C2091

SPECIAL PROJECT REPORT

CHARLES COUNTY

CONTRACT # C-2-78440 (87)
(July 1, 1986 - October 31, 1987)

I. Description of Task:

The overall objective of the Special Project is to protect the environmental integrity of the Zekiah Swamp and address associated water quality, water quantity, flood mitigation, and stream valley protection concerns.

The scope of work for the Special Project, as revised by Contract Modification #2, is as follows:

> " The purpose of this work task is to facilitate coordination of the development of the Zekiah/Wicomico Scenic River Plan, which will be a joint effort between Charles County and the State Scenic Rivers Program. The County will identify local issues of concern, assist in the coordination of the public hearing, provide technical assistance to the State Scenic River Program and identify the areas of responsibility of the participating state and local agencies."

II. Background

The Zekiah Swamp is a 20-mile long, 3/4 mile wide hardwood Swamp, largest in the State of Maryland. The Zekiah and its drainage basin are located primarily in Charles County.

The Swamp has been recognized for its natural resources and environmental sensitivity by the Smithsonian Institute, which gave it the highest ecological rating of all natural areas in the Chesapeake Bay Region (1975); the Maryland Department of Natural Resources, which designated the Zekiah/Wicomico as a Maryland Scenic River in 1975; and the Department of State Planning (with the concurrence of Charles County) which designated it as an Area of Critical State Concern in 1981.

In 1983, the Charles County Planning Office, Maryland DNR, the Tri-County Council for Southern Maryland, Soil Conservation Service and several other Agencies formed a committee to coordinate research and other activities. Tri-County Council, with input and assistance from Charles County, prepared a summary of information and management measures as recommended by the technical Ad-Hoc Committee.

In order to elicit the concerns of the citizens of Charles County regarding the Zekiah Swamp, and to build support for management measures to protect the environmental integrity of the Swamp, the Charles County Department of Planning and Zoning prepared an informational brochure (attached) and slide program

(see attached text) which highlight the unique features and special values of the Zekiah Swamp.

The brochure and slide program were prepared and presented to the Charles County Planning Commission in July of 1986; which endorsed the proposed management measures, and recommended that a local advisory board be formed to assist with the specific application of measures to protect the Swamp. The brochures were distributed to the Ad-hoc Committee distribution list and are made available in County offices and at public meetings. The slide program has been shown to a number of groups and individuals; including the Kiwanis Club, Southern Maryland Audobon Society (see attached program), and the Charles County Business and Professional Women. A condensed version of the slide program was incorporated into a natural resource overview of the County, which was presented at six Comprehensive Planning forums held throughout the County in the Spring of 1987. The Department also prepared a public display for the County Courthouse.

Staff has noted an increased interest and awareness of the values of the Zekiah Swamp, particularly at public hearings involving development activities which are perceived to have an adverse impact to the Swamp. For example, at a public hearing held in December, 1986, regarding a proposed tire-shredding facility within the Zekiah watershed, a number of concerns were expressed by the public about potential adverse impacts to the Swamp. In fact, one of the opponents, evidently suspecting that the County had a vested interest in the facility, waved a Zekiah brochure in the air and implored the County Environmental Planner (who had prepared the brochure) to read it - "you might learn something". Also, in a public survey and issue identification workshop conducted in the Spring of 1987, protection of the Zekiah Swamp was frequently included in the list of environmental issues and concerns. Overall, protection of the environment was the second rated concern of the Charles County citizens who participated in the survey.

The Charles County Planning Commission, at the recommendation of the County Planning Office, has instituted a policy of requiring a natural buffer between residential subdivisions and the Zekiah Swamp. This policy was first utilized in April, 1987, for Zekiah Valley, a 209 acre, 32 lot subdivision adjacent to the Swamp. The buffer width was determined utilizing the formula 50 feet + 4 x % slope. Also, septic percolation fields were not allowed within the buffer.

III. Coordination with the State Scenic Rivers Program

The original Special Project scope of work called for the County to develop a Management Plan for the Zekiah Swamp. To initiate this project, the County accomplished the public education and participation efforts described above. In addition, the County prepared base maps delineating the floodplain and wetlands of the Swamp, for potential use in delineating a management area for inclusion in the County Chesapeake Bay Critical Area Program.

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A Scenic River Plan, developed by the State Scenic Rivers Program, is required by State Law for all designated Scenic Rivers. Through discussion with the former administrator of the Program, staff learned that a significant amount of background and analysis had been performed by the State in the early 1980's, and a Zekiah/Wicomico Scenic River Advisory Board had been formed. However, due to internal problems, the Plan had not been completed; in fact, the Board had never met. Furthermore, the County learned in the Spring of 1987 that it was the intent of the Maryland Scenic River Board to revive the Zekiah/Wicomico Scenic River planning effort, and that it was to be the first priority for new Scenic River Plans.

Therefore, in order to avoid duplication of effort, and to facilitate coordination between the County and State in the development of a locally supported Scenic River Management Plan for the Zekiah Swamp, the County is working with the State Scenic Rivers Program, rather than developing a separate Management Plan.

