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Request for Proposals for Motus Station Procurement and Installation in Point Lookout, NY

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Overview / Introduction

The Nassau County Soil & Water Conservation District (The District) is issuing this Request for Proposals (RFP) for the procurement and installation of a Motus Station on an existing tower, including all associated equipment and components necessary for a complete operational system, in partnership with the Town of Hempstead, New York.

A Motus Station is an automated radio telemetry receiver station used to detect and track the movements of small, migratory wildlife. The Tower will become part of the Motus Wildlife Tracking System, a global collaborative research network launched by Birds Canada in 2014. The system enables researchers and conservation practitioners to collect movement data from animals equipped with small radio transmitters,

providing valuable information on migration patterns, habitat use, stopover locations, and other aspects of wildlife ecology.

The Town of Hempstead (ToH) is the most populous town in the United States and encompasses a diverse range of extensive coastal and wetland areas that provide important habitat for migratory wildlife. The Town also has a professional engineer (PE), licensed electricians, construction professionals, and a professional Information Technology (IT) Department available to support the installation, integration, operation, and long-term maintenance of the Motus Tower. The Town's existing technical and operational capabilities are expected to facilitate successful implementation of the project and provide ongoing support for the system, following installation.

About the ToH Department of Conservation and Waterways

The Town of Hempstead Department of Conservation and Waterways (ToH DCW) is a municipal department responsible for managing and protecting the Town of Hempstead's extensive coastal wetlands, waterways, marine resources, and associated wildlife, dating back to the late 1960s, with the Department formally established in 1972. The Department currently oversees approximately 17,000 acres of wetlands and 180 miles of coastal waterways along the South Shore of Long Island.

The Department conducts environmental and wildlife monitoring, marine research, habitat management, shellfish and aquaculture programs, and waterways management. Its staff includes professionals with expertise in wildlife, ornithology, marine science, GIS, and other environmental disciplines. Staff biologists also have state and federal permits for wildlife banding and tracking. The Department also operates and maintains various environmental monitoring systems and has experience utilizing telemetry and other technologies to support wildlife research and conservation.

Description of Need for Work

Motus, Latin for “movement”, is a network of tower stations that enable high-precision tracking of wildlife, especially of small birds, bats, and insects that are too light to carry other types of transmitters. Wildlife tracking is essential to understand movement ecology related to migration and is critically important for habitat management. It also enables scientists to understand how changes in climate, along with other factors, may be shifting historical movements. Many species that are declining quickly, such as the saltmarsh sparrow, are too small for GPS tracking, and their secretive nature makes them a difficult species to monitor. Motus tracking would fill in spatial gaps in our knowledge base and can improve conservation of this species.

Within the existing network of Motus Sations in the area, there is a gap surrounding the south shore of Nassau County. A Station exists in Jamaica Bay and the closest Station to the east is on Fire Island National Seashore (See Figure 1). Each Tower has an approximate 15km viewshed, which provides some overlap into the westernmost portion of Hempstead Bay from the Jamaica Bay Tower, but leaves the rest of the south shore of Nassau County without coverage.

