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#ResilientBroward

September 2024

A two-year planning effort focused on building community resilience to the impacts of climate change in Broward County

BROWARD COUNTY: A RESILIENCE PLAN IN THE MAKING

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Overview of Adaptation Tiers

The Hazen team combined the previously recommended adaptations into a two-tiered implementation plan to be integrated across the County. This effort was paired with the final results of the economic analysis to better understand the economic implications of the future conditions impacts as well as the recommended adaptations.

Tier 1 is assumed to be completed by 2050 to prepare for 2 feet of sea level rise. Tier 1 strategies include County-wide increase of stormwater storage through green infrastructure, improvement of pumping stations and culverts, enhanced control elevation changes, and requirement of all seawalls to be constructed to 5 feet NAVD.

Tier 2 adaptation measures are the same as tier 1 but require all seawalls to be constructed to 7 feet NAVD to prepare for 3.3 feet of sea level rise by 2070.

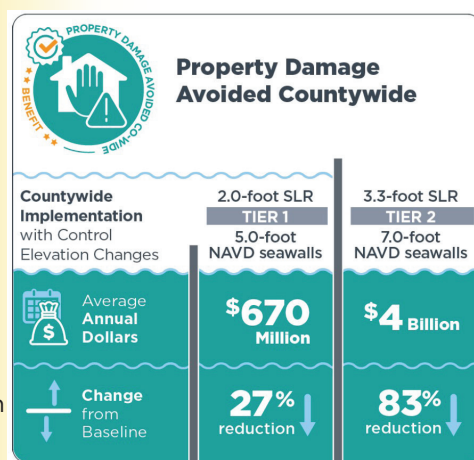
Economic Analyses

The Hazen Team, joined by McKinsey, presented the results of the economic analysis to the Steering Committee, which outlined estimated dollar value benefits (in today's dollars) of adaptation strategies to five different categories including: property damage savings, economic activity benefits, increased flood insurance coverage, increased real estate value, and increased property tax collections

Residential Property Damage Savings

Economic modeling of tier 1 strategies to address flood risk with a 2-foot sea level rise scenario reveals reduction of residential property damages by up to 27% compared to baseline projections, and an 83% reduction for tier 2 strategies

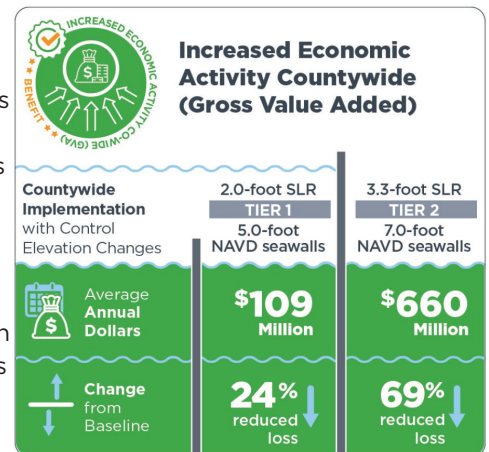
under conditions of a 3.3-foot sea level rise. These measures could save residents up to \$670 million and \$4 billion annually, respectively while also aiding the preservation of flood insurance coverage and rates at levels similar to today.



Business Activity Benefits

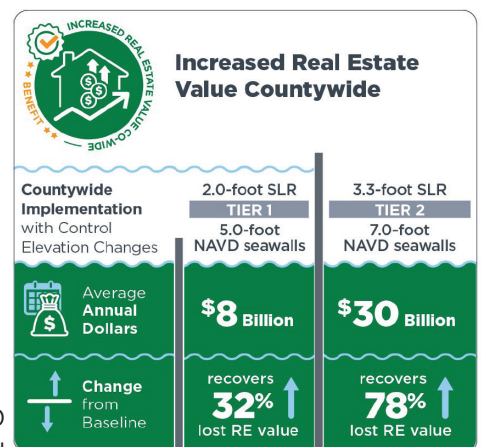
Economic modeled of adaptation scenarios indicates economic advantages across all sectors - from lower direct flood impacts on businesses to reduced disruption to roads. Measures preserve Gross Value Added, a measure of

economic activity, reducing losses by \$109 and \$660 million dollars annual (for tier 1 and tier 2 strategies). Adaptation measures could also reduce operational disruptions at Port Everglades and FLL Airport by 30% and 50%, respectively.



Retention of Property Value and Tax Revenues

Furthermore, these strategies when implemented county-wide are expected to mitigate flood-related property devaluation by \$8 billion to \$30 billion and potentially preserves \$960 million in annual property tax revenues, critical to preserving community programs and services.



Increased Flood Insurance Coverage

The positive effects of the adaptations may extend to insurance markets, with more homeowners able to maintain flood insurance coverage. Higher continued flood insurance coverage is expected to result in lower average premium costs comparable to today's rates.

Proposed adaptation measures are modeled to save County residents an average of \$12 billion for tier 1 and \$20 billion for tier 2 strategies, representing a 92% and 182% increase from the baseline.



RESILIENT ENVIRONMENT

