



Advancing Urban Sustainability in the District of Columbia & Beyond: An Urban, Land-Grant Approach

Dwane Jones, Ph.D.

Director of the Center for Sustainable Development + Resilience (CSDR)/Program Coordinator for PSM Concentration in Urban Sustainability

College of Agriculture, Urban Sustainability, and Environmental Sciences (CAUSES)

Washington, DC

CSDR provides relevant and innovative applied research opportunities and education to students, District residents, and the global community in the areas of environmental sustainability, sustainable infrastructure and spaces, urban economics and entrepreneurship, resilience, and social change.



East Capitol Urban Farm: A Community Transformation Project in Ward 7

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Agenda

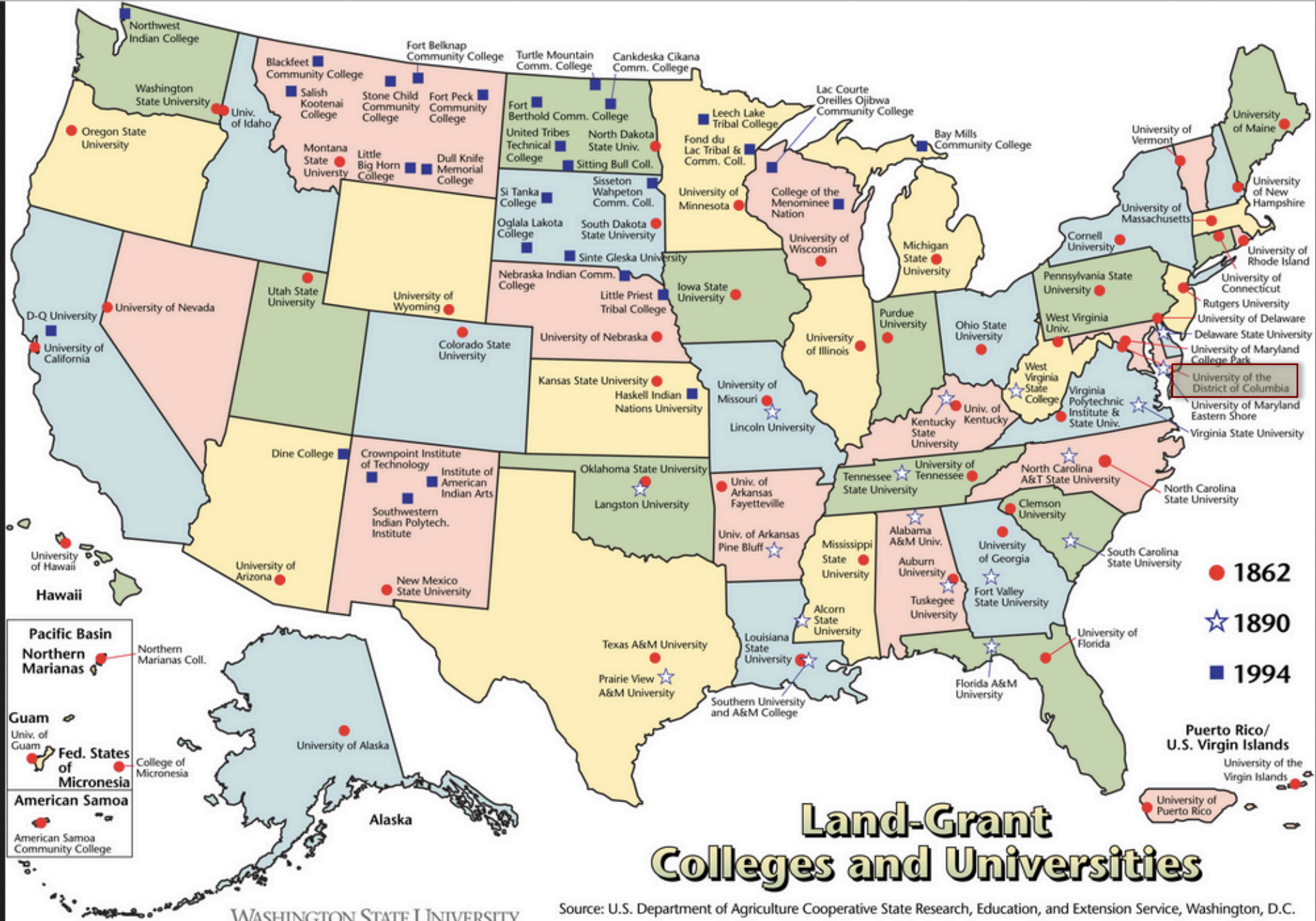
- Brief Bio of DJ
- Context (UDC + Washington, DC + Urban)
- Initiatives
- Summary
- Questions + Feedback

