



Cartographic Mapping Services – Request for Qualifications  
April 21, 2016

The New England Interstate Water Pollution Control Commission (NEIWPC), on behalf of the Narragansett Bay Estuary Program, is inviting qualification submittals from contractors with expertise in cartography, digital mapping, and geographic information systems (GIS). Cartographic design is needed to assist in the Estuary Program's development of the *State of the Watershed* report scheduled for review by the Estuary Program's Management Committee on September 21, 2016 and for publication by the end of September of 2016 and contractor assistance is needed between May 16<sup>th</sup> and September 1<sup>st</sup> of 2016.

The *State of the Watershed* report will provide an overview of research on environmental indicators on the status and trends in the health of Narragansett Bay and its watershed. This report will help implement the Narragansett Bay Estuary Program's Comprehensive Conservation and Management Plan (<http://www.nbep.org/ccmp-guidance.html>). The report will include over 25 narratives describing the status and trends of each indicator (each narrative will have a mix of text, maps, tables, photos and graphics). The maps must be visually attractive, accurate, and designed to allow for easy access to information for a broad audience including the public, government officials, and scientific researchers.

The staff of the Narragansett Bay Estuary Program will provide GIS files in a Geodatabase format, including raster and vector data, along with draft maps that show cartography and scales. The cartographic contractor is expected to refine and design reader-friendly maps using the provided information. The indicators include a wide spectrum of issues in five major categories: 1) Watershed Lands (Population and Land Use Changes, Open Space Lands, Ecologically Significant Lands, Impervious Cover, Lands Served by Sewers or Septic Systems, Water Quality, and Nutrient Loadings); 2) Estuarine Waters (Dissolved Oxygen Levels, Chlorophyll Levels, Water Clarity, Benthic Community, Seagrass, Salt Marsh, and Benthic Habitat); 3) Fresh Waters (Macroinvertebrates, Fish Assemblages, and Fish Passage); 4) Human Uses (Beach Closure Events, Shellfish Acreage, Pathogens in recreational waters, Emerging Contaminants, and Toxins); and 5) Climate Change (Water Temperature /Air Temperature, Sea Level, Species Change, and Precipitation).

The *State of the Watershed* report will include a public oriented summary document (35-50 pages) and a separate technical report with detailed findings on the development of the indicator, the data used, the data gaps, the results of the analyses, and the references to scholarly articles. The geographic scope of the maps will include the following major area that will require an individualized template map: 1) Narragansett Bay watershed; 2) Narragansett Bay; 3) Little Narragansett Bay and its watershed; and 4) the Southwest Coastal Ponds and its watershed. These template maps will be used for many of the indicators and it is estimated that each indicator will require between one and four maps. In addition, several indicators may require specific maps to portray resources at a smaller scale such as subwatersheds, bay segments, and municipal or other political boundaries. It is estimated that there will be between 100 and 125 individual maps and each map will be a static map for use in PDF reports.

The Contractor will be expected to provide draft digital maps within acceptable and established template design including formatting, symbology, annotation, cartographic elements and verification of information in different formats. This project must be implemented in accordance with the "Quality Assurance Project Plan for the Narragansett Bay Estuary Program's *State of the Watershed*." The Contractor will be assisted by NBEP Staff to define representation of the data for each indicator. The contractor should also provide the GIS layer information of each dataset included in each map and a map package of each template.

All materials, software, maps, studies, reports, and other products or data, regardless of physical form or characteristics, produced as a result of this solicitation and funded, in whole or in part, under an agreement with NEIWPCC shall be made available to NEIWPCC, NBEP, and the U.S. EPA in the formats in which it is stored or maintained. NEIWPCC, NBEP, and the U.S. EPA shall have an unrestricted right to use any materials, software, maps, studies, reports, and other products or data generated using assistance funds or specified to be delivered. The contractor shall not obtain, attempt to obtain, or file for a patent, copyright, trademark or any other interest in any such materials, software, maps, reports, and other products or data without the express, written consent of NEIWPCC and subject to any other approvals required by state or federal law. Reports and other deliverables will credit NEIWPCC, NBEP, and U.S. EPA for any work completed under the grant award.

GIS data produced under this project must adhere to the requirements of EPA's National Geospatial Data Policy (see [http://www.epa.gov/geospatial/docs/National\\_Geospatial\\_Data\\_Policy.pdf](http://www.epa.gov/geospatial/docs/National_Geospatial_Data_Policy.pdf)). Specifically, the selected contractor must provide documentation for all produced data, including source information for each digital data layer (i.e., scale and accuracy, map projection, coordinate system, etc.), and specific information about the data layer itself (i.e., method used, geographic extent of data layer, file format, date of creation, staff contact, description and definition of data fields and their contents, related files, if any, and description of data quality and quality assurance methods used). The EPA Metadata Editor (EME) was developed to simplify and standardize metadata development and is a recommended tool for streamlining production of required metadata. The EME and related training materials can be downloaded from <https://edg.epa.gov/EME/>. Specific technical guidance on geospatial deliverables and acceptable formats can be found at <http://www.epa.gov/region02/gis/r2gisdeliverables.html>. GIS data produced under this project will be submitted to NEIWPCC as a deliverable.

### Application Process

Submission of qualifications must be received on or before May 10, 2016, and must include:

- 1) A cover letter that describes relevant experience and proficiency in cartography and GIS software (ESRI products preferred) including a description of any experience with use of data in raster and vector format, labeling, annotations, and optional ArcMap Data Driven Pages, InDesign, MAPublisher, and Adobe Illustrator.
- 2) A *curriculum vitae* or resume
- 3) At least 3 sample maps related to coastal, watershed, or environmental science in PDF and JPEG (links to maps posted online are acceptable).
- 4) Three professional references
- 5) Proposed hourly rate. The total amount available for this project is estimated to cost a minimum of \$5,000 up to a maximum of \$9,000. Invoicing and payment will be made based on an agreed upon task-based budget.

All submissions must be submitted via email to:

Tom Borden - [tom.borden@nbep.org](mailto:tom.borden@nbep.org) and Heather Radcliffe - [hradcliffe@neiwpc.org](mailto:hradcliffe@neiwpc.org).

The applicant chosen for this project should possess relevant professional expertise and have a strong track record in delivering projects of this nature. For information regarding this Request for Qualifications, please contact Tom Borden at the Narragansett Bay Estuary Program at (401) 633-0552 or [tom.borden@nbep.org](mailto:tom.borden@nbep.org).

NEIWPCC is a not-for-profit interstate organization, established by Congress in 1947 to serve and assist its member states individually and collectively by providing coordination, research, public education, training, and leadership in the management and protection of water quality in the New England states and New York. The [Narragansett Bay Estuary Program](#)'s mission is to protect and preserve Narragansett Bay and its watershed, in both Rhode Island and Massachusetts, through partnerships that conserve and restore natural resources, enhance water quality, and promote community involvement. Founded in 1985, the Narragansett Bay Estuary Program is one of 28 nationally designated programs operating under the [National Estuary Program](#). NEIWPCC serves as the program host for the Narragansett Bay Estuary Program.