

APPENDIX D

LOW FLOW ALLOCATION AGREEMENT

AND

MEMORANDUM OF INTENT

11 January 1978

POTOMAC RIVER LOW FLOW ALLOCATION AGREEMENT

THIS AGREEMENT, made and entered into this 11th day of January 1978, by and among the UNITED STATES OF AMERICA (hereinafter called "the Government") acting by the Secretary of the Army through the Chief of Engineers, the STATE OF MARYLAND (hereinafter called "the State") acting by the Governor and the Secretary of the Department of Natural Resources, the COMMONWEALTH OF VIRGINIA (hereinafter called "the Commonwealth") acting by the Governor and the Chairman of the State Water Control Board; the DISTRICT OF COLUMBIA (hereinafter called "the District") acting by its Mayor, the WASHINGTON SUBURBAN SANITARY COMMISSION (hereinafter called "the Commission") acting by its Chairman; and the FAIRFAX COUNTY WATER AUTHORITY (hereinafter called "the Authority") acting by its Chairman;

PREFACE

WHEREAS, the Chief of Engineers is charged with the operation and maintenance of the Washington Aqueduct for the primary purpose of providing an adequate supply of potable water for distribution to and consumption by the agencies and instrumentalities of the Government situate in the District of Columbia and its environs, and thereafter of

providing a public water supply for the inhabitants of the District of Columbia; and

WHEREAS, the Secretary of the Army is authorized, subject to certain conditions, to supply treated water from the Washington Aqueduct to any competent state or local authority in the Washington Metropolitan Area in Virginia, and to that end has entered into agreements with the County of Arlington and the City of Falls Church, Virginia; and

WHEREAS, the sole source of raw water treated by the Washington Aqueduct and dispensed therefrom is the Potomac River, and the Washington Aqueduct is now maintaining intake facilities for this purpose at Little Falls and Great Falls, Maryland; and

WHEREAS, the State of Maryland has enacted an appropriation permit statute which requires that all non-exempt jurisdictions obtain a permit from the Water Resources Administration of the State's Department of Natural Resources (hereinafter called "the Administration") to appropriate or use the water of the Potomac River; and

WHEREAS, the parties to this Agreement recognize that other riparian interests, such as communities located in Virginia, may in the future desire to withdraw and use water from the segment of the Potomac River which is the subject of the within Agreement, and provision is made

herein requiring that access by any of them to such water be made subject to the provisions of this Agreement; and

WHEREAS, the Commission is charged with the responsibility of providing a safe and adequate public water supply within the Counties of Montgomery and Prince George's, Maryland and is also authorized to enter into agreements to provide water, and for that purpose is operating and maintaining water treatment facilities and a water distribution system; and

WHEREAS, the Commission maintains a water treatment plant and an intake therefrom on the Potomac River, which intake is upstream from the Washington Aqueduct intakes and within the limits of the River covered by this Agreement, and in addition the Commission maintains a water treatment plant with intake on the Patuxent River, and requires water from both sources in order to fulfill its above-mentioned responsibilities for providing a public water supply; and

WHEREAS, the City of Rockville, Maryland, is operating and maintaining water treatment facilities and a water distribution system and maintains an intake facility about one mile upstream from Great Falls on the Potomac River, which intake is upstream from the Washington Aqueduct

intakes and within the limits of the River covered by this Agreement; and

WHEREAS, the Fairfax County Water Authority is an authority in the Commonwealth of Virginia proposing to withdraw water from that portion of the Potomac River which is covered by this Agreement and has applied for a permit to construct a water intake structure for such purpose; and

WHEREAS, in the absence of adequate upstream impoundments and associated flow regulation, the quantity of water which may flow in the Potomac River between Little Falls Dam and the farthest upstream limit of the pool of water behind the Chesapeake and Ohio Canal Company rubble dam at Seneca, Maryland, during periods of low flow in that portion of the River, may be less than the quantity needed to meet the demand for all customary public water supply purposes during such periods; and

WHEREAS, in light of the Federal legislative enactments providing for the Corps of Engineers to supply water to the District of Columbia, enactment of legislation was deemed by the Government to be a prerequisite to its participation in a Potomac River Low Flow Allocation Agreement; and

WHEREAS, the consent of Congress to a Potomac River Low Flow Allocation Agreement is expressly stated in Section 181 of the Water Resources Development Act of 1976, Public Law 94-587; and

WHEREAS, the consent of Congress, pursuant to Section 9 of the Rivers and Harbors Act of 1899, to the construction of a water diversion structure by the Commission from the north shore of the Potomac River at the Commission's water filtration plant to the north shore of Watkins Island is conditioned in Section 181 of the aforesaid Water Resources Development Act of 1976 upon an enforceable Low Flow Allocation Agreement; and

WHEREAS, it is the judgment of the Chief of Engineers and the Secretary of the Army, acting pursuant to Section 10 of the Rivers and Harbors Act of 1899, that the public interest requires that such a Low Flow Allocation Agreement be a requirement for issuance of the permits for the construction of water intake structures in the subject portion of the Potomac River by the Commission and the Fairfax County Water Authority;

NOW, THEREFORE, in consideration of the premises and of the public and governmental interests deemed to be served hereby, the parties hereto do mutually agree as follows:

ARTICLE 1. Enforcement.

