

EC4/ Climate Change – Implementation Priorities

Objectives:

- Put in place or motion, programs, projects and partnerships that (1) demonstrate the value and practicability of the Resilient RI program to decision-makers and key constituencies, and (2) ensure the continuity of the program.
- Include projects that can deliver valuable results in a reasonable timeframe.

SEPTEMBER 2015 UPDATES IN RED UNDER COMMENTS BELOW.

Please note that the numerical citations below are linked to specific recommendations in the June 2014 EC3 Final Report.

A. LEAD BY EXAMPLE	Lead	Comments (UPDATES SEPTEMBER 2015)
Designate senior management level leads in all agencies (1.1.3)	All	DONE. Governor’s Office coordinated and led initial “Kick Off” meeting held in December 2014.
Develop general guidance, agency-specific performance management guidance, performance measures, metrics (1.1.2, 1.1.4, 1.2.2)	Gov. Office with OMB	In process.
Develop and apply criteria for capital budget planning (1.2.3)	RIEMA -> OMB	EMA submitted initial checklist to OMB. In process.
Implement energy conservation/efficiency and renewable energy action items (1.2.5, 1.2.6); see also below: SEP	OER	<p>State Facility Energy Data - Work continues to centralize/organize state facility energy data (both energy use and energy expenses). The data will be managed by the OER, in partnership with the DOA Division of Capital Assets, Management and Maintenance. This will streamline utility account management processes, eliminate ghost accounts as well as accounts in arrears. The first reverse auction for competitive procurement of electricity will be held in October.</p> <p>Streetlights - All DOT park and ride streetlights have been converted to LEDs and OER/DOT are on track to convert state highway lights to LED by the end of 2016.</p>

	DEM	<p>Sustainability Agenda - The Governor plans to include a State “Lead by Example” initiative as part of her Sustainability Agenda (e.g. reducing state energy usage, procuring additional low/zero emission vehicles, emission reduction targets for state facilities in-line with reductions promoted by the EC4).</p> <p>State Energy Plan - The State Energy Plan (SEP) has been authorized by the Technical Committee and State Planning Council for a public hearing, which occurred in late August 2015. OER is working with Planning to incorporate ‘responses to comments’ as appropriate. The updated Plan will be reviewed by the SPC Technical Committee and SPC for formal adoption (expected in October 2015).</p> <p>DEM 10 plug in hybrid vehicles/charging stations - In an effort to lead by example and reduce its carbon footprint, DEM is upgrading its fleet of state vehicles with 10 plug in hybrid vehicles. The cars are in the custody of the state (as of late August), and DEM is waiting for state fleet to handle the registration paperwork. DEM is expecting to be in full possession of the vehicles by the end of September 2015. In addition, the 8 new electric charging stations (installed in DEM’s state fleet parking area) are now live and ready for use (as of September 2nd).</p>
Institute/conduct training program for state employees		<p>Informal Communications Working Group discussed this assignment, but no formal training program has been developed (funding and staff limitations exist). Some agencies (e.g. HEALTH) have done employee training on climate change. RIDOT’s employee training program is being looked at as a potential model for such a training program. Employee training has been identified as a priority by the Communications Working Group.</p>
B. ASSIST CITIES AND TOWNS		
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 (1.3.4)	CRMC, EMA, Planning, URI	<p>StormTools - CRMC has rolled out StormTools that provides online access to a suite of coastal flood inundation maps; it was recently updated to incorporate storm surge and maximum wave height data from the ACOE’s NACCS 2015 report. CRMC and URI are providing training to coastal communities on how to use the maps and integrate them into their planning responsibilities. Next steps and integration with CRMC Beach SAMP needed.</p>

