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Admiral Heights Improvement Association
Chesapeake Bay Foundation
Severn River Commission
Weems Creek Conservancy

Annapolis, Maryland 21401

RECOMMENDATIONS FOR WEEMS CREEK

Prepared for

Honorable William Donald Schaefer
State House
Annapolis, Maryland 21401

December 16, 1992

Weems Creek Conservancy
3 Weems Creek Drive
Annapolis, MD 21401
301-266-6944

December 16, 1992

Honorable William Donald Schaefer
State House
Annapolis, MD 21401

Dear Governor Schaefer:

Many who served on your Weems Creek Restoration Working Group were disappointed by the ineffective Recommendations that issued, by the information avoided, and by the resulting two year delay in conduct of tangible work.

Accordingly, the Conservancy has been joined by the Admiral Heights Improvement Association, the Chesapeake Bay Foundation and the Severn River Commission in studying available information. The information, our analysis and our conclusions are contained in the enclosed RECOMMENDATIONS FOR WEEMS CREEK.

We have endeavored to make the document self explanatory.

We urge your reassessment of the Weems Creek affair. The Creek and its environs should rightly have their quality and beauty restored.

Respectfully submitted,

Elizabeth McWethy

Elizabeth McWethy, Chairman
Weems Creek Conservancy

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FOREWORD

At the end of July, the Chesapeake Bay Coordinator promulgated Recommendations for restoration of Weems Creek. The Recommendations were evolved with the advice of the Weems Creek Restoration Work Group, organized pursuant to a lawsuit settlement dated July 9, 1990.

The purpose of the Work Group was to recommend what the State Highway Administration should do to mitigate environmental damage owing to SHA I-68 Projects.

We find that the Coordinator did not pursue the purpose of the Work Group or the enabling lawsuit settlement. Instead, the Coordinator's Recommendations are substantially totally aligned with a Final Report entitled "Weems Creek Restoration Study," prepared by the State Highway Administration's paid consultant, who avoided all mention of the State Highway Administration, and who created three misdirected purposes for the Report -- none of which mentions SHA I-68 Projects.

We further find that the Coordinator substantially gave heavy weight to evidence, whether or not debatable, when it absolved SHA responsibility; but ignored photographic and documented evidence when it blamed the SHA. For your reevaluation, we re-submit the evidence herein.

To correct this error in purpose, we submit herewith what we believe are appropriate Recommendations to mitigate Weems Creek damage resulting from SHA I-68 Projects. These recommendations are endorsed by the Admiral Heights Improvement Association, the Chesapeake Bay Foundation and the Severn River Commission. Their respective letters of endorsement are contained in Appendix A.

The justification for these Recommendations is provided and discussed herein.

Respectfully submitted,

Elizabeth McWethy

Elizabeth McWethy, Chairman
Weems Creek Conservancy

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RECOMMENDATIONS FOR RESTORATION OF WEEMS CREEK FROM DAMAGE OWING TO I-68 HIGHWAY CONSTRUCTION

INTRODUCTION

The Governor's Chesapeake Bay Coordinator has issued Recommendations for the Weems Creek Restoration Work Group, which was established pursuant to the lawsuit Settlement Agreement of July 9, 1990:

> "5. The parties agree to review existing information and develop additional information regarding the effect of the (SHA I-68) Projects upon Weems Creek, for the purpose of determining what, if any, measures are necessary to mitigate damage to the creek, including but not limited to abnormal siltation and damages to water quality, the aquatic environment and wildlife. ... SHA agrees to act upon any recommendations by the Governor's Chesapeake Bay Coordinator to mitigate such damage. ... " (parentheses added)

We find that the Coordinator's Recommendations do not address SHA I-68 Projects' damage. Instead, the Recommendations address effort to prevent future damage. We had expected the final Recommendations would be telling the State Highway Administration what they ought to do, instead of calling for action by every other agency except the State Highway Administration.

Our experience has been that those who live near and care for Weems Creek have had their opinions and inputs effectively ignored. The Coordinator's Recommendations are founded on the Final Report of the SHA's paid environmental consultant, who offered every argument to absolve the SHA and ignored every argument demonstrating SHA responsibility for damage.

The SHA consultant's Final Report does not mention the SHA I-68 Projects even once. The Report scrupulously avoids the words "State Highway Administration" -- except on the title page as the agency who paid the piper.

The SHA I-68 Projects' damage to Weems Creek prompted outrage. Commendably, the SHA has changed its construction procedures, and citizens hope that future constructions will care for the environment. The SHA has made progress in its effort to repair its public image and recover citizen respect. That image and respect will fade if citizens continue to perceive daily the monument of damage left behind at Weems Creek by SHA I-68 Projects.

We urge the State Highway Administration to carry out the recommendations offered here. The SHA has clearly remedied its construction procedures -- for good reason. What reason -- if not the admitted responsibility for damaging procedures observed at Weems Creek owing to SHA I-68 Projects? It is inconsistent to about-face now, to de-admit responsibility for damage and to sidestep restitution.

Figure 1 shows the calendar of events associated with the Weems Creek Restoration Work Group, leading to the Coordinator's RECOMMENDATIONS. We now provide alternative

RECOMMENDATIONS -- appropriate to mitigation of damage owing to SHA I-68 Projects -- formulated by the Weems Creek Conservancy, the Chesapeake Bay Foundation, the Severn River Commission and the Admiral Heights Improvement Association.

The recommendations are founded on facts documented herein.

RECOMMENDATIONS

1. Buffering

Tree plantings should be made in areas as shown in figures 2 and 3 -- to stabilize soil at the Creek banks and to restore sight and sound buffering.

New plantings will not restore Weems Creek's renowned rustic tranquility for some 12 to 20 years. Hence, as shown in figures 2 and 3, a sound and sight barrier should be installed for the interim.

Without summer foliage, the new highway lighting intrudes on Weems Creek and Admiral Heights residents. Lamp shades should confine the lighting to where it is needed -- on the highway.

2. Swan Cove

Sediment intrusion at Swan Cove remains excessive. The small scour basin is inadequate. A larger holding pond north of I-68 construction was originally specified but later eliminated. The larger holding pond, as shown in figure 4, should actually be constructed.

3. Sediment Curtain Sites

Sites should be planted with cordgrass and other desirable saltmarsh species, rather than left to natural seeding dominated by phragmites.

4. Headwaters

Dredging should be done on the Annapolis side of Weems Creek headwaters, as shown in figures 5 and 6. The sizable new tidelands areas created should not be left to vegetative spread of marsh grass. Rather, ugly mudflats should be planted and tended to yield a marsh able to restrain further sediment flow.

5. Hock Property

There must be no possible repeat of damage to the Hock Property; the Property should be placed in a protective land trust.

RESPONSIBILITY OF SHA I-68 PROJECTS

Figure 7 -- a tracing from an aerial map of the Weems Creek watershed -- shows that the headwaters' watershed amounts to 583 acres. Figure 7 shows that SHA I-68 Projects -- on the April 20, 1989 date of the aerial photo -- had graded and removed trees

Fig. 1. Calendar of events associated with lawsuit settlement and Weems Creek Restoration Work Group.

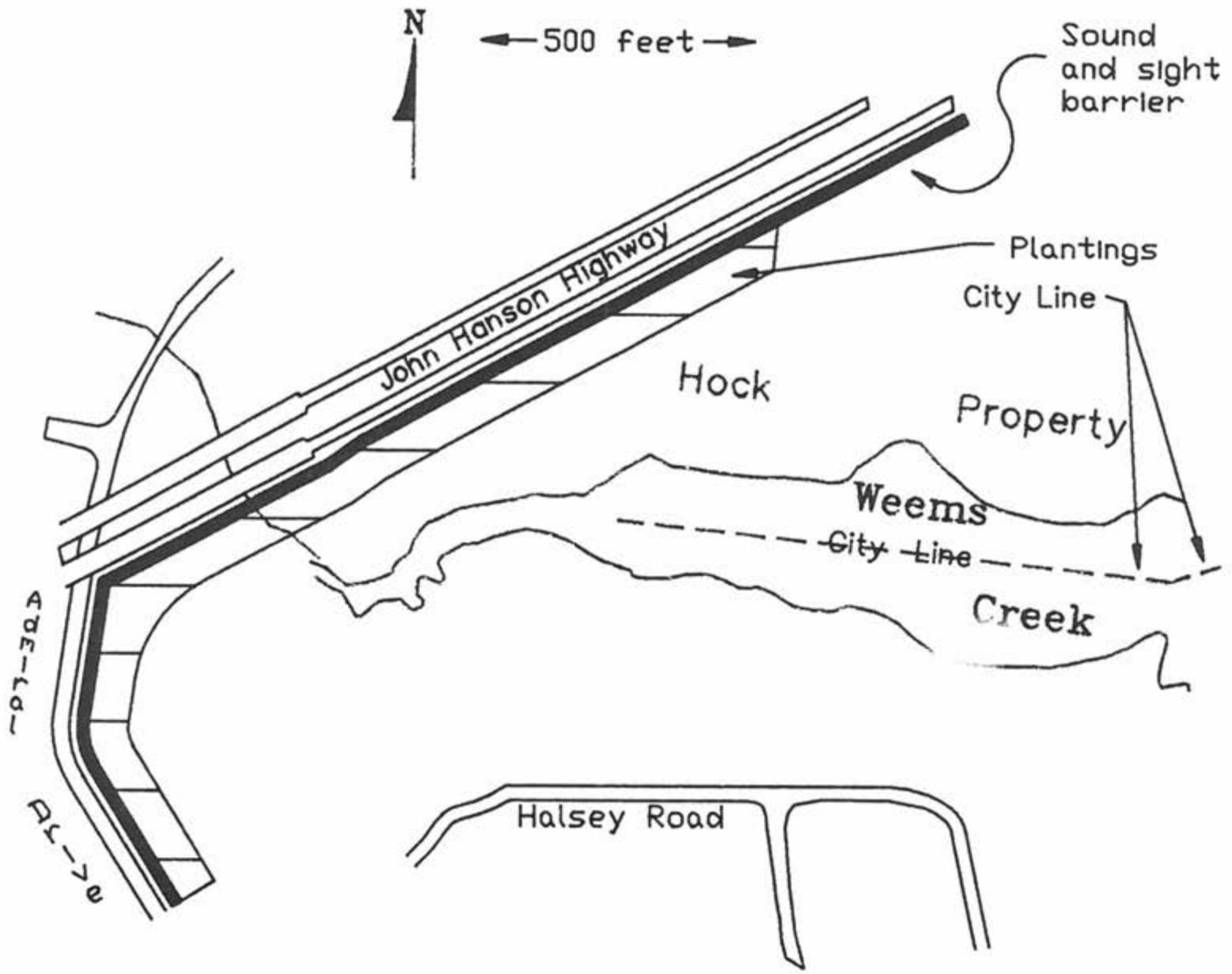

Fig. 2 Buffering plan near headwaters, showing plantings and sound/sight barrier.

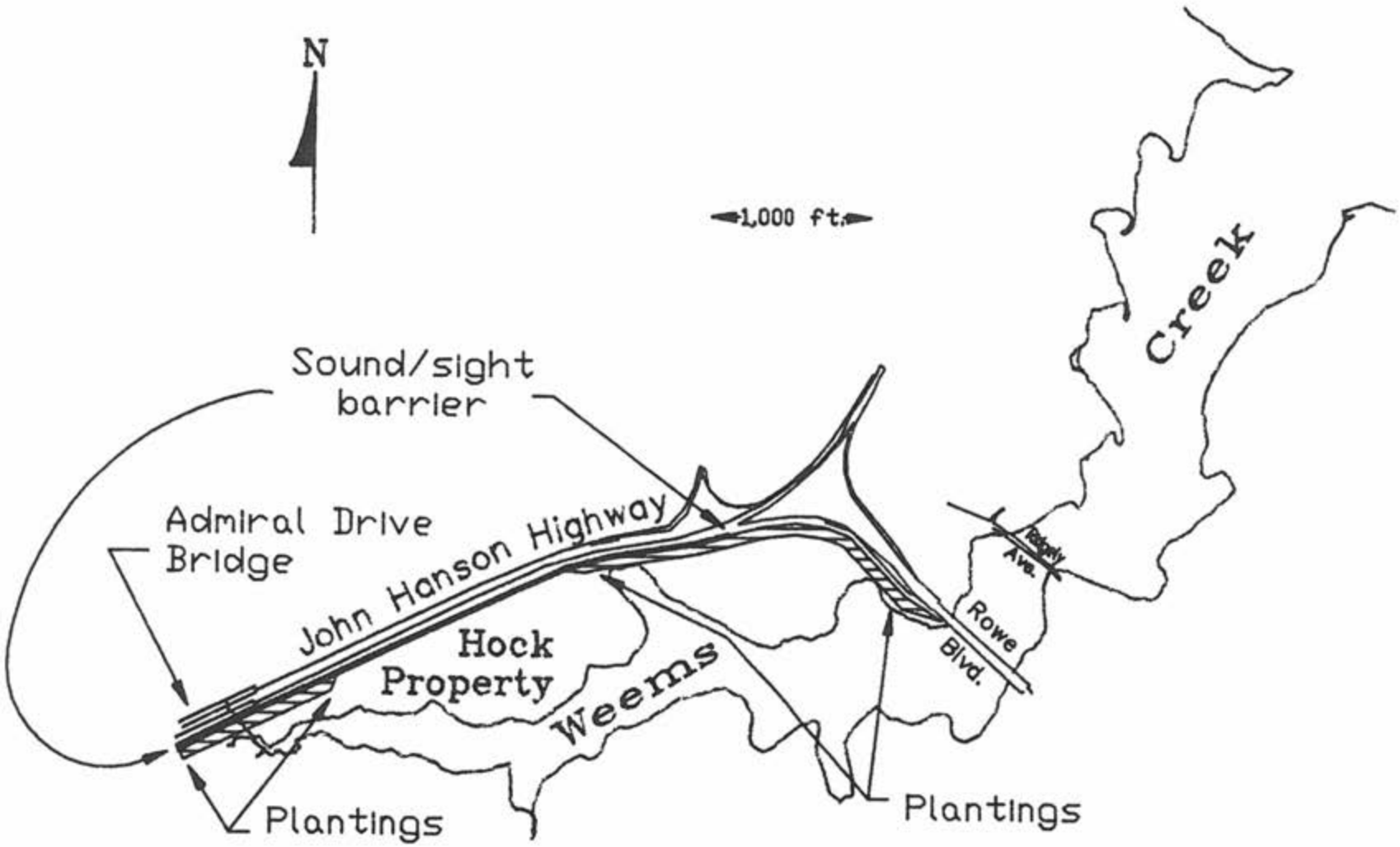

Fig. 3 Buffering plan, showing plantings and sound/sight barrier.