A. Certain Definitions:

1. Pertinent Portion of the River. The portion of the Potomac River subject to this Agreement is that located

between Little Falls Dam and the farthest upstream limit of the pool of water behind the Chesapeake and Ohio Canal Company rubble dam at Seneca, Maryland. This portion is referred to herein as "the defined portion" or, alternately "the subject portion" of the Potomac River.

2. Parties. The Government, the State, the Commonwealth, and the District shall be termed "the governing parties." All other parties hereto shall be termed "member parties." The term "parties" shall mean all parties, both governing and member, except when the context otherwise requires.

B. Moderator. Authority to enforce the provisions of this Agreement shall be vested in an unbiased Moderator. It shall be the duty of the Moderator and he shall have the authority:

1. To take all actions necessary to enforce the provisions of this Agreement and his decisions hereunder, and for this purpose he may sue in his own name.

2. To decide all disputes between or among the parties arising under this Agreement not disposed of by consent.

The authority of the Moderator shall not restrict those powers reserved to the parties, including those specified in Article 3, Section C.

C. The decision of the Moderator shall be final and conclusive unless determined by a court of competent jurisdiction to have been fraudulent, capricious, arbitrary, or not supported by substantial evidence. All parties agree to accept and implement every decision of the Moderator unless and until said decision is overturned by a court of competent jurisdiction.

D. The parties specifically grant to the Moderator the authority to inspect documents, records, meters, facilities, and other items necessary to decide any question or verify reports made by any party as a consequence of this Agreement. Upon the request of any party, the Moderator shall provide said party any or all of the information held by him relevant to this Agreement.

E. Should the Moderator decide to commence or defend any action or otherwise have need of legal services relating to this Agreement, he shall have the right to contract with counsel for such purpose, and the cost of such services shall be repaid in equal shares by the governing parties. In the interest of prompt action, the Moderator may accept legal services, or an advance of funds, for such purpose from any party. Nothing herein shall require a party being sued by the Moderator to advance funds for such purpose.



F. The Moderator shall not be liable for injury or damage resulting from any decision or action taken in good faith without malice under apparent authority of this agreement, even though such decision or action is later judicially declared to be unauthorized or invalid.

G. The Moderator shall be selected, and may be relieved of his duties for any reason, by unanimous action of the governing parties expressed in a signed memorandum. Should the office of Moderator become vacant through death, resignation, or otherwise, a new Moderator shall be selected as soon as practicable by such unanimous action. During any period in which the office of Moderator remains vacant through a failure of unanimous action or otherwise, the full functions of the office of Moderator shall be exercised by a Standby Moderator who shall, except as expressly otherwise provided, be treated as the Moderator for all purposes under the provisions hereof. The duty to designate the Standby Moderator shall rotate annually among the Government, the State, the Commonwealth, and the District in the order stated, beginning on the date this agreement becomes effective and rotating thereafter on the first day of each calendar year. Written notice of such annual designation shall be sent to all other parties by January 15 of each year. The first Moderator for this Agreement is designated in Annex A hereto.

H. Subject to the availability of funds, the reasonable expenses, including legal fees, and compensation of the Moderator shall be paid in equal shares by the governing parties. Any expense shall be deemed reasonable if at least three of the governing parties so agree or if so determined by a court. If any such party accepts as reasonable a particular expense not accepted as reasonable by the other such parties, that party may pay that expense, in addition to that party's proportionate share of all other expenses. At the time of each annual review as provided in Article 4 of this agreement, the governing parties shall set, by majority vote, the per diem fee to be paid a Moderator in the event his services shall be necessary. A Standby Moderator, who is an employee of the designating party or one of its political subdivisions or agencies, shall serve without fee in exercising the functions of the Moderator.

