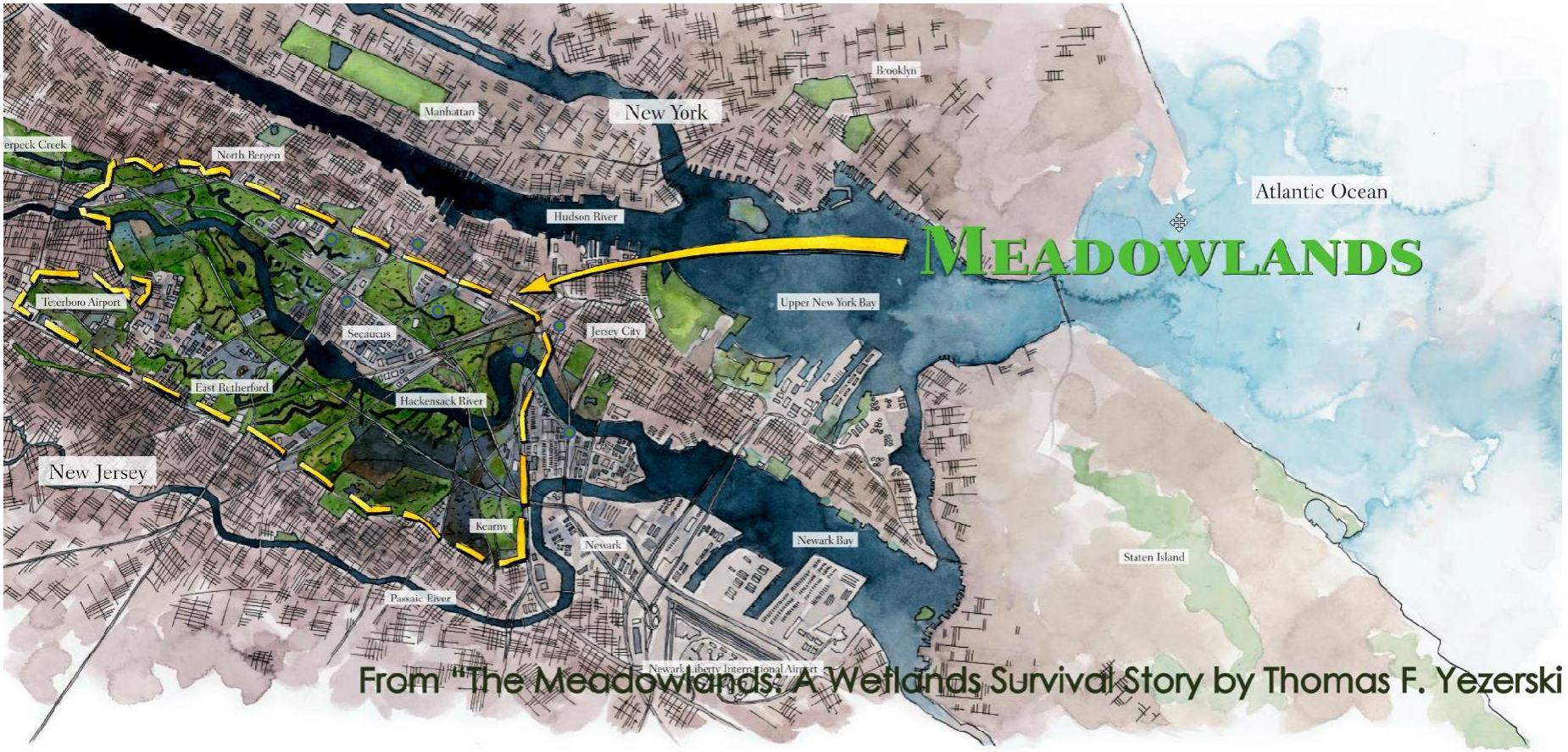
# Request For Proposals:

# Hyperspectral Imagery Acquisition of the Hackensack Meadowlands District

Mandatory Pre-Bid Meeting

NJSEA – MERI, June 7th, 2022, via Zoom

# The Meadowlands of New Jersey



Located in Bergen and Hudson County, NJ

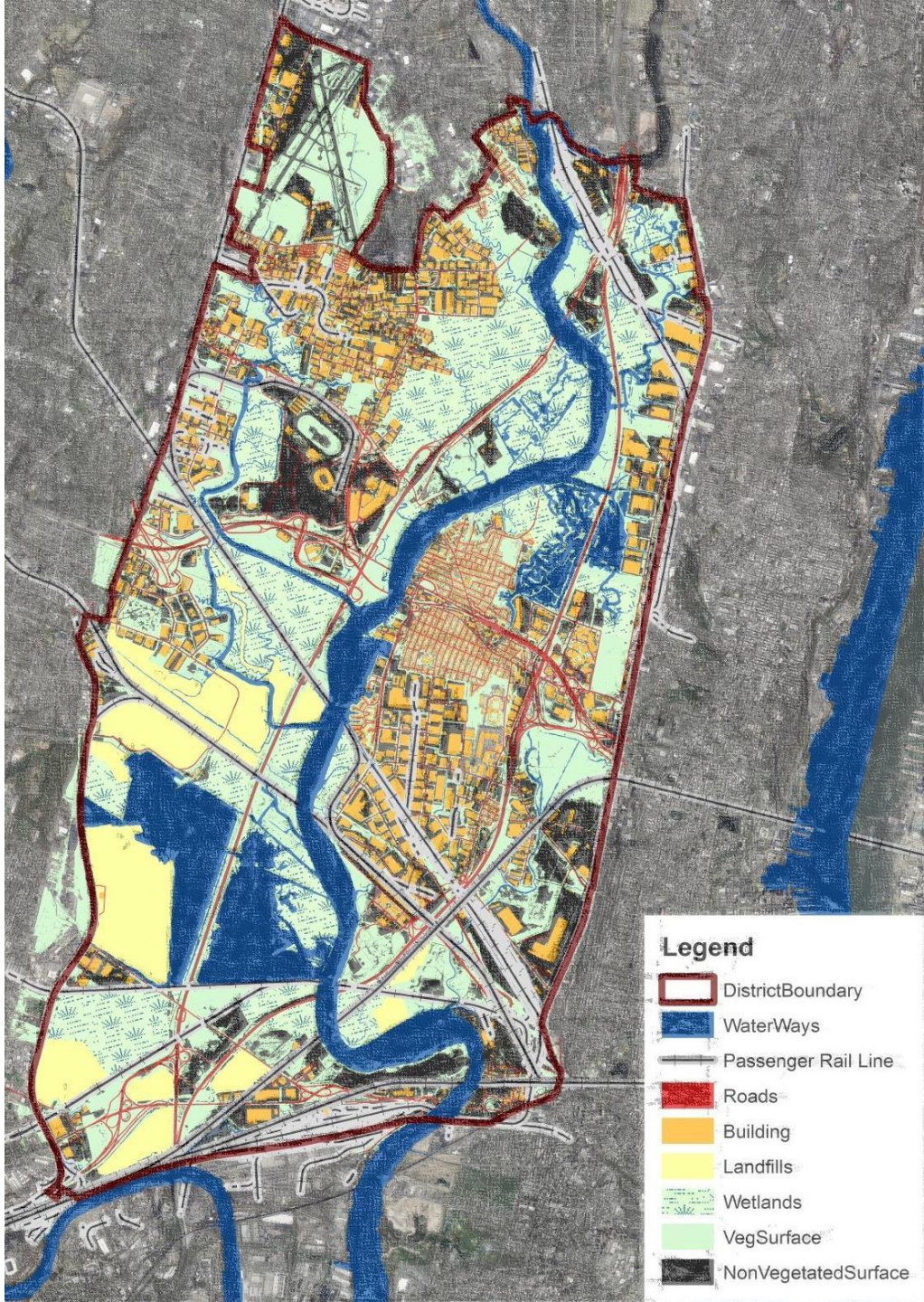
One of the largest remaining continuous wetland complexes

