

FINAL REPORT

PRINCE FREDERICK WATERSHED MANAGEMENT PLAN,  
HUNTING CREEK WATERSHED - OUTLINE AND DIRECTION

PREPARED BY:

DAVID C. BROWNLEE, PhD.

AND

TAMARA L. BLAKE

DEPARTMENT OF PLANNING AND ZONING  
CALVERT COUNTY

176 MAIN STREET  
PRINCE FREDERICK, MARYLAND, 20678

DECEMBER 31, 1991

ACKNOWLEDGEMENT

Preparation of this report was partially funded by the Coastal Resources Division, Maryland Department of Natural Resources, through a grant provided by the Coastal Zone Management Act of Resource Management, National Oceanic and Atmospheric Administration.

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**PRINCE FREDERICK WATERSHED MANAGEMENT PLAN,  
HUNTING CREEK WATERSHED - OUTLINE AND DIRECTION**

**INTRODUCTION**

Calvert County has adopted a Comprehensive Plan which directs growth toward Major and Minor Town Centers. This approach is consistent with the recommendations of the Governor of Maryland's 2020 Panel and current growth management theory. Three Major Town Centers have been designated and Prince Frederick, the County Seat, is the only one located completely outside of the Critical Area. Thus, extensive growth is expected in Prince Frederick.

In some ways Prince Frederick is an environmentally sensitive area consisting generally of hills and stream valleys with many minor drainage areas. The town is located within two major drainage areas, Parkers Creek which drains to the Chesapeake Bay and Hunting Creek which drains to the Patuxent River. The later is an anadromous fish spawning stream. Parkers Creek has received considerable attention by conservation groups as well as by Maryland's Department of Natural Resources in relation to trying to preserve its pristine nature.

**OBJECTIVES**

The objectives of this study were to map the potential location of wetlands of Hunting Creek where development has and is expected to be greatest and to begin to develop a Watershed Management Plan for Prince Frederick which would be consistent with the watershed management requirements of the Maryland Nontidal Wetland Program. The proposed Maryland Nontidal Wetland Regulations recommends development of Watershed Management Plans which must include the following elements:

1. A functional assessment on nontidal wetlands within the watershed;
2. The location of potential mitigation sites;
3. Protection of nontidal wetlands;
4. A plan for limiting cumulative impacts to nontidal wetlands;
5. Water supply management; and
6. Flood management.

## RESULTS

### PRELIMINARY WETLAND INVENTORY

Data from the Soil Survey Maps for Calvert County have proven to be the most useful in estimating the extent of nontidal wetlands in Calvert County. The Soils Maps for Calvert County within the Hunting Creek Watershed have been entered into the County's Auto Cad computer mapping system and a map of potential waterways and wetlands has been produced from this data base which shows all of the streams (including the unclassified streams) and hydric soils for this watershed (see Map #1). It is our experience that a large number of the unclassified stream areas are nontidal wetlands.

In those areas of the Town Center where the greatest impact of development is expected and where the wetland extent is in question, a gross wetland assessment was conducted by a wetland consultant. Letters for permission to access property to conduct the survey was sent to all property owners in the portion of Prince Frederick which drains into the Hunting Creek Watershed (see Appendix A.1 for a copy of the letter). Not all of the drainage area within the town center could be included in the assessment for the monies allotted, so priority was given to county sites where development is expected, sites adjacent to these parcels and only those sites for which permission to access was granted. The results for this study, including maps and dominant vegetative species, is included in a Preliminary Wetland Assessment Report prepared by McCarthy and Associates, Inc. (see Appendix B).

### PRELIMINARY WATERSHED MANAGEMENT PLANNING EFFORTS

The Environmental Planner consulted with private consultants and state and federal officials to determine the necessary information, work and expense that would be necessary to complete all aspects of the Watershed Management Plan for Prince Frederick. These meetings and associated correspondence are documented in the Coastal Zone Grant Quarterly Reports and in Appendix A.2. An interdepartmental meeting within Calvert County Government was also held to discuss development of the Plan and for recognition of pertinent issues (meeting agenda is included in Appendix A.3). From these discussions and the draft "Watershed Management Guidelines" an Outline was created for a watershed management plan for the Hunting Creek watershed (see Appendix A.4).

This information was also used to produce a Coastal Zone Management Grant Request for fiscal year 1992. Among the final products proposed in this grant request was a draft watershed management plan for Prince Frederick. This request also included cost estimates for completing the work. (A copy of the grant

request is included in Appendix C.) Preparation of this document also satisfies one of the work products required of this grant which is to document the costs of preparing the watershed management plan.

In addition, correspondence and meetings with representative from the U.S. Army Corp of Engineers, Planning Division and DNR, WRA, Flood Management Division has resulted in potential additional funding (up to approximately \$70,000) for flood management studies. The results of these studies will also be very useful in developing the stormwater management section of the watershed plan.

### **SUMMARY**

The creation of the wetland maps and development of the Watershed Management Plan for Prince Frederick will allow our county to develop one of our major Town Centers in an environmentally sensitive manner and will prescribe in advance what would be required for development in the Town Center. The outline of the plan in itself could be used as a guide for other jurisdictions that are faced with developing such plans in light of the proposed Maryland Nontidal Wetland Program. It will also set the groundwork for continuing the Prince Frederick Watershed Plan.

The work completed during this grant cycle has made it possible to submit a Coastal Zone Management grant request to produce a draft Watershed Management Plan which will be consistent with the guidelines set up by the Maryland Nontidal Wetland Program. In addition the completed computer mapping will serve as the base map from which additional natural resources overlays can be conducted and will be used in assessing the Hunting Creek watershed wetland types and functions in future studies.

### **ACKNOWLEDGEMENT**

Preparation of this report was partially funded by the Coastal Resources Division, Maryland Department of Natural Resources, through a grant provided by the Coastal Zone Management Act of 1972, as amended, administered by the Office of Ocean and Coastal Resource Management, National Oceanic and Atmospheric Administration.

**APPENDIX A**

**SUPPORTING DOCUMENTATION**

1. **LETTER REQUESTING PERMISSION TO ACCESS PROPERTY IN PRINCE  
FREDERICK**
2. **LIST OF MEETING DATES, DESCRIPTIONS OF MEETINGS AND  
ASSOCIATED CORRESPONDENCE.**
3. **INTERDEPARTMENTAL MEETING ON WATERSHED MANAGEMENT PLAN -  
AGENDA**
4. **PRINCE FREDERICK WATERSHED MANAGEMENT PLAN, THE HUNTING  
CREEK WATERSHED - OUTLINE**
5. **PRINCE FREDERICK WATERSHED MANAGEMENT PLAN, THE HUNTING  
CREEK WATERSHED - COASTAL ZONE MANAGEMENT GRANT PROPOSAL**

**APPENDIX A**

**SUPPORTING DOCUMENTATION**

- 1. LETTER REQUESTING PERMISSION TO ACCESS PROPERTY IN PRINCE  
FREDERICK**



**CALVERT COUNTY  
DEPARTMENT OF PLANNING & ZONING**

Prince Frederick, Maryland 20678  
Phone (301) 535-1600 (DC) 855-1243  
(301) 535-2348

*Director*  
Frank A. Jaklitsch

*Board of Commissioners*  
Patrick M. Buehler  
Mary M. Krug  
Hagner R. Mister  
Michael J. Moore  
Joyce Lyons Terhes

September 13, 1991

Dear Prince Frederick Town Center Property Owner,

The Department of Planning and Zoning, Calvert County is beginning to conduct a watershed management plan for the Hunting Creek Watershed which includes the northern half of Prince Frederick. One of the initial steps is to inventory the wetlands in the Prince Frederick Town Center. The purpose of this letter is to let you know about the watershed plan and to request your permission for access onto your property for our environmental consultant to conduct a gross wetland delineation.

We have limited funding through a Coastal Zone Management Grant to pay for a gross wetland delineation in portions of the Prince Frederick Town Center. We do not expect the funding will allow coverage of the entire north section of Prince Frederick, so, even though your property has received some priority, it may not be included in the area to be delineated.

If you approve, the consultant will simply be walking your property in the areas of potential wetlands and will make notes on his maps. He will not leave any flagging or cut any vegetation. The result will be a map of approximate wetland boundaries for some portions of the Prince Frederick Town Center. These maps will be made available to you. These maps could be used by you to guide any future development away from wetlands. If you propose future work in wetlands, such as a driveway or road crossing, a more accurate and detailed wetland delineation will be necessary.

Planning and Zoning will be requesting and advertising for public participation in the development of the watershed plan. The purpose of the plan would be to allow development of the Prince Frederick Town Center in an environmentally sensitive manner including addressing environmental protection, wetland mitigation, cumulative impacts, flood management and water supply on a watershed scale. We look forward to your participation in the planning process.

Attached is a consent form to allow our consultant access onto your property. Please, sign and date the form and return it to us immediately. We hope to complete the work in the next two weeks and priority will be given to those responses returned early. If we do not receive an affirmative response, your property will not be included in the wetland survey.

Sincerely,

A handwritten signature in cursive script, appearing to read "David C. Brownlee".

David C. Brownlee, PhD.  
Environmental Planner



**APPENDIX A**

**SUPPORTING DOCUMENTATION**

2. **LIST OF MEETING DATES, DESCRIPTIONS OF MEETINGS AND ASSOCIATED CORRESPONDENCE.**

**LIST OF MEETING DATES, DESCRIPTIONS OF MEETINGS**

<u>DATE</u>	<u>ACTIVITY</u>
10/15/90	MEETING WITH McKEWEN, DNR, NONTIDAL WETLAND DIVISION ON WATERSHED MANAGEMENT PLANNING, ANNAPOLIS
12/18/90	PRELIMINARY MEETING WITH JESSIAN, HORN PT. ENVIRONM. LAB., UNIV. MD. ON M-WET MODEL FOR DETERMINING WETLAND FUNCTION, CAMBRIDGE
1/15/91	FOLLOW-UP MEETING WITH JESSIAN ON M-WET MODEL, AT PRINCE FREDERICK
1/24/91	MEETING WITH DNR, WRA, WATER RIGHTS DIVISION ON WATER SUPPLY AND WATERSHED MANAGEMENT PLANNING, ANNAPOLIS
1/30/91	MEETING WITH HUGHES, DNR, WRA, FLOOD MANAGEMENT DIV., ANNAPOLIS
4/16/91	ATTEND NONTIDAL WETLANDS PERMIT REVIEW WORKSHOP, ANNE ARUNDEL COMMUNITY COLLEGE, ANNAPOLIS
4/17/91	PRESENT UPDATE ON GRANT PROGRESS AT THE COASTAL RESOURCES DIVISION PLANNERS WORKSHOP, ANNAPOLIS
5/2/91	MEETING WITH WATSON AND NEUNDORFER, MDE, WRA, DIVISION OF STANDARDS AND CERTIFICATION, WATER QUALITY CERTIFICATION, BALTIMORE
5/15/91	MEETING WITH BEEGLE, ARMY CORP OF ENGINEERS, PLANNING DIVISION, BALTIMORE
8/8/91	INTERDEPARTMENTAL MEETING ON PRINCE FREDERICK WATERSHED MANAGEMENT PLAN, PRINCE FREDERICK
8/16/91	FOLLOW-UP MEETING WITH REBECCA HUGHES, DNR, WRA, FLOOD MANAGEMENT AND BEEGLE, ARMY CORP, ANNAPOLIS
9/9/91	MEET WITH MCCARTHY, MCCARTHY AND ASSOCIATES ON PRINCE FREDERICK WETLAND ASSESSMENT STUDY



**CORRESPONDENCE**



William Donald Schaefer  
Governor

**Maryland Department of Natural Resources**

**Water Resources Administration**

Tawes State Office Building  
Annapolis, Maryland 21401

Torrey C. Brown, M.D.  
Secretary

Catherine P. Stevenson  
Director

February 5, 1991

Dr. David Brownlee  
Calvert County  
Planning & Zoning  
Courthouse Annex  
175 Main Street  
Prince Frederick, Maryland 20678

RE: Hunting Creek Watershed

Dear Dr. *Brownlee*:

It was a pleasure talking with you about your plans to work on a truly comprehensive plan for the Hunting Creek watershed. As I indicated, I'm writing to clarify the aspects in which this Division may be able to be involved.

**Floodplain Studies:** The Flood Insurance Rate Maps for Hunting Creek and its tributaries depict Approximate Floodplains for which detailed engineering has not been undertaken. For many areas, approximate floodplains are adequate for guiding development away from these sensitive areas. However, as you proceed with your preliminary survey of needs, you may determine that additional hydrologic and hydraulic modelling and mapping is an important missing element. We should more carefully evaluate the need for additional study.

This Division is authorized to fund or perform studies to delineate floodplains and to evaluate alternatives for addressing existing flood hazards. Although this is our primary objective when considering studies, we have determined that providing communities with more accurate data and maps in order to improve local management of floodplains is an acceptable adjunct. In the interest of assisting Calvert County in accomplishing a comprehensive study and plan, I would be willing to add the Hunting Creek watershed to our priority study list.

Telephone: (301) 974-3825  
DNR TTY for the Deaf: 301-974-3683

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The County also has an active flood management program and the improved mapping would help in the implementation of that program. The Calvert County Comprehensive Water and Sewerage Plan requires that the County attempt to provide sufficient water supply for potable water and fire protection. The Watershed Management Plan would provide detailed information on these parameters in the watershed including Prince Frederick.

#### VI. Supporting Grants

As discussed above, the Flood Management Division, Water Resources Administration, Department of Natural Resources is considering conducting hydrologic and hydraulic modeling and mapping in the Hunting Creek Watershed as a contribution toward the Hunting Creek Watershed Management Plan Study (see attached letter from Ms. Hughes dated February 5, 1991).

#### VII. Additional Information

This project would be one of the first to use the watershed management provisions of Maryland's nontidal wetlands regulations. In addition, Calvert County would be one of the first to use DNR's "A guide for Developing Nontidal Wetlands Watershed Management Plans in Maryland" in developing a watershed management plan. Thus, this project can serve as a prototype for other local governments to use in developing watershed management plans in their jurisdictions.

The watershed management approach shifts the focus of state and federal regulators from site specifics to a watershed based approach which allows cumulative impacts to be addressed and makes more sense environmentally. Also, by establishing certain ground rules and identifying mitigation sites in advance, projects in the watershed which meet the provisions of the plan can proceed more efficiently through the permitting process.

Mr. David Brownlee  
February 5, 1991  
Page Two

Nontidal Wetlands: In areas where we are already participating in floodplain studies, we can add an element to delineate nontidal wetlands. It may be possible to add identification of potential mitigation sites to a scope of work.

Sources of Sediment: Similarly, we can add an element to qualitatively identify and assess existing sources of sediment that may be adversely affecting the stream system. This can help target erosion and sediment control activities in watersheds experiencing excessive streambank erosion and sedimentation.

Tax map overlays: Recently, we've not been producing floodplain map overlays for local tax maps. We expect to utilize the MIPS system to prepare computerized overlays once the system is fully implemented. I don't know what the time line for this is, which is of course dependent upon funding. There is a possibility that we could partially support the County's preparation of floodplain overlays if they are digitized or comparably prepared to be compatible with your AUTOCAD/GIS.

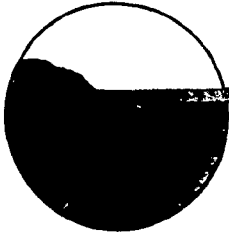
Despite the various opportunities for our participation, I cannot commit a specified amount of funding at this time. Once the General Assembly has acted on our bond bill, we'll have a better idea of our possible participation. I look forward to hearing from you as you more accurately define the scope of your undertaking.

Sincerely,



Rebecca Q. Hughes, Chief  
Flood Management Division

RQH/cg



**Maryland Department of Natural Resources**

**Tidewater Administration**  
Tawes State Office Building  
580 Taylor Avenue  
Annapolis, Maryland 21401

William Donald Schaefer  
*Governor*

Torrey C. Brown, M.D.  
*Secretary*

March 28, 1991

David C. Brownlee  
Department of Planning and Zoning  
Calvert County  
Court House  
Prince Frederick, Maryland 20768

Dear Mr. Brownlee:

This letter confirms that you will be giving a presentation titled, "Hunting Creek Watershed Management Plan: Getting Started", at the upcoming Local Government Coastal Zone Planners' Workshop on April 17, 1991, at the Holiday Inn in Annapolis. Your presentation should be about one half-hour long including time for questions.

We anticipate around 60 people will be attending the workshop. You can expect to have 25-40 people attending your particular session. If you want everyone attending the workshop to have a copy of the material you bring; plan on bringing 60 copies. Otherwise, 40 copies should be sufficient. If it is more convenient for you, bring one copy of your material for review and those interested in it can sign the list to have it mailed to them.

Audio visual equipment will be provided for your use. This will include a slide projector, overhead projector, easel, tape, pins, etc.

Enclosed please find an agenda for the workshop.

If you have any questions, do not hesitate to call me at 301-974-2784.

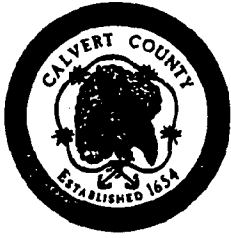
Sincerely,

Mike Thomas  
Local Technical Assistance Program

Encls.  
MT/jer

Telephone: \_\_\_\_\_  
DNR TTY for Deaf: 301-974-3683

RECEIVED  
1991



**CALVERT COUNTY  
DEPARTMENT OF PLANNING & ZONING**

Prince Frederick, Maryland 20678  
Phone (301) 535-1600 (DC) 855-1243  
(301) 535-2348

*Director*  
Frank A. Jaklitsch

*Board of Commissioners*  
Patrick M. Buchler  
Mary M. Krug  
Hagner R. Mister  
Michael J. Moore  
Joyce Lyons Terhes

May 7, 1991

Mr. Noel Beegle, Chief  
Basin Planning Branch  
Planning Division  
U.S. Army Engineers District, Baltimore  
P.O. Box 1715  
Baltimore, MD 21203-1715  
(301) 962-3235

Dear Mr. Beegle,

I would like to confirm our meeting to discuss the proposed "Prince Frederick Watershed Management Plan, Hunting Creek Watershed" scheduled for May 15, 1991 at 10:30 a.m. in your office in Baltimore. Enclosed are three copies of some background information on the project.

The County objectives of our upcoming meeting are to determine the Corps role in the proposed watershed management plan, to get some guidance in preparing watershed management plans, and to explore what technical and/or financial support the Corps might be able to offer in support of this project. Any guidance documents on watershed management planning, examples and references of such plans and/or sources of funding would be greatly appreciated.

If you need any additional information, please let me know. I'm looking forward to meeting you next week.