I. The Moderator or any party may bring an action against any one or more other parties to enforce this Agreement or a decision of the Moderator made hereunder. Such action shall be brought in the United States District Court for the District of Columbia, and each party consents to venue in said court and to service of process upon it from said court, provided that if the action is between two states of the United States, such action may be commenced in the Supreme Court of the United States. In any such action the joinder of all

parties hereto shall not be deemed necessary or indispensable merely because they are parties to this Agreement. Application for or receipt of a determination by the Moderator shall not be a prerequisite to the maintenance of an action by a party, but any decision made by the Moderator on a matter involved in said action, whether before or after commencement thereof, shall be given the effect set forth in Article I, Section C. Nothing herein shall be deemed to be a waiver of any immunity any party may have from a claim for monetary damages or a claim which has substantial fiscal impact, except for the fees and expenses which are provided to be paid pursuant to the agreement. It is the intention of the parties that any matters involving the technical aspects of maintenance of litigation be resolved in a manner which ensures rapid and certain enforcement of this Agreement.

## ARTICLE 2. Administration.

A. Washington Aqueduct. The Government will provide a communication control center at the Washington Aqueduct for the administration of the allocation plan as provided herein. The Washington Aqueduct Division, U. S. Army Engineer District, Baltimore ("the Aqueduct"), will collect, receive, record and accumulate daily reports regarding the flow of the Potomac River and the quantities of water being withdrawn from the defined portion of the Potomac River, and the quantities of water withdrawn and available from all other

sources for use within the Washington Metropolitan Area, by the parties and the political subdivisions, authorities, and permittees of any of them, and by any other water withdrawing entity which may formally be added or made subject to this Agreement subsequent to its initial execution. Subject to the parties rights of appeal to the Moderator, the parties grant to the Aqueduct, and to each other, the right to inspect documents, records, meters, facilities and other items necessary to decide any question or verify reports made by any party as a consequence of this agreement. Beginning with the Alert Stage, the Aqueduct will keep the Moderator informed as to the stage of flow in the Potomac River, and, during the Restriction and Emergency Stages the fair share allocated to each user, and all information utilized for determining the allocation. The Aqueduct will provide all parties with the same information relating to allocation, the quantities of water being withdrawn by all users from any and all sources, and the flow of the Potomac River. To permit uniformity of reports and to implement the administrative measures specified herein, reports and calculations, by or to the Aqueduct, of daily withdrawals or daily flows, will be based on the twenty-four hour period from one midnight to the following midnight, unless the parties subsequently agree to a different twenty-four hour measuring period. The Aqueduct will calculate the total daily flow by adding the withdrawals during the previous 24 hours at all withdrawal points and the

remaining daily flow over the Washington Aqueduct Dam at Little Falls, as determined by the readings recorded on the USGS gage at Little Falls during the preceding twenty-four (24) hours. The average reading will determine the flow over the dam for the previous day.

B. Stages of Flow in the Potomac River. The Aqueduct will determine from the information accumulated when the following stages exist in the defined portion of the Potomac River.

1. Alert Stage. When the total daily withdrawal from the subject portion of the Potomac River is equal to or greater than fifty percent (50%) of the total daily flow, but less than 80%, the Aqueduct will declare an "Alert Stage" to be in effect.

2. Restriction Stage. When the total daily withdrawal from the subject portion of the Potomac River is equal to or greater than eighty percent (80%) of the total daily flow, the Aqueduct will declare a "Restriction Stage" to be in effect and the Aqueduct will request the U. S. Park Service to discontinue putting Potomac River water into the C&O Canal.

3. Emergency Stage. When the estimated total daily withdrawal for any day within the ensuing five (5) days

from the subject portion of the Potomac River is expected to exceed the daily river flow anticipated, the Aqueduct will declare an "Emergency Stage" to be in effect.

C. Allocation of Flow. Whenever the Restriction Stage or the Emergency Stage is in effect, the Aqueduct shall daily calculate and advise each user (as defined herein), and the Moderator, of each user's allocated fair share of the water available from the subject portion of the Potomac River in accordance with this Section C. In calculating the amount of water available for allocation, the Aqueduct will determine, in consultation with the parties, and based upon then current conditions and information, any amount needed for flow in the Potomac River downstream from the Little Falls dam for the purpose of maintaining environmental conditions ("environmental flow-by"), and shall balance such need against essential human, industrial and domestic requirements for water. The Aqueduct's determination shall be based upon the data and shall give substantial weight to conclusions for environmental flowby submitted by the State.

1. For the purposes of this Section C, the term "users" refers to the following entities which are or may be appropriating water for public water supply purposes from the subject portion of the Potomac River; namely, the Government (including its water customers), the Commonwealth for and on behalf of herself and each of her political subdivisions and

authorities (including the Authority), the State and the Administration (for and on behalf of its permittees whether or not parties to this Agreement), the District of Columbia, the Commission, and such entities which may formally be added or made subject to this Agreement subsequent to its initial execution.