World, National Context, Washington, DC + UDC



WORLD STATS

- ONLY 2% OF THE WORLD'S POPULATION LIVED IN CITIES IN **1800**.
- THIS NUMBER INCREASED TO 14% IN 1900, 29% IN 1950, 47% IN 2000, AND OVER 50% IN **2008**.
- THE WORLD'S POPULATION IS PROJECTED TO BE 70% URBAN BY THE YEAR **2050** (APPROXIMATELY 9 BILLION PEOPLE).
- THESE INCREASES ARE EXPECTED TO CONTINUE BEYOND 2050.



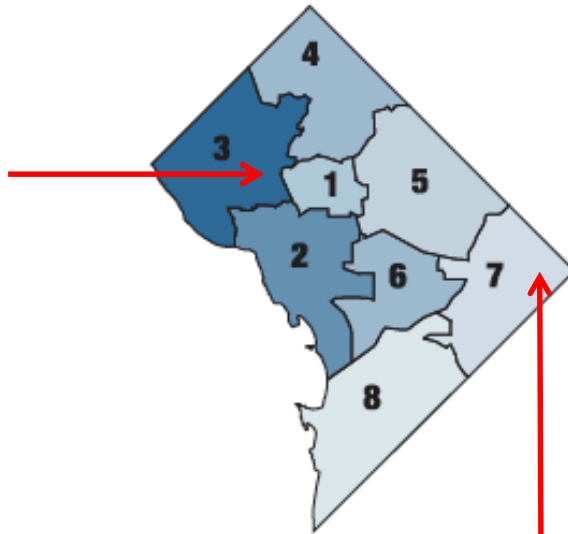
Land-Grant Colleges and Universities

Source: U.S. Department of Agriculture Cooperative State Research, Education, and Extension Service, Washington, D.C.

Based on U.S. Department of Agriculture map: m2783, June 2003

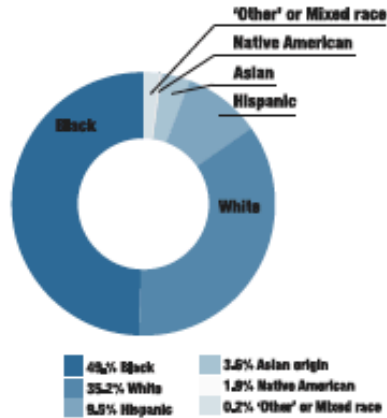
Prepared by Information Department, College of Agriculture and Home Economics in partnership with Extended University Services
 G. Steffen—Graphic Designer • C. Fitzgerald—Principal Assistant • Published November 2003

AVERAGE HOUSEHOLD INCOME BY WARD**



Ward 1: \$98,485	Ward 5: \$78,559
Ward 2: \$190,692	Ward 6: \$121,526
Ward 3: \$257,386	Ward 7: \$54,667
Ward 4: \$116,668	Ward 8: \$44,076