Integral part of the Hudson-Raritan Estuary

8400 acres of urban wetlands

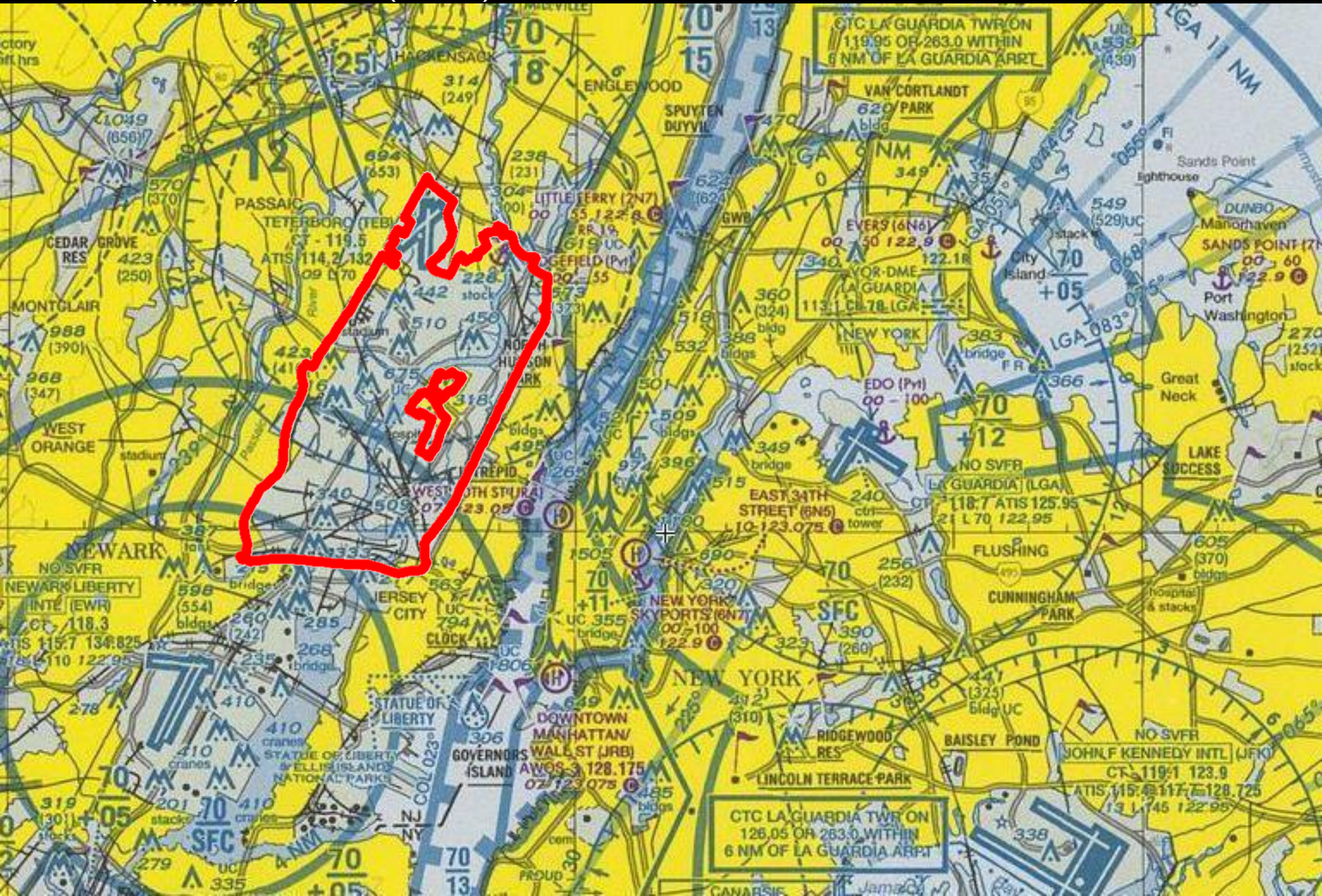
Mixed landuse

Perfect location for pilot enhancement projects



# Meadowlands Airspace

Teterboro (KTEB) & Newark (KEWR)



# NJSEA's Mission

*The NJSEA is the regional planning and zoning agency for the 30.4-square-mile Hackensack Meadowlands District*

*Its mission is to uphold the three-fold mandate to provide for orderly development of the region, to provide facilities for the sanitary disposal of solid waste, and to protect the delicate balance of nature.*

# MRRI's Mission

*"Our mission is to generate the knowledge and predictive understanding necessary to sustain and conserve the Hackensack Meadowlands Estuary and through scientific endeavor foster the next generation of earth and environmental scientists."*

# Scope of Work: The Hackensack Meadowlands District

Located in Bergen and Hudson County, NJ

30.4 square-mile area

Borders:

- U.S. Route 46 on north,
- U.S. Routes 1&9 (Tonnelle Avenue) and the freight rail line owned by Norfolk Southern and CSX Corp. on the east,
- the Port Authority Trans-Hudson (PATH) commuter rail lines and Pulaski Skyway on the south, and
- State Route 17, the Passaic Valley rail line, and the Kingsland rail line on the west.

