

Manage and Conserve Water and Energy Resources

Implementation Action Area #1: Implementing Energy and Water Retrofit Programs

Action	Lead Implementers	Specifics	Retain/Revise/Complete/Delete
Administer and provide a financial framework for ongoing retrofit programs	CMAP, CNT Energy, Delta Institute, Community Investment Corporation (CIC), local lending institutions	Maintain administration of single-family residential and multifamily financing programs, developed between 2010-13 through the \$25 million Better Buildings Neighborhood Program grant funded by the U.S. Department of Energy.	Revise

Implementation Examples:

- Following the awarding of a grant from DOE, CMAP contracted with the Center for Neighborhood Technology – Energy (CNT Energy) as lead implementation agency of Chicago Region Retrofit Ramp-Up (CR3), which would eventually become the [Energy Impact Illinois](#) (EI2) program.
- After developing an implementation plan and overall budget framework, CMAP/CNT Energy contracted with 15 additional subgrantee organizations to develop and deliver products focused on the three key barriers to energy efficiency adoption in the region: 1) access to information, 2) access to finance, and 3) access to a trained workforce.
- All contract procurements and grant obligations were completed by DOE deadline (11/18/2013).
- By 9/30/2013, EI2 programs across the single and multifamily residential sector completed nearly 6,100 retrofits to at or above 15 percent energy savings, resulting in an estimated \$2 million in annual energy savings among participants.
- By 9/30/2013, EI2 commercial programs will have identified nearly \$40 million in near-term energy savings project recommendations across 22 million square feet of commercial space in the Chicago region. These recommendations will be utilized to conduct retrofit work in participant buildings to decrease energy use by 20 percent over the next 5 years.

Rationale for Retain/Revise/Complete/Delete Assessment:

- As of 9/30/2013, the initial period of performance for the EI2 grant is complete. Both the Delta Single-Family Residential and Energy Savers Multifamily Residential program will continue offering financing through EI2 into the near future through a no-cost grant extension until November 2014. The other aspects of the implementation phase of the grant (e.g., web portal development, communication strategy, workforce intermediary development, and other finance programs) have all been completed. For the near term, CMAP will maintain its lead role in helping the remaining financing programs continue

to issues energy efficiency loans, but will not be pursuing further implementation work in energy efficiency.

- Consolidated with following implementation action.

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Action	Lead Implementers	Specifies	Retain/Revise/Complete/Delete
Provide a financial framework for retrofit programs	State (DCEO), municipalities, utilities, lending institutions	Support the development and delivery of financing products targeted across retrofit customer segments. Help support a market transformation to broaden retrofit demand and to give private lenders the confidence to lend to customers for energy efficiency measures. Provide case study data that shows that energy savings are an effective and dependable cash flow stream that can be used to secure loans. Utilities and municipalities should emulate programs as the ones the Illinois Department of Commerce and Economic Opportunity (DCEO) is currently administering for financing energy and water efficiencies by partnering with retailers to conduct rebate programs to replace appliances/fittings with more efficient models.	Delete (consolidated with previous action)

Implementation Examples:

- Energy Impact Illinois, in partnership with DCEO, local utilities, and other key stakeholders as part of the EI2 Retrofit Steering Committee, developed and deployed four energy efficiency finance programs across multiple building sectors during the fall of 2011.
- **Energy Savers Multifamily Program** – Administered by the Community Investment Corporation (CIC) and CNT Energy, this program utilized EI2 funding and built upon their already successful multifamily retrofitting program that provides financing, technical assistance, construction oversight, and annual performance monitoring for participating building owners. Through 9/30/2013, Energy Savers will have loaned out more than \$3 million to local building owners and retrofitted close to 2,600 units to at least 15 percent energy savings annually.
- **Delta Residential Retrofit Program** – This \$3.5 million program managed by the Delta Institute provides low-cost competitive financing for single-family homeowners who own 1-4 unit buildings in the Chicago region. Homeowners who take part in this program can complete comprehensive energy efficiency upgrades, which includes insulation and air sealing repair, furnace/boiler and air conditioning replacements, and Energy Star appliance upgrades, to achieve at least 15 percent energy savings in their homes. In addition to financing, a limited-time \$1,750 rebate incentive toward the cost of a home retrofit was available from August 2012 to September 2013, which drove extensive demand in the program and allowed for the completion of over 3,000 home retrofits in the region.
- **IFF Non-profit Retrofit Program** – Non-profit organizations looking to make energy efficiency improvements were able to take advantage of low-interest loans and specific project-related incentives to make energy efficiency improvements to their buildings.

Over the course of this program, 19 non-profit organizations representing 400,000 square feet of commercial space participated in the audit phase of the program. Nine of these organizations moved forward with comprehensive retrofits of their buildings to at least 15 percent energy savings and utilized \$2.4 million in private investment available through IFF to make these improvements.

