Resilient Connecticut
Climate Adaptation Summit

Document by:
UConn’s Community Research & Design Collaborative
Director Associate Professor Peter Miniutti

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UConn’s Community Research & Design Collaborative (CRDC) is the umbrella organization for the outreach work of the landscape architecture faculty. Our mission is to be a regional leader in sustainable planning and design. We help our client’s plan and design affordable, equitable, and ecologically healthy environments. Our mission is accomplished by providing our client’s with objective, multi-disciplinary, state-of-the-art planning and design expertise. We promote and encourage academic-based collaborative research with an emphasis on “real world” projects as they apply to sustainable development.

For additional information, please see:
crduconn.wordpress.com
peteprojects.wordpress.com
or email Peter:
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Overview of UConn's CRDC

UConn’s Community Research & Design Collaborative (CRDC) is the umbrella organization for the outreach work of the landscape architecture faculty.

- **Our mission is to be a regional leader in sustainable planning and design.** We help our client’s plan and design affordable, equitable, and ecologically healthy environments.

- Our mission is accomplished by **providing our client’s with objective, multi-disciplinary, state-of-the-art planning and design expertise.**

- **We promote and encourage academic-based collaborative research (service learning)** with an emphasis on “real world” projects as they apply to sustainable development.

The UConn/CRDC Team: Post-Doc Mariana Fragomeni, Associate Professor/Director Peter Miniutti, Adjunct Instructor Natalie Miniutti, Undergraduates Stephen Kelly & Sybren Hoekstra, PhD student Tao Wu
1. UConn’s Program of Landscape Architecture/CRDC
   - Role on this Project – Consultant to CIRCA
   - Locational scope of project
   - Lands of Unique Value for areas of “Shared Risk”

2. Maps produced:
   - Topography & flooding projections (2)
   - Town level resource maps (3)
   - Shared risks (1)

3. The 1838 land use pattern worked well:
   - Map comparison

4. What do you think?
   - Work session for Fairfield, New Haven & Norwalk
     - Tell us who you are
     - Answer the questions
     - Get creative
     - Your thoughts – 2 -3 minute summary

Contents of Today’s Talk

Background information on the planning to this point

What do you think about the mapping to this point?
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Our Role & the "Design Process"
Evaluation

Program                  Inventory Analysis                      Planning /Design

1 2          3          4

Secondary Role

Primary Role*

1. Program
2. Inventory
3. Analysis
4. Planning /Design

Evaluation

* Inventory and analysis of all pertinent existing information, including town, state, and federal mapping; special interest groups; and previous studies. (both from the private and public sector).

Our Role & the “Design Process”
State of Connecticut:

- 2 counties – Fairfield & New Haven
- 50 Towns/15 on Sound
- 3 Planning agencies
- 3 projects
What is a Land of Unique Value Study (LUV)?

A land use study methodology which analyzes existing land features (natural and cultural) to determine the most logical and reasonable future land uses, *balancing conservation, preservation, and sensible development*.

Inventory and analysis of all pertinent existing information, including town, state, and federal mapping; special interest groups; and previous studies. (both from the private and public sector).
What is the most efficient and effective method to mitigate the negative consequences of water rise while improving the quality of life for all living things (humans, flora & fauna)?
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Our Products

We want to provide up-to-date, easily accessible, user friendly maps to ensure this process is a pro-active and holistic. We want to get away from reactive, piecemeal planning efforts. Multi-disciplinary team building is a necessity.

Map FEMA & CIRCA data on sea level rise and produce maps to clearly communicate the effects of projected water rise over time in New Haven and Fairfield Counties.
Flood Projections

New Haven - Flooding Projections

Legend:
- Tom Mountains
- Escarp
- Flood
- Nieuwland
- FEMA 100 year flood line
- ORCA 100 year flood area due 20 mil
- ORCA 50 year Ongoing
- 1m Flooded Area

Map showing flood projections in New Haven with various color coding to indicate different flood risk areas.
Based on CIRCA 100 year plus 20 inches projections:

**Watersheds**
- Approximately 2193.33 acres of the watersheds would be impacted (17.92%).
- Most impacted Subregion Watershed – South Central Shoreline (912.59 acres/ 21.75%) and Quinnipiac River (736.82 acres/ 29.34%)

**Infrastructure**
- A total of 1678 buildings would be under water and 116.68 acres of roadway areas would be impacted by flooding.

**Vulnerability and Opportunity**
- Approximately 695.45 acres are socially vulnerable according to the Social Vulnerability Index (CDC)
- An estimated 570.48 acres are areas identified as Opportunity Zones.
Map FEMA & CIRCA data on sea level rise and **produce maps to clearly communicate the affects of projected water rise over time** in New Haven and Fairfield Counties.

Create **Town Level Resource Maps** to be used by designers (landscape architects, engineers, etc.), decision makers and citizens to understand the context of proposed infrastructure improvements. The goal is to mitigate the negative effects of water rise while improving the overall quality of life of residents.
New Haven - Land Uses and Social Characteristics

L�gend:
- Tree Boundary
- Road
- Open Space
- General Management Zone
- Waterbody
- Opportunity Zone
- Social Vulnerability Index > 1.2
- Poverty
- Alcohol
- Crime
- Value
- Water Bodies

Scale: 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 Miles
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**Areas of Shared Risk**
Shared Risk Zones

New Haven - Shared Risk Area
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1. Please put your names on the base map.

2. Does the concept of “Shared Risk” make sense? Do you agree with the specific “Shared Risk” zones shown on your map? If not, please change the zones. What other cultural and natural attributes are missing from our maps?

3. Do you have any recommendations on how to protect the zones on your map?
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