Increased extreme events increasing freshwater inputs will expand riparian habitat, and increased tidal prism will increase coastal habitats (beaches & sand dunes, open tidal channels & mudflats), encroaching on transition zone habitat, causing a large decrease in habitat area.
Fresh-brackish Marsh **Key Factors affecting Habitat Type Vulnerability:** Freshwater inputs	
Mostly closed river mouth will pond water, leading to an increase in habitat area. Additionally, increased extreme events will increase freshwater inputs, making the increase in habitat area large.	Increased extreme events will lead to increased freshwater inputs; conversely an increased tidal prism will lead to increased saltwater influence, meaning the habitat area will remain about the same.
Riparian **Key Factors affecting Habitat Type Vulnerability:** Freshwater inputs ♦ River mouth status	
Increased extreme river events will increase freshwater inputs, leading to a large increase in habitat area in both the lower and upper river valley.	Increased extreme events will increase freshwater inputs, leading to an increase in habitat area in the upper river valley. Increased tidal prism will limit the habitat increase in the lower part of the river valley, keeping the increase in habitat area small.
Upland **Key Factors affecting Habitat Type Vulnerability:** Sediment supply ♦ River mouth status	
Increased extreme events will increase sediment yields, and a mostly closed river mouth will trap sediment in the system, meaning sediment aggradation will outpace SLR in the lower valley (i.e., land rises faster than the sea) limiting marine influence, leading to a large habitat area increase.	Increased extreme events and increased tidal prism will increase freshwater habitat area (i.e., riparian) and intertidal habitat area (i.e., beaches & dunes, tidal channels & mudflats), encroaching on upland habitat, leading to a large habitat decrease.

Decreased Vulnerability		Neutral	Increased Vulnerability	
Large Decrease in Vulnerability to Identified Environmental Changes	Small Decrease in Vulnerability to Identified Environmental Changes	Minimal Increase/ Decrease in Vulnerability to Identified Environmental Changes	Small Increase in Vulnerability to Identified Environmental Changes	Large Increase in Vulnerability to Identified Environmental Changes
Large Increase in Area of Habitat Type	Small Increase in Area of Habitat Type	Minimal Increase/ Decrease in Area of Habitat Type	Small Decrease in Area of Habitat Type	Large Decrease in Area of Habitat Type

Natural Habitat Vulnerabilities

Scenario C Decreased extreme river flow events & Decreased tidal prism	Scenario D Decreased extreme river flow events & Increased tidal prism
Beaches & Sand Dunes **Key Factors affecting Habitat Type Vulnerability:** Consistent sediment supply	
Decreased extreme events and a closed river mouth will decrease the overall amount of sediment entering the river valley and the amount of sediment delivered to beaches and dunes, decreasing the overall habitat area.	Decreased extreme events will decrease the overall amount of sediment entering the river valley. However, an open river mouth will allow the majority of sediment within the system to be delivered to the beaches and dunes, meaning the habitat area will remain about the same.
Open Tidal Channels & Mudflats **Key Factors affecting Habitat Type Vulnerability:** Open river mouth	
Closed river mouth limits marine influence, causing large decrease in habitat area.	Mostly open river mouth and increased tidal prism increase marine influence, leading to an increase in habitat area. Additionally, the decreased extreme events lead to decreased freshwater inputs, making the increase in habitat area large.
Salt Marsh **Key Factors affecting Habitat Type Vulnerability:** Open river mouth ♦ Saltwater inputs ♦ Consistent sediment supply	
Closed river mouth and decreased tidal prism will severely limit the amount of saltwater influence, leading to a large decrease in habitat area.	Mostly open river mouth and increased tidal prism will maintain a consistent saltwater influence, increasing overall habitat area. Additionally, decreased extreme events will decrease the freshwater inputs, contributing to increasing habitat area.
Salt Flats **Key Factors affecting Habitat Type Vulnerability:** River mouth status ♦ Saltwater inputs ♦ Evaporation	
Closed river mouth will lead to high salinity as water trapped behind the river mouth evaporates, increasing habitat area. Additionally, the closed river mouth will increase sediment aggradation in the lower valley, making the increase in habitat area large.	Mostly open river mouth coupled with an increased tidal prism and SLR, along with increased extreme events, will lead to frequent coastal flooding and inundation, with persistent flooding not allowing time for evaporation of flooding waters to occur, leading to a decrease in habitat area. Additionally, an increase in intertidal (i.e., tidal channels & mudflats) and salt marsh habitats will make the decrease in habitat area large.
Wetland-Upland Transition Zone **Key Factors affecting Habitat Type Vulnerability:** Extreme river events ♦ Freshwater inputs	
Decreased extreme events and decreased tidal prism will help maintain a balanced freshwater- saltwater influence within the transition zone, meaning the habitat area will remain about the same.	Increased tidal prism will increase coastal habitat area (i.e., tidal channels & mudflats, salt marsh) but because of sea level rise these coastal habitats will move inland, encroaching on transition zone habitat. However, decreased extreme events decreasing freshwater inputs will decrease fresh-brackish and riparian habitats, making room for the transition zone to move inland, meaning the habitat area will remain about the same but its location will move.
Fresh-brackish Marsh **Key Factors affecting Habitat Type Vulnerability:** Freshwater inputs	
Closed river mouth will pond water, leading to a small increase in habitat area.	Mostly open river mouth and increased tidal prism will increase marine influence on the system, while less extreme events will decrease freshwater inputs, leading to a small decrease in habitat area.
Riparian **Key Factors affecting Habitat Type Vulnerability:** Freshwater inputs ♦ River mouth status	
Decreased extreme events will lead to decreased freshwater inputs; conversely a decreased tidal prism will lead to decreased saltwater influence, meaning the habitat area will remain about the same.	Decreased extreme events will decrease freshwater inputs, leading to a decrease in habitat area. In addition, an increased tidal prism will exacerbate the habitat area loss due to increased saltwater influence, making the decrease in habitat area large.
Upland **Key Factors affecting Habitat Type Vulnerability:** Sediment supply ♦ River mouth status	
Closed river mouth will trap most sediment in the system, meaning sediment aggradation will outpace SLR in the lower valley (i.e., land rises faster than the sea), increasing overall habitat area. However, decreased extreme events will decrease sediment inputs, keeping the increase in habitat area small.	Increased tidal prism will increase intertidal habitats (i.e., tidal channels & mudflats, salt marsh), encroaching on upland habitat, leading to a small habitat decrease.