

REGIONALIZATION STUDY

Prepared by the
Regionalization Committee
of the
District of Columbia
Water and Sewer Authority
Board of Directors

December 2000

In fulfillment of District of Columbia Law 11-111

MEMBERSHIP

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

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REGIONALIZATION COMMITTEE REPORT TO THE DC-WASA BOARD OF DIRECTORS

Overview and Legislative Charge

When the District of Columbia Water and Sewer Authority (DC-WASA) was created in 1996 under District of Columbia Law 11-111, Section 43-1677, (g)(1), the legislation included a specific requirement to:

"...determine the feasibility of establishing the Authority as an independent regional authority and to make recommendations for the ongoing relationship of user jurisdictions to the Authority."

In the fall of 1999, the DC-WASA Board of Directors asked its "Privatization and Regionalization Committee" to conduct a stridy to fulfill this legislative requirement. This report represents the Committee's response to this charge, which we believe fulfills the legislative requirement.

Study Context

From the outset of the effort, the Committee was unanimous that conditions had improved dramatically in the three years since DC-WASA was established and held its first Board meeting in October 1996. This record of progress has continued throughout the past year as well.

The context for the study included the recognition that DC-WASA has hired an outstanding General Manager who in turn has recruited a first-rate senior management team. DC-WASA also: has gained the confidence of the bond markets; develops and implements its own capital and operating budgets; manages its own funds; established an adequate reserve fund; and has its own procurement and personnel management systems. Most importantly, it is meeting the ultimate test of delivering services to its wholesale partners and customers and retail customers at a reasonable cost, while meeting and exceeding stringent regulatory requirements.

Like any business, however, the Committee strongly believed that DC-WASA should give serious consideration to the potential enhancements that might be provided by establishing DC-WASA as an independent regional authority. The Committee recognizes the complexity of the mission and structure of the current authority, which provides regional wastewater treatment services to more than 2 million residents and water distribution and wastewater collection services to the more than ½ million residents of the nation's capital. A careful examination of the potential benefits that might result from an independent authority structure is therefore an appropriate activity for DC-WASA as part of ensuring the best value for its customers.

Study Process

In the fall of 1999, the Committee met several times to discuss the potential scope of this project and to determine the best course of action to fulfill the legislative

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requirement. The Committee contracted for consultant services from the staff of the Metropolitan Washington Council of Governments (COG) to assist in performing the necessary technical analysis to support this effort. Over the course of this study, the Regionalization Committee formally met nine times, in addition to conducting a half-day workshop in February 2000. The entire DC-WASA Board was invited to all the Committee meetings and the workshop. Regular status reports were also provided at the monthly Board meetings.

The Committee directed the consultant to conduct an independent analysis of the feasibility of establishing the current Authority as an independent regional authority. The consultant analysis was to focus on determining feasibility and not to make recommendations. The Committee also agreed to take a phased approach to the study, which allowed a determination of when or if more detailed technical or financial analyses were required. The consultant's report was adopted by the Committee, and it has been included as an appendix to the Committee's report.

The Committee identified four major categories of issues (legal, governance, technical, and financial) to be addressed during the analysis. During the course of the study, the Committee also agreed to focus this analysis on specific 'base case' models of potential regional authorities. This focus allowed the Committee to evaluate a range of potential options in sufficient detail to determine what model(s) or issues, if any, should require further analysis.

Summary of Analysis & Conclusions

Several types of analysis were conducted during the course of the study, which yielded the following key results and conclusions.

- a) A legal review was conducted and the likely methods for creating an independent regional authority were evaluated.
 - An interstate compact was deemed the most viable and useful method given its comprehensive nature and prior use in this region.
- b) A national survey of existing interstate authorities was conducted.
 - The results of the survey indicated that there are no existing interstate authorities with operational responsibilities for water and wastewater systems/plants in this country.
- c) The two existing interstate authorities in the metropolitan Washington region, the Washington Metropolitan Area Transit Authority (WMATA) and Metropolitan Washington Airports Authority (MWAA) were examined.
 - These entities provide excellent examples of interstate compact authorities with operational responsibilities, thereby illustrating the legal feasibility of creating such an authority.

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- d) A discrete set of 'base case' models that span the range of potential interstate regional authorities for managing some or all of DC-WASA's assets were examined.
 - A total of eight models (including the current Authority structure) were defined and analyzed in this study. These were referred to as: "Existing", "Basic", "Blue Plains-only", or "Expanded" models. When compared to DC-WASA's current scope of responsibilities, the independent authority models analyzed had responsibility for either a similar set of treatment plants and collection/distribution systems; a reduced set of plants and systems; an expanded set of plants and systems; or in several cases, a mixture of reduction in responsibilities in some areas and increased responsibilities in other areas (see Figure 1).
- e) Each base case model was analyzed for the four major categories (legal, governance, technical and financial) and twenty-five subcategories of issues. A summary of the key issues that would need to be addressed regarding creation of any independent regional authority was then prepared based on the detailed analysis.

The results indicated that most issues were found to be common to all regional models, although unique features and issues associated with each base case model were also identified. These topics were subsequently summarized into seven key issue areas found to be common to all the base case models (see Figure 2).

Feasibility of Creating an Independent Regional Authority

Based on the legal and technical analysis that was conducted, it was concluded that conversion of DC-WASA to an independent, interstate compact authority is legally and technically feasible, with several examples of potential and illustrative authorities being provided. This assessment, once confirmed by the DC-WASA Board, is viewed as fulfilling the legislative mandate in DC Law 11-111.

Figure 1

Other Facilities & Systems Managed by Authority² WSSC WAD DC DC

Sewer Water

W&S

Existing DC-WASA #1

District of Columbia Authority

Base Case Models1

Interstate Compact Authority

Basic Regional Authority #2















Blue Plains-Only Regional Authority #3B









Expanded Regional Authority #4B

Expanded Regional Authority #4A

Expanded Regional Authority #4C

Expanded Regional Authority #4D



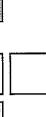












¹ Additional information on the models may be found in the attached report, Appendix C.

¹ Legend: BP = Blue Plains wastewater plant; PI = Potomac Interceptor; DC Sewer = DC sewage collection system; DC Water = DC water distribution system; WAD = Washington Aqueduct; WSSC W&S = Washington Suburban Sanitary Commission water & sewer systems and plants; Other W&S = major water & wastewater plants in metropolitan Washington region

Figure 2

ANALYTICAL FRAMEWORK (25 discrete subcategories)

EGAL

Enabling Legislation Contracts/Agreements Administrative Procedures Permit Authorization

TECHNICAL

Areas of Expertise
Services Provided
Future Capacity
Regulations
Coordination Activities
Permitting
New Requirements & Regulations
Technical Workforce

GOVERNANCE

Participation

Representation Approvals/Review Identity

FINANCIAL

Assets (Land/Facilities)
Debt (Existing/Future)
Compensation to Local Governments
Budget Independence

Rate Setting Capital Program Needs

Rate Impacts Bonding Authority

Regulations

KEY ISSUES (7 consolidated categories)

- Asset Transfer
- Regulatory Policy
 Agreements & Contracts
 - Board Composition
- Agreements & Commitment for Negotiations
 - Employees
 7. Time & Resource Relationship With District of Columbia Government

Regionalization Committee Conclusions

While an interstate compact authority may be legally and technically feasible, the Committee recognized that a number of very substantial legal, governance, technical and financial issues had been identified and analyzed for each regional authority model. (Those issues are detailed in Table 4 of the consultant report.) Based on an examination of these issues, the Committee reached the following key conclusions.

- A. Creation of a Regional Authority Would be Time and Resource Intensive
 The Committee concluded that a substantial time and resource investment
 would be required to fully evaluate these issues, followed by extensive
 negotiations to address the financial implications as well as the legal and
 governance elements of creating an independent regional authority. A
 minimum of one year, and perhaps as many as three years, would be required
 to establish an independent regional authority. During this time the DC-WASA
 Board, General Manager and senior staff would necessarily be distracted from
 their basic mission.
- B. Models That Create Separate Entities for DC Functions Could Create A Significant Burden on the District of Columbia Government

 The Committee found that the various models which would break up DC-WASA into an independent regional entity and a District of Columbia entity, while having some theoretical merit, could create a significant burden for the District of Columbia government, which in 1996 purposefully established DC-WASA to efficiently manage the full suite of water distribution and wastewater collection and treatment services for its residents in a special authority to help ensure its effectiveness.

C. Continued Financial & Management Independence of DC-WASA is Critical to Continued Success

The Committee did find some features of regional authority models attractive, particularly the additional independence such a structure could provide. However, the Committee believes that the current Authority structure and decision process has been able to effectively resolve and manage the many complex issues inherent in operating a large water and wastewater authority. As long as the current level of financial and management independence of DC-WASA is preserved and enhanced, the Committee believes DC-WASA is appropriately empowered to continue its record of success in serving District of Columbia and regional needs. However, to do so will require ongoing vigilance by the DC-WASA Board, its member governments, and its management to protect the major investment of time and resources over the past four years that have made this Authority a successful venture that meets the needs of all its parties.

D. DC-WASA is Still Young and Continues to Evolve

Finally, the Committee feels that it is important to recognize that DC-WASA is only four years old. Its first year was devoted to financial, organizational and

staffing issues. The past three years have focused on implementing the programs outlined by the Board of Directors as part of its Strategic Plan. The current Authority is still fairly "young" when compared to other similar agencies. In the Committee's view, it is appropriate to allow the current structure sufficient time to evolve before considering any alternatives that would modify the current structure and create a regional, interstate authority; particularly, as noted, because of the substantial time investment required. Furthermore, many of the issues and a number of the key features in several regional authority models identified in the consultant report can be effectively pursued within the existing DC-WASA governance structure.

Recommendations

After much deliberate discussion, evaluation of the issues, and careful consideration of the detailed analysis carried out by our consultants, the Regionalization Committee makes the following recommendations to the DC-WASA Board of Directors:

1. Retain Current DC-WASA Governance Structure

No change in the governance structure for DC-WASA should be pursued at this time. However, DC-WASA could consider several of the structural alternatives identified in the regional authority models while still retaining the existing structure.

2. Preserve DC-WASA's Financial & Management Independence

The Board and DC-WASA management, on an ongoing basis, should take whatever steps are necessary to ensure that the Authority continues to have the degree of independence required to carry out its dual mission of serving the residents of the District of Columbia and its regional partners. This includes ensuring the continued financial and management independence of the Authority, so that it can appropriately fund the ongoing capital improvement program as well as the operation and maintenance of the Authority's assets. It also includes keeping the Authority's focus on its current missions.