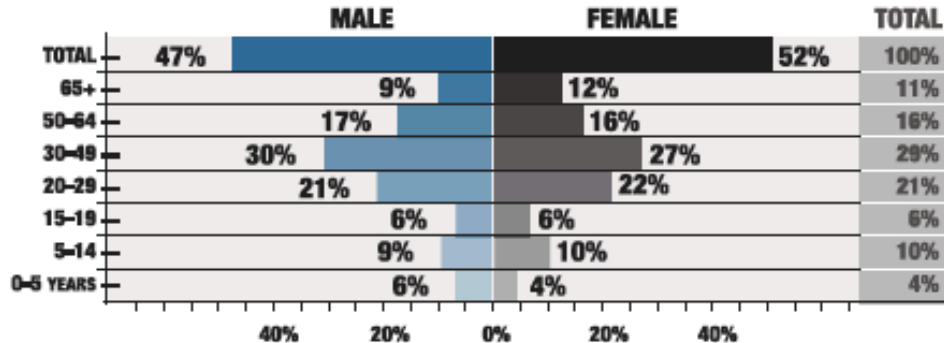
ETHNIC DIVERSITY AS % OF DC'S TOTAL POPULATION**



632,232:
TOTAL POPULATION OF THE DISTRICT**



PERCENTAGE OF RESIDENTS BY GENDER AND AGE (2011)**



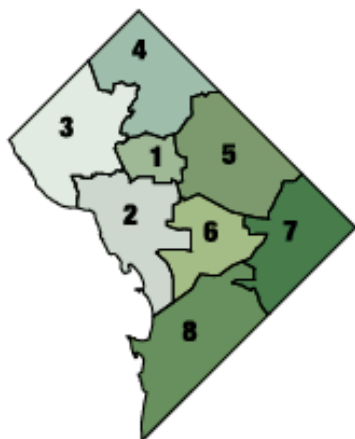
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SUSTAINABILITY



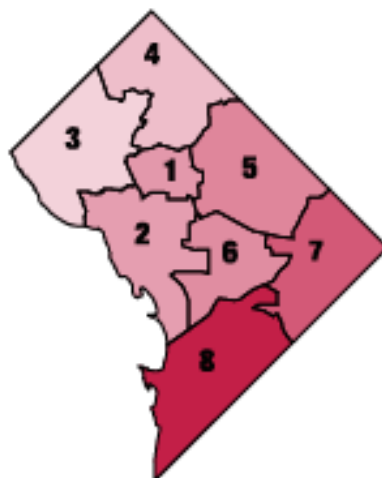
DC

UNEMPLOYMENT BY WARD (2005-2009)



Ward 1: 7.2%	Ward 5: 13.0%
Ward 2: 4.0%	Ward 6: 8.4%
Ward 3: 3.4%	Ward 7: 19.0%
Ward 4: 7.6%	Ward 8: 17.0%

POVERTY PREVALENCE BY WARD (2005-2009)¹⁷



Ward 1: 16%
Ward 2: 15%
Ward 3: 6.9%
Ward 4: 9.9%
Ward 5: 19%
Ward 6: 18%
Ward 7: 26%
Ward 8: 35%

SUSTAINABLE DC
28

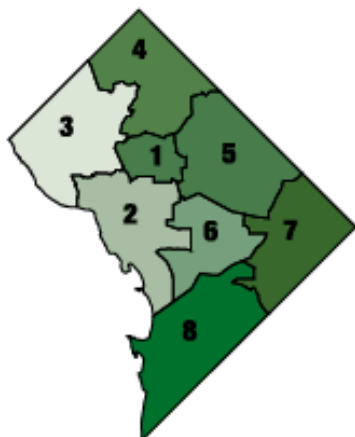


1 IN 3: DC RESIDENTS AT RISK OF HUNGER¹⁸



49.9%: THE POVERTY RATE FOR CHILDREN UNDER 18 IN DC. THIS COMPARES TO 37.9% NATIONALLY¹⁴

PERSONS WITHOUT HIGH SCHOOL DIPLOMA BY WARD (2005-2009)



Ward 1: 19.0%	Ward 5: 19.0%
Ward 2: 8.1%	Ward 6: 12.0%
Ward 3: 3.4%	Ward 7: 20.0%
Ward 4: 17.0%	Ward 8: 21.0%