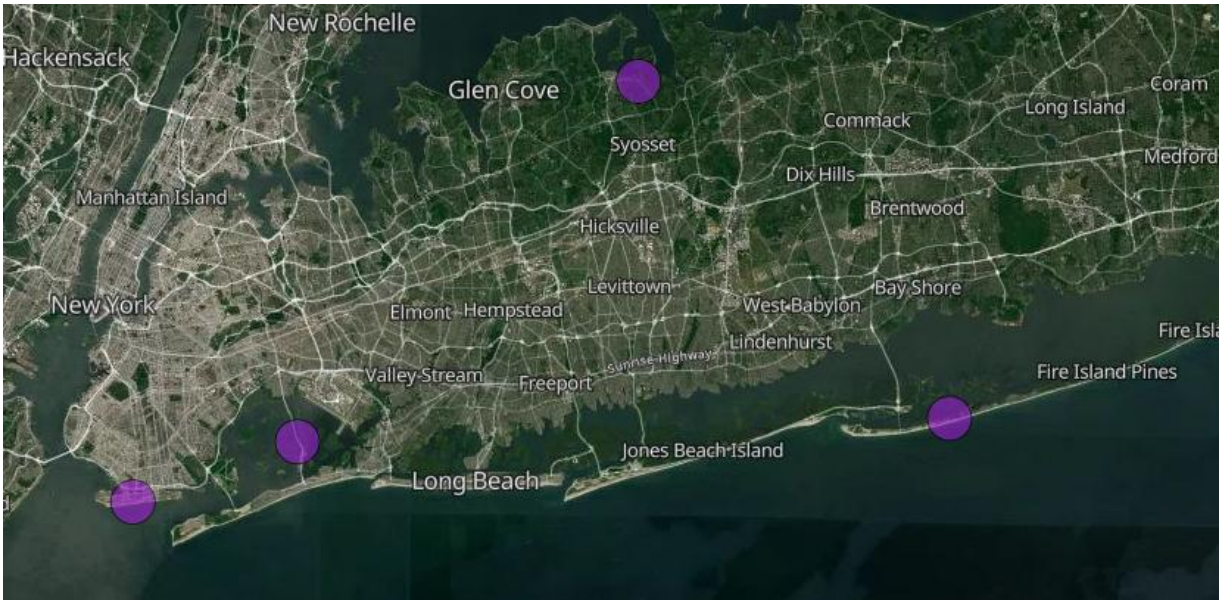

Figure 1. Locations of existing Motus Towers (April 30, 2026).

The south shore is truly an interesting, intersecting multi-species hotspot, and the addition of a Motus Tower would be invaluable at a place such as Point Lookout, which is coterminous to Nickerson Beach where there are at least 5 species of beach nesting birds (Common Tern, Least Tern, Piping Plover, Black Skimmer, American Oystercatcher) of conservation concern, including federally endangered and threatened species. A Motus Station would enable researchers, including Town of Hempstead staff and many others across the region, to track these migratory species during the nesting season, track post-fledging dispersal, and then track subsequent fall coastal migrations.

Scope of Work

To fill in this data gap, the Nassau County Soil & Water Conservation District partnered with the Town of Hempstead Department of Conservation and Waterways for the purchase, installation, and commissioning of a Motus Station in Point Lookout, NY, to be hosted and maintained by the Town of Hempstead.

The Motus Tower antennas and sensors will be mounted on the existing Rohn Tower at the Town's Marine Laboratory and Biological Field Station in Point Lookout. The Town of Hempstead will run all wiring inside the building, and their IT department will coordinate integration with the existing system.

The selected contractor will specify and procure all antennas, sensors, and supplies for the Motus system, and will install and commission these components, in coordination with the Town's electrician and IT department.

