



# Request for Proposals

## *Online Interactive Map for NYC Natural Areas*

August 29, 2018



## [1] Overview

### 1.1 General Information

The Natural Areas Conservancy (NAC) is requesting proposals to produce an online interactive map described below. The map will be accessible to the public and present in a clear and engaging way the extent and types of natural areas within New York City, the condition of these natural areas, and what investments have been made to restore and manage them based on data provided by the NAC. The project will be developed in partnership with the New York City Department of Parks and Recreation (NYC Parks) and will provide links to NYC Parks' website.

The budget for this project is between **\$30,000** and **\$50,000**.

This Request for Proposal, along with supporting documents, may be found online at <http://naturalareasnyc.org/who-we-are#work-with-us>

All questions regarding this RFP should be directed to Leila Mougoui at [leila.mougoui@parks.nyc.gov](mailto:leila.mougoui@parks.nyc.gov) before 5:00 pm on Friday September 7, 2018.

Proposals must be submitted to Leila Mougoui at [leila.mougoui@parks.nyc.gov](mailto:leila.mougoui@parks.nyc.gov) by 12:00 pm Monday September 17, 2018.



## 1.2 Background

The Natural Areas Conservancy is a non-profit organization devoted to restoring and conserving New York City's forests and wetlands. NAC was formed to preserve and promote ecological diversity and resilience across the five boroughs in close partnership with NYC Parks. In order to meet these goals, we raise funds, expand staff capacity and expertise, and increase the scientific and partnership resources and rigor directed to urban natural areas. Driving NAC's work is the recognition that natural areas are increasingly vital in the age of climate change to sustaining air quality, improving public health, regulating heat, providing New Yorkers with access to nature, and strengthening our communities.

NAC and NYC Parks have assessed the ecological condition of NYC Parks' 10,000 acres of natural area parkland, including forests, freshwater wetlands, streams, and saltmarshes. We have evaluated this data and developed condition ratings for these natural systems, and we have created frameworks to define the restoration and management actions and attendant costs to care for these assets.

To inform and activate New Yorkers to enjoy and care for the city's natural areas, NAC is seeking proposals to create an online interactive map providing information about the extent and conditions of NYC's natural areas as well as recent restoration projects.

## 1.3 Proposal Contents

Proposals must include the following information:

- **Approach** - Describe the proposed approach for the required Tasks (2.2) and Specifications (2.3). Please provide separate comments for each main point in these sections, with commentary for sub points as necessary. If appropriate, recommendations to alter the Tasks and Specifications may be proposed, if these would result in a superior product and/or lower costs. In the case of significant changes, please price these recommendations separately from the main scope for comparison.
- **Qualifications** - Provide background context on the firm and specific information for proposed team members who will work on the project. Include relevant skills and previous experience with similar projects. Describe the proposed role of each team member for this specific project.
- **Examples of Previous Work** - Describe at least two examples of projects completed by the firm, or by individuals within the firm, with relevance to this project. Active websites are preferable – please provide a link. If not currently available online, please provide sample materials of the project.

- **Timeline** - Provide a timeline covering all key aspects of the project, from RFP award to completion. An initial timeline has been provided in Attachment 3.1. If appropriate, please explain how a quality deliverable can be achieved in less time, or justify how additional time would provide a better result. Include the proposed number of in-person meetings, calls and deliverables schedule.
- **Budget** - Provide a summary breakdown for all proposed project fees. Include all fees for proposed sub-consultants if appropriate, and provide a reasonable allowance for expenses as needed. NAC prefers to award this contract as a lump sum for specific deliverables, but will consider other arrangements if there are compelling reasons.

In addition to these content requirements, please feel free to include other relevant information if desired.

## [2] Scope of Work

### 2.1 Overview of Desired End Product

NAC envisions this map providing the four functions listed below. Respondents are encouraged to use interactive design to tell a compelling story. The design should show visitors our message including why nature in NYC is important, how the NAC and NYC Parks are advancing the care of these critical resources and how they can get involved. The target audience is civic-minded New Yorkers and nature enthusiasts who are interested in learning about and exploring nature in NYC. The map is also intended to communicate the NAC's work to elected officials and potential funders.