 **50% OF JOBS IN DC REQUIRE AT LEAST A BACHELOR'S DEGREE¹⁹**



SUSTAINABILITY



DC

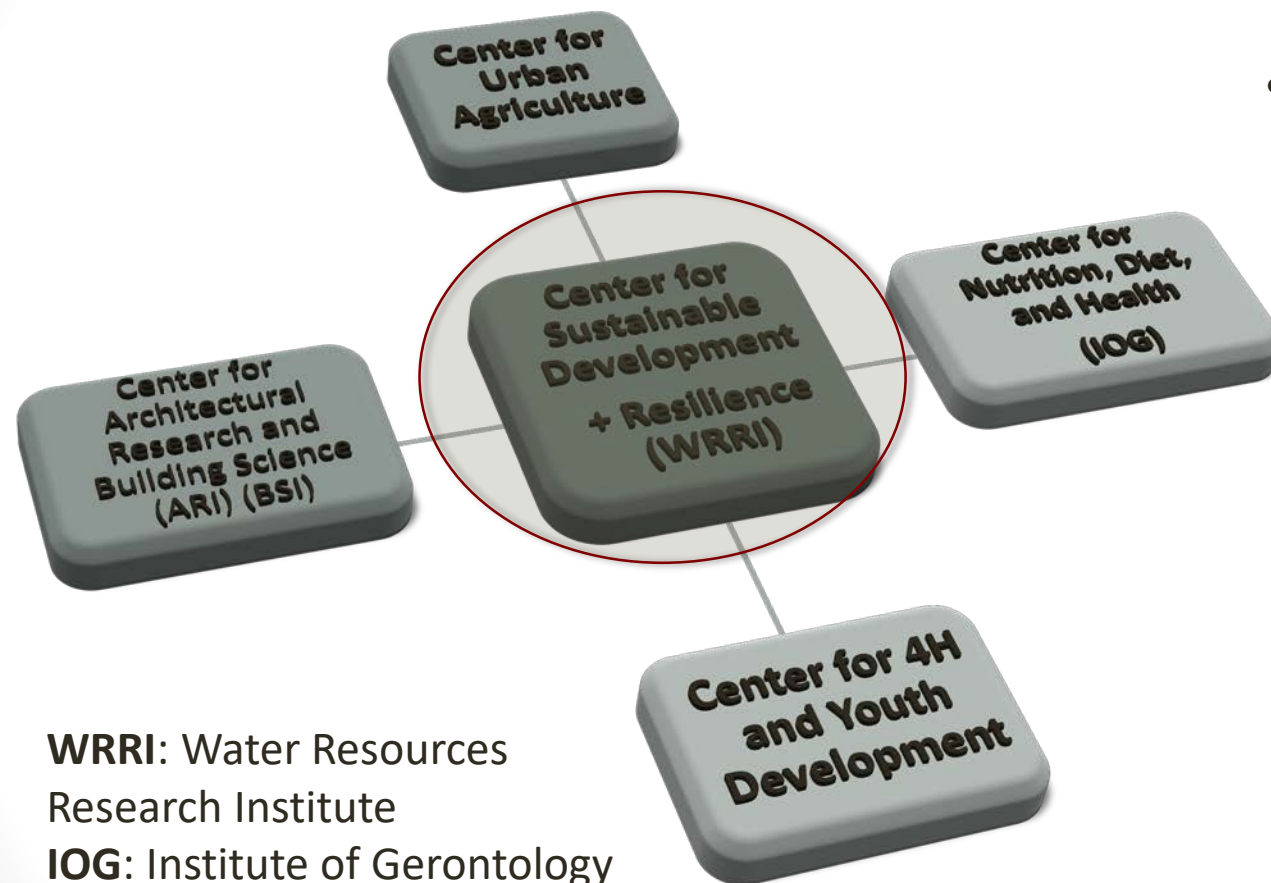
CAUSES URBAN FOOD SYSTEMS (HUBS)



