COASTAL WETLANDS MAPPING PROJECT

REQUEST FOR PROPOSALS

NEW HAMPSHIRE

OFFICE OF STATE PLANNING
STATE OF NEW HAMPSHIRE
2½ BEACON STREET — CONCORD 03301
TELEPHONE 603-271-2155

May 28, 1985

Ms. Kathryn Cousins
North Atlantic Regional Manager
Office of Ocean and
Coastal Resource Management
NOAA
3300 Whitehaven Street, N.W.
Washington, D.C. 20235

Dear Kathryn:

In compliance with the Interim Benchmark, [redacted] enclosed for your review is the Request for Proposal for the Coastal Wetlands Mapping project.

Inasmuch as we are anxious to get this project underway, I would appreciate receiving any written comments you may have by Monday, June 10th.

Kc did PS 48 hrs to respond?

I would also like to remind you that, as part of the revised 306 application which was submitted to you on April 24, the federal portion of this project was increased from $38,877 to $50,000. I assume that we will receive approval of this revision by the time we sign a contract with a consultant.

Should you have any questions, feel free to contact me.

Sincerely,

Peter Piattoni

Peter F. Piattoni
Coastal Program Manager

PFP:jyb

REQUEST FOR PROPOSALS

COASTAL WETLANDS MAPPING

INVITATION:

This is an invitation to consultants to submit a proposal to identify and map salt and fresh water wetlands in six New Hampshire coastal communities.

BACKGROUND/OBJECTIVE

New Hampshire coastal communities need to identify and map their wetlands in order to evaluate more accurately the environmental impacts of potential development proposals. By mapping tidal and fresh water wetlands and assessing their specific value in terms of the natural functions they perform, a more effective wetlands protection program can be achieved.

SCOPE OF WORK

Task 1. INFORMATION SYSTEMS/BACKGROUND DATA

a) Review existing reports and legislation on wetlands:[1]

- Identification, Documentation and Mapping of Prime Tidal Wetlands in the Town of Hampton, New Hampshire, Frank Richardson, Department of Botany and Plant Pathology, University of New Hampshire, December 30, 1982;
- Portsmouth Wetlands Delineation and Mapping Project; IEP, Inc., March, 1985;
- New Hampshire RSA 483-A; and
- New Hampshire Code of Administrative Rules, Chapter Wt 700: Prime Wetlands

b) Conduct an inventory of the nature and extent of fresh and salt water wetlands in the communities of Seabrook, Hampton[2], Hampton Falls, Rye, New Castle and North Hampton. Information should include, but not be limited to:

- review and subsequent documentation of the status of existing wetlands mapping in the six towns and also the types of base maps available (USGS, SCS soil survey maps, tax maps, and aerial photographs); and
- review of appropriate requirements at the federal, state and local level on wetlands regulation.

c) Develop a data file on the maps available and the information to be collected in each town for the wetlands mapping. The file will include sufficient detail on the types of information needed to standardize the mapping for each town.

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1. This information is available from the New Hampshire Coastal Program, Office of State Planning.

2. Tidal mapping for the town of Hampton has been completed.

Task 1 (continued)

d) Prepare a set of specifications for wetlands maps. These specifications will take into account the information collected in Section 1, a-c, of this RFP.

REPORT: Prepare a preliminary report on the inventory for each town. The information in this report should focus on the mapping currently available in terms of its suitability for wetlands delineation.

TASK 1 REPORT DUE BY _____.

Task 2. MAPPING

a) Prepare wetlands maps for each town. The mapping tasks are as follows.

- Maps to be prepared must include, but not be limited to, the following scales:
  - One inch = 1,000 feet; and
  - Scale of the town tax maps.[3]

- Field testing of mapped wetlands (all wetlands which meet the statutory definition of wetlands as stated in RSA 483-A must be included).

- Recording of information for each wetland which will be used to classify wetlands based on vegetation, hydrology, geology, watershed delineation, location of border zones, soil profile and flood plain classfication.

WORK PRODUCT: Series of wetlands maps for the six towns. Two sets of reproducibles (mylars) and six copies of each map must be provided to OSP.

TASK 2 DUE BY _____.

Task 3. WETLANDS ASSESSMENT

a) Perform an assessment of each wetland's value[4] using the Prime Wetlands criteria as stated in Chapter Wt. 701:

- soils, flora, fauna, food chain production, hydrology, historical, archeological and/or scientific importance, outstanding or uncommon geomorphological features, aesthetics and size.