- Showcase the extent and diversity of natural areas in NYC including the locations of forest and wetland areas by borough, council district and park.
- Showcase the results of research by the NAC and NYC Parks that includes the condition of forests and wetlands, most common species, prevalent threats and other unique findings.
- Provide specific information about the restoration and management activities of NAC and NYC Parks
- Provide opportunities for engagement including, links to trail maps, event calendar, volunteer opportunities.

NAC and NYC Parks have assembled a range of data to support this map. Each of these are summarized in Attachment 3.2, which shows status and responsibility. Most of the data are complete and ready to be used, although some processing will be needed to bring them into the proper format. NAC and NYC Parks will assist with exporting the data from their internal system in coordination with the consultant.

## 2.2 Tasks

The following tasks and deliverables are to be completed within the proposed timeline. Any proposed adjustments to these tasks or timeline should be included in the proposal. If any changes to these tasks become necessary, NAC will discuss change order options with the consultant as appropriate.

### 2.2.1 – Initial Design

- Attend in-person meetings with NAC and others as needed to understand detailed project parameters, ask and answer questions about process, and settle on detailed plan of action. Proposal should include number of meetings proposed.
- Information Architecture - Review all datasets from NAC, Parks, and other sources to be included in deliverables. Identify any conflicts in using or updating these datasets for the project. Advise NAC and NYC Parks on tasks necessary to link and display datasets in final product.
- Process datasets and files into usable formats and prepare them for use in the map.
- Create an initial design for the map, meeting all specifications outlined in 2.3 and in based on preliminary meetings with NAC. Present this design to NAC, including wireframes, graphics, and user interface, along with explanations on opportunities and constraints.
- In the context of this initial design, advise on options for long-term storage and operations, capability, security, ongoing data updates, data management mechanisms, and any other relevant maintenance issues.
- Provide NAC with access to a development environment to test the interface in design.

### 2.2.2 – Final Design

- Following the review of preliminary design by NAC, revise design according to comments.
- Provide online beta test version of map for NAC review.
- Finalize map design according to comments from NAC or NYC Parks.

- Deploy completed map to NAC’s website. Coordinate with NAC website administrators to integrate map into website for a smooth end-user experience.

### 2.2.3 – Completion

- Create a guide documenting the completed work and provide a comprehensive list of tasks needed for maintaining the map service. This list should include recommended actions and the frequency of those actions necessary to update each data component.
- Train relevant NAC personnel on administration, maintenance and improvements to the map. Training will take place at NAC’s office in NYC.
- Following the training, provide up to 20 hours of additional technical assistance (specify via phone or online, as appropriate) at no additional charge over the following six months. Provide a chart of hourly rates for ongoing support after this initial period.

## 2.3 Specifications

The consultant should propose the detailed design as part of their work. However, there are a number of elements that should be included, as outlined below.

### 2.3.1 – Format / User Interface

- NAC envisions the map functioning in a similar way to NYC DCP’s Community District Profiles online mapping tool: <https://communityprofiles.planning.nyc.gov/>. While the content would be quite different, the format of map side by side with dynamic data is an inspiration.
- Data and layers should appear and adjust appropriately depending on user-selected zoom level. The map should define several scale levels at which data is displayed. Currently, NAC prefers four spatial units: city, borough, council district, and park.
- Some of the data intended for this map are more appropriate for graphic and thematic map display, while most is best represented by tables, charts, or simple numbers. The consultant should make appropriate case-by-case decisions in conjunction with the NAC as part of the design process.