Jones & O'Hara© 2013

Land-Grant Centers & Academic Programs in CAUSES

College of Agriculture, Urban Sustainability, and Environmental Sciences



WRRRI: Water Resources
Research Institute

IOG: Institute of Gerontology

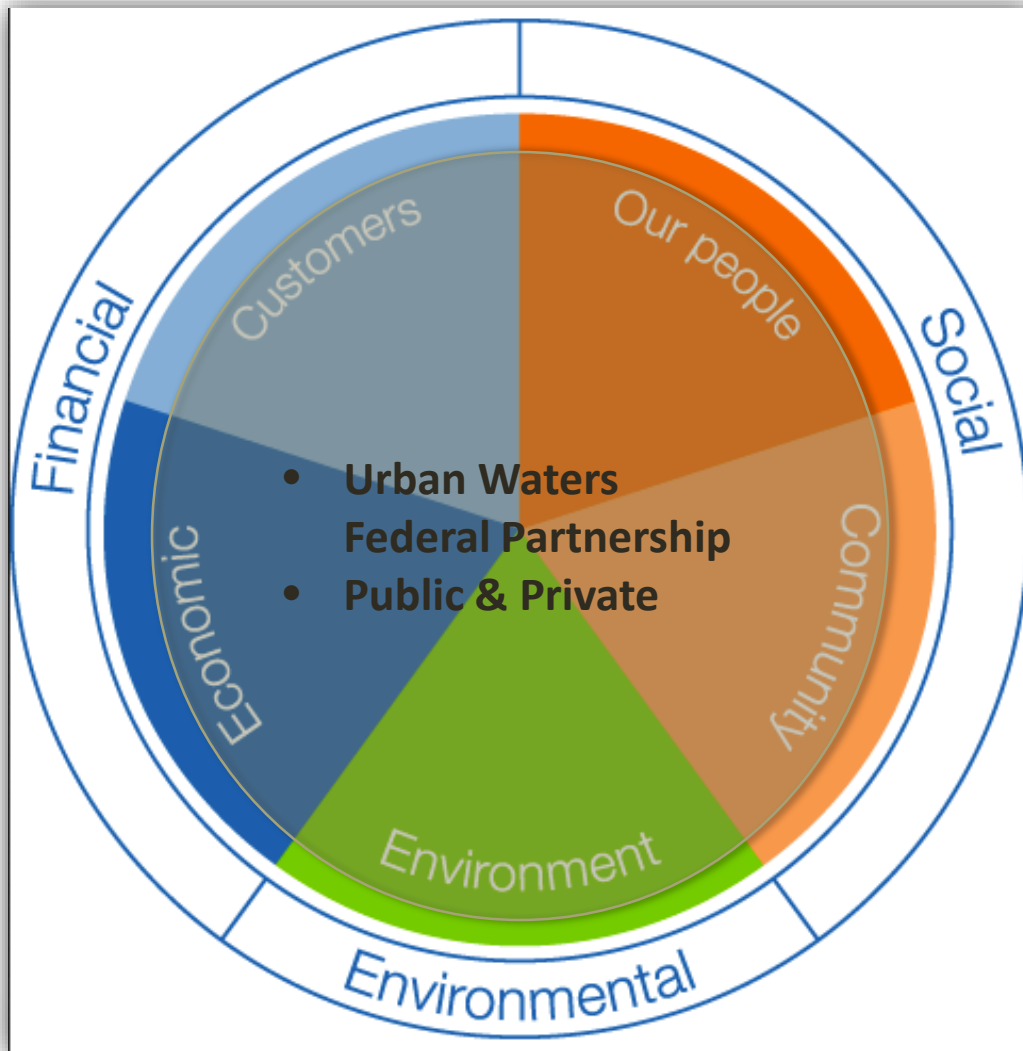
ARI: Architectural Research
Institute

BSI: Building Science Institute

Academic Programs

- Architecture & Community Planning + Master's
- Nutrition & Dietetics + Master's
- Environmental Studies
- Health Education
- Nursing
- Master's-Water Resources Management
- Master's-Urban Sustainability
- Master's-Urban Ag
- PhD in Urban Leadership + Entrepreneurship *