Sincerely,

David C. Brownlee, PhD.  
Environmental Planner

c. Frank Jaklitsch, Director, Planning and Zoning




**MEMORANDUM**

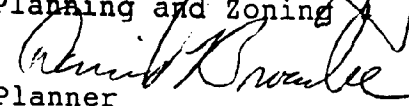
**DEPARTMENT OF PLANNING AND ZONING**

**DATE:** June 25, 1991

**MEMO TO:** Board of County Commissioners

**VIA:** Dick Holler  
County Administrator

**VIA:** Frank Jaklitsch, Director  
Department of Planning and Zoning 

**MEMO FROM:** David Brownlee   
Environmental Planner

**RE:** Watershed Management Plan for Prince Frederick,  
requests to the State and Army Corps for technical  
support.

**I. BACKGROUND**

The County has applied for grant monies through the Coastal Zone Management Program to develop a watershed management plan for the Hunting Creek Watershed which includes a substantial portion of Prince Frederick. The proposal will be funded if it receives favorable action by NOAA (see attached letter from Dr. Lima to the Calvert County Board of County Commissioners). Flood management is one of the objectives of the watershed management plan. Both the Army Corp of Engineers and Maryland DNR, Water Resources Administration have indicated that they would be willing to entertain request for technical support for flood management.

**II. DISCUSSION AND CONCLUSIONS**

I have prepared (enclosed) draft letters requesting support for flood management to both the Corps and DNR from the Board of County Commissioners. If both were to provide support for the project, their technical studies and assistance might be valued at somewhere between \$50,000 and \$100,000. The results of their studies could also be used in evaluating future stormwater management requirements for Prince Frederick. The details of the support to be provided and the detailed work approach of the watershed management plan will be developed through interdepartmental coordination with Planning and Zoning, Economic Development, Engineering, Public Facilities and Services and Public Safety.

III. RECOMMENDATIONS

Recommend that you modify if necessary and send the attached letters requesting support to the Army Corps and DNR.

IV. COORDINATION

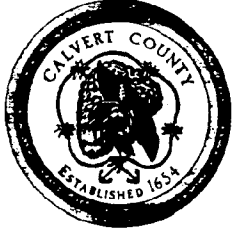
Economic Development Talmage Reeves 6-25-91  
Talmage Reeves Date

Engineering Bob Taylor 6-25-91  
Bob Taylor Date

Public Facilities and Services John Bergin 25 June 1991  
John Bergin Date

Public Safety Bob Short 6-26-91  
Bob Short Date

- c. Bill Bailey  
John Bergin  
Dennis Brobst  
Bob Short  
Talmage Reeves



**CALVERT COUNTY  
BOARD OF COUNTY COMMISSIONERS**

Courthouse  
Prince Frederick, Maryland 20678  
Phone (301) 535-1600, (DC) 855-1243

*Board of Commissioners*  
Patrick M. Buehler  
Mary M. Krug  
Hagner R. Mister  
Michael J. Moore  
Joyce Lyons Terhes

July 2, 1991

Mr. James Johnson, Chief  
Planning Division  
U.S. Army Engineers District, Baltimore  
P.O. Box 1715  
Baltimore, MD 21203-1715

Dear Mr. Johnson,

The Calvert County Board of County Commissioners is requesting your division's technical assistance under the Flood Plain Management Services Program, Section 206, Flood Control Act of 1960. Your assistance, if available, would be used in the development of a Watershed Management Plan for the Hunting Creek Watershed (outline enclosed). The Hunting Creek Watershed is the largest watershed in Calvert County and includes a major portion of the largest town in the County, Prince Frederick. The main objective of the Plan is to facilitate development in our designated town centers in an environmentally sensitive manner using a watershed approach.

The County's Environmental Planner, Dr. David Brownlee, met with Mr. Noel Beegle, Chief, Basin Planning Branch of your division on May 15, 1991 to discuss the possible Army Corps involvement in this watershed management plan. Mr. Beegle encouraged Dr. Brownlee to have a letter of request submitted.

Calvert County has applied to the Maryland Coastal Zone Management Program administered by the Maryland Department of Natural Resources, Coastal Resources Division (CRD) for grant monies to develop a watershed management plan for the Hunting Creek watershed (proposal enclosed). We have received a letter of intent to fund from CRD (letter from Dr. Jacob Lima enclosed) though the final contract will not be signed until August and monies are not absolutely committed until that time.

Our request to you is for technical services under the flood management section of the watershed management plan (section III.C. of the Outline). We are asking for your assistance in conducting hydrologic and hydraulic studies to better define the flood plain

in the watershed, especially in the area of Prince Frederick and identified problem areas. The results of these proposed studies would also provide invaluable data for modeling stormwater management. We are also requesting that you assess the possible impacts on the flood plain of expected changes in land use. In addition, we are requesting that a flood damage reduction study be conducted for the watershed.

Dr. Brownlee has also been discussing the Hunting Creek Watershed Management Plan and flood management assistance with Ms. Rebecca Hughes, Chief, Flood Management Division, Water Resources Administration, Maryland Department of Natural Resources. Her division may also be able to provide assistance (see attached letter from Ms. Hughes, 2-5-91, and our letter to her, 6-25-91). If assistance becomes available from both DNR and your agency, then we would ask Dr. Brownlee to coordinate the assistance to maximize coverage of the watershed, to maximize use of resources and to avoid duplication.

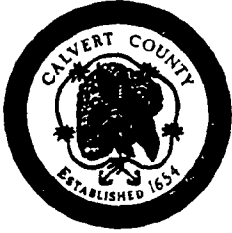
We would greatly appreciate your consideration of our request. If our request is granted we would hope that the work could be done concurrent with the Coastal Zone grant which would begin in October, 1991. Dr. Brownlee will be our contact person for this project and we request that you submit any questions concerning the details of the project to him (Department of Planning and Zoning, 176 Main Street, Prince Frederick, MD 20678; (301) 535-2348).

Sincerely,



Mary M. Krug, President  
Calvert County Board of County Commissioners

- c. Mr. Noel Beegle, Division of Planning, Army Corps
- Dr. David Brownlee, Department of Planning and Zoning
- Ms. Rebecca Hughes, Water Resources Administration, DNR
- Mr. Frank Jaklitsch, Department of Planning and Zoning
- Ms. Sherrod Sturrock, Department of Administration and Finance



**CALVERT COUNTY  
BOARD OF COUNTY COMMISSIONERS**

Courthouse  
Prince Frederick, Maryland 20678  
Phone (301) 535-1600, (DC) 855-1243

*Board of Commissioners*  
Patrick M. Buehler  
Mary M. Krug  
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Michael J. Moore  
Joyce Lyons Terhes

July 2, 1991

Ms. Rebecca Q. Hughes, Chief  
Flood Management Division  
Water Resources Administration  
Maryland Department of Natural Resources

Dear Ms. Hughes,

The Calvert County Board of County Commissioners is requesting your division's technical assistance in flood plain management services. Your assistance, if available, would be used in the development of a Watershed Management Plan for the Hunting Creek Watershed (outline enclosed). The Hunting Creek Watershed is the largest watershed in Calvert County and includes a major portion of the largest town in the County, Prince Frederick. The main objective of the Plan is to facilitate development in our designated town centers in an environmentally sensitive manner using a watershed approach.

The County's Environmental Planner, Dr. David Brownlee, met with you and Mr. John Joyce on January 30, 1991 to discuss the possible Water Resources Administration involvement in this watershed management plan. You kindly responded with a letter (February 5, 1991) indicating the type of services your division might offer and indicating your potential involvement. In this letter we would like to make a formal request for your divisions services.

Calvert County has applied to the Maryland Coastal Zone Management Program administered by the Maryland Department of Natural Resources, Coastal Resources Division (CRD) for grant monies to develop a watershed management plan for the Hunting Creek watershed (proposal enclosed). We have received a letter of intent to fund from CRD (letter from Dr. Jacob Lima enclosed) though the final contract will not be signed until August and monies are not absolutely committed until that time.

Our request to you is for technical services under the flood management section of the watershed management plan (section III.C. of the Outline). We are asking for your assistance in conducting

hydrologic and hydraulic studies to better define the flood plain in the watershed, especially in the area of Prince Frederick and identified problem areas. The results of these proposed studies would also provide invaluable data for modeling stormwater management (section III.D of Outline). We also are requesting your assistance in delineating nontidal wetlands in and around the town centers and in locating appropriate mitigation sites (sections III.B.1 and III.E.3 of the Outline). In addition, we are requesting your assistance in identifying sediment pollution problem areas (section III.E.5 of the Outline). And finally, we would appreciate any assistance you can provide in the preparation of Tax Map overlays (section III.F.1 of the Outline).

Dr. Brownlee has also been discussing the Hunting Creek Watershed Management Plan and flood management assistance with Mr. Noel Beegle, Chief, Basin Planning Branch, Planning Division, U.S. Army Corps of Engineers (see attached letter to Mr. Beegle's supervisor, Mr. James Johnson, Chief, Planning Division). The Planning Division of the Corps may also be able to provide assistance under Section 206 of the Flood Control Act of 1960. If assistance becomes available from both the Corps and your agency, then we would ask Dr. Brownlee to coordinate the assistance to maximize coverage of the watershed, to maximize use of resources and to avoid duplication.

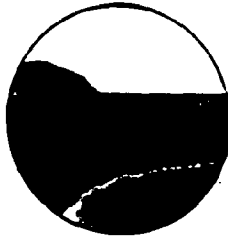
We would greatly appreciate your consideration of our request. If our request is granted we would hope that the work could be done concurrent with the Coastal Zone grant which if approved would begin in October, 1991. Dr. Brownlee will be our contact person for this project and we request that you submit any questions concerning the details of the project to him (Department of Planning and Zoning, 176 Main Street, Prince Frederick, MD 20678; (301) 535-2348).

Sincerely,



Mary M. Krug, President  
Calvert County Board of County Commissioners

- c. Mr. Noel Beegle, Division of Planning, Army Corps
- Dr. David Brownlee, Department of Planning and Zoning
- Mr. Frank Jaklitsch, Department of Planning and Zoning
- Mr. James Johnson, Division of Planning, Army Corps
- Ms. Sherrod Sturrock, Department of Administration and Finance



**Maryland Department of Natural Resources**

**Tidewater Administration**

Tawes State Office Building  
580 Taylor Avenue  
Annapolis, Maryland 21401

William Donald Schaefer  
*Governor*

Torrey C. Brown, M.D.  
*Secretary*

May 29, 1991

M's. Mary M. Krug, President  
Calvert County Board of Commissioners  
Court House  
Prince Frederick, Maryland 20678

Dear M's. Krug:

The Coastal Resources Division (CRD) has evaluated and competitively ranked the projects submitted by the Coastal Zone local governments for funding through Section 306 of the Coastal Zone Management Act. Based upon this evaluation, CRD has submitted a grant application to the National Oceanic and Atmospheric Administration (NOAA) which included the following allocation of funding for your jurisdiction:

Standard CZM Activities	Federal Funding	\$10,000
	Local Match	\$ 0
Watershed Management Plan	Federal Funding	\$20,600
	Local Match	\$18,708

Due to the number of grant requests received, funding may not have been allocated for all of the projects you requested or at the level requested.

Subject to favorable action by NOAA, the funds will be available October 1, 1991. CRD staff will be getting in touch with your staff to discuss the development of a contractual agreement for this project(s). In order to provide you with a fully executed contract by October 1, 1991, we will be working under the following schedule:

June 1991.....negotiate final Scopes  
of Work

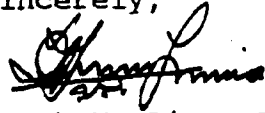
M's. Mary Krug  
May 29, 1991  
Page Two

July 1, 1991 -  
August 14, 1991.....local government review  
and approval of contract

August 15, 1991 -  
September 30, 1991.....state review and  
approval of contract

If you have any questions concerning your grant request,  
please call Gwynne Schultz at 301-974-2784.

Sincerely,



Jacob N. Lima, Ph.D.  
Director  
Coastal Resources Division

cc: ✓ David Brownlee  
Gwynne Schultz



**APPENDIX A**

**SUPPORTING DOCUMENTATION**

- 3. INTERDEPARTMENTAL MEETING ON WATERSHED MANAGEMENT PLAN -  
AGENDA**

**MEMORANDUM**

**DEPARTMENT OF PLANNING AND ZONING**

**DATE:** August 8, 1991

**MEMO TO:** Dick Holler, County Administrator  
John Bergin, Public Facilities and Services  
Linwood Beverly  
Greg Bowen, Water and Sewerage  
Dennis Brobst, Water and Sewerage  
Ron Clark, Engineering  
Roxana Homer, Planning and Zoning  
Talmage Reeves, Economic Development  
Bob Short, Public Safety and Services  
Bob Taylor, Engineering  
Randi Vogt, Planning and Zoning

**MEMO FROM:** David Brownlee and Frank Jaklitsch

**RE: PRINCE FREDERICK WATERSHED MANAGEMENT PLAN, HUNTING  
CREEK WATERSHED**

Attached is an agenda and documentation concerning the "Prince Frederick Watershed Management Plan, Hunting Creek Watershed" scheduled for 1:00 today. Please, review the agenda and documents before the meeting if at all possible. Come with lots of questions and good ideas.

**AGENDA**

**PRINCE FREDERICK WATERSHED MANAGEMENT PLAN,  
HUNTING CREEK WATERSHED**

AUGUST 8, 1991  
1:00 p.m.  
Rm. 10, COURTHOUSE ANNEX

1. PURPOSE OF MEETING
2. PURPOSE OF PLAN
3. PROGRESS TO DATE
  - A. CZM PROJECT 1990-1991
  - B. CZM PROPOSAL 1991-1992
4. OUTLINE OF PLAN
  - A. REVIEW OUTLINE AND IDENTIFY PARTIES INVOLVED IN EACH SECTION
  - B. IDENTIFY ADDITIONAL ISSUES - REVISE OUTLINE AS NECESSARY
  - C. IDENTIFY OPPORTUNITIES TO ASSIST MEETING COUNTY GOALS
5. FLOOD MANAGEMENT ASSISTANCE FROM DNR AND THE STATE
  - A. IDENTIFY PRIORITY AREAS FOR STUDIES
  - B. COUNTY INVOLVEMENT IN STUDIES
6. INTERDEPARTMENTAL PARTICIPATION IN DEVELOPMENT OF THE PLAN
7. SUMMARY AND PLAN OF ACTION

**APPENDIX A**

**SUPPORTING DOCUMENTATION**

4. **PRINCE FREDERICK WATERSHED MANAGEMENT PLAN, THE HUNTING CREEK WATERSHED - OUTLINE**

# HUNTING CREEK WATERSHED MANAGEMENT PLAN

## OUTLINE

DAVID BROWNLEE  
DEPARTMENT OF PLANNING AND ZONING  
176 MAIN STREET  
PRINCE FREDERICK, MD 20678

- I. **INTRODUCTION**
  - A. Status
  - B. Need for Watershed Management Plan
    - 1. County Comprehensive Plan
    - 2. Prince Frederick development and wetland permits
    - 3. Address wetland loss, mitigation and protection comprehensively
  
- II. **HUNTING CREEK WATERSHED**
  - A. Size (29 sq. mi.) and Location
  - B. Extent of Wetlands
  - C. Land Use
  
- III. **WATERSHED MANAGEMENT PLAN**
  - A. Identify Goals of Plan and Issues
    - 1. Protect natural resources
    - 2. Facilitate development in town centers
    - 3. Address wetland loss and mitigation on a watershed scale
    - 4. Assure public health and safety
  
  - B. Identify Natural Resources
    - 1. Wetlands by type and aerial extent
    - 2. Flood plains
    - 3. Water supply
    - 4. Forest cover
    - 5. Habitat for rare, threatened and endangered species
  
  - C. Determine Wetland Function
    - 1. M-WET model
    - 2. Other appropriate models and approaches
  
  - D. Wetland Protection
    - 1. Wetland buffers
    - 2. Habitat areas of special Federal, State and Local concern
    - 3. Open space purchase
    - 4. Limit development in 100 yr. flood plain

5. Stormwater Management
  6. Review of County Plans and Ordinances
- E. Cumulative Impact Assessment
1. Stream monitoring
  2. Wetland loss
  3. Nutrient loading
  4. Review by state and federal agencies
- F. Flood Plain Management
1. Review and update flood plain maps
  2. Hydrologic and hydraulic modeling
  3. Identify flood problem areas and plan corrections
  4. Limit development in flood plain
- G. Water Supply
1. Determine water supply and demand - present and future
  2. Develop well-head protection plan
  3. Identify water supply or quality problems and plan corrections

IV. **GOVERNMENT AND PUBLIC PARTICIPATION**

- A. Federal
1. U.S. Army Corp of Engineers
  2. U.S. Fish and Wildlife Service
  3. U.S. Environmental Protection Agency
  4. National Oceanic and Atmospheric Administration
  5. National Marine Fisheries Service
  6. Soil Conservation Service
- B. State
1. DNR-WRA-Nontidal Wetlands Division
  2. DNR-WRA-Flood Management Division
  3. DNR-WRA-Water Rights Division
  4. DNR-TA-Coastal Resources Division
  5. DNR-Forest, Park and Wildlife Service
  6. MDE-Water Quality Certification
  7. MDE-Sediment and Stormwater Management
  8. Critical Area Commission
- C. Regional and Local
1. Tri-County Council for Southern Maryland
  2. Dept. of Engineering
  3. Dept. of Public Facilities and Services
  4. Dept. of Public Safety
  5. Dept. of Economic Development
  6. General public and organized citizen associations and citizen advisory groups

V. **SUMMARY**

**APPENDIX A**

**SUPPORTING DOCUMENTATION**

5. **PRINCE FREDERICK WATERSHED MANAGEMENT PLAN, THE HUNTING CREEK WATERSHED - COASTAL ZONE MANAGEMENT GRANT PROPOSAL**

**APPENDIX B**

**PRELIMINARY WETLAND ASSESSMENT REPORT**



**McCARTHY & ASSOCIATES, INC.**

---

REGULATORY and ENVIRONMENTAL  
CONSULTANTS

**Preliminary Wetland Assessment**

**For Portions of the Hunting Creek  
Watershed  
Prince Frederick Town Center  
Calvert County, Maryland**

**Prepared By:  
McCarthy and Associates, Inc.**

**October, 1991**

14458 Old Mill Road #201  
Upper Marlboro, MD 20772

(301) 627-7505

## PURPOSE AND INTRODUCTION

The purpose of the Hunting Creek Watershed wetland assessment is to provide Calvert County planners with a rough approximation of the extent and location of jurisdiction of non-tidal wetlands, on various properties, within the town center. This assessment is not intended to replace actual field delineation and surveyed locations. An actual delineation would require the field implementation of the 1987 Corps Manual. This methodology requires that three parameters be satisfied in order for an area to be classified as a jurisdictional wetland. The three parameters include the presence of wetland hydrology, hydric soils, and a dominance, 50% or greater, coverage of hydrophytic vegetation. In making this approximation, the three parameter system was applied in a general form to the various more questionable areas at a number of locations along stream margins and swale bottoms. Soils were sampled and compared to the Munsell Color Chart. Munsell colors of two chroma or 1 chroma with mottles are considered hydric. Vegetation was identified and placed into either tree, sapling/shrubs, herbaceous, and woody vine categories. The three most dominant species in each category have been recorded on the enclosed data sheets with their appropriate indicator status. Obvious signs of hydrology were noted, as well. If all three parameters are deemed to be present, then the area in question would be considered wetland. Contiguous wetland areas have been drawn, to the best of the field evaluator's ability, on a topographic map corresponding to the portions of land being evaluated. The properties evaluated were:

### Property Owner

County Comm. of Calvert County, P. 549  
Board of Education, P. 4  
John William, Jr., P. 566 and P. 5  
County Comm. of Calvert County, P. 511 and  
Section "A" and "B"  
Gott Realty C., Inc., P. 15  
Calvert Village LTD Partnership, P. 236  
Calvert Association for Retarded Citizens, P. 66

A copy of the tax map corresponding to the properties is included in Appendix B, along with access consent forms for properties not owned by Calvert County.