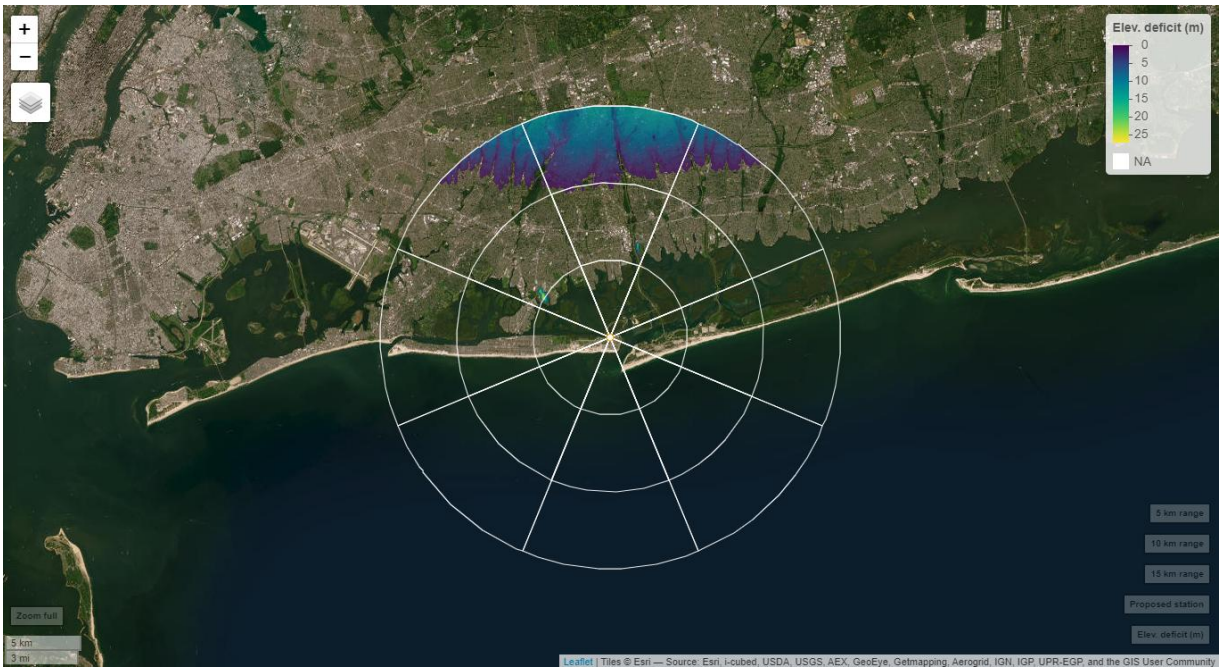

Figure 2. Viewshed of proposed Motus Tower at TOH DCW Marine Lab & Biological Field Station

In the absence of experience with Motus Stations, eligible contractors may instead highlight their experience with similar antenna systems and equipment. Contractors may refer to the Northeast Motus Collaboration's guidance on Motus system installation found here: https://docs.Motus.org/en/stations/station-equipment.

Receivers compatible with Motus:

- Lotek Wireles Inc (SRX600, 800 and D-series receivers), CTT Sensorstation and Nodes, and the open-source SensorGnome.
- The Town of Hempstead Department of Conservation and Waterways intends to use a CTT sensor station because they will detect all frequencies that are being used in the area, including the lower 156mHz and the 436 MHz and 2.3Ghz of the Blu series tags.
- The goal is to configure the Motus station to support as many Motus researchers as possible.

Antennas compatible with Motus:

- 3, 5, 6, and 9-element Yagi directional antennas, and single-pole omni-directional antennas. The type of tags used will determine the frequency the antennas must be tuned to.
- The goal is to configure the Motus station to support as many Motus researchers as possible.

Contract Period

1. November 20th, 2026 – April 1st, 2027

Proposal Submission Requirements

This section specifies the information to be included in the firm's proposal:

1. Qualifications and experience of Contractor
    a. Size of the business
    b. Level and type of experience, including years in operation
    c. Experience working with nonprofit organizations, municipalities, governmental agencies, educational institutions, research organizations, or other comparable entities, including a list of relevant prior clients.
    d. Experience with Motus Station procurement (preferred)
    e. Experience with Motus Station installation (preferred)
    f. Provide three (3) client references for projects of similar size, scope, or technical complexity, including the client's name, organization, contact person, telephone number, email address, description of services provided, and approximate date of completion.
2. Qualifications and experience of the firm's staff.
    a. Licensing
    b. Proposed staffing (level, hours)
    c. Experience of partner or manager in charge
3. Proposed Work Plan and Schedule.
    a. The Contractor shall provide a detailed work plan describing its proposed approach to completing the procurement, installation, and commissioning of the Motus Station system. The work plan should demonstrate the Contractor's understanding of the project requirements, site conditions, coordination needs, and anticipated sequence of work.
    b. At a minimum, the proposed work plan and schedule shall include:
        i. A description of the Contractor's overall approach to procuring, installing, configuring, testing, and commissioning the Motus Tower system.
        ii. A proposed schedule identifying the anticipated timing and duration of major project activities, including equipment selection and procurement, coordination with the District and Town of Hempstead, site preparation, installation, system configuration, testing, commissioning, and project closeout.
            1. The goal is to have the Motus Station installed ahead of the spring 2027 migration. Please state whether you anticipate any issues with this goal or project timeline.
            2. Identification of any anticipated equipment procurement or delivery lead times that could affect the project schedule.

