NRDC Request for Proposal for Technical Consultant to Develop Methodology for Cost and Effectiveness Analysis of Water Efficient Practices March 3, 2015

Background

The Natural Resources Defense Council (NRDC) is an environmental non-profit organization dedicated to protecting public health and the environment. NRDC is requesting proposals from qualified and experienced contractors to develop a methodology and draft regulatory language for evaluating and selecting projects and activities eligible for Clean Water State Revolving Fund (CWSRF) financing that maximize the potential for water and energy conservation.

Proposals shall be submitted in accordance with the requirements set forth in this document. Only written proposals will be considered. All materials submitted shall become part of the proposal, and may be incorporated into a subsequent contract between NRDC and the selected contractor. Below is a scope of work and proposal requirements for interested bidders.

NRDC anticipates the possibility that the work described in this RFP may not be able to be completed in its entirety for the proposed budget. The proposal should include a description of the tasks that can be completed for the proposed budget and a suggested schedule and budget to complete the remaining tasks.

NRDC's total budget for this work is $20,000. All work must be completed by June 15, 2015.

Statement of Work

Introduction

In recognition of the array of benefits and cost savings that water efficiency and recapture can provide for communities, the Water Resources Reform and Development Act of 2014 (WRRDA) made several changes to the federal statute governing the Clean Water State Revolving Fund, a collaborative federal/state funding program for water quality projects. One of the major changes is that as of October 1, 2015, all applicants are required to certify that they have conducted a cost and effectiveness analysis of the processes, materials, techniques, and technologies for carrying out any eligible project or activity and have selected a project or activity that maximizes the potential for water and energy conservation, including efficient water use, reuse, and recapture.

NRDC advocates for the strategic use of cost-effective water efficiency and stormwater recapture practices to help achieve water quality objectives, promote economic growth, and protect natural habitats. Water efficiency measures (e.g., water-efficient fixtures and appliances, installation and upgrades of

meters, volumetric water and wastewater pricing) not only save water, they also help to reduce both capital and operating costs associated with drinking water and wastewater systems by helping to avoid, minimize, or defer the need for expanded conveyance, collection, and treatment capacity, and by reducing energy needs for pumping and treatment.

The use of recapture and reuse methods like green infrastructure to manage stormwater is often more cost-effective than relying exclusively on traditional "gray" infrastructure, as cities across the country are demonstrating through their employment of these techniques to prevent the discharge of polluted runoff and sewage overflows. Green infrastructure techniques (e.g., porous pavement, green roofs, parks, roadside plantings, rain gardens, cisterns) restore or mimic natural conditions, allowing rainwater to infiltrate into the soil for groundwater recharge, be used to support vegetation, or harvested and used as an alternative water source for other onsite purposes. Benefits include better management of stormwater runoff, lowered incidents of sanitary and combined sewer overflows, water capture and conservation, and flood prevention.

In its updated final interpretive guidance on the WRRDA changes, the U.S. Environmental Protection Agency (EPA) failed to develop specific criteria and/or guidance for an analysis that meets the minimum statutory requirements. Instead, EPA recommended that each state CWSRF program develop such criteria and/or guidance to aid project applicants in conducting this analysis.

Through this proposal, NRDC seeks the development of a methodology and accompanying draft language for inclusion in states' CWSRF regulations and/or policies that will ensure that project applicants effectively and efficiently screen their proposed projects and assess the economic and environmental costs and benefits of incorporating a range of water efficiency, water reuse, stormwater recapture, and energy efficiency practices. After its development, NRDC will seek the adoption of such methodology by state CWSRF programs. Indeed, a clear assessment of the costs and benefits is critical for ensuring that the planning, design, and construction of CWSRF projects fully meet the new statutory requirements and thereby maximize the potential for water and energy savings.