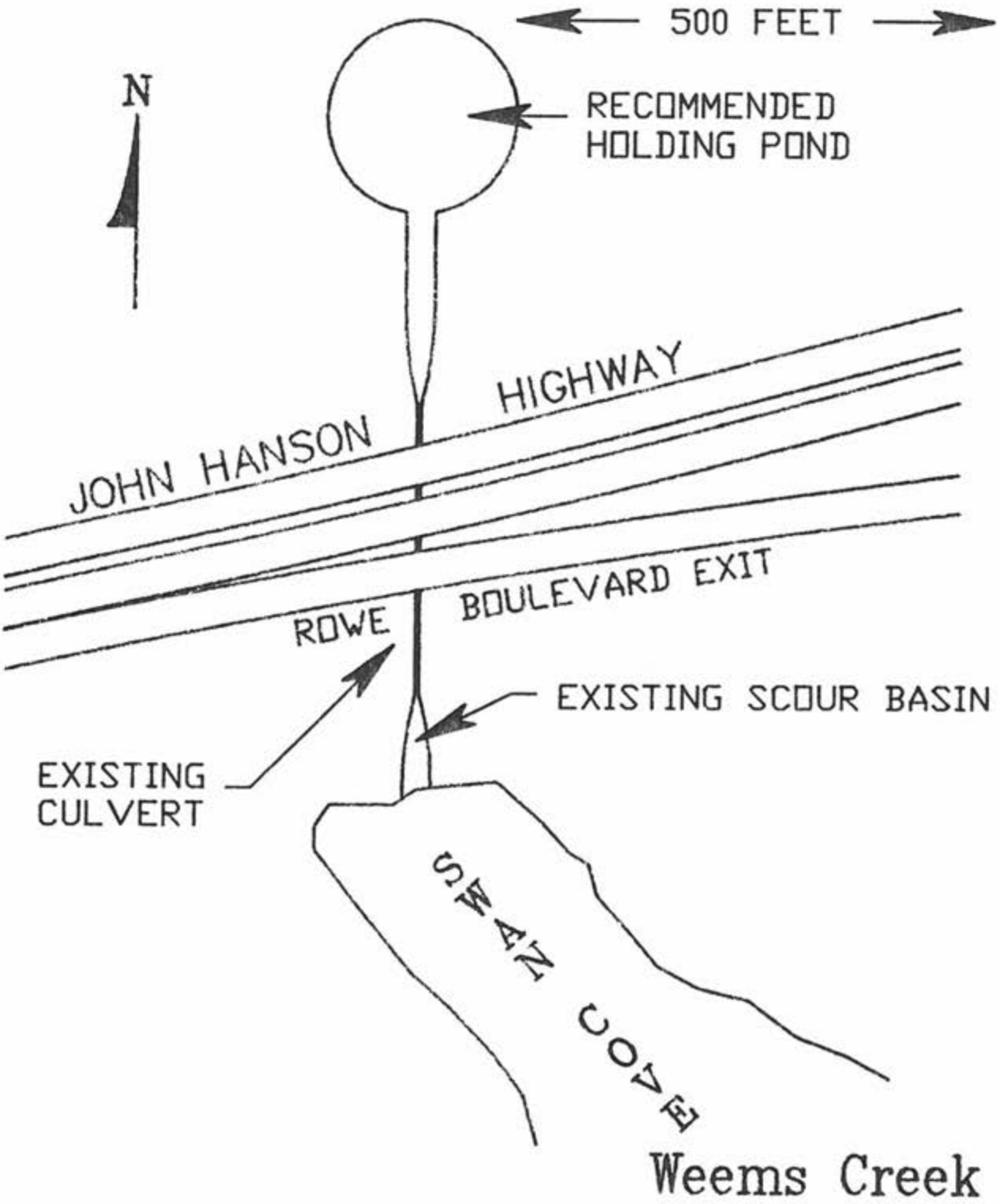

Fig. 4 Recommended holding pond at Swan Cove.

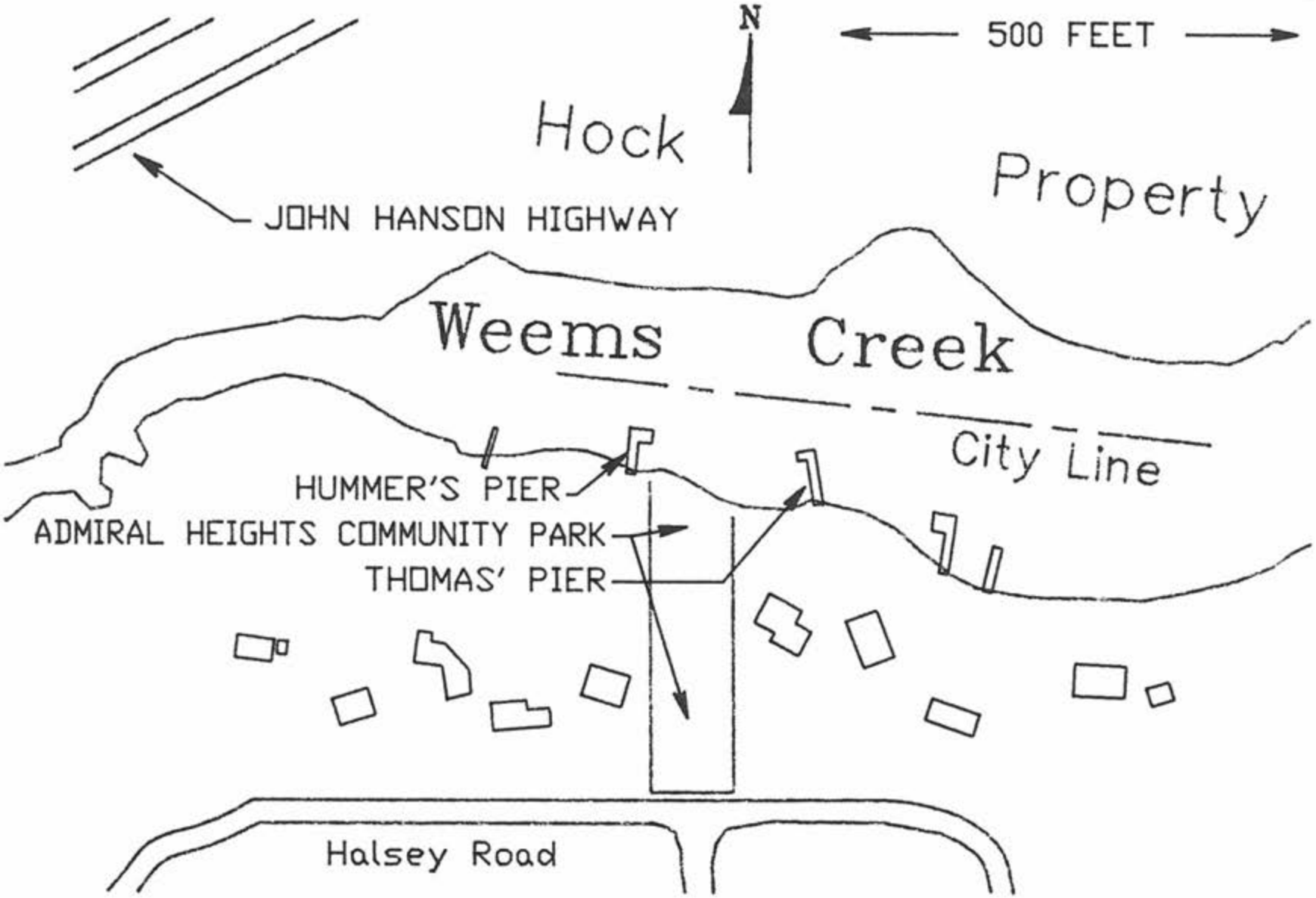

Fig. 5 Locale of shoaling at Weems Creek Headwaters.

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Severn River Commission
Weems Creek Conservancy

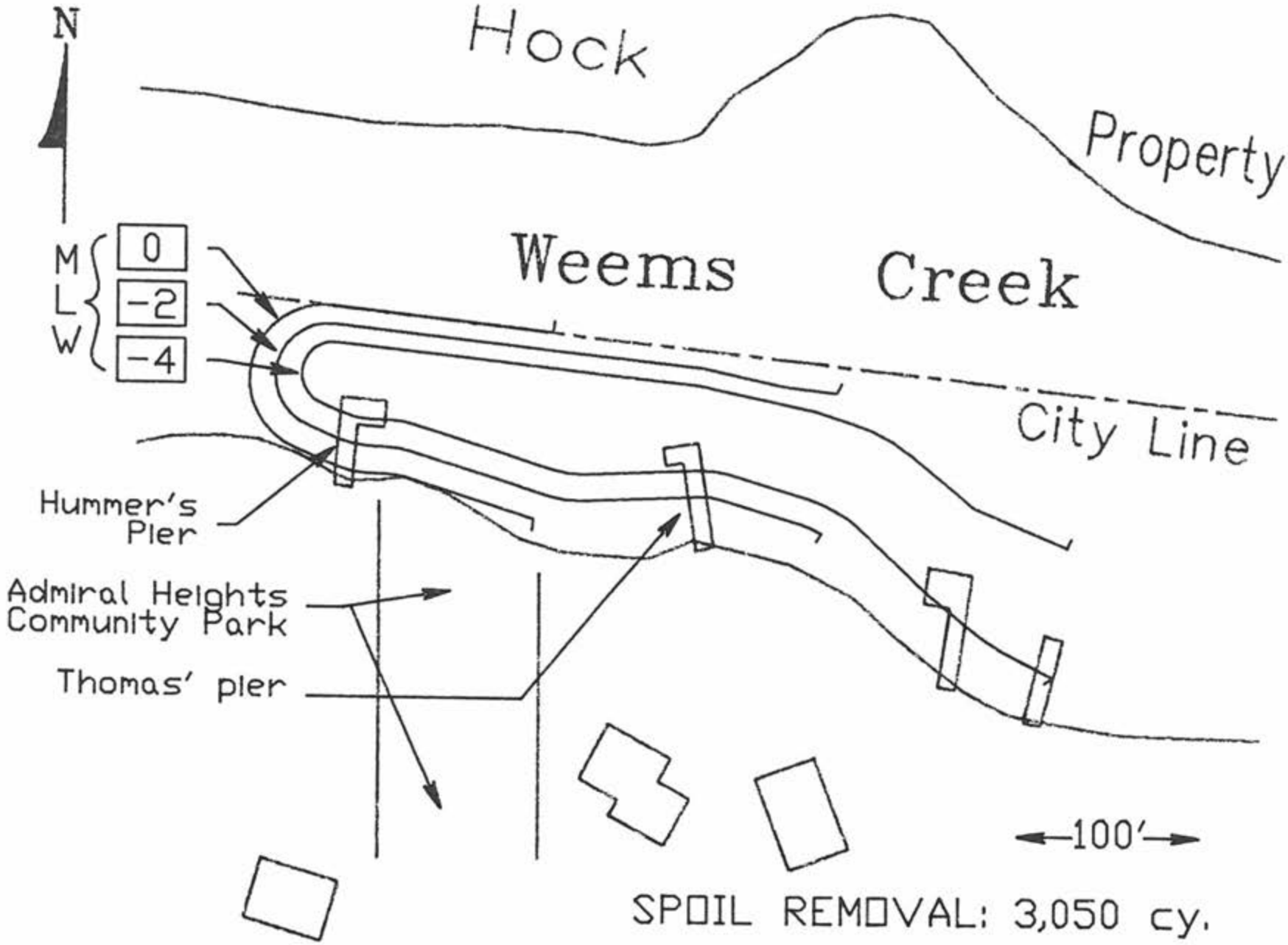
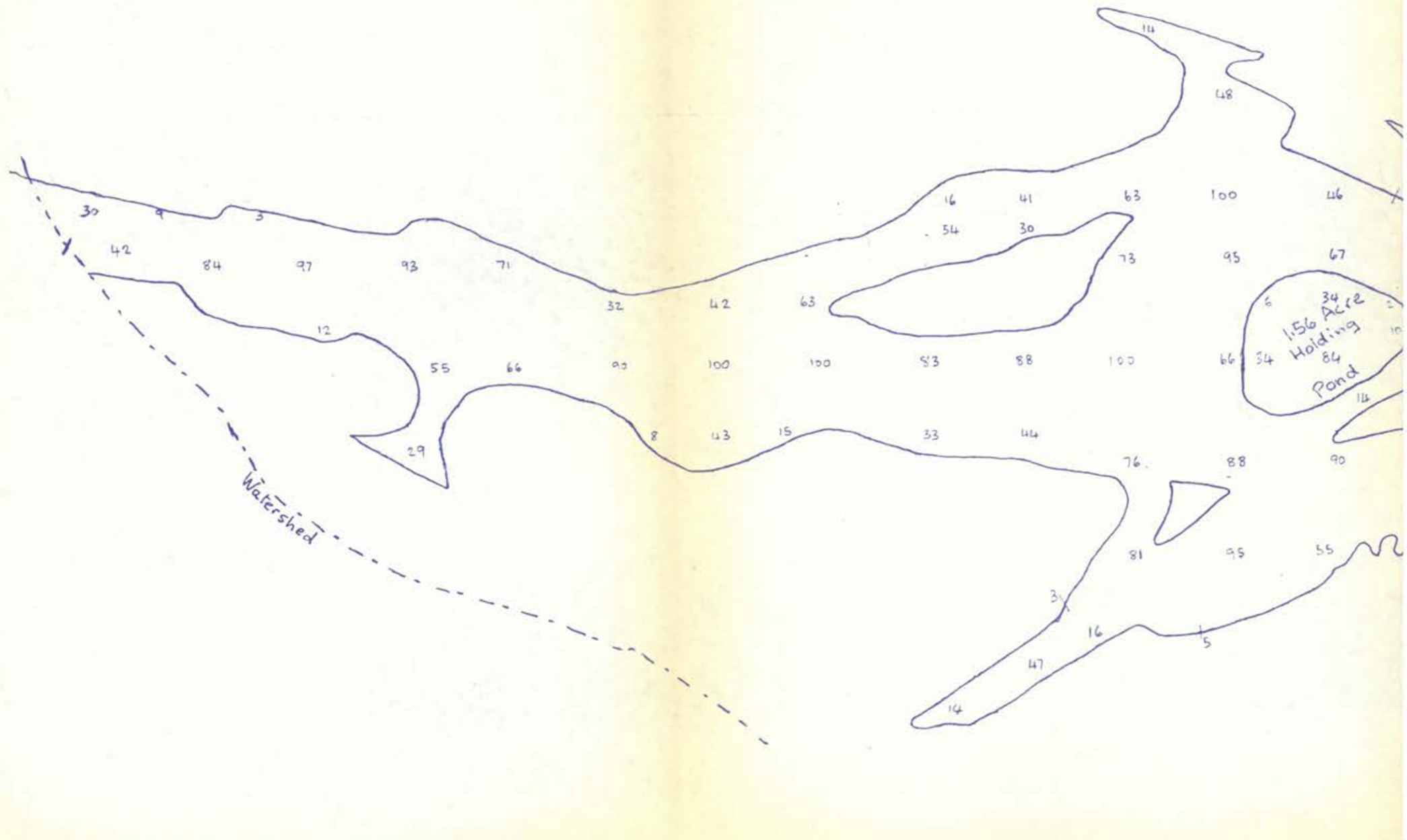


