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**G.A.F. Engineering, Inc.**  
**Professional Engineers/Land Surveyors**

# Fax

**To:** U.S. E.P.A. Water Technical Unit **From:** Shaun D. Handy  
**Attn:** Ann Herrick **Pages:** 26 (including cover page)  
**Fax:** 1-617-918-0560 **Date:** May 1, 2007  
**Phone:** 1-617-918-1560 **Job #:** 06-5916  
**Re:** Wareham '06-'07 Annual Report **cc:**

☐ **Urgent**    ☐ **For Review**    ☐ **Please Comment**    ☐ **Please Reply**    ☐ **Please Recycle**

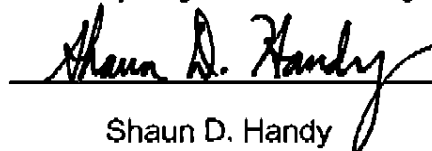
Ann,

Here is the NPDES Phase II Stormwater Annual Report for the Town of Wareham 2006-2007 reporting period. I am also sending you the hard copy via certified mail.

If you have any questions regarding this data please do not hesitate to call our office at 1-508-295-6600. Thanks.

Shaun

The documents accompanying this facsimile transmission may contain confidential and/or legal information. The information is intended only for the use of the individual or entity named above. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution or the taking of any action in reliance on the contents of this information is strictly prohibited. In this regard, if you have received this in error, please notify us immediately so that we may arrange for the return of the original documents to us at no cost to you.

  
Shaun D. Handy



ENGINEERING,  
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ENGINEERS  
SURVEYORS

VIA FAX: 617-918-0560  
& CERTIFIED MAIL: 7006 3450 0003 8971 3886

May 1, 2007

U.S. Environmental Protection Agency Region I  
Water Technical Unit  
P.O. Box 8127  
Boston, MA 02114  
Attn: Ann Herrick

RE: Town of Wareham  
NPDES Phase II Small MS4  
2006-2007 General Permit Annual Report  
G.A.F. Job No. 5916

Dear Ms Herrick:

On behalf of the Town of Wareham, enclosed please find a completed 2006-2007 annual report for EPA NPDES permit **MAR041168**, MADEP Transmittal Number **W-045147**. This report is provided in a format outlined by EPA obtained from the EPA Region 1 website. John D. Foster, Interim Town Administrator, has signed this annual report and acknowledges the terms of the required certification in accordance with Part VI.G. of the Permit. We have also submitted a completed annual report as well as a copy of this letter to Fred Civian, Phase II Stormwater Coordinator at the Massachusetts Department of Environmental Protection, Division of Watershed Management, 1 Winter Street, 5<sup>th</sup> Floor, Boston, MA 02108.

Sincerely,  
G.A.F. Engineering, Inc.

  
William F. Madden, P.E.

CC: Fred Civian-Division of Watershed Management-DEP, Boston  
Mark Gifford-Town of Wareham Director of Municipal Maintenance  
John D. Foster-Town of Wareham Interim Town Administrator

288 MAIN ST.

WAREHAM, MA

02571

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Municipality/Organization: ***Town of Wareham***  
EPA NPDES Permit Number: ***MAR041168***  
MADEP Transmittal Number: ***W-045147***  
Annual Report Number  
& Reporting Period: ***No. 4: March 2006-March 2007***

## NPDES PII Small MS4 General Permit Annual Report

### Part I. General Information

Contact Person: John D. Foster Title: Interim Town Administrator  
Telephone #: 508.291.3100 x3110 Email: jfoster@wareham.ma.us

### Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing such violations.

Signature: 

Printed Name: John D. Foster

Title: Interim Town Administrator

Date: 5/1/2007

## Part II. Self-Assessment

The Town of Wareham has completed the required self assessment and has determined that our Municipality is in compliance with the provisions of the permit conditions, with the exception of the following:

1. **BMP 1-2:** The development of brochures is incomplete. The Town has inquired with the SuAsCo organization in assisting in the development of brochures and other educational material.
2. **BMP 1-3:** The annual meeting on the Phase II Stormwater permit requirements was not held and community cleanups have not been achieved. Citizen watch groups have not yet been formed. The Town will actively move forward in completing these tasks.
3. **BMP 2-1:** The brochures in 1-2 are incomplete and complaint logs have not been created. The Town is working with the departments to implement this BMP.
4. **BMP 2-2:** The Town has not created a Stormwater Committee through the Selectmen's Office. The Town will actively move forward in creating the Stormwater Committee.
5. **BMP 2-3:** The Selectmen have not held an annual Phase II Stormwater hearing or heard the presentation by the Stormwater Committee on the Phase II Permit Requirements. The Town will actively move forward to complete these tasks.
6. **BMP 2-4:** The Town has not had the catch basin stenciling performed.
7. **BMP 2-5:** The Town has not had the stream clean-ups performed.
8. **BMP 3-2:** The Town has completed a review of the local by-laws to outline changes needed to prohibit illicit connections however, with the exception of the review/comment letter prepared by the Wareham conservation commission administrator, the formal findings report has not

been prepared. The Town will complete the findings report and present relevant changes at town meetings for approval.

9. **BMP 3-3:** The Town drainage mapping is ongoing and catchment areas have not been mapped. The Town will actively move forward in the completion of these tasks.
10. **BMP 3-4:** The Town has not completed the quantification of illicit discharges, Phase II Stormwater Permit associated ordinances have not been adopted, and a household hazard collection program has not been implemented. The Town will actively move forward in the completion of these tasks.
11. **BMP 3-5:** The Town has not completed the quantification of illicit discharges, Phase II Stormwater Permit associated ordinances have not been adopted, and a household hazard collection program has not been implemented. The Town will actively move forward in the completion of these tasks.
12. **BMP 3-7:** Informational fliers have not been created and distributed to the public and complaint logs have not been created and maintained. The Town will work with the SuAsCo organization to develop appropriate fliers and distribute them to the public as well as investigate complaints received.
13. **BMP's 4-1, 4-2, 4-3:** Review of the local by-laws and subdivision rules and regulations as they pertain to Construction Site Runoff Control have been completed by the relevant departments. The Town of Wareham Conservation administrator has prepared a comment/review letter based on his review of the existing Wareham wetland bylaw. This comment letter indicates the areas of the existing wetland bylaw that do address requirements of the Phase II NPDES requirements as well as areas of the bylaw that need to be strengthened to more adequately address the Phase II NPDES requirements. This letter has been included with this report submission. Formal findings reports have not been completed. The Town departments will complete the findings reports and will present

the necessary bylaw/regulation changes at town meetings for approval. The site inspection procedures have not been enacted, but the town will move forward in achieving these tasks. The Town hopes to achieve increases in the number of aquatic organisms through the implementation of these measures.

