

Request for Proposals: Modeling of Pollutants of Concern in the Syracuse Urbanized Area using the Watershed Treatment Model (WTM)

INTRODUCTION

As part of the Municipal Separate Storm Sewer System Phase II Stormwater Permit Implementation Program funded through the Environmental Protection Fund, the Central New York Regional Planning & Development Board (CNY RPDB) has agreed to contract for computer modeling services to evaluate loading of Pollutants of Concern to impaired waters in the Syracuse Urbanized Area (SUA). This effort is undertaken in partnership with regulated Municipal Separate Storm Sewer System (MS4) operators located in the SUA to demonstrate No Net Increase in those pollutants to the respective water bodies as required by the New York State Pollutant Discharge Elimination System General Stormwater Permit for Municipal Separate Storm Sewer System (MS4) Operators.

The CNY RPDB is seeking an experienced consultant to complete, at minimum, the tasks outlined in the scope of services found under section 6 of this RFP.

INSTRUCTIONS

- 1.1. RFP Certification: Pursuant to the provisions of New York State Municipal Law, the CNY RPDB certifies the use of competitive sealed bidding will not be practical or advantageous to the CNY RPDB in procuring this service. Therefore, this professional service can be procured through the RFP process instead.
- 1.2. Schedule of Events: The schedule of events set out herein represents the CNY RPDB's best estimate of the schedule that will be followed. However, delays to the procurement process may occur which may necessitate adjustments to the proposed schedule. If a component of this schedule, such as the close date, is delayed, the rest of the schedule may be shifted as appropriate. Any changes to the dates up to the closing date of the RFP will be sent out as an official, written addendum prior to the closing date of this RFP. After the close of the RFP, the CNY RPDB reserves the right to adjust the remainder of the proposed dates, including the dates for evaluation, negotiations, contract award and the contract term on an as-needed basis with or without notice.

Release Date:	Jan. 20, 2012	Proposal Submission Deadline:	Feb. 29, 2012
Final Date for Submission of Questions and EOIs:	Feb.10, 2012	Expected Award Date:	Mar. 26, 2012
Addendum Answering all Questions Issued by the CNY RPDB:	Feb. 17, 2012	Expected Contract Start Date:	Apr. 1, 2012

1.3. Submission of Proposals

- 1.3.1. All proposals, (one (1) original, one (1) copy and one (1) electronic copy), will be received by the CNY RPDB, 126 N. Salina St., Suite 200, Syracuse, NY 13202 until Feb. 29, 2012, 4:00 p.m. EST. Note: Packages not containing the required number of copies will be rejected.

- 1.3.2. No proposal will be considered which is not accompanied by price sheets and signed by an authorized official of the firm.
- 1.3.3. Proposals must be received on or before the time and date specified. Proposals received after the time specified will not be considered and will be returned unopened.
- 1.3.4. Proposal information is restricted and not publicly available until after the award of the Contract by the CNY RPDB.
- 1.3.5. Responses to this RFP may require that potential consultants include corporate information that is proprietary. This may include patent pending materials, internal operational material, or other materials that, if released to the public, would damage the firm. All RFP materials are subject to the Federal and State Freedom of Information Laws, unless marked in advance as proprietary. You may NOT protect the entire RFP response or the pricing pages as proprietary. Should a request be filed to view the RFP responses, all material marked proprietary will be redacted. Should additional justification be required to protect a section, it will be the consultant's responsibility to qualify the section under the proprietary exemption. The CNY RPDB reserves the right to release sections which as a matter of law do not meet the standard to be exempted, regardless of how they were marked by the consultant.

1.4. Modifications or Withdrawal of Proposal A proposal that is in the possession of the CNY RPDB may be altered by a letter bearing the signature or name of the authorized person, provided it is received PRIOR to the date and time of the opening. FAX, telephone or verbal alterations will not be accepted. A proposal that is in the possession of the CNY RPDB may be withdrawn by the consultant up to the time of the opening.