# Project specific requirements

- a full flight over the District including a 4,000 foot buffer area from the District border
- the flight shall be acquired between 08.12 and 09.30, 2022
- within plus/minus 2 hours from low tide
- within plus/minus 2 hours from 12:00pm or within plus/minus 35˚ from a 95˚ sun angle

# Future Use of Data

The NJSEA will use the reflectance data to support a Geographic Information System (GIS), in areas such as

- wetland monitoring and assessment,
- plant biodiversity assessment,
- algae bloom and water quality assessment,
- carbon sequestration potential assessment,
- wetlands restoration assessment,
- sea level rise modelling
- shoreline erosion
- various environmental studies related to the Meadowlands Research and Restoration Institute's (MRRI) research activities.

# Expectations

i. Cover page;

ii. Title page on company letterhead indicating the name, address, telephone and fax numbers of the respondent, as well as the primary contact person and their email address.

iii. Narrative of the proposed project;

iv. Detailed scope of work;

v. Project schedule with detailed milestones and assumed NJSEA review periods clearly designated;

vi. Vendor qualifications (no more than 5 pages per firm);

vii. Examples of reflectance and imagery data from past projects on the external drive of vendor's choice;

viii. Resumes of key personnel to be assigned to the project team (no more than 3 pages per person);

ix. Three (3) prior relevant work references with contact information (phone and e-mail); and

x. Documents specified under Section 1.3.4.

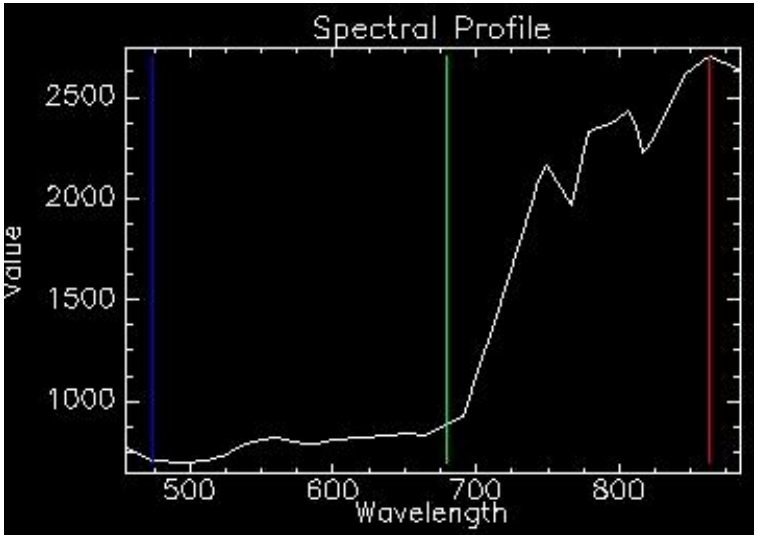
# Expectations

| | Description | Max Point Value |
|---|---|---|
| i. | General experience and qualifications of the firm | 15 |
| ii. | Client References | 5 |
| iii. | Degree to which Firm's Proposal indicates compliance with contract requirements, and meeting above standards | 20 |
| iv. | Demonstrated understanding of the issues relevant to this project, including constraints to flight times and durations, nature of ground cover, and local tidal influence | 30 |
| v. | Value of Price Proposal | 30 |
| | | |
| | TOTAL MAXIMUM POINT VALUE | 100 |