iii. A description of the Contractor's approach to coordinating with the Town of Hempstead's electrician and IT Department, including any anticipated requirements for electrical connections, wiring, network connectivity, data transmission, or integration with existing systems.
iv. A description of the proposed installation process, including the installation of antennas, sensors, receivers, mounting hardware, cabling, and other necessary components on the existing Rohn Tower and within the Marine Laboratory and Biological Field Station.
v. A description of the Contractor's proposed testing and commissioning procedures, including how the Contractor will verify that the installed system is operational and properly configured to collect and transmit Motus data.
vi. A description of long-term maintenance and operation requirements, post commissioning.
vii. Identification of any site conditions, permitting requirements, access requirements, or other factors that the Contractor anticipates could affect the installation or project schedule.
viii. Identification of any responsibilities or activities that the Contractor expects the District or Town of Hempstead to complete before, during, or following installation.
ix. The Contractor shall clearly identify all assumptions regarding existing site conditions, Tower capacity, electrical infrastructure, network connectivity, mounting locations, access, permits, and other existing infrastructure. Any equipment, services, labor, or other costs not included in the proposed project cost shall be clearly identified as an exclusion or optional cost
x. The proposed schedule should be sufficiently detailed to demonstrate that the Contractor can complete the work within the Contract Period identified in this RFP. Contractors should also identify any circumstances that could reasonably result in delays and describe their proposed approach for addressing such delays.

4. Proposed Equipment and Materials.
    a. Provide a detailed breakdown of all equipment, materials, and supplies proposed for procurement and installation as part of the Motus Tower system.
    b. The equipment breakdown should identify, at a minimum, the type, manufacturer, model, quantity, and estimated cost of each major component, including receivers, antennas, sensors, mounting hardware, cabling, and any other equipment necessary to complete and commission the system. Identify any equipment or materials that are being proposed as alternatives to the equipment identified in the Scope of Work and provide a brief explanation of the proposed alternative.
    c. The proposed equipment and materials should be compatible with the Motus Wildlife Tracking System and appropriate for the project location and intended use.
    d. The Contractor shall review the existing Rohn Tower and proposed antenna configuration and identify any structural, mounting, access, loading, or other Tower-related requirements associated with the proposed installation. Any required engineering review,

structural assessment, Tower modifications, specialized access equipment, or other associated costs shall be clearly identified in the proposal.

5. Proposed fee structure.
    a. The Contractor shall provide a detailed and itemized fee proposal for all costs associated with the procurement, installation, configuration, testing, and commissioning of the Motus Tower system described in this RFP. The proposed fee should be sufficiently detailed to allow the District to understand the costs associated with the major components of the project and to compare proposals among qualified Contractors.
    b. At a minimum, the proposed fee structure shall include:
        i. Equipment and Materials. Provide an itemized cost breakdown for all equipment, materials, and supplies proposed for the project, including the manufacturer, model, quantity, unit cost, and extended cost, where applicable. Equipment costs should correspond with the equipment breakdown provided in the Contractor's proposal.
            1. If multiple configurations and/or options are recommended, please provide a detailed list of equipment and materials for each configuration, and detailed costs.
        ii. Labor and Installation. Provide the estimated labor costs associated with equipment installation, Tower work, wiring, system configuration, testing, commissioning, and other installation-related activities.
        iii. Procurement and Delivery Costs. Identify any shipping, freight, handling, procurement, or other costs associated with obtaining and delivering the equipment and materials to the project location.
        iv. Other Project Costs. Identify any additional costs necessary to complete the project that are not otherwise included in the equipment or labor costs.
        v. Total Project Cost. Provide a total proposed project cost that includes all costs necessary to complete the Scope of Work described in this RFP.
        vi. Optional or Additional Costs. Clearly identify any optional equipment, services, or other costs that are not included in the total proposed project cost but may be recommended or necessary based on-site conditions or the Contractor's proposed approach.
            1. Maintenance and Operation costs, per year, or multi-year options.
        vii. Validity of Pricing. State the period for which the proposed pricing will remain valid and identify any anticipated circumstances that could result in an increase or adjustment to the proposed project cost.
        viii. The District expects the proposed fee to represent the Contractor's complete cost for fulfilling the Scope of Work, except for items specifically identified as exclusions or optional costs. Contractors should not assume that additional costs will be approved after award unless such costs result from circumstances that were not reasonably foreseeable at the time of proposal submission and are approved in writing by the District.
        ix. The District may request clarification or additional details regarding any component of a Contractor's proposed fee prior to making an award.