14. **BMP's 5-1, 5-2, 5-3:** Review of the local by-laws and subdivision rules and regulations as they pertain to Post Construction Runoff Control have been completed by the relevant departments. The Town of Wareham Conservation administrator has prepared a comment/review letter based on his review of the existing Wareham wetland bylaw. This comment letter indicates the areas of the existing wetland bylaw that do address requirements of the Phase II NPDES requirements as well as areas of the bylaw that need to be strengthened to more adequately address the Phase II NPDES requirements. This letter has been included with this report submission. Formal findings reports have not been completed. The Town departments will complete the findings reports and will present the necessary bylaw/regulation changes at town meetings for approval. The Town hopes to achieve improved water quality and reduced sedimentation of water bodies through the implementation of these measures.
15. **BMP 6-1:** The Town has not completed a policy guide on vehicle maintenance, washing, fueling and salt storage. The Town will move forward in completing the guide and distribute to all relevant municipal employees.
16. **BMP 6-2:** The Town has not completed a training manual outlining stormwater pollution prevention policies, and therefore the subsequent training has not been performed as well. A recycle program has not been implemented and pesticide reduction has not been performed. The Town will move forward in completing the training manual and distribute to all relevant municipal employees.

### **Part III. Summary of Information Collected and Analyzed**

The Town has provided Stormwater Maps as prepared by the Buzzards Bay National Estuary Program. The maps are numbered one through eight and indicate the treated and untreated catch basins as well as discharge pipes within the Town of Wareham. These maps have been attached to this annual report.

In addition, the comment letter from the Town of Wareham Conservation Administrator dated March 22, 2007 has been included with this annual report

### Part III. Summary of Minimum Control Measures

Please Note **N/A** refers to BMP's not scheduled for implementation in the 06'-07' reporting period

#### 1. Public Education and Outreach

BMP ID#	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) - Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities - Permit Year 5
1-1	Form Partnerships	Town Administrator	Partnerships Developed	Although the Town has formed a partnership with the Buzzards Bay Project in Year 1, the Town is still actively looking to form partnerships. The SuAsCo organization was contacted to inquire about their services. No partnerships were formed in this reporting period.	Continue to petition appropriate entities for partnership to assist in performing outreach services and/or activities as directed in next permit.
1-2	Educational Material	Dir. of Municipal Maintenance	Educational Material Developed	The development of brochures and educational material is incomplete.	Develop and distribute informational brochures and/or activities as directed in next permit.
1-3	Annual Public Hearing	Town Administrator	Y1. Meetings Held Y2. Radio ads for participation Y3. Community participation in community cleanups Y4. Establish Citizen Watch Groups	The annual meeting on the Phase II Stormwater Permit requirements was not held, and community participation in community cleanups has not been achieved and citizen watch groups have not been formed	Hold annual public hearing, solicit input from the general public and achieve community participation in cleanups as well as the establishment of citizen watch groups and/or activities as directed in next permit.

#### 1a. Additions



## 2. Public Involvement and Participation

<b>BMP ID#</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) - Permit Year 4 (Reliance on non-municipal partners indicated, if any)</b>	<b>Planned Activities - Permit Year 5</b>
2-1	Encourage Citizen Action	Dir. Of Municipal Maintenance	Brochure and flyers prepared in step 1-2 utilized to invite public participation in discharge mapping and detection	Brochures have not been completed to distribute and complaint logs have not been started.	Complete brochures and complaint logs and/or activities as directed in next permit.
2-2	Establish Stormwater Committee	Town Administrator	Committee Created	A Stormwater Committee has not been established. A meeting with all appropriate departments was held to overview the permit requirements.	Create a SWC of both town personnel and local citizens and have the SWC meet twice per year and/or activities as directed in next permit.
2-3	Selectmen's Meeting	Town Administrator	Meeting Held and report from SWC is heard	The Selectman have not had an annual hearing on the Phase II Permit Requirements	The selectmen will hold the annual Phase II Stormwater Requirements hearing and the SWC will present it's report to the Selectmen at this time and/or activities as directed in next permit.
2-4	Storm Drain Stenciling	Dir. Of Municipal Maintenance	Record No. of C.B.'s Stenciled	No CB's have been stenciled	SWC to enlist local groups to begin & continue stenciling storm drains.
2-5	Stream Cleanup	Dir. Of Municipal Maintenance	Report on Cleanup Activities	No stream clean-ups have been performed	SWC to enlist local groups to assist in performing stream cleanup events.

### 2a. Additions

### 3. Illicit Discharge Detection and Elimination

BMP ID#	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) - Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities - Permit Year 5
3-1	Discharge Identification	Dir. Of Municipal Maintenance	Discharges Identified	Mapping completed in Permit Year 1.	Provide mapping of new discharge outfalls and/or activities as directed in next permit.
3-2	Prohibition/Enforcement	Board of Health & Conservation Commission	Review Existing Bylaws, Report Prepared, By-Laws Amended	By-law reviews are complete. A findings report has not been prepared by the Board of Health, however the Town of Wareham Conservation administrator has prepared a comment letter reporting on his review of the existing Town of Wareham Wetland By-Law. This letter indicates areas of the Wetland By-law that currently do address requirements of the NPDES permit and areas of the bylaw that need to be strengthened to more adequately address the NPDES requirements. This letter has been included with this report submission.	Although the by-law reviews are complete, the Town of Wareham must prepare the appropriate findings reports on necessary By-law changes and implement these bylaw changes and/or activities as directed in next permit. Although the Wareham Board of Health and Wetlands Bylaws have not yet been amended, the conservation administrator has indicated that there is room for more descriptive standards and language improvements within the Wetland Bylaw. The Town hopes to complete the remaining findings report and to move forward with any necessary bylaw changes in this permit period.
3-3	Drainage Network Mapping	Town Planner	Map Produced	Drainage structures have been mapped as shown on enclosed maps, catchment area mapping is ongoing.	Complete mapping of pipe network and contributing catchment areas and/or activities as directed in next permit.