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3. The wetlands delineation at the tax map scale should be sufficiently accurate to determine the location and general extent in the field.

4. This information will be used by the Conservation Commissions to designate prime tidal wetlands for each town.

Task 3 (continued)

DRAFT

WORK PRODUCT: Final Report which includes:

Methodology used;

Summary of overall wetland composition in each town with particular attention paid to total acreage of tidal versus freshwater wetlands, the identification of those wetlands to be considered for prime designation as well as those wetlands threatened by possible development; and

Brief description of each wetland, based on field notes and its assessed value.

TASK 3 DUE BY _____.

Task 4. PUBLIC INFORMATION AND MEETINGS

a) The consultant shall meet with OSP and town officials on a monthly basis to discuss each phase of the project and progress to date. In addition, the consultant shall meet as often as necessary with the towns' Conservation Commissions to inform them of progress on the mapping and solicit their input on each work task.

DATA

The collection and analysis of necessary background data shall be included in this proposal. The inventory, assembly and evaluation of data should include a review of existing data as listed under SCOPE OF WORK, Information Systems/ background data.

ADMINISTRATIVE REQUIREMENTS

Budget/Time

The consultant shall prepare a budget and schedule for the categories under the Scope of Work and shall indicate all consultant time and costs (including subcontractor(s), if requried) for these categories. An estimated commencement date for work shold be provided.

Project Manager

The consultant should identify a Project Manager who will be the contact person for all activities. If this Project Manager should leave the firm or no longer be involved with this project, the Office of State Planning may cite these conditions as grounds for termination of the contract.

The Consultant should include examples of other projects similar to this proposal along with the name of the firm.

DRAFT

Submittal Procedures

Firms must submit seven copies of the required information. The following general framework should be used in the proposals:

I. Introduction

II. Technical Consideration

III. Management Consideration/Qualifications

IV. Costs of Services

The Technical Section (II) should include the program identification (an outline of the proposed work plan and tentative completion dates for program components). Tasking and allocation of personnel should be identified in the Management and Qualification Section (III). Key team members should also be identified. Costs of Services (Section IV) should include a total cost and itemized breakdown where appropriate.

Consultant proposals will be accepted at the OSP, 2 1/2 Beacon Street, Concord, New Hampshire 03301 until 4:00 p.m. on the _____. In order to be considered, submission must comply with all requested information/data in the Request for Proposal. Proposals will be judged according to the standards listed in the following Evaluation Criteria section. A maximum of three proposals will be selected for detailed evaluation. All consultants will be promptly notified of the OSP's action on their submissions. The OSP reserves the right to accept or reject any or all proposals at its sole discretion.

EVALUATION CRITERIA

Proposals will be judged by the OSP on their relative performance in the following areas:

1) conformance with submission requirements;

2) applicant qualifications, including relevant experience, financial capacity, and staff capabilities; and

3) detailed schedule showing the costs by work tasks/elements.

John -4/15

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
OFFICE OF OCEAN AND COASTAL RESOURCE MANAGEMENT
Washington, D.C. 20235

April 15, 1985

Mr. David G. Scott
Acting Director
Office of State Planning
2 1/2 Beacon Street
Concord, New Hampshire 03301

Dear Dave:

This letter will summarize a telephone call between us on April 12, 1985 regarding the Significant Improvement Task requiring that OCRM review and approve the detailed Request for Proposal for Task 5.2, Coastal Wetlands Mapping. It is necessary for us to approve the RFP to allow OCRM to be assured that Federal funds will be spent according to the 306(i) report, and the 312 evaluation findings. From what Dave Neville has outlined on the phone about the RFP, I do not forsee any problems with our approval of the RFP. He said the first task of the consultant would be to make a recommendation on the scale of the maps to be used based on a thorough review with the wetlands board inspectors and the local towns. Dave also said the RFP would indicate the mapping would be completed by 3/30/86. We will attempt to respond to the RFP 48 hours from receipt. We would only be able to approve 306A funds in your next application if we could carefully explain how the State is addressing the schedule in the 306(i) report.

Regarding Special Award Condition A.1, OCRM will prepare a memo to the NOAA Grants Office notifying them of your request to change the name of the program manager. Your letter of March 14th was received after the SIG memo had been signed. In addition, on the basis of that same letter you clearly met the SIG benchmark regarding a full-time program manager.