6. The Contractor shall submit a signed and notarized conflict-of-interest affirmation stating that, to the best of the Contractor's knowledge, no actual or potential conflict of interest exists that would prevent the Contractor from providing the services described in this RFP. The Contractor shall disclose any actual or potential conflict of interest involving the District, its Board members, employees, representatives, the Town of Hempstead, or any other party involved in the project.
7. Insurance, safety, and compliance
    a. The Contractor shall be responsible for performing all work in accordance with applicable federal, state, and local laws, regulations, codes, and applicable safety requirements.
    b. The selected Contractor shall provide certificates of insurance and other documentation required by the District prior to commencement of work
8. Warranties
    a. The Contractor shall identify the manufacturer's warranty applicable to each major equipment component and any warranty provided for installation or workmanship. Any differences in warranty terms among proposed equipment alternatives shall be clearly identified.
9. All submitted proposals must be signed and dated by an officer of the firm.
10. Details on how to submit proposals.
    a. Deadline for Proposal Submissions: **November 6th, 2026.**
    b. Submission Instructions: Please send all questions and completed proposals to Tara Schneider-Moran, Senior Conservation Biologist at the Town of Hempstead Department of Conservation and Waterways, and Derek Betts, District Manager of the Nassau County Soil and Water Conservation District, at dbetts@nassauswcd.org
    c. Number of copies required: 1 digital copy in PDF form.
11. Contractor Discussion and Site Visit. Contractors submitting proposals should be available to participate in a Zoom meeting with the District and/or Town of Hempstead to discuss their proposal, proposed equipment, installation approach, project schedule, and any questions regarding the Scope of Work. Where feasible, the District may also arrange an in-person site visit to the proposed Motus Tower location. Contractors should be prepared to participate in a site visit if one is requested by the District and feasible for the contractor.
12. RFP and Project Timeline.
    a. **RFP Release Date:** October 9th, 2026.
    b. **Project Site Visits:** Not required, by appointment only (in-person preferred, but remote option available). All site visits must be completed prior to the Deadline for Questions (October 30th, 2026).
    c. **Deadlines for Questions** (in writing): October 30th, 2026.
        i. All questions regarding this RFP shall be submitted in writing to the contact identified above by the stated deadline. Responses to substantive questions may be distributed to all firms that have expressed interest in the RFP, and the District may issue written addenda as necessary. Only written responses or formally issued addenda from the District shall be considered official modifications or interpretations of the RFP.
        ii. The District and Town may provide additional project information, photographs, site information, or other available documentation to interested Proposers upon

request. Proposers are responsible for identifying any information they reasonably require to develop a complete proposal.

iii. Responses to questions from all potential applicants will be posted publicly on our website after October 30th, 2026.

d. Submission Deadline: **November 6th, 2026**
e. Evaluation Period: November - December 2026
   i. The District may ask questions or for an interview, either in person or remotely, during this evaluation period, with responses being time sensitive.
f. Notification of Award: November 20th – December 18th, 2026
g. Contract Period: Upon Award through April 30th, 2026.

Evaluation of Proposals

1. The District Board will review each submitted proposal and make its determination based on the following factors:
   a. Demonstrated understanding of the project and Scope of Work.
   b. Qualifications and relevant experience of the Contractor and proposed project personnel.
   c. Experience with Motus systems or comparable radio telemetry, antenna, receiver, or communications systems.
   d. Completeness and feasibility of the proposed work plan and schedule.
   e. Appropriateness and compatibility of proposed equipment and materials.
   f. Ability to coordinate effectively with the District and Town of Hempstead.
   g. Completeness and reasonableness of the proposed fee.
   h. References and demonstrated ability to successfully complete similar projects.
2. Note that the District reserves the right to reject all proposals or request clarification on any portion of a proposal.

Appendix

Project Site:

Please see the photos of the project site below. This is where the Motus Tower and all associated materials and equipment will be installed.

Town of Hempstead Department of Conservation and Waterways Marine Laboratory and Biological Field Station in Point Lookout.

Rohn Tower at the Town's Marine Laboratory and Biological Field Station in Point Lookout.

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