2. Each user shall report to the Aqueduct (and to each other) the number of gallons of processed water pumped daily to all its customers from all sources during each winter period (the months of December through February), commencing with the winter period 1977-78. The amounts pumped during the 5 most recent winter periods which have elapsed as of the time of allocation, or less than 5 if fewer have so elapsed, shall be combined for the purpose of computing each user's average daily winter use; except that, in the case of a user first withdrawing water subsequent to the initial execution of the Agreement, the average daily winter use of such user shall be the average of the amounts of water pumped during all of the winter periods, commencing December 1 of the year immediately prior to its first withdrawal from the subject portion of the river, which have elapsed as of the time of allocation, but not exceeding the 5 most recent winter periods. The ratio which the average daily winter use of each user bears to the average daily winter use of all users will be applied to the daily amount of water available at the



time of allocation from the subject portion of the Potomac River (after deduction for environmental flow-by) and all other sources as specified in Paragraph 5 below (calculated at maximum capacity practicable). The resulting amount, less the amount then available to said user by use of the maximum capacity practicable from all such other sources, will be such user's allocated fair share of the flow of the Potomac River.

3. a. The formula set forth in Article 2.C.2. shall continue in effect unless changed by unanimous consent of the governing parties or as set forth below. After January 1, 1988, any of the governing parties which desires to change the allocation formula shall give written notice to all other parties. Within 60 days thereafter, both the governing and member parties shall meet for the purpose of negotiating a replacement formula. In the event that no such replacement formula is agreed on by the governing parties within one year after receipt of the aforesaid notice, the allocation ratio which would have been in effect for the summer of the year in which the notice was given shall be used as an interim allocation ratio for the withdrawal of water during subsequent periods of low flow until such time as the governing parties agree upon a replacement formula. Any governing party, at any time after the expiration of one year from the receipt of such notice and after the exhaustion of such administrative procedures as may be applicable if it is a permittee for



water appropriation or withdrawal, may apply to a court of competent jurisdiction for an adjudication of such rights, if any, as it or users associated with it may have to a greater share of water than set by the interim allocation ratio, provided that all parties shall adhere to the interim allocation ratio until and unless altered by a decision of such court. Applications for intakes or other modifications to water works shall continue to be received and processed during periods in which the interim allocation ratio is in effect, but such ratio shall be recalculated only in the event of the grant of an application to a new user as set forth in Section E of Article 3.

b. Any formula negotiated pursuant to subparagraph a hereof shall allocate water on a fair and equitable basis and shall take into consideration, among other things, (a) steps taken by parties which can do so to minimize dependence upon the Potomac River during periods of low flow, (b) the nature and effectiveness of water conservation methods put into effect, (c) steps taken to increase the water supply available for the Washington Metropolitan Area, (d) then current population growth and planning for future growth, (e) feasibility and availability of new sources of water, and (f) technological advances in water treatment and water quality measurement.

c. In any court proceeding instituted pursuant to subparagraph a, neither the signing of this agreement nor the

passage of time thereafter shall be asserted as a waiver or diminution of any party's rights to, or right to seek, a greater share of water from the subject portion of the river. Such action shall be brought in the United States District Court for the District of Columbia, and each party consents to venue in such court and to service of process upon it from such court, provided that if the action is between two states of the United States, such action may be commenced in the Supreme Court of the United States.

4. In the event the applicable allocation formula results in an allocation exceeding the proposed withdrawal of any user, the excess amount shall be reported by said user to the Aqueduct for reallocation.

5. The water subject to the allocation formula under the terms of this Agreement includes the maximum capacity practicable from Patuxent and Occoquan as it exists in each case on December 31, 1977, and both the natural flow and the augmented flow from existing upstream reservoirs, in addition to Bloomington Lake, of the subject portion of the Potomac River. Any other augmentation to flow, reservoir storage, or treating capacity developed by a user after December 31, 1977, shall not be made subject to the allocation formula, but those users who incur, or participate in the payment of, the expenditures for such augmentation may agree as to how it is to be divided and shall file a copy of said agreement with

the other parties. In recognition that the sole source of water supply for the District of Columbia is the Potomac River, each other party will offer the District an opportunity to participate in a portion of any additional augmentation for use during the Restriction and Emergency stages on reasonable terms, unless such party shows that it is infeasible to do so.

6. In the event a disaster, such as a major fire or water main break, results in an abnormal loss of a significant portion of any user's water supply, the Aqueduct shall determine suitable adjustments in low flow allocation during the emergency period created by the disaster only, taking into consideration all sources available to the users.

