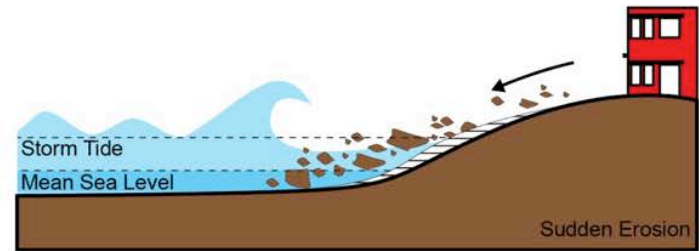
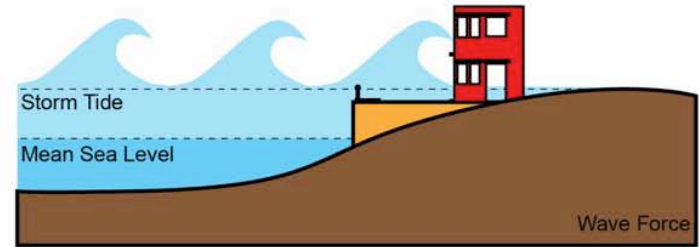
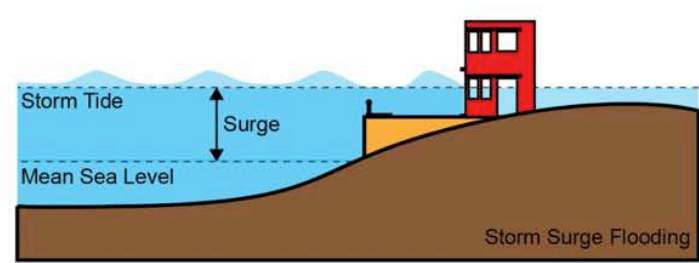
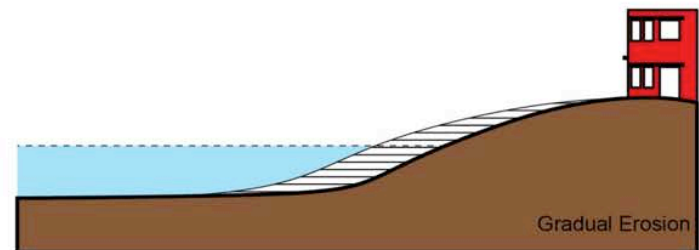
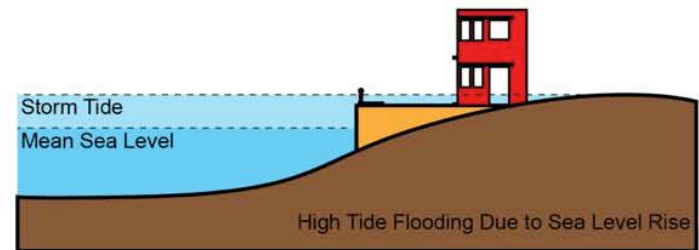


Coastal hazards can be categorized into sudden events and gradual changes in conditions.

Event-Based Hazards



Gradual Hazards



Example of Co-Benefits for RBD Project in South Bronx, NYC



Castle Fuel, Port Morris



New Fulton Fish Market



Bronx River Alliance river trip



Hunts Point Produce Market



Hunts Point Cooperative Market



Soundview Reef Restoration Project

WORKING WATERFRONT

WORKING COMMUNITY

WORKING ECOLOGY



Hunts Point Produce Market



Hunts Point Produce Market



Bronx River Alewife Monitoring

Example of Co-Benefits for RBD Project in Hoboken, NJ

OBJECTIVES: **A COMPREHENSIVE SOLUTION**

MANAGES WATER
(FOR DISASTER AND FOR GROWTH)

MITIGATES FLOOD INSURANCE
(REASONABLE PREMIUMS THROUGH REDRAWING FLOOD MAP
AND/OR "ZONE X" FEDERAL FLOOD INSURANCE EXEMPTION)

DELIVERS CO-BENEFITS
(CIVIC, CURTURAL, RECREATIONAL, AND
COMMERCIAL AMENITIES)