- In addition to zooming between scales, users should be able to interact with components of the map as appropriate. Graphic and map elements can be clickable and/or hoverable, providing additional information and links in pop-up boxes. Most statistics will only change based on zoom and location, but some components should also include simple interactive elements.
- Users should be able to perform searches on a few key items, including specific council districts, parks, and natural resource types. Interface should zoom to search results.
- Users should be able to easily find links to complementary outside resources, such as NYC Parks webpages. NAC will provide a list of these external resources.
- All cartographic and interface design must be executed in line with NAC's graphic standards. The consultant will be provided with additional documentation on these standards. As a reference for these graphic standards, see NAC's map at <http://naturalareasnyc.org/map/#10.5/40.7018/-73.9207>.
- The overall style should be attractive, simple, clean, fast, and easily accessible to the general public. All information must be easily understandable with a minimum of effort from users.
- Some data references concepts that may be unfamiliar to the general public. For these, incorporate explanations from NAC into the interface design to clarify.

### 2.3.2 – Technical

- All NAC data is currently on ESRI platform. If the consultant would like to suggest an alternate approach, please detail and justify the alternate strategy in the proposal.
- Many datasets are sourced from the NAC. Others come from external sources, primarily NYC Parks. NAC and NYC Park staff will collaborate with developer to process data as needed.
- All NAC & NYC Parks data are in State Plane NAD 83 / NY Long Island FIPS 3104, which should be retained.
- No spatial quality degradation of the datasets should occur.
- Consultant will discuss the best approach to processing statistics and summaries at different scales with NAC staff.
- The final product must be deployed seamlessly within NAC's website, and should be optimized for all major browsers including mobile devices.
- After completion, the map should allow for existing datasets to be easily updated, monitored, and backed up by NAC staff, and also allow new data

- layers and attribute summaries to be added over time without a complete redesign.
- In consultation with NAC, the consultant should set up all long-term server arrangements for data hosting, Content Management System (currently Kirby), data update procedure, backup systems, and any other initial tasks along with documentation and training. Upon completion of the project, NAC should be able to begin with regular maintenance only.
  - Final documentation shall include a database schematic, data dictionary and basic administration guide, as well as a detailed chart showing updating tasks and frequencies for each dataset.

### [3.1] Attachment: Preliminary Timeline

Task Description	Start Date	End date	Duration
RFP out to Bid	Wednesday, August 29, 2018	Monday, September 17, 2018	20 days
Questions Due		Friday, September 07, 2018	
Proposals Due		Monday, September 17, 2018	
Review and Award	Monday, September 17, 2018	Monday, October 01, 2018	15 days
Design Work	Monday, October 01, 2018	Monday, October 29, 2018	29 days
Initial Design and Review	Monday, October 29, 2018	Monday, November 12, 2018	15 days
Final Design and Review	Monday, November 12, 2018	Monday, December 03, 2018	22 days
Soft Launch		Monday, December 03, 2018	
Final Review and Adjustment	Monday, December 03, 2018	Monday, December 17, 2018	15 days
Full Launch		Monday, December 17, 2018	

