

# Adaptation and Resilience Initiatives

AR1: Commit to comprehensive and equitable state climate change adaptation and resilience planning and implementation

AR2: Incorporate equitable adaptation and risk-reduction considerations into relevant state funding and regulatory programs, projects and policies

AR3: Provide state agency planning and technical support for equitable regional and local adaptation and resilience plans and projects

AR4: Evaluate opportunities to ensure equitable consideration of future climate conditions in land-use planning and environmental reviews.

AR5: Develop policies and tools, and implement programs to reduce risks associated with coastal and inland flooding

AR6: Develop policies and programs to reduce human risks associated with new patterns of thermal extremes

AR7: Develop policies and programs to reduce risks threatening ecosystems and biodiversity

AR8: Strengthen meaningful community engagement and public education, and build adaptive capacity across all sectors

AR9: Identify and evaluate options for supporting equitable adaptation and resilience practices and projects

AR10: Enhance climate resilience and adaptive capacity of agricultural community, while preparing to take advantage of emerging opportunities

AR11: Enhance climate resilience and adaptive capacity of agricultural community, while preparing to take advantage of emerging opportunities

AR12: Develop policies and programs to maintain carbon sequestration potential of forests (to be developed?)

# “Themes”

Building Capacity

Communities and Infrastructure

Living Systems

# Building Capacity

# Building Capacity

- > Commit to comprehensive and equitable state climate change adaptation and resilience planning and implementation. (AR1)
- > Incorporate equitable adaptation and risk-reduction considerations into relevant state funding and regulatory programs, projects and policies. (AR2)
- > Strengthen meaningful community engagement and public education, and build adaptive capacity across all sectors. (AR8)
- > Identify and evaluate options for supporting equitable adaptation and resilience practices and projects. (AR9)

## AR1: Commit to comprehensive and equitable state climate change adaptation and resilience planning and implementation

- > Appoint a state resilience officer within State Operations to coordinate and direct agency hazard mitigation, adaptation, response, resilience and recovery programs.
- > Convene an adaptation and resilience sub-cabinet to oversee development and implementation of a comprehensive state climate change adaptation and resilience plan.
- > Complete and implement state agency and authority vulnerability assessments, develop resilience and adaptation plans. Identify and prioritize state adaptation and resilience projects.
- > Allocate funding and staff resources for periodic, science-based integrated climate assessments and other research to support necessary regulatory and planning activities to reduce risk and promote resilience.

## AR2: Incorporate equitable adaptation and risk-reduction considerations into relevant state funding and regulatory programs, projects and policies

- > Adopt science-based projections of changes in climate parameters relevant to state decision making and standardize their use across all agencies and regulated entities.
- > Promote integrated planning and develop criteria for integrated decision making for capital investments.
- > Develop and adopt design guidelines for state-funded projects to ensure resilience to climate hazards, particularly sea-level rise, flooding and extreme heat.
- > Amend Smart Growth Public Infrastructure Policy Act and similar statutes to require consideration of relevant climate hazards, not only sea-level rise, storm surge and flooding, and issue implementation guidance.
- > Incentivize use of natural resources and nature-based features to mitigate climate hazards, where applicable, and monitor and evaluate benefits.
- > Ensure, through state contract provisions, that design professionals and contractors are trained and qualified to incorporate nature-based solutions in infrastructure projects.
- > Require all state-funded comprehensive land and water-use planning to assess climate-change vulnerabilities and strategies to promote resilience and reduce risk.

## AR8: Strengthen meaningful community engagement and public education, and build adaptive capacity across all sectors

- > Amend the Property Condition Disclosure Act to remove seller's option to pay a credit, rather than providing a disclosure statement.
- > Establish campaign to build student and public awareness of climate change effects and solutions, including co-benefits of actions to mitigate and adapt to climate change
- > Establish program to enhance building resilience by training operations staff in disaster preparedness and response
- > Establish program to provide home and small business resilience audits and resilience refinancing.
- > Establish or expand climate action corps that employ and train disadvantaged youth and provide a source of skilled labor for climate-related ecosystem restoration and green infrastructure projects that increase nature-based resilience and natural carbon sequestration.
- > Establish Climate Smart Community Student Corps to train students to engage with community groups to facilitate development and implementation of local climate adaptation plans.