Fig. 6 Recommended dredging contours at headwaters of Weems Creek.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88
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34
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Holding
84
Pond
29
8
43
15
33
44
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88
90
81
95
55
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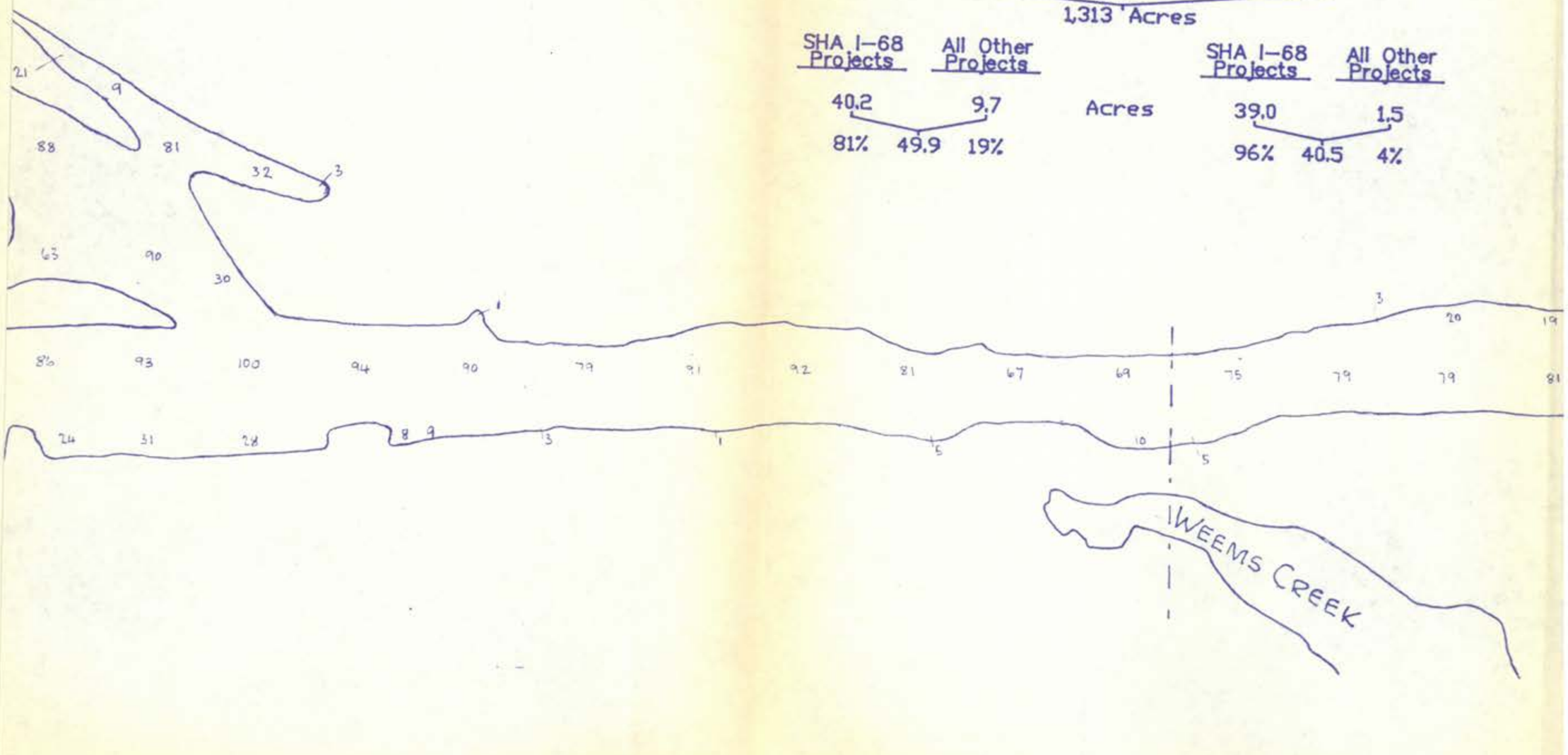
16
5
47
14
Watershed

ACRES DENUDED BY SHA I-68 PROJECTS IN WEEMS CREEK WATERSHED

HEADWATERS WATERSHED				NONHEADWATERS WATERSHED			
583				730			
		1,313 Acres					
SHA I-68 Projects	All Other Projects			SHA I-68 Projects	All Other Projects		
40.2	9.7	Acres		39.0	1.5		
81%	49.9	19%		96%	40.5	4%	



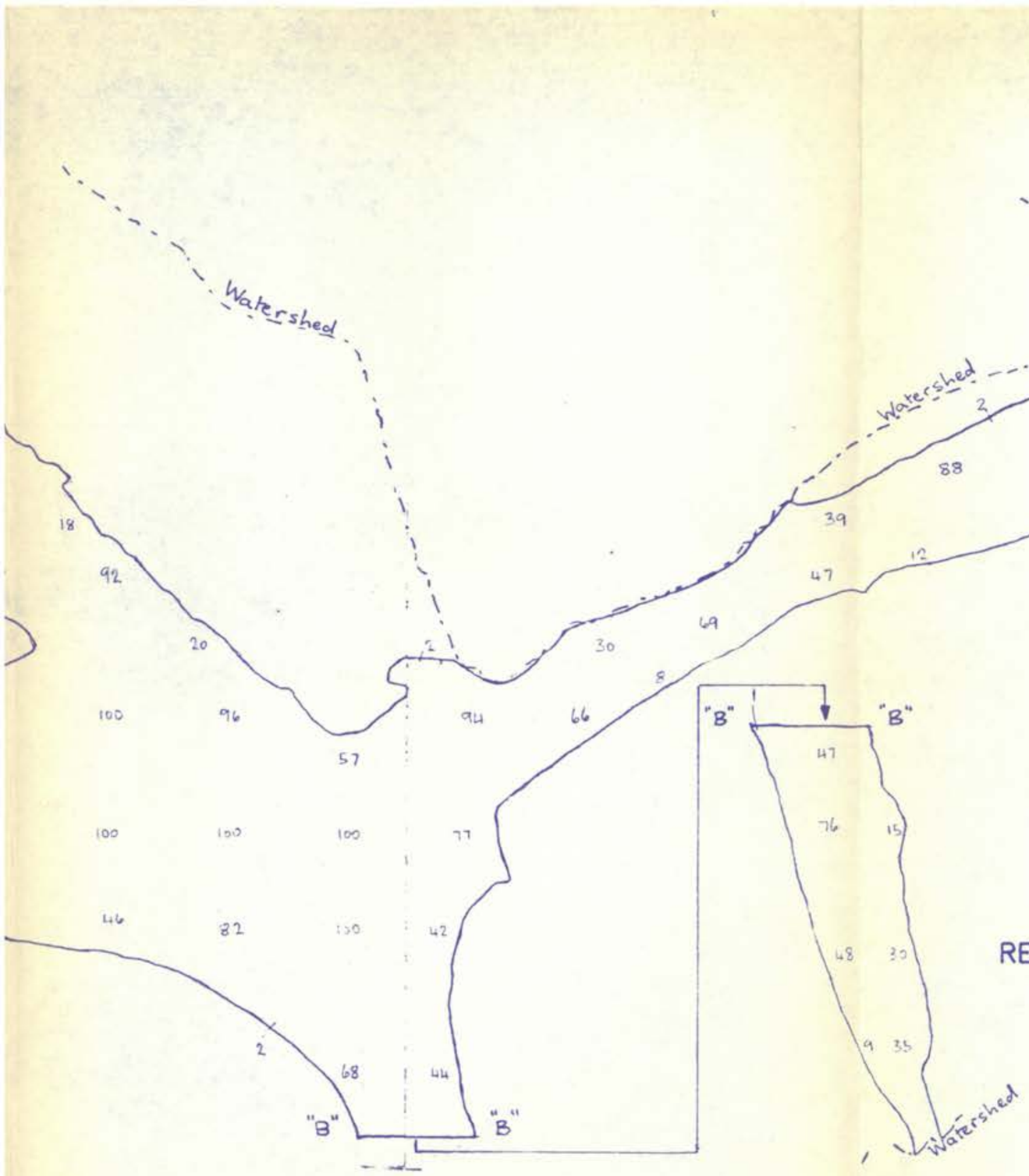


Fig. 7

WEEMS CREEK WATERSHED

ACREAGE DENUDED BY SHA I–68 PROJECTS

SCALE: 1 inch = 200 feet
REFERENCE: Aerial Map, April 20, 1989

Geoffrey O. Thomas Nov. 18, 1991

and topsoil on 40.2 acres. The destabilized acreage is close-in to the principal carrier of sediment to the stream's delta, i.e., the Weems Creek headwaters.

The aerial map further shows that non-SHA projects had graded 9.7 acres of the headwaters' watershed at the time of the aerial photo. And the non-SHA projects are not located near streams feeding the headwaters.

Figure 8, a portion of the 1989 aerial map immediately upstream of the headwaters, depicts extensive soil destabilization close-in to the main stream feeding the headwaters. Of the headwaters' watershed acreage denuded, figure 7 shows that SHA I-68 Projects were responsible for 81 percent; non-SHA projects were responsible for 19 percent. In the nonheadwaters' watershed (730 acres), of the acreage denuded, figure 7 shows that SHA I-68 Projects were responsible for 96 percent; non-SHA projects were responsible for 4 percent.

SHA I-68 Projects denuded about the same acreage in the nonheadwaters' watershed as they did in the headwaters' watershed. But it should be noted that the headwaters' siltation damage was concentrated at the exceedingly small area of the headwaters; the nonheadwaters' damage was diffuse over the entire wide area of all of Weems Creek except the headwaters -- and not as strikingly damaging.

Soil erosion causes siltation at a watershed's outfalls and deltas; clearly the SHA I-68 Projects are far and away the principal source. This patent source of environmental damage is not mentioned even once in the SHA consultant's Final Report which served as basis for the Chesapeake Bay Coordinator's Recommendations. Inasmuch as the purpose of the Report is to shed light on damage owing to SHA I-68 Projects, this essential omission renders invalid the Report and dependent Recommendations.