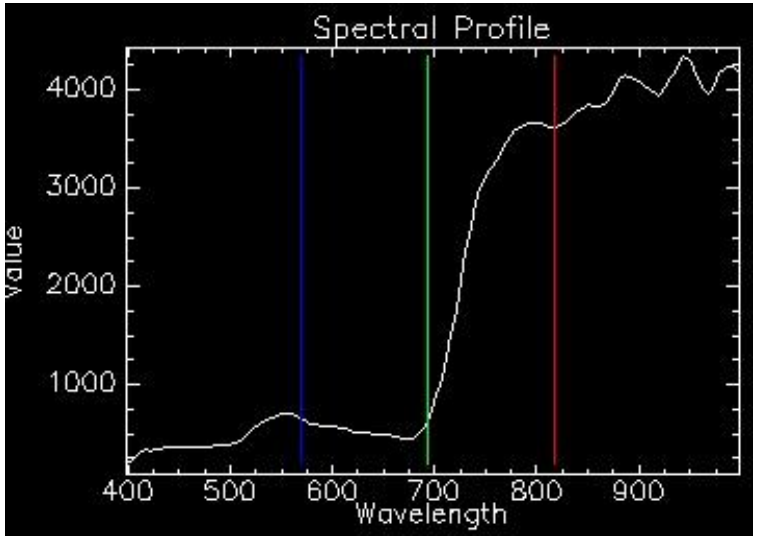
# Expectations - Deliverables

i. Summary & description of project
ii. Raw Point Cloud, .LAS v1.3, swath format
iii. Classified Point Cloud, .LAS v1.3, tile format (SPCS) – all tiles shall have no partial LiDAR coverage, data must encompass a full tile
iv. Hydro-flattened Bare Earth Gridded DEM (2ft cell, ENVI LiDAR in .DAT or .IMG; and in ESRI GRID/ or GeoTIFF formats)
v. Each return should be stored in a separate file (1st, 2nd and 3rd returns)
vi. Hydro breaklines in ArcGIS geodatabase format
vii. Digital index grid of LiDAR (compatible ArcGIS geodatabase format)
viii. Digitally created 1ft contours (in ArcGIS geodatabase and DWG format) – mapping only contours and spot elevations
ix. GPS benchmarks in CAD & GIS format
x. A project ground control report, along with the accuracy report and metadata

# **Do’s and Don'ts**
## Atmospheric Correction



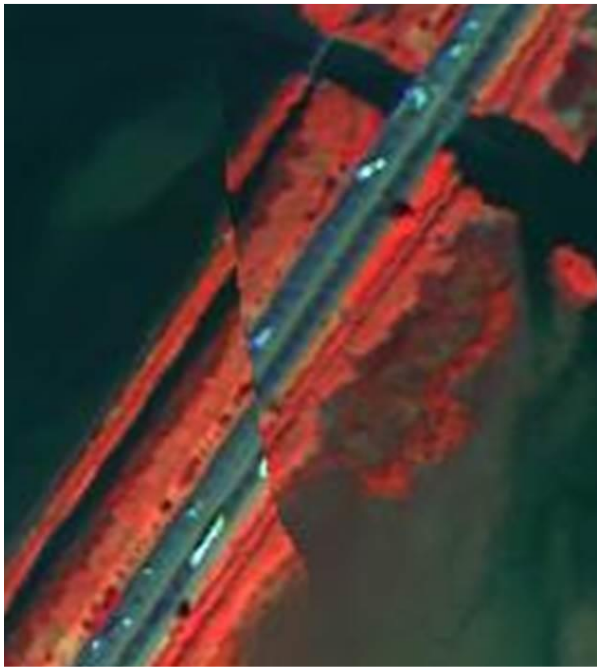

**Not Acceptable**




**Acceptable**

# Do’s and Don'ts

## Geometric Correction



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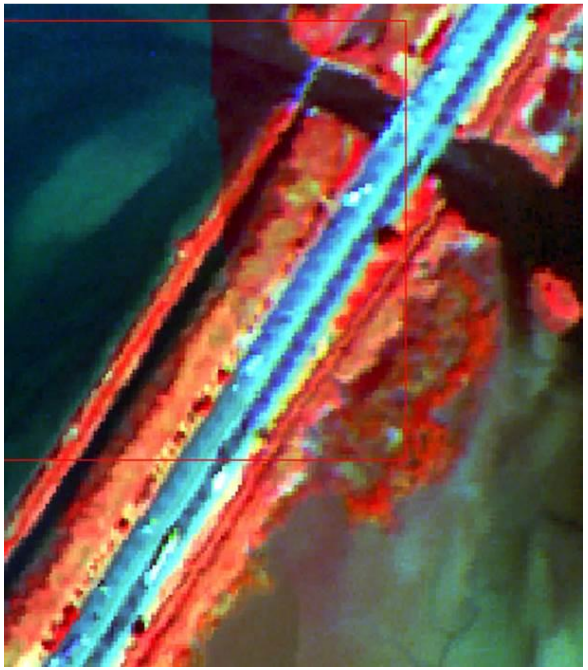

