

## Resiliency Actions - Draft 12-10-18

### AGRICULTURE

Overall Theme	Adaptation Strategies	Comments/Explanations	Potential Partnerships	Tools
<b>Increased Management of Resources</b>				
1Ag	Provide incentives for energy and water efficiency through technical assistance and grant programs. Promote policies to reduce energy use, conserve water, and encourage sustainability.		Farms, USDA NRCS, CT RC&D, local land use commissions, energy commissions	USDA NRCS Energy Audits, CT Farm Energy Program, NYS Resilient Farms <a href="https://www.nys-soilandwater.org/programs/crf.html">https://www.nys-soilandwater.org/programs/crf.html</a>
2Ag	Conserve/reduce water use/demand among all user groups for example reduce water losses in distribution systems.		Farms, USDA, CT RC&D, land trusts	USDA NRCS
3Ag	Conserve energy use across the farm to reduce and/or greenhouse gas emissions		Farms, USDA, CT RC&D	<a href="http://cometfarm.nrel.colostate.edu/">http://cometfarm.nrel.colostate.edu/</a> ; <a href="https://www.ctfarmenergy.org/">Connecticut Farm Energy Program https://www.ctfarmenergy.org/</a>
4Ag	Increase storage of precipitation among all user groups. Remove regulations that prohibit capture of runoff from roofs, parking lots, etc. Allow storage in ponds, cisterns and tanks for use in greenhouses and horticulture operations.		Farms, local land use commissions, Public Works, CT DOT, Conservation Districts, UConn NEMO	
5Ag	Encourage water re-use including, but not limited to: remove regulations, institute health practices, or educate public on how to reclaim water for irrigation, cooling, washing, processing, etc.		Farms, local land use commissions	
6Ag	Increase soil organic matter and utilize surface cover through cover crops, mulches, crop rotations and tillage practices. Promote good soil/landscape management. Utilize quality land/soil management practices (good drainage, no till agriculture to prevent erosion).	Consider areas of town properties that require periodic cutbacks every few years or suffer from invasive species; these might benefit from cover crops (such as clover to benefit pollinators) or other productive vegetation (fruit/nut trees for the community). Ask Conservation Commission for advice for creating seasonal habitats or appropriate plantings. Consider property's use, i.e., if public access maybe edible ornamentation might be preferable.	Conservation Commission	USDA/RC&D Soil Health workshops and resources <a href="https://ctracd.org/agriculture/soil-health-initiative/">https://ctracd.org/agriculture/soil-health-initiative/</a>
7Ag	Identify on-farm adaptations for specialized products such as maple syrup or dairy.		Farms	Maple Syrup adaptations ( <a href="https://resilientrural.com/wp-content/uploads/2018/11/Maple-Syrup-Case-Study-from-NY-ClimAID.pdf">https://resilientrural.com/wp-content/uploads/2018/11/Maple-Syrup-Case-Study-from-NY-ClimAID.pdf</a> )
8Ag	Increase the use of sustainable and organic growing methods and management practices and reduce uses of fertilizers, dyes, pesticides in property management where possible.		Farms, CT NOFA	UCS What is Sustainable Agriculture? <a href="https://www.ucsusa.org/food-agriculture/advance-sustainable-agriculture/what-is-sustainable-agriculture">https://www.ucsusa.org/food-agriculture/advance-sustainable-agriculture/what-is-sustainable-agriculture</a>
9Ag	Develop and promote community garden spaces on municipal land	Sustainable CT Action 4.3.	CEOs, local agricultural commissions. land trusts	
10Ag	Increase crop diversity (including native crops).		Farms	

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Land Use				
11Ag	Consider the need for access to new lands for expansion of maple sugar operations in the near term, to buffer orchards and dairy farms, and to allow for land to grow new varieties of fruit trees and dairy support crops.	Incorporate farmers into discussion for POCD and conservation areas (especially higher elevations). Consider long-term road-side maintenance and replacement of maple trees.	Local agriculture commissions, agriculture advocacy organizations, land use commissions	
12Ag	Continue preservation of prime and important farmland soils in order to secure ecosystem services these lands provide. Include in state and local POCDs, open space management plans, and Natural Resources Inventories.		local land use commissions, Housatonic Valley Association, Connecticut Farmland Trust, USDA/NRCS, CT Dept of Ag., land trusts	CT Environmental Conditions Online (CT ECO) Map Viewer