3-4	Illicit Discharge Identification	Dir. Of Municipal Maintenance	Y1-Illicit Discharges Quantified, Y2-Ordinances adopted re: illicit discharges,Y3-Elimination of illicit discharges ongoing & household hazard collection program in place,Y4-Elimination of most illicit discharges complete	Illicit discharges have not been quantified, Phase II Stormwater Permit associated ordinances have not been adopted, illicit discharge elimination is ongoing, household hazard collection program has not been implemented	Quantify illicit discharges, adopt ordinances, eliminate illicit discharges, implement household hazard collection program and/or activities as directed in next permit.
3-5	Illicit Discharge Enforcement	Dir. Of Municipal Maintenance	Y1-Illicit Discharges Quantified, Y2-Ordinances adopted re: illicit discharges,Y3-Elimination of illicit discharges ongoing & household hazard collection program in place,Y4-Elimination of most illicit discharges complete	Illicit discharges have not been quantified, Phase II Stormwater Permit associated ordinances have not been adopted, illicit discharge elimination is ongoing, household hazard collection program has not been implemented	Quantify illicit discharges, adopt ordinances, eliminate most illicit discharges, implement household hazard collection program and/or activities as directed in next permit.
3-6	DPW Training	Dir. Of Municipal Maintenance	Training Provided	DPW employees attended Stormwater Seminars.	Continue Stormwater Training.
3-7	Public Information	Dir. Of Municipal Maintenance	Complaint File Completion and Maintenance	Information flyers are incomplete. Complaint Logs are incomplete.	Complete & distribute flyers, complete and maintain a complaint log, investigate complaints when necessary and/or activities as directed in next permit.

### 3a. Additions

#### 4. Construction Site Runoff Control

BMP ID#	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) - Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities - Permit Year 5
4-1	Conservation Commission By-Law	Conservation Commission Agent	1. Review By-law, prepare findings report on necessary changes / amendments to bylaw, revise bylaw to incorporate necessary revisions 2. Institute site inspection procedures, 3. realize improved water clarity, 4. realize increased number of aquatic organisms in water bodies.	By-law reviews are complete. The Town of Wareham Conservation administrator has prepared a comment letter reporting on his review of the existing Town of Wareham Wetland By-Law. This letter indicates areas of the Wetland By-law that currently do address requirements of the NPDES permit and areas of the bylaw that need to be strengthened to more adequately address the NPDES requirements. This letter has been included with this report submission.	Transition review/comment letter by conservation administrator into formal findings report, present any necessary amendments to town meeting, institute any necessary bylaw revisions and site inspection procedures indicated in findings report, realize increased number of aquatic organisms, and/or activities as directed in next permit.
4-2	Subdivision Rules and Regulations	Town Planner	1. Review regulations, prepare findings report, rules & regulations revised per findings, 2. Institute site inspection procedures, 3. Realize improved water clarity, 4. Realize increased number of aquatic organisms	Review of regulations complete, No findings report prepared, No Phase II Stormwater Requirement amendments to existing regulations enacted, no site inspection procedures enacted	Prepare findings report, present necessary revisions to town meeting, institute elements of findings report in subdiv. Rules and regs, institute site inspection procedures, realize increased number of aquatic organisms and/or activities as directed in next permit.
4-3	Zoning Review	Town Planner	1. Review By-law, prepare findings report on necessary changes / amendments to bylaw, revise bylaw to incorporate necessary revisions 2. Institute site inspection procedures, 3. realize improved water clarity, 4. realize increased number of aquatic organisms in water bodies.	Review of by-laws complete, No findings report prepared, No Phase II Stormwater Requirement amendments to existing Bylaw enacted, no site inspection procedures enacted	Prepare findings report, present necessary revisions to town meeting, institute elements of findings report in town bylaws, institute site inspection procedures, realize increased number of aquatic organisms, and/or activities as directed in next permit.

#### 4a. Additions

## 5. Post Construction Runoff Control

BMP ID#	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) - Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities - Permit Year 5
5-1	Conservation Commission By-Laws	Conservation Commission Agent	By-Law Amended	By-law reviews are complete. The Town of Wareham Conservation administrator has prepared a comment letter reporting on his review of the existing Town of Wareham Wetland By-Law. This letter indicates areas of the Wetland By-law that currently do address requirements of the NPDES permit and areas of the bylaw that need to be strengthened to more adequately address the NPDES requirements. This letter has been included with this report submission.	Transition review/comment letter by conservation administrator into formal findings report and present any necessary amendments to town meeting, reduce % of impervious services, realize improved water clarity and reduced sedimentation of waterbodies and/or activities as directed in next permit.
5-2	Planning Board Rules	Town Planner	Rules and Regulations Revised	Review of regulations complete, no additional action taken.	Prepare findings report and present any necessary amendments to town meeting, reduce % of impervious services, realize improved water clarity and reduced sedimentation of waterbodies and/or activities as directed in next permit.
5-3	Zoning By-Laws	Town Planner	By-Law Amended	Review of by-laws complete, no additional action taken.	Prepare findings report and present any necessary amendments to town meeting, reduce % of impervious services, realize improved water clarity and reduced sedimentation of waterbodies and/or activities as directed in next permit.

### 5a. Additions

## 6. Municipal Good House Keeping

<b>BMP ID#</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) - Permit Year 4</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities - Permit Year 5</b>
6-1	D.P.W. Policy Guide	Dir. Of Municipal Maintenance	Policy Guide Developed	Policy guide not complete.	Complete policy guide on vehicle maintenance, washing, fueling and salt storage and/or activities as directed in next permit.
6-2	D.P.W. Annual Training	Dir. Of Municipal Maintenance	Training Manual Prepared, Employee Training completed, recycling program fully implemented, pesticide reduction implemented	Manual not complete, Training not performed, recycle program not implemented, pesticide reduction not performed.	Complete training manual, perform employee training, implement recycling program, implement pesticide reduction, reduction in discharge of floatables and/or activities as directed in next permit.
6-3	D.P.W. Maintenance Schedule	Dir. Of Municipal Maintenance	Maintenance Schedule Developed	Implementation of on-going maintenance schedule.	Continue to develop and follow maintenance schedule, realize reduced percentage pesticide and sand/salt use, and/or activities as directed in next permit.
6-4	D.P.W. Permit Filing	Dir. Of Municipal Maintenance	Permits on File	On-going filing of all Stormwater related projects.	Continue permit filing and/or activities as directed in next permit.