- **SCIenergy Commercial/Industrial Program** – SCIenergy was contracted to provide over \$1 million in technical assistance funding to conduct commercial/industrial energy efficiency predevelopment studies for a number of commercial sites within the CMAP region. These predevelopment studies were the first step for accessing SCIenergy's innovative Managed Energy Services Agreement (MESA) – an energy efficiency financing model that provides investment capital for major infrastructure improvements to commercial properties to create cost savings while still meeting the comfort and service obligations of the tenants' lease agreements. Through this effort, SCIenergy helped identify \$11.4 million in near-term efficiency opportunities across over 5.5 million square feet of commercial space, and is currently working with participant organizations to move forward with its MESA model.

Rationale for Retain/Revise/Complete/Delete Assessment:

- Both the Delta Residential Retrofit Program and the Energy Savers Multifamily Retrofit Program will continue under EI2 until at least November 2014 through a no-cost grant extension with DOE. Through its agreement with DOE and ARRA requirements for the grant, CMAP must maintain federal requirements with regard to reflowing funds produced by these programs (from loans that were made during the grant period). DOE will provide more guidance on long-term use of these funds over the coming year.
- Consolidated with previous implementation action.

Action	Lead Implementers	Specifics	Retain/Revise/Complete/Delete
Increase access to a trained workforce	State, trade associations, community colleges, Workforce Investment Boards	Support ongoing development of a regional training center for certified efficiency work. Support ongoing establishment of consistent standards and certifications for workers and contractors and create a network to match building owners with certified contractors. Partner with workforce agencies to create a “central broker” to match trained job-seekers to businesses seeking certified workers.	Revise

Implementation Examples:

- Energy Impact Illinois (EI2) created just over 100 jobs over the 3-year cycle of the program, including both skilled trade and professional jobs.
- Centers for New Horizons (CNH), an EI2 contractor, held several roundtables promoting the program and informing contractors of qualifications required to participate in the EI2 program.
- CNH, working with Chicago Jobs Council (CNT Energy’s program implementation subcontractor), also developed an inventory of training centers and educational opportunities available for contractors seeking energy efficiency specialization training.
- CNT Energy developed a contractor model to assist contractors with completing necessary rebate paperwork, and also provided educational opportunities and staff support for improved quality of work.

Rationale for Retain/Revise/Complete/Delete Assessment:

- A number of agencies – Chicago Jobs Council, Center for Green Technology, as well as some private contracting firms – have started this type of work. Instead of “develop” and “create,” this action should be revised to acknowledge work started and ongoing.

Action	Lead Implementers	Specifics	Retain/Revise/Complete/Delete
Increase access to information concerning retrofits	CMAP, CNT Energy	Maintain regional informational website (www.energyimpactillinois.org) for connecting building owners to qualified contractors, utility/nonprofit energy efficiency incentives, and financing products.	Revise

Implementation Examples:

- The EI2 website (<http://energyimpactillinois.org>) serves as a clearinghouse for information about energy efficiency upgrades, rebates, and financing.
- The EI2 call center serves as the primary point of contact for residents and was promoted as the only phone number a City of Chicago resident could call to participate in the Retrofit Chicago program.
- The EI2 Road Maps – developed as part of the contract with PositivEnergy Practice – provided commercial office spaces with a step-by-step, investment-case scenario designed to help buildings achieve a 20 percent energy reduction commitment made as part of their participation in the Retrofit Chicago Commercial Buildings Initiative.

Rationale for Retain/Revise/Complete/Delete Assessment:

- Many of the implementation examples mentioned above will continue to be maintained and updated for the near future. As part of its EI2 work, CNT Energy will be responsible to provide new information on energy efficiency that becomes available in the region.

Implementation Action Area #2: Integrating Land Use Planning and Resource Conservation

Action	Lead Implementers	Specifics	Retain/Revise/Complete/Delete
Create model codes/ordinances and support use of existing models.	CMAP	Assist communities in amending or adopting codes for water conservation by providing ordinance language and related resources. Assist implementation by making available guidance for model review processes.	Revise

Implementation Examples:

- In 2011, CMAP used its [model ordinance](#) for water conservation to guide development of a [conservation program and ordinance](#) in the Village of Orland Park as part of an LTA project.
- The Metropolitan Planning Council, working with CMAP, undertook an outdoor lawn watering conservation [ordinance](#) development effort with the municipalities that are part of the Northwest Water Planning Alliance.
- CMAP supported the City of Chicago’s efforts to introduce an energy benchmarking and disclosure ordinance as a means of tracking energy usage city-wide, which passed the City Council on September 11, 2013.

Rationale for Retain/Revise/Complete/Delete Assessment:

- CMAP’s model water-use conservation ordinance, published in 2010, remains relevant and should continue to be of value as a guide to communities who wish to update their water-related codes and ordinances.
- Added existing models to the Action text to ensure greater consistency between the Action and Specifics.