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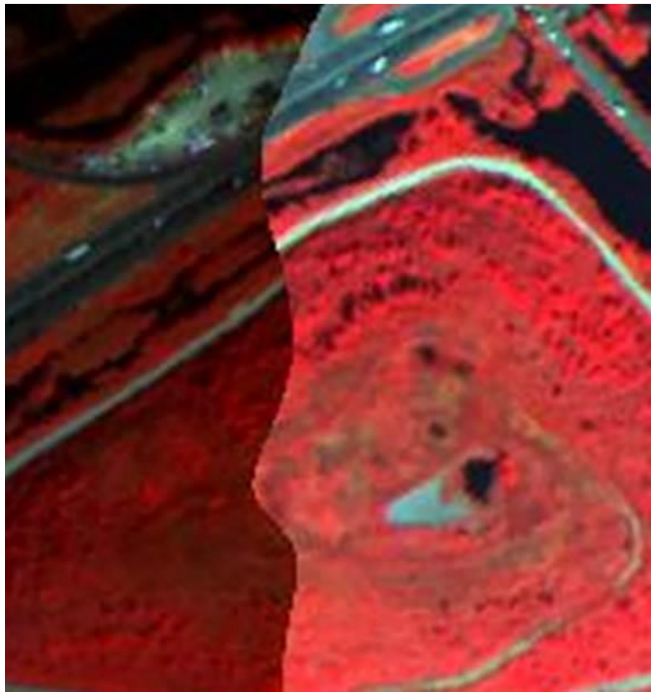

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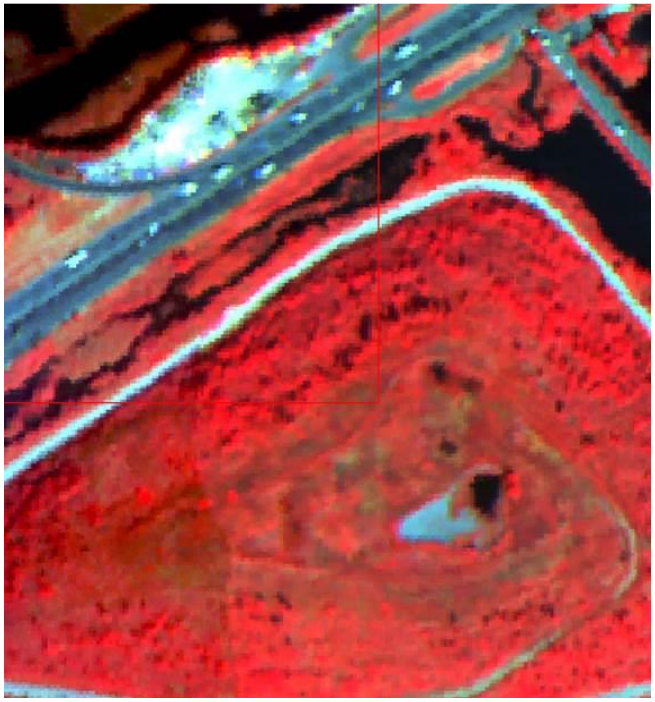

**Acceptable**

# Key Dates

| Milestone | Date |
|---|---|
| Mandatory Pre-bid meeting at NJSEA | Tuesday, June 07, 2022 |
| **Questions/Requests for Clarifications due** | **Wednesday, June 15, 2022** |
| Final Addendum Distributed | Friday, June 17, 2022 |
| **Proposal due to Commission** | **Friday, July 15, 2022** |
| Notification of Selection | Thursday, July 28, 2022 |
| Notice to Proceed | Thursday, August 11, 2022 |
| **Flight Completed** | **Between Aug 18 and Sept 30, 2022** |
| Project Completion | To be completed May 2022 |