### 6a. Additions

Town of Wareham  
Conservation Commission  
Memorial Town Hall  
54 Marion Road  
Wareham, Massachusetts, 02571

March 22, 2007

Bill Madden  
G.A.F. Engineering  
266 Main Street  
Wareham, MA 02571

RE: Stormwater Phase II

Dear Mr. Madden,

As a follow up to our meeting yesterday regarding the EPA Stormwater Phase II requirements I have reviewed existing Town wetland by-laws and guidelines and have the following comments:

Section 3 – Illicit Discharge Detection and Elimination

The Town has developed a storm sewer system map showing the location of outfalls and the locations of receiving waters. The Conservation Commission does not currently have a program to detect illicit discharges. When illicit discharges are identified by the Commission by direct observation or by being reported by concerned parties the Commission does have the ability through its by-law to eliminate said discharges. The Wareham Wetland By-Law can be strengthened to more adequately address this issue. Public education relative to this issue is carried out by informing the public at Conservation Meetings when the topic arises, and at other appropriate forums, but can certainly be improved through the development of other forms of outreach.

Specific language will have to be developed and incorporated into the Wareham Wetland Protective By-Law to more adequately address the issue of the detection and prohibition of illicit connections to storm drainage systems and the regulation of the discharge of pollutants from any users of these systems.

#### Section 4 – Minimum Control Measures for Construction site Storm Water Runoff Control

1. Currently a regulatory mechanism to require erosion and sediment controls exists as part of the Wareham Wetland Protective By-Law.
2. Specific regulatory requirements are not currently listed within the by-law as each site is different and may require different erosion control measures. More detailed erosion control standards can be drafted and added to the by-law.
3. The ability to require the control of waste materials at construction sites does currently exist as part of the by-law but again there are not specific requirements listed within the by-law relative to that issue.
4. Subdivision control, site plan reviews, and special permits are reviews handled by other permit granting authorities including the Planning Board and the Zoning Board of Appeals. Language included within a general Town by-law or within the by-laws of these Boards would be needed to implement or address lower EPA thresholds with respect to water quality and wetland impacts.

#### Section 5 – Post Construction Stormwater Management in New Development & Redevelopment

The Conservation Commission currently requires applicants to adhere to the standards found in the MA Department of Environmental Protection Stormwater Management Policy. This language does not, however, exist specifically within the text of the Wareham Wetland Protective By-Law. Further, there is not language within the by-law that differentiates the level of control on larger versus smaller projects.

In conclusion, the Conservation Commission currently incorporates conditions on projects that address many, though certainly not all, of the requirements described within the EPA Stormwater Phase II standards. Even though detailed standards are not found within the text of the by-law the Commission may include conditions on projects, through discretionary authority provided under the Wareham Wetland Protective By-Law, it deems necessary to adequately protect wetland resource areas and receiving waters. There is clearly room for more descriptive standards and language improvements within the by-law.