Integrated & Leveraged Solutions

Multi-Disciplinary & Collaborative

Regional, Systems Approach

Iterative & Participatory Process

Multiple Hazards & Co-Benefits

Integrated & Leveraged Solutions



Integrated & Leveraged Solutions

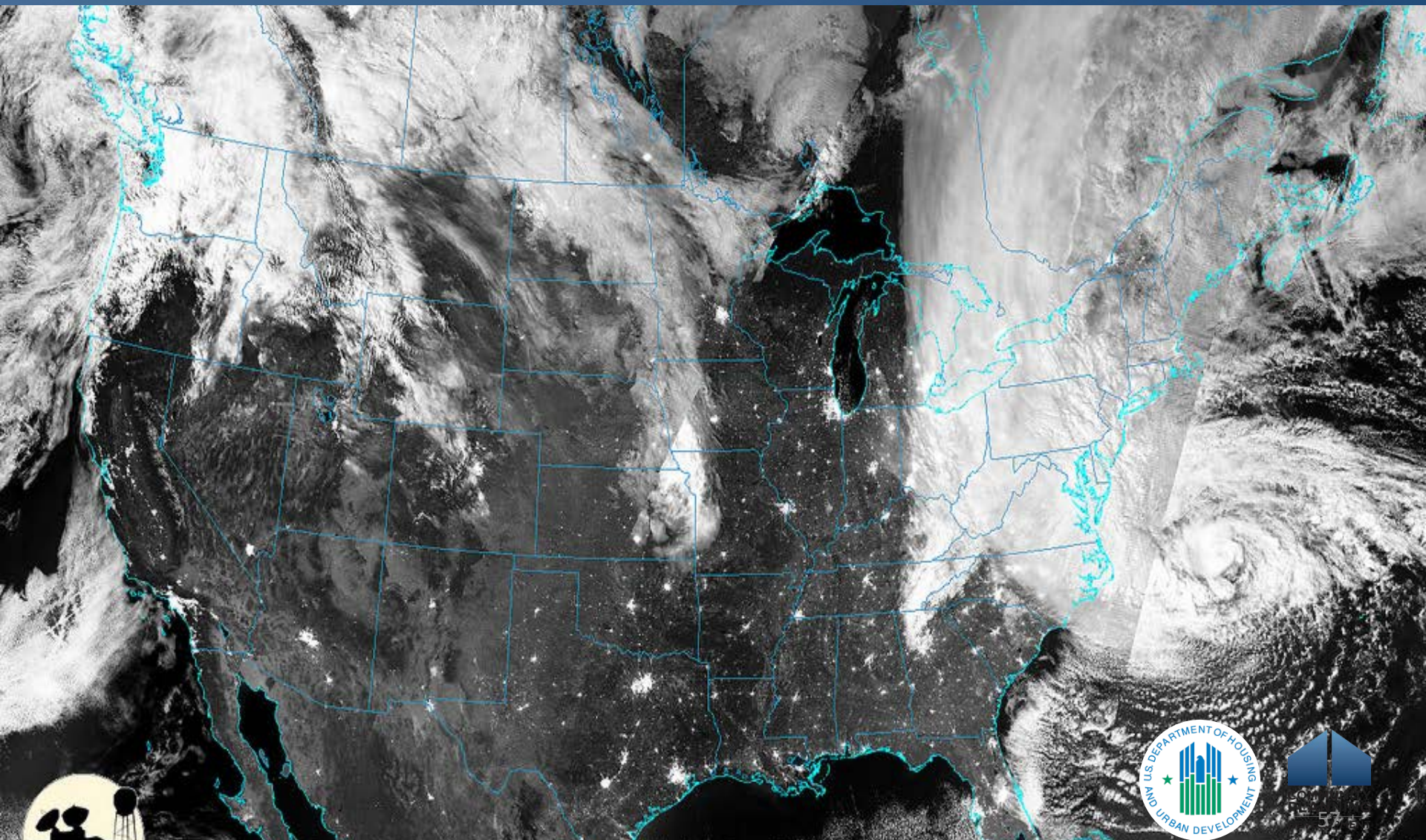
- Building a wall, elevating, or moving out of harm's way can be effective methods of reducing flood risk.
- However, when used alone as singular approaches to address the multi-faceted problem of building resilience, they often fail to provide a robust and holistic solution – especially in dense urban communities.



Integrated & Leveraged Solutions

- The best and most appropriate tools will be dictated by the unique characteristics of each individual landscape – its people, its buildings, its natural environment, its economy... resilience is place-specific.
- There is no template for resilience... it's not defined by what it looks like, it's about how it performs.