Calvert County Tax Map Number 24, indicating the properties evaluated, was overlain on a corresponding topographic map. Property lines are approximation based on limited information and will likely vary in reality. For the purposes of the study the lines should be sufficient. The maps were taken into the field and used to locate position and show point corresponding to data sheets. Maps and data sheets are enclosed in Appendix A.

The data sheets document the finding at each location and reasons for the determination made. Vegetation is broken into four categories: Trees, sapling/shrub, herbaceous, and woody vines. Within these categories the three most dominant species are listed by scientific name. Besides each of the species identified, the indicator status is listed. The indicator status is listed in Reed, P.B., Jr. 1988. National List of Plant Species That Occur In Wetlands: Northeast (Region 1). U.S. Fish and Wildlife Service Biol. Rep. 88 (26.1). 111 pp. This publication cites species tolerance to anaerobic soil conditions found in wetlands. The classification hierarchy is designed to predict the chance of finding a particular species in a wetland. Indicator categories cited in the plant list are:

Indicator Categories

Obligate Wetland (OBL). Occur most always (estimated probability >99%) under natural conditions in wetlands.

Facultative Wetland (FACW). Usually occur in wetlands (estimated probability 67%-99%), but occasionally found in non wetlands.

Facultative (FAC). Equally likely to occur in wetlands or non wetlands (estimated probability 34%-66%).

Facultative Upland (FACU). Usually occur in non wetlands (estimated probability 67%-99%), but occasionally found in wetlands (estimated probability 1%-33%).

Obligate Upland (UPL). Occur in wetlands in another region, but occur almost always (estimated probability > 99%) under natural conditions in non wetlands in the region specified. If a species does not occur in wetlands in any region, it is not listed on the National List.

Under the 1987 Corps Manual (FAC-) or dryer indicators are not considered to be typically adapted to anaerobic soil conditions. Areas need to have 50% or greater dominance of FAC, FACW, and/or OBL species to be considered wetland.

Soil evaluations were made using a 2 1/2 inch bucket auger and extracting a sample to 12 inches in depth. The soils were evaluated for color and mottling, as well as other indicators of saturation. Color determinations were made by comparison to the Munsell Color Chart and findings were recorded on the data sheets. A copy of the county soil map has been included in Appendix A.

The maps show the overall rough determinations based on the data gathered in the field. Red areas indicate jurisdictional wetlands and waters of the United States. Yellow areas depict more questionable wetland calls. These areas would knowingly require more field time and a jurisdictional determination by the appropriate agencies.

#### CONCLUSIONS

For the most part, the data sheets and maps conclude the findings as they were found in the field. It should be noted that during an actual delineation a mere comprehensive vegetative analysis would be done, and a greater number of soil samples are taken when defining the wetland/upland boundary. This analysis was an overview and much less time was spent at each location.

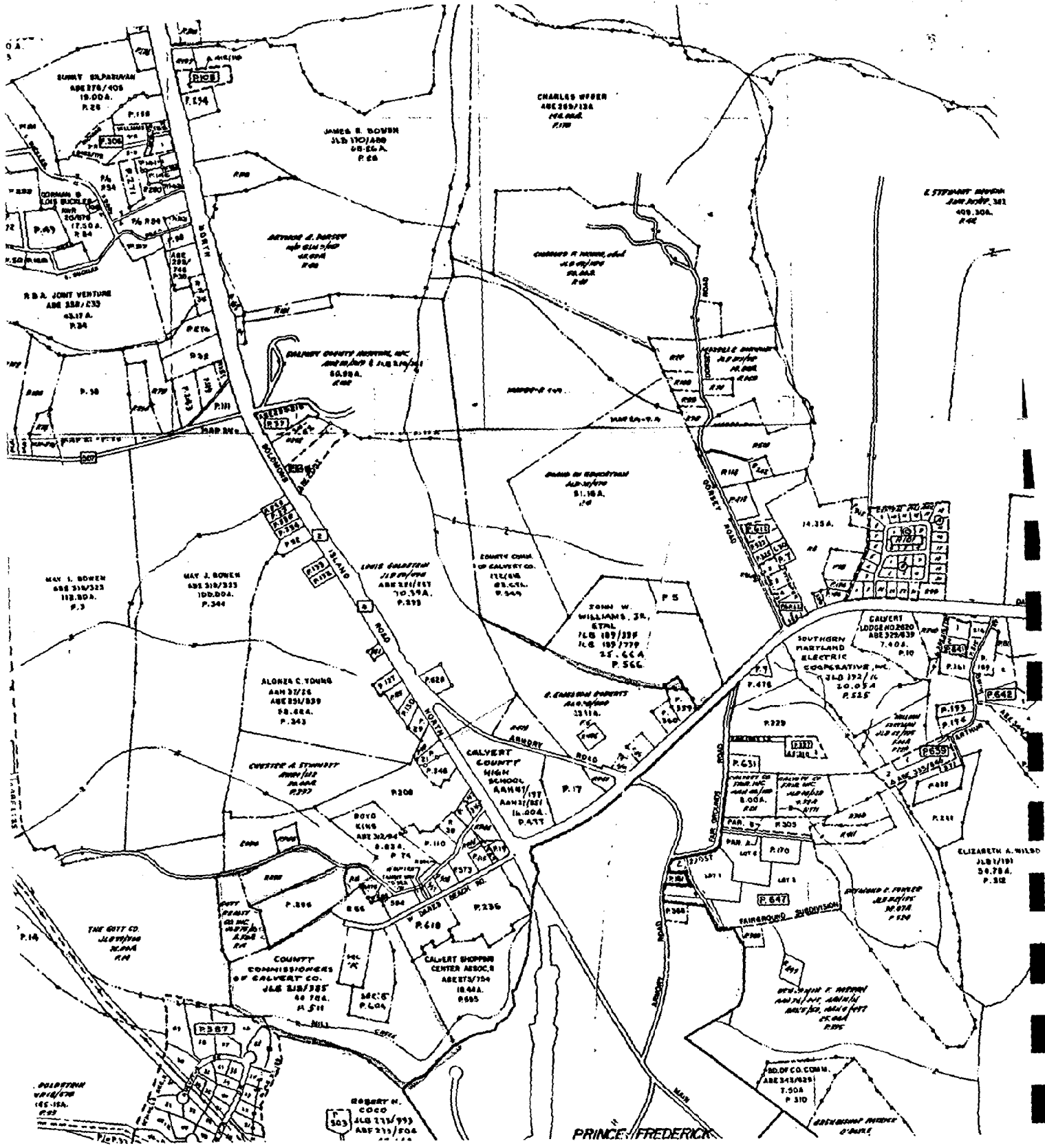
The question was raised, prior to the evaluation, as to the changes in the manuals used to identify and delineate non-tidal wetlands. The 1989 Federal Manual is no longer being used by the Army Corps of Engineers. In its place, the 1987 Corps Manual is now being implemented. A 1991 manual is being reviewed, though its future implementation is unknown at this time. It was determined that in order to make a general determination on the site, the differences between manuals was not a major issue. The evaluation, though, was directed by the 1987 Corps Manual methodology as there needed to be a set of criterion for making a determination. The inherent inaccuracies of a hand drawn line is overriding differences between manuals in most places.

References: National List of Plant Species That Occur In Wetlands: Northeast (Region 1), U.S. Fish and Wildlife Service Biological Report, May 1988

**ACKNOWLEDGEMENT**

Preparation of this report was partially funded by the Coastal Resources Division, Maryland Department of Natural Resources, through a grant provided by the Coastal Zone Management Act of 1972, as amended, administered by the Office of Ocean and Coastal Resource Management, National Oceanic and Atmospheric Administration.

**APPENDIX A**



0 A  
3

SUNNY CLARKMAN  
ABE 276/408  
19.00A.  
P.28

JAMES E. BOWEN  
JLB 170/480  
68.26A.  
P.26

CHARLES W. WREN  
AW 269/134  
14.00A.  
P.10

ESTHER M. BROWN  
JMB 300/381  
409.30A.  
P.42

ARTHUR J. BERRY  
AB 014/510  
P.20

CHARLES H. WREN, JR.  
CW 014/510  
14.00A.  
P.10

CALVERT COUNTY BOARD OF  
SUPERVISORS & COMMISSIONERS  
65.92A.  
P.20

MARLENE BROWN  
MB 014/510  
14.00A.  
P.10

MAY I. BOWEN  
MB 316/323  
112.80A.  
P.3

MAY J. BOWEN  
MB 316/323  
100.80A.  
P.344

COUNTY COMM.  
OF CALVERT CO.  
112.16A.  
82.00A.  
P.344

TOMMY W. WILLIAMS, JR.  
ETAL  
TJL 187/339  
14.6 187/779  
25.66A.  
P.566

CALVERT LODGE #6820  
ABE 375/839  
7.40A.  
P.10

SOUTHERN PARTLAND  
ELECTRIC  
COOPERATIVE INC.  
JLB 192/16  
20.05A.  
P.225

ALONZA C. YOUNG  
AY 27/16  
ABE 231/889  
58.68A.  
P.343

J. FRANCIS HENRY  
JFH 014/510  
13.11A.  
P.10

CURTIS A. STANLEY  
CS 014/510  
13.11A.  
P.20

CALVERT COUNTY  
HIGH SCHOOL  
AAH 1/17  
AAH 1/17  
14.00A.  
P.17

ELIZABETH A. WILCO  
JLB 171/191  
54.78A.  
P.312

THE CITY CO.  
JLB 014/510  
P.14

ROYD KING  
RK 32/24  
8.82A.  
P.74

COUNTY COMMISSIONERS  
OF CALVERT CO.  
JLB 218/385  
44.78A.  
P.511

CALVERT SHOPPING  
CENTER ASSO'S  
ABE 215/104  
18.64A.  
P.695

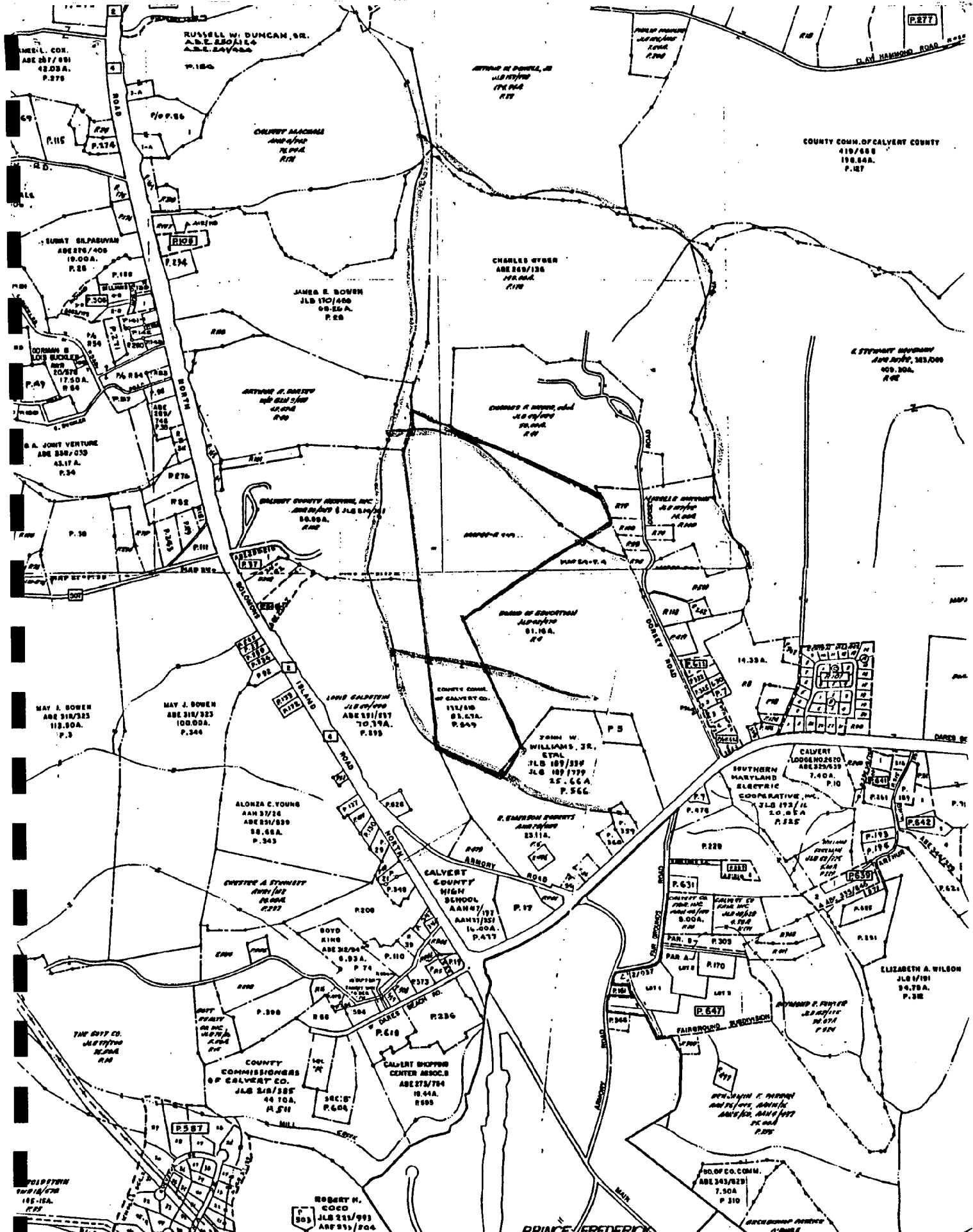
POLYTHIA  
P 18/170  
185.15A.  
P.23

ROBERT M.  
COCO  
JLB 171/191  
54.78A.  
P.312

PRINCE FREDERICK

RD. OF CO. COMM.  
ABE 215/104  
18.64A.  
P.310

ROBERTSON PARKWAY  
D'ARLE



1" = 1200'

PRINCE-FREDERICK



DATA FORM 1  
WETLAND DETERMINATION

Applicant Name: Calvert County Application Number: \_\_\_\_\_ Project Name: Parcel 549  
 State: MD County: Calvert Legal Description: \_\_\_\_\_ Township: \_\_\_\_\_ Range: \_\_\_\_\_  
 Date: Sep. 17, 1991 Plot No.: 1 Section: \_\_\_\_\_

Vegetation (list the three dominant species in each vegetation layer (5 if only 1 or 2 layers)). Indicate species with observed morphological or known physiological adaptations with an asterisk.

<u>Species</u>	<u>Indicator Status</u>	<u>Species</u>	<u>Indicator Status</u>
<u>Trees</u>		<u>Herbs</u>	
1. <i>Liquidambar styraciflua</i> (FAC)		7. <i>Lycopodium complanatum</i> (FACU-)	
2. <i>Acer rubrum</i> (FAC)		8. <i>Polystichum acrostichoides</i> (FACU-)	
3. <i>Liriodendron tulipifera</i> (FACU)		9. _____	
<u>Saplings/shrubs</u>		<u>Woody vines</u>	
4. <i>Viburnum acerifolium</i> (UPL)		10. <i>Mitchella repens</i> (FACU)	
5. <i>Euonymus americanus</i> (FAC)		11. <i>Vitis labrusca</i> (FACU)	
6. <i>Ilex opaca</i> (FACU)		12. <i>Parthenocissus quinquefolia</i> (FACU)	

% of species that are OBL, FACW, and/or FAC: 20% Other indicators: \_\_\_\_\_  
 Hydrophytic vegetation: Yes \_\_\_\_\_ No X. Basis: Not dominant.

Soil

Series and phase: Sr E On hydric soils list? Yes \_\_\_\_\_; No X.  
 Mottled: Yes \_\_\_\_\_; No X. Mottle color: \_\_\_\_\_; Matrix color: 10 YR 4/4  
 Gleyed: Yes \_\_\_\_\_ No X Other indicators: \_\_\_\_\_  
 Hydric soils: Yes \_\_\_\_\_ No X; Basis: chrome > 2

Hydrology

Inundated: Yes \_\_\_\_\_; No X. Depth of standing water: not found.  
 Saturated soils: Yes \_\_\_\_\_; No X. Depth to saturated soil: not found.  
 Other indicators: none  
 Wetland hydrology: Yes \_\_\_\_\_; No X. Basis: No field indicators.  
 Atypical situation: Yes \_\_\_\_\_; No X.  
 Normal Circumstances? Yes X No \_\_\_\_\_.  
 Wetland Determination: Wetland \_\_\_\_\_; Nonwetland X.

Comments:

Determined by: Ken M. Coyle

DATA FORM 1  
WETLAND DETERMINATION

Applicant Name: Calvert County Application Number: \_\_\_\_\_ Project Name: Parcel 541  
 State: MD County: Calvert Legal Description: \_\_\_\_\_ Township: \_\_\_\_\_ Range: \_\_\_\_\_  
 Date: Sep. 17, 1991 Plot No.: 2 Section: \_\_\_\_\_

Vegetation [list the three dominant species in each vegetation layer (5 if only 1 or 2 layers)]. Indicate species with observed morphological or known physiological adaptations with an asterisk.

<u>Species</u>	<u>Indicator Status</u>	<u>Species</u>	<u>Indicator Status</u>
<u>Trees</u>		<u>Herbs</u>	
1. <i>Platanus occidentalis</i> (FACW)		7. <i>Pilea fontana</i> (FACW+)	
2. <i>Fagus grandifolia</i> (FACW)		8. <i>Cinna arundinacea</i> (FACW)	
3. <i>Liquidambar styraciflua</i> (FAC)		9. <i>Impatiens capensis</i> (FACW)	
<u>Saplings/shrubs</u>		<u>Woody vines</u>	
4. <i>Lindera benzoin</i> (FACW-)		10. <i>Smilax rotundifolia</i>	
5. <i>Carpinus caroliniana</i> (FAC)		11. <i>Toxicodendron radicans</i> (FAC)	
6. <i>Vaccinium corymbosum</i> (FACW)		12.	