I have discussed with Peter several optional wording suggestions for the second benchmark of the Significant Improvement Task relating to the coastal wetlands task that will have the same result as our agreed upon mutual goal of having these maps be useful for the Wetlands Board. If you would like to suggest other wording that will have the same result, this office can change the Significant Improvement Benchmark accordingly. If you or your staff wish to call me with suggested wording, I will be happy to help you.

I hope this letter has clarified our reasoning and apologize if there has been a misunderstanding that in our opinion "review" must also include "approve."

Please call me if you have any questions or if I can be of further assistance.

Sincerely,

Kathy

Kathryn Cousins
Regional Manager
North Atlantic Region

OFFICE OF STATE PLANNING
STATE OF NEW HAMPSHIRE
2½ BEACON STREET — CONCORD 03301
TELEPHONE 603-271-2155

April 17, 1985

Mr. Alfred Powell
U.S. Department of Commerce
NOAA
RAS/DC33
Grants Management Branch
11420 Rockville Pike
Rockville, Maryland 20852

Subject: NA85AA-D-CZ049

Dear Mr. Powell:

Attached are two signed copies of the grant award referenced above.

In addition, as a matter of record, I have also enclosed a copy of the understanding this office reached with OCRM staff regarding the Request for Proposal for Work Task 5.2, Coastal Wetlands Mapping.

Should you have any questions, feel free to contact Peter Piattoni of our staff.

Sincerely,

David G. Scott

David G. Scott
Acting Director

DGS:pfp/djm

Attachments

cc: Kathryn Cousins

File

STATE OF NEW HAMPSHIRE

INTER-DEPARTMENT COMMUNICATION

DATE April 15, 1985

FROM David Scott DGS
David Neville DCN

AT (OFFICE) State Planning

SUBJECT Telephone Coversation 4/12/85

TO File

Jim Burgess - What would you like to see in letter we are sending you relative to wetlands mapping?

Dave Scott - We want some guidance as to what you want in the RPF so that it will be acceptable without major time delays, and assurances that review time will be short so that we can meet the overall schedule and task plan we are attempting to develop.

Kathy Cousins - Dave Neville and I agreed that map scales and other technical aspects of the mapping would be described after Phase I of the work task in order to judge whether maps are useful to New Hampshire in enforcement of wetlands regulations. Agreed to review RFP within 48 hours and get comments back through overnight mail.

Dave Neville - What about your (Kathy's) request for assurances maps be legally enforceable?

Kathy Cousins - Only to the extent they are useful to Wetlands Board.

Dave Scott - The maps will be prepared in accordance with Wetlands Board procedures. In my experience I've found that maps should be able to be used directly by municipalities for adoption as part of their zoning ordinances. To that extent they would be legally enforceable at the local level as well as being part of the enforcement process at the State level.

Kathy Cousins and Jim Burgess - Agreed to put their recommendations on the mapping project in writing.

Jim Burgess - Federal practice would involve structuring the RFP in such a way as to ask the consultant to provide the process by which he/she would repond in terms of optional approaches.

David Scott - Would not object to including such a provision. The RFP would include clear description and process for anticipated plan of work... and could also include an opportunity for the respondee's to offer what is felt to be a better option or specific process for consideration by OSP.

Jim Burgess - Concerned about progress on Segment II and eligibility for 306(a) funding. Could either of you (Dave S. or Dave N) come down to Washington with Peter early in May to discuss Segment II.

Dave Neville - Realize we are about 2 months behind schedule. We are working on it and Peter will bring a revised schedule and time table for Segment II approval with him in early May and be prepared to discuss it.

Dave Scott - Legislative session has made extraordinary demands on us. Hope to be able to get down to Washington and meet face to face in the not too distant future.

DS:DN/jyb

CITY OF PORTSMOUTH
City Hall, 126 Daniel Street
Portsmouth, New Hampshire 03801
(603) 431-2000, ext. 200

November 12, 1985

Peter Piattoni
Coastal Program Director
New Hampshire Coastal Program
2 1/2 Beacon Street
Concord, New Hampshire 03301

Re: Assessment of Portsmouth's Wetland Maps

Dear Peter:

As you are aware Portsmouth's Wetland Mapping project resulted in the following work products:

1. A Report summarizing the results of the project.

2. 3 separate sets of 1" = 500' scale maps delineating:
   a) wetlands
   b) flood plain information
   c) surficial geologic deposits with respect to their groundwater resource potential

3. 3 separate sets of 1" = 1000' scale maps delineating the same information described in #2.