7. Water from the emergency pumping station having its intake at the estuary of the Potomac shall not be considered as water available from other sources for the purposes of Section 2.C.2. or otherwise included in computations made under this agreement.

### ARTICLE 3. Obligations of the Parties.

A. The Government agrees to cause the Aqueduct as the operating agency to perform the functions and requirements which are required of the Government and the Aqueduct in this Agreement, including the furnishing of information to the other parties relating to the Aqueduct's water withdrawal and use, the same as required by other parties to be furnished

to the Aqueduct under Subparagraphs B and D, of this Article. These functions and responsibilities of the Aqueduct shall be carried out under the supervision of the District Engineer, U.S. Army Engineer District, Baltimore, or his designee, who shall be responsible for making the determinations required in the discharge of these responsibilities.

B. The parties agree to provide the Aqueduct with all the information relating to the withdrawal and use by them, their permittees, entities reporting through them and their political subdivisions, as applicable, of the waters of the subject portion of the Potomac River and availability from other sources which is needed for the administration of the allocation system.

C. The State agrees that all appropriation permits granted by the Administration for any appropriation of water from the subject portion of the Potomac River shall include a provision subjecting the permittee to the provisions of this Agreement. Nothing herein shall restrict or limit such authority as the Administration may properly have to issue permits or impose low flow allocation requirements upon any other water appropriating permittee withdrawing water from other segments of the Potomac River, or to enforce provisions of its permits in the subject portion of the Potomac River; nor any such authority as the Commonwealth may have; nor the authority of the Government with respect to navigable waters,

including the regulation of commerce among the states and with foreign nations.

D. The parties will comply with the determinations made by the Aqueduct pursuant to this Agreement, unless and until overturned pursuant to the terms of Article 1.

E. Any community or entity which seeks to appropriate water from the subject portion of the Potomac River shall either become a member party to this Agreement or shall be governed by a permit which includes the low flow allocation formula and such other provisions as are necessary to effect the purposes of this Agreement. Any such community or entity may apply for permits necessary to build water intake structures or to appropriate water, and such permits shall be processed in accordance with the rules and regulations of the permit-issuing agency, notwithstanding the pendency of negotiations or the imposition of an interim allocation ratio pursuant to Section 2.C.3. If the necessary permits are granted to a community or entity not previously withdrawing water from the subject portion of the river, the existing interim allocation ratio shall be recalculated based on winter period use for the year immediately prior to the first withdrawal from the subject portion of the river by such new user. The average daily winter use of the new user for such winter period and those of the other users employed in determining the interim allocation ratio shall be employed

to compute a revised interim allocation ratio which shall remain in effect until a replacement formula is determined pursuant to Section 2:C.3.

F. This Agreement does not affect such rights as parties or others subject to this agreement may have to grant or obtain permits to appropriate additional amounts of water during periods other than the Restriction or Emergency stages, but except as specifically provided in Article 2, Section C and Article 3, Section E, any additional water use resulting therefrom shall not affect any user's allocated fair share during such stages.

#### ARTICLE 4. Review

In the month of April in each year during the term of this Agreement the parties shall convene for the purpose of reviewing the provisions of this Agreement and considering any modifications thereof, and make such modifications as the governing parties agree upon. Upon agreement among the governing parties, review and modifications as might be agreed upon can occur at any time and not be necessarily limited to the annual, April consideration. Entities shall be admitted as new member parties upon unanimous agreement of the governing parties.

ARTICLE 5. Revocation.

This Agreement shall not be revoked without the unanimous consent of the governing parties.

ARTICLE 6. Effective Date.

This Agreement shall become binding when: (1) it is executed by the parties, and (2) a Moderator has been selected as provided in Article 1.G, and (3) the Government issues one or more permits for the construction of any water diversion structure or water intake in the subject portion of the Potomac River to any party hereto or political subdivision or authority thereof, and (4) all acts have been taken by each of the parties hereto necessary to make this agreement binding and enforceable with respect to each of them, including, if necessary, ratification by the legislatures of the signatory states. Notice that all such necessary acts have been taken by each of the parties shall be delivered to the other parties along with the opinion of its respective counsel or attorney general that the acts taken are sufficient to cause this agreement to become effective, binding and enforceable under the laws or charter of such parties. The parties will, however, commence to record and maintain the consumption figures and other base data called for under the foregoing provisions of this Agreement, at the time they execute this Agreement. This Agreement may be executed in one or more counterparts.

ARTICLE 7. Severability.

The provisions of this agreement shall be severable and if any phrase, clause, sentence or provision of the agreement is declared to be unconstitutional or the applicability thereof to any party is held invalid, the remainder of such agreement shall not be affected thereby.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written, except as a different date of execution may be noted following any party's signature.