County staff met with Mr. Derek Richerson of the Scenic Rivers Program in July, 1987, to plan a public forum in which to elicit public issues and concerns specific to the Zekiah/Wicomico River. Staff gave Mr. Richerson a mailing list of Zekiah landowners to use for the meeting, which was held 8/25/87 at the Izaac Walton League (sponsors of the meeting) in Hughesville. Staff opened the meeting by presenting the Zekiah slide program to establish a background for the 35 citizens who participated. Also speaking were Mr. Richerson, representatives of the Maryland Department of the Environment (208 Water Quality Planner) and the Maryland Environmental Trust. Following is a partial list of issues, concerns, and recommendations which were discussed at the meeting:

* Impact of St. Charles development and spray lagoons.

* Faulkner fly ash storage facility - discussed at length, concern about acid runoff and impact to anadromous fish.

* Dredging from hydraulic clamming and other activities.

* Swamp acquisition - endorsed but should be voluntary

* Sand and Gravel operations - what is impact on water tables, from sediment.

* Growth impacts within the watershed, inappropriate land uses in the watershed.

* Need to buffer between Swamp and development.

* Air pollution from Chalk Point.

Staff met with management personnel from PEPCO on 9/1/87 to tour the flyash facility and discuss the procedures they are using to protect the Swamp from runoff. Also on 9/1/87, staff met with the Charles Soil Conservation District Board of Supervisors to discuss their concerns relative to development within

the watershed. On 10/27/87, Mel Bridgett, Director of County Parks and Recreation, met with staff to discuss the potential for a Zekiah Stream Valley acquisition program. Mr. Bridgett would like to use Program Open Space funds for this purpose, and described similiar programs in other Counties.

The County Commissioners have provided a list of nominees for the Zekiah/Wicomico Scenic River Advisory Board to the Maryland Scenic Rivers Board, including Kevin McJunkin and David Cooksey of the County Planning and Zoning Department.

IV. Summary

The purpose of the Special Project is to facilitate the development of the Zekiah/Wicomico Scenic River Plan. In a general sense, the County has helped to lay the foundation for a successful, locally supported Zekiah/Wicomico Scenic River Plan through its efforts to increase public awareness of the value and sensitivity of the Zekiah Swamp. More specifically, the County has, through public meetings and surveys, identified local issues and concerns relative to the Zekiah Swamp; has assisted the Scenic Rivers Program in the coordination of a public meeting by providing a mailing list and preparing and presenting an informational overview; and has provided, and will continue to provide, technical assistance to the Scenic Rivers Program through the participation of staff on the Local Scenic River Advisory Board in the development and implementation of a Scenic River Plan. Staff has met with a number of State and Local Agencies, including the County Parks and Recreation Department, the members of the Zekiah Ad-Hoc Committee, and the Maryland Environmental Trust in order to identify potential areas of responsibility for implementing the Zekiah Scenic Rivers Plan.

LIST OF ATTACHMENTS

1. Zekiah brochure
2. Script from Zekiah slide program
3. Program from Southern Maryland Audobon Society meeting
4. Summary of meeting between Jacquelyn Magness and Mel Bridgett, Director of County Parks and Recreation regarding stream valley acquisition

SCRIPT

INTRO: THE PURPOSE OF THIS SLIDE SHOW IS TO INTRODUCE YOU TO THE ZEKIAH SWAMP: IT'S VALUE, THE CONCERNS ABOUT ENVIRONMENTAL IMPACTS, AND WAYS WE CAN CONSERVE THE SWAMP.

1. THE ZEKIAH IS THE LARGEST [redacted] A HARDWOOD SWAMP IN THE STATE OF MARYLAND.

2. THIS IS A MAP OF THE ZEKIAH SWAMP FLOOD PLAIN AND SOME OF ITS MAJOR TRIBUTARIES, INDICATED IN RED. THE ZEKIAH IS LOCATED PRIMARILY IN CHARLES COUNTY. ZEKIAH SWAMP RUN ORIGINATES IN SOUTHERN PRINCE GEORGE'S COUNTY NEAR CEDARVILLE NATURAL RESOURCE AREA AND FLOWS SOUTH THROUGH CHARLES COUNTY FORMING THE HEADWATERS OF THE WICOMICO RIVER, A DISTANCE OF APPROXIMATELY 20 MILES. THE ASSOCIATED HARDWOOD SWAMP AVERAGES APPROXIMATELY 3/4 OF A MILE WIDE. THE WICOMICO FLOWS INTO THE POTOMAC RIVER AND THE CHESAPEAKE BAY.

3. THE SWAMP DRAINS AN AREA OF APPROXIMATELY 77,000 ACRES, OVER

1/4 OF THE TOTAL LAND AREA OF THE COUNTY. THIS IS A MAP OF THE MAJOR WATERSHEDS IN THE COUNTY. THE ZEKIAH WATERSHED IS IN PURPLE.

4. THE SWAMP HAS BEEN RECOGNIZED FOR ITS NATURAL RESOURCES AND ENVIRONMENT SENSITIVITY BY THE SMITHSONIAN INSTITUTE WHICH GAVE IT THE HIGHEST ECOLOGICAL RATING OF ALL NATURAL AREAS IN THE CHESAPEAKE BAY REGION AND DESCRIBED IT AS ONE OF THE MOST IMPORTANT ECOLOGICAL AREAS ON THE EAST COAST.

5. IN 1975, THE MARYLAND DEPARTMENT OF NATURAL RESOURCES RECOGNIZED THE VALUE OF THE SWAMP BY DESIGNATING THE ZEKIAH SWAMP RUN AND THE ASSOCIATED WICOMICO RIVER AS A STATE OF MARYLAND SCENIC RIVER.

WHY HAS THE ZEKIAH SWAMP BEEN RECOGNIZED AS SUCH A VALUABLE RESOURCE?