RFP Schedule

- March 3, 2015 – Release RFP for cost and effectiveness analysis methodology
- March 10, 2015 – Pre-proposal meeting with interested consultants
- March 20, 2015 – Proposals due
- March 25, 2015 – Select winning proposal
- March 31, 2015 – Finalize contract

Acronyms and Abbreviations

CWSRF – Clean Water State Revolving Fund

EPA – U.S. Environmental Protection Agency

FWPCA – Federal Water Pollution Control Act (a/k/a Clean Water Act)

NRDC – Natural Resources Defense Council

RFP – Request for Proposal

WRRDA – Water Resources Reform and Development Act of 2014

Scope of Work

Overview

The statutory revisions made by WRRDA now fully integrate measures that were previously classified under the Green Project Reserve (GPR), which was established by the American Recovery and Reinvestment Act of 2009 (ARRA). ARRA required states to direct 20% of their federal CWSRF capitalization grant toward projects that address green infrastructure, water efficiency, energy efficiency, or other environmentally innovative activities. With the success of the GPR—approximately 30% of total ARRA funding for CWSRF projects went to GPR projects—the Green Project Reserve remained in the FY 2010, 2011, and 2012 CWSRF appropriations. However, in recent years, the GPR allocation has been reduced to 10%.

In contrast to the GPR, the language of WRDDA (cited below) now requires the evaluation and, where practicable, the incorporation of energy and water efficiency measures in *all* CWSRF eligible projects and activities, rather than as separate projects in a designated "green" set-aside. Thus the "materials, techniques, and technologies for carrying out" each proposed project or activity should be evaluated against a full suite of relevant green measures, alone or in combination with traditional project elements.

As amended by WRRDA, section 602(b)(13) of the FWPCA states:

> *(13) beginning in fiscal year 2016, the State will require as a condition of providing assistance to a municipality or intermunicipal, interstate, or State agency that the recipient of such assistance certify, in a manner determined by the Governor of the State, that the recipient—*
>
> > *(A) has studied and evaluated the cost and effectiveness of the processes, materials, techniques, and technologies for carrying out the proposed project or activity for which assistance is sought under this title; and*
> > *(B) has selected, to the maximum extent practicable, a project or activity that maximizes the potential for efficient water use, reuse, recapture, and conservation, and energy conservation, taking into account—*
> >
> > > *(i) the cost of constructing the project or activity;*
> > > *(ii) the cost of operating and maintaining the project or activity over the life of the project or activity; and*
> > > *(iii) the cost of replacing the project or activity;*

The methodology to be developed under this RFP must provide workable guidance to project applicants for assessing the costs and benefits of a wide range of water efficiency, energy efficiency, and stormwater recapture practices that may be applicable to their specific project. The methodology should perform –

- a screening function, to identify efficiency, recapture, and reuse materials, techniques, and technologies that are relevant and potentially applicable to the CWSRF-eligible activity for which funding is being requested;
- an optimization function, where combinations of measures and share adjustments can be assessed, looking beyond the simple binary choice of "green vs. gray" to include practical combinations of both types of measures; and
- a decision rule, where options are ranked and selected to maximize the potential for energy and water conservation, water reuse, and recapture to the maximum extent practicable.

Courts interpreting the phrase "maximum extent practicable" have found it to be unambiguous: It means to the fullest degree technologically feasible, except where costs are wholly disproportionate to the potential benefits. *See, e.g., Haeuser v. Dep't of Law*, *Gov't of Guam*, 97 F.3d 1152, 1159 (9th Cir. 1996) (finding that "practicable" means "capable of being done: feasible"); *Rybachek v. EPA*, 904 F.2d 1276, 1289 (9th Cir. 1990) (holding that, to meet the "practicable" standard, EPA must select best level of technology unless costs are "wholly disproportionate" to benefits); *Defenders of Wildlife v. Babbitt*, 130 F. Supp. 2d 121, 131 (D.D.C. 2001) ("[T]he phrase 'to the maximum extent practicable' does not permit an agency unbridled discretion. It imposes a clear duty on the agency to fulfill the statutory command to the extent that it is feasible or possible." (internal quotation omitted)); *see also Friends of Boundary Waters Wilderness v. Thomas*, 53 F.3d 881, 885 (8th Cir. 1995) (holding that "feasible" means physically possible).

In accordance with FWPCA section 602(b)(13)(B), evaluations are to consider life-cycle cost as well as first costs. Additionally, NRDC requests that bidders consider the potential for establishing tiers that scale the complexity of the analysis to the size and/or the type of project. Such flexibility in the methodology would allow for an applicant to choose the measures most applicable to its circumstances given budgetary needs, policy priorities, and other factors.