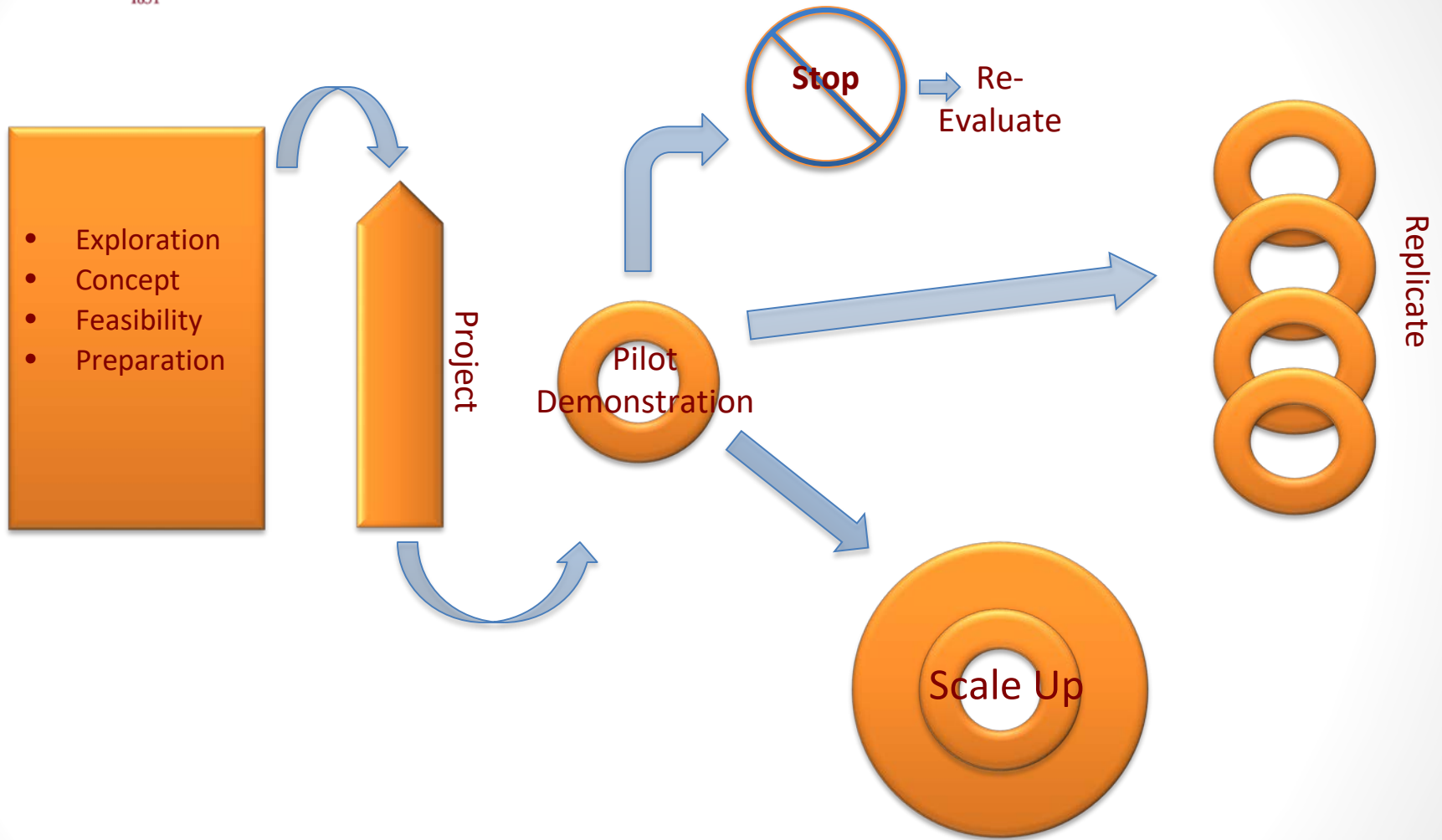
Center for Sustainable Development + Resilience



- Research
- Academics
- Extension
(research-based community education)