ATTEST:

Charles J. McEwen

Garbert M. Sacks

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THE UNITED STATES OF AMERICA

BY Cassius M. Young  
Secretary of the Army  
W. H. Harris  
Chief of Engineers

THE STATE OF MARYLAND

BY Blair H. R. Bowie  
Governor

James B. Boutwell  
Secretary of Natural Resources

THE COMMONWEALTH OF VIRGINIA

BY Walter G. Bland  
Governor

J. Leo Brown  
Vice Chairman, State Water Control Board

THE DISTRICT OF COLUMBIA

BY Walter R. Washington  
Mayor

Garbert M. Sacks  
Director of Environmental Services

Alfred K. Schaller  
EXECUTIVE SECRETARY, D. C.

THE WASHINGTON SUBURBAN SANITARY  
COMMISSION

Robert M. Gentry

BY

Clara Berkman  
Chairman

FAIRFAX COUNTY WATER AUTHORITY

W. Henry

BY

Frederic C. Martin  
Chairman

NABOP-F/4 (Washington Suburban Sanitary Commission) 76-328  
NABOP-F/4 (Washington Suburban Sanitary Commission) 76-804  
NABOP-F/4 (Fairfax County Water Authority) 76-1126

Honorable James A. Joseph  
Under Secretary of the Interior  
Washington, D. C. 20240

Memorandum of Intent

Dear Mr. Joseph:

This memorandum clarifies the intent of the parties with respect to implementation of the Low Flow Allocation Agreement in response to the concerns expressed by the United States Fish and Wildlife Service and the Department of the Interior with respect to the captioned permit applications. The problem at issue is to assure that there will be enough water remaining in the Potomac River after withdrawals by the proposed intake structures to avert severe and irreparable damage and disruption to the Potomac River ecosystem, and to recognize the need to avoid damage to properties of the National Park Service.

This will be addressed as follows:

1. Until any of the proposed intakes has begun to withdraw water, there will be no change in the current water withdrawal situation. Thus, there is no need for an "environmental flow-by" amount until at least one such intake has become operational, there being no such amount in effect now.
2. The Low Flow Allocation Agreement of January 11, 1978, provides that in calculating the amount of water available for allocation, an amount shall be set aside for the maintenance for environmental conditions. Specifically, Article 2.C. states in part:

"In calculating the amount of water available for allocation, the Aqueduct will determine, in consultation with the parties and based upon then current conditions and information, any amount needed for flow in the Potomac River downstream from the Little Falls dam for the purpose of maintaining environmental conditions ("environmental flow-by"), and shall balance such need against essential human, industrial and domestic requirements for water. The Aqueduct's determination shall be based upon the data and shall give substantial weight to conclusions for environmental flow-by submitted by the State."

3. In calculating the total daily withdrawal to determine whether the Restriction and Emergency Stages are to be put into effect pursuant to Article 2.B. of the LFAA, the Washington Aqueduct will include along with the amount of water withdrawn from the subject portion of the river that amount designated as the environmental flow-by. Thus, when the Washington Aqueduct determines that the amount withdrawn, combined with the environmental flow-by amount, is equal to or greater than eighty (80) percent of the total daily flow, the Restriction Stage will be put into effect and allocation will begin. During the Restriction or Emergency Stages, the Washington Aqueduct will (subject to the availability of funds) reduce withdrawal from the Great Falls intake and increase withdrawal from the Little Falls intake consistent with maintaining favorable environmental conditions between Great Falls and Little Falls.

4. A joint study proposed by the State of Maryland and conducted in cooperation with the Department of the Interior, the Army Corps of Engineers, the Environmental Protection Agency, and the Commonwealth of Virginia ("the joint study") is currently underway for the purpose of determining an environmental flow-by amount for the aforesaid provision of the Low Flow Allocation Agreement. When the results of that study are complete, it will constitute the data and conclusions to which reference is made in the aforesaid provision of the Agreement. The study will automatically, therefore, become the basis for execution of that provision of the Agreement.

5. Should the joint study, for any reason, not be completed by the time any intake becomes operational, the Washington Aqueduct, as initial administrative authority under the Low Flow Allocation Agreement, will utilize such environmental flow-by amount as shall be set by the Secretary of the Army in consultation with the Secretary of the Interior. The Secretary of the Army shall also solicit the views of the signatories to the Agreement.