4. 3 separate sets of 1" = 3500' scale maps delineating the same information described in #2.

5. A set of aerial photos at 1" = 500' scale with all wetlands delineated on them.

6. A set of tax maps with wetlands marked (scale is 1" = 100' for rural areas and 1" = 40' for urban areas).

7. An inventory of all wetlands identified and evaluated in the field.

Since completion of the project these products have proved to be invaluable tools in working with developers, local and state boards.

You specifically asked us to comment on the value of the various scale maps. On a day-to-day basis we most frequently refer to the 500 and 1000 scale maps used in conjunction with our tax

maps. The 1000 scale maps are particularly useful in pinpointing a site and assessing its position in a watershed. We then refer to the inventory for technical characteristics of the wetland and also for reference to a particular City Tax Map. Because the Tax Maps are easily reproducible and large in scale, developers and other interested parties usually request copies of the particular Tax Map.

The 3500 scale map is useful only in the text of reports etc. because it contains all of the City's wetlands on one page.

We are currently having revisions made to our 1000' scale maps, but I have enclosed a copy of a 500' scale map, a xerox reproduction of an aerial photo, and a page from the wetland inventory.

what's scale?

If we can be of further assistance please feel free to call.

Sincerely,

Nancy M. Carmer

Nancy M. Carmer
Community Development Planner

NMC/rt

Wetland No. HB-3

ECOLOGICAL ELEMENTS

Wetland Subclasses
- [X] Stream or Brookside Wetland
- Open Fresh Water
  - [ ] Non-vegetated Subclass
- Deep Fresh Marsh
  - [ ] Dead Woody [ ] Shrub
  - [ ] Scrub-Shrub [ ] Robust
  - [ ] Narrow-leaved [ ] Broad-leaved
- Shallow Fresh Marsh
  - [X] Robust [ ] Narrow-leaved
  - [ ] Broad-leaved [ ] Floating-leaved
- Floodplain/Flats
  - [ ] Emergent
  - [ ] Shrubs and Trees
- Wet Meadow
  - [X] Ungrazed [ ] Grazed
- Shrub Swamp
  - [ ] Sapling [X] Bushy
  - [ ] Compact [ ] Aquatic
- Wooded Swamp
  - [ ] Deciduous [ ] Evergreen
- Bog
  - [ ] Shrub [ ] Wooded
  - [ ] Cranberry [ ] Moss
- Fen
  - [ ] Emergent [ ] Shrub

Dominant Wetland Class
- [ ] Stream or Brookside Wetland
- [ ] Open Fresh Water
- [ ] Deep Fresh Marsh
- [X] Shallow Fresh Marsh
- [ ] Yearly Floodplain
- [ ] Wet Meadow
- [ ] Shrub Swamp
- [ ] Wooded Swamp
- [ ] Bog
- [ ] Fen
- [ ] Other_____

Wetland Class Richness
[ ] 5 [X] 4 [ ] 3 [ ] 2 [ ] 1

Subclass Richness (Lateral Diversity)
[ ] 10 [ ] 9-6 [X] 5-4 [ ] 3-2 [ ] 1

Vegetative Interspersion
[ ] H [ ] M [X] L

Surrounding Habitat
- [ ] 90% of 2 or more listed types
- [ ] 50-90% of 1 or more; 90% of 1
- [X] 50% of 1 or more of listed types

Cover Type
- [X] 26-75% scattered
- [ ] 26-75% peripheral
- [ ] >75% or <25% scattered
- [ ] 100% cover; >75% or <25% peripheral

Percent Open Water
[X] 0-33% [ ] 34-66% [ ] 67-95% [ ] 96-100%

Vegetative Species Richness
[ ] H [ ] M [X] L

Proportion of Wildlife Food Plants
[ ] H [ ] M [X] L

Vegetative Density
[ ] H [ ] M [X] L

Wetland Juxtaposition Favorability
[ ] H [ ] M [X] U

TOPOGRAPHICAL ELEMENTS

Topographic Configuration
- [ ] Closed Basin
- [X] Semi-closed Basin
- [ ] Valley
- [ ] Hillside