Action	Lead Implementers	Specifics	Retain/Revise/Complete/Delete
Accelerate use of efficient appliances/fixtures through green code adoption	Federal, State, municipalities	Utilize Energy Star Portfolio Manager/Energy Performance Indicator or other performance indicators for energy efficiency review in commercial and residential buildings. Support federal efforts to improve energy efficiency standards in products such as appliances and fixtures. Adopt appliance and fixture codes where possible to an efficiency level greater than federal or state requirements, such as those offered through the US Green Building Council's Leadership in Energy and Environmental Design (LEED) standards.	Revise

Implementation Examples:

Rationale for Retain/Revise/Complete/Delete Assessment:

- The federal government typically sets appliance standards, not counties or municipalities. However, state and local governments could adopt green codes to ensure the use of efficient appliances and fixtures.

Action	Lead Implementers	Specifics	Retain/Revise/Complete/Delete
Provide technical assistance to local governments	State (DCEO, IDNR), CMAP	Encourage incorporation of sustainability plans or codes in local planning practices during energy-related grant award processes by prioritizing funding to communities that have taken these initiatives. Allocate funding for the development of green codes. CMAP should support local multijurisdictional efforts, along with IDNR and permittees, during the transition period brought on by regulatory changes.	Revise

Implementation Examples:

- Through its LTA program, CMAP has developed water conservation plans in Evanston ([Evanston Water Conservation and Efficiency Plan](#)) and Oak Park ([Oak Park Water Conservation and Efficiency Plan](#)) as well as a [new water conservation code](#) for the Village of Orland Park.
- MPC, CMAP, and the DuPage Water Commission completed a four-part educational workshop series for water conservation managers and others interested in water conservation. The team then selected the Village of Westmont as the recipient of water conservation implementation assistance, which is expected over 2013-14.
- CMAP energy staff assisted in the development of a number of LTA sustainability plans – for example, [Park Forest](#) – providing specific information about energy efficiency opportunities for communities to implement as part of a sustainability plan.
- CMAP staff has led a strategic planning exercise with the Northwest Water Planning Alliance (NWPA) that will position the NWPA to achieve its mission in 2014 and beyond.
- Partnering with the Center for Neighborhood Technology (CNT), CMAP worked with the IDNR Office of Water Resource’s Lake Michigan Allocation Program office to improve understanding of permittee water loss challenges and practices.

Rationale for Retain/Revise/Complete/Delete Assessment:

- Water-related LTA work will remain of interest to communities as either a standalone project or an adjunct to other types of planning assistance. However, the “Specifics” language might benefit from revision. The wording “conservation coordination assistance” suggests a type of expertise that CMAP currently lacks and is unlikely to add until sustainable funding can be secured. Rather, CMAP should offer technical

assistance and/or resources when possible to communities that wish to employ water conservation and efficiency practices, programs, and policies.

- With funding from IDNR, staff should support the Northwest Water Planning Alliance (NWPA) and Lake Michigan Allocation Program (LMAP) office as both activities are in line with Water 2050 recommendations and, therefore, approved by IDNR.

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Action	Lead Implementers	Specifics	Retain/Revise/Complete/Delete
Promote rainwater harvesting for nonpotable indoor uses	State, counties, municipalities, nonprofits	Local governments should ensure that existing regulations do not prohibit the indoor use of rainwater. Collaborate in executing informational/demonstrational efforts for the implementation of rainwater harvesting. Support amendment of local ordinances and codes accordingly.	Revise

Implementation Examples:

- Public Act [97-0852](#) was passed in 2012 to require the Illinois Department of Public Health to modernize the Illinois Plumbing Code to better protect natural resources, for example by developing standards for reuse of non-potable water.

Rationale for Retain/Revise/Complete/Delete Assessment:

- Once a revised Illinois Plumbing Code takes affect and rainwater harvesting for nonpotable indoor use no longer requires a code variance, CMAP could develop a paper that offers rationale, examples, and guidance for support and implementation of this action. Such activity will be most useful in groundwater-dependent communities.
- Slight text revisions.

Action	Lead Implementers	Specifics	Retain/Revise/Complete/Delete
Increase commitment to water efficiency by promoting water-loss reduction, water conservation, and reuse programs and projects throughout the CMAP region	State (IDNR), CMAP, local multijurisdictional efforts, municipal-run community water suppliers	Advise and guide IDNR to update its annual water audit form to follow the International Water Association and American Water Works Association standard water balance protocol to help permittees reduce water loss. Work with IDNR, local multijurisdictional efforts, and community water suppliers to develop conservation and efficiency plans.	Revise

Implementation Examples:

- A rule [proposed](#) by IDNR in Spring 2013 meets many of the specific recommendations of this action area, including elimination of the maximum unavoidable loss allowance and encouraging water conservation by Lake Michigan users.
- CMAP is collaborating with the IDNR Office of Water Resources through an LTA project to evaluate the reasons for water loss at specific utilities in the region. A final report, issued in January 2014, will feature observations and recommendations for IDNR as a prelude to expected changes to rules and regulations and a transition period for permittees that will follow.
- In 2011, the City of Chicago initiated a 10-year [water main replacement plan](#) to replacement 900 miles of mains. Replacement of aged mains should reduce water losses due to leakage.