Figure 9 is a photo of Weems Creek environs taken on May 28, 1989. It shows beginnings of stripping acres to accommodate SHA I-68 Projects. It also demonstrates the extent of silt entering Weems Creek headwaters. Note the concentration of silt near Hummer's pier, Admiral Heights Community Park and Thomas' pier (see figures 2 and 3 for locations). For comparison, figure 10 is a photo of Spa Creek headwaters taken at the same time, showing normal siltation -- without damage by SHA I-68 Projects.

Figure 11 is an aerial photograph of SHA I-68 Projects printed in the July 9, 1989 edition of the Annapolis Capital.

LOSS OF BUFFERING

Figure 13 is a photo of Swan Cove taken in October 1988. It shows the rustic tranquility -- praised in the 1982 joint report by the US National Park Service, the Maryland Department of Natural Resources and the Weems Creek Conservancy (references 1 and 2) -- enjoyed by flora, fauna and citizens.

Figure 14 shows the same view in October 1991, after the effects of SHA I-68 Projects.

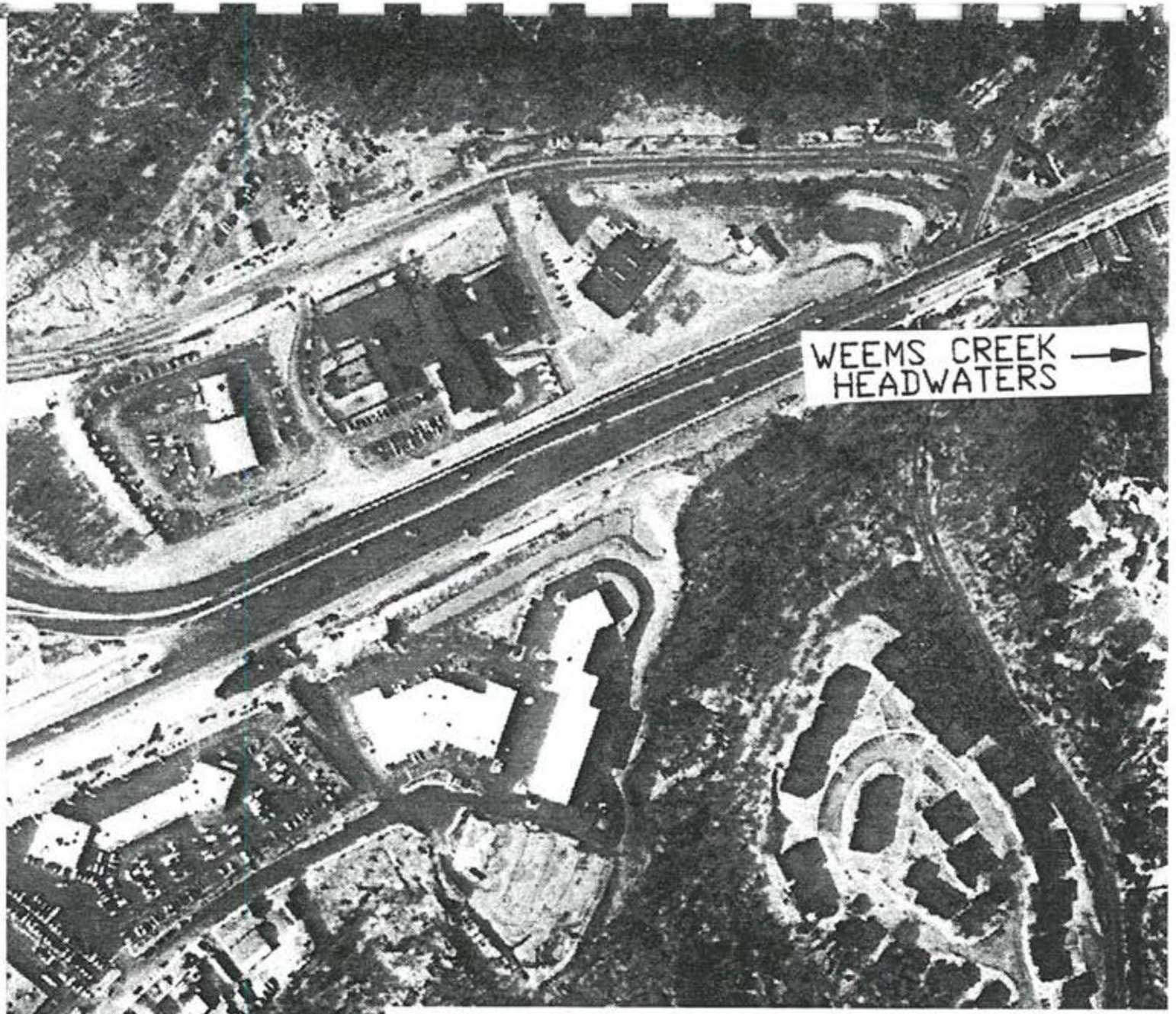


Fig. 8 Watershed portion immediately upstream of the Weems Creek headwaters.
Scale: 1 inch = 200 feet
Aerial map, April 20, 1989

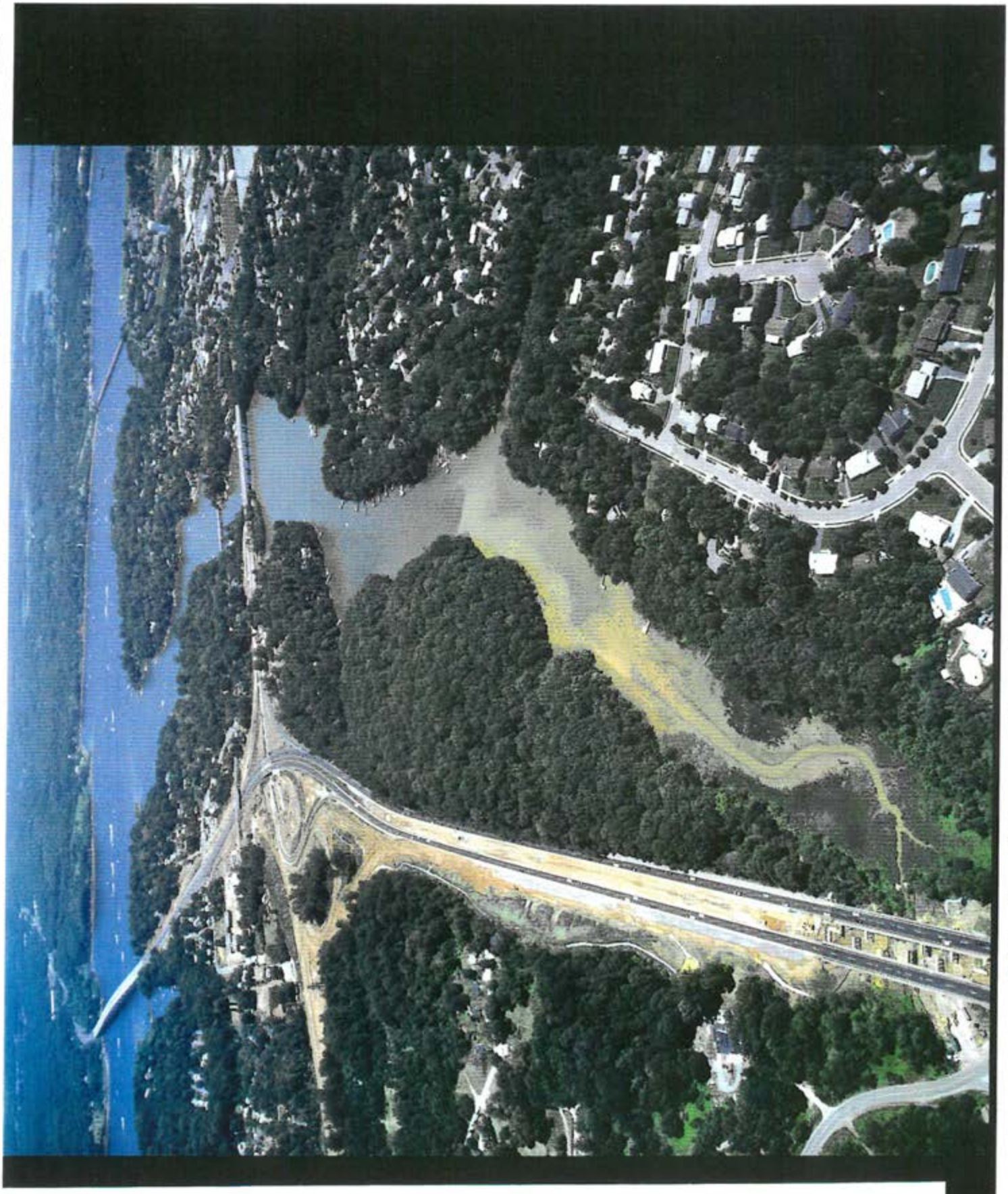


Fig. 9 Weems Creek -- May 28, 1989.

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Weems Creek Conservancy

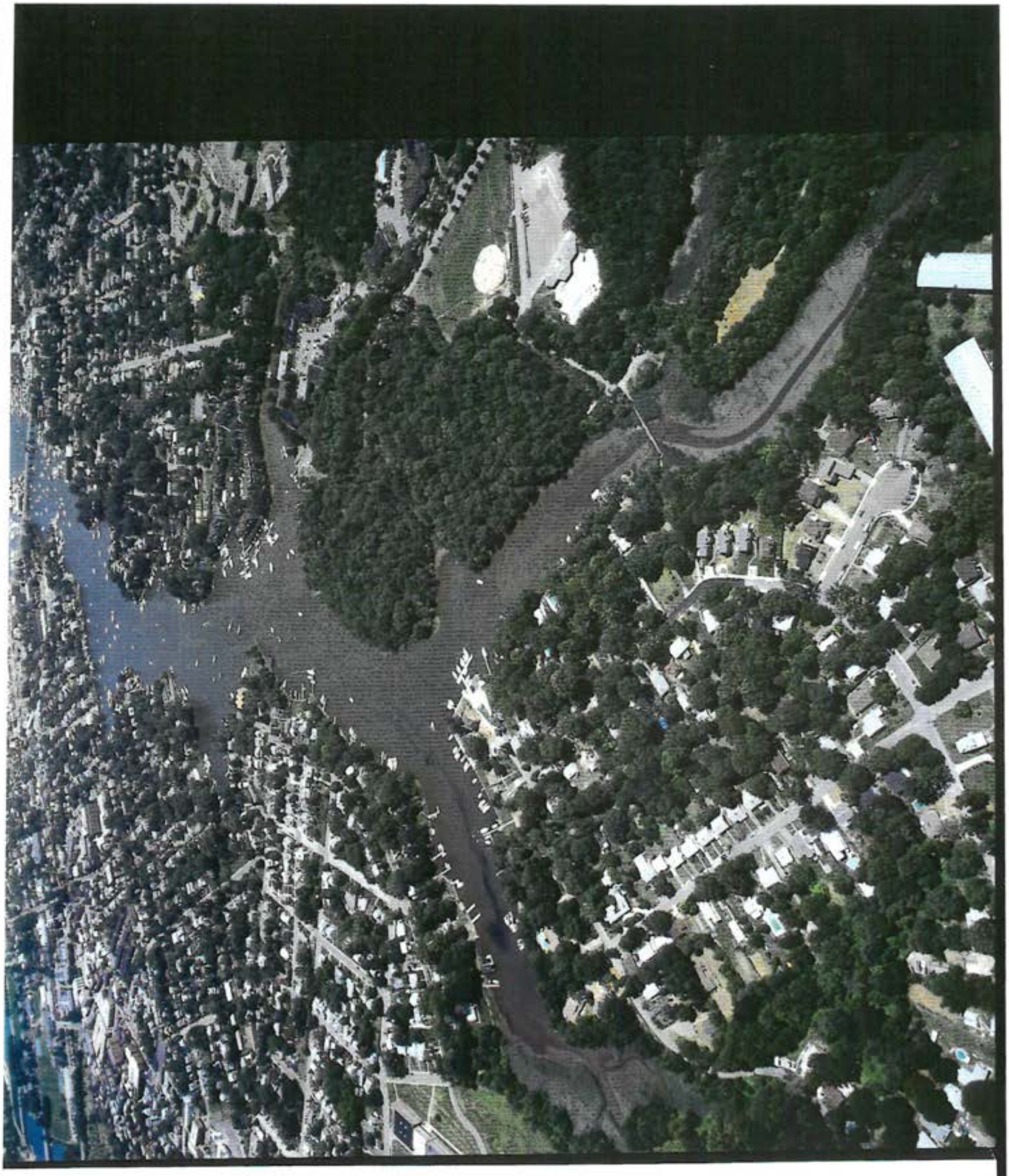

Fig. 10 Spa Creek -- May 28, 1989.

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Weems Creek Conservancy

Ravaging of the Severn

By SCOTT HARPER
Staff Writer

When the bulldozers are finally silent and the new roads completed, 514 acres of woodlands will have been stripped from lands along the Severn River, according to State Highway Administration figures.

Local environmentalists are stunned by the amount of forest that state crews have cut down during the last two years and by what they propose cutting in the future.

Many predict the river will never fully recover from the ecologi-

mentalist would," said Mark Buehlman, a forestry expert with the Sierra Club. "But we're going to continue facing these lose-lose situations without new direction in how we handle our growth patterns."

What residents are getting in place of the trees is a new and sophisticated road network, mostly for easier travel between Annapolis and Baltimore. Interstate 97 will provide an alternative path that Route 2 commuters have been demanding for years.

The network also should hasten east-west travel within Anne Arundel, from Annapolis to sprawling new communities in west county.