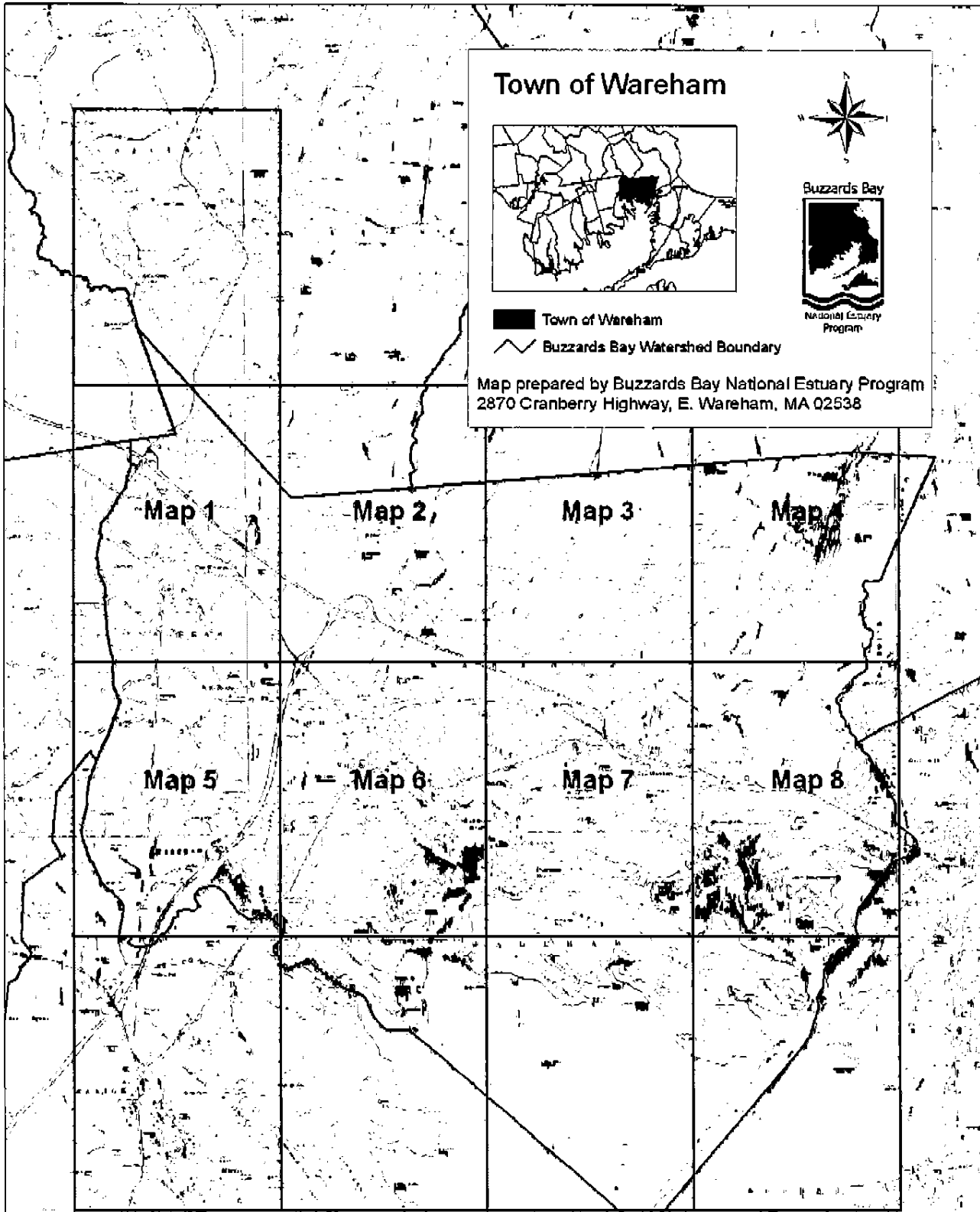
Sincerely,

A handwritten signature in black ink, appearing to read "David D. Pichette". The signature is fluid and cursive, with the first name "David" being more prominent.

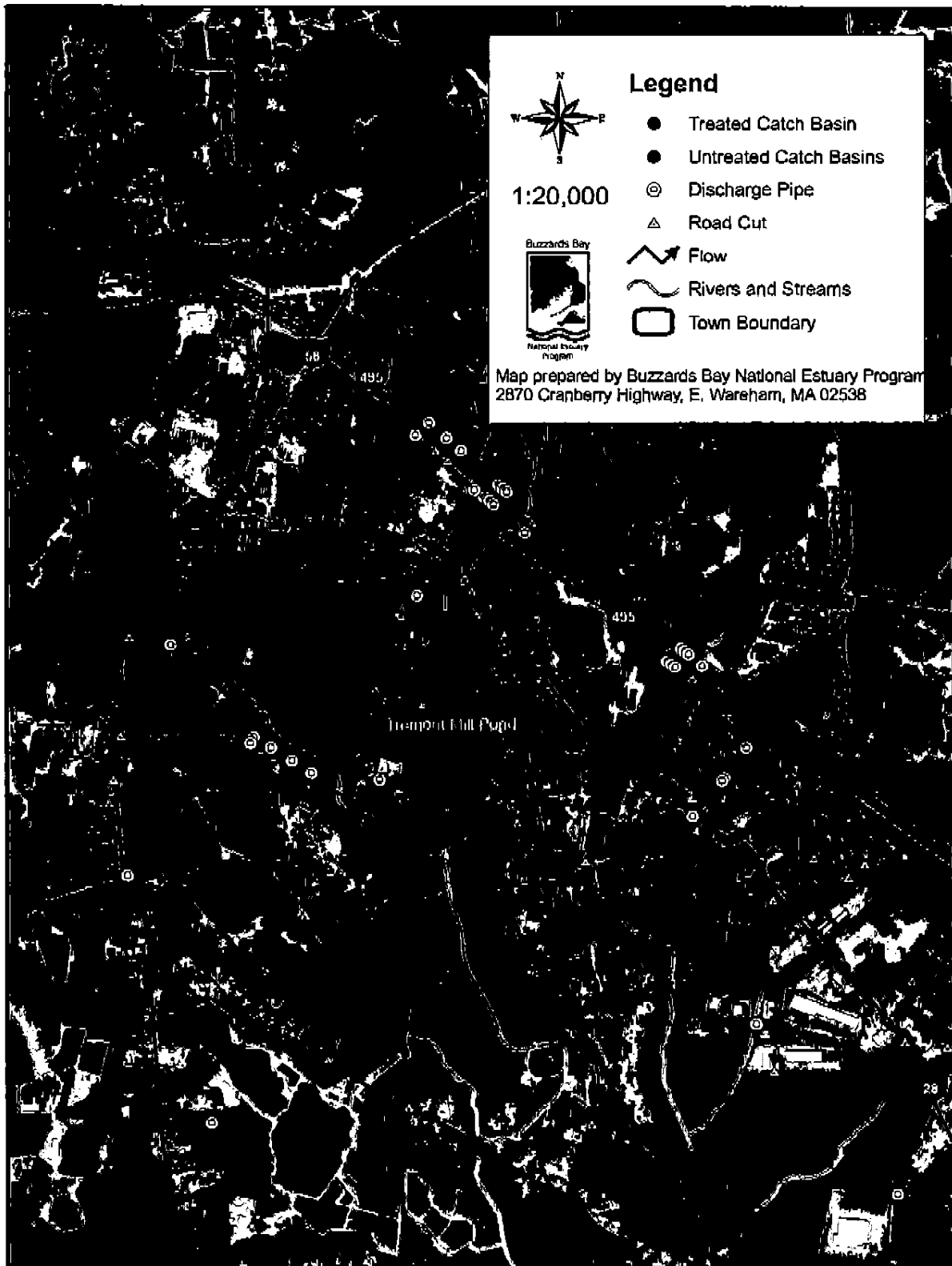
David D. Pichette, Conservation Administrator

cc: John Foster, Treasurer/Town Administrator  
Mark Gifford, Municipal Maintenance Director  
Chuck Gricus, Town Planner  
Robert Eithier, Health Agent  
Conservation Commission