Rationale for Retain/Revise/Complete/Delete Assessment:

- IDNR’s proposed changes to rules and regulations should to be complete by mid-2014. One potential outcome is a revised annual water audit form that more closely follows the IWA/AWWA water balance table. Any progress with permittees regarding conservation, however, will likely require the full support and follow-through of IDNR on the conservation-related conditions of permitting; most permittees are highly unlikely to do anything that isn’t required by IDNR. The emphasis, therefore, should be on maintaining and strengthening CMAP’s working relationship with IDNR in order to most effectively reach permittees. A top priority in response to rule/regulations change is to help equip communities with the tools and information necessary to reduce water loss.
- Revised text to emphasize water-loss reduction and broaden the geographic scope of the action as it is appropriate throughout the region.

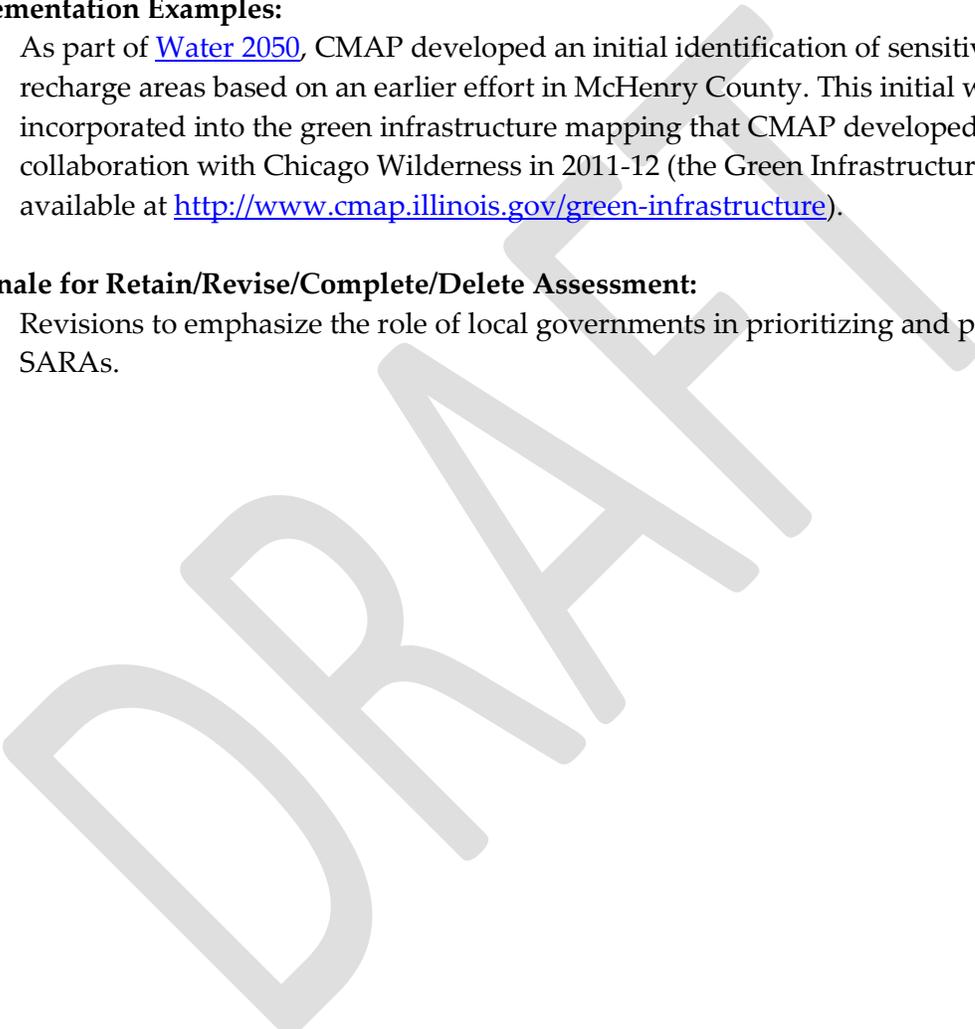
Action	Lead Implementers	Specifics	Retain/Revise/Complete/Delete
Protect sensitive aquifer recharge areas (SARAs)	CMAP, counties, municipalities	CMAP should assist local governments with prioritization of SARAs for protection as well as code and ordinance revisions to ensure their protection.	Revise

Implementation Examples:

- As part of [Water 2050](#), CMAP developed an initial identification of sensitive aquifer recharge areas based on an earlier effort in McHenry County. This initial work was incorporated into the green infrastructure mapping that CMAP developed in collaboration with Chicago Wilderness in 2011-12 (the Green Infrastructure Vision, available at <http://www.cmap.illinois.gov/green-infrastructure>).