1.5. Award and Contract Information

- 1.5.1. The CNY RPDB hereby notifies all consultants that it will affirmatively ensure that Minority / Women- Owned Business Enterprises (MBE) and Disadvantaged Business Enterprises (DBE) will be afforded full opportunity to submit proposals in response to this invitation and will not be discriminated against on the grounds of age, race, color, sex, creed, national origin, or disability. The CNY RPDB has an annual DBE goal of 10% for professional services. However, DBE participation is not a weighted factor in evaluating the proposals. If the consultant chooses to include a DBE component, the DBE firm needs to be identified at the time the Proposal is submitted.
- 1.5.2. The consultant also agrees that should this firm be awarded a Contract that the firm will not discriminate against any person who performs work hereunder because of age, race, color, sex, creed, national origin, or disability.
- 1.5.3. The consultant expressly warrants to the CNY RPDB that it has the ability and expertise to perform its responsibilities hereunder and in so doing shall use the highest standards of professional workmanship.

- 1.5.4. The CNY RPDB reserves the right to reject any or all proposals, to waive any informality or technical defect in the proposals, or to award the contract in whole or in part, if deemed to be in the best interest of the CNY RPDB to do so.
- 1.5.5. The successful consultant will be required to enter into and sign a formal Contract with the CNY RPDB. The Contract language will have control over any language contained within this RFP that conflicts with the signed and fully executed Contract.
- 1.5.6. The successful consultant shall comply with the Americans With Disabilities Act.
- 1.5.7. After reviewing proposals, the CNY RPDB may develop a short list of consultants. These short-listed firms may be required to interview in Syracuse at the consultant's expense.

1.6. Preparation of Proposal

- 1.6.1. In case of error in the extension of prices in the proposal, unit prices will govern.
- 1.6.2. Consultants are expected to examine special provisions, specifications, schedules and instructions included in this request. Failure to do so will be at the consultant's risk.

2. PROPOSAL SUBMITTAL

- 2.1. Original Proposal: The complete proposal must be submitted in a sealed package with one (1) original, one (1) copy and one electronic copy, prior to the opening date and time. All proposals shall be marked "Subject: Modeling of Pollutants of Concern in the Syracuse Urbanized Area using the Watershed Treatment Model (WTM) Request for Proposal".
- 2.2. Consultants shall include all documents necessary to support their proposal in the sealed package. Consultants shall be responsible for the delivery of proposals during business hours to the address indicated in section 1.3. It shall not be sufficient to show that the proposal was mailed in time to be received before scheduled closing time.
- 2.3. All proposals must include the following:
 - 2.3.1. *Firm Identification*: A description of the consultant firm, including its size, organizational structure, number of full-time and part-time employees, area(s) of practice, and number of years in the business of conducting the described services.
 - 2.3.2. *Project Understanding*: A description of the consultant's understanding of the project and proposed approach to the scope of services.
 - 2.3.3. *Scope of Services*: A detailed description of the proposed plan for completing the scope of work. Submittals should be explicit in terms of the consultant's responsibilities and the presumed responsibilities of the CNY RPDB.
 - 2.3.4. *Proposed Staffing Plan*: A description of the personnel, including resumes that will be working on this project. Note that changes to this team at any point in the project must be approved by the CNY RPDB.
 - 2.3.5. *Detailed Schedule*: A proposed schedule for completing the project.
 - 2.3.6. *Fee Proposal*: A proposed budget, broken down by hours per staff member for each task or subtask. Include task and subtask subtotals.

- 2.3.7. *Qualifications*: A description of the consultant's qualifications for this project, including the firm's background, resources (financial and personnel), and capabilities in areas relevant to this project. Include a history of the firm's experience on similar projects.
- 2.3.8. *References*: Include a list of, at minimum, the three (3) most recent clients for whom the consultant has provided similar services. The list should include the name, address, telephone number, and e-mail of the client contact persons. Also identify the type and date of work performed.