## AR9: Identify and evaluate options for supporting equitable adaptation and resilience practices and projects.

- > Create a resilient infrastructure fund through bonding.
- > Impose a surcharge on insurance premiums for select lines of insurance, affected by climate hazards, to generate revenue to support risk-reduction and adaptation projects.
- > Report on options to create tax exemptions for risk-reduction measures and establish a revolving fund to support regional and local risk-reduction and adaptation projects, including provisions to allow borrowing from the fund to meet local cost shares of risk-reduction projects and to provide capital to private entities.
- > Report on options to enhance hazard mitigation funding and pre-fund disaster recovery, and to transfer catastrophic risk to the insurance and capital markets.
- > Address persistent underinsurance by surveying the amount and types of coverage purchased by homeowners and developing strategies for increasing take-up rates of flood insurance and other coverage.
- > Provide recommendations on the continued use of anti-concurrent causation clauses.



# **Communities and Infrastructure**

# Communities and Infrastructure

- > Provide state agency planning and technical support for equitable regional and local adaptation and resilience plans and projects. (AR3)
- > Evaluate opportunities to ensure equitable consideration of future climate conditions in land-use planning and environmental reviews. (AR4)
- > Develop policies, programs, and decision support tools to reduce risks associated with coastal and inland flooding. (AR5)
- > Develop policies and programs to reduce human risks associated with new patterns of thermal extremes. (AR6)
- > Ensure the reliability, resilience and safety of a decarbonized energy system. (AR11)

## AR3: Provide state agency planning and technical support for equitable regional and local adaptation and resilience plans and projects. (1 of 2)

- > Support development of local government resilience, continuity and adaptive capacity. Consider expanding role of local or regional advisory bodies to include climate change adaptation and resilience planning and implementation.
- > Assist local governments to adopt and integrate climate change considerations into local regulatory programs and land use plans, including hazard mitigation, local waterfront revitalization and comprehensive land-use plans.
- > Develop local economic resilience strategies and provide support to local governments and businesses with climate-adapted economic development, business continuity planning, and local government climate financing and budgeting.
- > Provide support to local communities for planning and implementing ecosystem-based adaptation projects that help ecosystems and wildlife adapt to climate change, maintain critical ecosystem services, such as protecting water resources and wetlands, providing natural flood control, improving carbon sequestration, and providing nature-based resilience.

## AR3: Provide state agency planning and technical support for equitable regional and local adaptation and resilience plans and projects. (2 of 2)

- > Provide annual funding for Climate Leadership Coordinators to provide training, technical support and county and regional capacity building to assist local governments to assess climate vulnerabilities, and to develop and implement adaptation plans.
- > Support deployment of online tools to facilitate local and regional vulnerability assessments, adaptation planning and implementation with metrics, project management, progress monitoring dashboard, peer collaboration network, and financing resources.
- > Develop policies and guidance and provide funding for community environmental and economic resilience through managed retreat with strategic property buyouts, strategic reuse of industrialized waterfronts, and economic repurposing of buyout properties and stranded coastal assets.
- > Establish strike teams to equitably assist municipalities with resilient post-disaster recovery.
- > Develop policies and guidance and provide funding and support to receiving communities to prepare them for addressing climate migration out of climate-impacted areas and assist with resettlement housing, jobs, schools, infrastructure and services.
- > Create Watershed Protection Improvement Districts under NY Town Law Article 12 Sec 190 to assess local climate change impact fees, run payments-for-ecosystem services initiatives (PES) and oversee participation in voluntary carbon markets.

## AR4: Evaluate opportunities to ensure equitable consideration of future climate conditions in land-use planning and environmental reviews.

