

GOAL 1: LEAD BY EXAMPLE

Objective 1.1 Governance - facilitate prioritization, coordination and collaboration for the purpose of building resiliency

Action 1.1.1: Legislation adding consideration of climate change and resiliency to powers and duties of state agencies; establishing council to coordinate climate change and resilience related programs and activities among state agencies and to encourage intergovernmental as well as cross-sector coordination and collaboration. Expand from EC3 membership by adding Lt. Governor as Chair of Emergency Management Advisory Council, Building Code Commission, DPUC, and/or allow flexibility for Governor to add limited number of members.

See also Action 5.1.1

Responsibility: General Assembly

When Current legislative session.

How Sub A.

Action 1.1.2 Establish climate change resiliency as a decision-making principle for all state agencies, including quasi-public agencies; direct the executive climate change council, or its successor if established by the General Assembly, to develop practical guidance in consultation with agency heads and their senior staff; and direct agencies to cooperate with the council to the greatest extent possible.

OPR Governor's Office/EC3

When Guidance by 9/30/2014. Responses by 10/31/2014 (so they can inform Strategic Plan due by end of year)

How Executive Order. (See also Action 1.1.4, Objective 1.2)

Action 1.1.3: Designate senior level position in Governor's office to help direct and facilitate interagency coordination on matters relating to climate change and resiliency, as well as facilitate intergovernmental and cross-sector coordination and collaboration

OPR Governor's Office **OCR** EC3
Responsibility: Governor Div. of Planning

When asap

Action 1.1.4: Designate senior staff level leads in each state agency to coordinate implementation of guidance across programs and projects, tracking of performance, identification of challenges and opportunities, etc.

OPR All agencies **OCR** OMB/Perform. Mgt
Responsibility: Cabinet members Div. of Planning
Action Officer:

When 7/1/2014 (note: could start with smaller group that works with RIEMA and OMB to develop guidance and formats for tracking, reducing paperwork burden)

How Executive order, memo from OMB

Action 1.1.5: Create short- or longer-term interagency teams where that allows outcomes to be achieved more cost-effectively and/or quickly, for example, in areas like scientific and technical support, vulnerability assessments, public outreach and education, communications.

OPR All agencies **OCR** EC3/Successor Council
Responsibility: Cabinet members
Action Officer:

When 7/1/2014 (note: could start with smaller group that works with RIEMA and OMB to develop guidance and formats for tracking, reducing paperwork burden)

How Executive order. Memorandum from DOA/OMB.

Objective 1.2 *Incorporate climate change resiliency into government operations at all levels, implement Lead by Example programs, measure and track performance*

Action 1.2.1: Integrate climate change into the functional elements of the State Guide Plan

See also Action 3.1.10

OPR Div. of Planning **OCR** All SPC members
Responsibility: Kevin Flynn
Action Officer:

When Ongoing, begin asap

How Is within enabling authority of SPC; add to its powers and duties.

Action 1.2.2: Develop a set of standard metrics agencies can use to track activities related to climate change

OPR OMB/Perform. Mgt **OCR** RIEMA,
Responsibility: Peter Marino Div. of Planning
Action Officer: Brian Daniels

When 12/1/2014

How Memo from OMB Director outlining the criteria and distribute a semi-annual report on agency-specific activities

Action 1.2.3: Develop and incorporate a set of resiliency criteria for use in this year's capital planning process.

OPR RIEMA/OMB **OCR** CRMC, Div. of Planning, OMB
Responsibility: Jamia McDonald
Action Officer: Michelle Burnett

When Criteria developed by 6/1/2014 and distributed to state agencies by 7/1/2014

How Memo from OMB Director outlining the policy behind the instructions and the criteria that will be used to weight capital project requests

Action 1.2.4: Evaluate state role in construction permitting process and identify opportunities to expedite permitting process post-disaster and for selected types of mitigation and adaptation actions

OPR OMB/Office of Reg. Reform **OCR** BCC, CRB, CRMC, DEM, Div. of Planning, DLT, DOH, Fire Marshall
Responsibility:
Action Officer:

When 9/30/2014

How Convene working group 5/2014

Action 1.2.5: Develop long-term targets and a plan for net zero energy usage in state facilities through a combination of energy efficiency upgrades, renewable energy and conservation effort; also mitigate transportation energy impacts by requiring reductions in Vehicle Miles Traveled (VMT) by state employees and expanding the use of alternative fuel and low emission vehicles in state fleets.

OPR OER **OCR** Div. of Planning, SPC
Responsibility: Marion Gold
Action Officer:

When

How Finalize and implement

Action 1.2.6: Continue "Lead by Example" state energy efficiency program through RI Public Energy Partnership: benchmark energy use in state facilities and set goals for energy use reduction

OPR OER **OCR**
Responsibility:
Action Officer:

When Benchmarking completed by ? Reduction goals posted by?

How

Action 1.2.7: Revise TIP selection process to include climate change resilience criteria

OPR Div. of Planning **OCR** DOT, SPC
Responsibility: Kevin Flynn
Action Officer:

When Criteria developed by? Included when?