3. Revisit DC-WASA Governance Structure By No Later Than 2005

We recommend that the DC-WASA Board revisit its governance structure and the Regionalization Study findings by no later than 2005. While the evidence gathered during this study strongly supports taking no action on the governance structure at this time, it is prudent for DC-WASA to periodically re-examine the best approach for achieving its goals and meeting the needs of the District of Columbia and the Washington region. Carrying out such a review will ensure that there will have been considerable additional operating experience with the DC-WASA governance structure, combined with sufficient time for evaluating the Board's success in preserving and strengthening the financial and management independence of the Authority.

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4. Formally Adopt and Transmit Report

The DC-WASA Board should formally adopt and transmit the report and appendix to the Mayor, the District of Columbia Council, other member jurisdictions, and relevant Congressional Committees and appropriate members of Congress. This transmittal should conclude that the requirements of DC Law 11-111 have been fulfilled, with a specific finding that a regional authority is legally and technically feasible, but no change in governance structure is warranted at this time given the success of DC-WASA to-date.

The Committee believes that these recommendations, once adopted by the Board, complete the requirements of the Regionalization Study and is fully responsive to the legislative requirements of DC Law 11-111.

Acknowledgements

The Committee wishes to thank District of Columbia Water and Sewer Authority senior management staff members Jerry N. Johnson (General Manager), Michael S. Marcotte (Chief Engineer/Deputy General Manager), and Henderson Brown, IV (General Counsel) for their support throughout the study, as well as the staff of the Metropolitan Washington Council of Governments, our consultants for this project: Stuart A. Freudberg (Director, Dept. of Environmental Programs), Tanya T. Spano (Principal Water Resources Engineer and Project Manager), John Bosley (Deputy Executive Director/General Counsel), Andres Ferrate (Environmental Analyst/GIS Coordinator), and Brian LeCouteur (Environmental Planner).

DC-WASA REGIONALIZATION STUDY - PHASE I REPORT --

Prepared by staff from the Metropolitan Washington Council of Governments

under contract to the District of Columbia Water and Sewer Authority

in support of the DC-WASA Regionalization Committee

December 2000

DC-WASA Regionalization Study - Phase I Report

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Note to Readers

This report was prepared by the staff of the Metropolitan Washington Council of Governments (COG) under contract to the District of Columbia Water and Sewer Authority (DC-WASA). The report provides a factual information base for DC-WASA and its Regionalization Committee, and therefore the report does not provide specific recommendations. COG staff's role is purely to assist decision-makers as they fulfill the legislative requirements of District of Columbia Law 11-111. As such, COG staff takes no position on the merits of any particular course of action, nor provides any value judgments on policy direction. These responsibilities are solely those of DC-WASA and its Board of Directors.

DC-WASA Regionalization Study - Phase I Report

I. Legislative Charge, Overview, & Purpose

The 1996 enabling legislation (District of Columbia law 11-111) creating the District of Columbia Water and Sewer Authority (DC-WASA) included a specific requirement to

"...determine the feasibility of establishing the Authority as an independent regional authority and to make recommendations for the ongoing relationship of user jurisdictions to the Authority."

This report provides a framework for DC-WASA and other decision-makers to respond to this legislative charge. More specifically, this Phase I report is designed to enable DC-WASA to determine whether to proceed now with a final set of recommendations and conclude the study, or to carry out further analysis in a Phase II.

To assist DC-WASA with its responsibility, the study identifies a range of potentially feasible independent regional authority models. For purposes of this study, an 'independent regional authority' is defined as a publicly chartered entity established through an interstate compact agreement adopted by the District of Columbia Council, the General Assemblies of the State of Maryland and the Commonwealth of Virginia, and the United States Congress. The study also provides an initial examination of a range of issues that are central to the decision process.

The sequence of information presented to accomplish the study purpose includes:

- An explanation of, and rationale for, the phased project approach.
- Discussion of a potential mechanism for creating an independent regional authority, the interstate compact.
- The results of a national survey of interstate authorities.
- A discrete set of "base case" models that span the range of potential interstate regional authorities for managing some or all of DC-WASA's assets.
- Key issues that need to be addressed regarding the possible creation of an independent regional authority.
- An explanation of the considerations central to the policy decisions that are the responsibility of DC-WASA.
- A discussion of next steps.

The decision on next steps is inherently a policy judgment that is the responsibility of the DC-WASA Board of Directors. Therefore, this document represents purely information for the Board and others. It sheds considerable light on the many facets of the policy decision, reviews the considerations involved, illustrates the various forms an independent regional authority might take, and reaches definitive conclusions. However, it provides no recommendations, does not advocate any specific course of action, nor does it provide a detailed analysis or design of any particular independent regional authority. It is recognized,

however, that there are potential advantages and disadvantages associated with any option that may be pursued, and also that the parties will have varying perspectives on what constitutes an advantage or a disadvantage of a particular decision or authority model. In summary, this study provides a body of knowledge and a process for consideration of a potentially major change in the life of DC-WASA.

II. Project Approach

The DC-WASA Board of Directors assigned the task of conducting a study to respond to District of Columbia Law 11-111 to its "Privatization and Regionalization Committee" (hereinafter referred to as the "Regionalization Committee" or "Committee"). The Committee was charged with developing a plan of work, obtaining the services of consultants, and making recommendations to the DC-WASA Board.

In the fall of 1999, the Committee met to evaluate its charge and determine a course of action. The Committee held several meetings to evaluate the range of issues that would need to be considered when addressing the concept of a regional authority. It was proposed that staff from the Metropolitan Washington Council of Governments (MWCOG), under contract to DC-WASA, could assist the Committee in evaluating these issues. The Committee held several meetings with MWCOG staff to develop a work plan and timeline for the project.

The Committee recognized at the outset of this project that the context for the work was considerably different than the circumstances that existed at the time DC-WASA was created in 1996. In particular, as described further below, there is widespread consensus that DC-WASA has substantially resolved a number of acute problems that were extant at the time of its establishment.

As a result, the Committee determined that it was appropriate to design its study in phases, wherein at the conclusion of each phase a decision would be made whether to continue with additional analyses and deliberations or to complete the study and issue recommendations.

The study as currently designed has three phases. This report represents the documentation of the work carried out in Phase I. It provides a factual basis for evaluating several potential base case regional models, their features, and many of the issues that would need to be considered if one or more of the models were pursued further.

This information was prepared to assist the Regionalization Committee with responding to a fundamental question: "Would sufficient benefits result from changing the current DC-WASA governance structure to that of a regional authority model?" DC-WASA's Board of Directors, upon the advice of the Regionalization Committee, is charged with making this determination.

Completion of Phase I of the study could represent completion of the study in its entirety, or completion of Phase I could simply be a prelude to further examination of one or more models.

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Phases II and III were only sketched out in the most general terms at the outset of the study, reflecting the possibility that the study could be concluded based on the results of the Phase I analysis. Phase II would likely represent further feasibility assessments relative to various key legal, governance, technical and financial issues, and is a prelude to the actual design of a regional authority. Phase III would likely consist of detailed design and negotiations leading toward creation of an authority through legislative action on a regional compact.

Figure 1 provides an illustrative representation of the Phase I study process.

III. Context for Considering Creation of a New Regional Authority

As the DC-WASA Board considers the question of whether changing the existing DC-WASA structure to a new independent regional authority is in the best interests of the parties, it is useful to consider some of the significant issues that were raised when DC-WASA was created. The following list provides a synopsis of the consensus noted by the Committee at the outset of this study, e.g., creation of DC-WASA has resolved a number of acute problems that existed at the time of its establishment in 1996.

Specifically, the creation of DC-WASA:

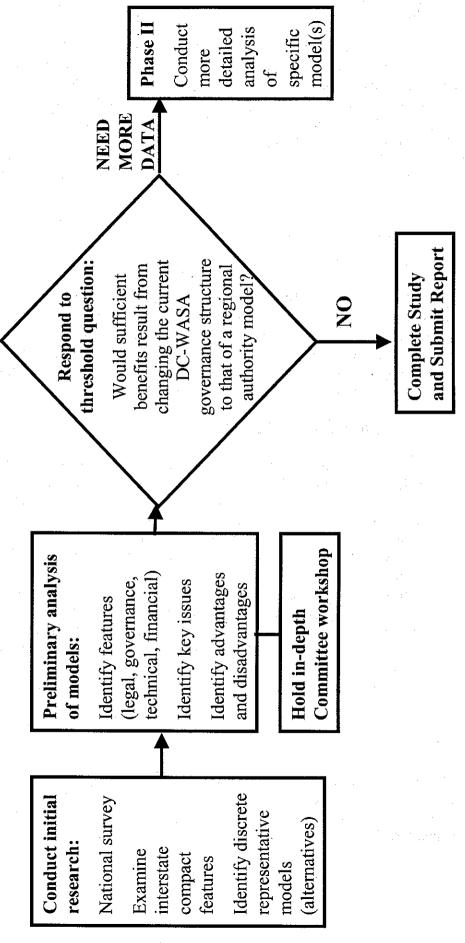
- 1. Resulted in an independent District Authority separate from DC government.
- 2. Established a Board with direct suburban representation.
- 3. Established separation of water and sewer funds from District's general funds.
- 4. Established its own reserve fund to ensure financial resources are available to respond to unanticipated, unbudgeted funding needs.
- 5. Provided independent bonding authority separate from the District government's general fund.
- 6. Provided tools needed to effectively achieve the mission of operating a state of the art wastewater treatment facility as well as the associated sewer collection system and water distribution system (e.g., independent personnel and procurement procedures).
- 7. Provided resources (financial and staffing) to ensure compliance with all regulatory requirements.
- 8. Ensured that the entity could independently establish its rate structure and operating and capital budget, but provided the District of Columbia Mayor and Council with the opportunity to review and comment on these decisions before they are incorporated into the annual appropriation legislation sent to Congress.

The evaluation of any of the interstate authority models, and the potential benefits to be gained by changing the current DC-WASA governance structure to that of a new, independent regional authority would obviously need to be made in recognition of this context, which did not exist in 1996 when DC-WASA was created.

