

MUNICIPAL-ACADEMIA COOPERATION FOR CLIMATE ACTION

RISK AND MONETIZATION APPROACH TO CLIMATE ACTION STRATEGY AND IMPLEMENTATION

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OSEM

Divisions for Stormwater and AIRE (Arlington Initiative to Rethink Energy). AIRE is the County's core agency for energy, climate and resilience, working from an "all-of-government" approach.

DES Bureau

Stormwater infrastructure, operations, regulatory compliance and policy. AIRE develops/implements energy, climate and resilience planning, programs, projects and policy. Works across all other county bureaus and departments, as well private sector and community stakeholders.



DEPARTMENT of  —  —  —  —
ENVIRONMENTAL SERVICES
—  —  —  — ARLINGTON COUNTY





Evolution of an entrepreneurial approach



- 2008-09: Supported Municipal-Academic-Research effort to map long-term SLR impacts on Florida
- 2012-2015: Silicon Valley 2.0, a 9-sector resilience/adaptation protocol and decision-support tool. Identified by then-Governor Jerry Brown's OPR as the platinum standard for resiliency planning
- 2020-present: Arlington County
 - o Risk Assessment and Management Plan (RAMP) for inland flooding
 - o Clean Transportation Planning
 - o Energy Assurance Plan

PHASES OF RESILIENCY AND ADAPTATION PLANNING

Touch-Points for Academic Partnerships – Design, Analytics, Benchmarking



EXAMPLES OF CLIMATE RISK

Direct

- Loss or Replacement of an Asset
 - Critical Public Asset or Private
- Increase in Operational Costs
 - Climate extremes impose stressors and extraordinary W&T on infrastructure
- Loss of Economic Activity
 - Interruptions, temporary or prolonged
- Loss of Revenue
 - Property tax

Indirect

- Insurability
 - Informs products, costs & limitations
- Bankability and Marketability
 - Deterrents to sales, development and redevelopment
- Economic Slide
 - Ability to retain businesses and attract new commercial activity
- Loss of Revenue
 - Property tax

INDICATORS OF CLIMATE RISK

Direct (Example: Flooding/SLR, Power)

- Loss or Replacement of an Asset
 - Critical Public Asset or Private
- Increase in Operational Costs
 - Impacts other critical infrastructure, can interrupt operations (WPTP)
- Loss of Economic Activity
 - Transportation, Communications, Power Supply
- Loss of Revenue
 - Property tax, Sales tax, Hospitality taxes

Indirect

- Stability of Buildings
 - Adverse impacts to indoor environments
- Public Health / Indicators (indoor)
 - Youth, seniors, chronically ill
 - Missed work / school days, excess ER visits, premature deaths
- Public Health (Indicators/Outdoor)
 - Disadvantaged communities, outdoor professions
- Loss of Revenue
 - Decreased tax revenues vs. increased social costs

Q & A TO COME

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