Size
- [ ] Large ≥8.6 acres
- [X] Medium 1.1-8.5
- [ ] Small ≤1 acre

Wetland Gradient
[X] Slight 0-3% [ ] Steep >3%

Surrounding Slopes
[X] Slight 0-3% [ ] Steep >3%

Topographic Position in Watershed
[ ] Upper [X] Intermediate [ ] Lower

GEOLOGICAL ELEMENTS

Surficial Geologic Material Underlying Wetland
- [ ] Till [ ] Alluvium
- [X] Stratified Sand and Gravel
- [ ] Stratified Fine Sand and Silt

Bedrock Underlying Wetland
- [X] Igneous and Metamorphic
- [ ] Sedimentary

Soil Type/Permeability
[ ] Peat/H [ ] Mineral/M [X] Muck/L

Dominant Surficial Geological Material of Watershed
- [ ] Till [ ] Alluvium
- [X] Stratified Sand and Gravel
- [ ] Stratified Fine Sand and Silt

Thickness of Organics
[ ] <1 foot [X] 1-5 feet [ ] >5 feet

SPECIAL ELEMENTS

- [ ] Rare and/or Endangered Species
- [ ] Aquatic Study Area
- [ ] Sanctuary or Refuge
- [ ] Wildlife Management Area
- [ ] Fisheries Management Area
- [ ] Educational Study Area
- [ ] Historical Area
- [ ] Other_____

HYDROLOGICAL ELEMENTS

Hydrologic Position of Wetland
- [X] Perched Wetland
- [ ] Water Table Wetland
- [ ] Water/Artesian Wetland
- [ ] Artesian Wetland

Groundwater Relationship
- [ ] Discharge Wetland
- [ ] Recharge Wetland
- [X] Combination

Transmissivity of Aquifer
- [ ] Low <10,000 gal/day/ft
- [X] Moderate 10,000 - 40,000 gal/day/ft
- [ ] High >40,000 gal/day/ft

Dominant Hydrologic Condition
[ ] 1 [ ] 2 [ ] 3 [X] 4 [ ] 5 [ ] 6

Connection by Surface Water to a Riparian System
[X] Yes [ ] No

Watershed Land Use
- [ ] Rural
- [X] Rural/Residential
- [ ] Urban
- [ ] Industrial
- [ ] Other_____

Water Level Fluctuation
[X] H [ ] L [ ] Vernal Pool

Groundwater Outflow From Wetland
[ ] Absent [X] Present

Inlet
[ ] A [X] P [ ] E
[X] Present, to wetland HB-16

Inlet
[ ] A [ ] P [ ] E
[ ] Present, to wetland_____

Inlet
[ ] A [ ] P [ ] E
[ ] Present, to wetland_____

Inlet
[ ] A [ ] P [ ] E
[ ] Present, to wetland_____

Inlet
[ ] A [ ] P [ ] E
[ ] Present, to wetland_____

Outlet
[ ] A [X] P [ ] E
[X] Present, to wetland HB-15

Outlet
[ ] A [ ] P [ ] E
[ ] Present, to wetland_____

Percent Wetlands Bordering Open Water vs. Upland
[ ] <33% [X] 34-66% [ ] 67-100%
[ ] Does not border

Fetch
[X] 2000 ft. [ ] <2000 ft.

Depth of Lake
[ ] Deep >6 ft. [X] Shallow <6 ft.

SOCIO-ECONOMICAL ELEMENTS

Hydrologically Connected to a
- [X] Small stream
- [ ] River
- [ ] Lake
- [ ] Combination
- [ ] Not connected

Public Access to Wetland
- [X] Within 100 ft. of road
- [ ] Access by passable waterway
- [ ] Isolated

Surrounding Population Density
- [ ] <½ person/acre (<320/mi²)
- [X] 0.5 - 1.9 p/a (320-1220/mi²)
- [ ] >2 p/a (>1220/mi²)

Local Scarcity to Nearest Similar Type
- [ ] <200 feet
- [X] 201 to 1000 feet
- [ ] >1000 feet

Known Crop Value or Potential
- [X] None
- [ ] Supports 1 family for part of year Type_____
- [ ] Supports viable commercial interest Type_____

Legal Accessibility to Wetland
[X] Public [X] Private [ ] Restricted

Cultural Significance
[ ] Archeological/Historic [X] None

COMMENTS: within I-95 on 7 imps. 4 separate sections connected by underground culverts