- > Develop or update guidance on consideration and mitigation of climate change risks in permit and SEQRA reviews, and amend SEQR Handbook and workbooks.
- > Enact legislative amendments to enhance the ability of county and regional planning boards to encourage comprehensive planning beyond municipal boundaries.
- > Amend the project review process to facilitate approval of adaptive projects, including a review incentive program for carbon-neutral or resilient development.
- > Provide guidance on assessment of effects of agency actions and public investments on regional and local economies and adaptive capacity.

## AR5: Develop policies and tools, and implement programs to reduce risks associated with coastal and inland flooding

- > Maintain funding for watershed assessments to identify flood hazards.
- > Provide support to municipalities for right-sizing culverts and bridges to reduce flood risk and improve aquatic habitat quality.
- > Provide support and incentives for municipal participation in FEMA's Community Rating System.
- > Provide support for incorporation of CRRA guidelines into local floodplain regulations.
- > Amend state building code to account for sea-level rise and enhanced riverine flooding.
- > Develop a statewide flood-risk mapping strategy to include an assessment of changes in riverine flood risk, flood map inventory, and a floodplain designation scalability assessment.
- > Explore use of multi-hazard, climate-informed datasets on flood hazard to account for pluvial flood risk and other climate impacts.
- > Support restoration of buy-out areas to maximize flood protection, carbon sequestration and other ecosystem benefits.

## AR6: Develop policies and programs to reduce human risks associated with new patterns of thermal extremes

- > Provide guidance and funding for development of regional and local heat emergency plans that demonstrate a prioritization toward the health and stability of disadvantaged communities.
- > Promote and facilitate access to programs that provide cooling to vulnerable populations, with focus on providing high-efficiency units, and addressing energy costs/insecurity and additional barriers to use.
- > Promote and fund development and implementation of cooling centers, including assessments to increase accessibility via public transportation.
- > Promote and incentivize use of natural resources, nature-based features, shade structures, cool roofs and cool pavements to reduce individual risks and mitigate neighborhood climate impacts associated with extreme heat, with focus on disadvantaged communities.
- > Enhance and maintain heat warning systems to communicate to the public, workers and other stakeholders.
- > Develop and update educational materials and messaging relating to the risks of exposure to extreme heat/cold for vulnerable populations, workers and other key stakeholders.
- > Amend state building code and provide incentives toward more effective weatherization from thermal extremes.

## AR11: Ensure the reliability, resilience and safety of a decarbonized energy system.

- > Require public and investor-owned utilities and generators to assess vulnerabilities to climate hazards and prepare resiliency promotion and risk-reduction plans.
- > Prioritize investments that modernize the energy system to ensure reliability and resilience.
- > Develop strategies to ensure availability of fuel and power for emergency vehicular fleet operations and essential public transportation during power grid outages.
- > Promote energy efficiency upgrades and capital improvements to buildings to endure grid failures (high-performance walls, roofs and windows; batteries; solar PV).
- > Develop a comprehensive strategy to support development of islandable microgrids and district systems to provide locally generated power, especially to critical facilities during grid emergencies.
- > Develop a comprehensive strategy for transition of existing natural gas infrastructure to RNG or hydrogen to ensure reliability and resilience during power sector decarbonization.



# Living Systems

# Living Systems

- > Develop policies and programs to reduce risks threatening ecosystems and biodiversity. (AR7)
- > Enhance climate resilience and adaptive capacity of agricultural community, while preparing to take advantage of emerging opportunities. (AR10)
- > Develop policies and programs to maintain carbon sequestration potential of forests (AR12)