Rationale for Retain/Revise/Complete/Delete Assessment:

- Revisions to emphasize the role of local governments in prioritizing and protecting SARAs.



Action	Lead Implementers	Specifics	Retain/Revise/Complete/Delete
Promote and practice the integration of resource conservation in land use planning	State (DCEO), CMAP, local governments	Use planning grant programs to assist communities in incorporating resource conservation in local comprehensive planning. Encourage communities to refrain from assuming constraint-free future water supplies for projected population growth in comprehensive plans.	Revise

Implementation Examples:

- A number of projects undertaken through CMAP’s LTA program have focused on resource conservation in land use planning, including the [Village of Lakemoor Comprehensive Plan](#) and especially the [Village of Campton Hills Comprehensive Plan](#), which recommended strategies for protecting water supplies and preventing degradation of important natural resources, among others.
- Completed in 2012, the [Recommendations for Integrated Water Resources Planning in Lake Zurich](#) report analyzes the Village’s land use policies for their impact on water resources.

Rationale for Retain/Revise/Complete/Delete Assessment:

- Communities using Lake Michigan water know their available supply of water as they each have an allocation set for 20 years. In contrast, groundwater-dependent communities are typically not equipped to know or indicate available future supply. Rather, they assume water will be available and/or develop new wells to ensure future water supply. Revise the last sentence of the Specifics column and the “Lead Implementers” accordingly.

Action	Lead Implementers	Specifics	Retain/Revise/Delete
Adopt policies to encourage attainment of zero water footprints/water neutrality for large scale projects	Municipalities, water utilities, corporate and industrial entities	Water utilities should require large-scale projects to seek water neutrality. Project sponsors should work with utilities to set an annual water budget following an audit that identifies internal water saving mechanisms and external offsets if the budget is exceeded. CMAP should provide baseline or case study information to increase awareness of the concept and promote its applicability in the region.	Revise

Implementation Examples:

Rationale for Retain/Revise/Complete/Delete Assessment:

- It is highly unlikely that a water utility would require this action until such time as supply scarcity becomes a reality. In the meantime, there are other more practical strategies that a water utility might pursue to affect efficiency and conservation-oriented behavior. Furthermore, a water-neutrality policy position might best be implemented at a subregional or regional scale to create an even playing field and eliminate competitive pressures that municipalities are sensitive to. Also, this is likely to be a corporate-driven strategy to fit a corporate mission.
- In any event, the idea might be adopted where either system capacity or actual supply pose a constraint on availability. CMAP can develop a strategy report that raises the profile of the practice.

Action	Lead Implementers	Specifics	Retain/Revise/Delete
Implement urban and community forestry programs	Counties, municipalities, park districts, nonprofits	Adopt minimum standards for tree coverage in development projects along with tree preservation and maintenance regulations. Undertake these programs through park districts in public sites. Incentives should be provided for residents to plant trees, such as discounted sales and/or planting assistance. Land-use change should be guided in part by an urban forestry program that strives to maintain woodlots and other tree cover during development.	Revise

Implementation Examples:

- In October 2013, Openlands [launched](#) an urban forestry initiative in the City of Chicago. The project is funded by a \$500,000 grant from the MacArthur Foundation, and will plant 5,000 trees through 2015.
- The Metropolitan Mayors Caucus provides grants to municipalities through the [Mitigating Emerald Ash Borer Impacts on the Urban Forest](#) program. The \$491,500 in funds awarded in 2013 support reforestation, technical assistance, and wood utilization programs.

Rationale for Retain/Revise/Complete/Delete Assessment:

- Consider broadening the language in the “Specifics” column to include a wider range of urban forestry programs. Added “nonprofits” to list of “Lead Implementers”.

Action	Lead Implementers	Specifics	Retain/Revise/Delete
Use green infrastructure practices to help manage stormwater in new development and redevelopment	Counties, municipalities	Create incentives and remove barriers in code/ordinance language to ensure that stormwater management using green infrastructure is integrated in the planning and design phase of development projects. Use infill or redevelopment as opportunities to promote retrofits with green infrastructure during (re)development. Require maintenance plans in the stormwater management permitting process that specify maintenance activities and indicate responsible parties. These plans should be transferrable with property deeds. Take advantage of the IEPA-administered Clean Water State Revolving Fund (CWSRF) Green Project Reserve to finance the implementation of green infrastructure.	Revise

Implementation Examples:

- On October 3, 2013, the Metropolitan Water Reclamation District of Greater Chicago Board of Commissioners unanimously approved the [Cook County Watershed Management Ordinance](#). The ordinance will help mitigate the stormwater runoff impacts of new development by requiring various green infrastructure practices.

Rationale for Retain/Revise/Complete/Delete Assessment:

- This is sound policy, but terms such as “ensure” and “require” suggest that codes and ordinances are in place to ensure and/or require such practices. In most places, they are not.
- The Green Project Reserve component of the CWSRF, administered by Illinois EPA, features four categories of eligible projects including one that covers green infrastructure.