How Quadrennial TIP
See also Actions 4.1.2, 4.1.3, 4.1.4

Action 1.2.8: Create a "State Employees Lead by Example" program and encourage/support initiatives such as the State Employee Commuter Task Force to reduce Vehicle Miles Traveled (VMT, see Action 5.3.3) by state employees.

OPR DOA

When

How

Objective 1.3 *Coordinate, integrate and/or network data collection, analysis, modeling and mapping of sea level rise, storm surge, riverine flooding and other climate change related impacts and scenarios, for example, involving heat, air quality, increases in water- and vector-borne diseases, etc. (among state agencies)*

Action 1.3.1: Conduct inventory of current and planned activity by state agencies, including contracted work; conduct SWOT analysis, including gap analysis and evaluation of options to improve coordination, use of scarce resources, etc.

OPR RIEMA **OCR** Div. of Planning/BRWCT?
Responsibility: All agencies
Action Officer:

When

How Create web site/page where agencies are asked to post basic information (per template) by ? Create small working group or use contractor analyze/evaluate. Invite feedback/input from academic institutions, perhaps other private sector parties?

Action 1.3.2: Establish or task an existing interagency advisory board or committee to make (1) policy recommendations, for example regarding research needs and priorities, and (2) recommendations regarding practical steps that can be taken to improve efficiencies, pool and leverage resources, etc.

OPR Div. of Planning/BRWCT? **OCR** CRMC, DEM, DOH
Responsibility:
Action Officer:

When asap

How Task 1 could be undertaken as a first step to develop the broader advisory/coordinating committee proposed in Action 7.1.1. Task 2 could then be undertaken by establishing an interagency subcommittee for the Executive Climate Change Council or its successor.

Action 1.3.3: Develop statewide planning criteria for the anticipated amount of SLR, level of riverine flooding, and the frequency and intensity of storms for which the State and its municipalities should plan, by time period.

OPR Div. of Planning/CRMC **OCR** RIEMA
Responsibility: Kevin Flynn/Grover Fugate
Action Officer: Jared Rhodes/

When Draft criteria distributed for comment by ?

How Recommendations developed with input from Science and Technical Advisory and Coordinating Committee (see Action 7.1.1). Finalized and adopted by SPC, CRMC and RIEMA by 9/1/2014. Joint guidance posted and distributed to state agencies and local planners by 9/30/2014.

Action 1.3.4: Produce state inundation maps for 1', 3' and 5' SLR scenarios, with and without storm surge, consistent with state planning criteria for SLR and coastal flooding

OPR	CRMC	OCR	Div. of Planning
Responsibility:	Grover Fugate		RIEMA
Action Officer:			URI/CI, SG, CRC, Ocean Engineering

When Integrated mapping tool for use by state and local planners by 9/1/2014. Process for ongoing review (with user feedback) and updating by same date. Refined by 1/1/2015.

How Preliminary agreement on interagency/multi-party protocol for ongoing updating by 9/1/2014; scientific and further policy review completed by 12/1/2014. Adjustments, if any, made by 1/1/2015.
See also Goal 7

Note: *CRMC has recommended expedited interim adoption of the following: (1) Army Corps/NOAA SLR curves and time frame projections until superseded by more advanced information; (2) SLR ArcGIS Online viewer developed by URI/EDC as official state SLR map viewer; and (3) StormTools forecasting model, scaled to RI in collaboration with URI/Ocean Engineering*

Action 1.3.5: Add standardized language to all state contracts for the conducting of climate change related activities to ensure that all data and maps produced are owned and accessible by the State of RI and are compatible with RIGIS formatting standards

OPR	Div. of Purchases	OCR	Div. Of Planning
Responsibility:			
Action Officer:			

When 9/30/2014

How Div. of Planning to provide Language to Division of Purchases

Objective 1.4 *Continuity*

Action 1.4.1: Develop Strategic Plan to guide state agency actions, coordination and collaborations for next 5 years

OPR	EC3/Successor Council	OCR	Div. of Planning
Responsibility:			

Action Officer:

When 11/1/14 draft, 1/1/15 final

How

Action 1.4.2:

Semi-annual summits

OPR EC3/Successor Council **OCR** URI/Brown/RWU
Responsibility:
Action Officer:

When

Action 1.4.3:

Annual Reports

OPR EC3/Successor Council **OCR**
Responsibility:
Action Officer:

GOAL 2: PARTNER WITH LOCAL GOVERNMENT & PRIVATE SECTOR

Objective 2.1 : *Cities and towns have easy access to reliable scientific and technical information (see also Goal 7)*

Action 2.1.1 Establish a one-stop point-of-contact for inquiries, information resources, technical assistance, etc.