## AR7: Develop policies and programs to reduce risks threatening ecosystems and biodiversity 1 of 3

- > Adopt the goals of the New England Governors and Eastern Canadian Premiers Resolution 40-3, Resolution on Ecological Connectivity, Adaptation to Climate Change, and Biodiversity Conservation.
- > Develop statewide conservation framework that incorporates current, accurate spatial data on critical ecosystems (terrestrial and aquatic), including priority ecosystem complexes and habitat connectivity, and provides basis for prioritizing state funding, tax relief, land acquisition, including acquisition of state and national forest inholdings, and technical assistance programs to conserve natural areas.
- > Establish conservation corridors to implement an integrated, watershed approach to improve critical terrestrial and aquatic habitats that fosters connectivity, supports fish and wildlife, and provides community resilience to drought and flooding.
- > Prioritize protection of large private forest parcels and biodiversity through conservation easements or fee acquisition.
- > Enhance funding for Land Trust Alliance-administered forest easement program to allow land trusts to protect smaller forest parcels in targeted priority areas.
- > Continue the development of conservation easement and incentive programs (e.g., Source Water Buffer Program) to include areas of the farm set aside for conservation of wetlands, stream corridors, riparian buffers, or wildlife corridors.

## AR7: Develop policies and programs to reduce risks threatening ecosystems and biodiversity 2 of 3

- > Fund local governments to develop natural resource inventories, land use plans and regulations that protect forest blocks, wetlands, Important Bird Areas, wildlife corridors, floodplains, stream corridors, and other important habitats. Identify these protections as essential elements of comprehensive plans in state planning enabling legislation and make eligibility for certain state programs contingent on biodiversity protection and contributions to other climate action priorities.
- > Restore regulatory oversight for wetlands and waterbodies that were removed from federal protection under the 2020 promulgated “Navigable Waters Protection Rule.”
- > Map and inventory all wetlands (regulated and unregulated, tidal and non-tidal), shallow water habitats, Significant Coastal Habitats, priority forests, and critical fish and wildlife resource connections. Ensure all maps and inventories are accurate and publicly available.
- > Improve and expand DEC’s ability to regulate all wetlands and adjacent areas that meet regulatory criteria through internal and external guidance, and changes in law and regulation.
- > Expand the Aquatic Connectivity Restoration category of the State WQIP Municipal Grant Program. Incorporate climate risks to aquatic ecosystems in project selection and prioritize prevention of culvert/road crossing failures. Align construction standards to future climate scenarios.
- > Develop regional permits with ACOE to incentivize use of natural and nature-based features to enhance resilience and ecosystem benefits.

## AR7: Develop policies and programs to reduce risks threatening ecosystems and biodiversity 3 of 3

- > Avoid siting of major energy infrastructure within identified cores and corridors for wildlife. Leverage mitigation funding for renewable energy projects permitted through the Office of Renewable Energy Siting to mitigate effects that cannot be avoided.
- > Incorporate best management practices (e.g., construction windows) from threatened and endangered species management plans into state and federal funded or regulated projects in and near critical habitats (e.g., tidal wetlands) to reduce and mitigate ecosystem impacts.
- > Amend Real Property Tax Law to incentivize private forest stewardship for a broader range of goals, including biodiversity, wildlife habitat protection, water resource protection, outdoor recreation and carbon sequestration.
- > Provide technical assistance and incentives to promote use of natural climate solutions and best management practices by landowners, land managers, and agricultural producers.
- > Expand implementation of relevant parts of the NYS Invasive Species Comprehensive Management Plan, including two key ISCMP Priorities: 5) Prevention and Early Detection 6) Improve Response to Invasive Species; advance biocontrol of forest pests.

## AR10: Enhance climate resilience and adaptive capacity of agricultural community, while preparing to take advantage of emerging opportunities

- > Expand support for Climate Resilient Farming and Agricultural Environmental Management programs, including efforts to increase adoption of climate-resilient practices.
- > Develop and support a water and energy efficiency realization program to meet needs related to climate change, including decision-support tools, power upgrades and strategies to reduce equipment costs.
- > Expand support for research and outreach on climate-resilient crop varieties, technology to provide freeze and frost protection, and increased use of perennial crops for food and feed.
- > Assess, develop and promote agricultural and watershed based best management practices for flood attenuation and drought mitigation.