

CASE STUDY

Rising Seas: Understanding the Impact of Sea Level Rise

SOUTH FLORIDA

ABOUT THE PROJECT

A study was completed with the University of Miami to understand how much residential space was necessary to move the families affected by possible sea level rise in the next 50 years. Different teams were tasked with residential displacement scenarios in different South Florida neighborhoods which included the City of Miami Beach, City of Miami, City of North Miami, the Florida Keys, and Miami-Dade County.

USE OF ZONEIQ

ZonelQ was used to quickly understand how many buildings and how many floors would be required to replace lost surface area due to sea level rise. Various scenarios were run based on different sea level rise projections. Areas around transit stations were selected for density increases.

RESULTS

In the City of Miami, it was hoped that the needed density could be achieved to have buildings no more than 10 stories. However, ZonelQ showed that 20 story buildings would be needed, with 30 and 40 story buildings added to create a better skyline. A Transfer Development Rights (TDR) program was also proposed to facilitate the gradual densification of single family areas in higher elevations at lower risk of rising sea levels.



TYPE	Density Study
YEAR	2017
PROPERTIES	5,000+
AREA SIZE	2.5 sq. miles