Figure 1

District of Columbia Water and Sewer Authority

Regionalization Study Project Approach: Phase I (January - November 2000)



IV. Interstate Compacts

An interstate compact, formed through the adoption of identical legislation in the District of Columbia, the State of Maryland, and the Commonwealth of Virginia, would be the likely mechanism used by the participants to create a new regional authority to manage some or all of the basic responsibilities currently managed by the DC-WASA. Procedurally, in most cases, Congress usually enacts legislation authorizing a specific compact and establishes the parameters for the states to then enact their own legislation to create the compact authority. This approach would be similar to the efforts used to create other existing regional authorities in the metropolitan Washington region such as the Metropolitan Washington Airports Authority (MWAA) and the Washington Metropolitan Area Transit Authority (WMATA).

A summary of some of the most critical elements of interstate compacts, as they apply to this study, include the following:

- (1) the compact legislation would define the basic roles and responsibilities of the new compact agency;
- (2) the legislation would ensure that the new agency would have all the necessary legal and financial capabilities required to fulfill all of its necessary functions;
- (3) the legislation would define Board participation and specific roles of parties affected by this new agency;
- (4) a compact would have many features similar to existing agreements such as the Blue Plains Intermunicipal Agreement of 1985, but could not override such agreements;
- (5) negotiation of a compact would require the participation and support affected parties;
- (6) joint ownership and operation of facilities used in water supply or the treatment of wastewater affecting an interstate water body such as the Potomac River would also require Congressional approval;
- (7) the probable timeframe for negotiating such legislation is estimated to be a minimum of one year, and as much as 2-3 years in length.

A fuller discussion of the characteristics and historical context for interstate compacts is described in the Appendix, Section A. That discussion also provides greater detail about how compacts are generally negotiated, how such a legal mechanism relates to existing intergovernmental contracts and agreements, and what parties are needed in the negotiation process to ensure support for such legislation. Based on previous local experience gained through the creation of MWAA and WMATA, it is clear that an interstate compact can be used to establish a new, regional water and wastewater authority with a mission similar to that of the existing DC-WASA. This statement applies regardless of the ultimate configuration and features of the authority.

V. Existing Interstate Authorities

An initial step in this study was to identify existing agencies with missions similar to that of DC-WASA but that operated as interstate compact agencies. A national survey was conducted to identify any regional authorities that met two basic criteria: a) that they were interstate compact authorities; and b) that they had actual water and sewer operational responsibilities. It was the Regionalization Committee's view that by locating examples of existing authorities with responsibilities similar to that of DC-WASA, the examples would be useful in illustrating how such authorities were formed and how they functioned. The criteria for water and sewer operational responsibilities was deemed critical because such an entity would be functioning under the same type of state and federal regulations, and would have similar bonding and funding responsibilities to that of DC-WASA.

The results of this national survey (which are further discussed in the Appendix, Section B) were that no existing interstate agencies were found with water and/or wastewater operational responsibilities. It would appear that if DC-WASA were modified from a District of Columbia Authority to that of an interstate authority, it could well be the first such public interstate water and sewer authority with operational responsibilities in the nation.

As outlined in Table 1 below, ultimately only two agencies were deemed to be 'most relevant' for purposes of this study. Those agencies were the Metropolitan Washington Airports Authority (MWAA) and the Washington Metropolitan Area Transit Authority (WMATA).

Table 1
Results of National Survey of Existing Interstate Agencies

CATEGORY	NUMBER OF AGENCIES	NOTES
Total Evaluated	23	Initial screening identified these possibilities
Most Relevant	2	Have operational responsibilities, although not for water and/or wastewater; and do exist in metropolitan Washington region and do operate as an interstate compact agency
Somewhat Relevant	4	Sub-regional agencies with water and/or wastewater operational responsibilities; but none operating under interstate compact
Not Relevant	17	Activities focused on planning and other similar responsibilities
Met Criteria	0	None were interstate agencies with operational responsibilities for water and/or wastewater treatment

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Despite not having water and/or wastewater treatment operational responsibilities, the MWAA and WMATA examples were deemed most relevant to this study because these two agencies:

- a) exist within the metropolitan Washington region;
- b) have operational responsibilities;
- c) have their own procurement, personnel, and financial regulations;
- d) have local government participation on their governing bodies; and
- e) have Boards that are tailored to the nature of their business and the participants.

These two agencies provide relevant examples of how interstate authorities can and have been negotiated and enacted within the metropolitan Washington region. They are particularly instructive because the United States Congress and the legislative bodies from the District of Columbia, Maryland, and Virginia would also be involved if an alternative water and sewer authority were to be created. More detailed discussions of these two models and their features are outlined in Appendix B.

VI. Base Case Models & Analytical Framework

A broad range of independent regional authority options and alternatives are theoretically possible. It was determined that the universe of possibilities could be examined via consideration of specific, discrete examples that illustrated the key features of potential regional authorities and bracketed the range.

The term "model" is used throughout this study to represent an option or alternative. Each model differs from the others based upon the number and type of facilities involved. For the Phase I analysis, there were three broad categories of regional models identified:

- "Basic" -- a model which retains all the facilities of DC-WASA but places them under a regional authority structure.
- "Blue Plains-only" -- a regional authority model with fewer facilities than DC-WASA.
- "Expanded" Regional authority models with different groupings of more facilities than DC-WASA.

A graphical representation of these three categories of regional models is outlined in Figure 2. A total of seven (7) base case models were identified and examined. The facilities managed in each model are depicted in Table 2. Detailed maps and potential organizational structures were also developed in order to better conceptualize the facilities and scope of responsibilities proposed for each base case model. Maps and structures for all seven base case models are included in Appendix C.

¹ Models that both incorporate additional facilities not currently part of DC-WASA, but also eliminate some facilities currently part of DC-WASA, are included in the 'expanded' category for the sake of simplicity.

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Once these base case models had been identified, the next step was to establish an analytical framework for evaluating all of the models. Four broad categories were chosen to categorize and group a broad array of issues, features, and factual elements that would be used to compare and contrast the various base case models. Those four categories were *legal*, *governance*, *technical*, *and financial*.

Under these four general categories, twenty-five (25) additional subcategories of issues, features, and factual elements were identified and analyzed to assess what impact they might have in considering any or all of the proposed base case models. Table 3 outlines those categories and the basic analytical framework that was used in this evaluation.

More detailed documentation of this analysis is contained in the Appendix C. Included in that analysis is a summary of the twenty-five subcategories, an outline of features that we ended to be common to all seven base case models, and identification of features that were determined to be specific to an individual model or set of models (see Appendix C, Table 8 for details).

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Figure 2

Existing versus Potential Regional Interstate Authorities

EXISTING

POTENTIAL

INTERSTATE AUTHORITIES

AUTHORITY COLUMBIA DISTRICT OF

Blue Plains-Only Authority Regional



Fewer facilities than existing DC-WASA



Authority Regional

DC-WASA

Basic

Expanded Regional Authority

More facilities than

existing DC-WASA Same facilities as

existing DC-WASA1

1 Models that both incorporate additional facilities not currently part of DC-WASA, but also eliminate some facilities currently part of DC-WASA, are included in the 'expanded' category for the sake of simplicity.

Table 2

FACILITIES MANAGED UNDER BASE CASE MODELS

 $\sqrt{} = Denotes\ Facility\ Included$ in Specific Base Case Model

AUTHORITY	Existing DC-WASA	Basic Regional Authority	Blue Pla Regional	Blue Plains-Only Regional Authority	A	Expanded Regional Authority	ional Authori	ity
FACILITIES	I# JapoW	Model #2	Model #3A	Model #3B	Model #4A	Model #4B	Model #4C	Model #4D
Blue Plains WWTP	٨	٨	٨	٨	٨	٨	٨	٨
Potomac Interceptor ¹	1	٨	٨	٨	٨	P	٨	٨
DC Wastewater Collection System	٨	٨		٨	٨	٨	٨	
DC Water Distribution System	٨	٨			٨	٨	٨	-
Washington Aqueduct ²					٨		٨	4
WSSC Water & Wastewater Treatment Plants and Systems 3						٢	٢	
Other Water & Wastewater Treatment Plants							٨	

and is also an option under the current DC-WASA governance structure.

Washington Aqueduct (WAD) — Addition of WAD to the current DC-WASA could occur without creation of a regional authority.

WSSC Water & Wastewater Treatment Plants & Systems Options — Addition of only WSSC's treatment facilities to new regional authority could be implemented Potomac Interceptor (PI) Sewer - Alternative management of the PI by other parties could be implemented without regard to which regional model is considered;

without inclusion of WSSC's water distribution and wastewater collection systems.

Table 3
Analytical Framework for Evaluating Base Case Model Features

Legal:	Governance:
- Enabling Legislation	- Participation
- Contracts/Agreements	- Representation
- Administrative Procedures	- Approvals/Reviews
- Permit Authorization	- Identity
Technical:	Financial:
- Areas of Expertise	- Assets (Land/Facilities)
- Services Provided	- Debt (Existing/Future)
- Future Capacity	- Compensation to Local Governments
- Regulations, etc.	- Budget Independence
- Coordination Activities	- Rate Setting
- Permitting	- Capital Program Needs
- New Requirements & Regulations	- Rate Impacts
- Technical Workforce	- Bonding Authority
	- Regulations

VII. Results of Analysis

As noted, the purpose of Phase I of this study is to assist DC-WASA with responding to the threshold question of "would sufficient benefits result from changing the current DC-WASA governance structure to that of a regional authority model?" The initial assessment evaluated all seven base case regional models for each general category (legal, governance, technical, and financial) as well as for each of the twenty-five features and characteristics (see Table 3). Out of this detailed analysis, several critical issues were identified to help decision-makers address the threshold question, and to consider whether to pursue further consideration of a new regional authority.

After evaluating the twenty-five subcategories for all seven base case models, it was determined that most regional authority models had common then es, irrespective of which base case model was being considered. In addition, many of those issues were found to be interrelated and multi-faceted (e.g., many financial considerations also have legal considerations inherent in them and vise-versa), regardless of the actual structure and areas of responsibilities being considered.

In order to provide greater clarity in presenting this complex set of issues, the many issues that were evaluated were regrouped and organized along common themes rather than by the initial twenty-five categories. Table 4 presents a distillation of those issues into seven key issues that will need to be considered when answering the threshold question for any and all regional interstate authority models.