Key
- L Low
- M Moderate
- H High
- U Unfavorable
- A Absent
- P Perennial
- E Ephemeral

VEGETATION

Common Name	Scientific Name	OW	FW	F	FU	OU	DOM	COM	OCC
Cattail	Typha latifolia	X					X		
Alder	Alnus rugosa		X				X		
Red Maple	Acer rubrum			X				X	
Purple loosestrife	Lythrum salicaria	X					X		
Red-osier Dogwood	Cornus stolonifera		X					X	
Sedges	Carex spp	X						X	
Elm	Ulmus americana		X						X
Blueberry	Vaccinium corymbosum		X					X	

OW obligate wetland, FW facultative wetland, F facultative, FU facultative upland, OU obligate upland, DOM dominant, COM common, OCC occasional

WETLAND INVENTORY REPORT

Wetland Number HB-B

Date MARCH 1985

Project Number P3F15-1

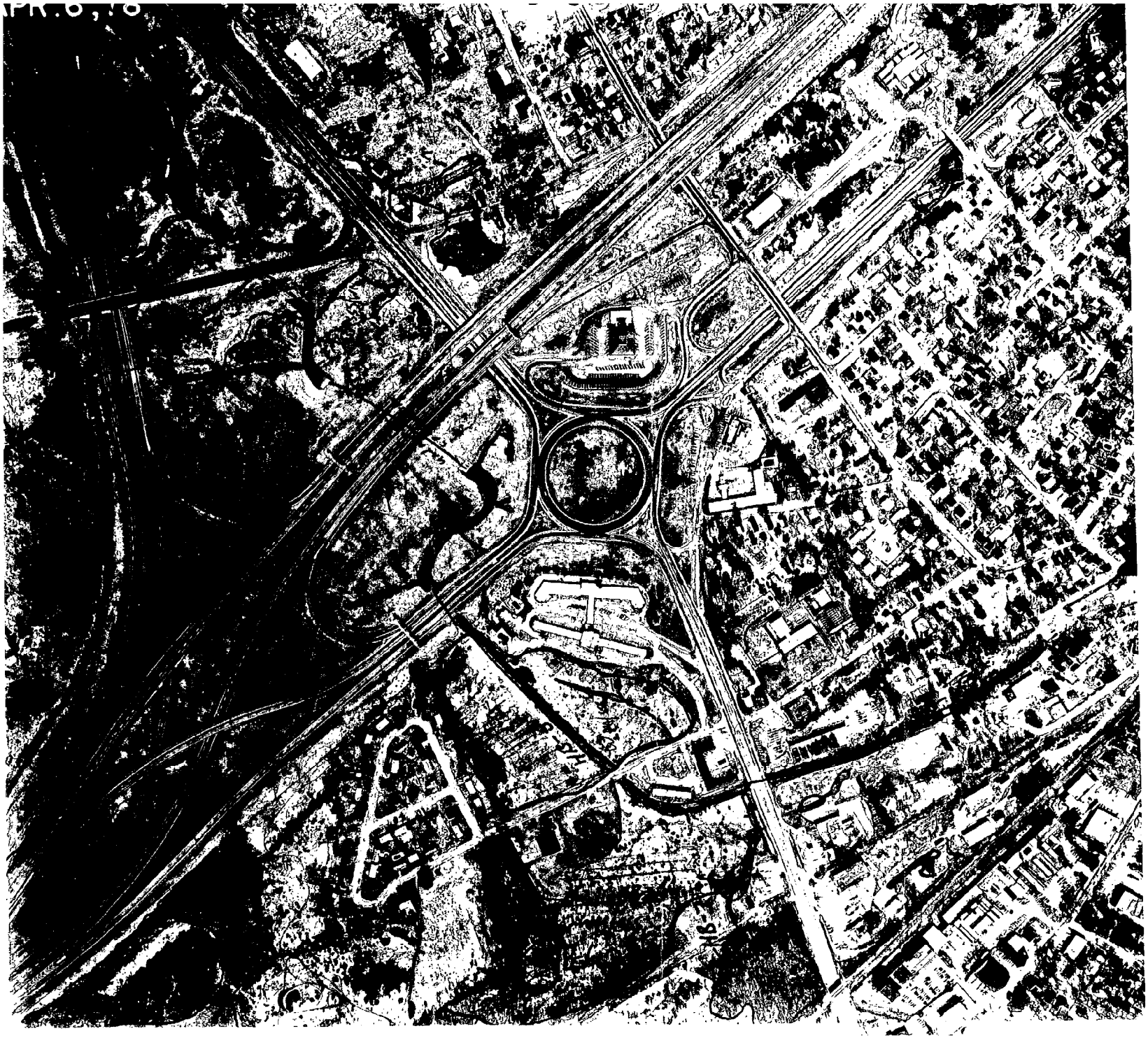
Project Location S Creek on 1-95

Field Investigators M. MARCUS

Flight, Photo Number(s) B363-4-15

Map Number(s) R-34, 35

Acreage	Percent	
	30	Wet Meadow
	40	Shallow Marsh
		Deep Marsh
	30	Shrub Swamp
		Deciduous Wooded Swamp
		Evergreen Wooded Swamp
		Bog
		Open Water
		Streamside
		Fen
		Other ______
		TOTAL



scale
1" = 500'

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
OFFICE OF OCEAN AND COASTAL RESOURCE MANAGEMENT
Washington, D.C. 20235

NOV 16 '85

Mr. Peter Piattoni
Office of State Planning
2 1/2 Beacon Street
Concord, New Hampshire 03301

Dear Mr. Piattoni:

This is a letter to summarize our November 7th telephone conversation about the type of base map and the scale to be used for the Coastal Wetlands Mapping Project, Task 5.2. of your FY 1984 Section 306 grant award.

A condition of your grant award is to comply with Special Award Condition B1 which relates to the memorandum dated March 19, 1985 and entitled "Significant Improvements in the New Hampshire Coastal Management Program". Item 2 in Part III of the March 19, 1985 Memorandum contains a interim benchmark relating to Grant Task 5.2 that states "By October 30, 1985 the OSP will submit to the OCRM for approval information on the type of base map and scale to be used."