6. THE SWAMP CONTAINS A TREMENDOUS DIVERSITY OF PLANT AND ANIMAL LIFE. HERE ARE A FEW EXAMPLES OF THE PLANTS WHICH PROVIDE FOOD AND SHELTER FOR THE ANIMALS WHICH LIVE IN THE SWAMP.

THERE ARE AQUATIC PLANTS, SUCH AS THIS WATERLILY.

7. PLANTS WHICH GROW ON THE BANKS OF THE ZEKIAH SWAMP RUN, SUCH AS THIS SEDGE.

8. UPLAND PLANTS, SUCH AS FERNS:

9. AND HARDWOOD TREES, SUCH AS PIN OAKS. THE ZEKIAH CONTAINS SOME OF THE FEW REMAINING STANDS OF VIRGIN TIMBER IN CHARLES COUNTY.

10. AT LEAST 1/3 OF THE NATION'S RARE AND ENDANGERED SPECIES LIVE IN WETLANDS, AND OTHER DEPEND ON THEM TO VARYING DEGREES.

THIS IS A WILSON SNIPE, A MARYLAND RARE AND ENDANGERED SPECIES. THE SWAMP IS ALSO KNOWN TO CONTAIN BALD EAGLES, DIAMOND BACKED TERRAPINS, AND THE RED COCKADED WOODPECKER.

11. THE NEXT FEW SLIDES ILLUSTRATE THE VARIETY OF BIRDS, ESPECIALLY WATERFOWL, WHICH FEED, BREED, AND FIND SHELTER IN THE ZEKIAH SWAMP. THIS IS A CANADIAN GOOSE AND FAMILY.

12. AN OSPREY

13. A MUTE SWAN ON THE NEST

14. AN EGRET.

15. A KILLDEER TEMPORARILY CAPTURED BY OUR PHOTOGRAPHER, MARK FINISCEY

16. THE SWAMP SUPPORTS REPTILES, SUCH SPOTTED TURTLES

17. AND LIZARDS.

18. MAMMALS, SUCH AS RABBITS;

19. AND DEER,

20. AND COMMERCIALLY VALUABLE SPECIES. THIS TREE HAS BEEN GNAWED ON BY A BEAVER

21. HERE'S THE BEAVER

22. THE ZEKIAH ALSO CONTAINS MUSKRAT AND MINK, WHICH SUPPORT OUR TRAPPING INDUSTRY.

23. THE ZEKIAH SWAMP AND THE ASSOCIATED WICOMICO RIVER SERVE AS A NURSERY FOR MANY FISH AND SHELLFISH WHICH INHABIT THE CHESAPEAKE BAY AND PROVIDE THE BASIS FOR RECREATIONAL AND COMMERCIAL FISHING.

24. SWAMPS PROVIDE THE ONLY REAL AND LASTING PROTECTION AGAINST

FLOODS, ABSORBING RUNOFF LIKE GIANT SPONGES. FLOODWATER STORAGE HELPS TO RECHARGE THE GROUNDWATER IN THE SURROUNDING AREAS.

25. THE ZEKIAH SWAMP IS A NATURAL WATER PURIFICATION SYSTEM.

26. THE SWAMP FILTERS OUT MANY NATURAL AND MAN MADE POLLUTANTS BEFORE THEY REACH THE OPEN WATER AREAS OF THE POTOMAC RIVER AND THE CHESAPEAKE BAY. THE POLLUTANTS FROM URBAN DEVELOPMENT AND FARMS ARE TAKEN UP BY PLANTS AND RELEASED SLOWLY OVER TIME. WITHOUT THIS WETLAND FUNCTION, POLLUTANTS COULD ENTER THE BAY IN A LARGE SHOCK WAVE AND PRODUCE SERIOUS CONSEQUENCES.

27. THE ZEKIAH SWAMP PROVIDES UNSPOILED OPEN SPACE FOR THE OBSERVATION AND ENJOYMENT OF NATURE.

IF YOU ARE LUCKY, YOU MAY GET TO SEE A GREAT BLUE HERON CATCH ITS DINNER.....

28.

29.

30.

3L.

32. THE SWAMP PROVIDES OPPORTUNITIES FOR RECREATIONAL ACTIVITIES SUCH AS FISHING, HIKING AND PHOTOGRAPHY. MOST OF THE ZEKIAH IS PRIVATELY OWNED, SO YOU MUST ASK PERMISSION OF THE LANDOWNER BEFORE ENTERING HIS PROPERTY.

33. THE ZEKIAH ALSO CONTAINS RICH HISTORIC AND ARCHAEOLOGICAL RESOURCES. THIS IS THE OLD STAGE COACH ROAD, THE RESULT OF LEGISLATION ENACTED IN 1674 BY THE MARYLAND COLONY "FOR AMENDING THE WAYS OUT OF CHARLES COUNTY INTO THE CITY OF ST. MARY'S". THE LAW WAS ENACTED BECAUSE A MILL AT THE HEAD OF THE WICOMICO RIVER ON ZEKIAH RUN HAD MADE THE AREA IMPASSABLE DUE TO IMPOUNDED WATER. CHARLES AND ST. MARY'S COUNTIES WERE REQUIRED TO CONSTRUCT A ROAD "PASSABLE FOR HORSE AND FOOT OVER SUCH PLACES OF ZEKIAH SWAMP WITHIN 2 MILES OF SAID MILL UPWARD AS SHALL BE CONVENIENT". THIS DESCRIPTION APPEARS TO FIT THE PRESENT RT. 234

34. WITHIN THE LAST 2 DECADES, CHARLES COUNTY HAS EXPERIENCED RAPID POPULATION GROWTH AND DEVELOPMENT WITHIN THE WATERSHED OF THE SWAMP, PARTICULARLY IN THE AREAS OF ST. CHARLES AND LA PLATA.