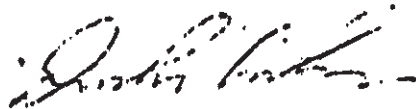
6. It is expected that the joint study will determine, among other things, (a) an environmental flow-by amount, and (b) a schedule of the ecological consequences of each level of flow below the environmental flow-by amount. In administering the above-quoted provision of the Low Flow Allocation Agreement, the Washington Aqueduct will not invade such an amount absent essential need. In determining such need, the Washington Aqueduct shall assure itself that the localities and jurisdictions affected have made maximum use of other sources of water and imposed maximum conservation measures. The decisions of the Washington Aqueduct will be appealable to the Moderator under Article 1 of the Agreement. Any objection of the Department of the Interior or other Federal agency to any such decision of the Washington Aqueduct will be raised by appeal to the Moderator by the Department of the Army.

7. In recognition of the need of the C & O Canal National Historic Park for minimal amounts of water to maintain the integrity of structures, the National Park Service will not be obligated to consider a complete cutoff of its intakes until such time as the Washington Aqueduct determines it necessary to invade the environmental flow-by amount. Whenever the Restriction Stage is in effect and following a request by the Washington Aqueduct, the National Park Service will consider means of reducing the demand for water withdrawal by the C & O Canal National Historic Park from the subject portion of the river consistent with the preservation of the Park's resources.

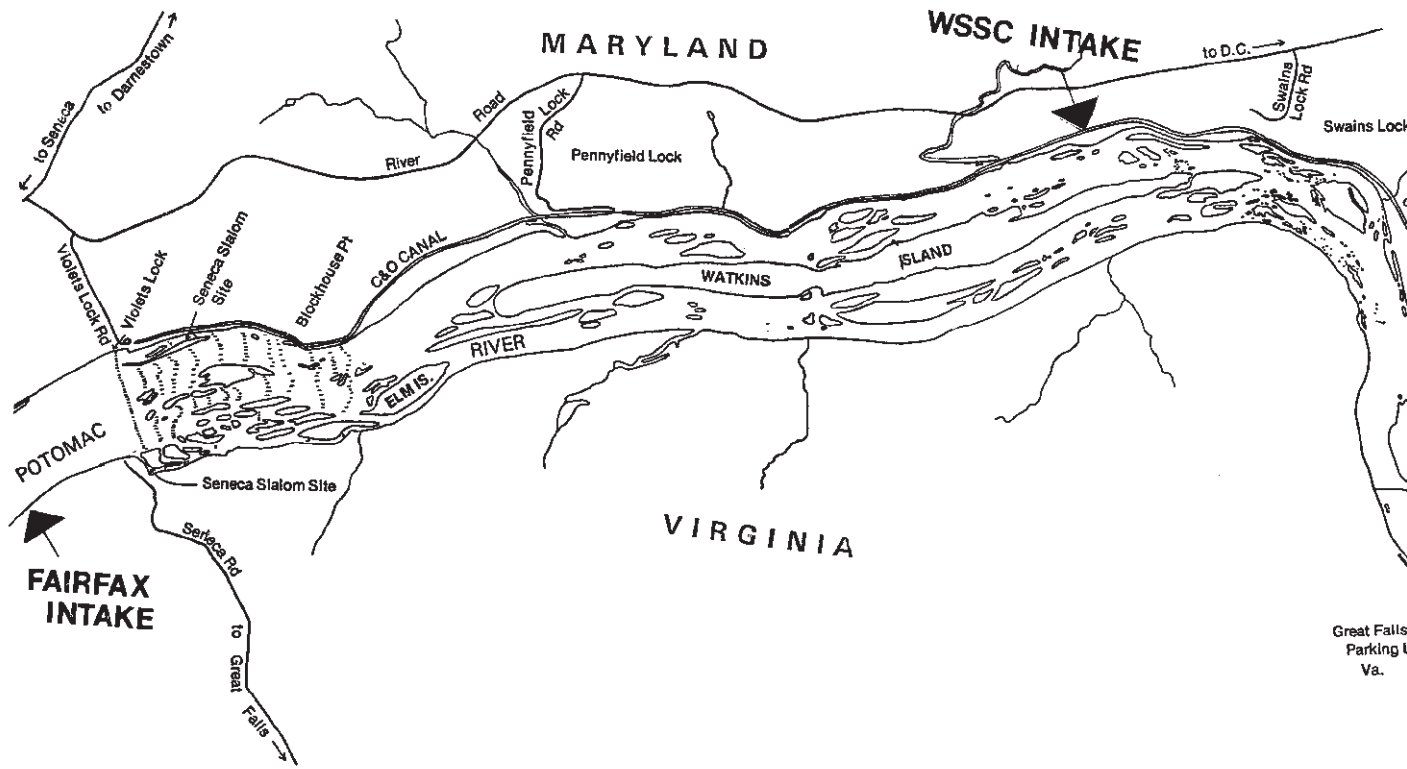
8. Nothing in this memorandum shall be construed as purporting (a) to diminish the rights of the Secretary of the Interior to meet his statutory responsibilities to protect the National Park along the river, or (b) to alter Article 3.C of the Low Flow Allocation Agreement.