There are two objectives to the Wetlands Mapping Project task. The first is to produce a set of wetlands maps that can be used to more effectivly implement RSA 483-A, the State's Wetlands Act, which is part of your Federaly approved Coastal Program. The second objective is to satisfy the recommendations of OCRM's Special Report: Section 306(i) Findings To Determine Eligibility For Section 306A Funding. The findings of this report stated that " New Hampshire meets the inventories requirement with one exception. The wetlands inventories and maps listed in Appendix A (of the report) are based on soil type but the Wetlands Act requires that the wetlands be distinguished by vegatation type." The finding concluded "To be more adequately identifiable, the wetlands need to be mapped according to vegetation, since the statute specificly addresses vegetation."

We have reviewed the information you submitted on the type of base map and the scale of the maps to be used as described in the Phase 1 Report: The Coastal Wetlands Mapping Program, New Hampshire prepared by the consultant. We believe you have made an excellent decision to use aerial photos as the base map. The report proposes a scale of 1 inch = 1000 feet for the mylar aerial photographs. Our experience with other states who have addressed this issue has lead us to conclude that a scale of 1 inch = 200 feet is much more useful for making management decisions

and is easier to read and understand by the general public. I understand that you believe a scale of 1 inch = 1000 feet for wetlands base maps are adequate for making permit decisions when the maps are used in conjunction with the town tax maps. This is based on your experience with the Town of Portsmouth.

In order for us to make an approval decision on the scale of the mylar aerial photographs to be used you will need to send us the following information:

- a copy of a aerial photo map of Portsmouth containing deliniated wetlands at a scale of 1 inch = 1000 feet which were paid for in a previous grant as Task 7.19 and a copy of a tax map used by the town of Portsmouth - (The report, but not the maps, have been sent to OCRM);

- a cost estimate from the consultant on the following tasks:

  - a comparison of the costs for preparing six uncorrected town-wide mylar aerial photographs at an overall scale of 1 inch = 200 feet vs the cost of mylars at 1 inch = 1000 feet;

  - to deliniate on the mylars the extent of the Wetlands Board jurisdiction of 3 1/2 feet above mean high tide;

  - Provide the towns, the Wetlands Board, and the OSP with prints of the aerial photos in addition to the mylars.