<p>Provide planning guidance on SLR and storm surge inundation to coastal communities and riverine flooding on inland communities, including one mapping tool for 1', 3' and 5' SLR scenarios; as well as planning guidance on storm frequency and intensity to both coastal and inland communities (2.3.1)</p>	<p>Planning, EMA, CRMC, DEM, DOT, URI</p>	<p>Inland Flooding Modeling Project (Pawtuxet River) - The EC4 approved (June 2015) a proposal to the CDBG-DR team for \$175K in funding for an inland flooding modeling project focused on the Pawtuxet River. The application, as approved by the EC4, was formally submitted by CRMC (on behalf of a collaboration of DEM, EMA & CRMC) in early July with URI as the contracting partner to undertake the modeling work. CRMC now has an executed contract between themselves and their Office of Housing and Community Development (OHCD) for the flood modeling project. A cooperative agreement between CRMC and URI is in process now and CRMC anticipates project start up in September 2015 as originally planned.</p> <p>Guidance for Cities and Towns - Statewide Planning has developed standards and accompanying draft guidance for comprehensive plans relating to natural hazards, sea level rise, and climate change and plans to begin the adoption process with the State Planning Council this fall.</p>
<p>Provide financial and technical assistance, and establish a schedule to ensure that <u>all</u> cities and towns develop and maintain current Local Hazard Mitigation Plans (2.2.1) ; coordinate with Statewide Planning to ensure consistency with Local Comprehensive Plan requirements to extent possible.</p>	<p>EMA, Planning</p>	<p>Local Hazard Mitigation Plans - As of September 1, 2015, there are 18 approved Local Hazard Mitigation Plans and 13 expired plans. There are two FEMA approved plans awaiting local adoption and six communities that have not yet completed an approved plan. There are also seven plans in queue that require State review. RIEMA staff is implementing a strategy to provide technical assistance statewide through site visits and training opportunities in coordination with federal partners. (NOTE: In December 2014, RIEMA prepared a Local Hazard Mitigation template in accordance with 2.2.1. The purpose of the template was to provide a recommended/ standardized framework to local governments to follow during the creation or update of their local hazard mitigation plan.)</p> <p>Technical Assistance - CRC and Statewide Planning collaborated on a publication entitled "<u>Resilient Communities: Natural Hazards & Climate Change Adaptation</u>" intended to assist communities with incorporating natural hazards planning and climate change adaptation into local comprehensive plans.</p>

	DEM	\$3 million in flood mitigation grants – DEM is undertaking an amendment to the Narragansett Bay and Watershed Restoration Bond Fund regulations so as to issue \$3 million in flood mitigation grants. The funding comes from the 2014 RI Clean Water, Open Space, and Healthy Communities Bond as approved by voters last fall. The goal of the grants is to mitigate flooding through the use of riparian restoration and similar technologies. (Linked to Goal 6 & Goal 7 in the EC3 Report).
Roll out outreach and assistance program(s) for municipalities, homeowners and small businesses regarding energy programs (2.3.2, 2.4.1)	OER	Efficient Building Fund (EBF) - The OER is leading a working group to develop and implement the Efficient Building Fund (EBF), one of the new efficiency financing tools authorized by the Rhode Island Infrastructure Bank (RIIB) legislation. Program launch is scheduled for January 2016. The EBF is for public buildings. Separate working groups lead by the RIIB are developing PACE (Property Accessed Clean Energy) programs for residential and commercial buildings.
C. ECONOMIC SECTOR		
Convene Resilient Economy Collaborative, financial strategy teams (2.5.1, 2.5.2)	CommerceRI	Commerce Corporation COO is planning to convene key teams by October 31. In process.
Engage business community in vulnerability assessment (4.2.1) and other (energy) programs (2.4.2)	CommerceRI	Commerce Corporation COO is planning to convene initial meetings by October 31. In process.
Develop a “Fortified” or similar program with insurance industry	CommerceRI, CRMC	Fortified - CRMC, URI and the State Building Commissioners office have started to put the early pieces for “Fortified” to establish this program in Rhode Island. Training programs for building officials and trades people have been conducted. Discussions with the Rhode Island Builders Association have started to make this a successful transition. Several residential projects are presently being evaluated through Fortified program for certification. In process.
D. MITIGATION		
<i>Energy:</i> roll out SEP in September/October(5.2.1); Implement energy conservation/efficiency and renewable energy action items (1.2.5, 1.2.6); see also A and B above	OER	State Energy Plan (SEP) - see update above.