Those key issues, which range from the very general to the very specific, would likely be the subject of extensive negotiation, and may require further detailed analysis in order to fully assess their implications for any model(s) being considered. The seven key issues are:

- Asset Transfer
- Board Composition
- Employees
- Relationship to District of Columbia Government
- Regulatory Policy
- Agreements/Contracts
- Time & Resource Commitment for Negotiations

One key issue noticeably not included in the list above is 'technical feasibility.' This issue was not listed because it was determined that within the context of this Phase I study, all of the base case regional authority models were deemed to be 'technically feasible' – and therefore this factor was not considered a defining issue.

The technical features of any model are of course critical to its ability to provide services, and a tremendous amount of practical implementation and financial details would need to be considered should a change in structure be pursued. However, the assumption of 'technical feasibility' in this context is based on the fact that all the proposed systems are currently in operation; are meeting general permit requirements; and have basic technical and financial

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resources to meet their basic capital, and operating and maintenance needs. In addition, the major water and wastewater treatment systems being evaluated under this study (DC-WASA, WSSC, WAD, etc.) already operate with a series of interconnections, emergency agreements, joint-use facilities, and various regional and sub-regional service agreements.

Therefore, for the purposes of this Phase I evaluation, the various systems are assumed to be either self-sufficient and/or already interconnected. Should a Phase II study be pursued, a thorough evaluation would be required to assess the actual technical, financial, staffing, and logistical implications for any particular regional authority model(s). This would be especially critical for those base case models that either separate the existing District water distribution and wastewater collection systems from the regional authority, or that expand the number of facilities beyond those that DC-WASA currently manages.

Table 4 Distillation of Key Issues Common to Regional Authority Models Issues to Address in Transfer to a Regional Authority Topic **Asset Transfer Issues** Asset Transfer Assets managed by DC-WASA Determination of ownership (District of Columbia vs. D.C. WASA) subject to transfer to a Regional Compensation for asset transfer to District of Columbia and potentially Authority include: suburban local governments would depend upon: Valuation of physical assets and land Blue Plains WWTP: Accounting for prior federal and state grants (and potential payback) physical facilities and land Potential for Host Community Fee payment to District of Columbia Potomac Interceptor Sewer Accounting for prior "equity" payments made by Blue Plains users District of Columbia water Accounting for "user fees" payments made by Blue Plains users² distribution and sewer Nature of asset transfer: Lease of assets vs. ownership of assets by collection system Regional Authority Decision on whether to separate land transfer from physical asset transfer Debt: transfer impacts due to shifts/reallocations of debt loads, and premiums for early repayment (if any) Disposition of "Payment in Lieu of Taxes" fee now provided by DC-WASA to District of Columbia for specific services would need to be addressed during transfer negotiations. Nature of compensation for transfer of District of Columbia water distribution and sewer collection systems would depend on whether these assets would be retained by the District of Columbia governmental unit or transferred to the Regional Authority. For models that include transfer of assets of Washington Aqueduct, WSSC, and other water and wastewater facilities in the region, each circumstance would require case-by-case negotiations. Prior studies of potential transfer of Washington Aqueduct and privatization of WSSC would provide initial base of information. **Board Composition Board Composition Issues** Current DC-WASA Board Balance on Regional Authority Board among jurisdictions would likely need includes 6 representatives of the to be renegotiated. District of Columbia and 5 from Representation for entities not currently on DC-WASA Board could be an suburban jurisdictions [Fairfax issue (WSSC, Potomac Interceptor Users). County (1), Montgomery For regional models that include Washington Aqueduct, WSSC, or other

Current DC-WASA Board includes 6 representatives of the District of Columbia and 5 from suburban jurisdictions [Fairfax County (1), Montgomery County (2), Prince George's County (2)]. All 11 vote on "joint-use issues" while only the 6 District of Columbia representatives vote on "non-joint-use" issues. In addition, a super-majority of 7 votes are required to approve the Authority's budget, and 8 votes are required for the hiring or firing of the General Manager.

- For regional models that include Washington Aqueduct, WSSC, or other water and wastewater systems in the region, representation of new parties (including federal government) would need to be negotiated.
- For regional models that include District of Columbia water and sewer systems, retention of "non-joint-use issue concept" would need to be addressed.
- The basis for determining Board representation could vary and would be subject to negotiation. Options could include flow/capacity allocations, equal representation by state or jurisdiction, etc.

² 'User fees' refers to annual fees paid (in quarterly installments) by the suburban jurisdictions as required under the 1985 Blue Plains IMA. The purpose of the 'user fees' is not specified in the IMA; however, the fee originated as part of the negotiations regarding payment to the

District of Columbia for use of the Blue Plains land.

¹ 'Equity' payments refers to financial payments that were made by Fairfax Co. & WSSC to the District of Columbia to address capital expenditures for Blue Plains expansion needs; and payments made by Fairfax Co. & the District of Columbia to the WSSC for construction of the Montgomery Co. Regional Composting Facility. There are different views on whether the 'equity' payments conferred capacity 'right-to-use' or 'ownership' rights to the parties. Regardless, the IMA, as a unique contract, provides the users with the ability to enforce capacity rights as performance requirements.

Topic	Issues to Address in Transfer to a Regional Authority
Employees	Employee Issues
Employees of DC-WASA would become employees of	• Employee compensation, seniority, grandfathered benefits (e.g. pension) and union agreements would need to be addressed.
new regional authority	• For models that include the Washington Aqueduct, WSSC, or other water and wastewater systems, a determination would be needed on how to affect a transfer of those existing employees (including the Washington Aqueduct's federal employees) to the new regional authority.
	• For models where the District of Columbia water and sewer system is retained by a District of Columbia governmental unit, a determination would be needed on which employees become employees of the regional authority and which employees are retained; and how to address employees that support both functions.
	 Office space and other employee specific issues would have to be evaluated and addressed in advance of implementation. These include, but are not limited to addressing potential duplication of some positions and functions, need for additional skills and resources, and need to reallocate some resources.
Relationship to District of	Relationship to District of Columbia Government
Columbia Government	• There is a range of potential relationship issues associated with transfer to a
DC-WASA is currently an	regional authority. Some are inherent in the asset transfer, board
entity of the government of the	composition, and employee issues. Others relate to the role of the authority
District of Columbia. It would no longer be such upon the creation of a regional authority.	in supporting District of Columbia needs, such as stormwater management, combined sewer overflow control, street maintenance and repair, District of Columbia vs. regional identity, potentially issues relative to rate setting,

Regulatory and Policy

Discharge and other wastewater and drinking water quality related permits for Blue Plains issued by U.S. EPA and certified by District of Columbia Health Department

Restoration of Chesapeake Bay, Protection of the Potomac River and restoration of the Anacostia involve continuing evaluations and decisions on environmental protection requirements such as water quality standards, loading limits ("TMDLs"), and voluntary actions.

Regulatory and Policy Issues

DC-WASA.

• Regional authority would be subject to EPA permits and regulations governing Blue Plains and the Potomac Interceptor sewer and, if included, the District of Columbia water distribution (e.g., Safe Drinking Water Act) and wastewater collection system (e.g., pre-treatment requirements).

contracting, and other matters. A regional authority may actually be or be perceived as being more independent from the District of Columbia than

- Regional authority would be subject to certification by District of Columbia Health Department for water quality and permits for air quality.
- Regional authority models that include Washington Aqueduct, WSSC and
 other water and wastewater systems would be subject to existing permits and
 requirements from Maryland or Virginia. Washington Aqueduct also subject
 to District of Columbia discharge permit certification and U.S. EPA permit
 for solids discharge. May be subject to Maryland water withdrawal permit
 upon Washington Aqueduct transfer to regional authority.
- Policy decisions relative to Chesapeake Bay, Potomac River and Anacostia could be different under different regional authority models and different from DC-WASA depending on Board make-up and mix of jurisdictional viewpoints.
- The ability/right of a new regional authority to continue to access the District
 of Columbia's existing share of federal construction funds available under
 the Clean Water Act would need to be assessed. This assessment would
 need to address legal rights as well as potential changes that could occur due
 to changes in District of Columbia priorities.

Topic

Agreements/Contracts

Capacity sharing, cost allocation, coordination and other factors are included in Blue Plains Intermunicipal Agreement of 1985.

Various agreements and/or contracts govern relationships among parties sharing Washington Aqueduct, WSSC, and other water and wastewater treatment facilities.

Time & Resource Commitment for Negotiations

Creation of a new regional authority requires a substantial investment of time and resources by policy-makers and negotiators during a one to three year period.

Issues to Address in Transfer to a Regional Authority

Agreement/Contracts Issues

- Although creation of regional authority under an interstate compact cannot override existing agreements and contracts among the various parties to them, it would be expected that these agreements would need to be examined as part of process of creating regional authority and potentially renegotiated or revised. For example, the Blue Plains Intermunicipal Agreement of 1985 is currently under review by the Blue Plains Regional Committee. It has a number of outdated features and specific elements that relate to creation of a regional compact including asset transfer, future capacity allocation, biosolids management, and coordination.
- It is anticipated that there will be a unique set of issues associated with other agreement/contracts that would need to be considered in the creation of a regional authority. This includes those IMA parties currently represented by the District of Columbia (e.g., Loudoun County Sanitation Authority, Town of Vienna, etc.).

Time & Resource Consmitment Issues

- Adoption of regional compact legislation requires action by the District of Columbia Council, the Maryland and Virginia legislatures, and the U.S. Congress. A minimum of one year will be required, and potentially up to three years given legislative cycles for reconciliation of issues.
- There is an opportunity cost for those negotiating an interstate regional authority that must be weighed against the benefits anticipated from its creation.
- As additional facilities and more jurisdictions are included, the complexity of the negotiations and the required time commitment will increase.
- It is anticipated that there would be costs associated with this effort, for legal analysis, staff time spent in negotiations, etc.

VIII. Summary, Findings and Conclusions

This report was prepared for the District of Columbia Water and Sewer Authority Regionalization Committee to assist the Committee with responding to District of Columbia Law 11-111. This law requires that a study be conducted to "determine the feasibility of establishing the Authority as an independent regional authority and to make recommendations for the ongoing relationship of user jurisdictions to the Authority."

Responding to the legislative charge requires the Committee to consider a fundamental or "threshold" question: "Would sufficient benefits result from changing the current DC-WASA governance structure to that of a regional authority model?"