<u>Efficiency, Recapture, and Reuse Components</u>

The developed methodology must be in a format that allows an applicant and/or a designated agent (e.g., a consultant hired by the applicant) to easily conduct the cost and effectiveness analysis. Additionally, the methodology must be comprehensive enough to meet all of the statutory requirements listed above. At a minimum, the methodology must allow for a project applicant to evaluate the measures described below. Sources of publicly available data on the cost and performance of efficiency, reuse, and recapture technologies, materials, and practices should be cited.

1. Water Efficiency Measures

The methodology must include an evaluation of the costs, cost savings, and effects of flow reduction measures that defer or reduce the demand for additions or replacement of the capacity of publicly-owned treatment works through water conservation, efficiency, and reuse, including but not be limited to:

- a public information program;
- pricing structures for water and wastewater service that encourage water efficiency;
- installation of water meters on unmetered water service connections;
- rebates for the installation of water-efficient fixtures and appliances;
- direct installation of efficient plumbing fixtures and fittings in low-income housing;
- strengthened building codes or plumbing codes to include specifications for water conserving toilets, showerheads, lavatory faucets, and appliances in new residential, commercial, and institutional establishments; and
- incentives and other policies to promote on-site capture and reuse, such as rainwater harvesting.

A successful methodology will result in the inclusion of a flow reduction program including all flow reduction measures found to be cost-effective in the design of an applicant's intended project or activity (e.g., a publicly-owned treatment works).

2. Stormwater Recapture and Reuse Measures

For projects or activities concerning the reduction of sewer overflows or the improvement of stormwater management, the methodology must include an evaluation of the costs, cost savings, and effects of recapture and reuse measures that reduce the volume of stormwater entering combined or separate sewer systems. Those evaluated should include, but not be limited to –

- direct public investment in, as well as incentives for private installation of, site-specific practices such as permeable pavement, bioretention, rain gardens, trees, cisterns, and green roofs;
- comprehensive street tree or urban forest canopy programs;
- stormwater retention standards for new development and redevelopment; and
- installation of any of the above elements in public rights-of-way that contribute stormwater flows to the area served by the project or activity.

A successful methodology will result in a proposed project or activity that includes all recapture and reuse measures found to be cost-effective and the incorporation of the reduction in stormwater volume entering the sewer system (due to the recapture program) into the project or activity's design.

3. Wastewater Reuse

For projects and activities concerning the collection or treatment of wastewater, a proposal submitted in response to this RFP shall identify the principal features and practices pertaining to wastewater reuse that are suitable for evaluation under the proposed methodology.

4. Energy Efficiency Measures

The methodology also must include an assessment of energy efficiency measures related to an applicant's intended project or activity. Measures to be evaluated shall include but not be limited to:

- installation of high efficiency pumps, motors, and other equipment;
- improvements to lighting and HVAC systems in facilities; and
- renewable energy projects such as wind, solar, geothermal, micro-hydroelectric, biogas, and combined heat and power systems.

Deliverables

The selected consultant shall:

- Issue a Work Plan to be provided to NRDC within four weeks of the contract award;
- Develop an assessment methodology in a format easily usable by CWSRF project applicants; and
- Provide draft regulatory language providing for the use of the methodology by CWSRF applicants, suitable for adoption by state CWSRF program administrators.

Additional Requirements

The consultant shall participate in a kick-off meeting to occur within ten days of contract signing. The meeting can occur by phone or in person at one of NRDC's offices.

The consultant shall submit brief written progress reports (i.e., no more than 2 pages long) to NRDC summarizing recent project-related activities and upcoming efforts on a semi-monthly basis.

Reference Materials

The following reference items may prove useful in the preparation of your proposal.