Action	Lead Implementers	Specifics	Retain/Revise/Delete
Implement green infrastructure retrofits	Counties, municipalities, homeowner's associations, property owners	Local governments should create incentives for implementing green infrastructure retrofits (e.g., stormwater utility program). Watershed plans for developed areas should identify potential green infrastructure retrofits, such as rain gardens, green streets, parking lot bioretention, and so forth. These plans should be used to help secure capital funding for retrofits.	Revise

Implementation Examples:

- Three [watershed plans](#) produced by CMAP in 2011 made recommendations for green infrastructure retrofits. And a watershed plan to be completed in 2014 will make these types of recommendations.
- The [Chi-Cal Rivers Fund](#) is a new grant opportunity focused on river restoration projects in the Chicago and Calumet region, and will focus on green infrastructure projects that increase stormwater storage capacity, among other project types. Approximately \$1.1 million was available through the 2013 [request for proposals](#).

Rationale for Retain/Revise/Complete/Delete Assessment:

- Add private property owners and homeowner associations to the list of "Lead Implementers".
- Add text to "Specifics" recommending the local governments create incentives for green infrastructure retrofits.

Implementation Action Area #3: Pricing

Action	Lead Implementers	Specifics	Retain/Revise/Complete/Delete
Utilize full cost pricing to incentivize more efficient water use, fund conservation programs, and fund both short- and long-term capital projects in addition to operations and maintenance	Illinois Commerce Commission, CMAP, municipalities, utilities	Municipalities should decouple water utility budgets from the municipal general revenue fund and ensure that revenues collected from water billing meet capital and operations and maintenance (O & M) budgets. Utilities should implement metering and appropriate bill designs. Utilities should ensure that bills reflect the full cost of service for treatment and delivery of water. CMAP should offer technical assistance on conservation pricing and rate-setting.	Revise

Implementation Examples:

- CMAP worked with the Illinois-Indiana Sea Grant and the University of Illinois Extension to develop the [Full-Cost Water Pricing Guidebook](#) in 2012. This resource helps make the case for full-cost pricing to water utilities and elected boards in the region. Since publication, staff have been holding workshops and conducting technical assistance to encourage the adoption of full-cost pricing.

Rationale for Retain/Revise/Complete/Delete Assessment:

- Revise text to include the use of full-cost pricing to support capital and O&M costs.

Action	Lead Implementers	Specifics	Retain/Revise/Complete/Delete
Institute stormwater utility program	Counties, municipalities	Local governments with stormwater management responsibilities should charge dedicated user fees to property owners to cover the costs of maintaining stormwater infrastructure. Such fees should be directly linked to the amount of impervious area on a site. With these revenues in hand, local governments should consider taking maintenance responsibility for stormwater infrastructure on private property, as property owners (e.g., homeowner's association) may not be willing or able to do so.	Revise

Implementation Examples:

- CMAP published "[The Value of Stormwater Utilities for Local Governments in the Chicago Region](#)" in 2013 to help explain the benefits of stormwater utilities.
- The General Assembly passed [HB 1522](#) to allow DuPage and Peoria Counties to implement stormwater utility fees, which was signed into law as Public Act 98-0335 in 2013.
- In January 2013, the Village of Downers Grove became the latest municipality to institute a stormwater utility fee. Other municipalities are investigating the viability of setting up a stormwater utility.

Rationale for Retain/Revise/Complete/Delete Assessment:

- This is an appropriate and defensible policy position.
- Slight text revisions.

Implementation Action Area #4: Funding

Action	Lead Implementers	Specifics	Retain/Revise/Complete/Delete
Use the Clean Water State Revolving Fund's (CWSRF) Green Project Reserve as a means for financing water and energy efficiency programs	State (IEPA), counties, municipalities	Local governments should take advantage of the IEPA-administered CWSRF to finance the implementation of water efficiency programs, including water conservation, reuse, and water-loss reduction). Local governments should also take advantage of the CWSRF to finance the implementation of energy efficiency projects.	Revise

Implementation Examples:

- In September 2013, CMAP began discussions with IEPA on how to improve the distribution of incentive dollars for manufacturing pumps in wastewater treatment facilities.

Rationale for Retain/Revise/Complete/Delete Assessment:

- Revise the text to recommend that local governments take advantage of the CWSRF to fund water efficiency programs.

Action	Lead Implementers	Specifics	Retain/Revise/Complete/Delete
Use the Green Project Reserve for energy and water efficiencies	State (IEPA)	Utilize the 20 percent of the State Revolving Funds for water and energy efficiency projects, such as retrofits to pumps and treatment processes, irrigation equipment, reuse of rainwater/stormwater, leak detection equipment, and on-site clean power production.	Delete

Implementation Examples:

- In September 2013, CMAP began discussions with IEPA on how to improve the distribution of incentive dollars for manufacturing pumps in wastewater treatment facilities.