OPR Div. of Planning **OCR** RIEMA
 Responsibility: Kevin Flynn
 Action Officer:

When

How EC3 to assist with finding staffing/funding solution, including use of outside funding streams, collaboration with non-profit, academic institution

Action 2.1.2 Establish a Resilient RI clearinghouse website for municipal planners

OPR Div. of Planning **OCR** URI
 Responsibility: Kevin Flynn
 Action Officer: CRMC
 OER

When

Objective 2.2: *All Cities and towns have up to date Hazard Mitigation Plans and Local Comprehensive Plans*

Action 2.2.1: Develop planning guidance for cities and towns to complete and/or update Hazard Mitigation Plans, including recommendations regarding coordination with neighboring towns

OPR RIEMA (HMPs) **OPR** Div. of Planning (LCPs. Also coordinate with RIEMA on outreach and
 Responsibility: Jamia McDonald Resp. Kevin Flynn getting input from other agencies)
 Action Officer: Michelle Burnett AO: Jared Rhodes

When

How Align and coordinate HMP and LCP processes to the extent possible, to save cost at local and state level

Action 2.2.2: Develop standards for addressing natural hazards and climate change in local comprehensive plans, and provide technical assistance to help cities and towns meet the standards and increase the number of state-approved plans

OPR Div. of Planning **OCR** RIEMA, CRMC
Responsibility: Kevin Flynn
Action Officer: Jared Rhodes

When 7/1/2014

How Align and coordinate HMP and LCP processes to the extent possible, to save cost at local and state level

Action 2.2.3: Provide technical assistance to municipalities to incorporate climate change adaptation into comprehensive planning, hazard mitigation plans, capital improvement and transportation improvement programs

OPR URI/CRC **OCR** URI/SG, EDC
Responsibility: Div. of Planning, DOT, RIEMA
Action Officer: Pam Rubinof

When

How

Action 2.2.4: Develop mechanism to provide notice to cities and towns of funding opportunities to implement projects outlined in their Hazard Mitigation Plans

OPR RIEMA (HMPs) **OCR** Div. of Planning
Responsibility: Jamia McDonald
Action Officer: Michelle Burnett

When asap; use if and when funding is available

How Develop comprehensive strategy and portal (see Action 2.1.2) to notify municipalities of opportunities as they arise. Information can include application timelines, requirements, eligibility criteria and application forms.

Objective 2.3 : *Provide timely guidance and technical assistance, with support from academic institutions to cities and towns*

Action 2.3.1: Provide standard maps, criteria and guidance relating to scenarios involving sea level rise, storm surge, riverine flooding, frequency and intensity of extreme weather events, heat, air quality, water- and vector-borne diseases, etc.

See also Objective 2.1

Action 2.3.2: Provide guidance and technical resources to cities and towns to set and achieve clean energy goals, i.e. goals for reduced energy consumption, decreased carbon emissions, increased renewable energy, and environmentally-friendly transportation and land use systems; include guidance for updating and streamlining local permitting

OPR OER **OCR** Div. of Planning
Responsibility: Marion Gold
Action Officers: Rachel Sholly, Sue AnderBois, Danny Musher, Chris Kearns

When Planning in 2014. Anticipated launch in 2015.

How Examples of technical assistance:

- i. Assistance establishing a municipal energy use baseline and develop a plan to reduce energy use by XX% within X years
- ii. Information and guidance for designating municipality as a Property Assessed Clean Energy (PACE) Municipality – thereby providing residents the option of financing clean energy upgrades to their homes through a property tax
- iii. Assistance implementing a “stretch code” for new construction
- iv. “As-of-right” siting model zoning ordinances for renewable energy
- v. Expedited application and permitting processes for renewable energy
- vi. Assistance and guidance for purchasing fuel efficient fleet vehicles
- vii. Assistance adopting property tax and zoning policies that preserve open space and promote “smart growth”

Action 2.3.3 Complete an assessment of lessons learned from the climate change planning process and economic vulnerability and opportunity assessment in North Kingstown, and produce a tool that can be used in other cities and towns

OPR Div. of Planning **OCR** CRMC
Responsibility: Kevin Flynn URI CRC, SG
Action Officer:

When *Depends on ability to find additional funding for URI team*

How

Objective 2.4 *Public and private sector resources are combined to facilitate access for businesses to information, programs, assistance*

Action 2.4.1: Create or use an existing public-private partnership to deliver a one-stop, consolidated concierge service to provide homeowners as well as small businesses with easy access to energy programs

OPR OER **OCR** EERMC
Responsibility: Marion Gold CommerceRI
Action Officer: National Grid

When OER has scheduled stakeholder meeting for May 2014

How

Action 2.4.2 Conduct outreach and training program with chambers, trade associations, insurance industry et al. to educate business owners about best practices in terms of mitigating risk, adaptation, preparedness, recovery, programs, etc.

OPR CommerceRI **OCR** RIEMA
Responsibility: Marcel Valois Div. of Planning
Action Officer: OER

When

How

Objective 2.5 *Public and private sector expertise is combined to explore/develop new financial strategies to fund mitigation, adaptation and innovation*

Action 2.5.1 As part of Resilient Economy Collaborative (see Action 3.1.1) , create team with experts from financial sector and Treasurer's Office, develop plan to attract private capital to provide long-term, sustainable financing for energy efficiency, renewable energy and alternative transportation programs and projects, as well as non-energy mitigation and adaptation projects

OPR	CommerceRI	OCR	Treasurer's Office
Responsibility:	Marcel Valois		OER, DOT
Action Officer:			CRMC, DEM
When			
How			