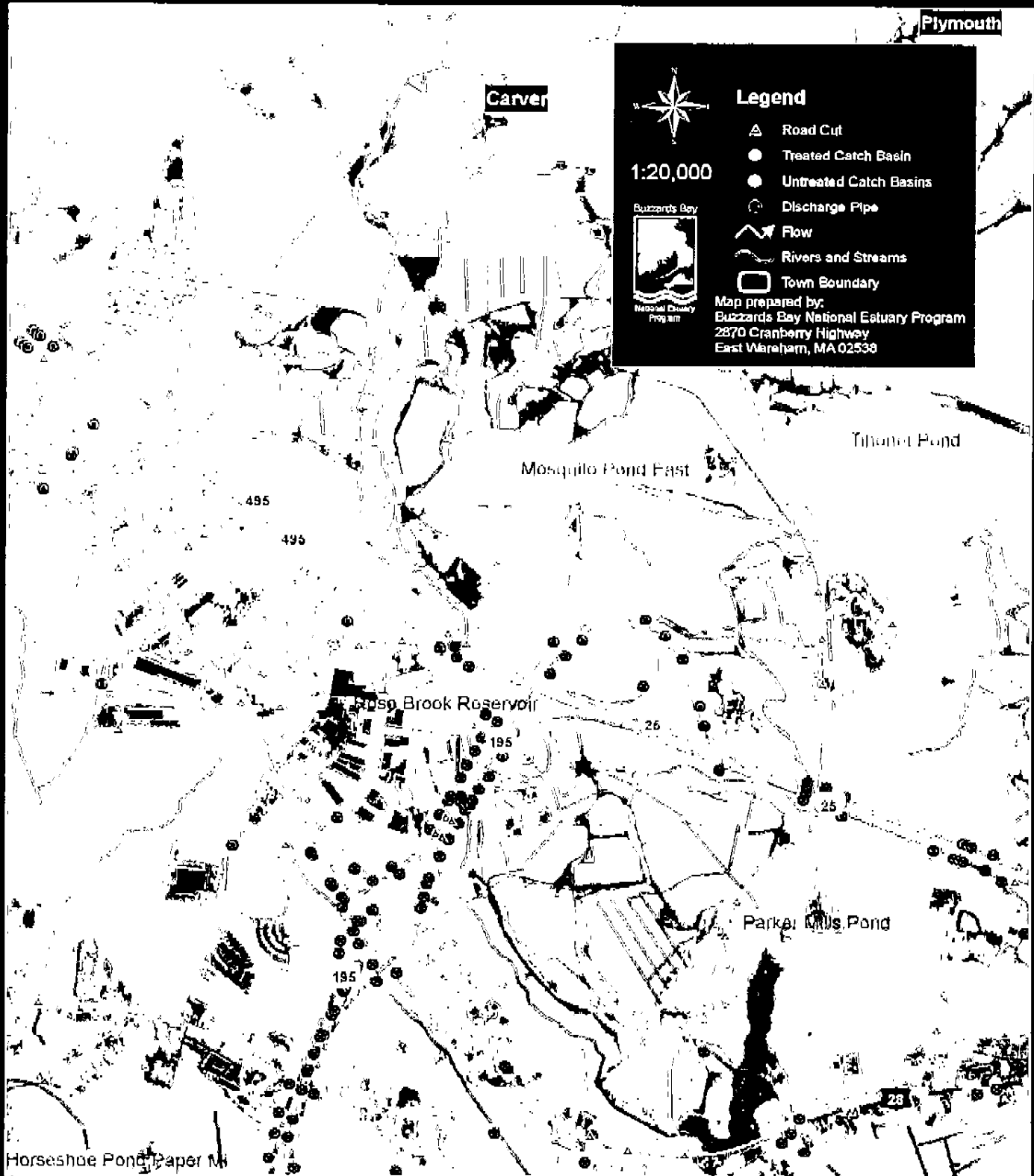
## Key for Wareham Storm Drain Maps



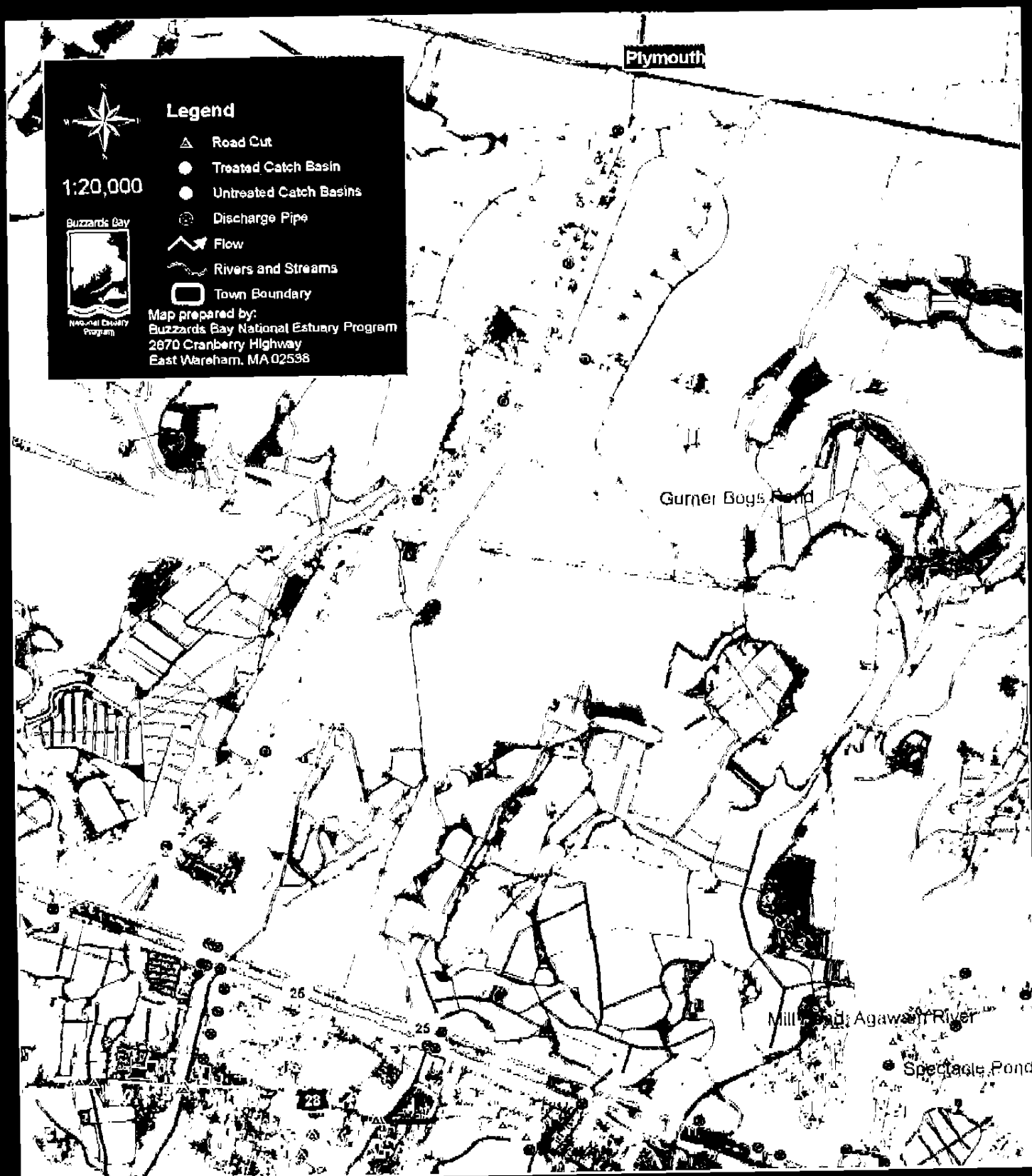