Suomi NPP - VIIRS Day Night Band - Oct. 29, 2014 (Night)

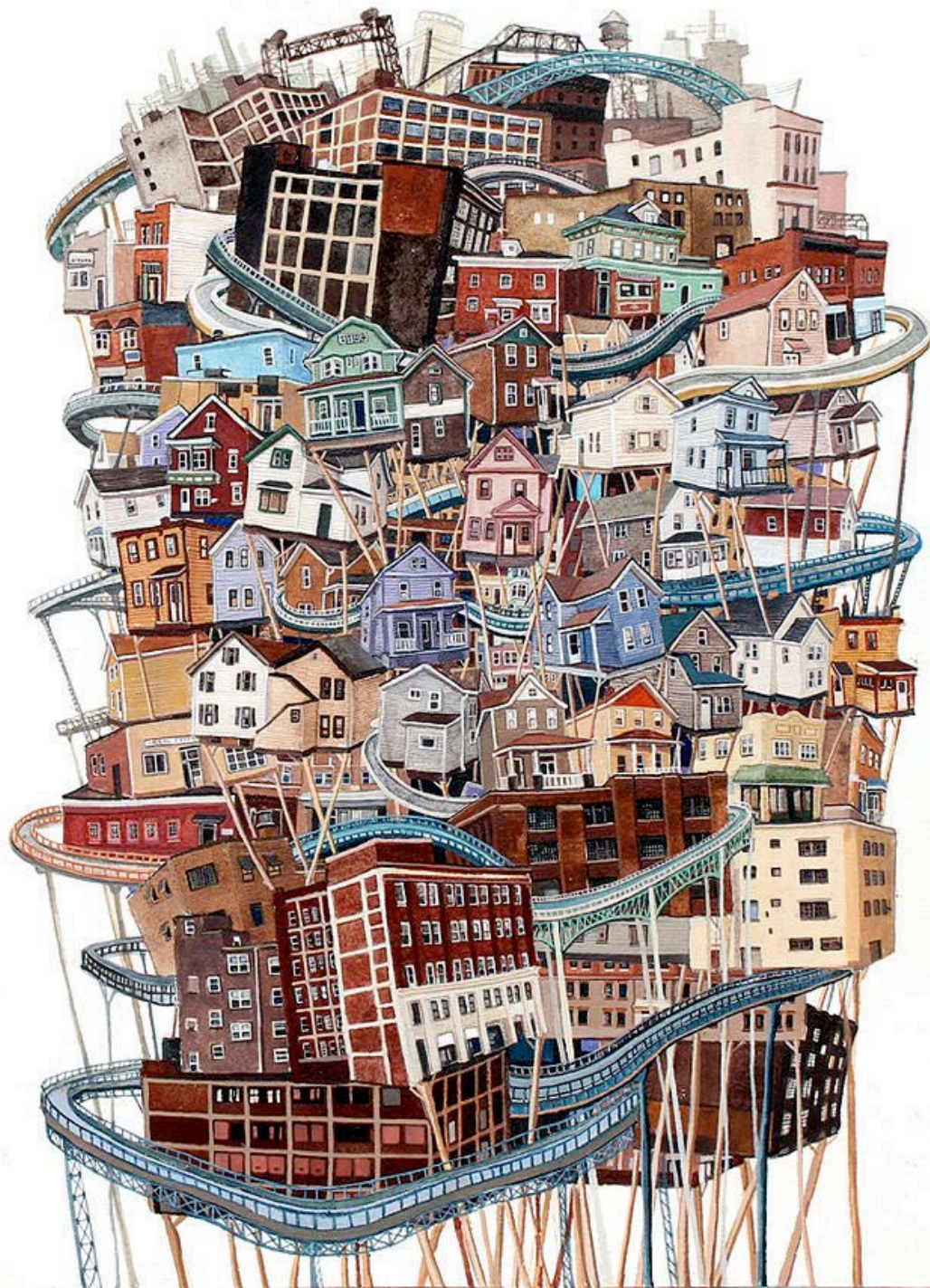


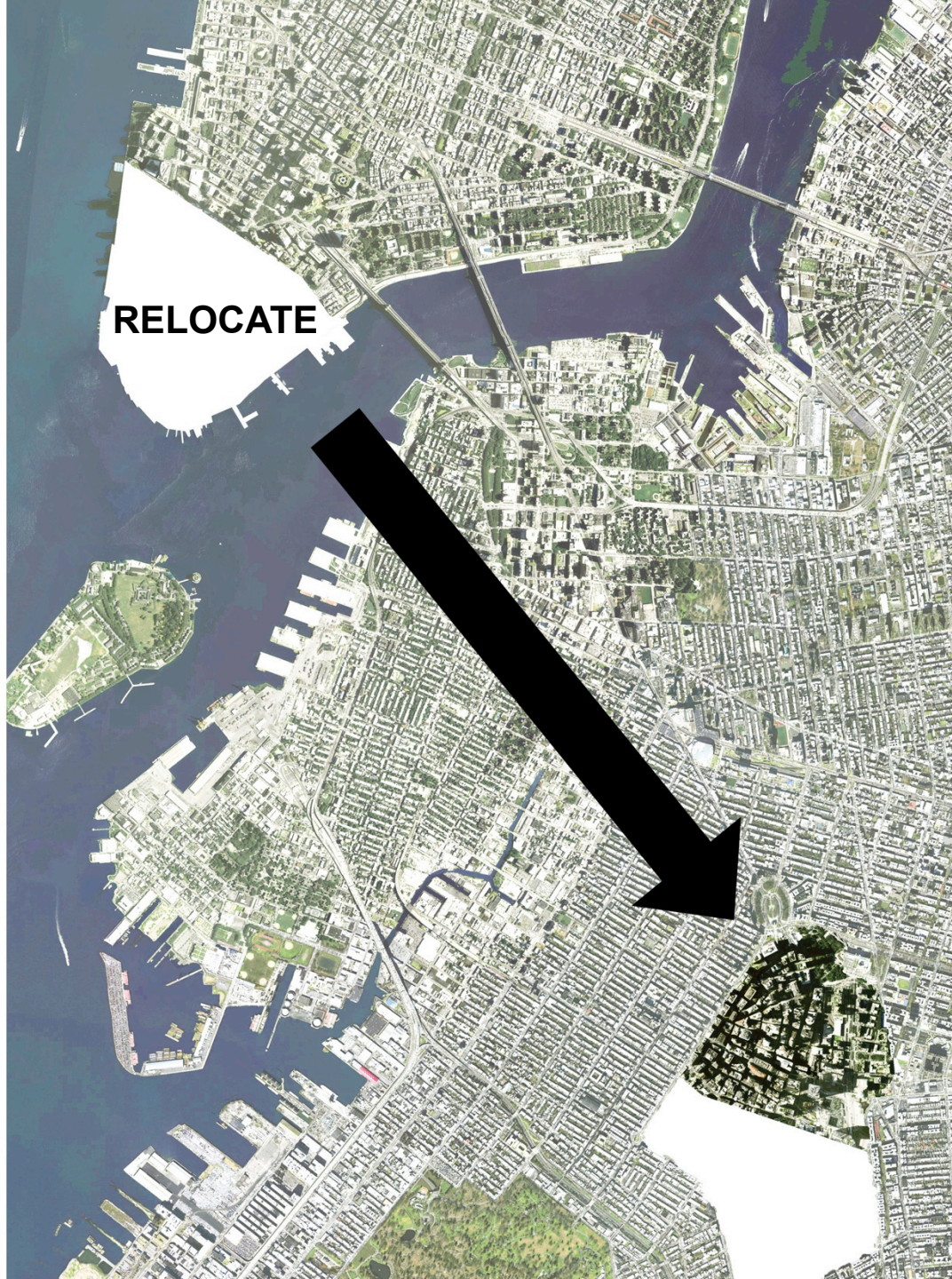
PHOTOCREDITS: IWAN BAAN

FORTIFY



ELEVATE





RELOCATE



DESIGN APPROACHES



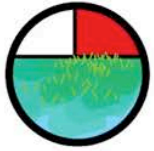
Floating and/or amphibious construction



Catch Basin / Retention Pool



Floodwalls / Dry Floodproofing



Constructed ecology (wetlands, reef ecosystem, etc)