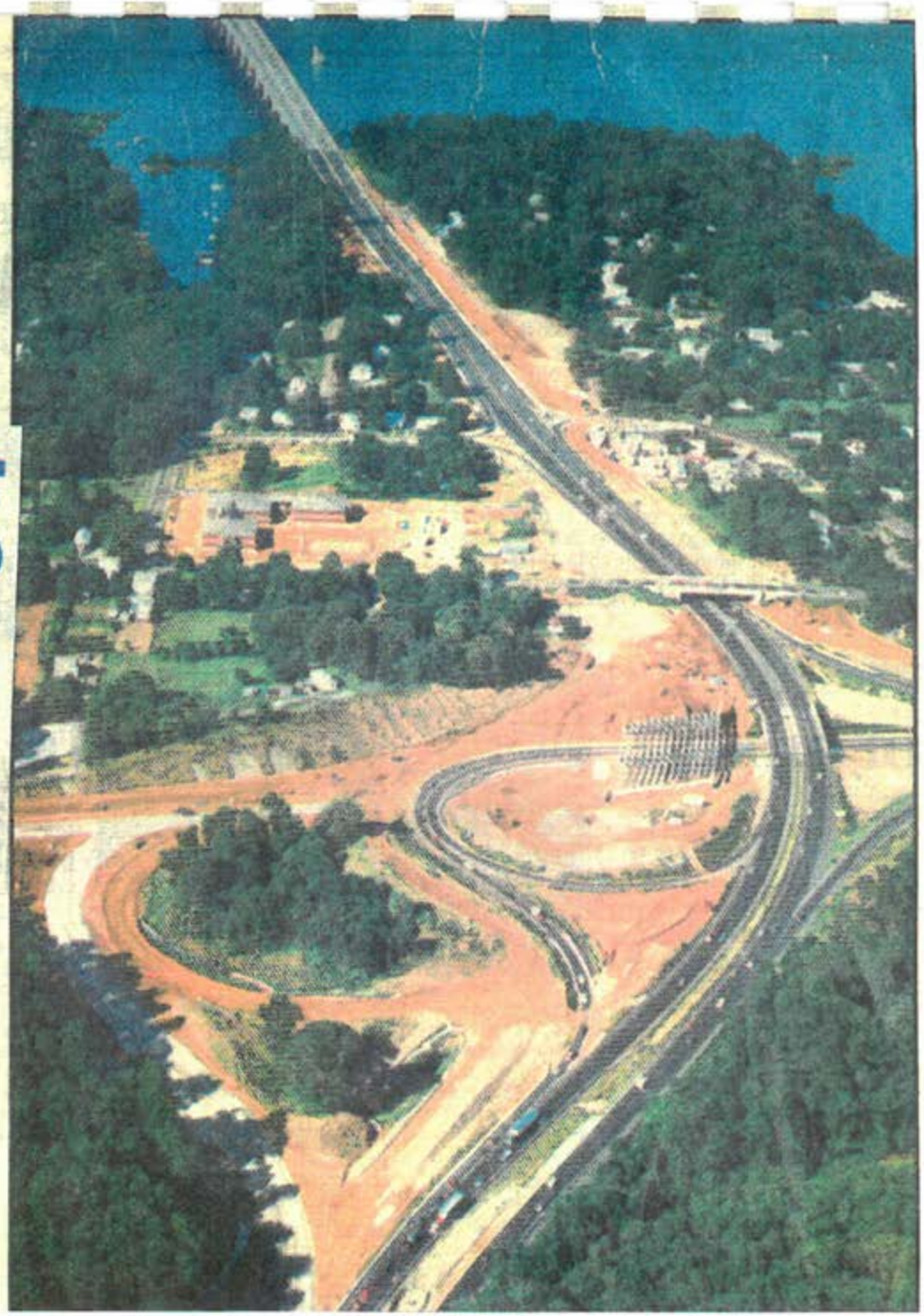

Fig. 11 Photograph in Annapolis Sunday Capital, July 9, 1989, showing SHA I-68 Project's deforestation near Rowe Boulevard Interchange.

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Severn River Commission
Weems Creek Conservancy

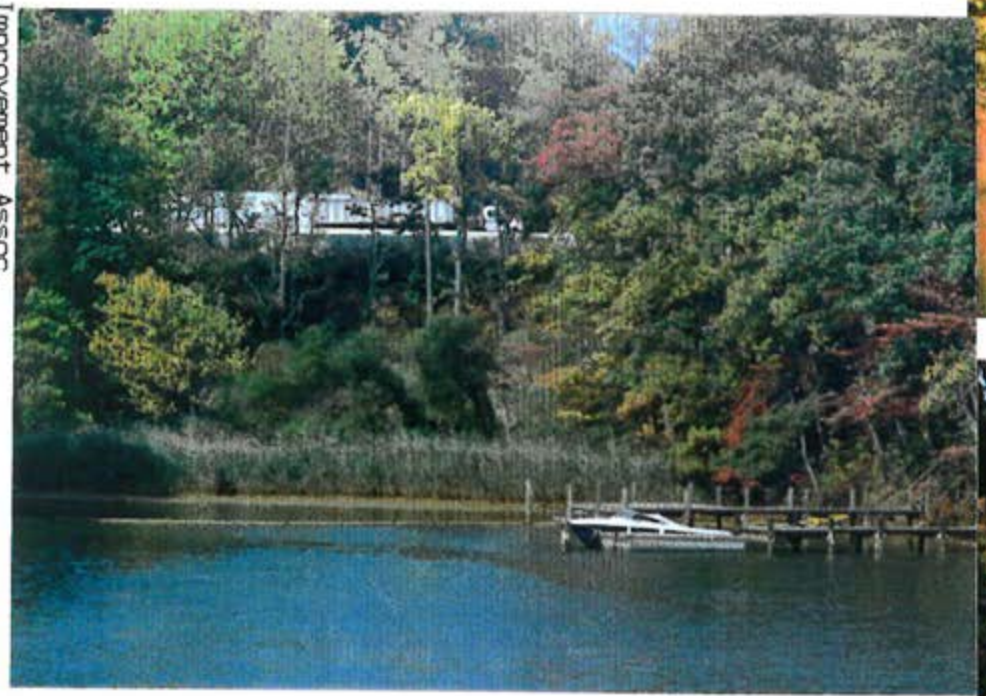


Fig. 12 Sight and sound of truck traffic at Swan Cove, October, 1991.

Fig. 13 Swan Cove, October 1988.

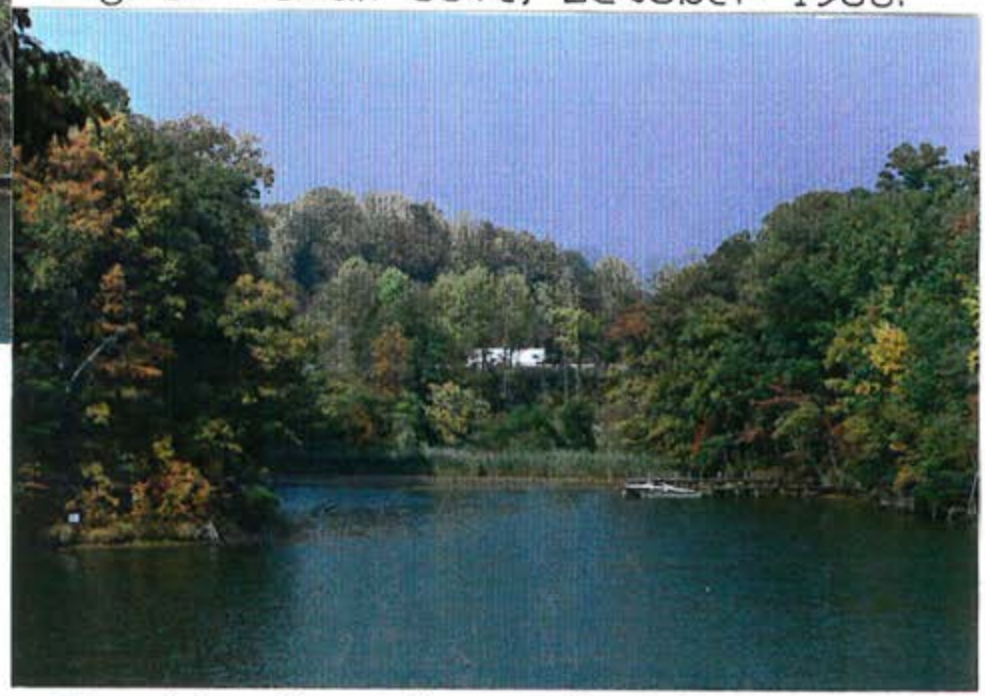


Fig. 14 Swan Cove, October 1991.

Today's sight and sound of heavy highway traffic, shown in figure 12, is understandable for an industrial zone -- but not Weems Creek, nor its flora/fauna sanctuary of the Hock Property and adjacent Swan Cove. Governments once praised Weems Creek's rustic tranquility and ecological treasures, and recommended effort to preserve and protect them (ref. 2). But now our government's SHA I-68 Projects have achieved the opposite.

Figure 15 shows the width of tree buffer at the head of Swan Cove as it existed in the 1985 aerial map. The erstwhile 180-200 foot width has today been reduced to 10-15 feet. Figures 12 and 14 demonstrate the changes owing to SHA I-68 Projects.

Figure 16 is a photo, taken in 1986, looking west past Hummer's pier (see figures 2 and 3). Similar to figure 13, it shows good buffering -- from highway sight and sound -- by plants and trees at the headwaters of Weems Creek and the western end of the Hock Property. Figure 17 shows a similar vista, looking west from Thomas' pier (also shown in figures 2 and 3) in September, 1992. The sight and sound buffering -- once an attribute of Weems Creek's rustic tranquility -- has been removed by SHA I-68 Projects.

Recommendation #1 restores Weems Creek from SHA I-68 Projects' buffering damage.

CONTINUING SILTATION DEPOSIT IN SWAN COVE

Indiscriminate destabilization of soil in the nonheadwaters' watershed has produced continuing excessive silt deposit in Swan Cove. Figures 18 and 19 are photographs of Swan Cove taken on August 20, 1991. The runoff control -- a scour basin as drawn in figure 4 and provided by I-68 construction -- is operating. Rather than have the silt continue to rush past the scour basin and be deposited in Weems Creek, Recommendation #2 calls for a sure engineering fix -- such as an adequate holding pond on the north side of I-68, as shown in figure 4 -- to protect Weems Creek from siltation damage owing to SHA I-68 Projects.

EXTENT OF SILTATION IN HEADWATERS

Figure 20 is a 7-17-85 drawing attached to Hummer's 3-25-86 permit request for original construction of a pier. At the end of Hummer's pier, the bottom was 18 inches below MLLW (21 inches below MLW) -- enough for Hummer's sailboat. Appendix B digitizes and analyzes figure 24 to establish that the bottom at the end of Hummer's pier is now 5 inches above MLLW. Hummer asserts his pier was useful almost through the summer of 1989 -- three years of utility, when siltation from SHA I-68 Projects rendered the pier useless.

Figures 21 and 22 show typical siltation runoff in the headwaters. Figures 23 through 26 show Hummer's pier on March 1990, April 1991, November 1991 and September 1992. Photos 24 through 26 are identical views -- taken from Thomas' pier (see figures 2 and 3 for perspective) -- looking west past Admiral Heights Community Park waterfront and toward Hummer's pier.

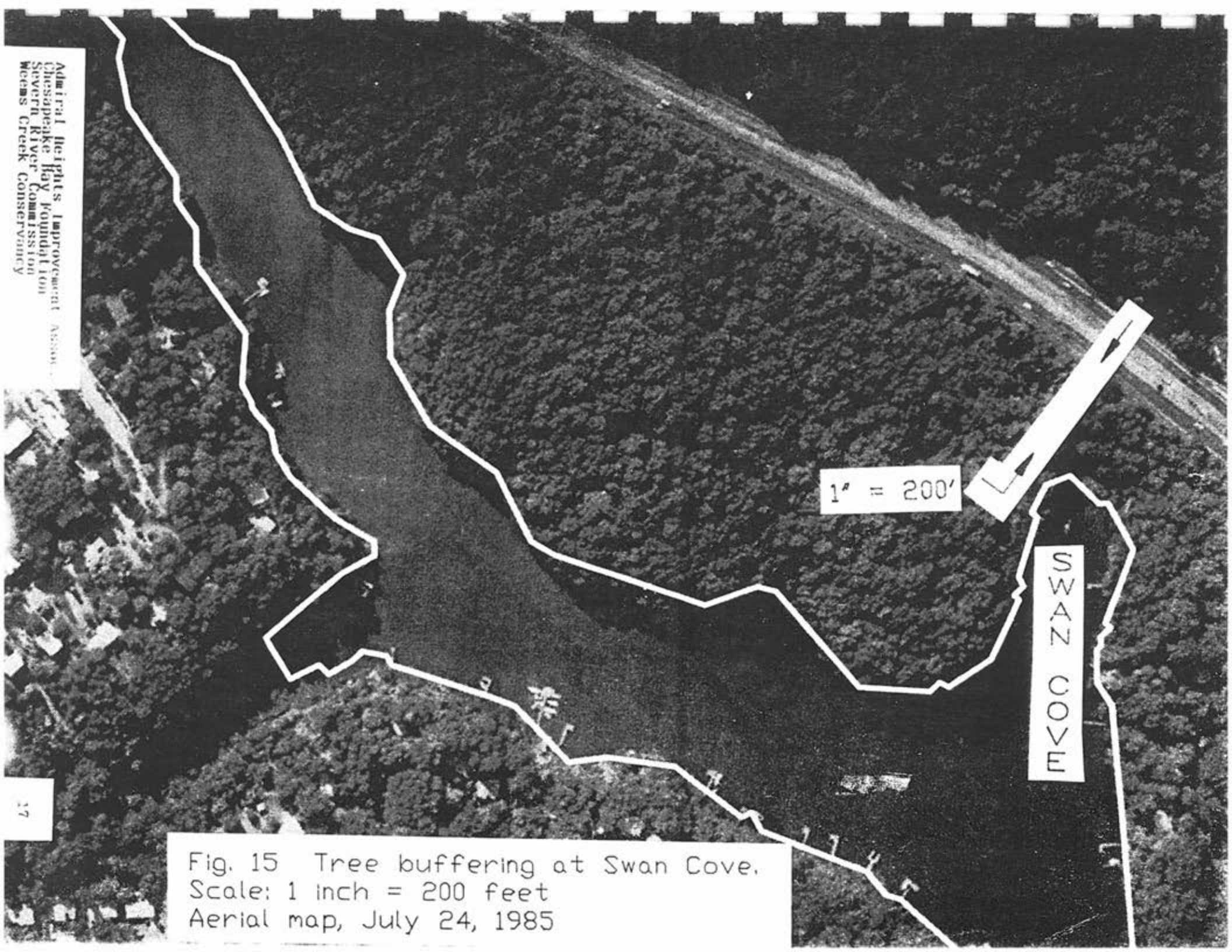


Fig. 15 Tree buffering at Swan Cove.
Scale: 1 inch = 200 feet
Aerial map, July 24, 1985

Fig. 16 View looking west from City Line opposite Thomas' pier, 1986.