<p><i>Transportation:</i> interagency strategy for GHG emission reductions; ZEV implementation plan</p>	<p>DOT, DEM, OER, Planning, Gov. Off.</p>	<p>Zero Emission Vehicle (ZEV) Task Force - The Zero Emission Vehicle (ZEV) Task Force continues to meet. A status report was provided to the Gov's Office, House and Senate earlier in 2015. A draft Zero Emission Vehicle (ZEV) Road Map has been completed, with OER close to finalizing the financing for a purchase incentive program (private purchases) with non-RGGI funding. An EV incentive program will be rolled out in Fall 2015. An MPA for electric vehicle charging stations has been completed and also will be rolled out in Fall 2015.</p> <p>RI GHG Emissions Reduction Study - OER, RIDOT, Statewide Planning, and DEM have coordinated to issue an RFP (in July 2015) and are in the process of reviewing proposals for the Rhode Island GHG Emissions Reduction Study. The final product will include strategies, programs and actions to meet targets for greenhouse gas emissions reductions as follows:</p> <ul style="list-style-type: none"> • 10% below 1990 levels by 2020; • 45% below 1990 levels by 2035; • 80% below 1990 levels by 2050; <p>These specific reduction targets are called for in the Resilient RI act of 2014. The statutory deadline for completion of the study is December 2016.</p>
<p><i>Legislation</i> (e.g., renewable energy standard extension, 4.1.6)</p>	<p>Planning</p>	<p>Statewide Planning has drafted legislation to address the process of issuing variances following a natural disaster. The draft will be vetted with stakeholders and shared with DOA leadership for review and potential introduction to the General Assembly in 2016.</p> <p>Statewide Planning has also drafted legislation to enable unified development review in order to allow for a more streamlined development review process overall.</p>
<p><i>Other</i></p>	<p>DEM</p>	<p>Energy Saving Trees Program - DEM, through a partnership with the Arbor Day Foundation in cooperation with the RI Tree Council and the RI Nursery and Landscape Association, will be providing 1,000 free trees to Rhode Island homeowners this fall. The trees are part of a program to help Rhode Islanders save energy and reduce their utility bills by strategically planting trees on their property.</p>

	OER	<p>long-term risk-reduction strategies. URI researchers are conducting the assessment and are guided by a steering committee comprised of local, state and Federal organizations, including RIDOT, Port of Davisville, Providence Planning Department, CommerceRI, CRMC, URI Graduate School of Oceanography, the US Army Corps of Engineers, the Maritime Administration, FHWA, RI Statewide Planning, and the US Coast Guard. With funding support from FHWA and RIDOT, the assessment is expected to be complete by Fall 2015. RIDOT involved in planning for the stakeholder group meetings in summer 2015.</p> <p>Incorporating Resiliency into State Plans - Statewide Planning considered vulnerability of people and the natural/built environments to impacts associated with climate change in the recently updated <u>Economic Development</u> and <u>Solid Waste State Guide Plan</u> elements. Statewide Planning is also considering vulnerability to climate change in the drafts of the <u>Energy</u>, <u>Housing</u>, and <u>Watersheds</u> State Guide Plan element updates that are currently underway.</p> <p>Microgrids - OER has solicited proposals for a consultant to assess the opportunity, cost and benefits of deploying resilient microgrids in Rhode Island. Microgrids, when combined with onsite power generation, are designed to separate a facility or area from the electrical grid when the grid fails and enable a host site to continue operating without power interruption. The project will help identify high-priority locations for microgrids in areas impacted by coastal storms with vulnerable populations. The project will result in information and tools necessary to prioritize demonstration microgrid projects to maintain critical services. This project includes a RI Microgrids Opportunity and Needs Assessment, and development of supporting materials for a pilot initiative. The project will be initiated in October.</p>
Develop multi-agency, statewide strategy to use best available tools, including modeling, mapping, natural resources management, and proactive land use planning to preserve/enhance natural buffers, flood storage, etc.	CRMC, DEM	<p>State Wildlife Action Plan (SWAP) - DEM's work in updating the State Wildlife Action Plan identifies habitat needs to protect species of concern all within the context of climate change. The final 2015 Rhode Island Wildlife Action Plan (including Species and Habitat Profiles) and companion documents are now available. DEM is currently awaiting final federal review and approval.</p>