Action 2.5.2 As part of Resilient Economy Collaborative, create team with experts from financial and utility sectors, as well as Treasurer's Office, explore/develop new, sustainable financial strategies for public utilities, including drinking water, wastewater, stormwater, etc., to cover costs associated with adaptation

OPR	DPUC	OCR	CommerceRI
Responsibility:	Tom Ahern		Treasurer's Office
Action Officer:			DEM, DOH, OER
When			RIEMA
How			

GOAL 3: PURSUE ECONOMIC OPPORTUNITIES

Objective 3.1 *Combine public and private sector leadership and expertise to identify and develop economic opportunities associated with developing greater resiliency (e.g., in fields like science, technology, engineering, architecture and design, green infrastructure, renewable energy)*



Action 3.1.1: Convene a Resilient Economy Collaborative to follow up on findings and key recommendations of *Economic Intersections of Rhode Island* (Feb. 2014) and *Understanding the Opportunity and Impact of Climate Change* (Draft April 2014)

OPR	CommerceRI	OCR	RIEMA
Responsibility:	Marcel Valois		OER
Action Officer:			Div. of Planning

When

How

Action 3.1.2: Make test sites available to support piloting of resiliency-related innovation

OPR	CommerceRI	OCR	DOA
Responsibility:	Marcel Valois		
Action Officer:			

When

How Implementation of new Economic Development Plan

See also Actions 2.5.1, 2.5.2, 4.2.1, 5.4.1, 5.4.2, 5.5.1, 6.2.6, 6.4.1.

GOAL 4: ACCELERATE VULNERABILITY ASSESSMENTS

Objective 4.1

Expedite vulnerability assessments for geographic areas and populations of particular concern, economic sectors, and key infrastructure such as drinking water, wastewater (including on-site wastewater) treatment, stormwater, waste management, transportation, energy, healthcare, education, housing, food supply, etc., to the extent not already assessed

Action 4.1.1: Establish one or more core, interdisciplinary, rapid assessment teams, preferably with private sector participation. Prioritize and conduct assessments on regular schedule.

OPR	RIEMA	OCR	BCC, CRMC, DEM, Div. of Planning, DOH, DOT, OER, URI
Responsibility:	Jamia McDonald		CommerceRI, DPUC
Action Officer:	John Washburn		
When	Establish core team of		
How	Prioritize key		

Action 4.1.2: Conduct risk assessment along state highway corridors for stormwater inundation, impacts of downed trees, utilities, etc.

OPR	DOT	OCR	RIEMA, Div. of Planning, DEM, DPUC
Responsibility:	Mike Lewis		
Action Officer:			
When			
How			

Action 4.1.3: Conduct assessment of known impacts of stormwater from state highways on municipal drainage systems, options to eliminate or mitigate such impacts

OPR	DOT	OCR	RIEMA, Div. of Planning, DEM
Responsibility:	Mike Lewis		

Action Officer: [redacted]

When Determine whether federal flood hazard funding is available by ? Conduct survey of municipalities by ? Conduct assessments, either as part of rapid vulnerability assessments (Action 4.1.1) or separately.

How [redacted]

Action 4.1.4: Conduct statewide assessment of highway drainage system

OPR DOT **OCR** RIEMA, Div. of Planning, CRMC, DEM
Responsibility: Mike Lewis
Action Officer: [redacted]

When Consultant has been hired. Work is expected to take 18-24 months.

How As part of developing a state Transportation Asset Management Plan pursuant to federal MAP-21 mandate (see also Action 6.2.3)

Action 4.1.5: Work with a science team to develop statewide heat island maps (coordinated with flood zones)

OPR DOH **OCR** RIEMA
Responsibility: Dr. Fine
Action Officer: Julia Gold
URI, Brown?

When asap

How Statewide heat island maps that can be used for planning purposes, vulnerability assessments, etc

Note: Needs to be done with a GIS team and satellite data over the summer

Action 4.1.6 Review and update Energy Assurance Plan or conduct new vulnerability assessment for energy infrastructure

OPR OER **OCR** DPUC
Responsibility: Marion Gold
RIEMA

Action Officer: [Redacted]

When Convene Working Group with DPUC to review Energy Assurance Plan and assess gaps, areas in need of update (for example, vulnerability at municipal and facility levels, especially for critical assets like hospitals, public safety facilities, water and wastewater facilities, senior centers and nursing homes, shelters, correctional facilities, fueling facilities, groceries stores, etc.)

How OER has applied for CDBG-DR funding to convene this working group.