Fig. 17 View looking west from Thomas' pier, September 9, 1992.

Fig. 18 Swan Cove, August 20, 1991

Fig. 19 Swan Cove, August 20, 1991.

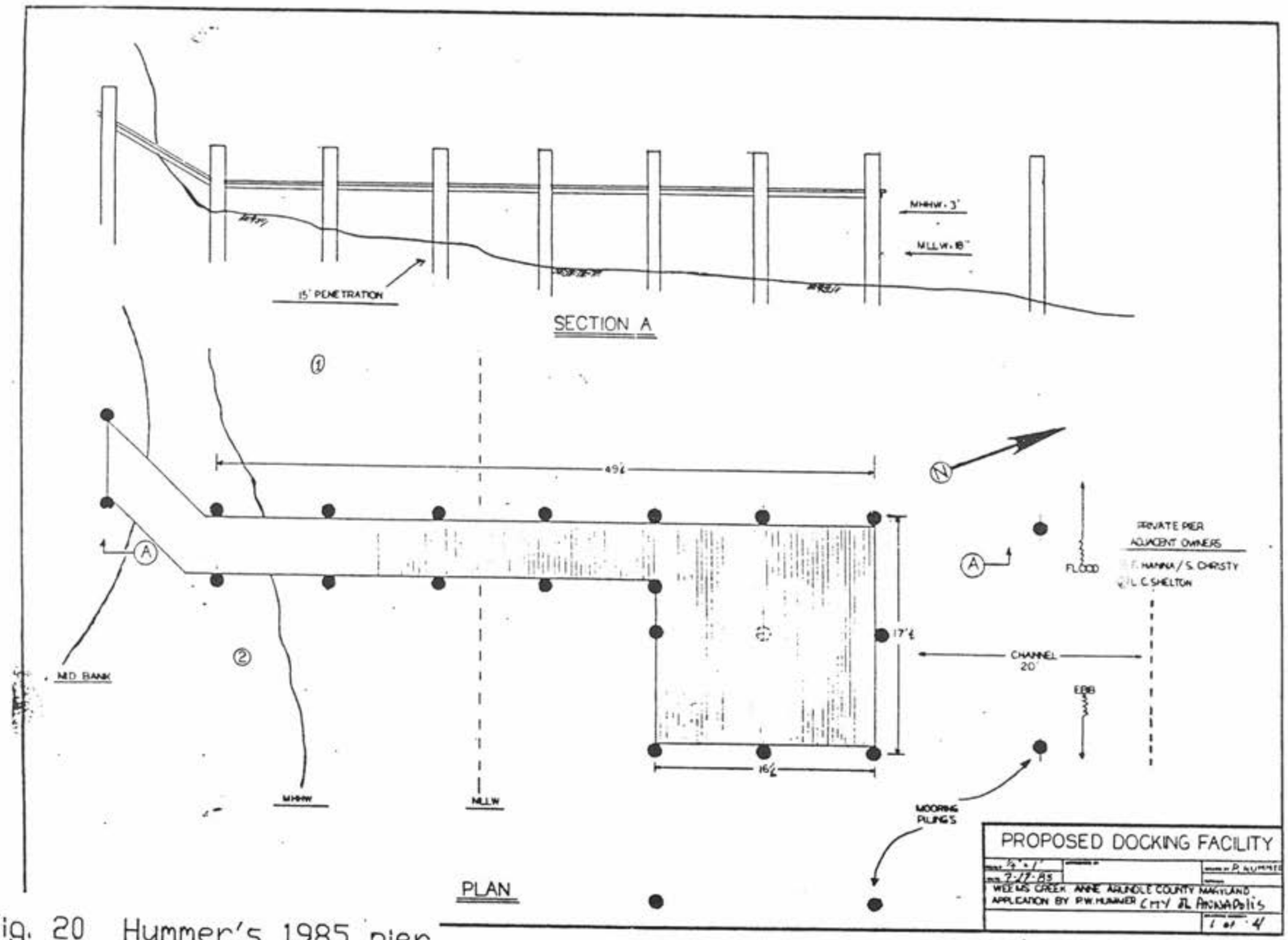


Fig. 20 Hummer's 1985 pier permit application drawing.

Fig. 21 Siltation runoff at Weems Creek headwaters, August 1989.

Fig. 22 Siltation runoff at Weems Creek headwaters, March 1990.

Fig. 23 Hummer's pier, March 1990.

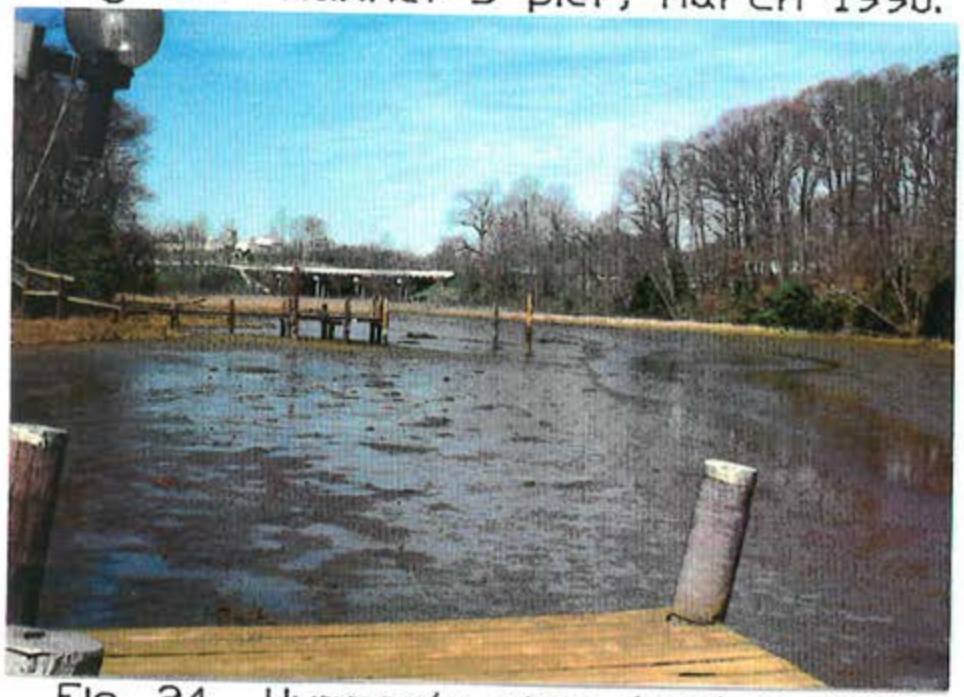


Fig. 24 Hummer's pier, April 11, 1991.

Fig. 25 Hummer's pier, November 8, 1991.

Fig. 26 Hummer's pier, September 9, 1992.

Figures 23-25 contradict the assertion in the Coordinator's Weems Creek **RECOMMENDATIONS**: "Depths at Mean Low Water in the upper reaches in the February 1990 survey were in the 3-5' range, an increase from the July 1989 survey depths of 2.5 - 3.5'."

Hummer's pilings are on eight foot centers (see fig. 20). Figures 24-26 show that in spring of '91 marsh grasses near Hummer's pier are short and almost 32 feet from the end of the pier. By late fall the grass boundary has advanced four feet. Another growing season later -- September 1992 -- the grass boundary advances another four feet. This unnaturally speedy migration results from unnaturally speedy creation of viable tidelands via sedimentation.

A marsh grass boundary migrates into available tideland by vegetative spread. The boundary normally advances slowly owing to the slow rate of normal sedimentation and slow creation of tidelands. But recently we observe the maximum boundary speed possible by the process of vegetative spread -- a maximum realizeable because there are vast new tidelands, suddenly made available owing to abnormally high sedimentation.

The total width of marsh grass near Hummer's pier today is 10 to 15 feet. The four foot/year advance of marsh grass observed there cannot have been supported by (Parole and other development) events over the past 12 to 20 years. Recent erosion and sedimentation history is the cause of the four-foot-per-year advance now observed.

The explosive growth of tideland is not confined to Hummer's pier. However, the pier pilings' eight foot centers allow measurement of grass migration at that locale.

Figure 27 looks NW across Hummer's pier, showing the location of the channel. Using locations cited in figure 3, this agrees with figure 9's concentration of sediment flow toward Hummer's pier, past Admiral Heights Community Park's waterfront, and past Thomas' piers. Figure 27 also shows vast, newly created tidelands.

One cannot reward SHA I-68 Projects for unwitting, speedy, damaging tideland creation. Justice demands that at least a small fraction of these spurious tidelands be removed -- via dredging consistent with policies in other nearby headwaters -- and water usage returned to citizens. Figures 31 and 32 show the standards of headwaters dredging accomplished during 1992 in Spa Creek and Back Creek: -4' MLW.

Figure 30, when compared with figure 16, shows the essential loss of buffering and consequent sight and sound intrusion by heavy truck traffic across the Admiral Drive bridge.

Affidavits 1 and 2 state that water depth off of Thomas' pier changed from 6 feet to 2 feet between 1986 and 1991.

Recommendation #4 calls for planting and cultivating these newly created wetlands, to beautify the mudflats and to accelerate the silt restraining effect of a mature wetland. It also calls for a small portion of these anomalous wetlands be returned -- via dredging to standard 4 foot depth -- to those whose water usage was denied by SHA I-68 Projects.

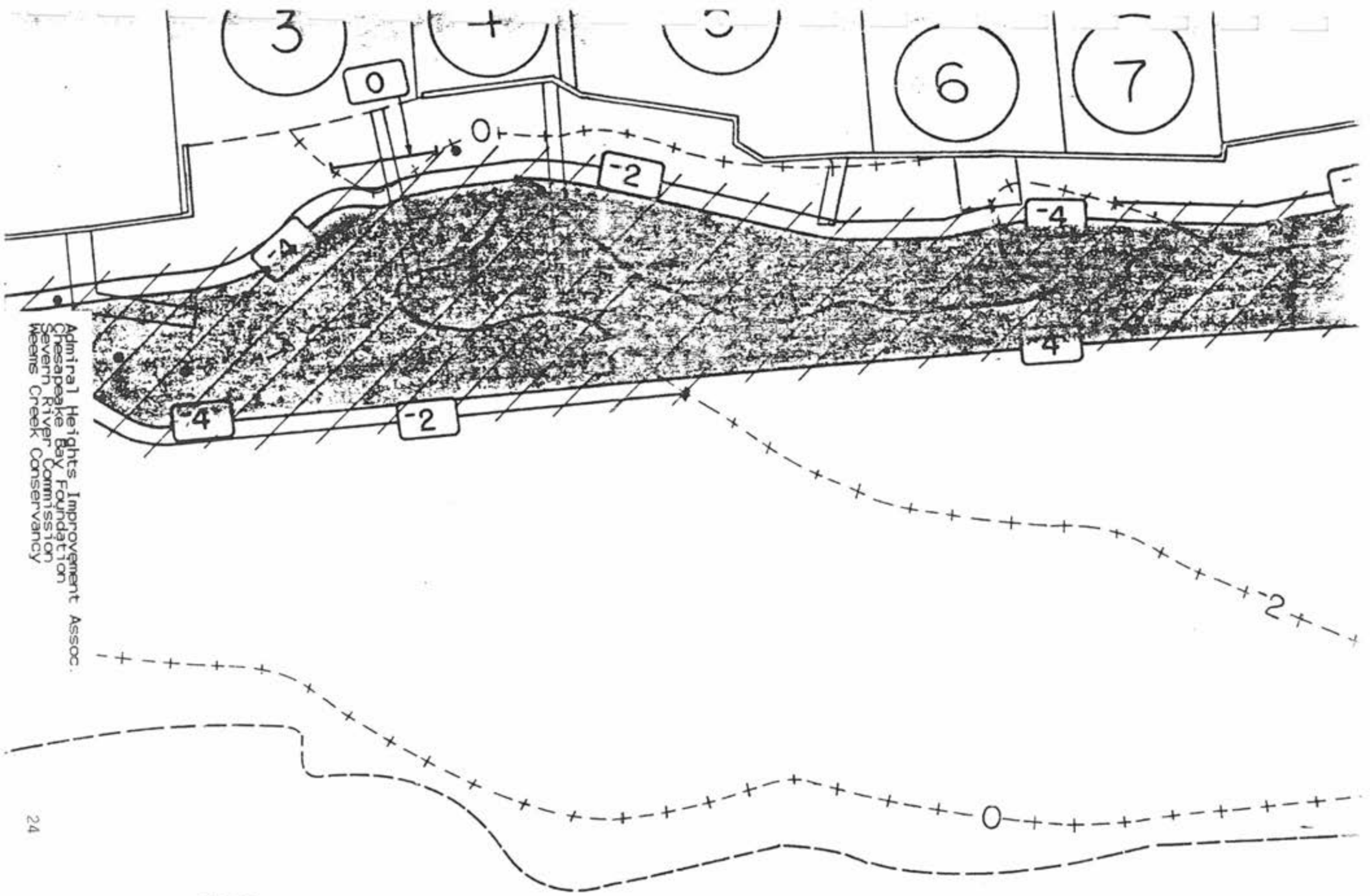
Admiral Heights Improvement Assoc.
Chesapeake Bay Foundation
Severn River Commission
Weems Creek Conservancy

Fig. 27 Headwaters marshgrass, November 8, 1991.