**[3.2] Attachment: Data Framework**

Community Indicators	City	Borough	Council District	Park
Population	City population number (3)	Borough population numbers (3)	District population numbers (3)	Not shown at this scale
Area and density	City area and density numbers (3)	Borough area and density numbers (3)	District area and density numbers (3)	Total park area number (3)
Access to parks (10 minute walk)	Chart showing total city population within 10 minute walk of park (1b)	Chart showing total borough population within 10 minute walk of park (1b)	Chart showing total district population within 10 minute walk of park (1b)	Total population within 10 minute walk of park (1a)
Access to natural areas	Chart showing total city population within 10 minute walk of parks with natural area (1b)	Chart showing total borough population within 10 minute walk of parks with natural area (1b)	Chart showing total district population within 10 minute walk of parks with natural area (1b)	Link to NYC Parks trail map page for this (3 -if available)
List of parks with natural areas	Total number of city parks with natural areas (1a)	Total number of borough parks with natural areas; list of natural areas in borough (1a)	Total number of district parks with natural areas; list of district areas in borough (1a)	List of natural areas in park (1a)
Number (names) of stewardship groups (STEW-MAP)	Not shown at this scale	Not shown at this scale	List of stewardship groups in district (3)	List of stewardship groups in park (3)
Land Cover	City	Borough	Council District	Park
Built environment - land cover percentages	Chart of total built environment - land cover ratio for city (1b)	Chart of total built environment - land cover ratio for borough (1b)	Chart of total built environment - land cover ratio for district (1b)	Chart of total built environment - land cover ratio for park (1a)
NAC Environmental Coverture Map (ECM) level 2 or variation acreage and ratio (1b)	Chart of total ECM level 2 acreage and ratio for city (1b)	Chart of total ECM level 2 acreage and ratio for borough (1b)	Chart of ECM level 2 acreage and ratio for district (1b)	Chart of ECM level 2 acreage and ratio for Park (1a)
Park and Open Space Condition	City	Borough	Council District	Park
Forest Indicators: overall health, top 5 species, percent native/invasive for canopy/midstory/understory	Chart of top 5 species, percent native/invasive for canopy/midstory/understory and a chart of all parks and their relative condition for the city (1b)	Chart of top 5 species, percent native/invasive for canopy/midstory/understory and a chart of all parks and their relative condition in borough (1b)	Chart of top 5 species, percent native/invasive for canopy/midstory/understory and a chart of all parks and their relative condition for council(1b)	Clickable forest polygons on map, colored by health score with chart of forest condition aggregated at park scale, heatmap of conditions for entire park, popup showing top 5 species list. (1a)
Saltmarsh Indicators: overall health, low/high marsh acreage, total historic loss	Marsh acreage, chart of historic loss for all city saltmarshes (1b)	Marsh acreage, chart of historic loss for all borough saltmarshes (1b)	Marsh acreage, chart of historic loss for all district saltmarshes (1b)	Clickable saltmarsh polygons on map, colored by health score (heat map), with popup showing low / high marsh acreage, historic loss (1a)
Freshwater Indicators: overall health, habitat acreage, top threats	Habitat acreage, list of top threats for all city freshwater wetlands (1b)	Habitat acreage, list of top threats for all borough freshwater wetlands (1b)	Habitat acreage, list of top threats for all district freshwater wetlands (1b)	Clickable freshwater wetland polygons on map, colored by health score, with popup showing habitat acreage and list of top threats (1a)
Stream Indicators: overall health, stream type and top threats	List of top threats for all city streams (2)	List of top threats for all borough streams (2)	List of top threats for all district streams (2)	clickable stream polyline on map , colored by health score (heat map) with popup showing , name, and top threats (2)
Vegetative communities	Not shown at this scale	Not shown at this scale	Not shown at this scale	Select list of vegetative communities in park on map(4)

**Legend**

- (1a) NAC-controlled data; appears to be complete.
- (1b) NAC-controlled data; appears to be complete, but will require processing or aggregation.
- (2) NAC-controlled data; in progress, not yet complete.
- (3) External data, will require harvesting.
- (4) Unknown status.

Restoration Activities	City	Borough	Council District	Park
Wetland restoration activities	Summary table of wetland restoration activity shown on map for the city (3)	Summary table of wetland restoration activity shown on map for the borough (3)	Summary table of wetland restoration activity shown on map for the council district (3)	Wetland restoration activity points shown on map, with popup providing brief description (3)
Forest restoration activities	Summary table of forest restoration activity shown on map for the city (3)	Summary table of forest restoration activity shown on map for the borough (3)	Summary table of forest restoration activity shown on map for the council district (3)	Display shaded area representing completed projects and hollow polygons showing projects in progress with pop up showing brief description
Get Involved	City	Borough	Council District	Park
Events	Not shown at this scale	Not shown at this scale	Not shown at this scale	If possible: Upcoming events automatically updated from NYC Parks calendar (3); featured NAC events (1b) or links to NAC & NYC Parks Stewardship & Events
Stewardship signup	Not shown at this scale	Not shown at this scale	Not shown at this scale	Links to stewardship groups for park and region
Resources	City	Borough	Council District	Park
NRG page for NYC Parks FMF Two pagers CRP			Link to NRG page on resources tab for all scales Links to FMF on resources tab for all scales Links to two-pagers on resources tab for all scales Links to CRP on resources tab for all scales	

**Legend**

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(1b) NAC-controlled data; appears to be complete, but will require processing or aggregation.      (3) External data, will require harvesting.  
(4) Unknown status.