Graphic: SP AusNet

CAUSES Demonstration Project Model

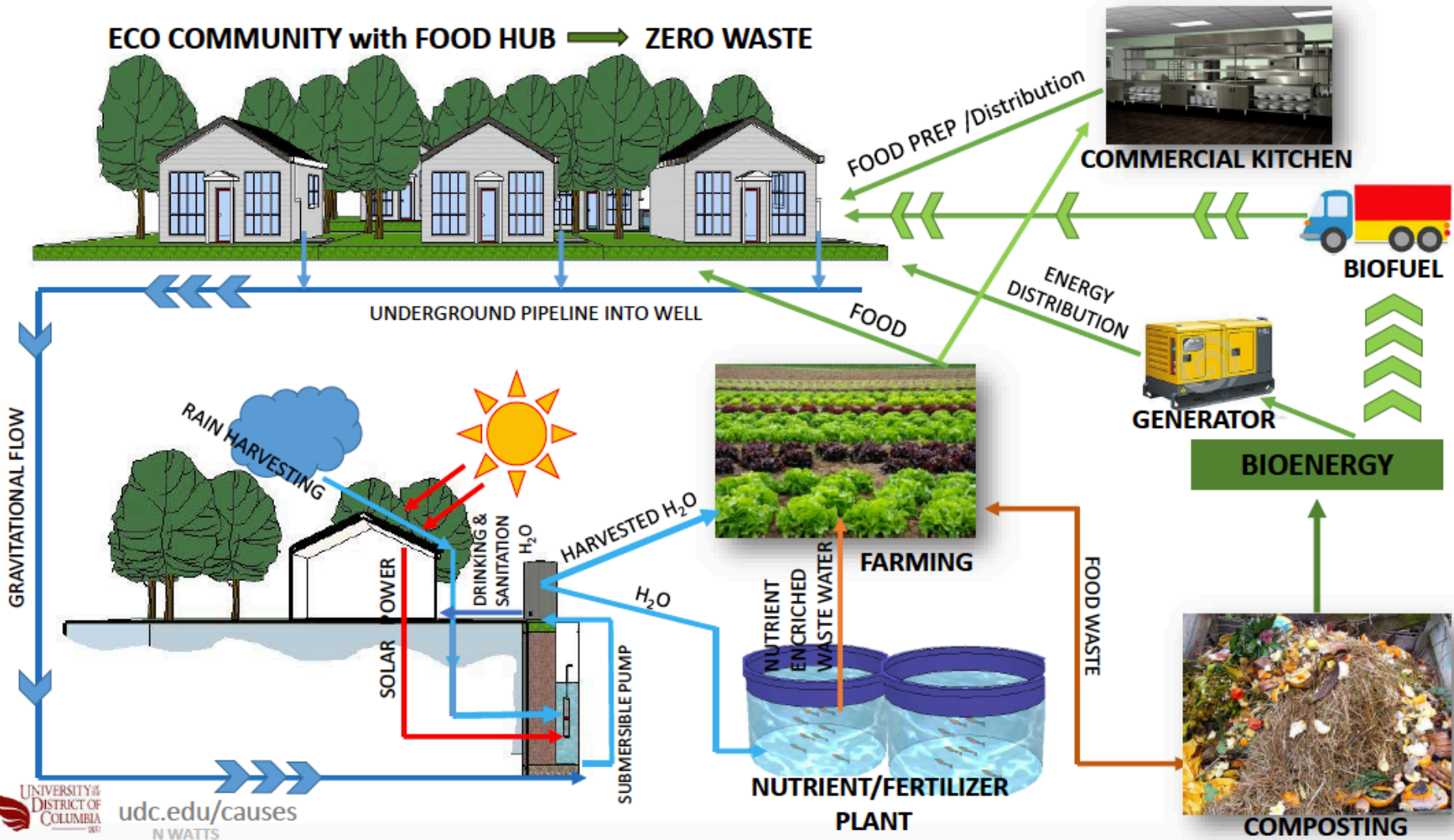


Adapted from CCIA

Initiatives

CAUSES URBAN FOOD SYSTEMS MODEL

ECO COMMUNITY with FOOD HUB → ZERO WASTE



UNIVERSITY OF DISTRICT OF COLUMBIA
udc.edu/causes
N WATTS

“Healthy Cities-Healthy People”

dwane.jones@udc.edu

East Capitol Urban Farm



East Capitol Urban Farm (5901 East Capitol Street SE, WDC)