To provide a foundation that enables the Committee to respond to this question, this study was conducted. The major elements of the study included the following activities:

- A national survey was conducted of potential regional authority examples that might exist elsewhere;
- An analysis of a legal mechanism, the "interstate compact authority" was developed;
- From among the universe of possible models, a discrete set of potential regional authority models was identified that might assume some or all of the assets of DC-WASA;
- A framework for analysis of these models was created;
- A preliminary analysis of the models was prepared and presented; and
- A distillation of key issues was prepared that would require additional evaluation should DC-WASA determine that further consideration of an independent regional authority model is warranted.

Integral to the study were a series of regular Committee meetings as well as an intensive one-day workshop. The research and analyses that were presented to the Committee in these forums yielded valuable insights and feedback that are reflected in this document and its appendices.

A number of important **findings and conclusions** may be drawn from this project and are presented below. These help form the basis for the Committee to formulate its recommendations to the DC-WASA Board.

- 1. Context. The context for this project is considerably different than the circumstances that existed in 1996 when DC-WASA was created. There is widespread consensus that in the past four years, DC-WASA has substantially resolved a number of acute problems that were extant at the time of its establishment.
- 2. **Feasibility.** Creation of an interstate regional authority is both legally and technically feasible. A legal mechanism, the interstate compact, has been successfully used in this region and elsewhere in the United States and could

be applied in this circumstance if the parties desire to do so. Further, the analysis indicates that the various water and wastewater systems currently operating under DC-WASA (as well as the other water and wastewater utilities that might be included in a regional authority) are well established, are already interconnected to some degree, and in many cases already provide services to multiple jurisdictions. Therefore, no new major facilities or facility interconnections are inherently required in order for the systems to be operated under a new regional authority.

- 3. Uniqueness and precedents. Should an independent, interstate, regional water and wastewater authority be established in the Washington metropolitan region, it would likely be the first such public interstate water and sewer authority with operating responsibilities in the nation. There are, however, two existing interstate compact authorities in the Washington metropolitan region (the Washington Metropolitan Area Transit Authority and the Metropolitan Washington Airports Authority) that have a number of relevant features important when considering the creation of a regional water and wastewater authority. Examination of these two authorities can provide important insights into how such an authority might be negotiated and created.
- 4. Universe of potential models. The universe of potential independent interstate regional water and wastewater models can be described by grouping them into three broad categories: "Basic", which simply places the existing DC-WASA under an independent regional authority structure; "Blue Plains only" which contains fewer facilities than DC-WASA; and "expanded" models which contain groupings of more facilities than the current DC-WASA. The specifics of the various independent regional authority models provide a contrast to the existing DC-WASA. Further, they help establish a basis for considering whether there are sufficient benefits in changing the governance structure for the assets of DC-WASA, e.g., responding to the threshold question.
- 5. Analytical framework. A complete analysis of the potential models requires consideration of legal, governance, technical, and financial elements and issues.
- 6. Common themes for all regional models. The decision of whether DC-WASA proceeds with further consideration of an independent regional authority depends far less upon the specifics of any particular model, than on what the parties believe are the benefits to be gained under any regional authority model when contrasted with the existing DC-WASA structure. As a result, the analysis of key legal, governance, technical, and financial issues was carried out in a generic manner across the range of potential regional authority models.

² Models that both incorporate additional facilities not currently part of DC-WASA, but also eliminate some facilities currently part of DC-WASA, are included in the 'expanded' category for the sake of simplicity.

- 7. **Key Issues.** There are seven key issue areas that would likely be the subject of extensive negotiations and may require further analysis should creation of a regional authority receive further consideration. These seven issues fall under the following topical areas:
 - (i) Asset transfer
 - (ii) Board composition
 - (iii) Employees
 - (iv) Relationship to the District of Columbia government
 - (v) Regulatory policy
 - (vi) Agreements/contracts
 - (vii) Time and resource commitment for negotiations

Considering all the issues together, it is the fundamental conclusion of this report that the response to the threshold question, of whether there are sufficient benefits that would result from creation of an independent regional authority to manage the assets of DC-WASA, is inherently a policy judgment of the parties. Creation of such an authority is feasible, and a number of legally and technically feasible alternatives have been identified. However, the negotiation of an independent authority is likely to require a significant investment of time and resources, and probably will require an additional investment to analyze one or more models and the various key issues identified in this study, as a prelude to such a negotiation. The DC-WASA Board is charged with weighing the benefits of establishment of such an authority against the time and resource requirements to do so, as well as against alternative time and resource investments that could be made, including in further enhancements of the existing DC-WASA. Some suggestions on a process for carrying out this assessment are provided in the next section.

IX. Considerations for Decision Makers

As stated, the threshold question for the Regionalization Study is "would sufficient benefits result from changing the current DC-WASA governance structure to that of a regional authority model?" In order to answer this question, the parties will first need to determine whether there is sufficient information available to conclude the study process now and make recommendations on a course of action, or whether a second phase is required where additional analyses would be conducted.

Table 5 presents a series of questions intended to assist the parties in reaching a conclusion on which direction to proceed. They are designed to help by elaborating on the meaning of the word "benefits." Inherent to the consideration of benefits is the notion of advantages and disadvantages. It is recognized that perspectives will vary in determining what advantages and disadvantages are offered by the creation of a new regional authority, and the parties will have differing views on the list of key issues, their relative importance, and how they could or should be addressed. Ultimately the answers will be characterized as either an argument for or against moving to a new, regional interstate water and sewer authority. The overarching consideration may be the time investment required to do so, or there may be a substantive basis for drawing a conclusion based on the answers to the questions listed in Table 5.

Table 5 **Questions for Decision Makers**

- What problem(s) will a new structure solve or avoid? (current and future issues)
- Will converting to an independent regional authority merely modify the relation hip/interaction between parties or actually resolve some critical issues?

(transitional issues during compact negotiations versus ongoing relationship issues)

- Will a new structure improve the authority's ability to manage? (increase or decrease independent decision-making by the authority)
- How will a change in structure impact service delivery? (result in improvements or divert energies from current mission)
- How will a change to a regional model modify the relationships between the parties?

(with the District government, with the suburban jurisdictions, etc.)

- What are the potential costs of converting to a new structure? (transition, end results, rate impacts, etc.)
- Is converting to a new structure in an individual jurisdiction's best interests?

(varying perspectives)

- Would potential improvements be worth the time and effort (estimated to be a minimum of 1 year and up to 2-3 years) to create a new regional entity?

(real versus perceived benefits)

X. Next Steps

This report has provided information for the District of Columbia Water and Sewer Authority (DC-WASA) in response to the legislative requirements of District of Columbia Law 11-111 concerning the feasibility of establishing an independent regional authority to manage some or all of DC-WASA's assets. The factual information presented provides a basis for determining whether to conclude the study and issue recommendations, or to enter into an additional phase of study and analysis, Phase II.

The-WASA Regionalization Committee, after deliberations, will prepare recommendations to the DC-WASA Board based on the information provided herein and other considerations relative to the policy issues raised. The DC-WASA Board will then determine next steps.

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Appendices

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Prepared by staff from the Metropolitan Washington Council of Governments

under contract to the District of Columbia Water and Sewer Authority

in support of the DC-WASA Regionalization Committee

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Appendix A: Primer on Interstate Compacts

This Appendix provides a general overview of interstate compacts, what they are, how they are formed, and how such a mechanism might be used to establish a new regional authority to manage all or some of those responsibilities currently handled by DC-WASA.

Historical Context

Throughout history, interstate compacts have been an important part of our federal system. In fact, interstate compacts predate the Constitution and were recognized in the Articles of Confederation. No state could enter into a treaty, confederation, or alliance with other states without the consent of the United States in Congress assembled. Morcover, prior to the American Revolution, agreements for settling differences between the colonies required approval of the English Crown.

Rationale

Under Article I, Section 10, Clause 3 of the Constitution, no state may enter into an agreement or compact with another state without congressional approval. The main reason for the compact clause was to assist in resolving boundary disputes among the states. But, now this device has been used mainly to cope with a wide range of issues appropriately managed through intergovernmental cooperation among the states and/or their local governments.

The Compact Clause is predicated on the premise that in most situations – not all – the federal government has an interest to protect in agreements among or between the states. The rationale is that the approval of Congress can prevent the formulation of any combination among the states that would increase their political power at the expense of the federal government. The supremacy of the federal government exercising its enumerated powers under the Constitution is maintained.

Compact Characteristics

Compacts are, in essence, contracts within the provision of the Federal Constitution and, under the contract clause, a state is prohibited from impairing the obligations in the compact without the consent of all the parties to such agreements, including the Congress. Thus, the Supreme Court has held that a state may not unilaterally renounce a compact in contravention of its provisions. And, under this principle, it has been held that a state may not subsequently enact legislation in derogation of the obligation solemnized by a compact.

Process for Creation

Procedurally, in most cases, Congress usually enacts legislation authorizing a specific compact and establishes the parameters for the states to then enact their own legislation to create the compact authority. This state legislation must be consistent with the federal law authorizing the compact. And, in the essential provisions, the legislation of each state involved must be mutually congruent. This would include the legislation of: the District of

See West Virginia ex rel. Ever v. Sims, 341 U.S. 22 (1951).

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Columbia, the Commonwealth of Virginia, and the State of Maryland. The District of Columbia is treated as a state for the purposes of interstate compacts.

It should be noted that not all agreements between the states necessitate congressional approval. But, likewise it is clear that any agreements dealing with the joint ownership and operation of facilities used in water supply or the treatment of wastewater affecting an interstate water body such as the Potomac River would require Congressional approval.

Applicability to this Effort

An interstate compact, formed through the simultaneous adoption of the states' legislation would be the likely process used by the participants to create a new regional authority to manage the basic responsibilities currently managed by the DC-WASA. This approach would be similar to the efforts used to create other regional authorities in the metropolitan Washington region such as the Metropolitan Washington Airports Authority (MWAA) and the Washington Metropolitan Area Transit Authority (WMATA).

Negotiating an Interstate Compact

A key feature inherent in discussing the concept of a regional authority lies in having an understanding of not only what an interstate compact is, but in also understanding how such compacts are negotiated – who the parties are, what elements are generally included in such negotiations, and what the legal processes are. It is also important to recognize what issues are generally addressed within the compact itself versus those that are traditionally addressed through service agreements between the parties.