Action 4.1.7: Complete RI Ports Assessment

OPR	Div. of Planning	OCR	CommerceRI
Responsibility:	Kevin Flynn		CRMC
Action Officer:			URI/SG

When TBD

How Jointly pursue funding

Action 4.1.8: Complete a housing vulnerability assessment for structures in coastal and riparian zones

OPR	Div. of Planning/OHCD	OCR	RIEMA, DOH, CRMC
Responsibility:	Kevin Flynn		
Action Officer:			

When TBD

How TBD

Action 4.1.9: Complete a vulnerability assessment of the State's historic and cultural resources

OPR	RI HPHC	OCR	RIEMA, CRMC, Div. of Planning, DEM, DOT
Responsibility:	Ted Sanderson		Commerce
Action Officer:			

When TBD

How TBD

Action 4.1.10: Require all updates of elements of State Guide Plan to consider vulnerability of populations, natural or built environment, cultural and historic resources, infrastructure etc. to impacts associated with climate change or variability and, if necessary, to include or incorporate by reference a vulnerability assessment

OPR Div. of Planning **OCR**
Responsibility: Kevin Flynn
Action Officer:

When immediately

How Already within legislative authority of Div. of Planning and SPC

Objective 4.2 *Public and private sector leadership, expertise and resources are combined to assess vulnerabilities as well as means to mitigate them, agree on cost-effective strategies, and identify opportunities to strengthen the RI economy through resiliency*

Action 4.2.1: Establish working groups that will conduct assessments for prioritized sectors of the economy, e.g., small business, ports and marine trades, agri- and aquaculture, manufacturing, tourism. Assessments should address vulnerabilities and economic impact, options to mitigate impact, options to improve preparedness, response and recovery, and economic opportunities associated with design, engineering, technological and other skills and capabilities that can improve resilience.

OPR CommerceRI **OCR** RIEMA, Div. of Planning, DOT/Multimodal, OER
Responsibility: Marcel Valois Chambers
Action Officer: [Redacted] URI

When Start by ?

How

*Seek support from RIF, academic institutions to help fund, facilitate, provide research, intern support, etc.
To the extent possible, merge with Action 4.1.1.
Build on work being done by Div. of Planning with EPA grant to evaluate economic impact of climate change.
Prioritize sectors and issue sector reports on regular schedule, beginning 9/1/14
See also Action 6.4.3.*

Objective 4.3 *Ongoing evaluation through monitoring, tracking and updating*

Action 4.3.1: Incorporate post-assessment monitoring/tracking and mechanisms for reporting and updating in overall program and schedule. As part of each assessment, define specific conditions, parameters, etc. that need to be monitored/tracked.

OPR

RIEMA

OCR

BCC, CRMC, DEM, Div. of Planning, DOH, DOT, OER, URI

Responsibility:

Jamia McDonald

Action Officer:

John Washburn?

When

How

See also Goal 7

GOAL 5: INCREASE RESILIENCE THROUGH MITIGATION - to protect, reduce risk and create new opportunity

Objective 5.1 *Adopt greenhouse gas emission reduction targets*

Action 5.1.1: Adopt state greenhouse gas emission reduction targets, consistent with regional goals and adding a new interim target: 10% by 2020, 45% by 2035, 80% by 2050 (from 1990 levels)

Responsibility: General Assembly

When This legislative session

How Pass Climate Change/Resiliency legislation containing targets

Action 5.1.2: Continue participation in the Regional Greenhouse Gas Initiative (RGGI), with the goal of reducing greenhouse gas emissions from the electric sector by 50% below 2005 levels by 2020.

OPR DEM/OER

When Ongoing

How Implement State Energy Plan (Action 5.2.1) and other emission reduction strategies and Actions below.

Note: Continued participation in this regional, market-based program is needed both to achieve greater GHG emission reductions and to increase economic benefits, i.e. reductions in cost of compliance and growth in the clean energy economy sector.

Action 5.1.3: Measure, repair and prevent leaks in natural gas distribution system; evaluate and adjust repair and replacement options to serve both mitigation and adaptation objectives

OPR DPUC **OCR** OER, DEM
Responsibility: National Grid
Action Officer:

When Repairs ongoing. Measurements may be incomplete.

How Briefing, interagency planning meeting.

Objective 5.2 *Adopt clean energy strategies that meet the 3 criteria of security, cost-effectiveness and sustainability*

Action 5.2.1: Finalize and adopt the update to the State Energy Plan

OPR OER **OCR** Div. of Planning
Responsibility: Marion Gold
Action Officer: Danny Musher

When asap

How Approval by SPC, incorporation into State Guide Plan

Action 5.2.2: Reduce GHG emissions by increasing import of renewable energy, including large scale hydro and wind energy, and by improving the regional transmission and distribution infrastructure

Responsibility: General Assembly

When: This legislative session

How: Pass H7991/S2439

Objective 5.3 *Optimize energy efficiency in electric, thermal and transportation sectors*

Action 5.3.1: Establish building energy labeling program, disclosing energy performance data to occupants, prospective buyers and/or public; together with training program for building inspectors, including third-party inspectors

OPR EERMC **OCR** OER, BCC
Responsibility:
Action Officer:

When

How

Action 5.3.2: Form Working Group to develop sustainable funding mechanism for energy efficiency programs for unregulated fuels

OPR	OER	OCR	EERMC
Responsibility:	Marion Gold		National Grid
Action Officer	Danny Musher		Fuel Dealers

When OER has formed working group. Recommendations later in 2014.

How

Action 5.3.3: Develop comprehensive strategy and action plan to reduce Vehicle Miles Traveled (VMT)

OPR	Div. of Planning	OCR	DOT, OER, RIPTA
Responsibility:	Kevin Flynn		
Action Officer:			

When Report with recommendations by ?