THIS IS AN INFRARED SATELLITE PHOTO TAKEN IN 1981 OF THE SWAMP AND THE LA PLATA, ST. CHARLES AREA (POINT OUT ON PICTURE).

WITH THIS GROWTH THERE HAS BEEN INCREASING CONCERN ABOUT THE POSSIBLE ENVIRONMENT IMPACTS ASSOCIATED WITH DEVELOPMENT.

35. **THE 1ST ISSUE OR CONCERN IS PROTECTION OF THE FRAGILE HABITAT FROM THE ENCROACHMENT OF DEVELOPMENT. BETWEEN THE MID 50'S AND MID 70'S, FORESTED WETLANDS WERE DESTROYED IN THE U.S. AT THE RATE OF 300,000 ACRES PER YEAR, AN AREA THE SIZE OF CHARLES COUNTY. IF YOU LOOK CLOSELY YOU CAN SEE A GREEN HERON IN THE TREES IN THE CENTER OF THE SLIDE.**

36. A SECOND ISSUE OR CONCERN IS MAINTAINING THE NATURAL WATERFLOW CYCLE AND WATER QUALITY WITHIN THE SWAMP.

INCREASING WATER CONSUMPTION HAS CREATED LOWERING OF THE WATERTABLE. THERE IS CONCERN THAT THIS MAY ADVERSELY AFFECT THE FLOW OF THE SWAMP.

37. RUNOFF FROM URBAN DEVELOPMENT AND CLEARED LAND HAS THE POTENTIAL TO CREATE FLOODING PROBLEMS.

THIS IS A PARTICULAR CONCERN AT BRIDGE CROSSINGS.

38. RUNOFF CAN CARRY SEDIMENTS AND OTHER POLLUTANTS. THERE ARE LIMITS TO THE CAPACITY OF THE SWAMP TO ABSORB POLLUTANTS AND STILL MAINTAIN ECOLOGICAL STABILITY.

39. INCREASED FLOW VELOCITIES FROM RUNOFF MAY ACCELERATE NATURAL EROSION PROCESSES, AS SHOWN ON THIS STREAM BANK.

40. WITH INCREASED GROWTH COMES NEEDS FOR WASTE DISPOSAL WHICH MUST BE PROPERLY MANAGED.

41. IN RECOGNITION OF THE CONCERNS ASSOCIATED WITH DEVELOPMENT OF THE WATERSHED, CHARLES COUNTY RECOMMENDED THAT THE ZEKIAH SWAMP BE DESIGNATED AS AN AREA OF CRITICAL STATE CONCERN. IN 1981 THE SWAMP WAS SO DESIGNATED BY THE MARYLAND DEPARTMENT OF STATE PLANNING. THIS ACTION MANDATES THE FORMULATION OF PLANS TO MANAGE THE RESOURCES OF THE ZEKIAH SWAMP.

42. A NUMBER OF STUDIES WERE INITIATED FOR THE ZEKIAH SWAMP INCLUDING A HYDROGEOLOGIC STUDY BY THE U.S. GEOLOGICAL SERVICE, AND A FLOODPLAIN MANAGEMENT STUDY BY THE SOIL CONSERVATION SERVICE.

IN 1983 THE MARYLAND DEPARTMENT OF NATURAL RESOURCES, THE TRI-COUNTY COUNCIL OF SOUTHERN MARYLAND, THE SOIL CONSERVATION SERVICE, THE U.S. GEOLOGIC SERVICE, AND CHARLES COUNTY PLANNING & ZONING FORMED A COMMITTEE TO COORDINATE THE STUDIES AND TO DEVELOP MANAGEMENT RECOMMENDATIONS.

43. THE PRINCIPAL RECOMMENDATION OF THE ZEKIAH AD-HOC COMMITTEE IS THE INCLUSION OF THE ZEKIAH SWAMP WITHIN THE COUNTY'S CHESAPEAKE BAY CRITICAL AREA PROGRAM. THIS WOULD ALLOW THE MANAGEMENT RECOMMENDATIONS DEVELOPED BY THE CRITICAL AREAS COMMISSION, FOR PROTECTION OF RESOURCES VITAL TO THE RESTORATION OF THE BAY, TO BE IMPLEMENTED.

44. ONE OF THE MAJOR PROVISIONS OF THE CRITICAL AREAS LEGISLATION IS THE ESTABLISHMENT OF NATURAL BUFFER ZONES BETWEEN DEVELOPMENT AND ENVIRONMENTALLY SENSITIVE AREAS, SUCH AS WETLANDS.

45. THE COUNTY SHOULD STRICTLY ENFORCE SEDIMENT AND STORMWATER MANAGEMENT MEASURES WITHIN THE WATERSHED. THIS IS A STORMWATER RETENTION POND.

46. FARMERS SHOULD WORK WITH THE SOIL CONSERVATION SERVICE TO DEVELOP UP-TO-DATE SOIL CONSERVATION PLANS.

47. THE COUNTY SHOULD CONTINUE TO PURSUE ALTERNATIVE WATER SUPPLY STRATEGIES TO PROTECT THE AQUIFERS WHICH UNDERLY THE ZEKIAH.