Negotiation of an interstate compact relies primarily upon successfully addressing and deferring to the political culture of the state and local governments involved in the process, rather than upon any generally accepted ground rules. Moreover, negotiation of compact legislation must also address the political components of the subject proposed for an interstate agreement. It is critical, therefore, that the negotiation process itself be established to include the necessary parties required to concur and implement the compact legislation itself (i.e., the states, the United States Congress, and any/all local government elements critical to achieving the necessary support from each state's legislative body).

Necessary Parties

As discussed earlier, the initial authority for creation of an interstate compact comes from the adoption of enabling Congressional legislation. In the case of a new regional water and sewer authority for the Washington metropolitan area, this would require the United States Congress to enact consent legislation which would establish the basic parameters for the necessary and concurrent legislation to be enacted by the Council of the District of Columbia, and the General Assemblies of Maryland and Virginia. Representatives from the federal and state legislatures would be critical to the enactment of that consent legislation, as well as the concurrent legislation required in the District of Columbia and the two states. Their participation in the negotiation process would appear to be essential. Assuming that the functions of the new authority are to continue to be under control of the region's local governments, representatives from these units are also essential.

While there are no general rules applicable to how an interstate compact is negotiated, it would appear beneficial to examine some of the region's experiences learned through

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negotiating other interstate compact arrangements for the Washington metropolitan region. In considering the creation of a regional authority to provide essentially wholesale wastewater treatment services (and potentially wholesale water treatment services as well), the most relevant example of negotiating an interstate compact in this region would be the compact that created WMATA.

If the WMATA compact process were to be applied to the establishment of a new regional water and sewer agency, it would first be important for the local governments affected by the creation of the compact agency to decide the essential powers and responsibilities to be vested in the proposed agency. Moreover, the greater the consensus on all aspects of the compact that can be agreed to by the local governments, the more likely they would be to gain support from all the other state and federal parties when the issue moves forward. Once these local parties are in agreement with the key elements of the compact agency, the federal and state legislative officials would generally be brought into the negotiation process. At this juncture, it would be important to represent the agreements to-date among the local government users in the compact agency – to indicate the kind of mechanism that would be most responsive to their needs. This would be critical in helping ensure that the federal and state legislative parties will agree to support those aspects of the compact agency's operation that have been agreed to, and to ensure that the new interstate agency will represent the vital interests of the local governments it serves.

Compacts Versus Existing & Future Service Agreements

The creation of a compact agency to provide wholesale water and wastewater treatment services within the Washington metropolitan area would only require features that are normally represented in state law creating an agency to perform similar tasks. To a large degree, the same powers and functions delegated to sub-regional agencies within the region (e.g., Alexandria Sanitation Authority, District of Columbia Water and Sewer Authority, Washington Suburban Sanitary Commission, Upper Occoquan Sewage Authority) would be appropriate for the establishment of a new agency to provide such services to the local governments currently served by DC-WASA. In the case of an interstate entity, however, specific provisions on how it will operate will be necessary since such an interstate agency is not normally subject to the laws of the states or the District of Columbia concerning personnel, labor, administrative procedures, procurement, privacy, and freedom of information policies, etc. As in the case of MWAA and WMATA, provisions addressing these areas would have to be specifically enumerated and defined in the compact legislation itself.

Because of the long-standing status of the Blue Plains Intermunicipal Agreement (IMA) of 1985, an examination of the features of the IMA would be an important part of developing any proposed compact entity that would assume responsibility for the IMA or its successor agreement. The IMA was initially negotiated not only to represent the requirements for providing wastewater treatment as is normally contained in standard service agreements, but also to incorporate features that are unique to the Blue Plains situation. In this regard, it has certain features that are not normally part of service agreements between a public utility and its customers.

Many of the features that are currently in the IMA would also normally be addressed in interstate compact legislation and would therefore be incorporated within the text of the

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compact legislation itself. Notwithstanding incorporation of many of these features into the compact, service agreements would also be required. The compact agency would finance its capital and operating cost through service agreements it executed among the jurisdictions receiving its services. These agreements would necessary to ensure the funding of the capital needs of the new agency. The service agreements would also normally cover the costs associated with establishing the authority, including any assumed debt and any expenses not reflected in the bonds and other securities already issued by the agencies it succeeds.

As indicated earlier, the compact legislation cannot undermine the IMA or other contractual agreements that DC-WASA is bound to. Any legislative effort to do so would be unconstitutional unless the parties to such an agreement also agree to the proposed modifications. Consequently, the compact legislation probably would have to represent whether the parties intended to function under a new kind of service agreement; provided the parties have mutually agreed to substitute such an agreement for the current IMA. It is assumed that any new service agreement would most likely be structured to be very similar to the more conventional service agreements that are currently used by the sub-regional entities noted above. This would provide the contractual means for the agencies to ensure that they can finance their capital expenditures; while ensuring maximum flexibility to address future needs.

In summary, it would not be necessary to supersede the Blue Plains IMA or any other existing wholesale service agreements such as those among the WAD users. It would appear, however, that the compact legislation would best incorporate the unique features currently contained in these existing agreements; while in the future following more traditional service agreements between the new compact agency and the jurisdictions it serves.

<u>Timetable for Negotiations</u>

The timeframe for negotiating an interstate compact can be lengthy given the inherent complexity and interest in the creation of an interstate authority and the necessary coordination required with multiple legislative sessions; but it does not necessarily require a long negotiation process. If there is general consensus on the need and content of the compact legislation, the period for obtaining federal, state and Council of the District of Columbia action can be done in one legislative session. For example, the Metropolitan Washington Airports Authority (MWAA) legislation was acted upon in Congress and concurred in by the General Assemblies of Maryland and Virginia, and the Council of the District of Columbia all within approximately one year. In that case, the parties wanted to enact the legislation very quickly. However, without such resolve the legislative process for establishing a new regional water and wastewater authority could take two or more years to enact. This manifests the importance of obtaining agreement on key aspects of the compact proposal from the affected local governments prior to the involvement of the federal and state legislative parties.

Appendix B:

Survey of Existing Interstate Authorities

National Survey Conducted

An initial step in this study was to identify existing agencies with missions similar to that of DC-WASA but that operated as interstate compact agencies. A national survey was conducted to identify any regional authorities that met two basic criteria: a) that they were interstate compact authorities; and b) that they had actual water and sewer operational responsibilities. It was the Regionalization Committee's view that by locating examples of existing authorities with responsibilities similar to that of DC-WASA, the examples would be useful in illustrating how such authorities were formed and how they functioned. The criteria for water and sewer operational responsibilities was deemed critical because such an entity would be functioning under the same type of state and federal regulations, and would have similar bonding and funding responsibilities to that of DC-WASA.

Survey Results

As part of this survey, staffs from DC-WASA, COG, and AMSA (Association of Metropolitan Sewerage Agencies) were interviewed. Independent research was also conducted using various national databases and professional and federal/EPA Web sites to identify such interstate entities. Based on that initial research, several potential candidates were identified and additional research was conducted to determine their potential relevancy and to confirm their features. Twenty-three different agencies were initially identified as potential candidates for further research. Of those twenty-three, none fully met the necessary criteria because they either were not true interstate authorities, or they did not have actual water and sewer operational responsibilities. Seventeen of the agencies were found to be 'not relevant' after further evaluation; four were viewed as being 'somewhat relevant' because they were local authorities with similar regional features of interest; while only two were deemed to be 'most relevant' for purposes of this study (see Table 1).

Table 1
Results of National Survey of Existing Interstate Authorities

TCSUITS OF IVA	nonai bui vey	of Existing Interstate Authorities
CATEGORY	NUMBER	NOTES
	OF	
	AGENCIES	
Total Evaluated	23	Initial screening identified these possibilities
Most Relevant	2	Have operational responsibilities, although
		not for water and/or wastewater; and do exist
		in metropolitan Washington region and do
		operate as an interstate compact agency
Somewhat Relevant	4	Sub-regional agencies with water and/or
		wastewater operational responsibilities; but
·		none operating under interstate compact
Not Relevant	17	Activities focused on planning and other
		similar responsibilities
Met Criteria	0 -	None were interstate agencies with
		operational responsibilities for water and/or
		wastewater treatment

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Relevant Agencies - Interstate or Other

The four 'somewhat relevant' local non-interstate agencies with water and/or wastewater operational responsibilities were:

- Fairfax County Water Authority (FCWA), Virginia
- Upper Occoquan Sewage Authority (UOSA), Virginia
- Washington Aqueduct (WAD), Washington, D.C.
- Washington Suburban Sanitary Commission (WSSC), Maryland

These agencies provide useful examples of how cooperative partnership solutions have been sought to provide water and/or wastewater services to more than one jurisdiction. They also provide good examples of how representation and governance arrangements have been developed for these local agencies.

The two 'most relevant' local interstate agencies were:

- 1. Metropolitan Washington Airports Authority (MWAA) and
- 2. Washington Metropolitan Area Transit Authority (WMATA).

Detailed descriptions of these two agencies and some of their key features are presented below. Despite not having water and sewer management responsibilities, these two agencies provide the most useful examples of agencies with operational responsibilities that are functioning under an interstate compact.

Assessment of Survey Results

The findings from this survey are revealing. Based upon this research, and discussions with various professionals who were interviewed, no examples of a regional interstate authority with water and sewer operational responsibilities were identified. There are many regional authorities in the country and locally that deal with water and/or sewer issues, but their primary responsibilities are often to handle coordination and planning functions (e.g., Interstate Commission on Potomac River Basin – ICPRB). There are also many interstate compact authorities that have operational responsibilities – but their areas of responsibility are not in operating water and sewer/wastewater facilities (e.g., MWAA, WMATA). There are also many national as well as local examples of regional agencies that have water and sewer/wastewater responsibilities – but they either do not provide services across state lines, and/or they do not function under an interstate compact (e.g., WSSC, Upper Occoquan Service Authority, Alexandria Service Authority, DC-WASA, WAD).

Where such interstate compact agencies do exist, they typically involve services provided by one agency to other parties through standard service agreements and are funded through payment of fees for services rather than a central authority providing services to individual parties. This practice may be used because population distributions are generally imbalanced across state lines. Therefore a more traditional arrangement is utilized whereby the larger community in one state provides its services to those nearby and usually smaller communities within and across state lines.

It would appear that if DC-WASA were modified from a District of Columbia authority to that of an interstate authority, it could well be the first such public interstate water and sewer authority with operational responsibilities in the nation. However, several local interstate agencies do already exist and offer much valuable insight into how such a regional compact

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authority might be created and function. Therefore, the two most relevant examples of interstate agencies (MWAA and WMATA) were further examined to identify their key features and applicability to this evaluation. The fact that both are local entities in the Washington region increases their relevancy to this study.