3. QUESTIONS AND EXPRESSIONS OF INTEREST

- 3.1 All questions and Expressions of Interest (EOIs) regarding the RFP must be submitted in writing via E-mail to: David Kubek, CNY RPDB Senior Planner, at DKubek@cnyrpdb.org by Feb. 10, 2012. All questions and answers shall be sent to any consultant submitting an Expression of Interest (EOI). The CNY RPDB will issue responses in writing via E-mail by close of business on Feb.17, 2012.

4. REIMBURSEMENT/GIFTS

- 4.1. **Denial of Reimbursement**: The CNY RPDB will not reimburse consultants for any costs associated with the preparation and submittal of any proposal, or for any travel and/or per diem costs that are incurred.
- 4.2. **Gratuity Prohibition**: Consultants shall not offer any gratuities, favors, or anything of monetary value to any official, employee or agent of the CNY RPDB for the purpose of influencing consideration of this proposal.

5. GENERAL PROVISIONS

- 5.1 **Proprietary Information**: All RFP materials are subject to a Freedom of Information Request from other vendors and the general public. Some of the information requested may be proprietary and covered under an exemption to the Freedom of Information Laws (FOIL). If any request is received regarding this RFP, you will be allowed to submit justification to exempt any section you have marked as proprietary. All other sections will be released, pending approval by the CNY RPDB. The CNY RPDB will not accept any request by a potential consultant to declare the whole RFP response as proprietary, or to declare any pricing pages as proprietary.

6. SCOPE OF SERVICE

6.1 Tasks

- 6.1.1. Project Coordination and Management: Watershed Modeling to demonstrate No Net Increase in Pollutants of Concern to Impaired Waters

The consultant shall:

- Under the guidance of the CNY RPDB, construct a series of models to evaluate loading of Pollutants of Concern to designated bodies of water within the SUA from each of 25 impacted Municipal Separate Storm Sewer Systems (MS4s), in accordance with Section III. B. of the SPDES General Permit for Discharges of Stormwater from Small MS4s (GP-0-10-002).
- Use the Watershed Treatment Model (WTM) developed by Center for Watershed Protection as the framework in which to complete the work.
- Complete required data collection and organization under the guidance of the CNY RPDB.
- Participate in meetings to discuss and review work with CNY RPDB and the CNY Stormwater Coalition Technical Committee.
- Run the model simulations and interpret the results in the context of the requirements of the Phase II MS4 stormwater program.
- Deliver the completed modeling program to CNY RPDB in a format that can be readily used and updated in the future to account for both physical and program changes taking place in the subject watersheds.
- Present the modeling process and results to municipal representatives at a final meeting.

CNY RPDB will schedule a project kickoff meeting with the consultant and with members of a CNY Stormwater Coalition Technical Committee established to assist CNY RPDB in evaluating progress and providing guidance to the consultant throughout the project. The selected consultant will be required to participate in a minimum of five (5) additional meetings with the CNY RPDB and Technical Committee on a schedule to be discussed at the kickoff meeting, to coordinate data collection and organization, calibrate the model in accordance with available data, discuss inputs and initial runs of the model, revise the model as necessary following the initial runs, and perform quality control and analysis/interpretation of modeling results.

Responsibility: The CNY RPDB and the consultant will have joint responsibility for this task. The CNY RPDB will coordinate and run the kickoff meeting (secure a meeting location and notify attendees), prepare the agenda, and discuss reporting requirements and other pertinent project information. The consultant will coordinate with CNY RPDB to schedule and complete follow-up meetings to discuss project progress. The consultant shall keep CNY RPDB informed of all progress, problems encountered, and schedule for completion relative to all project tasks.

Deliverables: Preliminary schedule for five project meetings; schedule of benchmark dates for completing the remaining project deliverables.

6.1.2. Data Collection & Field Investigation

This task includes the collection and compilation of data as needed to complete the study.