Rationale for Retain/Revise/Complete/Delete Assessment:

- Illinois now offers the Clean Water Initiative, so the 20 percent threshold may longer be appropriate.
- Since the preceding action addressed the relationship between water efficiency and the CWSRF Green Project Reserve (GPR), this action should focus solely on the relation between energy efficiency and the CWSRF GPR; unless there is wisdom in combining the two actions into one that addresses both water and energy efficiency at once.
- Consolidated with previous action.

Action	Lead Implementers	Specifics	Retain/Revise/ Complete/Delete
Implement innovative energy efficiency financing mechanisms, including Energy Performance Contracting	State (DCEO), counties, municipalities, utilities	Research and review options for counties and municipalities to move forward with energy efficiency upgrades. One option through Energy Service Companies (ESCOs) offers cost sharing or loans for property owners for improvements to be paid by consequent cost savings resulting from the installation of energy efficient equipment and fixtures. ESCOs provide guarantees that cost savings will be attained; if not, they pay the difference. DCEO also has an extensive local government-focused program and plays a key role in this area.	Revise

Implementation Examples:

- DCEO, which is responsible for leading much of the public sector investment in energy efficiency throughout the state, offers the [Energy Performance Contracting Program](#) that utilizes the ESCO model through its Illinois Energy Now program.
- Cook County’s Guaranteed Energy Performance Contracting (GEPC) began in 2013 with \$60,000,000 in facility upgrades, the largest energy savings contracts undertaken by a County to date. The program will generate over 600 local construction and technology jobs. The County will realize over 20 percent savings in energy use and 10 percent reduction in emissions. These savings to the County’s current operating budget will pay for improvements over a 20-year period, including the cost of financing.

Rationale for Retain/Revise/Complete/Delete Assessment:

- The above implementation example (ESCOs) is one of multiple options that are available to counties and municipalities, and is not without some criticism. Consider adding other options in the recommendation to counties and municipalities, and acknowledging the key role for DCEO in this area.

Action	Lead Implementers	Specifics	Retain/Revise/Complete/Delete
Pursue innovative financing mechanisms for retrofits	State (General Assembly, IFA), counties, municipalities, utilities, lenders	Explore the use of PACE financing, Green Loan Programs, New Market Tax Credits, Energy Efficiency Ratings Incentives, revolving loan funds and loan pools, etc. for funding energy and water efficiency programs. Form partnerships required to implement these programs with utilities, lending institutions and contractors.	Retain

Implementation Examples:

- Local gas and electric utilities have partnered with AFCFirst Financial Corporation to bring on-bill financing to consumers who wish to make energy efficiency improvements to their homes. Participants are able to purchase high-efficiency products like appliances or HVAC equipment through their local utilities and pay back the cost over time through their monthly bills. More information can be found at the following website: <http://www.ilenergyloan.com>.

Rationale for Retain/Revise/Complete/Delete Assessment:

- New financing mechanisms for energy efficiency should be encouraged. EI2 brought a new product to market in the region and was very successful (although it included financial incentives). Standalone loan programs will continue to struggle as long as the economy remains weak.

Action	Lead Implementers	Specifics	Retain/Revise/Complete/Delete
Establish comprehensive energy and climate change policy	Federal (Congress)	Address greenhouse gas emissions economy-wide by such actions as improving the carbon content of fuels, reducing industrial emissions, and limiting emissions from electricity generation, as well as establishing policies to promote energy conservation and renewable energy. The federal government should have a strong role in this area.	Retain

Implementation Examples:

- Recent U.S. EPA [regulatory initiatives](#) have focused on greenhouse gas emissions.

Rationale for Retain/Revise/Complete/Delete Assessment:

- This continues to be a broad, long-range goal in the energy and climate change policy area.

Action	Lead Implementers	Specifics	Retain/Revise/Complete/Delete
Incorporate energy usage and greenhouse gas emissions indexing into comprehensive and sustainability local planning	CMAP, counties, municipalities	As part of their comprehensive and sustainability planning efforts, counties and municipalities should index their energy usage and associated greenhouse gas emissions to a specific base year, and set goals to achieve a percentage savings over time. Local government can take advantage of various energy efficiency, renewable energy, or “smart grid” programs available through local utilities, nonprofits, or other units of government.	This is a potential new implementation action.

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Implementation Action Area #5: Local Governments as Early Adopters of Sustainable Practices

Action	Lead Implementers	Specifics	Retain/Revise/Complete/Delete
Implement green infrastructure demonstration projects	Counties, forest preserve and conservation districts, municipalities, park districts	Local governments in the region should implement green infrastructure demonstration projects with regular performance monitoring to further evaluate the applicability of such measures to local conditions. They should utilize available staff and technical expertise/resources to construct and maintain green infrastructure facilities and perform seasonal monitoring, modifying designs to adapt to local conditions as necessary. Local governments should partner with developers in establishing demonstration projects by offering financial assistance/cost share with construction costs.	Retain

Implementation Examples:

- CMAP energy staff assisted in the development of a number of LTA sustainability plans – for example, [Park Forest](#) – providing specific information about energy efficiency opportunities for communities to implement as part of a sustainability plan.
- CMAP energy staff provided insight and guidance on the energy efficiency section during the development of the Will County Sustainability Plan.