13Ag	Consider soil-based zoning that directs development away from agricultural soils		local land use commissions	town of Kent CT Soil Based zoning
14Ag	Encourage preservation of small, sustainable, diverse, community-supported farms in order to secure the ecosystem services these lands provide while educating the public about the importance of agriculture systems.		local land use commissions, agricultural advocacy groups, economic development groups, CT NOFA, land trusts	CT Dept of Ag "Community Farms Preservation Program" (former program)
15Ag	Encourage reuse of brownfields for agricultural use (such as aquaponics), as appropriate. Reuse urban buildings for agriculture and promote vertical agriculture, e.g. green roofs, etc.		local land use commissions, agricultural advocacy groups, economic development groups	EPA FAQs on Brownfields and Agriculture <a href="https://www.epa.gov/brownfields/frequent-questions-about-brownfields-and-urban-agriculture">https://www.epa.gov/brownfields/frequent-questions-about-brownfields-and-urban-agriculture</a> ; CT DECD Program
16Ag	Increase the amount of land in organic production systems and promote protection of these lands.		local land use commissions, land trusts, farms, CT NOFA	
17Ag	Identify and protect soil landscapes that are critical for groundwater recharge.		Northwest CT Conservation District, Housatonic Valley Association	
18Ag	Analyze use of marginal agricultural lands to grow sustainable biomass and fuel such as switch grass and willow.		farms, local agricultural commissions	USDA SARE <a href="https://www.sare.org/Learning-Center/Fact-Sheets/The-Sustainability-of-Biofuel-Fact-Sheet-Series">https://www.sare.org/Learning-Center/Fact-Sheets/The-Sustainability-of-Biofuel-Fact-Sheet-Series</a>
<b>Infrastructure Changes</b>				
19Ag	Work with state agencies on infrastructure improvements to sewage treatment plants to minimize or halt combined sewer overflows to reduce runoff onto productive soils.		DOH, DOT, OPM	
20Ag	Renovate or build new dairy barns to maximize passive ventilation and employ active cooling technologies where needed.	Review regulations and procedures to allow for higher roofs in barns and electricity use for fans.	farms	<a href="https://articles.extension.org/pages/32633/ventilation-and-cooling-systems-for-animal-housing">https://articles.extension.org/pages/32633/ventilation-and-cooling-systems-for-animal-housing</a>
21Ag	Increase filtration and pervious surface to handle stormwater runoff.	Incorporate LID into planning and zoning regulations and town operations. Cross reference with Sustainable CT Action 2.8.	Public Works & P&Z Commission	town of Morris LID Manual - <a href="https://circa.uconn.edu/building-municipal-resilience-and-climate-adaptation-through-low-impact-development/">https://circa.uconn.edu/building-municipal-resilience-and-climate-adaptation-through-low-impact-development/</a> ; CT NEMO program <a href="http://nemo.uconn.edu/">http://nemo.uconn.edu/</a>
22Ag	Utilize new hydrologic data for the designs and standards for all agricultural infrastructure and conservation practices.		farms, USGS, USDA, DOT	
<b>Regulatory/Policy Changes</b>				
23Ag	Assess and amend regulations to allow for agriculture processing facilities for value added products, meat slaughter and processing, etc. so that Connecticut farmers can meet market demands for locally grown products and reduce waste of blemished fruit and vegetables and can take advantage of the longer growing season, far-away markets and benefit from hail-damaged and excess fruit not picked by consumers during pick-your-own times.	Review regulations and reduce unnecessary impediments.	local land use & economic development commissions, CT Dept of Ag, UConn, COGs, Chambers of Commerce, Community Foundations	CT Planning for Agriculture Guide; CT Dept. of Ag "Farmer's Guide to the Rules of Processing and Selling Meat or Poultry in Connecticut" <a href="http://www.ct.gov/doag/lib/doag/marketing_files/farmers_guide_to_processing_and_selling_meat_and_poultry_in_ct.pdf">http://www.ct.gov/doag/lib/doag/marketing_files/farmers_guide_to_processing_and_selling_meat_and_poultry_in_ct.pdf</a> ; UCONN "Starting a Food Processing Facility" <a href="http://cag.uconn.edu/nutsci/nutsci/foodsafety/Food_Processing_landing_page/Start_CT_food_processing_business.php">http://cag.uconn.edu/nutsci/nutsci/foodsafety/Food_Processing_landing_page/Start_CT_food_processing_business.php</a>