- NRDC, *Rooftops to Rivers II: Green Strategies for Controlling Stormwater and Combined Sewer Overflows* (2013), available at http://www.nrdc.org/water/pollution/rooftopsii/.
- NRDC, *Using the State Revolving Funds to Build Climate-Resilient Communities* (2014), available at http://www.nrdc.org/globalwarming/state-revolving-funds.asp.
- NRDC, *Waste Less, Pollute Less: Using Urban Water Conservation to Advance Clean Water Act Compliance* (2014), available at http://www.nrdc.org/water/clean-water-act-urban-conservation.asp.
- U.S. EPA, *Procedures for Implementing Certain Provisions of EPA's Fiscal Year 2012 Appropriations Affecting the Clean Water and Drinking Water State Revolving Fund Programs* (undated), including *2012 Clean Water State Revolving Fund 10% Green*

Project Reserve: Guidance for Determining Project Eligibility as Attachment 2, available at http://water.epa.gov/grants_funding/cwsrf/upload/FY-2012-SRF-Procedures-and-Attachments.pdf.

- U.S. EPA, *Sustainability and the Clean Water State Revolving Fund: A Best Practices Guide* (2012), available at http://water.epa.gov/grants_funding/cwsrf/upload/CWSRF-Best-Practices-Guide.pdf.
- U.S. EPA, *Policy on Using the CWSRF on Water Efficiency/Conservation Measures* (2000), available at http://www.allianceforwaterefficiency.org/uploadedFiles/News/NewsArticles/NewsArticleResources/EPA_Policy_Memo_CWSRF_water_efficiency_00-09-20.pdf.

Financial Information and Proposal Requirements

All work will be performed under the direct supervision of NRDC's Water Policy Analyst, Ben Chou, based in Santa Monica, California. NRDC's total budget for this work is $20,000. The contract between NRDC and the winning bidder(s) will be set on a time and materials, not to exceed, basis. Payment will be made on a reimbursement basis under the terms and conditions of NRDC's standard contract. All work must be completed by June 15, 2015, and the consultant should base its proposal on an early April start date.

Bidder's proposals must contain the following:

- Narrative describing how your firm will approach the items described in the above scope of work section. Where appropriate, list specific deliverables you plan to provide during this work. Rather than simply repeat the scope of work, we are seeking a brief explanation for each topic that demonstrates your firm understands the issues and clearly states what you plan to do and how you plan to do it.
- Budget – Provide a breakdown of labor (including hours and billing rate of key staff), anticipated travel and expenses, and any other charges your firm may assess. NRDC is unable to compensate bidders for any expenditures related to developing the proposal.
- Summary of relevant projects performed by your firm. Be sure to demonstrate your firm's prior work in this area and ability to: (a) handle the technical requirements; (b) help develop consensus with a wide range of stakeholders; and (c) develop and implement market transformation strategies. This section shall not exceed 4 pages.
- Staffing plan – list the specific staff that will work on this project and clearly define their roles ("who will do what?") and each person's expected level of participation.
- Bids that include more than one firm and/or subcontractors are acceptable provided within the bid each firm's roles and qualifications are clearly delineated.
- References – Provide two references we can contact to discuss your firm's prior work.
- Conflict of Interest – The bidder shall clearly state any areas of potential conflict of interest. NRDC will review these disclosures and may choose to disqualify the consultant for a certain portion of the work and/or modify the scope and work plan accordingly to eliminate such issues.

Proposal Submission – Bids are due to NRDC no later than 5 pm PDT on March 20, 2015 and submissions must be sent electronically to Ben Chou at bchou@nrdc.org.

Other Information

NRDC reserves the right to reject all proposals and make no award as a result of this solicitation.

NRDC will score each of the bids received and will apply the following scoring criteria during our evaluation:

- Work plan (50%) – Demonstrate understanding of issues and offer sound approach for doing the work.
- Firm/Team Expertise (30%) – Assess prior experience and skills of proposed team and compare task needs to assigned staff.
- Budget (20%) – Assess competitiveness of budget proposed to complete work.

NRDC is a 501(c)(3) organization under the Internal Revenue Code. *Pro bono* contributions of relevant professional services to NRDC will be acknowledged.

Questions regarding the RFP should be sent by email to Ben Chou at bchou@nrdc.org. To ensure a fair and transparent process, all questions and NRDC's responses will be sent to all recipients of the RFP via email. NRDC will not reveal the identity of the prospective bidder that submitted the question.