How Examples of recommendations/action items

- i. Implement policies from long-range transportation plan 2035
- ii. Conduct a "Pay-as-you-drive" auto insurance pilot
- iii. Investing in alternative transportation and mass transit
- iv. Smart land use planning and incentive tools
- v. Ridesharing, care-share, and flexible workplace programs
- vi. Parking policies

Action 5.3.4: Develop RI implementation plan for 8-state ZEV policy and action plan

OPR	DEM/OER	OCR	DOA, DOT
Responsibility:	Janet Coit/Marion Gold		

Action Officer: Frank Stevens/

When Draft by end of 2014? Expedite early action items, such as new state purchase target?

How

Action 5.3.5: Prioritize congestion mitigation in project design and construction

OPR	DOT	OCR
Responsibility:	Michael Lewis	
Action Officer:		

When

How For example, ensure that design and construction of Replacement of I-95 Providence Viaduct Bridge #578 Northbound project achieves greatest congestion mitigation benefits possible.

Objective 5.4 *Increase use of renewable energy and clean fuels*

Action 5.4.1:

Reduce GHG emissions, increase use of renewable energy and improve resilience by expanding the Distributed Generation program

Responsibility: General Assembly

When This legislative session

How Pass H7727/S2690

Action 5.4.2: Increase renewable energy use while creating local jobs by updating licensing laws to remove barriers for renewable energy installations by local renewable energy businesses, electricians and general contractors

Responsibility: General Assembly

When This legislative session

How Pass H7719/S2692

Objective 5.5 *Pursue clean energy industry growth opportunities*

Action 5.5.1: Develop comprehensive market development strategy for stimulating the adoption of renewable thermal fuels

OPR	OER	OCR	EERMC
Responsibility:	Marion Gold		National Grid
Action Officer:	Danny Musher		Fuel Dealers

When Report with recommendations by end of 2014

How OER is convening Working Group with key stakeholders

Objective 5.6 *Modernize the grid*

Action 5.6.1: Convene a working group to develop recommendations for electric grid, rate, and regulatory modernization

OPR	OER	OCR	DPUC, PUC
Responsibility:	Marion Gold		National Grid
Action Officer:	Danny Musher		

When Start by July 2014

How OER has committed funds to support this effort

Objective 5.6 *Address non-energy emissions from waste and agriculture*

Actions: To be developed with DEM, SWMC

Objective 5.7 *Promote smart land use, biomass retention, and other carbon-fixing measures*

Action 5.7.1: Strengthen incentives for municipalities to obtain state approval for local comprehensive plans, thereby encouraging adoption and implementation of land use planning and practices that reduce risk and improve resilience.

OPR Div. of Planning **OCR** RIEMA, CRMC, DEM, DOH, DOT
Responsibility: Kevin Flynn
Action Officer:

When FY15

How Grant funding eligibility or ranking criteria, for example.

Action 5.7.2: Evaluate barriers municipalities are facing in implementing smart growth initiatives and develop recommendations for overcoming such barriers

OPR Div. of Planning **OCR** CRMC, DEM
Responsibility: Kevin Flynn
Action Officer: GSRI

When FY15

How

Other Actions: To be developed with DEM (Forestry, Agriculture), Div. of Planning, URI et al.

Responsibility:
Action Officer:

When

Note: Build on post-Sandy coordination between CRMC, DEM, local building officials and others. See CRMP Section 180 - Emergency Permitting. See also Action 1.2.4.

Action 6.1.4: Deploy response teams post disaster to measure, monitor and catalog impacts to natural resources

OPR	RIEMA	OCR	DEM, CRMC
Responsibility:			URI/CI
Action Officer:			

When

How Use existing MOU between DEM and URI regarding the development, training and deployment of the Scientific Support for Environmental Emergency Response (SSEER) to provide scientific and training support to RIEMA

Action 6.1.5: When appropriate and consistent with federal regulations, incorporate the state's SLR and flood risk projections into evaluation criteria for public facilities and infrastructure projects funded through federal emergency and/or disaster allocations.

OPR	RIEMA	OCR	Div. of Planning
Responsibility:			
Action Officer:			

When

How Adapt recommendations developed by FEMA Recovery Team post Sandy

Action 6.1.6: Conduct assessment of traffic light power needs for evacuation routes and implement upgrades as needed

OPR DOT **OCR** RIEMA, Div. of Planning
Responsibility: Michael Lewis
Action Officer:

When

How RIEMA to work with DOT on funding?

Objective 6.2 *Prioritize, develop and implement adaptation strategies and action plans for critical infrastructure such as drinking water, wastewater (including on-site wastewater) treatment, stormwater, waste management, transportation, energy, healthcare, education, housing, food supply, etc.,*

Action 6.2.1: Ensure that public water utilities with infrastructure deemed to be highly or critically vulnerable evaluate adaptation options, including retrofitting, relocation or abandonment

OPR WRB **OCR** DOH
Responsibility: RIEMA
Action Officer:

When

How *Note: \$15 million for water supply improvements in proposed Environmental Bond*

Action 6.2.2: Establish interagency working group with water utilities to develop and coordinate implementation of regional strategies to increase available water supply source

OPR WRB **OCR** DOH, DEM, RIEMA
Responsibility: TBD
Action Officer:

When TBD

How TBD

Action 6.2.3: Develop Transportation Asset Management Plan that includes adaptation strategies and measures to strengthen resilience of transportation system as identified through the study of impacts of SLR on transportation assets and the highway corridor risk assessments (Actions 4.1.2, 4.1.3 and 4.1.4).