At minimum, compilation of the following types of data/information is expected to be required for this study:

- GIS data indicating existing land use within the study area as of the end of 2011;
- GIS data indicating land use within the study area as of May 1, 2008 or nearest available prior date;

- Existing stormwater management practices, including location and type of practice;
- Boundaries of sewersheds to be modeled;
- Other data as necessary to accomplish the study’s goals and objectives.

The study area for this project will consist of the storm sewersheds, as defined by New York State Department of Environmental Conservation (NYSDEC) technical guidance, draining directly to bodies of water designated as impaired on the NY State 303(d) list. The units modeled will be the sewersheds draining to each designated impaired water body within each municipal jurisdiction, including areas both within and outside the “Urbanized Area” as designated by the U.S. Census Bureau. As guidance, the approximate subwatershed areas that drain to the impaired waters segments are shown in Exhibit A as appended to this RFP; these segments are also listed in Appendix 2 of SPDES General Permit GP-0-010-002. These subwatershed boundaries should form the initial basis for sewershed delineation. It should be noted, that the exact boundaries of the sewersheds modeled will require additional verification and refinement prior to running the model; they must be imported into a Geographic Information System database using topographic mapping and/or Digital Elevation Modeling, and then adjusted to account for subsurface connections. Also, since the requirement pertains solely to areas that drain directly to the impaired segments identified, areas within the subwatersheds that do not discharge directly to the identified impaired segments should be omitted from the analysis. The proposal should explain how this will be determined.

The municipal jurisdictions subject to the permit requirement are the following:

- | | |
|-----------------------|------------------------|
| Baldwinsville Village | Manlius Village |
| Camillus Town | Marcellus Town |
| Camillus Village | Marcellus Village |
| Cicero Town | Minoa Village |
| Clay Town | North Syracuse Village |
| DeWitt Town | Onondaga County |
| East Syracuse Village | Onondaga Town |
| Fayetteville Village | Pompey Town |
| Geddes Town | Salina Town |
| LaFayette Town | Solvay Village |
| Liverpool Village | Syracuse City |
| Lysander Town | Van Buren Town |
| Manlius Town | |

The consultant will be responsible for compiling all land use data and information. The proposal should indicate the sources of this data and describe a procedure for comparing 2008 land use with 2011 land use, to account for situations in which land cover data are not available for either or both years. CNY RPDB will provide data to the consultant concerning municipal pollution prevention, education, and illicit discharge detection and elimination programs, which will be gathered from participating municipalities, as applicable.

Following, or in conjunction with the completion of data collection and desktop analysis concerning the boundaries of sewershed areas to be evaluated, the consultant shall undertake necessary field

investigation work to establish the locations of subsurface connections at or near the boundaries, where these connections cannot be determined through desktop analysis. The proposal should clearly describe the methods to be used for the field investigation work and how it will fill gaps identified in the desktop analysis.

Responsibility: The consultant will be responsible for compiling all relevant existing data and/or conditions inventory data for this project with appropriate assistance from the participating municipalities and the CNY RPDB as appropriate. The consultant will be responsible for completing all necessary field work prior to beginning analysis of sewersheds where boundary uncertainties exist.

Deliverables: List of all data inputs and sources, maps showing the delineated boundaries of all sewersheds and design points used in the model. Description of areas where adjustment of sewershed boundaries was necessary based on field work.

6.1.3. Modeling

The consultant shall enter all necessary data for each modeling unit into a series of spreadsheets that comprise the WTM. The consultant shall use all guidance values and discount factors recommended by the Center for Watershed Protection as provided in the WTM.

The proposal shall describe a process to calibrate the model to local conditions and typical pollutant loading values that accounts for existing levels of Pollutants of Concern presently observed in local waterways.

The proposal shall indicate how the modeling process will address areas where sewer separation of combined sewers has taken place during the period 2008 to 2011, thereby creating new separate storm sewer areas.

The consultant shall devise a process to overcome the inability of the WTM to account for routing of runoff through specific stormwater practices (which may otherwise result in skewed data and overestimated or underestimated pollutant loading values). This process to address this issue must be described in the proposal.