% of species that are OBL, FACW, and/or FAC: 90% Other indicators: channel.  
 Hydrophytic vegetation: Yes  No . Basis: dominance.

Soil

Series and phase: My On hydric soils list? Yes ; No .  
 Mottled: Yes ; No . Mottle color: 10YR 4/6; Matrix color: 5Y 6/1.  
 Gleyed: Yes  No  Other indicators: oxidized rhizospheres  
 Hydric soils: Yes  No ; Basis: field determination.

Hydrology

Inundated: Yes ; No . Depth of standing water: Not found.  
 Saturated soils: Yes ; No . Depth to saturated soil: 10".  
 Other indicators: Alluvial deposits, drift lines, scarring.  
 Wetland hydrology: Yes ; No . Basis: observable wetland hydrology.  
 Atypical situation: Yes ; No .  
 Normal Circumstances? Yes  No .  
 Wetland Determination: Wetland ; Nonwetland .

Comments:

Determined by: \_\_\_\_\_

DATA FORM 1  
WETLAND DETERMINATION

Applicant Name: Calvert County Application Number: \_\_\_\_\_ Project Name: Parcel 549  
 State: MD County: Calvert Legal Description: \_\_\_\_\_ Township: \_\_\_\_\_ Range: \_\_\_\_\_  
 Date: Sept. 17, 1991 Plot No.: 2a Section: \_\_\_\_\_

Vegetation [list the three dominant species in each vegetation layer (5 if only 1 or 2 layers)]. Indicate species with observed morphological or known physiological adaptations with an asterisk.

<u>Species</u>	<u>Indicator Status</u>	<u>Species</u>	<u>Indicator Status</u>
<u>Trees</u>		<u>Herbs</u>	
1. Liquidambar styraciflua (FAC)		7. Chimaphila maculata (uph)	
2. Platanus occidentalis (FACW)		8. Polystichum acrostichoides (FACW)	
3. Fagus grandifolia (FACW)		9. _____	
<u>Saplings/shrubs</u>		<u>Woody vines</u>	
4. Cornus florida (FACW)		10. _____	
5. Asimina triloba (FACW+)		11. _____	
6. Lindera benzoin (FACW-)		12. _____	

% of species that are OBL, FACW, and/or FAC: 45% Other indicators: \_\_\_\_\_  
 Hydrophytic vegetation: Yes \_\_\_\_\_ No X. Basis: This is an area of potential regulatory argument and should be reviewed.

Soil  
 Series and phase: SrE On hydric soils list? Yes \_\_\_\_\_; No X.  
 Mottled: Yes \_\_\_\_\_; No X. Mottle color: \_\_\_\_\_; Matrix color: 10YR 4/4.  
 Gleyed: Yes \_\_\_\_\_ No X Other indicators: None.  
 Hydric soils: Yes \_\_\_\_\_ No X; Basis: chroma > 2.

Hydrology  
 Inundated: Yes \_\_\_\_\_; No X. Depth of standing water: none found.  
 Saturated soils: Yes \_\_\_\_\_; No X. Depth to saturated soil: \_\_\_\_\_.  
 Other indicators: Some areas show signs of water movement.  
 Wetland hydrology: Yes \_\_\_\_\_; No X. Basis: \_\_\_\_\_.  
 Atypical situation: Yes \_\_\_\_\_; No X.  
 Normal Circumstances? Yes X No \_\_\_\_\_.  
 Wetland Determination: Wetland \_\_\_\_\_; Nonwetland X.

Comments: This area should have a closer look when delineating wetlands.  
 Determined by: Kim M. Larty

DATA FORM 1  
WETLAND DETERMINATION

Applicant Name: Calvert County Application Number: \_\_\_\_\_ Project Name: Parcel 549  
 State: \_\_\_\_\_ County: \_\_\_\_\_ Legal Description: \_\_\_\_\_ Township: \_\_\_\_\_ Range: \_\_\_\_\_  
 Date: Sep. 18, 1991 Plot No.: 3 Section: \_\_\_\_\_

Vegetation [list the three dominant species in each vegetation layer (5 if only 1 or 2 layers)]. Indicate species with observed morphological or known physiological adaptations with an asterisk.

Species	Indicator Status	Species	Indicator Status
<u>Trees</u>		<u>Herbs</u>	
1. Liquidambar styraciflua (FAC)		7. Cinn. arundinacea (FACW)	
2. Ulmus americana (FACW-)		8. Polystichum acrostichoides (FACW)	
3. Acer rubrum (FAC)		9. Arisaema triphyllum (FACW-)	
<u>Saplings/shrubs</u>		<u>Woody vines</u>	
4. Sambucus canadensis (FACW-)		10. Smilax rotundifolia (FAC)	
5. Agimonia triloba (FACu+)		11. Lonicera japonica (FACW)	
6. Lindera benzoin (FACW-)		12. Parthenocissis quinquefolia (FACW)	

% of species that are OBL, FACW, and/or FAC: 50% Other indicators: \_\_\_\_\_.

Hydrophytic vegetation: Yes \_\_\_\_\_ No \_\_\_\_\_. Basis: This applies to lower portion of the scale. Upper portion more clearly hydrophytic.

Soil

Series and phase: SrE On hydric soils list? Yes \_\_\_\_\_; No X.  
 Mottled: Yes X; No \_\_\_\_\_. Mottle color: rust; Matrix color: 2.5Y 5/2  
 Gleyed: Yes \_\_\_\_\_ No X Other indicators: oxidized rhizospheres.  
 Hydric soils: Yes X No \_\_\_\_\_. Basis: Chroma < 2 with mottles.

Hydrology

Inundated: Yes X; No \_\_\_\_\_. Depth of standing water: not found.  
 Saturated soils: Yes X; No \_\_\_\_\_. Depth to saturated soil: 12'.  
 Other indicators: \_\_\_\_\_.  
 Wetland hydrology: Yes X; No \_\_\_\_\_. Basis: \_\_\_\_\_.  
 Atypical situation: Yes \_\_\_\_\_; No X.  
 Normal Circumstances? Yes X No \_\_\_\_\_.  
 Wetland Determination: Wetland X; Nonwetland \_\_\_\_\_.

Comments: The lower portion of the scale is dominated by upland vegetation in places, and therefore may be arguably non-inisdictional.  
 Determined by: Tim McW...

DATA FORM 1  
WETLAND DETERMINATION

Applicant Name: Calvert County Application Number: \_\_\_\_\_ Project Name: Parcel 549  
 State: MD County: Calvert Legal Description: \_\_\_\_\_ Township: \_\_\_\_\_ Range: \_\_\_\_\_  
 Date: Sep 18, 1991 Plot No.: 4 Section: \_\_\_\_\_

Vegetation [list the three dominant species in each vegetation layer (5 if only 1 or 2 layers)]. Indicate species with observed morphological or known physiological adaptations with an asterisk.

<u>Species</u>	<u>Indicator Status</u>	<u>Species</u>	<u>Indicator Status</u>
<u>Trees</u>		<u>Herbs</u>	
1. Liquidambar styraciflua (FAC)		7. Pilea fontana (FACW)	
2. Platanus occidentalis (FACW)		8. Canna arundinacea (FACW)	
3. Nymphaea americana (FACW)		9. Boehmeria cylindrica (FACW)	
<u>Saplings/shrubs</u>		<u>Woody vines</u>	
4. Liriodendron benzoin (FACW)		10. Toxicodendron radicans (FAC)	
5. Asimina triloba (FACW)		11. Lonicera japonica (FAC)	
6. Cornus caroliniana		12. Smilax rotundifolia (FAC)	
% of species that are OBL, FACW, and/or FAC: <u>&gt;50%</u> Other indicators: _____			
Hydrophytic vegetation: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Basis: <u>Dominance</u>			

Soil  
 Series and phase: Mixed alluvial loam On hydric soils list? Yes ; No   
 Mottled: Yes ; No . Mottle color: 10YR 6/1; Matrix color: 10YR 4/1.  
 Gleyed: Yes  No  Other indicators: \_\_\_\_\_  
 Hydric soils: Yes  No ; Basis: low chroma matrix

Hydrology  
 Inundated: Yes ; No . In place along channel Depth of standing water: \_\_\_\_\_  
 Saturated soils: Yes ; No . Depth to saturated soil: \_\_\_\_\_  
 Other indicators: \_\_\_\_\_  
 Wetland hydrology: Yes ; No . Basis: obvious inundation in places  
 Atypical situation: Yes ; No .  
 Normal Circumstances? Yes  No .  
 Wetland Determination: Wetland ; Nonwetland .  
 Comments: channel: sandy bottom to 10' wide, 2'-3' deep.

Determined by: Jim M. M. [Signature]  
 B2

DATA FORM 1  
WETLAND DETERMINATION

Applicant Name: Calvert County Application Number: \_\_\_\_\_ Project Name: Parcel 549  
 State: MD County: Calvert Legal Description: \_\_\_\_\_ Township: \_\_\_\_\_ Range: \_\_\_\_\_  
 Date: Sep. 18, 1991 Plot No.: 4a Section: \_\_\_\_\_

Vegetation [list the three dominant species in each vegetation layer (5 if only 1 or 2 layers)]. Indicate species with observed morphological or known physiological adaptations with an asterisk.

<u>Species</u>	<u>Indicator Status</u>	<u>Species</u>	<u>Indicator Status</u>
<u>Trees</u>		<u>Herbs</u>	
1. Liquidambar styraciflua (FAC)		7. Pilea fontana (FACW)	
2.		8. Thelypteris noveboracensis (FAC)	
3.		9. Arisaema triphyllum (FACW)	
<u>Saplings/shrubs</u>		<u>Woody vines</u> N/A	
4. Carpinus caroliniana (FAC)	10.		
5. Lindera benzoin (FACW)	11.		
6. Acer rubrum (FAC)	12.		
% of species that are OBL, FACW, and/or FAC: <u>75%</u> Other indicators: _____ Hydrophytic vegetation: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Basis: <u>dominance</u>			

Soil

Series and phase: Sassafras & Westphal On hydric soils list? Yes ; No   
 Mottled: Yes ; No . Mottle color: rust; Matrix color: 5G Y5/1  
 Gleyed: Yes  No  Other indicators: oxidized rhizospheres  
 Hydric soils: Yes  No ; Basis: Matrix chrome < 2

Hydrology

Inundated: Yes ; No . Depth of standing water: in places, to surface  
 Saturated soils: Yes ; No . Depth to saturated soil: within root zone  
 Other indicators: drift lines / absent leaf litter / standing water  
 Wetland hydrology: Yes ; No . Basis: obvious signs  
 Atypical situation: Yes ; No   
 Normal Circumstances? Yes  No   
 Wetland Determination: Wetland ; Nonwetland

Comments:

likely the result of spring seep.

Determined by: Ron M. McCarty

DATA FORM 1  
WETLAND DETERMINATION

Applicant Name: Calvert County Application Number: \_\_\_\_\_ Project Name: Parcel 549  
 State: MD County: Calvert Legal Description: \_\_\_\_\_ Township: \_\_\_\_\_ Range: \_\_\_\_\_  
 Date: Sep 18, 1991 Plot No.: 46 Section: \_\_\_\_\_

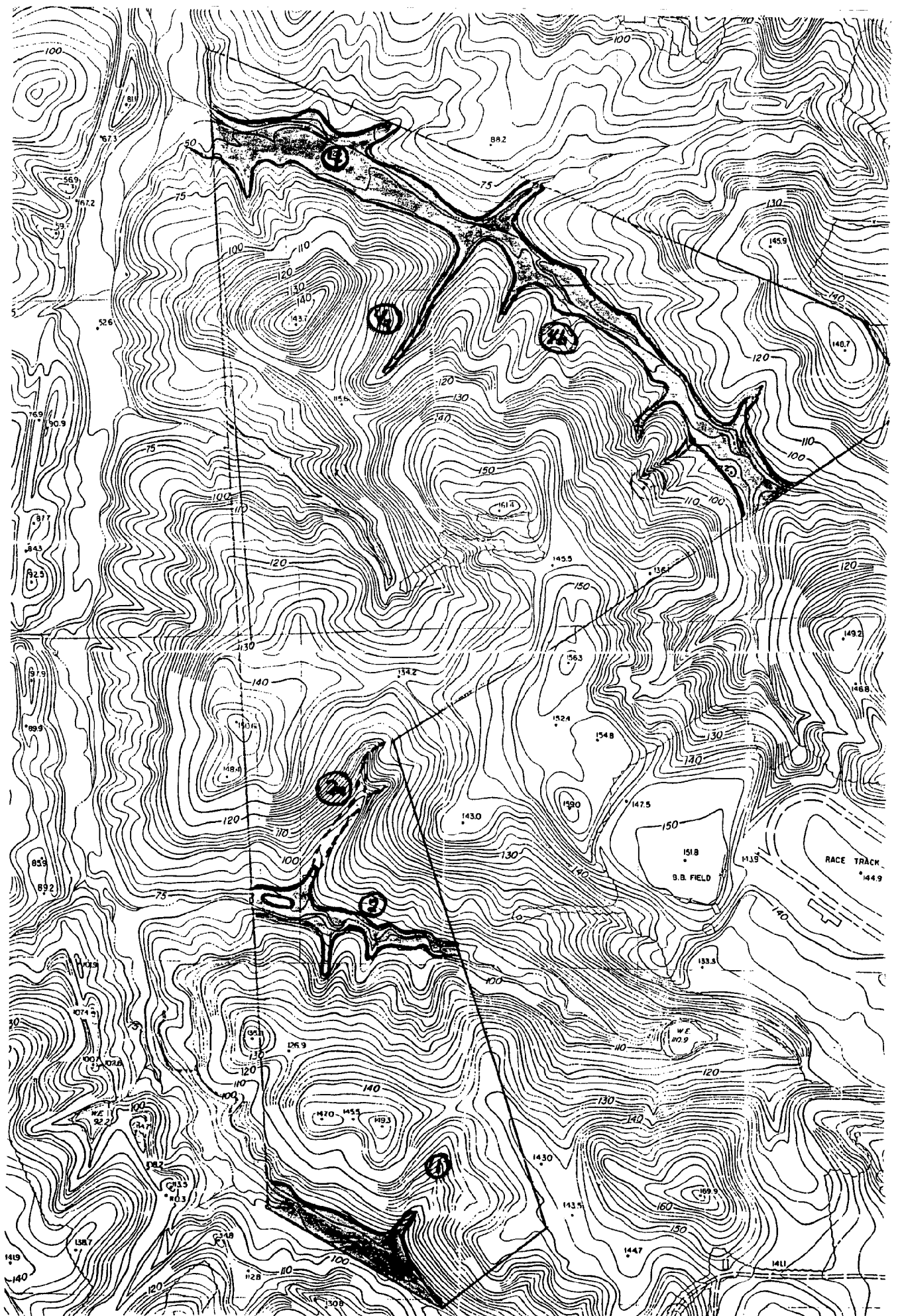
Vegetation [list the three dominant species in each vegetation layer (5 if only 1 or 2 layers)]. Indicate species with observed morphological or known physiological adaptations with an asterisk.

<u>Species</u>	<u>Indicator Status</u>	<u>Species</u>	<u>Indicator Status</u>
<u>Trees</u>		<u>Herbs</u>	
1. Liquidambar styraciflua (FAC)		7. Trifolium sp.	----
2. Liriodendron tulipifera (FAC)		8.	
3.		9.	
<u>Saplings/shrubs</u>		<u>Woody vines</u>	
4. Asimina triloba (FAC)		10. Euonymus obovatus (UPL)	
5. Viburnum acerifolium (UPL)		11.	
6. Fagus grandifolia		12.	
% of species that are OBL, FACW, and/or FAC: <u>20%</u> . Other indicators: <u>None</u> . Hydrophytic vegetation: Yes ___ No <input checked="" type="checkbox"/> . Basis: _____			

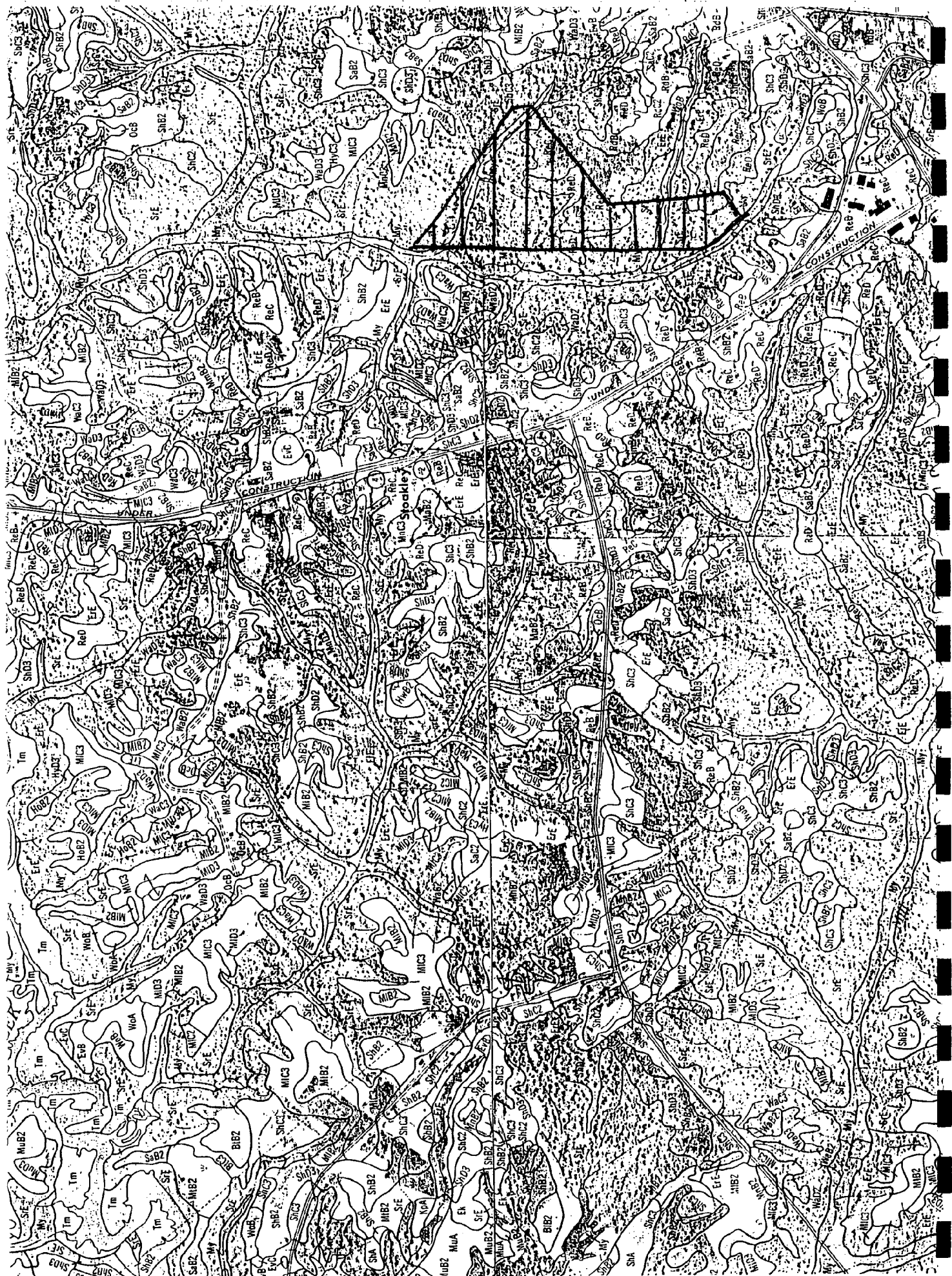
Soil Sassafras end  
 Series and phase: Westphalia On hydric soils list? Yes \_\_\_; No   
 Mottled: Yes \_\_\_; No . Mottle color: \_\_\_\_\_; Matrix color: 10 YR 5/4  
 Gleyed: Yes \_\_\_ No  Other indicators: \_\_\_\_\_  
 Hydric soils: Yes \_\_\_ No ; Basis: \_\_\_\_\_