ONE OF THE WATER SUPPLY ALTERNATIVES IS THE KERRICK RUN RESERVOIR SITE, (POINT OUT ON SLIDE, IN CENTER, JUST NORTH OF ROUTE 488) WHICH IS CURRENTLY THE SUBJECT OF A FEASIBILITY STUDY. ANY WATER IMPOUNDMENT STRUCTURE SHOULD BE INSTALLED IN SUCH A WAY AS TO MAINTAIN NATURAL BASE FLOW IN THE SWAMP.

48. MOST OF THE WATERSHED IS ZONED FOR LARGE LOT DEVELOPMENT, R-(3 ACRE LOTS).

3. EXISTING ZONING DENSITIES SHOULD BE MAINTAINED IN ORDER TO MAINTAIN EXISTING RUNOFF LEVELS.

NEW URBAN DEVELOPMENT SHOULD BE RESTRICTED TO THE ALREADY

BUILT-UP AREAS OF ST. CHARLES, AND LA PLATA ARE CAREFULLY DESIGNED WITH APPROPRIATE MANAGEMENT MEASURES TO AVOID POSSIBLE ADVERSE EFFECTS ON THE ENVIRONMENTAL QUALITY OF THE SWAMP.

49. THE COUNTY SHOULD ENCOURAGE THE ACQUISITION OF SENSITIVE HABITATS WITHIN THE WATERSHED BY PUBLIC AND PRIVATE INTERESTS, SUCH AS THE NATURE CONSERVATORY.

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50. LANDFILL SITES WITHIN THE WATERSHED SHOULD BE CAREFULLY MONITORED TO ENSURE THAT THERE IS NO CONTAMINATION.

51. HISTORIC AND ARCHAEOLOGICAL SITES SHOULD BE IDENTIFIED AND PROTECTED.

THIS IS DR. SAMUEL MUDD's HOUSE, WHERE JOHN WILKES BOOTH WAS TREATED FOR A BROKEN LEG BY DR. MUDD AFTER HE ASSASSINATED ABRAHAM LINCOLN. THE SWAMP IS JUST BEHIND THE HOUSE. BOOTH USED IT AS HIS ESCAPE ROUTE BETWEEN WASHINGTON AND VIRGINIA.

52. THE COUNTY SHOULD DEVELOP A PROPOSAL TO ESTABLISH A PUBLIC INFORMATION CENTER FOR THE ZEKIAH SWAMP. THIS IS THE CYPRESS SWAMP CENTER IN CALVERT COUNTY, WHICH RECEIVES 15,000 VISITORS A YEAR.

53. THE CENTER CONTAINS NATURE EXHIBITS.

54. A CLASSROOM LAST YEAR RECEIVED OVER 3,000 SCHOOL AGE CHILDREN.

55. A NATURE WALK THROUGH THE SWAMP.

56. WETLANDS, SUCH AS THE ZEKIAH SWAMP, ARE DIRECTLY RESPONSIBLE FOR THE VITALITY AND PRODUCTIVITY OF THE CHESAPEAKE BAY.

57. BY RECOMMENDING THAT THE ZEKIAH SWAMP BE DESIGNATGED AS AN AREA OF CRITICAL STATE CONCERN, CHARLES COUNTY HAS RECOGNIZED THE VALUABLE HABITAT, WATER QUALITY, AND FLOOD CONTROL ASSETS THAT HELP DEFINE THE ENVIRONMENTAL AND RECREATIONAL CULTURE OF THE COUNTY.

58. THE CHARLES COUNTY COMMISSIONERS AND THE CHARLES COUNTY PLANNING COMMISSION WOULD LIKE TO HAVE YOUR REACTION TO THE RECOMMENDATIONS OF THE ZEKIAH AD-HOC COMMITTEE. THEY WOULD ALSO LIKE TO KNOW OF ANY OTHER ISSUES OR CONCERNS WHICH YOU MAY HAVE REGARDING THE ZEKIAH SWAMP. THIS WILL BE THE FIRST STEP TOWARD PROVIDING THE ZEKIAH SWAMP WITH THE LONG TERM PROTECTION ITS UNIQUENESS MERITS.

59. THE COUNTY IS WORKING WITH THE SCENIC RIVERS PROGRAM TO ADDRESS THESE ISSUES AND CONCERNS BY DEVELOPING A SPECIFIC MANAGEMENT PLAN FOR THE ZEKIAH SWAMP/WICOMICO RIVER. THIS PROCESS WILL REQUIRE THE ACTIVE SUPPORT AND PARTICIPATION OF THE CITIZENS OF CHARLES COUNTY IN ORDER TO SUCCEED.

ARE THERE ANY QUESTIONS ABOUT THE PRESENTATION?

WHAT IS YOUR REACTION TO THE RECOMMENDATIONS OF THE ZEKIAH AD-HOC COMMITTEE?

WHAT ARE YOUR CONCERNS ABOUT THE ZEKIAH SWAMP?