Ethnic Crops



Nature Kids Discovery Area



Nature Kids Discovery Area



Nature Kids Discovery Area



Nature Kids Discovery Area



Nature Kids Discovery Area



Nature Kids Discovery Area



Nature Kids Discovery Area



Nature Kids Discovery Area



Aquaponics



Aquaponics





udc.edu/causes

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Community Art



udc.edu/causes

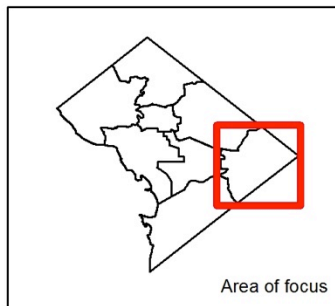
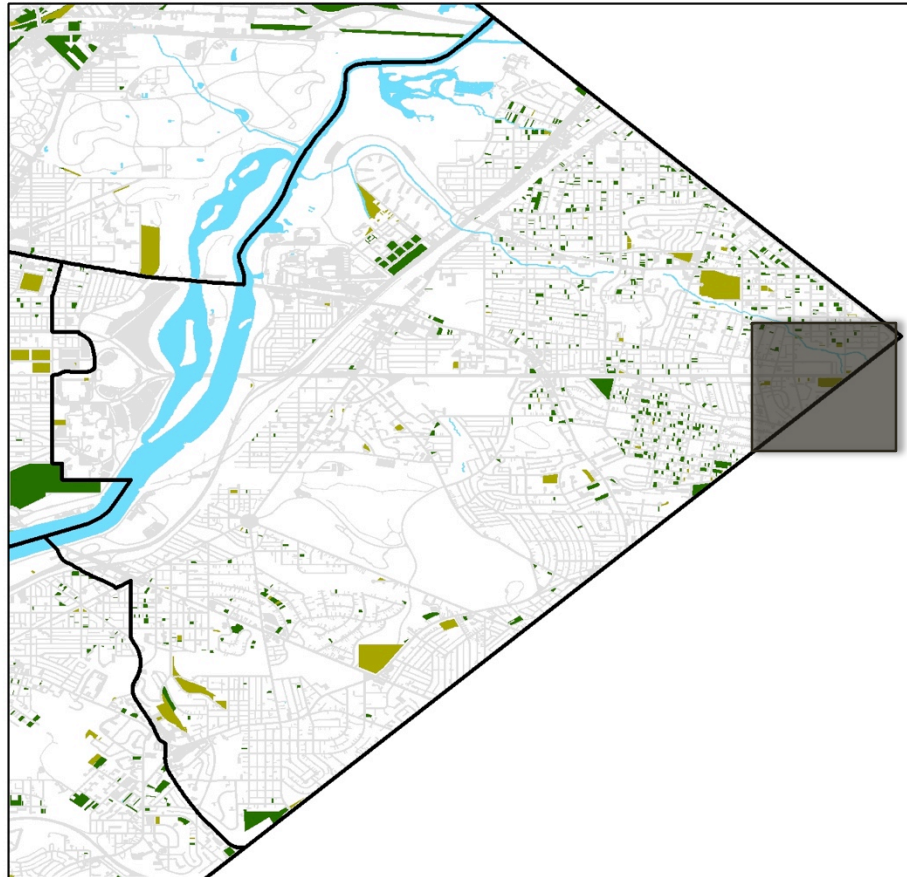
“Healthy Cities-Healthy People”

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Nutrition Education + AgroEconomics






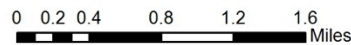
Vacant land available for Urban Farming, Ward 7, Washington DC



Area of focus

Legend

-  Privately-owned land, 2500+ sq. ft.
-  City-owned land, 2500+ sq. ft.
-  Waterbodies



Data source: opendata.dc.gov
November, 2014

Map created by: Niamoye Toure,
02/18/2015

Source:

- Dr. Amanda Huron,
Professor-UDC
- Niamoye Toure,
Student-UDC
- Robin Gilbrecht,
Student-UDC

Metrics

- + 93 unique volunteers
- + 77 garden plots
- + 3 jobs sustained
- + NYT Article mention (07/22)
- + Farmers Market Launch
- + 300 youth served
- + 3 acres of stormwater treated
- + 107 unique tours conducted

Similar Programs + Projects

- Resilience Research + Active Projects
- 11th Street Bridge Park + Urban Gardens
- DC Water: Green Infrastructure Training + Research
- PhD Program in Urban Leadership + Entrepreneurship
- ROI/Economic Analyses/Cost-Benefit/Labor Market Analyses
- Sustainability Innovation + Business Planning



Similar Programs + Projects

- Composting
- Urban Forestry
- Sustainability Literacy
- Environmental Literacy
- Climate Change
- Green Building Program
- Grants, Publications
- Career/Employment Pipeline

Partners (short list)

Federal Partners



District Partners



Partners (short list)

Non-Profit Sector



University Partners





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