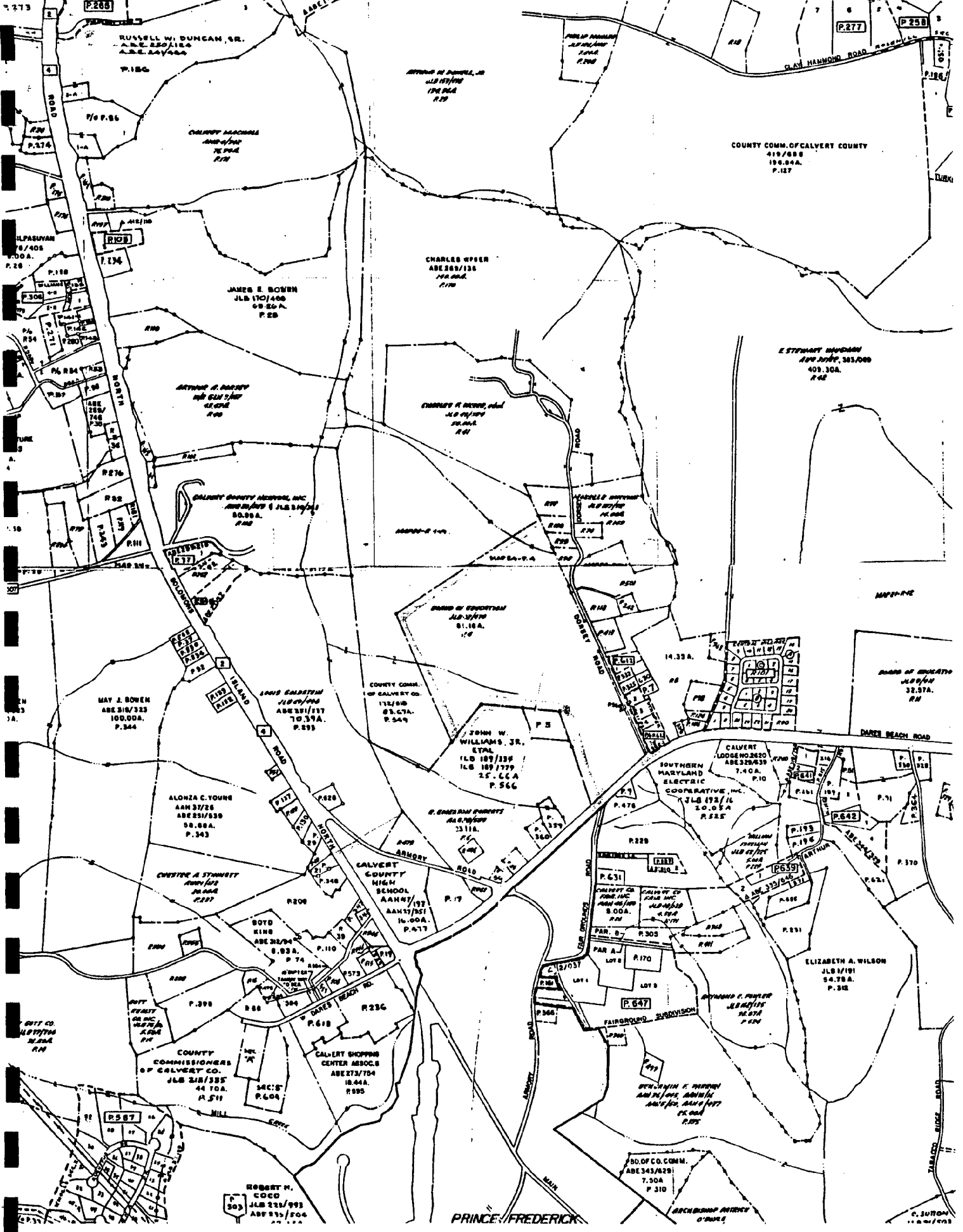
Hydrology  
 Inundated: Yes \_\_\_; No . Depth of standing water: \_\_\_\_\_  
 Saturated soils: Yes \_\_\_; No . Depth to saturated soil: \_\_\_\_\_  
 Other indicators: None  
 Wetland hydrology: Yes \_\_\_; No . Basis: No visible evidence  
 Atypical situation: Yes \_\_\_; No   
 Normal Circumstances? Yes  No \_\_\_  
 Wetland Determination: Wetland \_\_\_\_\_; Nonwetland   
Comments:

Determined by: Jim M. McLoof









P.268

RUSSELL W. DUNCAN, JR.  
A.B.E. 250/1125  
A.S.E. 245/444

CALVERT MACHINA  
A.B.E. 175/100  
A.S.E. 175/100

JAMES E. BOWEN  
JLB 170/100  
A.S.E. 69.50 A.  
P. 28

CHARLES WOFFER  
A.B.E. 1135  
A.S.E. 100  
P. 10

COUNTY COMM. OF CALVERT COUNTY  
410/888  
196.844.  
P. 127

ESTHER ANN BOWEN  
A.B.E. 100/100  
A.S.E. 409.300  
P. 42

CHARLES A. WOFFER, JR.  
JLB 100/100  
A.S.E. 100  
P. 10

BOARD OF EDUCATION  
JLB 100/100  
A.S.E. 100  
P. 10

JOHN W. WILLIAMS, JR.  
ETAL.  
JLB 100/100  
A.S.E. 100  
P. 566

MAY J. BOWEN  
A.B.E. 316/323  
A.S.E. 100.000  
P. 344

LOUIS CALVERT  
JLB 100/100  
A.B.E. 100/100  
A.S.E. 10.39 A.  
P. 293

COUNTY COMM.  
OF CALVERT CO.  
112/810  
173.07 A.  
P. 549

ALONZA C. YOUNG  
A.B.E. 37/26  
A.S.E. 115/59  
A.S.E. 58.88 A.  
P. 343

E. BOWEN  
A.B.E. 100/100  
A.S.E. 23.11 A.  
P. 10

SOUTHERN MARYLAND  
ELECTRIC COOPERATIVE, INC.  
JLB 100/100  
A.S.E. 10.05 A.  
P. 525

CURTIS A. STONNETT  
A.B.E. 100/100  
A.S.E. 100  
P. 227

CALVERT COUNTY  
HIGH SCHOOL  
A.B.E. 100/100  
A.S.E. 16.00 A.  
P. 477

BOYD KING  
A.B.E. 100/100  
A.S.E. 8.02 A.  
P. 74

ELIZABETH A. WILSON  
JLB 100/100  
A.S.E. 54.78 A.  
P. 312

COUNTY COMMISSIONERS  
OF CALVERT CO.  
JLB 100/100  
A.S.E. 44 TO A.  
P. 511

CALVERT SHOPPING  
CENTER ASSOCS.  
A.B.E. 100/100  
A.S.E. 18.44 A.  
P. 995

ROBERT H. COCO  
JLB 100/100  
A.S.E. 100  
P. 303

PRINCE FREDERICK

ARCHBISHOP ANTHONY  
D'AMICO

C. SUTTON

DATA FORM 1  
WETLAND DETERMINATION

Applicant Name: Calvert County Application Number: \_\_\_\_\_ Project Name: High School  
 State: \_\_\_\_\_ County: \_\_\_\_\_ Legal Description: \_\_\_\_\_ Township: \_\_\_\_\_ Range: \_\_\_\_\_  
 Date: Sep 27, 1991 Plot No.: 2 Section: \_\_\_\_\_

Vegetation [list the three dominant species in each vegetation layer (5 if only 1 or 2 layers)]. Indicate species with observed morphological or known physiological adaptations with an asterisk.

<u>Species</u>	<u>Indicator Status</u>	<u>Species</u>	<u>Indicator Status</u>
<u>Trees</u>		<u>Herbs</u>	
1. <i>Platanus occidentalis</i> (FACW)		7. <i>Doehneria cylindrica</i> (FACW)	
2. <i>Liquidambar styraciflua</i> (FAC)		8. <i>Cinna canadensis</i> (FACW)	
3. <i>Salix nigra</i> (FACW)		9. <i>Pilea fontana</i> (FACW)	
<u>Saplings/shrubs</u>		<u>Woody vines</u>	
4. <i>Carpinus caroliniana</i> (FACW)		10. <i>Lonicera japonica</i> (FAC)	
5. <i>Lindera benzoin</i> (FACW)		11. <i>Toxicodendron radicans</i> (FAC)	
6. _____		12. <i>Parthenocissus quinquefolia</i> (FACW)	
% of species that are OBL, FACW, and/or FAC: <u>80%</u> Other indicators: _____ Hydrophytic vegetation: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Basis: <u>dominance</u>			

Soil  
 Series and phase: Woodstown On hydric soils list? Yes ; No   
 Mottled: Yes ; No . Mottle color: 10YR 4/1; Matrix color: 2.5Y 4/2  
 Gleyed: Yes  No  Other indicators: \_\_\_\_\_  
 Hydric soils: Yes  No ; Basis: chroma 2 with mottles

Hydrology  
 Inundated: Yes ; No . Depth of standing water: \_\_\_\_\_  
 Saturated soils: Yes ; No . Depth to saturated soil: \_\_\_\_\_  
 Other indicators: flowing stream  
 Wetland hydrology: Yes ; No . Basis: \_\_\_\_\_  
 Atypical situation: Yes ; No   
 Normal Circumstances? Yes  No

Wetland Determination: Wetland ; Nonwetland

Comments: Spring seep and surface water flowing in channel.

Determined by: [Signature]

DATA FORM 1  
WETLAND DETERMINATION

Applicant Name: Calvert County Application Number: \_\_\_\_\_ Project Name: High school  
 State: MD County: Calvert Legal Description: \_\_\_\_\_ Township: \_\_\_\_\_ Range: \_\_\_\_\_  
 Date: Sep. 27, 1991 Plot No.: 3 Section: \_\_\_\_\_

Vegetation [list the three dominant species in each vegetation layer (5 if only 1 or 2 layers)]. Indicate species with observed morphological or known physiological adaptations with an asterisk.

<u>Species</u>	<u>Indicator Status</u>	<u>Species</u>	<u>Indicator Status</u>
<u>Trees</u>		<u>Herbs</u>	
1. <i>Platanus occidentalis</i> (FACW)		7. <i>Gnaphalium aureocephalum</i> (FACW)	
2. <i>Ulmus americana</i> (FACW)		8. <i>Lobelia cardinalis</i> (FACW)	
3. <i>Rhus glabra</i> (FAC)		9. <i>Baccharis cylindrica</i> (FACW)	
<u>Saplings/shrubs</u>		<u>Woody vines</u>	
4. <i>Carpinus caroliniana</i> (FAC)		10. <i>Tournefortia caroliniana</i> (FAC)	
5. <i>Lindera benzoin</i> (FACW)		11. <i>Lonicera japonica</i> (FAC-)	
6. _____		12. <i>Aspidocneme sanguinolenta</i> (FACW)	

% of species that are OBL, FACW, and/or FAC: 100% Other indicators: \_\_\_\_\_  
 Hydrophytic vegetation: Yes  No  Basis: \_\_\_\_\_

Soil  
 Series and phase: Mixed alluvial soil On hydric soils list? Yes ; No   
 Mottled: Yes ; No . Mottle color: \_\_\_\_\_; Matrix color: Black  
 Gleyed: Yes  No  Other indicators: dark regions in soil profile  
 Hydric soils: Yes  No ; Basis: \_\_\_\_\_

Hydrology  
 Inundated: Yes ; No . Depth of standing water: to surface  
 Saturated soils: Yes ; No . Depth to saturated soil: surface  
 Other indicators: \_\_\_\_\_  
 Wetland hydrology: Yes ; No . Basis: obvious signs  
 Atypical situation: Yes ; No   
 Normal Circumstances? Yes  No   
 Wetland Determination: Wetland ; Nonwetland

Comments: This area is derived by spring seepage.  
 Determined by: [Signature]

DATA FORM 1  
WETLAND DETERMINATION

Applicant Name: Calvert County Application Number: \_\_\_\_\_ Project Name: High school  
 State: MD County: Calvert Legal Description: \_\_\_\_\_ Township: \_\_\_\_\_ Range: \_\_\_\_\_  
 Date: \_\_\_\_\_ Plot No.: 4 Section: \_\_\_\_\_

Vegetation [list the three dominant species in each vegetation layer (5 if only 1 or 2 layers)]. Indicate species with observed morphological or known physiological adaptations with an asterisk.

<u>Species</u>	<u>Indicator Status</u>	<u>Species</u>	<u>Indicator Status</u>
<u>Trees</u>		<u>Herbs</u>	
1. <u>Acer rubrum (FAC)</u>		7. <u>Desmodium cinnamomum (FACW)</u>	
2. <u>Liquidambar styraciflua (FAC)</u>		8. <u>Boehmeria cylindrica (FACW)</u>	
3. <u>Nyssa sylvatica (FAC)</u>		9. <u>Onoclea sensibilis (FACW)</u>	
<u>Saplings/shrubs</u>		<u>Woody vines</u>	
4. <u>Carpinus caroliniana (FAC)</u>		10. <u>Lonicera japonica (FAC-)</u>	
5. <u>Vaccinium corymbosum (FACW)</u>		11. <u>Sailax rotundifolia (FAC)</u>	
6. <u>Rosa palustris (OBL)</u>		12. _____	

% of species that are OBL, FACW, and/or FAC: 95% Other indicators: \_\_\_\_\_  
 Hydrophytic vegetation: Yes  No  Basis: dominance

Soil

Series and phase: Succinea On hydric soils list? Yes ; No   
 Mottled: Yes ; No . Mottle color: 10/1; Matrix color: 2.5Y5/2  
 Gleyed: Yes  No  Other indicators: \_\_\_\_\_  
 Hydric soils: Yes  No ; Basis: Matrix chroma ≤ 2 with mottles

Hydrology

Inundated: Yes ; No . Depth of standing water: \_\_\_\_\_  
 Saturated soils: Yes ; No . Depth to saturated soil: see field  
 Other indicators: Blackened leaves  
 Wetland hydrology: Yes ; No . Basis: obvious signs  
 Atypical situation: Yes ; No   
 Normal Circumstances? Yes  No   
 Wetland Determination: Wetland ; Nonwetland

Comments: carries ground water discharge as well as surface runoff

Determined by: Tim M. M. [Signature]

DATA FORM 1  
WETLAND DETERMINATION

Applicant Name: Calvert County Application Number: \_\_\_\_\_ Project Name: High School  
 State: MD County: Calvert Legal Description: \_\_\_\_\_ Township: \_\_\_\_\_ Range: \_\_\_\_\_  
 Date: 9/27/91 Plot No.: 5 Section: \_\_\_\_\_

Vegetation (list the three dominant species in each vegetation layer (5 if only 1 or 2 layers)). Indicate species with observed morphological or known physiological adaptations with an asterisk.

<u>Species</u>	<u>Indicator Status</u>	<u>Species</u>	<u>Indicator Status</u>
<u>Trees</u>		<u>Herbs</u>	
1. <i>Acer rubrum</i> (FAC)		7. <i>Thelypteris noveboracensis</i> (FAC)	
2. <i>Nyssa sylvatica</i> (FAC)		8. <i>Pilea fontana</i> (FACW)	
3. _____		9. <i>Lycopus virginianicus</i> (OBL)	
<u>Saplings/shrubs</u>		<u>Woody vines</u>	
4. <i>Carpinus caroliniana</i> (FAC)		10. <i>Smilax rotundifolia</i> (FAC)	
5. <i>Lindera benzoin</i> (FACW)		11. <i>Lonicera japonica</i> (FAC-)	
6. <i>Asimina triloba</i> (FACW)		12. _____	
% of species that are OBL, FACW, and/or FAC: _____. Other indicators: _____ Hydrophytic vegetation: Yes ____ No _____. Basis: _____			

Soil  
 Series and phase: Evesboro On hydric soils list? Yes \_\_\_\_; No   
 Mottled: Yes ; No \_\_\_\_\_. Mottle color: rust; Matrix color: 2.5Y5/2  
 Gleyed: Yes \_\_\_\_ No  Other indicators: \_\_\_\_\_  
 Hydric soils: Yes  No \_\_\_\_; Basis: Matrix chrome S2 with mottles

Hydrology  
 Inundated: Yes ; No \_\_\_\_\_. Depth of standing water: Shallow  
 Saturated soils: Yes ; No \_\_\_\_\_. Depth to saturated soil: surface  
 Other indicators: \_\_\_\_\_  
 Wetland hydrology: Yes ; No \_\_\_\_\_. Basis: \_\_\_\_\_  
 Atypical situation: Yes \_\_\_\_; No   
 Normal Circumstances? Yes  No \_\_\_\_\_.  
 Wetland Determination: Wetland ; Nonwetland \_\_\_\_\_  
 Comments: \_\_\_\_\_

Determined by: Jim M. McE...  
 B2

DATA FORM 1  
WETLAND DETERMINATION

Applicant Name: Calvert County Application Number: \_\_\_\_\_ Project Name: High School  
 State: MD County: Calvert Legal Description: \_\_\_\_\_ Township: \_\_\_\_\_ Range: \_\_\_\_\_  
 Date: 9/27/91 Plot No.: 6 Section: \_\_\_\_\_

Vegetation [list the three dominant species in each vegetation layer (5 if only 1 or 2 layers)]. Indicate species with observed morphological or known physiological adaptations with an asterisk.