OPR DOT **OCR** Div. of Planning, CRMC, DEM, RIEMA
Responsibility: Michael Lewis CommerceRI/Dept. of Commerce, DPUC
Action Officer: John Preiss URI?

When 18-24 months

How Interagency, multi-sector team may be needed to supplement available resources at DOT

Note: *of critical importance to emergency management, utilities, municipalities, businesses, etc.*

Action 6.2.4: Implement recommended strategies developed through the vulnerability assessment of the State's historic and cultural resources (Action 4.1.9).

OPR HPHC? **OCR** Div. of Planning, RIEMA
Responsibility:
Action Officer:

When

How

Action 6.2.5: Conduct review of current natural gas infrastructure repair and replacement program from a GHG mitigation and adaptation perspective and develop recommendations

OPR DPUC **OCR** OER
Responsibility: Tom Ahern National Grid
Action Officer:

When



How

Action 6.2.6: Assess the opportunity, costs, and benefits of deploying resilient microgrids at critical infrastructure to maintain services during power outages or severe weather events

OPR	OER	OCR	DPUC
Responsibility:	Marion Gold		National Grid
Action Officer:	Danny Musher		

When OER has applied for CDBG-DR funding, funding award anticipated during summer, two years to complete work

How Will contract with a qualified vendor to do the analysis and work with key stakeholders

Objective 6.3 *Develop and implement adaptation strategies to address priority public health impacts*

Action 6.3.1: Complete *Climate and Health Profile*, identifying priority health impacts from climate change and recommending adaptation strategies

OPR	DOH	OCR	DEM, DEA, DOT
Responsibility:	Dr. Fine		Brown U. School of Public Health
Action Officer:	Julia Gold		

When Sept. 2014

How

Action 6.3.2: Implement recommended strategies produced through the housing vulnerability assessment (Action 3.1.8)

OPR	Div. of Planning/OHCD	OCR	RIEMA
Responsibility:			DOH

OPR URI/CI **OCR** CRMC, BCC
Responsibility: CommerceRI
Action Officer: URI/CRC, SG, GSO, CELS

When

How Build on current research and community engagement involving the marine trades, ports, BeachSAMP, etc.

Action 6.4.4: Develop public-private partnership to create buy-out program, targeting most vulnerable areas and leveraging funding from a variety of sources

OPR RIEMA **OCR** CommerceRI
Responsibility: BCC, CRMC, Div. of Planning
Action Officer:

When

How

Objective 6.5 *Develop mechanisms by which municipalities can begin to adapt their land use patterns to better accommodate climate change impacts*

Action 6.5.1: Conduct feasibility assessment of the potential for a statewide transfer of development rights program that would target vulnerable areas as "sending zones."

OPR Div. of Planning **OCR** CRMC, DEM, RIEMA
Responsibility:
Action Officer:

When FY15

How

Action 6.5.2: Develop a statewide coastal wetland monitoring, protection and restoration strategy to help lower the rate at which habitat, ecosystem resilience and shoreline protection are being lost, and to develop effective mitigation and adaptation strategies.

OPR	CRMC	OCR	DEM, Div. of Planning
Responsibility:	Grover Fugate		NBNERR, URI
Action Officer:			STB, TNC

When FY15

How

Action 6.5.3: Adopt Sea Level Affecting Marshes Model (SLAMM) data and projections as planning and decision-making support tool in statewide coastal wetland monitoring, protection and restoration strategy

OPR	Div. of Planning?	OCR	CRMC, DEM, NBNERR
Responsibility:			
Action Officer:			

When FY15

How

Action 6.5.4: Convene short term working group to develop options for long term, sustainable funding of coastal wetlands protection and restoration, including, but not limited to legislation

OPR	Div. of Planning?	OCR	CRMC, DEM, RIEMA
Responsibility:			NBEP, NBNERR, URI
Action Officer:			Federal and state legislators? Private sector? <i>See Action 2.5.1</i>

When FY15

How

Objective 6.6

Develop and implement adaptation strategies to reduce impacts to natural resources, protect and where possible improve ecosystem resilience, and adapt resource management policies and programs to changing trends and conditions

Actions:

To be developed with CRMC, DEM, URI et al.

GOAL 7: COORDINATE SCIENTIFIC AND TECHNICAL SUPPORT

Objective 7.1 *Integrate, coordinate and/or network data collection, analysis, modeling and mapping, combining public and private sector expertise, including academic institutions, into one program that provides consistent, reliable support for policy development, decision-making and projects*

Action 7.1.1: Establish a Science and Technical Advisory and Coordinating Committee to:

- (1) keep the Executive Climate Change Council or its successor coordinating council abreast of important developments in scientific and/or technical information relating to climate change and resiliency;
- (2) explore and provide advice regarding opportunities to provide timely support for key policy and management decisions by aligning academic research around issues of resiliency;
- (3) inventory the scientific and technical work being done by public and private sector entities and evaluate options to coordinate or integrate/consolidate such work in order to achieve greater efficiency, save resources, provide better services, etc.; and
- (4) make recommendations and provide policy advice regarding priorities from its perspective, including priorities for research needs, and planning thresholds.