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24Ag	Assess and amend regulations to decrease barriers and promote farm practices that address climate adaptation and sustainability, e.g. building codes for greenhouses, misting and irrigation systems, etc. Reduce administrative burdens on farmers for installation of high tunnels, low/caterpillar tunnels, greenhouses, ventilation systems, or structures i.e general use of technologies for passive and active cooling measures in dairy barns, irrigation and other adaptive infrastructure.		local land use commissions, CT Dept of Ag, Uconn, USDA NRCS, Working Lands Alliance, CT Farm Bureau, SCCROG Urban-Rural Agricultural Collaborative, land trusts	NY Climate Smart Communities Webinar "Agriculture & Climate Change Adaptation: A Role for Municipalities" <a href="https://goo.gl/aTQtTP">https://goo.gl/aTQtTP</a>
25Ag	Create regulations or reduce barriers to encourage agriculture, agri-tourism, and use of renewable energy (including anaerobic digestion) on working farms.	Sustainable CT Action 4.3.	local land use commissions, CT Dept of Ag, Uconn	Example of Agricultural Overlay District and promotion of agri-tourism ( <a href="https://co.thurston.wa.us/PLANNING/planning_commission/agenda/2013-08-07/pc-agenda-20130807-attachment-staff-report-agritourism.pdf">https://co.thurston.wa.us/PLANNING/planning_commission/agenda/2013-08-07/pc-agenda-20130807-attachment-staff-report-agritourism.pdf</a> )
26Ag	Encourage local zoning regulations (e.g., concerning lights, noise) that enable agricultural workers to harvest during the cooler parts of the day (e.g., Early morning).		local land use commissions, CT Dept of Ag, UConn	CT Planning for Agriculture Guide, Right to Farm ordinances
27Ag	Continue to redevelop the infrastructure needed to grow, process, store, market, sell, and eat local and regional foods.	Consider food hub potential i.e., Northwest Hills Council of Governments Food Hub Viability Study or a Food Action Plan.	COGs, farmers, farm-to-table organizations, CT Dept of Ag.	Link to Food Hub and Food Action plan ( <a href="http://www.seattle.gov/environment/sustainable-communities/food-access/food-action-plan">http://www.seattle.gov/environment/sustainable-communities/food-access/food-action-plan</a> ); CLiCK Willimantic <a href="https://clickwillimantic.com/">https://clickwillimantic.com/</a>
28Ag	Provide regulations for seasonal work-force housing.		local land use commissions, CT Farm Bureau	Kent CT Zoning Regulation 3234 Permitted by Special Permit
29Ag	Identify local and regional sources of agricultural products that can be used in local facilities such as schools.		NHCOG Food Hub; CT Dept of Ag Farm to School Program, local farms	<a href="https://www.ct.gov/doag/cwp/view.asp?a=2225&amp;q=299424">https://www.ct.gov/doag/cwp/view.asp?a=2225&amp;q=299424</a> Dawn Crayco FoodCorps CT/CT Farm to School Collaborative, P: 860-785-3354 ; <a href="http://www.farmtoschool.org/">http://www.farmtoschool.org/</a>
30Ag	Implement general farm-friendly zoning regulations which better define agriculture, provide farmers flexibility for ancillary uses on farms, and allow on-farm sales, adequate signage to farms, and appropriate, small scaled meat processing. Allow maximum flexibility in our policies, rules, regulations, standards, and funding; practicing a philosophy of adaptive management will allow agriculture to be the most successful.	Real estate agents should communicate acceptance of working farms in the town to potential new buyers. Cross-reference with Sustainable CT Action 4.3, and Agriculture category, and NHCOG POCD Goal 3	Partners for Sustainable Healthy Communities, Upper Housatonic Valley National Heritage Area, CT Northeast Organic Farming Association, Agvocate, local agriculture and land use commissions, CT Dept of Ag, agricultural schools	Agvocate "Creating Farm Friendly Communities" <a href="https://agvocatect.org/creating-farm-friendly-communities/">https://agvocatect.org/creating-farm-friendly-communities/</a> ; CT Planning for Agriculture Guide
<b>Education/Outreach/Technical Assistance</b>				
31Ag	Provide outreach, education and networking opportunities needed for both existing and new farmers. Expand course opportunities at CT community colleges and high-schools on topics relevant to farming, agricultural science, and marketing especially for climate change		Conservation organizations, land trusts, NWRWIB, local colleges and universities; New CT Farmers Alliance	
32Ag	Encourage, promote, and support local and/or regional farmers' markets by hosting on town green or promoting in local communications.		CEOs, local agricultural commissions, land trusts	