The signatories to the Low Flow Allocation Agreement have been consulted with respect to this interpretation and application of the Agreement, and they concur in it. Reference to this memorandum shall be placed in any of the captioned permits granted and in any future permits for withdrawal structures from the affected portion of the Potomac River.

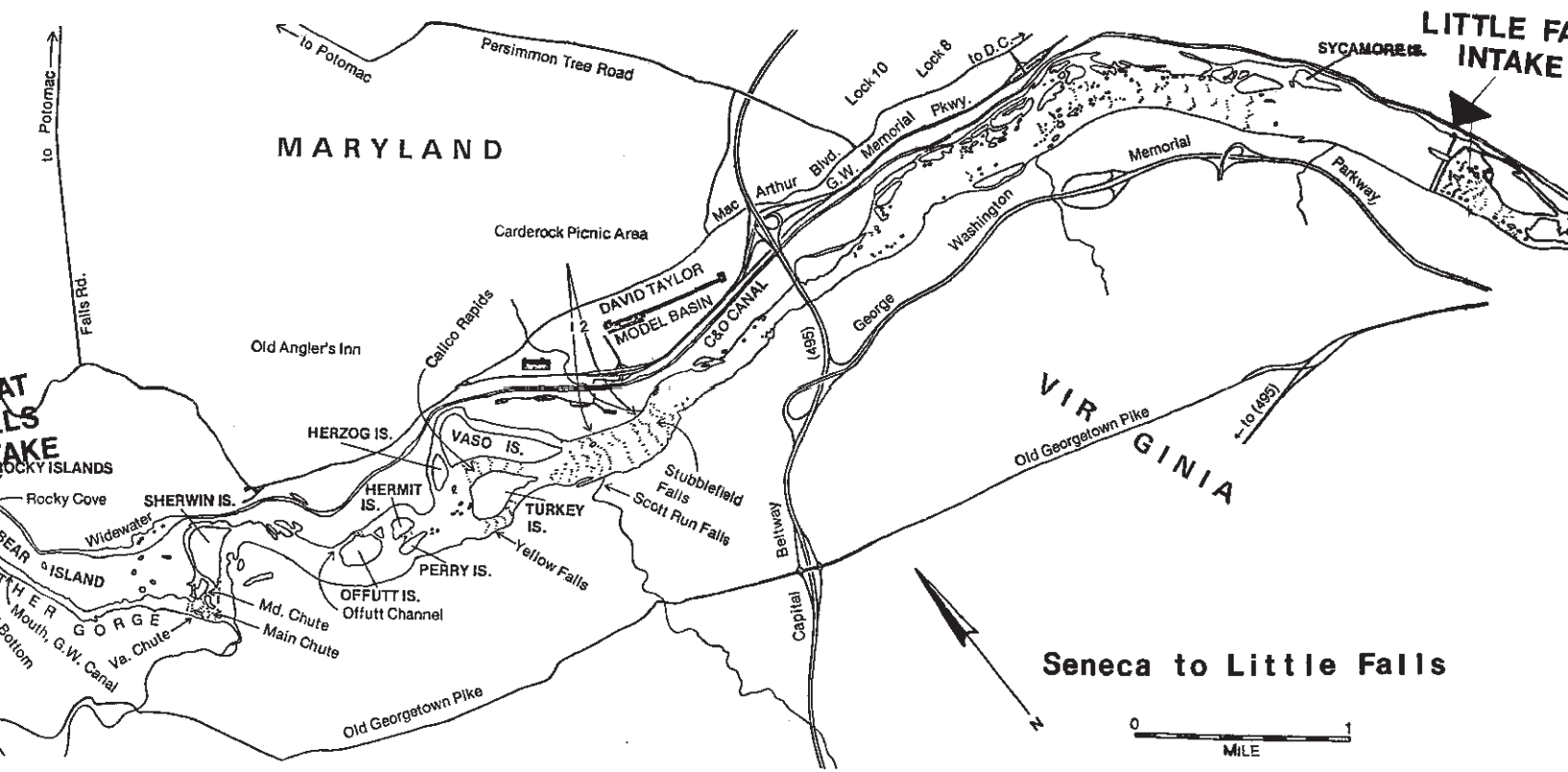
Sincerely,



DRAKE WILSON  
Brigadier General, USA  
Acting Director of Civil Works



Great Falls  
Parking  
Va.



**Seneca to Little Falls**