Fig. 28 Headwaters marshgrass, September 9, 1992.

Fig. 29 Headwaters marshgrass, September 9, 1992.

Fig. 30 Headwaters marshgrass, September 9, 1992.



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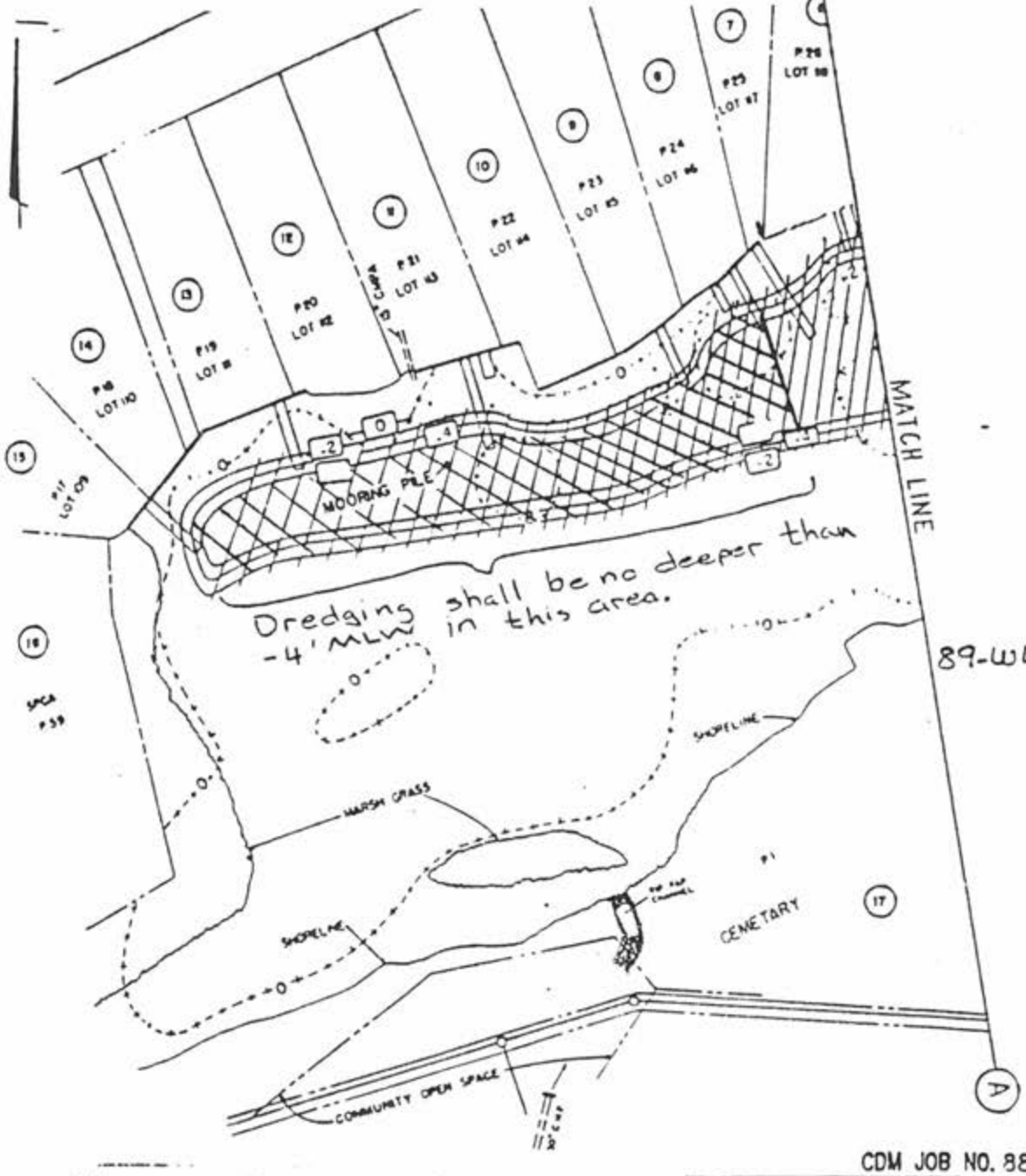
Severn River Commission
Weems Creek Conservancy

Fig. 31 Dredging in headwaters of Spa Creek, 1992.

PROPOSED DRED
SITE NO. SPA 1

FIG. 32 Dredging in headwaters of Back Creek, 1992.



CDM JOB NO. 88-1721

CDM: 4-SITES

C.D. WEEKS & ASSOCIATES, INC.
CONSULTING ENGINEERS & SURVEYORS

CITY OF ANNAPOLIS, MD
DEPARTMENT OF PUBLIC WORKS
PROPOSED DREDGING
SITE NO. BAC 06
SPA CREEK
HEADWATERS OF BACK CREEK
DATE: 2/7/89
SHEET NO. 1 of 8

Admiral Heights Improvement Assoc.
Chesapeake Bay Foundation
Severn River Commission
Weems Creek Conservancy

STATEMENT ON WATER DEPTH OF UPPER WEEMS CREEK

404 Halsey Road,
Annapolis, Maryland 21401

July 20, 1991
Phone (301) 263-9323

TO WHOM IT MAY CONCERN

In the summers of five and six years ago I regularly used to swim with the Shelton's children off the dock on Weems Creek at 326 Halsey Road, Annapolis, Maryland 21401. At that time it was not easy to dive off the end of the dock and touch the bottom.

Loyd and Roseanne Shelton moved from the residence in 1989 to 32 Shore Walk, Riva, Maryland. The present owners are Ann and Geoffrey Thomas.

I freely make the statement that as far as I can recollect, in both the years 1986 and 1985 the water was over six feet deep at low tide off the Creek end of the pier at 326 Halsey Road.

Bryan Christie

Affadavit 1 -- of Bryan Christie.

Admiral Heights Improvement Assoc.
Chesapeake Bay Foundation
Severn River Commission
Weems Creek Conservancy

STATEMENT ON WATER DEPTH OF UPPER WEEMS CREEK

326 Halsey Road,
Annapolis, Maryland 21401

September 12, 1991
Phone (301) 268-1496

TO WHOM IT MAY CONCERN

Loyd and Roseanne Shelton sold the property at 326 Halsey Road, Annapolis, Maryland 21401 with settlement on October 31, 1989. The present owners are Ann and Geoffrey Thomas. The Shelton's moved to 32 Shore Walk, Riva, Maryland.

Water soundings in the upper Weems Creek recently were made in preparation for a dredging proposal.

I freely make the statement that as far as I can determine these soundings show that water is now less than 2 feet deep at low tide off the Creek end of the pier at 326 Halsey Road.

Geoffrey O. Thomas

Affadavit 2 -- of Geoffrey O. Thomas.

Admiral Heights Improvement Assoc.
Chesapeake Bay Foundation
Severn River Commission
Weems Creek Conservancy

SECURITY OF HOCK PROPERTY

In December of 1988, Admiral Heights residents were startled to hear chain saws in the Hock Property. Communication with the SHA concerning the preservation of this natural treasure (see refs 1 and 2) dates back at least 20 years (see figure 33). Many assurances have been given that the Hock Property would not be touched.

At present the Property is vulnerable to dangerous equivocation:

(1) At SHA Design Public Hearing on June 28, 1984:

> McWethy comment: Inquired how highway right of way affects the Hock Property.
>
> SHA response: The Hock property is outside the right of way lines and will not be affected.

(2) Again (cf. reference 3):

> "The Final Environmental Impact Statement for I-68 stated that the Hock property would not be impacted by the proposed construction. This was predicated on the use of a retaining wall to reduce the impacts.
>
> "During the final design it was determined that the construction area required for the construction of a cast-in-place wall or a reinforced earth wall would not lessen the impacts to the Hock property and would only increase the costs of the Project.
>
> "For the most part, the existing design did fall within the existing right-of-way and/or easement areas established for the existing roadway. However, between Sta. 68+00 and Sta. 74+00 (800 feet) the proposed top of cut did impact the Hock property and would have necessitated the removal of a 36 inch and a 40 inch oak tree."

At the Design Public Hearing and in the Impact statement the SHA allowed the public to believe the so-called right-of-way (and/or easement) was totally outside the Hock Property. SHA clarified in 1989, showing right-of-way lines encroaching the Property -- after Hock Property sawcut incursions had begun.

To assure the security of this Property, we make recommendation #5.

The Chesapeake Bay Coordinator's **RECOMMENDATIONS** confirm the government's promise to place the Property in a protective land trust. But Maryland officials have refused to sign necessary papers. Their reluctance must be corrected!

REFERENCES

1. "Maryland Uplands Natural Areas Study," Coastal Zone Management Program, Maryland Department of Natural Resources, 1975.
2. A Greenway Strategy for Weems Creek, National Park Service, Dept. Interior, Mid-Atlantic Region, Philadelphia, PA, August, 1982.
3. Memorandum dated March 28, 1989 from Edward G. Stein, Jr. to Hal Kassof.

BOARD OF PUBLIC WORKS
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND

October 2, 1972

Fig. 33

Mr. Richard H. Trainor, Chief
Right of Way Division
Maryland Department of Transportation
State Highway Administration
300 West Preston Street
Baltimore, Maryland 21203

Re: Project AA 263-1-515
Annapolis By-Pass
Former J. Francis Hock Property
Item No. 24107
Former Frank L. Meyett Property
Item No. 24268

Dear Mr. Trainor:

The Board of Public Works, at its meeting of September 15, 1972, reviewed your memorandum concerning the Hock and Meyett properties located on the south side of U. S. Route 50, at the head of Weems Creek in Anne Arundel County.

The Board approved your recommendations that the State Highway Administration retain ownership of this property and incorporate it with the scenic land along U. S. Route 50. The property is to be maintained in its natural state.

Thank you for your cooperation.

Very truly yours,

Andrew Haubeck, Jr.

Andrew Haubeck, Jr.
Secretary

AH:jko

cc: Mr. James Coulter
Mr. Paul R. Hinemann

Admiral Heights Improvement Assoc.
Chesapeake Bay Foundation
Severn River Commission
Weems Creek Conservancy

Appendix A
ENDORSEMENTS

Admiral Heights Improvement Assoc.
Chesapeake Bay Foundation
Severn River Commission
Weems Creek Conservancy

Admiral Heights Improvement Association
P.O. Box 1981
Annapolis, Maryland 21404

December 10, 1992

Honorable William Donald Schaefer
Governor
State House
Annapolis, MD 21401

Dear Governor Schaefer:

Admiral Heights is an Annapolis community of more than 600 homes; it fronts on upper Weems Creek. After some four years of deterioration to our Weems Creek and Hock Property environs, we are encouraged to see that the Weems Creek Conservancy is seeking your help to restore some of what recent highway construction has taken away.

An Admiral Heights community park -- McDonough Park -- provided waterfront opportunities for our community. Waterfront there was available until four years ago. Today the community park fronts on mudflats.

Our Weems Creek frontage once offered prized rustic ambience, with flora and fauna insulated from urban disturbance. Unnecessary destruction of buffering trees removed the insulation and added disquieting appendages -- the nearby detention center and fire house, plus sight and sound of truck-filled I-68 traffic.

We know the recent highway construction was necessary, and we are in favor of it. Our complaint is that the SHA used the Weems Creek environs, including the renowned Hock Property, to learn how not to construct a highway with environmental care. Fortunately for others, the SHA have mended their procedures. Would that Weems Creek could have benefitted from what the SHA now know. But the fact is we have been left with their aftermath of erosion and sediment, and wanton loss of trees.

The Weems Creek Conservancy's Recommendations are a blend of effort by many concerned individuals and organizations. We urge you to have them carried out.

Sincerely,

Steven Yaniga, President
Admiral Heights Improvement Association

Chesapeake Bay Foundation

25th Anniversary

Environmental Defense - Environmental Education - Land Management

Maryland Office • 14 Market Space • Annapolis, Maryland 21401
(410) 268-8833 Fax (410) 280-3513

December 10, 1992

The Honorable William Donald Schaefer
Governor
State House
Annapolis, Md 21401

Dear Governor Schaefer:

The Chesapeake Bay Foundation was one of the original participants in the Weems Creek Restoration Work Group. Our complaints about sediment controls along the route 50/301 construction were a primary reason that the Weems Creek Restoration Work Group was convened.