SOUTHERN MARYLAND AUDUBON SOCIETY

MONTHLY MEETINGS / 1987 - 1988

SEPTEMBER 9 - WEDNESDAY - 7:30 p.m.
Clearwater Nature Center
Cosca Regional Park, Clinton, Maryland
"Creating a Backyard Habitat"
DR. JACK DeFOREST, *Writer and Naturalist*

Our speaker, the former Senior Environmental Economist in the U.S. Department of Commerce, is a free-lance writer and naturalist who has developed a residential wildlife habitat in the shadow of Mount Vernon, Virginia. By using native plants in a meadow plot designed to attract butterflies and birds, he demonstrates what can be done in a "how to" illustrated lecture.

OCTOBER 7 - WEDNESDAY - 7:30 p.m.
St. Mary's County Library
Leonardtown, Maryland
"The Basics of Birding: Part I"
SMAS STAFF

Experienced members of the Southern Maryland Audubon Society (SMAS) will give a series of lectures designed to introduce novice or aspiring birdwatchers to the fascinating world of birding. These lectures will address the how (equipment and techniques), where (habitats), when (migration patterns and seasonal changes) and what (species distributions) of birding with particular emphasis on the birds and habitats of Southern Maryland. Topics to be covered in Part I will include binoculars and telescopes, field guides, local bird lists, reference materials, field trips and bird counts.

NOVEMBER 4 - WEDNESDAY - 7:30 p.m.
Clearwater Nature Center
Cosca Regional Park, Clinton, Maryland
"The Zekiah Swamp — Southern Maryland's Most Valuable Natural Resource"
KEVIN L. McJUNKIN, *Charles County Department of Planning and Zoning*

The Zekiah Swamp is the largest hardwood swamp in the State of Maryland and has been rated by the Smithsonian Institution as one of the most important natural areas on the east coast. The talk will describe the natural, historical and economic resources of the Swamp and the adverse impacts of the County's rapid development on these resources. The protective measures of the Zekiah/Wicomico Scenic River Plan now under development by the Department of Natural Resources, the Scenic River Program and the Charles County Department of Planning and Zoning will be presented.

DECEMBER 2 - WEDNESDAY - 7:30 p.m.
St. Mary's County Library
Leonardtown, Maryland
"Waterfowl Management and Conservation in Southern Maryland"
KYLE RAMBO, *Natural Resources Manager Naval Air Station*

The streams and wetlands of Southern Maryland support large numbers of wintering waterfowl of many species as well as providing habitats for a few nesting species. Our speaker will review what breeding and wintering species can be expected in our area and what general management practices can be applied to their conservation. He will then tell us about the specific waterfowl management programs used by the State and by the Naval Air Station.

JANUARY 13 - WEDNESDAY - 7:30 p.m.
Clearwater Nature Center
Cosca Regional Park, Clinton, Maryland
"Basics of Birding — Part I"
SMAS STAFF

Repeat of the program of October 7 for our northern area audience.

FEBRUARY 3 - WEDNESDAY - 7:30 p.m.
Battle Creek Cypress Swamp Nature Center
Calvert County, Maryland
"Rails and Other Marsh Birds of Southern Maryland"
GREG KEARNS
Wildlife Biologist
Patuxent River Park

Our speaker will tell us, in this slide-illustrated talk, something about the biology and behavior of the secretive, seldom-seen birds that inhabit our Southern Maryland marshes. Included will be facts about the mysterious black rail of the salt marches based on his own bird-in-hand experiences.

MARCH 2 - WEDNESDAY - 7:30 p.m.
St. Mary's County Library
Leonardtown, Maryland
"The Basics of Birding — Part II"
SMAS STAFF

The birding themes presented in Part I will be developed further with discussions of where and when one can observe common and resident birds, warblers and other spring migrants, waterfowl and other wintering species in the Southern Maryland area.

APRIL 6 - WEDNESDAY - 7:30 p.m.
Battle Creek Cypress Swamp Nature Center
Calvert County, Maryland
"The Life History of the Purple Martin"
KATHLEEN KLIMKIEWICZ, *U.S. Fish and Wildlife Service*

Our speaker, an ornithologist at the Bird Banding Laboratory in Laurel, has been studying the life history of the purple martin in Maryland for several years. She will tell us of her findings just when the martins are returning from their South American wintering grounds.

MAY 4 - WEDNESDAY - 7:30 p.m.
Clearwater Nature Center
Cosca Regional Park, Clinton, Maryland
"Basics of Birding — Part II"
SMAS STAFF

The program of March 2 will be repeated with special emphasis on warblers and other spring migrants.

JUNE 5 - SUNDAY - 1:30 p.m.
Nanjemoy Environmental Education Center
Nanjemoy, Maryland
ANNUAL MEETING

Potluck Lunch 1:30-3:00
Election and Business Meeting 3:00-3:30
Host's Briefing 3:30-4:00
Bird Walks, Swimming and Canoeing 4:00-6:00

Enjoy this afternoon with friends at the new Nanjemoy Environmental Education Center on beautiful Nanjemoy Creek. From Rte. 6 in western Charles County, take Tayloe Neck Road northeast about 2½ miles and turn in at the Center's sign.

MEMORANDUM

TO: Kevin L. McJunkin, Environmental Planner

FROM: Jacquelyn M. Magness, Director

DATE: June 15, 1987

SUBJECT: Zekiah Land Acquisition Program

On Thursday I had lunch with Mel Bridgett, Director of Parks and Recreation. Among other topics we touched upon the protection of the Zekiah Swamp. Mel is most interested in finding a way to put much of the land in the Swamp in public ownership over the next fifty or so years. He is familiar with the techniques used by MNCPPC to acquire many of their stream valley parks and thinks there is real potential for modifying those programs to fit Charles County and the Zekiah.