## Wareham: Map 1



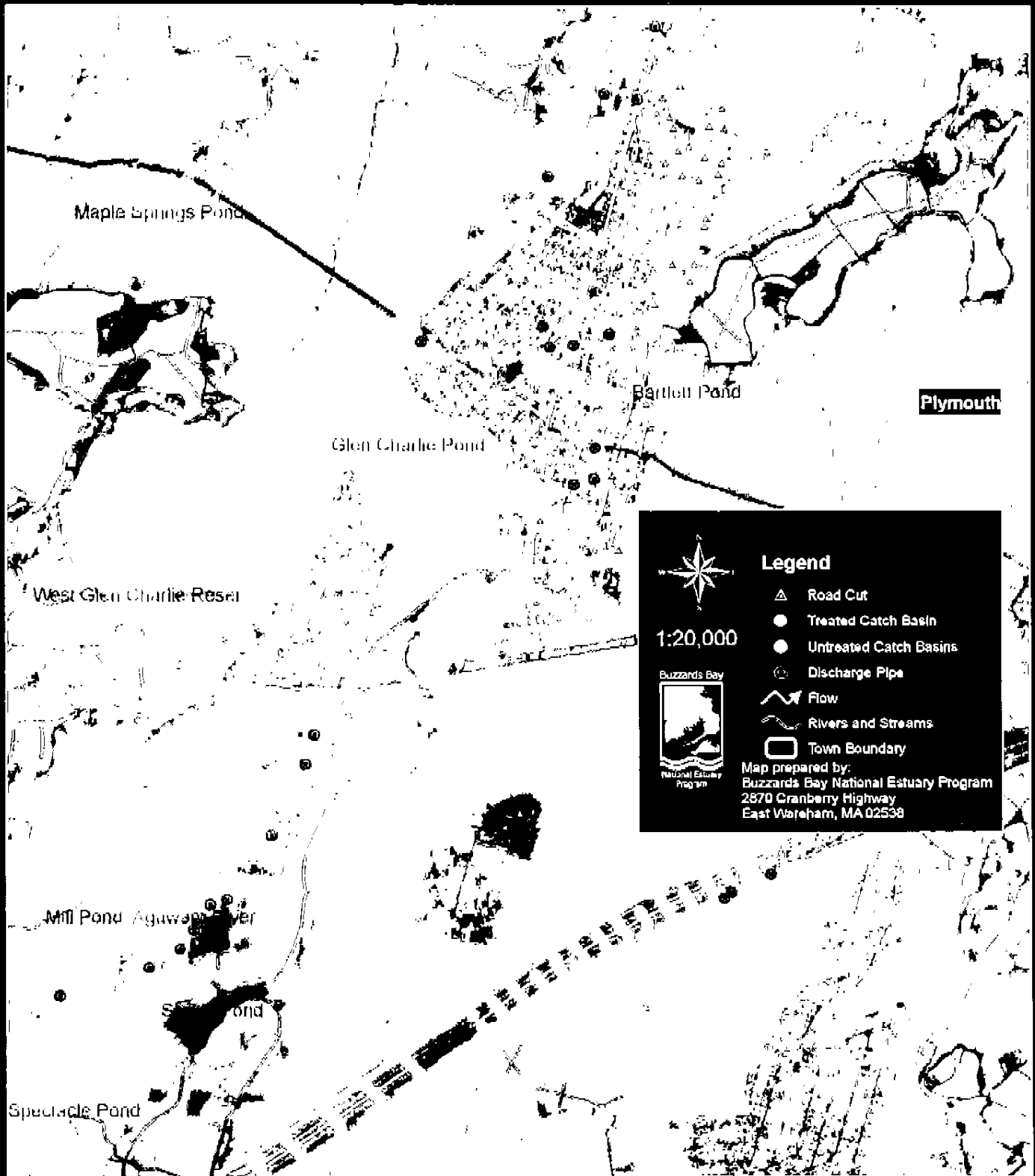
## Wareham: Map 2



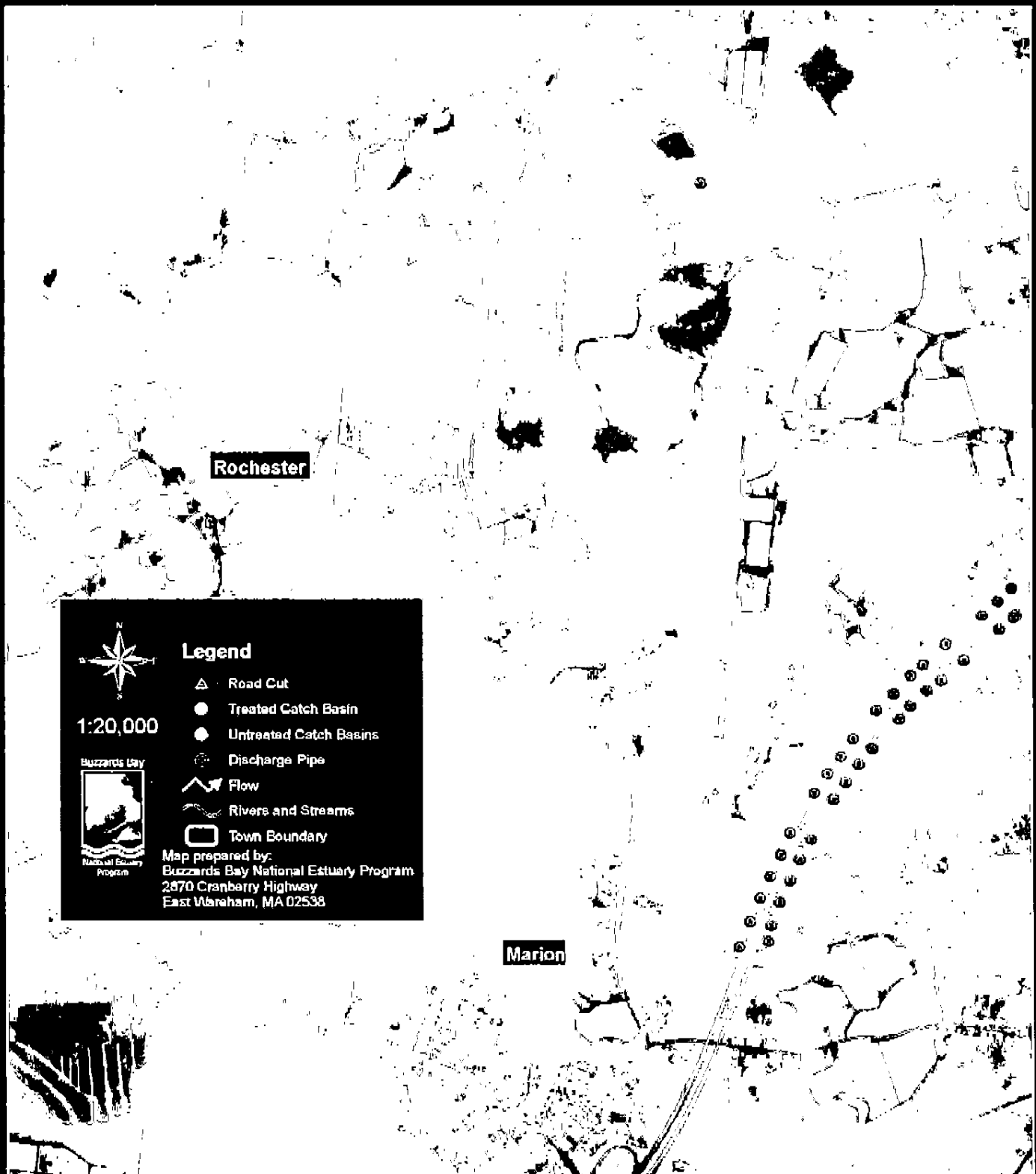
## Wareham: Map 3



## Wareham: Map 4



## Wareham: Map 5

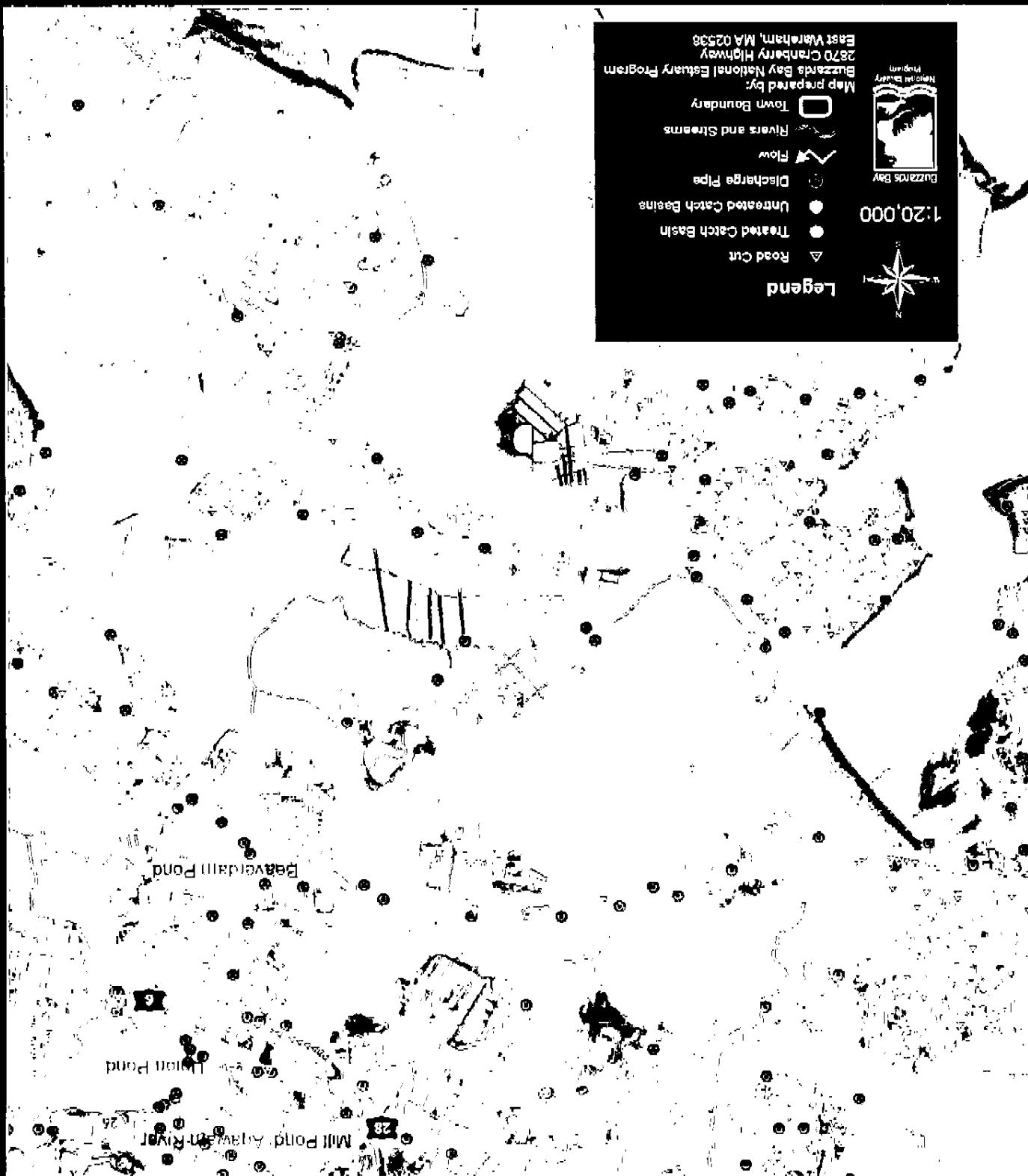


## Wareham: Map 6





# Wareham: Map 7



## Wareham: Map 8