33Ag	Assist farms in preparing emergency response plans		Conservation organizations, Public Works, private land owners, utilities	C T Farm Bureau Emergency Preparedness for Farmers <a href="http://www.cfba.org/emergency.htm">www.cfba.org/emergency.htm</a> ; USDA Risk Management Agency Insurance Agent Locator <a href="http://www3.rma.usda.gov/apps/agents">www3.rma.usda.gov/apps/agents</a> ; UConn Farm Risk Management and Crop Insurance Program <a href="http://www.ctfarmrisk.uconn.edu">www.ctfarmrisk.uconn.edu</a>
34Ag	Encourage farms to develop Nutrient Management Plans		NWCD, USDA NRCS, CT DEEP	Cornell Dairy Guidance - <a href="http://www.manuremanagement.cornell.edu/Pages/Popular_Pages/Fact_Sheets.html">http://www.manuremanagement.cornell.edu/Pages/Popular_Pages/Fact_Sheets.html</a>

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Bees & Pollinators				
35Ag	Encourage pollinator diversity in open space habitats. Manage open space habitats for a diversity of bee nesting sites such as open grasslands and powerline right-of-ways for ground-nesting bees. Leave dead and downed trees for tree-nesting bees. Conserve riparian buffers which protect bare ground surrounding rivers for ground-nesting bees that prefer bare ground with loose soil.		Conservation organizations, Public Works, private land owners, utilities, local landscaping companies, land trusts, USDA NRCS, UConn Extension, Master Gardeners, land trusts	Pollinator-Friendly Best Management Practices for Federal Lands ( <a href="https://www.fs.fed.us/wildflowers/pollinators/BMPs/">https://www.fs.fed.us/wildflowers/pollinators/BMPs/</a> ) ; UConn CAES "A Citizen's Guide to Creating Pollinator Habitat in Connecticut" <a href="http://www.ct.gov/caes/lib/caes/documents/publications/pollinators/a_citizen%E2%80%99s_guide_to_creating_pollinator_habitat_in_connecticut.pdf">http://www.ct.gov/caes/lib/caes/documents/publications/pollinators/a_citizen%E2%80%99s_guide_to_creating_pollinator_habitat_in_connecticut.pdf</a>
36Ag	Educate open space managers about the importance of pollinators and land management techniques to encourage these pollinators. Encourage a diversity of native flowering herbaceous plants and shrubs, especially early and late-blooming plants, and bunch grasses (for bumble bees) to provide pollen.		Conservation organizations, Public Works, private land owners, utilities, local landscaping companies, land trusts	<a href="https://toolkit.climate.gov/case-studies/field-farm-forest-and-city-sustaining-pollinator-health-build-ecosystem-resilience">https://toolkit.climate.gov/case-studies/field-farm-forest-and-city-sustaining-pollinator-health-build-ecosystem-resilience</a>
37Ag	Encourage informed backyard bee rearing of the European honeybee by homeowners that have attended beekeeping information sessions, such as those provided by the CT Beekeeping Association or the Back Yard Beekeepers Association.		local agricultural commissions, conservation organizations, private land owners	
38Ag	Provide education to homeowners through informational talks, such as those offered by the Connecticut Agricultural Experiment Station, and print media on the importance of pollinator diversity, including information to distinguish wasps from bees and evaluate stinging risks. Pollinator education information also should include information to prevent pollinator pests, such as the carpenter bee.		local agricultural commissions, conservation organizations, private land owners, USDA, Uconn, land trusts	
39Ag	Encourage homeowners to maintain their property to support pollinator diversity. Encourage homeowners to plant native plants, such as goldenrod, that are beneficial to pollinators. Encourage homeowner organic lawn care to reduce applications of pesticides that could affect pollinators. Encourage homeowners to better target invasive plant control herbicide applications through spot spray or cut and paint methods instead of broadcast spraying which could kill pollinator-beneficial, native plants.		local agricultural commissions, conservation organizations, private land owners, land trusts	UConn CAES "A Citizen's Guide to Creating Pollinator Habitat in Connecticut" <a href="http://www.ct.gov/caes/lib/caes/documents/publications/pollinators/a_citizen%E2%80%99s_guide_to_creating_pollinator_habitat_in_connecticut.pdf">http://www.ct.gov/caes/lib/caes/documents/publications/pollinators/a_citizen%E2%80%99s_guide_to_creating_pollinator_habitat_in_connecticut.pdf</a>