I want to clarify, so there is no misunderstanding, that our approval of the RFP in no way approved the scale of the base maps to be used. This is clearly stated in Part III, Item 2 of the March 19th Significant Improvement Memorandum, as well as in Kathryn Cousins' April 15, 1985 letter to Dave Scott and the Inter-Department Communication from Dave Scott and Dave Neville to the Files on the same date. Furthermore, please note that page 2 of the RFP states "Maps to be prepared must include, <u>but not limited to</u>, the following scales:

- one inch = 1000 feet; and
- Scale of the town tax maps." (emphasis added)

If you have any questions please give me a call.

Sincerely,

John M Houlahan

John Houlahan
Program Specialist
North Atlantic Region

OFFICE OF STATE PLANNING
STATE OF NEW HAMPSHIRE
2½ BEACON STREET — CONCORD 03301
TELEPHONE 603-271-2155

December 6, 1985

Mr. John Houlahan
Program Specialist
Office of Ocean and Coastal Resource Management
NOAA
3300 Whitehaven St., N.W.
Washington, DC 20235

Dear John:

I am writing in response to your request for additional information on the scale of the mylar aerial photographs which are being developed as part of our Coastal Wetlands Mapping Project.

First, as we have discussed, we are unable at this time to borrow the original 1:1000' aerial maps of Portsmouth. Because they have been returned to the Company for additions and modifications, we won't be able to send them along. However, I am including a letter we received from city officials in Portsmouth, together with a copy of a map, regarding the usefulness of the aerial photos.

Secondly, I have been told by our consultants that delineating the 3½ foot contours would cost an additional $200,000.

Next, the cost of preparing mylars of the aerial photographs at a scale of 1:200 feet is as follows: up to $6,100 for one set of mylars; and up to $9,700 for two sets. In addition, copies of the prints will cost seven dollars each. At present, Joanne is working with the conservation commissions to purchase copies themselves. I would also expect that we will purchase our own set for use by staff in Portsmouth.

Finally, you asked for additional information as to the accuracy and level of detail of the mapping.

For the sake of clarity, I will address, in separate sections, the two types of inaccuracies involved in this project.

From Reprogramming

Scientific Accuracy - When mapping any wetland using the hydrologic, topographic and botannical criteria recognized by local, state and federal agencies, there is a universally accepted margin of error in delineating the boundary of certain wetlands. I must emphasize that this is acceptable since one is mapping more of a resource defined in scientific terms rather than a stationary, physical feature of the landscape. It can happen that you have two wetland scientists in the field, ask them where the boundary is, and get two different responses. Our project is addressing this problem by ground truthing any wetland which does not have a distinct boundary. Based on field checks and the concurrence of the Normandeau study team, the boundary will then be drawn. In order to give OCRM guidance in following the scientific error inherent in wetlands mapping, the following margins of error are provided:

Inland Boggy Wetlands - Up to 50 feet

Inland Wetlands - (Bedrock and till) - up to 20 feet

Tidal Wetlands - 5 - 10 feet

Mapping Accuracy - For this type of error, I must reiterate the explanation outlined in the Phase I report. As you know, the primary work product for each town will be a 1" = 1,000 foot mylar sheet with a town-wide aerial photograph screened to the background on which wetlands will be delineated. Mapping to the towns' tax map scales will be done by redrafting wetland boundaries at the appropriate scales. Much of the accuracy of this process depends upon fixed features (control points) being identifiable on both tax maps and aerial photographs. Accurately mapped roadways, bodies of water, and large buildings are typical control points. Many tax maps show no natural features, only property lines, invisible on the aerial photographs, and thus provide the mapper with little positional information. No claim is made for the resulting accuracy of transferring wetlands boundaries to these maps. The best accuracy will be a probable error of approximately fifty feet at all tax map scales. This will mean the following increases in effective line errors as the maps become larger: at 1" = 400' (NewCastle, Hampton Falls), line error will be 0.125 (one eighth) inch; at 1" = 200' (Seabrook, North Hampton, Rye), line error will be ¼ inch; at 1" = 100', line error will be ½ inch; and at 1" = 50 (Hampton), line error will be 1 inch. In other words, for the Town of Hampton which has many detailed maps, wetland lines will have to be used as if they were up to an inch broad.

I trust this information satisfies all the questions you have on the Coastal Wetlands Mapping Project (task 5.2).

Feel free to contact me should you have any additional questions.

Sincerely,

Peter Piattoni

Peter F. Piattoni
Coastal Program Manager

PFP:JC/lp