The consultant shall work with CNY RPDB to ensure quality control and peer review of the modeling work.

Responsibility: The consultant will be responsible for completing all data entry and three (3) runs of the model, presenting model outputs to CNY RPDB for review and comment, responding to and completing revisions recommended by the CNY RPDB, and presenting and delivering the final model and results.

Deliverables: Two (2) drafts of the in-progress model containing inputs and outputs from two (2) initial runs, to be submitted in digital format. Final model showing final inputs and outputs, in digital format.

6.1.4. Project Reporting and Billing

No later than ten (10) days following the end of each quarter of the calendar year, the consultant shall supply a brief report summarizing project progress. The report shall consist of a list of tasks completed and/or in progress during the quarter, as well as an invoice including:

- Staff titles, billable hours and billing rates applied
- A list of all expenses incurred and billed to the project with required documentation (copies of receipts, invoices, purchase orders, etc.) as applicable

Responsibility: The consultant will have responsibility for supplying the above information to CNY RPDB.

Deliverables: Itemized list and description of the specified information, with hours, position titles, billing rates, and other direct project expenses summarized in tabular format on an invoice, along with documentation related to expenses, submitted at the end of each quarter.

6.1.5. Final Model Package

The consultant shall prepare a final model package, consisting of the completed spreadsheet model and a report describing the data inputs and how they were obtained, modeling methodology and rationale, and outputs along with interpretation and discussion relative to the MS4 General Permit requirement of ensuring No Net Increase in Pollutants of Concern to impaired waters.

Responsibility: The consultant will be responsible for creating the final model package. The consultant will submit the final model package to CNY RPDB.

Deliverables: Twenty-nine (29) CD-ROMs containing digital copies of the full spreadsheet model of all sewersheds and the accompanying narrative report describing inputs, outputs, methodology, rationale, results and interpretation relative to permit requirements; twenty-nine (29) hard copies of the narrative report

6.1.6. Final Model Presentation

Upon completion of all modeling work and preparation of the final technical report, the consultant shall schedule a presentation at a date, time and location to be determined in cooperation with CNY RPDB. The presentation will be delivered to representatives of all participating municipalities. The presentation will discuss the purpose of the project, the inputs and outputs of the model, the sources of data, the results of the modeling, and how MS4s should interpret and use the results. The presentation should also discuss the maintenance and revision of the model going forward, in order to continuously document progress in permit compliance.

Deliverables: Actual delivery of the presentation to the designated municipalities, digital copy of presentation slides.