Metropolitan Washington Airports Authority (MWAA)

The key feature of MWAA is that it is an agency with operational responsibilities for managing the Reagan National and Dulles International Airports (both located in Virginia). These two facilities are still federally owned but were leased to MWAA when the agency was created as an interstate compact agency in 1986. The agency provides services to a customer base from three neighboring jurisdictions – the District of Columbia, the Commonwealth of Virginia, and the State of Maryland. The agency is overseen by a 13-member board that is composed of members from all three jurisdictions served by the two facilities. The differences in facility location, customers served, federal interests, and other factors involved in the negotiations to create the interstate compact itself lead to the current arrangement of five appointments from Virginia, three from the District, two from Maryland, and three Presidential appointments. There are no local governmental appointments; the individuals must however reside in the metropolitan Washington area. Another key feature of MWAA is that it is wholly funded by fees and funds received as a result of services provided under its service agreements. (See Table 6 for additional details.)

The relevancy of MWAA includes the facts that: it is a regional agency operating under an interstate compact agreement within the metropolitan Washington area and it is funded primarily from service fees. It is also provides a useful example of how governance and representation issues have been addressed in the creation of such an interstate entity. The agency also has its own procurement and personnel regulations – a feature common to interstate compact agencies.

Washington Metropolitan Area Transit Authority (WMATA)

The key feature of WMATA is that it provides operational responsibilities for bus and subway (rail) service in all three metropolitan Washington jurisdictions – the District, Virginia, and Maryland. It operates under an interstate compact that was created in 1967, and serves a customer base from all three jurisdictions. A six-member board that is composed of two members from each major jurisdiction oversees the agency. Local government representation is normally accounted for via those appointments – through three sub-area transportation commissions and the District of Columbia government. WMATA is funded partially through collection of fares for services provided; but it is also partially subsidized for capital and operating expenses by state, local, and federal governments. (See Table 7 for additional details.)

The relevancy of WMATA includes the fact that: it is a regional agency operating under an interstate compact agreement within the metropolitan Washington area; its subsidies are based on use (i.e., the level of service provided); and it has local government representation, rather than gubernatorial appointments, on its governing board. It, too, provides a useful example of how governance and representation issues were addressed for this interstate entity. The agency, like MWAA and other interstate compact agencies, also has its own procurement and personnel regulations.

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Summary

These two agencies provide relevant examples of how interstate authorities can and have been negotiated and enacted within the metropolitan Washington region. They are particularly instructive because the United States Congress and the legislative bodies from the District of Columbia, Maryland and Virginia would also be involved if an alternative water and sewer authority were to be created.

Table 6
Matrix of Features – Metropolitan Washington Airports Authority (MWAA)

	Legal Framework	Governance	Financial	Technical
Regional Authority	 Authorizing Authority 	• Representation	Budget Approval	Service Area
•	 Personnel & Procurement 		• Revenue/Funding	• Facilities
	Authority			Customer Base
	The second constitution of the second constituti			
MWAA	Authorizing Authority:	Representation:	Budget Approval:	Service Area:
	Created by Congressional	A 13 member board. Five	Requires an 8 member	Encompasses the
Metropolitan	interstate compact in 1986 to	gubernatorial appointees from	majority vote for budget	metropolitan
Washington	develop, administer and oversee	Virginia, two from Maryland,	and capital programs.	Washington market -
Airports	daily operations at National and	and three from the District of		comprised of the
Authority	Dulles International Airports.	Columbia. Remaining three	Revenue/Funding:	District of Columbia,
		are appointed by the President	Establishes fees under	Maryland, and Virginia.
Interstate	Personnel and Procurement	of the US. No local	the authority of federal	
Authority	Authority:	government representation on	law. General federal	Facilities:
	Has own personnel and	the Authority. (No elected or	legislation requires a	Two airport facilities,
Operates	procurement policies.	appointed public officials may	\$4.50 head tax.	both located in Virginia,
Reagan		serve on the governing body of	Establishes other fees as	with approximately
Washington		the authority).	needed for other	1000 employees total.
National			operations, concessions	
Airport and		-	etc. Has no general	Customer Base:
Dulles			taxing authority. Funded	Customer base from
International			by fees and service	District of Columbia,
Airport			agreements. Other	Maryland, and Virginia.
•			revenues generated from	
			federally authorized head	
			tax,	
		-		

Table 7 Matrix of Features – Washington Metropolitan Area Transit Authority (WMATA)

Personnel & Personnel & Personnel & Personnel & Personnel & Pauthority: Authorizing Authority: WMATA was created by interstate compact in participating jurisdictions. Two members each from the District developing and operating of Columbia, Maryland, and rubber tire transit for the partners of the gareement. Procurement and select members of the governments to directly, through sub-regional agencies, select members of the government and personnel policies. Has own procurement and personnel policies. RyVTC (Northern Virginia and the NVTC (Washington Suburban Transportation Commission) and the DC government - companion agencies created to represent local government.	Agency	Legal Framework	Governance	Financial	Technical
Authorizing Authority: WMATA was created by interstate compact in 1967 to carry out joint responsibility of developing and operating of Columbia, Maryland, and rail and rubber tire transit agreement. Procurement and personnel policies. Procurement and personnel polic	0	 Authorizing Authority Personnel & Procurement Authority 	• Representation	Budget ApprovalRevenue/Funding	Service AreaFacilitiesCustomer Base
interstate compact in participating jurisdictions. Two responsibility of developing and operating for the partners of the agreement. Procurement and personnel Authority: Has own procurement and personnel policies. Rody. No federal authority oversight except for grant compliance. Local government representation on board from the NVTC (Washington Suburban Transportation Commission) and the WSTC (Washington Suburban Transportation agencies created to represent local government and the WSTC (Washington Suburban Transportation Commission) in Maryland and the DC government - companion agencies created to represent local government and the DC government - companion agencies created to represent local government.	WMATA	Authorizing Authority: WMATA was created by	Representation: The compact permits equal	Budget Approval: Requires support of at least	Service Area: Development and
developing and operating of Columbia, Maryland, and rubber tire transit for the partners of the agreement. Procurement and and personnel Authority: Has own procurement and personnel policies. Has own procurement compliance. Local government representation on board from the NVTC (Northern Virginia Transportation Commission) and the WSTC (Washington Suburban Transportation agencies created to represent local government companion c	Washington Metropolitan	interstate compact in 1967 to carry out joint	representation on Board from all participating jurisdictions. Two	one member from each jurisdiction.	operational responsibility for bus and subway (rail)
for the partners of the each jurisdiction. States permit the local governments to directly, through sub-regional agencies, select members of the governing body. No federal authority or oversight except for grant compliance. Local government representation on board from the NVTC (Northern Virginia Transportation Commission) and the WSTC (Washington Suburban Transportation Commission) in Maryland and the DC government - companion agencies created to represent local contrary of the WMATA where	Area Transit	developing and operating	of Columbia, Maryland, and	Revenue/Funding:	service in the metropolitan Washington
agreement. Procurement and Personnel Authority: Has own procurement and personnel policies. Transportation Commission) and the WSTC (Washington Suburban Transportation Command and the DC government - companion agencies created to represent local and the DC government - companion agencies created to represent local agencies created agen	Aumorny	for the partners of the	Virginia; plus two alternates from each jurisdiction. States permit	Revenue obtained from federal grants, ridership fares, and	area (the District of Columbia, Maryland, and
Procurement and select members of the governing body. No federal authority or oversight except for grant compliance. Local government representation on board from the NVTC (Northern Virginia Transportation Commission) and the WSTC (Washington Suburban Transportation Commission) in Maryland and the DC government - companion agencies created to represent local government companion	Tatomotor I	agreement.	the local governments to directly,	subsidies from the state of	Virginia).
Personnel Authority: Has own procurement and personnel policies. representation on board from the NVTC (Northern Virginia Transportation Commission) and the WSTC (Washington Suburban Transportation Commission) in Maryland and the DC government - companion agencies created to represent local	Authority	Procurement and	unough sub-regional agencies, select members of the governing	Maryland based on use. Full funding agreement provides	Facilities:
and personnel policies. compliance. Local government representation on board from the NVTC (Northern Virginia Transportation Commission) and the WSTC (Washington Suburban Transportation Commission) in Maryland and the DC government - companion agencies created to represent local	,	Personnel Authority: Has own procurement	body. No federal authority or oversight except for grant	that the Maryland and Virginia	1500 square miles of service area with 78
NVTC (Northern Virginia Transportation Commission) and the WSTC (Washington Suburban Transportation Commission) in Maryland and the DC government - companion agencies created to represent local	Owns and	and personnel policies.	compliance. Local government	budget operating shortfalls as	stations. Currently 98 of
Transportation Commission) and the WSTC (Washington Suburban Transportation Commission) in Maryland and the DC government - companion agencies created to represent local	regional rail		representation on board from the NVTC (Northern Virginia	needed. Subsidies based on level of service provided to	a total of 103 total track
Suburban Transportation Suburban Transportation Commission) in Maryland and the DC government - companion agencies created to represent local	and bus		Transportation Commission) and	each jurisdiction to cover the	2000.
	system		the WSTC (Washington Suburban Transportation	proposed 103-mile system only. Does not have the	Customer Base:
			Commission) in Maryland and the	authority to levy taxes. Notes,	Customer base from
All All All All All All All All All Al	-		agencies created to represent local	bonds paid for under service contracts.	District of Columbia, Maryland, and Virginia.
METRO operates.			governments on WMAIA where METRO operates.		

Appendix C: Base Case Models

Selection of Base Case Models

The following section provides an overview of the various base case models of potential regional authorities that were analyzed during the course of this study. While many potential models could be constructed, it was felt that the following selection of models would best illustrate the range of alternatives possible when considering potential regional models. These base case models were also organized to highlight many of the basic considerations necessary for deciding which particular regional model(s), if any, should be further evaluated. This compilation included models and variations that were suggested by Regionalization Committee members and/or members of DC-WASA s management.

The term "model" is used throughout this study to represent an option or alternative. Each model differs from the others based upon the number and type of facilities involved. For the Phase I initial analysis, there were three broad categories of regional models identified:

- "Basic" -- a model that retains all the facilities of DC-WASA but places them under a regional authority structure.
- "Blue Plains-only" -- a regional authority model with fewer facilities than DC-WASA.
- "Expanded" Regional authority models with different groupings of more facilities than DC-WASA.