OPR Responsibility: Action Officer:	Governor's Office/DOA	OCR	CRMC, DEM, Div. of Planning, DOH, DOT, OER CommerceRI, BRWCT, NBEP URI CI, CRC, EDC, SG; Brown U.; RWU Municipal, private sector partners, users?
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When

How *Consider new role for Coordination Team, perhaps joining Div. of Planning?*

Objective 7.2 *Ensure convenient and reliable access for state and local planners, decision-makers, researchers, students, stakeholders*

Action: Same as 2.1.1 and 2.1.2

Objective 7.3 Provide clear guidance and standards for use of scientific and technical information in planning, decision-making, applications, etc.

Action 7.3.1:

OPR	Div. of Planning	OCR	CRMC, DEM, RIEMA
Responsibility:			
Action Officer:		URI	

When

How

Objective 7.4 Improve data collection, monitoring to enhance understanding of impacts of climate change on natural resources

Action 7.4.1: Strengthen and expand existing collaborative monitoring program

OPR	DEM	OCR	BRWCT, NBEP,
Responsibility:	Janet Coit		URI, Brown U., RWU
Action Officer:	Sue Kiernan?/Ames Colt?		TNC, STB, ASRI

When

How Convene joint meeting of Science and Technical Advisory and Coordination Committee (STACC, Action 6.1.1) and Environmental Monitoring Collaborative (EMC) to develop new list of climate change related key indicators for which baseline monitoring needs to be conducted, and to evaluate capacity of EMC and its partners to conduct such monitoring.

Note, for example, existing monitoring, mapping and GIS capacity and programs at URI that could/should be used, leveraged and supported.

Action 7.4.2: Coordinate data collection and analysis to improve understanding of the relationship between climate-related changes in the ecosystem and the abundance and distribution of priority fish species (such as lobster, winter flounder, summer flounder, squid, and black sea bass).

OPR	DEM/STACC	OCR	CRMC
Responsibility:	Janet Coit		URI/CELS, GSO
Action Officer:	Mark Gibson?		NOAA, USFWS, EPA ASMFC, other reg'l councils
When	TBD		
How	Coordinate through STACC?		

Action 7.4.3: Improve understanding of climate-related impacts on key habitats from coastal watersheds to open ocean, emphasizing those habits used by managed species as juvenile nursery or adult spawning areas

OPR	DEM/STACC	OCR	CRMC
Responsibility:	Janet Coit		URI
Action Officer:	Mark Gibson?		NOAA, USFWS, EPA ASMFC, other reg'l councils
When	TBD		
How	Coordinate through STACC?		

Action 7.4.4: Develop a series of key indicators that can be monitored annually with less resources than are needed for operational models to track current changes and provide managers with early warnings of future changes such as changes in the distribution and abundance of important marine resources

OPR	DEM/STACC	OCR	CRMC
Responsibility:	Janet Coit		URI
Action Officer:	Mark Gibson?		NOAA, USFWS, EPA ASMFC, other reg'l councils
When	TBD		
How	Coordinate through STACC? Combine with Action 7.3.1?		

GOAL 8: COMMUNICATE EFFECTIVELY

Objective 8.1 *Provide easy access to up-to-date, reliable information about climate change, mitigation, adaptation, resilience, who is doing what, how to get involved, get assistance, etc.*

Action 8.1.1: Develop web site in partnership with nonprofit private sector that aggregates and/or links to best available information about climate change, mitigation, adaptation, resilience, best practices, etc.; and that provides forum for interactive communication (blogs, town meetings, etc.)

OPR

Responsibility:
Action Officer:

OCR

URI/CI, CRC, SG

When

How *Combine with Actions above that propose development of a new web site, or adaptation of/networking with existing web sites*

Objective 8.2 *Develop a partnership-based, interactive communications program through which citizens, businesses, planners and decision-makers exchange information and ideas about the challenges and opportunities associated with climate change and resilience*

Actions:

Objective 8.3 *Conduct and support outreach, public education and training programs in multiple sectors, at multiple levels*

Action 8.3.1: Develop program that can be delivered in modules, and tailored to different audiences, as part of state outreach initiative or in response to requests from communities, businesses, organizations

OPR

Responsibility: Jamia McDonald
Action Officer: TBD

RIEMA

OCR

Div. of Planning, CRMC, DEM, OER
CommerceRI
URI/CI, CRC, SG
GrowSmart RI

When MOA between key agencies conducting or planning outreach to municipalities, businesses, etc. by ?
Interagency planning team established by ? Program modules, formats defined by ?
Partners, resources identified by ?

How Formal steering group of agencies, providers and user group reps. Strategic plan. Contract with institution or nonprofit?