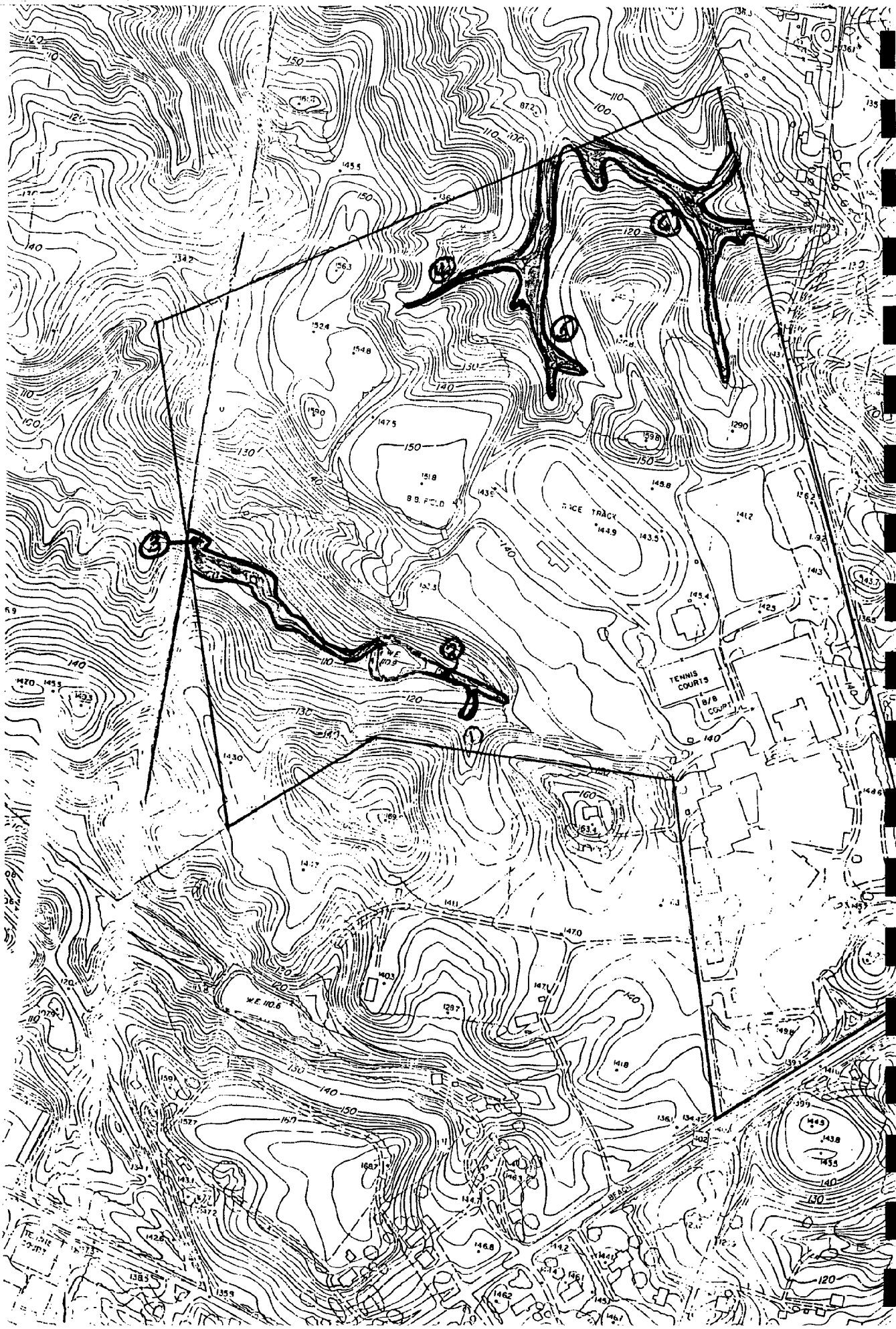
<u>Species</u>	<u>Indicator Status</u>	<u>Species</u>	<u>Indicator Status</u>
<u>Trees</u>		<u>Herbs</u>	
1. Lign: <i>Lambert stymiciflora</i> (FAC)		7. <i>Thelypteris noveboracensis</i> (FAC)	
2. <i>Ulmus americana</i> (FACW)		8.	
3. <i>Platanus occidentalis</i> (FACW)		9.	
<u>Saplings/shrubs</u>		<u>Woody vines</u>	
4. <i>Carpinus caroliniana</i> (FACW)		10. <i>Toxicodendron radicans</i> (FAC)	
5.		11. <i>Lonicera japonica</i> (FAC-)	
6.		12. <i>Rubus hispidus</i> (FAC)	
% of species that are OBL, FACW, and/or FAC: <u>90%</u> Other Indicators: _____ Hydrophytic vegetation: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Basis: _____			

Soil  
 Series and phase: Sassafras & ustptic On hydric soils list? Yes \_\_\_\_\_; No   
 Mottled: Yes ; No \_\_\_\_\_ Mottle color: DYR 2/2; Matrix color: WYR 3/1  
 Gleyed: Yes \_\_\_\_\_ No \_\_\_\_\_ Other Indicators: \_\_\_\_\_  
 Hydric soils: Yes  No \_\_\_\_\_; Basis: \_\_\_\_\_

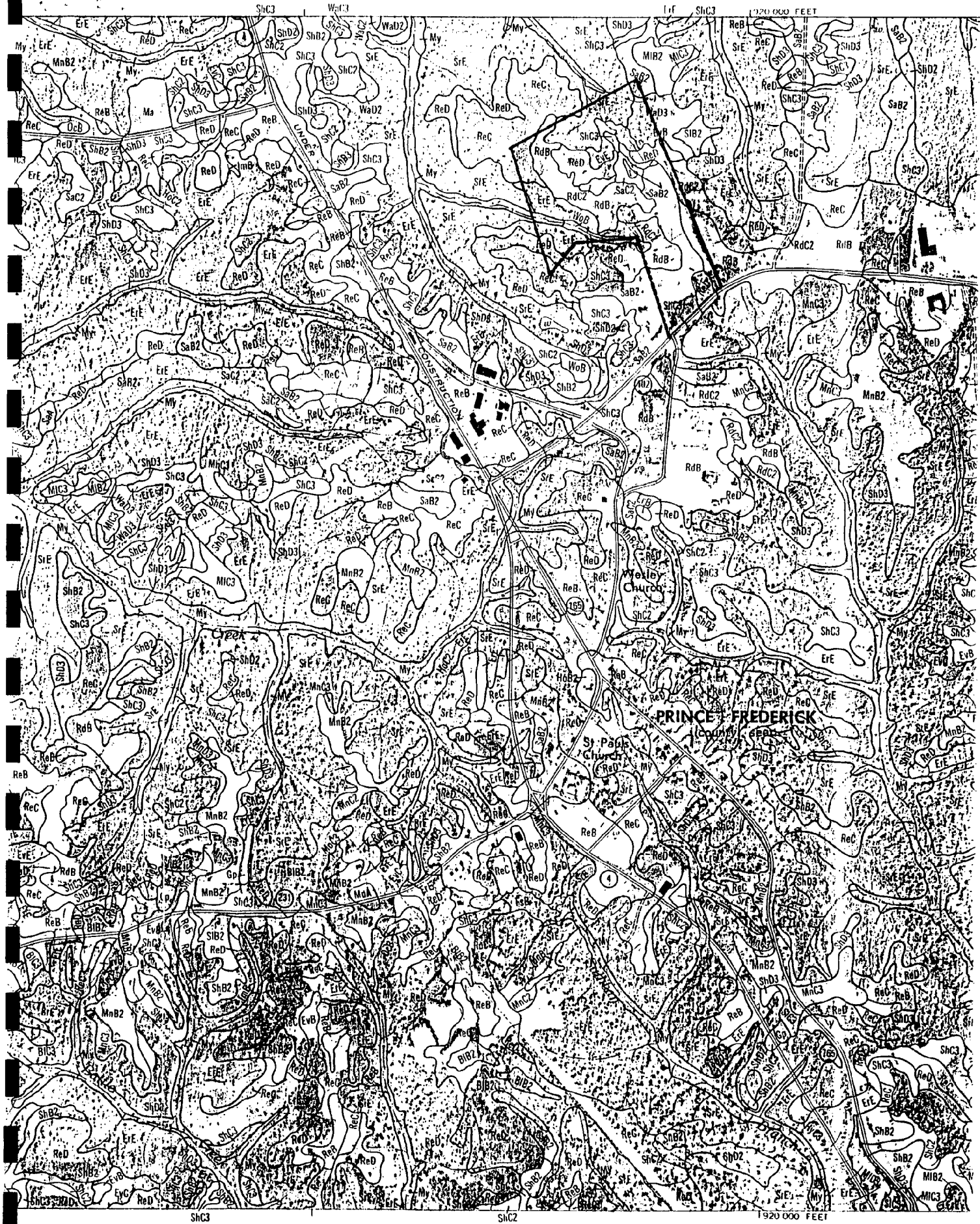
Hydrology  
 Inundated: Yes ; No \_\_\_\_\_ Depth of standing water: Flowing  
 Saturated soils: Yes ; No \_\_\_\_\_ Depth to saturated soil: 5-6 cm  
 Other Indicators: \_\_\_\_\_  
 Wetland hydrology: Yes ; No \_\_\_\_\_ Basis: \_\_\_\_\_  
 Atypical situation: Yes \_\_\_\_\_; No   
Normal Circumstances? Yes  No \_\_\_\_\_  
Wetland Determination: Wetland ; Nonwetland \_\_\_\_\_

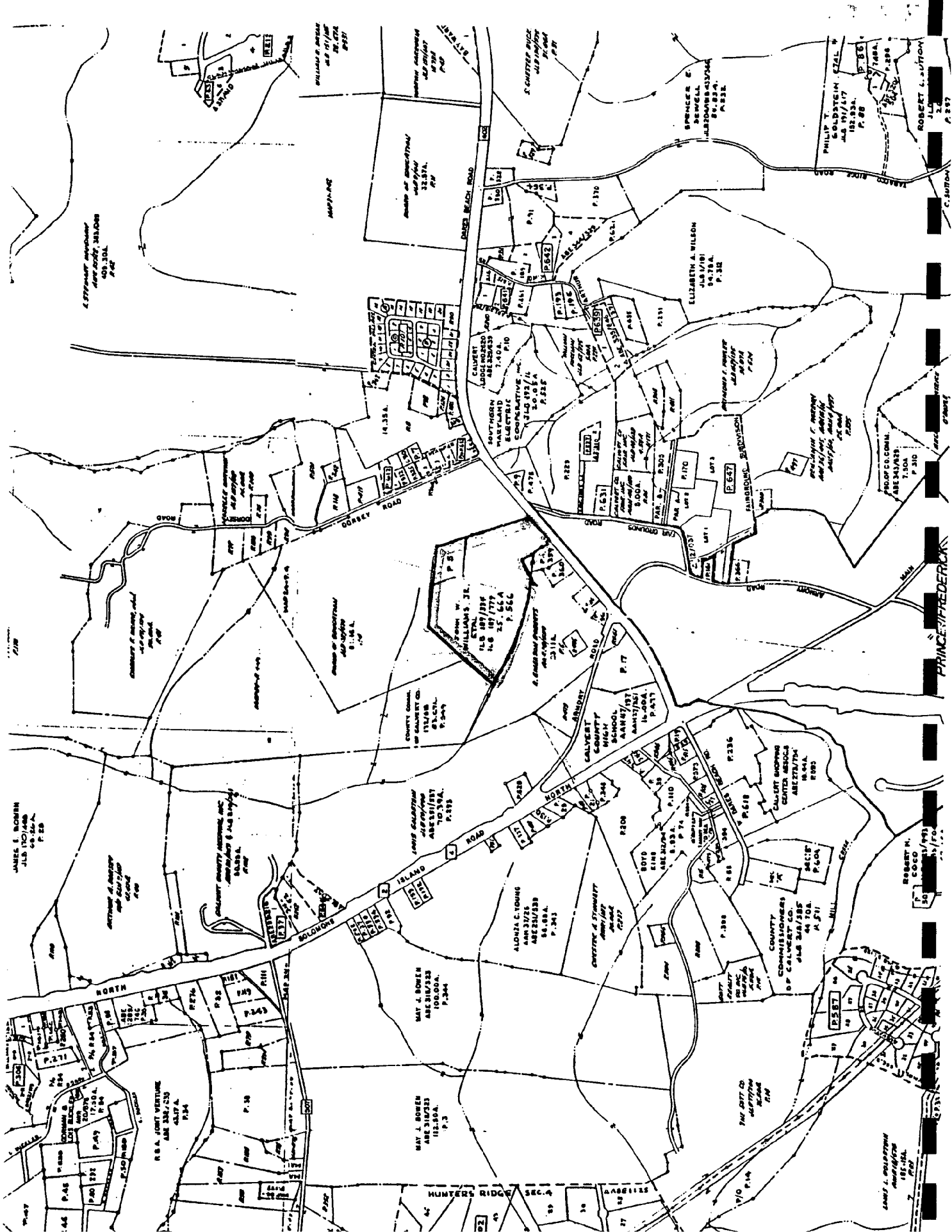
Comments:

Determined by: [Signature]









JAMES I. BOWEN  
JLS 10/1/48  
P. 28

ESTERLY PROPERTY  
AMERICAN ALIENS  
P. 230

R. S. J. VENTURE  
AME 3/1/23  
P. 134

CALVERT COUNTY RECORDS, INC.  
AMERICAN ALIENS  
P. 230

MAY J. BOWEN  
AME 3/1/23  
P. 344

MAY J. BOWEN  
AME 3/1/23  
P. 344

LOUIS CALVERT  
AMERICAN ALIENS  
P. 230

ALONZA C. YOUNG  
AME 3/1/23  
P. 344

ALONZA C. YOUNG  
AME 3/1/23  
P. 344

BOYO KING  
AME 3/1/23  
P. 344

BOYO KING  
AME 3/1/23  
P. 344

CALVERT COUNTY RECORDS, INC.  
AMERICAN ALIENS  
P. 230

CALVERT COUNTY RECORDS, INC.  
AMERICAN ALIENS  
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CALVERT COUNTY RECORDS, INC.  
AMERICAN ALIENS  
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CALVERT COUNTY RECORDS, INC.  
AMERICAN ALIENS  
P. 230

CALVERT COUNTY RECORDS, INC.  
AMERICAN ALIENS  
P. 230

ROBERT H. COOD  
AME 3/1/23  
P. 344

PRINCE FREDERICK

ROBERT L. SUTTON  
JLS 1/1/47  
P. 28

PHILIP T. GOLDSTEIN  
JLS 1/1/47  
P. 28

SPENCER C. BEMWELL  
JLS 2/28/33  
P. 28

ELIZABETH A. WILSON  
JLS 1/1/81  
P. 28

SOUTHERN MARYLAND  
ELECTRIC COOPERATIVE INC.  
JLS 1/1/47  
P. 28

CALVERT COUNTY RECORDS, INC.  
AMERICAN ALIENS  
P. 230

WILLIAMS W. WILLIAMS, JR.  
JLS 1/1/47  
P. 28

WILLIAMS W. WILLIAMS, JR.  
JLS 1/1/47  
P. 28

WILLIAMS W. WILLIAMS, JR.  
JLS 1/1/47  
P. 28

WILLIAMS W. WILLIAMS, JR.  
JLS 1/1/47  
P. 28

DATA FORM 1  
WETLAND DETERMINATION

Applicant Name: Calvert County Application Number: \_\_\_\_\_ Project Parcel: 566  
 State: MD County: Calvert Legal Description: \_\_\_\_\_ Township: \_\_\_\_\_ Range: \_\_\_\_\_  
 Date: Sep. 27, 1991 Plot No.: 1 Section: \_\_\_\_\_

Vegetation [list the three dominant species in each vegetation layer (5 if only 1 or 2 layers)]. Indicate species with observed morphological or known physiological adaptations with an asterisk.

<u>Species</u>	<u>Indicator Status</u>	<u>Species</u>	<u>Indicator Status</u>
<u>Trees</u>		<u>Herbs</u>	
1. <i>Liriodendron tulipifera</i> (FACU)		7. <i>Allium canadense</i> (FACU)	
2. <i>Carya tomentosa</i> (UPL)		8.	
3.		9.	
<u>Saplings/shrubs</u>		<u>Woody vines</u>	
4. <i>Carpinus caroliniana</i> (FAC)		10. <i>Lonicera japonica</i> (FAC-)	
5. <i>Cornus florida</i> (FACU)		11. <i>Parthenocissus quinquefolia</i> (FACU)	
6. <i>Viburnum acerifolium</i> (UPL)		12. <i>Mitchella repens</i> (FACU)	
% of species that are OBL, FACW, and/or FAC: <u>10%</u> Other indicators: <u>None</u> . Hydrophytic vegetation: Yes ___ No <input checked="" type="checkbox"/> Basis: _____			

Soil  
 Series and phase: Sassafras and Westphalia On hydric soils list? Yes \_\_\_; No   
 Mottled: Yes \_\_\_; No  Mottle color: \_\_\_\_\_; Matrix color: 10YR 4/6  
 Gleyed: Yes \_\_\_ No  Other indicators: None  
 Hydric soils: Yes \_\_\_ No  Basis: Chroma value > 2

Hydrology  
 Inundated: Yes \_\_\_; No  Depth of standing water: \_\_\_\_\_  
 Saturated soils: Yes \_\_\_; No  Depth to saturated soil: \_\_\_\_\_  
 Other indicators: None  
 Wetland hydrology: Yes \_\_\_; No  Basis: \_\_\_\_\_  
 Atypical situation: Yes \_\_\_; No   
 Normal Circumstances? Yes  No \_\_\_  
 Wetland Determination: Wetland \_\_\_\_\_; Nonwetland

Comments:

Determined by: [Signature]

DATA FORM 1  
WETLAND DETERMINATION

Applicant Name: Calvert County Application Number: \_\_\_\_\_ Project Name: Parcel 566 Williams Prop.  
 State: MD County: Calvert Legal Description: \_\_\_\_\_ Township: \_\_\_\_\_ Range: \_\_\_\_\_  
 Date: Sep. 27, 1991 Plot No.: 2 Section: Above pond

Vegetation [list the three dominant species in each vegetation layer (5 if only 1 or 2 layers)]. Indicate species with observed morphological or known physiological adaptations with an asterisk.

<u>Species</u>	<u>Indicator Status</u>	<u>Species</u>	<u>Indicator Status</u>
<u>Trees</u>		<u>Herbs</u>	
1. <i>Platanus occidentalis</i> (FACW)		7. <i>Cinna arundinacea</i> (FACW)	
2. <i>Fraxinus pennsylvanica</i> (FACW)		8. <i>Polygonum sagittatum</i> (OBL)	
3. <i>Taxodium distichum</i> (OBL)		9. <i>Impatiens capensis</i> (FACW)	
<u>Saplings/shrubs</u>		<u>Woody vines</u>	
4. <i>Alnus serrulata</i> (OBL)		10.	
5. <i>Lindera benzoin</i> (FACW)		11.	
6.		12.	