6.2 Schedule

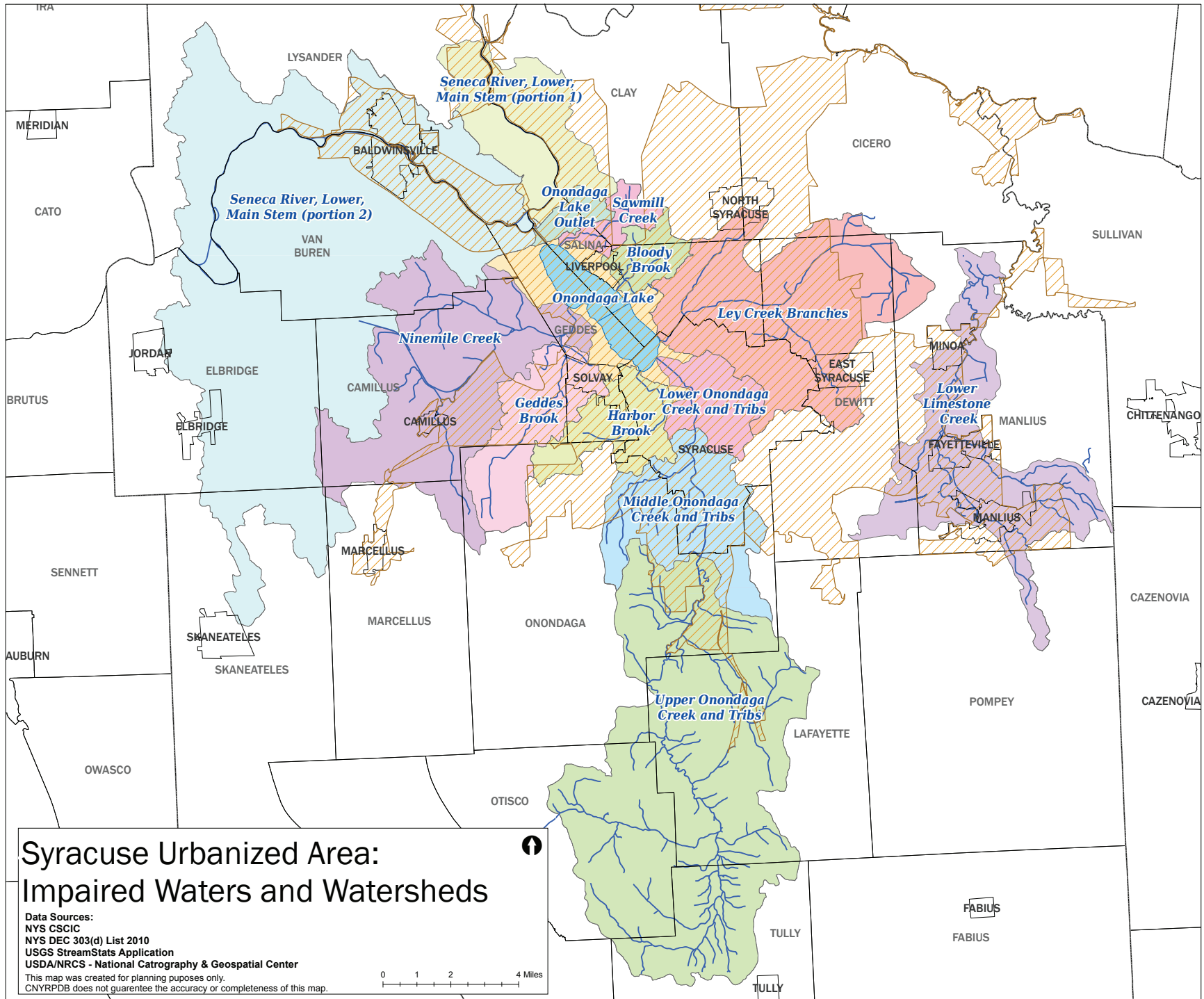
The proposal should outline a suggested schedule reflecting all tasks described above along with necessary meetings to discuss progress. The project must be completed no later than February 28, 2013.

7. EVALUATION METHODOLOGY

7.1.1 The following criteria will be used by the CNY RPDB to evaluate the proposals:

1. *Project Understanding and Proposed Scope of Services (35%)*
 - a. The extent of the consultant's demonstrated understanding of the project.
 - b. The quality of the consultant's proposed approach and scope of services.
2. *Experience and Qualifications of the Firm/Project Team (40%)*
 - a. The quality of the recent relevant experience of the firm (including proposed subconsultants) in completing similar projects.
 - b. The firm's familiarity with the function of local governments.
 - c. The extent to which the firm has skilled personnel, equipment, and facilities to perform the scope of work.
 - d. The quality of consultant references.
3. *Staffing Plan, Budget, and Schedule (25%)*
 - a. The consultant's ability to complete the project on budget. The firm has delegated an appropriate proportion of hours for each task to staff members at varying levels of expertise.
 - b. The consultant's ability to complete the project in a timely manner.

Exhibit A. Syracuse Urbanized Area subwatershed boundaries.



Syracuse Urbanized Area: Impaired Waters and Watersheds

Data Sources:
 NYS CSCIC
 NYS DEC 303(d) List 2010
 USGS StreamStats Application
 USDA/NRCS - National Cartography & Geospatial Center
 This map was created for planning purposes only.
 CNYRPDB does not guarantee the accuracy or completeness of this map.