Since we are currently funded to prepare such a program using public and private moneys, I suggest that we begin to work in earnest with the Parks Department. Mel will be hiring a new Division Chief this summer and hopes by August to be more available for long-range planning activities.

Since we should finish with the bulk of the Critical Areas work at the same time, Fall seems a realistic time for a meeting with the public. However since there is some support for including the Zekiah in the Chesapeake Bay Critical Area Program, it may be appropriate to begin a skeletal design of the Zekiah initiative for inclusion in the Local Program document.

What Mel suggests is that the County set aside a reserve in the POS money for acquisition in the Swamp. Land could be purchased in several ways. First, the County would solicit offers to sell from landowners on a voluntary basis and select, based upon established criteria, those purchases which the budget would permit every year. Secondly, there would be a mandatory sale of wetlands area to the County any time a parcel was sold in the Swamp. This second step would require the County to have a pot of money available to purchase this land at fair market value upon demand of the owner. According to Mel, MNCPPC has used this system with considerable success.

Another program which may provide a model is the Howard County floodplain acquisition process. I know that county does acquire floodplains during the subdivision process and by outright purchase. It would probably be useful to discuss the program with someone in that organization. Amar Bandel and John Musselman in their Planning Department may be good initial contacts.

Let's plan to talk in general terms about these suggestions with the subcommittee on Wednesday.

cc: Mel Bridgett, Director of Parks and Recreation

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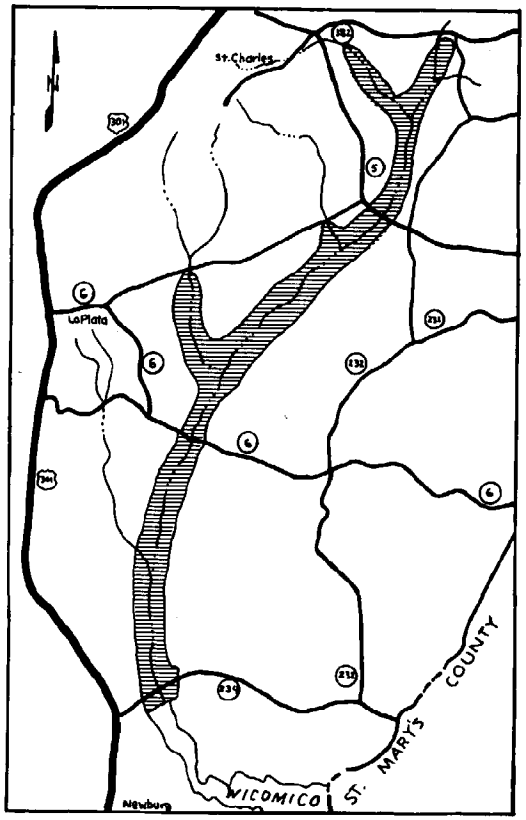
Management Recommendations

In 1983, the Department of Natural Resources, Tri-County Council, Soil Conservation Service, and Charles County Planning & Zoning Department formed a committee to coordinate research and other activities for the Zekiah Swamp. The committee has developed the following recommendations for management of the Swamp:

- Include the Swamp, and a primary management area adjacent to the Swamp, in the Charles County Chesapeake Bay Critical Area Program.
- Strictly enforce sediment and erosion control measures within the watershed. Work with the Soil Conservation District to see that all active farms have up-to-date conservation plans in effect within a reasonable time frame.
- Install water impoundment structures in such a way as to maintain existing base flow in the Swamp.
- Adopt land use regulations, such as limits to the clearing of natural vegetation, to protect sensitive habitats in the watershed and to preserve water quality.
- Maintain existing zoning densities within those portions of the watershed not included in the Critical Area.
- Develop a program for the identification, acquisition, and protection of sensitive habitats in the watershed.
- Until the interaction between the Zekiah Swamp and the underlying aquifers is fully understood, expanded use of the aquifers should be carefully monitored. The County should continue to pursue alternative water supply strategies.
- Carefully monitor landfill sites within the watershed to reduce the risks of groundwater contamination.
- Identify historic and archaeological resources for protection.
- Establish a public information center for the Zekiah Swamp to focus on its historical and environmental significance.
- Form a Zekiah Swamp local advisory board to deal with the specific application of the management plan in the watershed.

Wetlands, such as the Zekiah Swamp, are directly responsible for the vitality and productivity of the Chesapeake Bay. Many of the decisions that will affect the Zekiah Swamp are made at the local level.

By recommending that the Zekiah Swamp be designated as an Area of Critical State Concern, Charles County has recognized the valuable habitat, water quality, and flood control assets that help define the environmental and recreational culture of the County. However, the Swamp cannot be protected without the support of you, the citizens of Charles County.



This brochure is provided as a courtesy of the Charles County Commissioners, with funding from the Maryland Coastal Zone Management Program through a grant from the Office of Ocean and Coastal Resources Management, NOAA.

Equal Opportunity County

The Zekiah...

A Resource to be Protected

The Zekiah Swamp is a 20-mile long, ¾-mile wide wooded bottomland swamp located primarily in Charles County. The Swamp originates in Southern Prince George's County near Cedarville Natural Resource Center and flows through Charles County forming the headwaters of the Wicomico River.