A graphical representation of these three general categories of regional models is outlined in Figure 2. A total of eight (8) base case models were identified and examined, including the existing authority model. A brief description of each model is listed below, while the facilities managed under each base case model are depicted in Table 2.

Detailed maps and potential organizational structures were also developed in order to better conceptualize the facilities and scope of responsibilities proposed for each base case model. Maps and structures for all eight base case models have also been provided. These maps indicate the general location for each facility listed in Table 2, display the service areas each potential authority would be responsible for, and indicate the jurisdictions where the facilities and services are located.

Where there were assumptions made in defining each model, they have been identified. Some editorial license has been taken in proposing potential names for these regional authorities in an attempt to differentiate one model from another. It is to be expected that the name for, as well the key features of any regional model that may be pursued would ultimately be decided as a result of the negotiations between the various parties.

In each situation, the base case model was defined as a function of: a) the legal authority that would create the entity, and b) the facilities and functional responsibilities that would be managed and operated by the entity. A fundamental element common to each regional authority model is

¹ Models that both incorporate additional facilities not currently part of DC-WASA, but also eliminate some facilities currently part of DC-WASA, are included in the 'expanded' category for the sake of simplicity.

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that each model is assumed to have been created through the adoption of interstate compact legislation. These regional authorities are contrasted against the existing DC-WASA. Although separated from the District of Columbia government, DC-WASA is still a District of Columbia authority, subject to some general District of Columbia laws and regulations and by design responsive to District of Columbia as well as regional needs. The existing authority can also only be modified by legislation created through the legislative process of the District of Columbia.

Base Case Models Evaluated

• Existing DC-WASA – Model #1

This model is the current DC-WASA - a District of Columbia authority created under District of Columbia law. The existing facilities are: the Blue Plains wastewater treatment plant (WWTP), the Potomac Interceptor (PI), the District of Columbia's water distribution system, and the District of Columbia's wastewater collection system. For purposes of this study the facilities and functions of the current authority are assumed to remain the same.

There are however, several potential variations that could be pursued regardless of whether or not a regional authority is created. The first variation includes the concept of seeking alternative management options for handling the operation and maintenance of the Potomac Interceptor. The second variation considers the concept of adding management responsibilities for the Washington Aqueduct (WAD) to the existing authority. Legally, both variations could theoretically be implemented without having to establish an interstate compact agency.

Basic Regional Authority – Model #2

This model describes a new regional interstate authority that would be created through the adoption of an interstate compact. This model is assumed to have the same powers and management responsibilities for facilities and functions as the existing authority.

Blue Plains-Only Regional Authority – Models #3A & #3B

These models would also be created through the adoption of an interstate compact. A fundamental change from the existing authority would be that management responsibility for the Blue Plains WWTP and PI would be transferred to this new regional authority; while management responsibility for the District of Columbia's water distribution and wastewater collection systems are assumed to be transferred to a governmental entity within the District of Columbia.²

Model #3A assumes that both the District of Columbia's water distribution and wastewater collection systems are transferred to a District of Columbia governmental entity; while the management of Blue Plains and the PI would be transferred to the new regional authority.

² This potential approach for managing the District of Columbia's water distribution and water collection systems was also identified in several other base case models; but under the scope and focus of this study, no attempt was made to conduct a thorough assessment of the issues from the perspective of the District of Columbia government.

Model #3B assumes that *only* the District's *water* distribution system is transferred to a District governmental entity. This model assumes that the District wastewater collection system is transferred to the new regional authority along with Blue Plains and the PI. This would preserve a system-wide approach to managing wastewater collection and treatment.

• Expanded Regional Authority - Models #4A, #4B, #4C, and #4D

These models would also be created through the adoption of an interstate compact. A fundamental change from the existing authority is that under these models, management responsibilities would be further expanded beyond those of the current authority. Four interstate compact regional authority models were identified as described below:

Model #4A: This model assumes that the WAD drinking water facilities are transferred to a new regional authority that includes all existing facilities currently part of DC-WASA: the Blue Plains Wastewater treatment facility, the PI, and the District of Columbia water distribution and wastewater collection systems.

Model #4B: This model assumes that the WSSC's drinking water and wastewater facilities and systems are transferred to a new regional authority that includes all existing facilities currently part of DC-WASA: the Blue Plains Wastewater treatment facility, the PI, and the District of Columbia water distribution and wastewater collection systems.

Model #4C: This model assumes that both the WSSC's water and wastewater systems and facilities and the WAD drinking water facilities are transferred to the new regional authority, as well as all other major water and wastewater treatment facilities in the region (excluding distribution and collection). The management of Blue Plains, the PI, and the District of Columbia's water distribution and wastewater collection systems are also included.

Model #4D: This model represents a wholesale water and wastewater regional authority that includes the Blue Plains wastewater treatment plan, the PI, and the WAD drinking water facilities. The District of Columbia's water distribution system and wastewater collection systems are not included and would be transferred to a District of Columbia governmental entity.

Analysis of Common and Model Specific Features

Each of the seven new base case regional authority models were evaluated, and contrasted against the existing DC-WASA structure (Model #1). The models were evaluated for each of the four general categories (legal, governance, technical, and financial) and twenty-five subcategories of issues. A key finding from this analysis was that although each base case model had specific issues that would need to be addressed, ultimately most key issues were common to all of the regional authority models. Based on this analysis, the issues common to all models were organized and summarized, and specific features noted when they applied to one or more of the models (see Table 8). While certainly not exhaustive, the table outlines the full range of issues that would need to be addressed should any particular model(s) be pursued.

Financial and Business Statistics for Selected Agencies

During the course of the study, Regionalization Committee members expressed an interest in understanding some of the financial aspects of other authorities addressed in the base case models. The information was viewed as helpful when making relative financial comparisons between the current DC-WASA structure and some potential 'expanded' models. While detailed financial analyses of the models was clearly outside the scope of the Phase I work, some basic financial data was available for several of the major utilities addressed in some of the models (e.g., DC-WASA, WAD, WSSC). This data, which is summarized in Table 9, provides 'order-of-magnitude' financial figures for each of these major utilities, and allows general financial comparisons to be made between their total asset values as well as their annual operating and capital expenses for a five-year period. This financial information should be considered as providing only a very basic economic comparison of select data.

An attempt was made to ensure that the figures were comparable for each agency, but it is important to note that there are many subtleties inherent in these financial figures that may not be apparent without conducting more detailed analyses. For instance, while the asset value figures for the various agencies are valid for general comparison purposes, it would be important to recognize that DC-WASA's assets are probably older than WSSC's, which may tend to understate the asset value reported for DC-WASA relative to WSSC's asset value. It is also important to note that these asset figures represent only 'book value' not replacement value figures. Replacement value figures would be expected to be significantly higher than the asset figures listed in Table 9.

Where available, subcategories of financial figures were also provided in order to acknowledge those annual and capital costs routinely transferred from one agency to the other based on existing service agreements. This reflects the reality that the WAD provides wholesale water treatment services to District of Columbia residents via DC-WASA, and that DC-WASA provides regional wastewater treatment services to Fairfax County in Virginia, and to Montgomery and Prince George's Counties in Maryland via the WSSC.

It should also be noted that there are differences between how the agencies present the annual subcategory capital expenses; i.e., the agency that directly contracts for a capital investment project may show 'committed' or obligated funds for a particular fiscal year, while the contributing agency may show its share as a 'disbursement' figure spread over several fiscal years based on its expected cash outlay. The WAD, for instance, prepares their capital budgets based on a project commitments basis due to federal appropriations requirements; while DC-WASA's capital budgets reflect their projected disbursement or obligations for those same projects. For instance, in Years 01-02, DC-WASA's projected capital disbursements for WAD projects reflect disbursements for projects that were reflected in prior year WAD budgets as commitments. WSSC's capital budget reflects similar 'fiscal year offsets' for WSSC's share of DC-WASA capital projects. In addition, there are differences in fiscal years (WSSC's fiscal year runs from July to June, while DC-WASA and WAD's fiscal years run from October to September) that also need to be considered when comparing the annual cost figures.

This basic financial data was provided for general comparative purposes only. If and when a regional authority model(s) is pursued, a comprehensive and detailed financial analysis would need to be conducted for any and all models evaluated under a Phase II study.

Figure 2

Existing versus Potential Regional Interstate Authorities

EXISTING

INTERSTATE AUTHORITIES

POTENTIAL

AUTHORITY COLUMBIA DISTRICT OF

Blue Plains-Only Authority Regional

Fewer facilities than existing DC-WASA



Authority Regional Basic

Expanded Regional Authority

More facilities than

existing DC-WASA Same facilities as

existing DC-WASA1

Models that both incorporate additional facilities not currently part of DC-WASA, but also eliminate some facilities currently part of DC-WASA, are included in the 'expanded' category for the sake of simplicity.

Table 2

FACILITIES MANAGED UNDER BASE CASE MODELS

 $\sqrt{}$ Denotes Facility Included in Specific Base Case Model

AUTHORITY	Existing DC-WASA	Basic Regional Authority	Blue Pla Regional	Blue Plains-Only Regional Authority	3	xpanded Reg	Expanded Regional Authority	ty
FACILITIES	Model #1	Model #2	Model #3A	Model #3B	Model #4A	Model #4B	Model #4C	Model #4D
Blue Plains WWTP	٨	٨	٨	7	7	٨	7	7
Potomac Interceptor ¹	٨	٨	٨	٨	٨	٢	7	>
DC Wastewater Collection System	٨	٨		٨	٨	٨.	7	
DC Water Distribution System	٨	٨			٨	٨	7	
Washington Aqueduct ²					٨		7	7
WSSC Water & Wastewater Treatment Plants and Systems 3						>	7	
Other Water & Wastewater Treatment Plants							7	

Potomac Interceptor (PI) Sewer - Alternative management of the PI by other parties could be implemented without regard to which regional model is considered; and is also an option under the current DC-WASA governance structure.

² Washington Aqueduct (WAD) – Addition of WAD to the current DC-WASA could occur without creation of a regional authority.

³ WSSC Water & Wastewater Treatment Plants & Systems Options – Addition of only WSSC's treatment facilities to new regional authority could be implemented without inclusion of WSSC's water distribution and wastewater collection systems.