% of species that are OBL, FACW, and/or FAC: 100% Other indicators: \_\_\_\_\_  
 Hydrophytic vegetation: Yes  No  Basis: \_\_\_\_\_

Soil

Series and phase: \_\_\_\_\_ On hydric soils list? Yes ; No   
 Mottled: Yes ; No . Mottle color: \_\_\_\_\_; Matrix color: \_\_\_\_\_  
 Gleyed: Yes  No  Other indicators: \_\_\_\_\_  
 Hydric soils: Yes  No ; Basis: \_\_\_\_\_

Hydrology

Inundated: Yes ; No . Depth of standing water: surface  
 Saturated soils: Yes ; No . Depth to saturated soil: \_\_\_\_\_  
 Other indicators: \_\_\_\_\_  
 Wetland hydrology: Yes ; No . Basis: obvious signs  
 Atypical situation: Yes ; No   
 Normal Circumstances? Yes  No

Wetland Determination: Wetland ; Nonwetland

Comments: Bald cypress is a species of special state concern.

Determined by: Alan M. Moly

DATA FORM 1  
WETLAND DETERMINATION

Applicant Name: Calvert County Application Number: \_\_\_\_\_ Project Parcel 566  
 Name: Williams prop.  
 State: MD County: Calvert Legal Description: \_\_\_\_\_ Township: \_\_\_\_\_ Range: \_\_\_\_\_  
 Date: \_\_\_\_\_ Plot No.: 3 Section: Below Pond

Vegetation [list the three dominant species in each vegetation layer (5 if only 1 or 2 layers)]. Indicate species with observed morphological or known physiological adaptations with an asterisk.

<u>Species</u>	<u>Indicator Status</u>	<u>Species</u>	<u>Indicator Status</u>
<u>Trees</u>		<u>Herbs</u>	
1. <u>Platanus occidentalis (FACW)</u>		7. <u>Boehmeria cylindrica (FACW)</u>	
2. <u>Ulmus americana (FACW)</u>		8. <u>Impatiens capensis (FACW)</u>	
3. <u>Liquidambar styraciflua (FAC)</u>		9.	
<u>Saplings/shrubs</u>		<u>Woody vines</u>	
4. <u>Alnus serrulata (OBL)</u>		10. <u>N/A</u>	
5. <u>Lindera benzoin (FACW)</u>		11.	
6. <u>Acer rubrum (FAC)</u>		12.	

% of species that are OBL, FACW, and/or FAC: 100% Other indicators: \_\_\_\_\_  
 Hydrophytic vegetation: Yes  No  Basis: \_\_\_\_\_

Soil

Series and phase: Mixed alluvial On hydric soils list? Yes ; No   
 Mottled: Yes ; No . Mottle color: rust; Matrix color: 2.5Y4/3  
 Gleyed: Yes  No  Other indicators: \_\_\_\_\_  
 Hydric soils: Yes  No ; Basis: chroma value < 2 with settles.

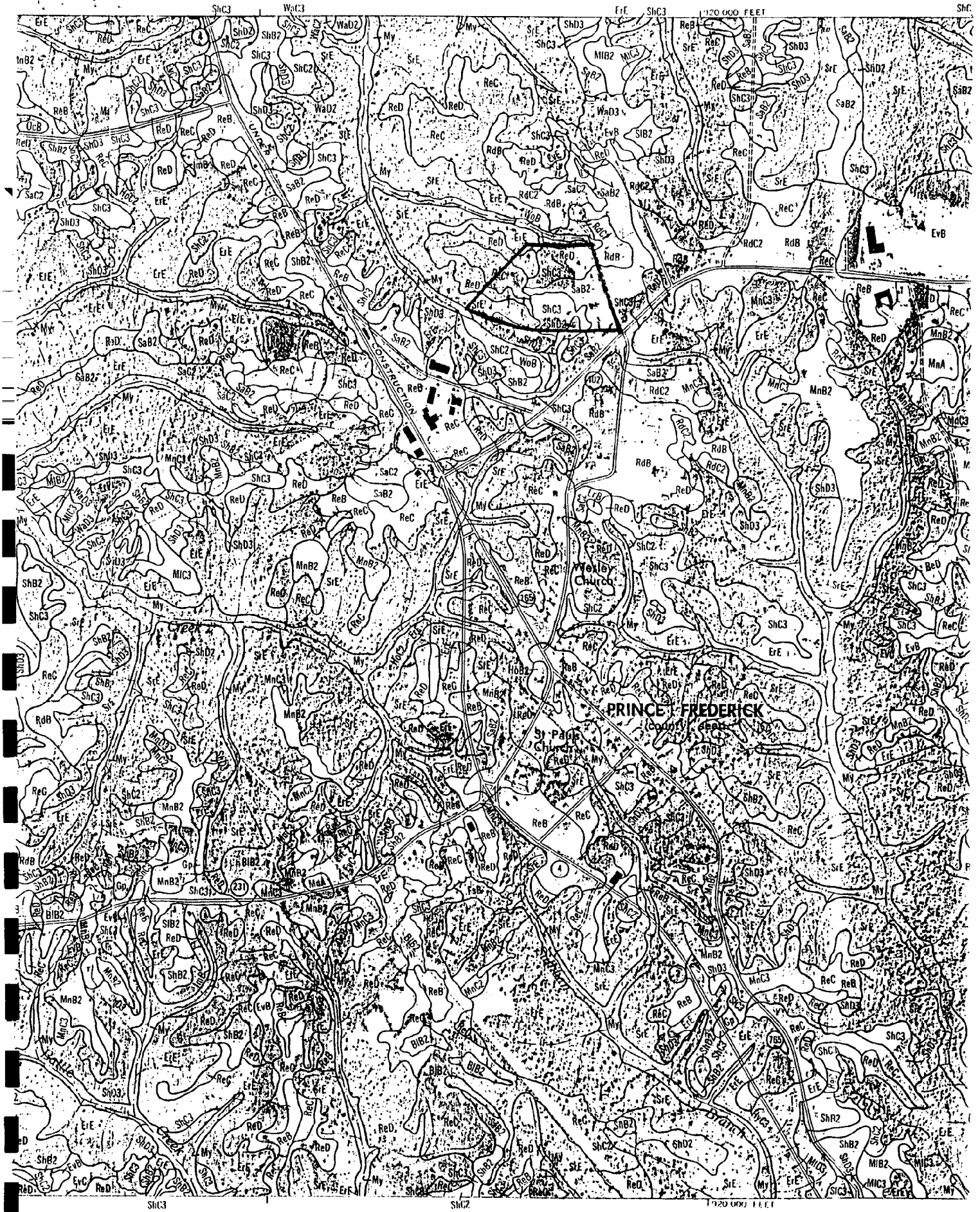
Hydrology

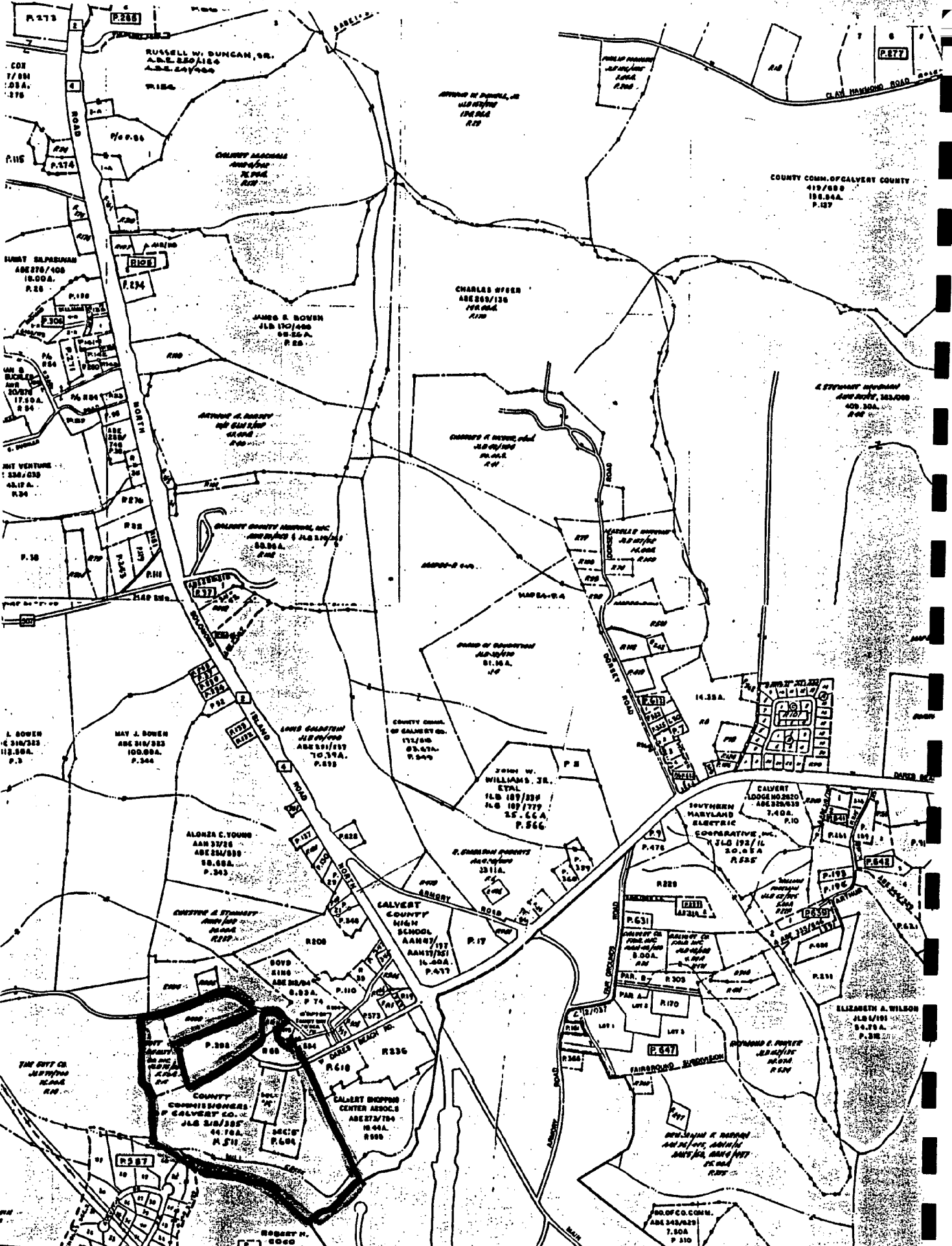
Inundated: Yes ; No . Depth of standing water: \_\_\_\_\_  
 Saturated soils: Yes ; No . Depth to saturated soil: \_\_\_\_\_  
 Other indicators: \_\_\_\_\_  
 Wetland hydrology: Yes ; No . Basis: obvious signs  
 Atypical situation: Yes ; No   
 Normal Circumstances? Yes  No   
 Wetland Determination: Wetland ; Nonwetland

Comments:

Determined by: [Signature]







R.273  
R.266  
COR 7/801  
108A.  
378

RUSSELL W. DUNCAN, SR.  
A.B.E. 250/184  
A.S.E. 247/606

CHARLES W. DUNCAN, JR.  
A.B.E. 192/184  
A.S.E. 192/184

COUNTY COMM. OF CALVERT COUNTY  
419/688  
198.94A.  
P.137

HARRY SELBYMAN  
A.B.E. 276/408  
R.208

CHARLES W. DUNCAN, JR.  
A.B.E. 192/184  
A.S.E. 192/184

JAMES E. BOWEN  
J.L.B. 170/440  
R.25A

STEVENS H. BOWEN  
A.B.E. 276/408  
R.208

ALBERT J. BOWEN  
A.B.E. 276/408  
R.208

ALBERT J. BOWEN, JR.  
A.B.E. 276/408  
R.208

CALVERT COUNTY AIRPORT, INC.  
A.B.E. 276/408  
R.208

MARIE E. BOWEN  
A.B.E. 276/408  
R.208

ALBERT J. BOWEN, JR.  
A.B.E. 276/408  
R.208

ALBERT J. BOWEN, JR.  
A.B.E. 276/408  
R.208

J. BOWEN  
A.B.E. 276/408  
R.208

MAY J. BOWEN  
A.B.E. 276/408  
R.208

ALBERT J. BOWEN, JR.  
A.B.E. 276/408  
R.208

COUNTY COMM. OF CALVERT CO.  
A.B.E. 276/408  
R.208

JOHN W. WILLIAMS, JR.  
ETAL  
J.L.B. 187/177  
A.S.E. 187/177  
P.566

CALVERT COUNTY ELECTRIC  
COOPERATIVE, INC.  
J.L.B. 192/11  
A.S.E. 192/11  
R.225

ALONZA C. YOUNG  
A.A.N. 37/28  
A.B.E. 276/408  
R.208

ALBERT J. BOWEN, JR.  
A.B.E. 276/408  
R.208

ALBERT J. BOWEN, JR.  
A.B.E. 276/408  
R.208

CALVERT COUNTY HIGH SCHOOL  
A.A.N. 37/28  
A.B.E. 276/408  
R.208

CALVERT COUNTY ELECTRIC  
COOPERATIVE, INC.  
J.L.B. 192/11  
A.S.E. 192/11  
R.225

COUNTY COMM. OF CALVERT CO.  
A.B.E. 276/408  
R.208

CALVERT SHOPPING  
CENTER ASSOC.  
A.B.E. 276/408  
R.208

CALVERT COUNTY ELECTRIC  
COOPERATIVE, INC.  
J.L.B. 192/11  
A.S.E. 192/11  
R.225

ELIZABETH A. WILSON  
J.L.B. 191  
A.S.E. 191  
P.582

THE CITY OF  
JERSEY  
A.B.E. 276/408  
R.208

COUNTY COMM. OF CALVERT CO.  
A.B.E. 276/408  
R.208

CALVERT SHOPPING  
CENTER ASSOC.  
A.B.E. 276/408  
R.208

CALVERT COUNTY ELECTRIC  
COOPERATIVE, INC.  
J.L.B. 192/11  
A.S.E. 192/11  
R.225

CALVERT COUNTY ELECTRIC  
COOPERATIVE, INC.  
J.L.B. 192/11  
A.S.E. 192/11  
R.225

CALVERT COUNTY ELECTRIC  
COOPERATIVE, INC.  
J.L.B. 192/11  
A.S.E. 192/11  
R.225

CALVERT COUNTY ELECTRIC  
COOPERATIVE, INC.  
J.L.B. 192/11  
A.S.E. 192/11  
R.225



DATA FORM 1  
WETLAND DETERMINATION

Applicant Name: Calvert County Application Number: \_\_\_\_\_ Project Lands South Name: of Radio Drive  
 State: MD County: Calvert Legal Description: \_\_\_\_\_ Township: \_\_\_\_\_ Range: \_\_\_\_\_  
 Date: 9/29/91 Plot No.: 1 Section: \_\_\_\_\_

Vegetation [list the three dominant species in each vegetation layer (5 if only 1 or 2 layers)]. Indicate species with observed morphological or known physiological adaptations with an asterisk. Vegetation adjacent to channel.

<u>Species</u>	<u>Indicator Status</u>	<u>Species</u>	<u>Indicator Status</u>
<u>Trees</u>		<u>Herbs</u>	
1. <i>Fagus grandifolia</i> (FACU)		7. <i>Thelypteris noveboracensis</i> (FAC)	
2. <i>Liriodendron tulipifera</i> (FACU)		8. <i>Polystichum acrostichoides</i> (FACU)	
3. <i>Liquidambar styraciflua</i> (FAC)		9.	
<u>Saplings/shrubs</u>		<u>Woody vines</u>	
4. <i>Cornus florida</i> (FACU)		10. <i>Smilax rotundifolia</i> (FAC)	
5. <i>Ilex opaca</i> (FACU)		11. <i>Mitella repens</i> (FACU)	
6. <i>Cypripus caroliniana</i> (FAC)		12.	

% of species that are OBL, FACW, and/or FAC: 20% Other indicators: \_\_\_\_\_  
 Hydrophytic vegetation: Yes \_\_\_\_\_ No  Basis: \_\_\_\_\_

Soil Sassafras and  
 Series and phase: Westphalia On hydric soils list? Yes \_\_\_\_\_; No   
 Mottled: Yes ; No \_\_\_\_\_. Mottle color: 10YR 4/6; Matrix color: 2.5Y 4/3.  
 Gleyed: Yes \_\_\_\_\_ No  Other indicators: None  
 Hydric soils: Yes \_\_\_\_\_ No ; Basis: Matrix chroma > 2

Hydrology limited to base of channel:  
 Inundated: Yes ; No \_\_\_\_\_. Depth of standing water: flowing water.  
 Saturated soils: Yes \_\_\_\_\_; No \_\_\_\_\_. Depth to saturated soil: \_\_\_\_\_  
 Other indicators: \_\_\_\_\_  
 Wetland hydrology: Yes ; No \_\_\_\_\_. Basis: \_\_\_\_\_  
 Atypical situation: Yes \_\_\_\_\_; No   
 Normal Circumstances? Yes  No \_\_\_\_\_.  
 Wetland Determination: Wetland \_\_\_\_\_; Nonwetland

Comments: This would be considered jurisdictional waters of the U.S. though not a wetland in most places.

Determined by: Th. M. Wolf

DATA FORM 1  
WETLAND DETERMINATION

Applicant Name: Calvert County Application Number: \_\_\_\_\_ Project Lands south Name: of Radio Drive  
 State: MD County: Calvert Legal Description: \_\_\_\_\_ Township: \_\_\_\_\_ Range: \_\_\_\_\_  
 Date: \_\_\_\_\_ Plot No.: 2 Section: \_\_\_\_\_

Vegetation [list the three dominant species in each vegetation layer (5 if only 1 or 2 layers)]. Indicate species with observed morphological or known physiological adaptations with an asterisk.

<u>Species</u>	<u>Indicator Status</u>	<u>Species</u>	<u>Indicator Status</u>
<u>Trees</u>		<u>Herbs</u>	
1. <i>Acer rubrum</i> (FAC)		7. <i>Cinna arundinacea</i> (FACW)	
2. <i>Liquidambar styraciflua</i> (FAC)		8. <i>Arsacema triphyllum</i> (FACW)	
3. <i>Ulmus americana</i> (FACW)		9. <i>Boehmeria cylindrica</i> (FACW)	
<u>Saplings/shrubs</u>		<u>Woody vines</u>	
4. <i>Lindera benzoin</i> (FACW)		10. <i>Smilax rotundifolia</i> (FAC)	
5. <i>Carpinus caroliniana</i> (FACW)		11. <i>Toxicodendron radicans</i> (FAC)	
6. <i>Vaccinium corymbosum</i> (FACW)		12. <i>Campsis radicans</i> (FAC)	
% of species that are OBL, FACW, and/or FAC: <u>90%</u> . Other indicators: _____ Hydrophytic vegetation: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> . Basis: <u>dominance</u>			

Soil  
 Series and phase: Sassafras and Westphalia On hydric soils list? Yes ; No   
 Mottled: Yes ; No . Mottle color: 10YR 4/1; Matrix color: 10YR 4/3  
 Gleyed: Yes  No  Other indicators: organic staining  
 Hydric soils: Yes  No ; Basis: \_\_\_\_\_

Hydrology  
 Inundated: Yes ; No . Depth of standing water: \_\_\_\_\_  
 Saturated soils: Yes ; No . Depth to saturated soil: 6"  
 Other indicators: Scouring / drift lines / Alluvial deposits  
 Wetland hydrology: Yes ; No . Basis: \_\_\_\_\_  
 Atypical situation: Yes ; No   
 Normal Circumstances? Yes  No   
 Wetland Determination: Wetland ; Nonwetland

Comments: This area is receiving greater flow rates due to surrounding developed land.