		<p>CRMC has awarded its 2015 funding for nine habitat restoration projects through its RI Coastal and Estuarine Habitat Restoration Trust Fund (CEHRTF), with funding coming from the state’s OSAPR account.</p> <p>CRMC and partners, NBNERR, TNC, URI/CRC/SG and Save The Bay have completed Sea Level Affecting Marshes Model (SLAMM) maps and recommendations for all 21 coastal communities. SLAMM GIS shape files are now available through RIGIS. CRMC adopted the maps in January 2015 to be used for adaptation planning.</p> <p>CRMC, with multiple partners, continues to oversee restoration projects in the Narrow River & Salt Ponds (with consideration for climate change and SLR).</p> <p>RIDOT has been involved with ICNet (the Infrastructure and Climate Network), based out of the University of New Hampshire. ICNet is a group of more than 60 academics and practitioners dedicated to accelerating climate science and research in the northeast. The group seeks to determine and implement strategies and best practices related to climate change and allow states to exchange technical information to inform implementation strategies. Involvement in this group will allow for sharing of queries and concepts as strategies progress.</p> <p>Grant for Wetlands Monitoring and Assessment to Support Adaptation to Climate Change - DEM was recently awarded, in collaboration with CRMC and the RINHS, a \$255,305 competitive grant entitled “Wetlands Monitoring and Assessment to support Adaptation to Climate Change”. Funds for the wetlands grant should be available this fall. (Directly linked to Goal 6 and Goal 7 in the EC3 Report).</p>
<p>F. SCIENCE & TECHNICAL INFORMATION</p>		
<p>Create initial group to focus on coordinating among state agencies/programs, and to take responsibility for deliverables to cities and towns (1.3.3)</p>	<p>CRMC</p>	<p>CRMC and partner URI have developed SLR and storm inundation guidance for 21 coastal municipalities and presently developing training program for using StormTools to help plan adaptation strategies. Statewide Planning has worked with CRMC and URI to develop municipal guidance on addressing natural hazards,</p>

		<p>including SLR, into local comprehensive plans. Further work is needed on riverine flooding issue (work in progress). Further information about these projects is provided above.</p> <p>CARIS - In addition, an ad hoc group representing multiple state agencies (informally named CARIS) has been meeting regularly for several months to coordinate initiatives and modeling projects relating to adaptation and natural hazards.</p>
Develop recommendations for Communications program (information resources, linkages, programs)		<p>Informal Communications Working Group has been looking to (and hearing from) local experts on how best to communicate with the public and decision makers about climate change & resiliency. No formal recommendations have been developed; this group will likely look to both the Advisory Board and the Science & Technical Advisory Board for assistance/coordination.</p>
Develop recommendations for appointments to broader Science and Technical Advisory Board and how it should relate to/network with existing entities		<p>Appointments were approved by the Senate in late June. The first meeting of the EC4 Science and Technical Advisory Board, or 'STAB' is scheduled for 9/21. Peter August was selected by the Governor to serve as chair. DEM staff will assist with the coordination of the STAB.</p>
G. COMMUNICATIONS		
Establish portal to link to existing web sites, serve as hub for Resilient RI network		<p>Coordination with the Office of Digital Excellence needed. A steering group including external stakeholders and most EC4 member agencies staff will need to be convened to help with project. Will be coordinated with the EC4 Advisory Board.</p>
Develop proactive and consistent messages for media, decision makers, stakeholders, public about Resilient RI program		<p>The EC4 Advisory Board (which met for the first time on 5/27 and will be meeting again on 9/23) identified this as a priority and will likely work to develop some recommendations up to the full EC4 on "messaging" about resiliency/climate change (not only "what the message should be" but "how" to roll it out).</p>
Develop training/education program for state employees		<p>See above.</p>
Provide resources for communication/education efforts by others		<p>In process. Requires planning for web site and coordinated outreach program. Resources/funding need to be identified.</p>
H. ADVISORY BOARD		
Develop recommendations for appointments		<p>Complete. First Advisory Board meeting was held on 5/27, with a future meeting schedule for 9/23. DEM continues to assist with the coordination of these advisory board meetings.</p>