Rationale for Retain/Revise/Complete/Delete Assessment:

- This action remains a priority for CMAP and the region.

Action	Lead Implementers	Specifics	Retain/Revise/Complete/Delete
Utilize green infrastructure practices in all public improvement projects	State (IDOT, IDNR), counties, forest preserve and conservation districts, municipalities, school and park districts	All governmental bodies that undertake construction activities should implement policies that require the use of site-appropriate green infrastructure practices for stormwater management.	Retain

Implementation Examples:

- The Chicago Department of Transportation’s 2013 edition of its [Complete Streets Guidelines](#) includes green infrastructure related to landscaping of medians and excess pavement. CDOT’s “[Chicago Forward](#)” report from September 2012 highlights the Cermak/Blue Island sustainable streetscape project, a 1.5-mile project that incorporates landscaping, stormwater best practices, lighting efficiency, and other green infrastructure features.

Rationale for Retain/Revise/Complete/Delete Assessment:

- This action remains a priority for CMAP and the region.

Action	Lead Implementers	Specifics	Retain/Revise/Complete/Delete
Consolidate community water systems to achieve economies of scale and potential energy efficiencies.	Municipal-run community water systems	Local governments should investigate coordinating or consolidating water utilities to enhance cost-effectiveness and lower financial risks. The expansion of existing water supply plants should be emphasized over the development of smaller plants for individual utilities. A common funding stream for plant expansion could be obtained by tapping into collective resources.	Revise

Implementation Examples:

Rationale for Retain/Revise/Complete/Delete Assessment:

- COGs may not be the appropriate “Lead Implementer” for utility consolidation. It will likely take a municipal-run system reaching out to neighbors to begin such a discussion. Note that investor-owned systems are regulated by the Illinois Commerce Commission and have economic incentives to achieve efficiencies. Municipal-run systems have also typically been in place longer and are less likely to be practicing asset management or full cost pricing.
- Further, while energy efficiency may be a potential benefit, it is not likely to be driver. CMAP could provide a support role then, but an engineering company will likely be the more appropriate player in a “next step” exploration of an opportunity.

Action	Lead Implementers	Specifics	Retain/Revise/Complete/Delete
Consider devoting the cost of power under franchise agreements to retrofit and rebate programs instead	Municipalities	Municipalities often receive free electric service by utilities as compensation for granting the franchise privilege of using the municipality's public rights of way for the delivery of electricity. ¹ Discussion should be initiated to use the funds instead for retrofit and rebate programs.	Delete

Implementation Examples:

Rationale for Retain/Revise/Complete/Delete Assessment:

- It may not be realistic to expect municipalities to automatically invest cost savings into energy efficiency in their localities. Many municipalities, especially in a continued weak economy, have strained budgets and would keep these cost savings for discretionary use.

¹ ComEd, Get rate information through tariff documents, under "Rider FCA - Franchise Cost Additions," see <http://tinyurl.com/2eqkzwk>.

Action	Lead Implementers	Specifics	Retain/Revise/Complete/Delete
Utilize renewable energy generation in water utilities	Municipalities, utilities	Municipal utilities should seek to employ alternative energy sources, such as solar, wind, anaerobic digestion, or other distributed generation technologies to generate all or part of the power required for utility operations. Unused power can be sold back to the grid.	Revise

Implementation Examples:

Rationale for Retain/Revise/Complete/Delete Assessment:

- Revised to list potential alternative energy sources that could be used by water utilities.

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Action	Lead Implementers	Specifics	Retain/Revise/Complete/Delete
Develop energy and water efficiency and conservation strategies	Counties, municipalities	Communities should develop a baseline analysis of energy and water use, broadly identify potential efficiency and conservation measures, and analyze the feasibility of implementing them, including the availability of financing. This strategy should be used as an input to local comprehensive planning and as a guide to implementation. CMAP can support local governments through one-on-one technical assistance, and also by working through appropriate state and local agencies.	Revise

Implementation Examples:

- Published in June 2011, "[PlanIt Green: A Sustainability Plan for Oak Park and River Forest](#)" includes numerous baseline metrics, including information on energy consumption. The report was prepared by Seven Generations Ahead and Delta for Oak Park-River Forest Community Foundation.

Rationale for Retain/Revise/Complete/Delete Assessment:

- Update the "Lead Implementers" list to include counties. CMAP's role in water efficiency/conservation can be to support municipalities through influential entities such as the IDNR Office of Water Resource's Lake Michigan Allocation Program and the Northwest Water Planning Alliance. Otherwise, CMAP will continue to work one-on-one with communities who apply for local technical assistance, assuming there is funding to support this type of work.