Determined by: [Signature]

DATA FORM 1  
WETLAND DETERMINATION

Applicant Name: Calvert County Application Number: \_\_\_\_\_ Project Name: Lands to the South of Radio Road  
 State: MD County: Calvert Legal Description: \_\_\_\_\_ Township: \_\_\_\_\_ Range: \_\_\_\_\_  
 Date: 9/29/91 Plot No.: 3 Section: \_\_\_\_\_

Vegetation [list the three dominant species in each vegetation layer (5 if only 1 or 2 layers)]. Indicate species with observed morphological or known physiological adaptations with an asterisk.

<u>Species</u>	<u>Indicator Status</u>	<u>Species</u>	<u>Indicator Status</u>
<u>Trees</u>		<u>Herbs</u>	
1. <i>Fagus grandifolia</i> (FACU)		7. <i>Polystichum acrostichoides</i> (FACU)	
2. <i>Quercus alba</i> (FACU)		8.	
3. <i>Liriodendron tulipifera</i> (FACU)		9.	
<u>Saplings/shrubs</u>		<u>Woody vines</u>	
4. <i>Albizia julibrissin</i> (UPL)		10. <i>Lonicera japonica</i> (FAC-)	
5. <i>Viburnum prunifolium</i> (FACU)		11.	
6. <i>Ilex opaca</i> (FACU)		12.	

% of species that are OBL, FACW, and/or FAC: 20%. Other indicators: \_\_\_\_\_  
 Hydrophytic vegetation: Yes \_\_\_\_\_ No . Basis: \_\_\_\_\_

Soil

Series and phase: Matapeake On hydric soils list? Yes \_\_\_\_\_; No   
 Mottled: Yes \_\_\_\_\_; No . Mottle color: \_\_\_\_\_; Matrix color: 10YR5/4  
 Gleyed: Yes \_\_\_\_\_ No  Other indicators: None  
 Hydric soils: Yes \_\_\_\_\_ No ; Basis: Matrix > Chroma 2

Hydrology

Inundated: Yes \_\_\_\_\_; No . Depth of standing water: \_\_\_\_\_  
 Saturated soils: Yes \_\_\_\_\_; No . Depth to saturated soil: \_\_\_\_\_  
 Other indicators: slight seepage / some exposed roots  
 Wetland hydrology: Yes \_\_\_\_\_; No . Basis: well drained area  
 Atypical situation: Yes \_\_\_\_\_; No   
 Normal Circumstances? Yes  No \_\_\_\_\_

Wetland Determination: Wetland \_\_\_\_\_; Nonwetland

Comments: This is a close call on jurisdictional waters of U.S. and should be reviewed by proper regulatory agencies.

Determined by: Ki M. [Signature]

DATA FORM 1  
WETLAND DETERMINATION

Applicant Name: Calvert County Application Number: \_\_\_\_\_ Project Name: Lands South of Radio Road  
 State: MD County: Calvert Legal Description: \_\_\_\_\_ Township: \_\_\_\_\_ Range: \_\_\_\_\_  
 Date: 9/29/97 Plot No.: 4 Section: \_\_\_\_\_

Vegetation [list the three dominant species in each vegetation layer (5 if only 1 or 2 layers)]. Indicate species with observed morphological or known physiological adaptations with an asterisk.

<u>Species</u>	<u>Indicator Status</u>	<u>Species</u>	<u>Indicator Status</u>
<u>Trees</u>		<u>Herbs</u>	
1. None		7. <i>Polygonum sagittatum</i> (OBL)	
2.		8. <i>Cinna arundinacea</i> (FACW)	
3.		9. <i>Impatiens capensis</i> (FACW)	
<u>Saplings/shrubs</u>		<u>Woody vines</u>	
4. <i>Liquidambar styraciflua</i> (FAC)		10. <i>Mikania scandens</i> (FACW)	
5. <i>Platanus occidentalis</i> (FACW)		11.	
6.		12.	

% of species that are OBL, FACW, and/or FAC: 100% Other indicators: \_\_\_\_\_  
 Hydrophytic vegetation: Yes  No  Basis: \_\_\_\_\_

Soil  
 Series and phase: Erodad land On hydric soils list? Yes ; No   
 Mottled: Yes ; No  Mottle color: \_\_\_\_\_; Matrix color: Black  
 Gleyed: Yes  No  Other indicators: Muck  
 Hydric soils: Yes  No ; Basis: \_\_\_\_\_

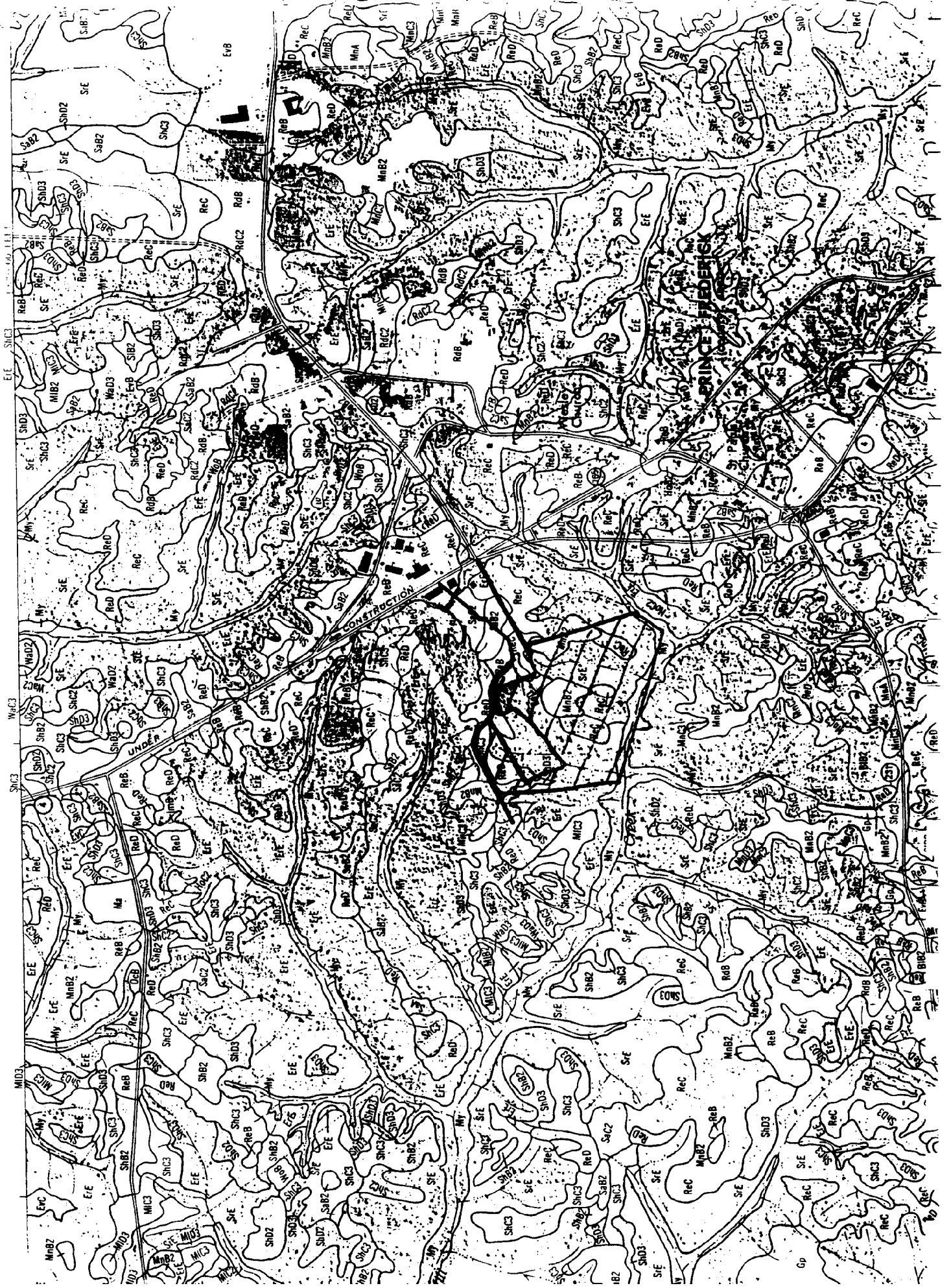
Hydrology  
 Inundated: Yes ; No . Depth of standing water: Surface  
 Saturated soils: Yes ; No . Depth to saturated soil: \_\_\_\_\_  
 Other indicators: \_\_\_\_\_  
 Wetland hydrology: Yes ; No . Basis: Permanent saturation  
 Atypical situation: Yes ; No   
 Normal Circumstances? Yes  No   
 Wetland Determination: Wetland ; Nonwetland

Comments:

Determined by: Tim W. McCoy  
 B2



CALVERT COUNTY, MARYLAND — SHEET NUMBER 18



APPENDIX B

**CONSENT FORM FOR ACCESS**

I/we give my/our consent to allow access of the Calvert County Department of Planning and Zoning's environmental consultant onto our property identified below for the purpose of conducting a gross wetland delineation. I/we understand that vegetation will not be cut or flagging left on the site and that all work will be completed by the end of September, 1991.

9-17-91  
Date

The Gott Co  
Jal M. Gott  
Property Owner or Agent's Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Co-owner's signature

**PROPERTY OWNERS NAME AND ADDRESS:**

The Gott Company  
Rte 2/4  
Prince Frederick, MD 20678

**PROPERTY DESCRIPTION:** TAX MAP NO. 24 PARCEL NO. 14 & 15

Place this form into thirds, staple or tape secure and return to Planning & Zoning (postage provided). If consent is denied, please return blank form without signatures.

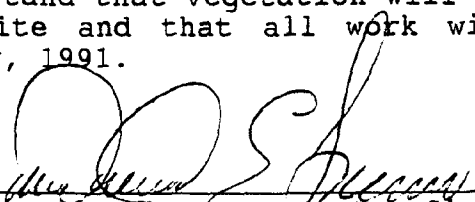
RECEIVED SEP 18 1991



**CONSENT FORM FOR ACCESS**

I/we give my/our consent to allow access of the Calvert County Department of Planning and Zoning's environmental consultant onto our property identified below for the purpose of conducting a gross wetland delineation. I/we understand that vegetation will not be cut or flagging left on the site and that all work will be completed by the end of September, 1991.

9/19/91  
Date

  
Property Owner or Agent's Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Co-owner's signature

**PROPERTY OWNERS NAME AND ADDRESS:**

Calvert Association for Retarded Citizens  
355 W. Dares Beach Road  
Prince Frederick, MD 20678

PROPERTY DESCRIPTION: TAX MAP NO. 24 PARCEL NO. 66

Fold this form into thirds, staple or tape secure and return to Planning & Zoning (postage provided). If consent is denied, please return blank form without signatures.

CONSENT FORM FOR ACCESS

I/we give my/our consent to allow access of the Calvert County Department of Planning and Zoning's environmental consultant onto our property identified below for the purpose of conducting a gross wetland delineation. I/we understand that vegetation will not be cut or flagging left on the site and that all work will be completed by the end of September, 1991.

9-19-91

Date

*Patrick C. Mcgibney*  
*V. P. The Washington Corporation*  
*Managing Agent*

Property Owner or Agent's Signature

Date

Co-owner's signature

PROPERTY OWNERS NAME AND ADDRESS:

Calvert Village LTD Partnership  
5550 Friendship Blvd  
Chevy Chase, MD 20815

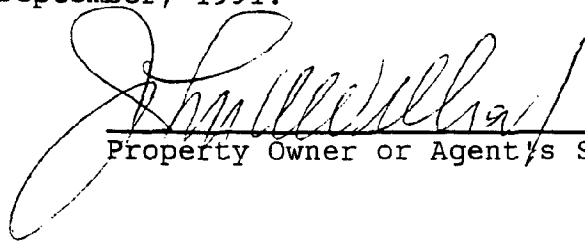
PROPERTY DESCRIPTION: TAX MAP NO. 24 PARCEL NO. 236

Fold this form into thirds, staple or tape secure and return to Planning & Zoning (postage provided). If consent is denied, please return blank form without signatures.

**CONSENT FORM FOR ACCESS**

I/we give my/our consent to allow access of the Calvert County Department of Planning and Zoning's environmental consultant onto our property identified below for the purpose of conducting a gross wetland delineation. I/we understand that vegetation will not be cut or flagging left on the site and that all work will be completed by the end of September, 1991.

Sept 13-1991  
Date

  
Property Owner or Agent's Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Co-owner's signature

**PROPERTY OWNERS NAME AND ADDRESS:**

Mr. John Williams, Jr.  
2715 Hollowing Point Rd.  
Prince Frederick, MD 20678

PROPERTY DESCRIPTION: TAX MAP NO. 24 PARCEL NO. 566 & 5

**APPENDIX C**

**PRINCE FREDERICK WATERSHED MANAGEMENT PLAN, THE HUNTING CREEK  
WATERSHED - FISCAL YEAR 1992, COASTAL ZONE MANAGEMENT GRANT  
PROPOSAL**

**ACKNOWLEDGEMENT**

Preparation of this report was partially funded by the Coastal Resources Division, Maryland Department of Natural Resources, through a grant provided by the Coastal Zone Management Act of 1972, as amended, administered by the Office of Ocean and Coastal Resource Management, National Oceanic and Atmospheric Administration.

**WATERSHED MANAGEMENT PLAN FOR PRINCE FREDERICK,  
THE HUNTING CREEK WATERSHED**

**III. REVISED WORK APPROACH**

During the current (October 1, 1990 to September 30, 1991) Coastal Zone Contract Period, Calvert County has received CZM funding for a Category B project to investigate the feasibility and requirements for conducting a Watershed Management Plan for Prince Frederick and the Hunting Creek Watershed. One of the products of this grant will be guidance maps to wetlands which combine the Wetland Inventory Maps with the soils map.

From these maps, a detailed inventory of the wetland area by subwatershed and wetland type will be derived. Requests will be submitted to DNR, Natural Heritage Program and the U.S. Fish and Wildlife Service to identify any areas that are habitat to rare, threatened and endangered species. These items will be completed during the first quarters of the grant period. From these findings, protection measures will be proposed in the watershed plan and county-wide and area-wide ordinances will be reviewed for consistency.

Calvert County will have topography prepared for the portion of the watershed presently undocumented (approximately 55%, work to be completed during first three quarters of the contract period). Topography is necessary for hydrologic and hydraulic modeling. WRA will also provide a list of flood water gauging stations in the watershed and accompanying data.

Water supply for potable water and fire protection in the watershed will also be reviewed in terms of quantity and quality of existing and projected future supply, water recharge, and wellhead protection. Water supply for potable water and fire protection will be investigated. WRA, Water Rights Division will provide a list of water appropriations for the watershed and provide technical assistance in the preparation of this section of the Plan.

During the first quarter, the local government officials and local government department heads will receive a presentation on the objectives and scope of the watershed management plan and comments and directives will be requested. At the same time, an advertisement will be placed in the local papers announcing the beginning of the watershed management effort and requesting comments and volunteers to serve on a watershed management task force. After preparation of much of the mapping and factual data on the watershed (most carried out during the first and second quarters of the grant period), the task force will meet to begin to develop issues and guide the plan preparation. Interested parties including regional, state and federal agency representatives will be invited to meet with the task force at one of their early meetings.

A draft Hunting Creek Watershed Management Plan including an implementation schedule will result. The draft Plan will be distributed for review by regional, state and federal agencies and the general public.

**IV. REVISED EXPECTED WORK PRODUCTS**

1. Draft Hunting Creek Watershed Management Plan
2. Map of Land Use for the Watershed
3. Map of all potential Wetlands in watershed.
4. Table of Wetland Areas by Subtributary and Wetland Type.

**VI. REVISED SUPPORTING GRANTS**

The Flood Management Division, Water Resources Administration, Department of Natural Resources and the U.S. Army Corp of Engineers are considering conducting hydrologic and hydraulic modeling and mapping in the Hunting Creek Watershed as a contribution toward the Hunting Creek Watershed Management Plan Study (see attached letter from Ms. Hughes dated February 5, 1991). In addition, Counties along the Patuxent River are expected to receive funding through the federally funded "Patuxent River Demonstration Project" to address non-point source pollution to the Patuxent River with an emphasis on stormwater management.

If these additional sources of funding are received then much of the work approach and many of the expected work products which have been deleted due to cuts in funding for this grant may be accomplished. These include work in the area of flood management, wetland function, and forest cover analysis. In addition, the stormwater management section of the watershed management plan could be greatly expanded.

**COASTAL ZONE MANAGEMENT GRANT PROPOSED BUDGET REVISION**

**SUMMARY**

	ORIGINAL PROPOSAL		REVISED PROPOSAL	
	FUNDING REQUESTED	LOCAL MATCH	FUNDING REQUESTED	LOCAL MATCH
STANDARD ACTIVITIES	10,000		2,000	
WATERSHED PLAN	20,600	18,700	13,000	13,000
TOTAL	30,600	18,700	15,000	13,000

**DETAILED BUDGET - STANDARD ACTIVITIES**

	ORIGINAL PROPOSAL		REVISED PROPOSAL	
	FUNDING REQUESTED	LOCAL MATCH	FUNDING REQUESTED	LOCAL MATCH
SALARIES	10,000		2,000	

**DETAILED BUDGET - WATERSHED PLAN**

	ORIGINAL PROPOSAL		REVISED PROPOSAL	
	FUNDING REQUESTED	LOCAL MATCH	FUNDING REQUESTED	LOCAL MATCH
SALARIES		9,690		4,700
SUPPLIES	800	200	2,990*	100
EQUIPMENT	300		410**	
TRAVEL		310		100
CONSULTANT FEES	15,000		8,600	
PRINTING AND REPORT	4,500	500	1,000	100
OTHER (TOPO MAPS)		8,000		8,000
TOTAL	20,600	18,700	13,000	13,000

\* \$2700 to establish an Autocad software station for intern

\*\* Cost of digitizer tablet to replace mouse in original proposal



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