A number of events during the 1970s and early 1980s focused attention on the natural resources and environmental sensitivity of the swamp. In 1975, the Zekiah Swamp/Wicomico River was designated as a State of Maryland Wild and Scenic River by the Maryland Dept. of Natural Resources (DNR). Also in 1975, the Smithsonian Institution, in conjunction with the DNR, described the Zekiah Swamp as one of the most important ecological areas on the East Coast and the largest natural hardwood swamp in the State of Maryland. The Zekiah was ranked highest of all natural areas in the Chesapeake Bay region.

Why is the Zekiah Swamp recognized as such a valuable resource?

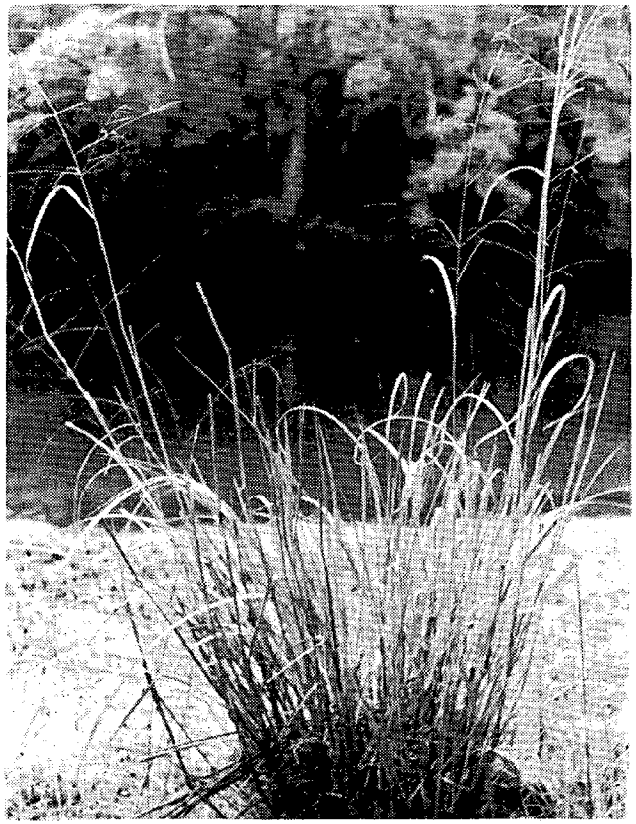
- More creatures feed, breed, and find shelter in swamps than in any other habitat. At least one third of the Nation's rare and endangered species live in wetlands, and others depend on them to varying degrees. The Zekiah Swamp is known to contain bald eagles, diamond backed terrapins, and the red bellied woodpecker, all of which are either rare or endangered species.
- Commercially valuable species living in the Swamp include fur-bearing animals such as beaver and mink. The Zekiah Swamp and the associated Wicomico River act as a nursery for the juvenile stages of many fish and shellfish which inhabit the Chesapeake Bay.
- Swamps provide the only real and lasting protection against floods, absorbing runoff like giant sponges. The storage helps to recharge groundwater in the surrounding area.
- The Zekiah Swamp is a natural water purification system, filtering out many natural and manmade pollutants before they reach the open water areas of the Potomac River and the Chesapeake Bay. The pollutants are taken up by plants and released slowly over time, greatly reducing the effects on the ecosystem. Without this wetland function, pollutants could enter the Bay in a large shock wave and produce serious consequences.
- The Zekiah Swamp provides unspoiled open space for the aesthetic enjoyment of nature through activities such as fishing, photography, hiking, and environmental education.
- The Zekiah Swamp also contains rich historical and archaeological resources. In 1865 John Wilkes Booth traveled along the swamp as he escaped from Washington to Virginia following the assassination of President Lincoln.

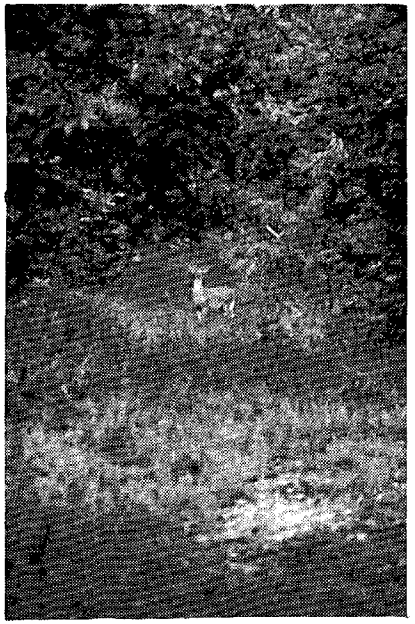
Issues

During the last two decades, Charles County has experienced rapid population growth and development within the watershed of the Swamp, particularly in the areas of St. Charles and La Plata. With this development there has been increasing concern about the environmental impacts associated with development. In 1981, the Maryland Department of State Planning, acting in accordance with the recommendations of the Charles County Commissioners, designated the Zekiah Swamp as an Area of Critical Concern.

The major issues are:

- Protection of the fragile habitat from the encoachment of development.
- Maintenance of the natural water flow cycle and water quality within the Swamp.
- Proper management of waste disposal in the Zekiah watershed is necessary to maintain the ecological stability of the Swamp.
- Preservation of historic/archaeological sites — these provide a record of man's history for future generations.
- Increasing public awareness — swamps are sometimes thought of as useless wastelands or as mosquito breeding grounds when in fact they provide immense public benefit.



Left: *The diverse plant community of the Zekiah Swamp provides habitat for a wide variety of animals.*

Below: *This deer pauses on the Old Stagecoach Road, built in the 1670's between Charles County and St. Mary's City.*