Stacking or combination of program at waters edge



Accessible sloping and or terracing of water edge

WALL ?



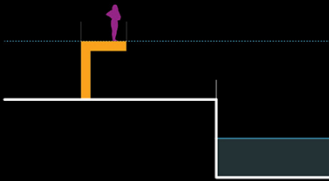
BENCH



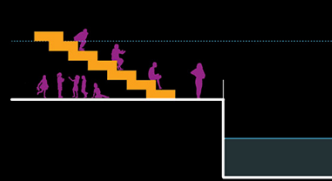
DOUBLE-BENCH



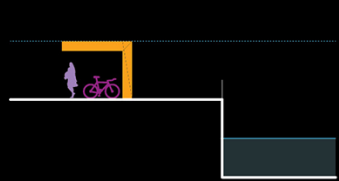
FLY-OVER



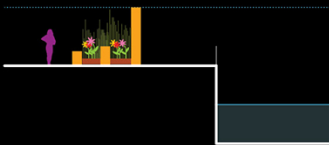
SEATING-SHELTER



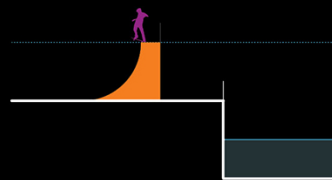
BIKE-POINT



GARDEN



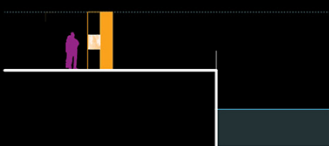
SKATE



SHOP



MEDIA



SLIDE