The report prepared by Biohabitats for the Weems Creek Restoration Work Group correctly identified polluted runoff and other stormwater impacts from the intensely developed watershed as the primary environmental threat to the Creek. Unfortunately, it failed to address the impacts on the Creek of the widening of route 50/301 that triggered creation of the Work Group. In addition, the report's recommendations were little more than recommendations for careful implementation of existing laws and programs. The timid recommendations frustrated many of the participants of the Work Group, especially those living on the Creek, who felt that they had been personally and directly harmed by the road widening.

Consequently, the attached document was developed by the Weems Creek Conservancy. It identifies a number of specific actions that should be taken to ameliorate the impacts of the road widening on Weems Creek, and especially, on area residents. These actions go beyond the actions recommended by the report prepared for the Work Group. They must, since they are aimed at ameliorating problems that, although unaddressed by the earlier study, originally triggered formation of the Work Group.

It is hoped that the attached report will encourage actions aimed at restoring and protecting the Creek. Accordingly, we support the report.

Nevertheless, the Chesapeake Bay Foundation, as a matter of general policy, considers dredging projects to be environmentally harmful under almost all circumstances. Still, we recognize that dredging will continue to occur for a wide variety of purposes. Since we see no overriding environmental benefit for dredging in this case, to be consistent with our general policy we are unable to endorse dredging the headwaters of Weems Creek.

Like many other tidal creeks suffering impacts of urban and suburban development, Weems Creek retains much of its scenic and environmental value. Those values, however, are increasingly threatened. The impacts of the widening of Route 50 on the creek have been substantial, and every effort should be made to ameliorate them. To do otherwise would be to tacitly accept continued declines in the health of the State's tidal creeks. We look forward to working with you on the effort to protect and restore Weems Creek.

Sincerely,

Curtis C. Bohlen, Ph.D.

Severn River Commission

P. O. Box 0675 Heritage Complex Annapolis, Maryland 21404

December 16, 1992

Hon. W.D. Schaeffer
Governor
State of Maryland
Annapolis Office
State House
Annapolis, Maryland 21401

Re: Weems Creek
Annapolis, Maryland
Ref. (a) Weems Creek Conservancy Report dated December 16, 1992

Dear Governor Schaeffer:

As you are aware, a Weems Creek Restoration Work Group was formed in 1991 pursuant to an agreement which grew out of a lawsuit against the State Highway Administration's performance with respect to Weems Creek and siltation thereof. The idea was to formulate a program for mitigating the damage done during the upgrade of U.S. 50 in the vicinity of Annapolis, and restoring the waterway insofar as practicable.

The recommendations promulgated by the Governor's Chesapeake Bay Coordinator speaks to the future of the creek rather than the past, in addition to being a "Chinese Copy" of the recommendations of the Biohabitat Co., in a report bought and paid for by the State Highway Administration.

The Weems Creek Conservancy has produced a report, complete with documentation, which does address the restoration needs of Weems Creek. That report has been reviewed by the Severn River Commission both in draft and final form (Reference (a)).

The purpose of this letter is to unconditionally endorse the recommendations of the referenced report, including the controversial subject of dredging. Ordinarily dredging would not be favored, but in this case it represents the only practical means of restoring recreational use of one part of the waterway.

A most important recommendation within Ref. (a) is the transfer of the Hock Property to an appropriate land trust.

It is requested that steps be taken to carry out the relatively modest recommendations of the Weems Creek Conservancy as a suitable fulfilment of the original purpose of the restoration task group.

Thank you for your kind attention.

Sincerely,

A. L. Waldron, Chairman
Severn River Commission

ALW/vlk

cc: Mr. Baker, CBF
Mr. Yaniga, Admiral Heights
Mr. Kassof, SHA
Mr. Carroll, Governor's Office
Mrs. McWethy, Weems Creek Conservancy

Appendix B

ANALYSIS OF FIGURE 24

ANALYSIS OF FIGURE 24

Figure 24 offers an almost perpendicular, elevation view of Hummer's pier. Declination to the bottom of the pier pilings is approximately 3 degrees. Azimuth span is 17 degrees. Assumption of perpendicularity gives maximum errors equal to 1 - cos(angle). Hence, they are, respectively, 0.3 percent and 4.4 percent.

The greatest error is owing to use of a 3-1/2 X 5 inch photo -- only a 3.5X enlargement from the negative. For added accuracy one might use a 15 or 20X enlargement, and complicate the analysis somewhat to account for the slight deviation from perpendicular.

Even so, digitization of figure 24 indicates that 23 inches of sediment have been deposited at the end of Hummer's pier since July 17, 1985.

That result is obtained by digitizing four points -- PT1, PT2, PT3 and PT4, shown in figure 34 -- of figure 24. PT1 and PT2 calibrate the digitizer: figure 20 shows the points are in a horizontal plane and 16 feet apart. PT3 was digitized as the intersection of the pier piling with the bottom. PT4 was digitized as the intersection of the tie piling with the bottom. PT1, PT2, PT3 and PT4 all lie in a common vertical plane (cf. fig. 20). The digitized coordinates of the points are shown parenthetically for each point.

Also digitized was the line where the water surface meets the bottom. In figure 34 it is called WATERLINE; it must lie in the plane of the water, a horizontal plane.

BOTTOM(1991) is considered to be a straight line, determined by PT3 and PT4. BOTTOM(1991) is extended until it intersects WATERLINE at PT5. Figure 34 shows this point of INTERSECTION OF WATERLINE AND BOTTOM(1991). At the date and time that figure 24's photograph was made, the water level was 8.8 inches <u>below</u> MLLW. In figure 34 the dashed line MLLW is drawn 8.8 inches above the just described intersection.

BOTTOM(1991) intersects Hummer's PIER-END PILING at PT6, as shown in figure 34. The intersection is 5 inches <u>above</u> MLLW. The line BOTTOM(1985) is drawn simply as parallel to BOTTOM(1991), but intersecting PIER-END PILING 18 inches <u>below</u> MLLW (cf. figure 20). Between 1985 and 1991 the bottom at the end of Hummer's pier has silted up 23 inches.

NOAA's Annapolis tide station (ATS) is located at (38.98N, 76.48W) -- on the Severn River across from the Naval Academy. From there the 3.4 statute mile trip to figure 24's region consists of 1.8 miles up the Severn, then 1.6 miles up Weems Creek.

At the time of figure 24, the unusually low tide was probably owing to a strong north wind on the Bay 10 to 20 hours earlier. But the generally rising tidal record for the entire day confirms that the strong wind had passed -- consistent with the calm shown in figure 24.

At the time of figure 24 it is noted that: (1) there is little wind, and (2) there is

Admiral Heights Improvement Assoc.
Chesapeake Bay Foundation
Severn River Commission
Weems Creek Conservancy

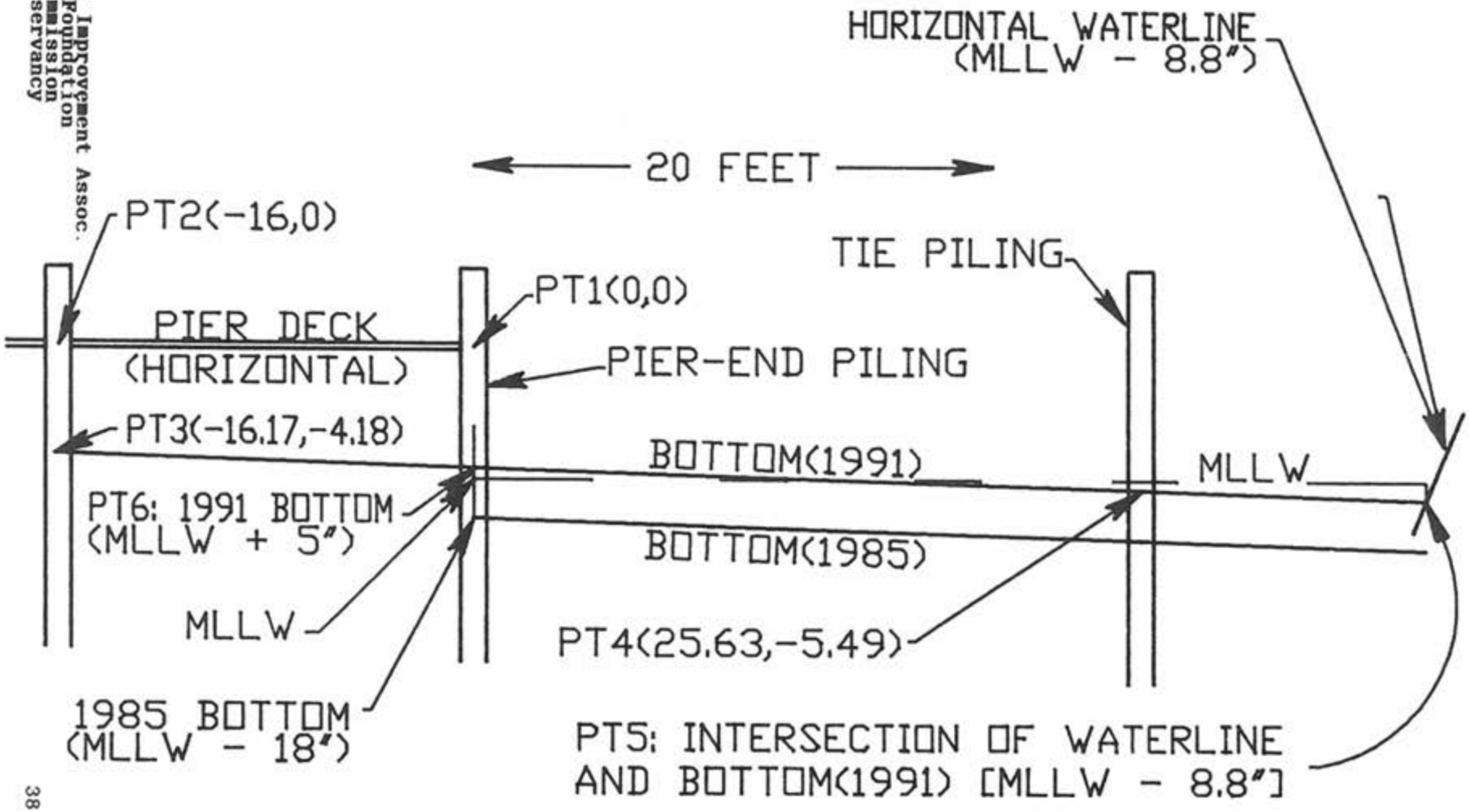


Fig. 34 Digitization of figure 24.

VJC 12-8-92

no tidal current (it is low tide, transition from ebb to flood). There is neither flow resistance nor wind fetch to support a water level gradient between figure 24's water and nearby ATS's water.

The tables below show the date and time of photographs, and Annapolis tide on pertinent dates. All times are eastern standard time. Tides are shown in feet above MLLW. NOAA does not yet have tide data publicly available beyond July 31, 1992.

Siltation greater than 23 inches would be indicated if the following facts are significant:

1. The bottom is concave downward. Accordingly, PT5 would be lowered (and so MLLW lowered, in the drawing) and PT6 -- the intersection of BOTTOM(1992) with the pier-end piling -- would be higher up on the piling.

2. For reasons given above, the water level throughout Weems Creek is the same as at ATS. However the water level shown in figure 24 is in a very constricted headwater: inflowing water velocity and consequent flow friction may be significant enough to sustain a gradient -- making the water in figure 24 higher than at ATS, i.e., something numerically less than MLLW - 0.73 feet as shown in the tables below.

TIME AND DATE OF PHOTOGRAPHS

Figure Number	Date	Time (EST)
9	May 28, 1989	1200
10	May 28, 1989	1200
17	Sep 9, 1992	1200
24	Apr 11, 1991	0930
25	Nov 8, 1991	1300
26	Sep 9, 1992	1200
27	Nov 8, 1991	1230
28	Sep 9, 1992	1200
29	Sep 9, 1992	1200
30	Sep 9, 1992	1200

ANNAPOLIS TIDES

	Tide Relative to Mean Lower Low Water (MLLW)		
	May 28, 1989	Apr 11, 1991	Nov 8, 1991
TIME			
0000	0.52	0.02	0.73
0100	0.28	0.18	0.68
0200	0.00	0.21	0.74
0300	-0.22	0.18	0.79
0400	-0.31	0.02	0.87
0500	-0.42	-0.15	0.87
0600	-0.38	-0.36	0.77
0700	-0.30	-0.47	0.60
0800	-0.18	-0.61	0.37
0900	-0.10	-0.72	0.15
1000	-0.01	-0.73	-0.12
1100	0.00	-0.64	-0.30
1200	0.00	-0.41	-0.44
1300	-0.10	-0.23	-0.44
1400	-0.22	-0.09	-0.31
1500	-0.37	0.04	-0.15
1600	-0.44	0.08	0.05
1700	-0.44	0.08	0.24
1800	-0.33	-0.05	0.35
1900	-0.07	-0.11	0.39
2000	0.23	-0.14	0.33
2100	0.54	-0.06	0.25
2200	0.80	0.13	0.12
2300	1.02	0.40	-0.06
For the entire month:			
Max	2.72	2.67	3.84
Min	-0.44	-0.73	- 0.97