Presented and Adopted: December 6, 2012
SUBJECT: Approval to Execute Option Year One of Contract No.
WAS-11-034-AA-MB CIGNA Healthcare

#12-110
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

The Board of Directors ("Board") of the District of Columbia Water and Sewer Authority, ("the Authority"), at the Board meeting held on December 6, 2012 upon consideration of a joint use matter decided by a vote of ten (10) in favor and none (0) oppose to execute Option Year One of Contract No. WAS-11-034-AA-MB, CIGNA Healthcare.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Option Year One of Contract No. WAS-11-034-AA-MB, CIGNA Healthcare. The purpose of the option is to contract for a Preferred Provider Organization (PPO) and Health Maintenance Organization (HMO) medical plans for District of Columbia Water and Sewer Authority (DC Water) employees. The option amount is \$8,120,014.

This resolution is effective immediately.

Linda R. Maully Secretary to the Board of Directors Presented and Adopted: December 6, 2012

SUBJECT: Approval to Execute Option Year Three of Contract No. WAS-09-071-AA-MB, Kaiser Foundation Health Plan of the Mid-Atlantic States, Inc.

#12-111
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

The Board of Directors ("Board") of the District of Columbia Water and Sewer Authority, ("the Authority"), at the Board meeting held on December 6, 2012 upon consideration of a joint use matter decided by a vote of ten (10) in favor and none (0) oppose to execute Option Year Three of Contract No. WAS-09-071-AA-MB, Kaiser Foundation Health Plan of the Mid-Atlantic States, Inc.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Option Year Three of Contract No. WAS-09-071-AA-MB, Kaiser Foundation Health Plan of the Mid-Atlantic States, Inc. The purpose of the option is to contract for a Health Maintenance Organization (HMO) medical plan for employees hired on or after October 1, 1987. The option amount is \$3,147,491.

This resolution is effective immediately.

Linda K. Manley Secretary to the Board of Directors Presented and Adopted: December 6, 2012
SUBJECT: Approval to Execute Option Year Two of Contract No.
WAS-10-074-AF-MB, Peak Technology Solutions, Inc.

#12-112 RESOLUTION OF THE BOARD OF DIRECTORS OF THE DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

The Board of Directors ("Board") of the District of Columbia Water and Sewer Authority, ("the Authority"), at the Board meeting held on December 6, 2012 upon consideration of a joint use matter decided by a vote of ten (10) in favor and none (0) oppose to execute Option Year Two of Contract No. WAS-10-074-AF-MB, Peak Technology Solutions, Inc.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Option Year Two of Contract No. WAS-10-074-AF-MB, Peak Technology Solutions, Inc. The purpose of the option is to provide personnel to support various systems and applications, e.g., Content Management System for the Department of Information Technology. The option amount is \$1,180,000.

This resolution is effective immediately.

Linda R. Mauley Secretary to the Board of Directors Presented and Adopted: December 6, 2012

SUBJECT: Approval to Execute Option Year Two of Contract No. WAS-10-074-AE-MB, Namtra Business Solutions

#12-113
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

The Board of Directors ("Board") of the District of Columbia Water and Sewer Authority, ("the Authority"), at the Board meeting held on December 6, 2012 upon consideration of a joint use matter decided by a vote of ten (10) in favor and none (0) oppose to execute Option Year Two of Contract No. WAS-10-074-AE-MB, Namtra Business Solutions.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Option Year Two of Contract No. WAS-10-074-AE-MB, Namtra Business Solutions. The purpose of the option is to provide personnel to support various systems and applications, e.g., Automated Meter Reading for the Department of Information Technology. The option amount is \$750,000.

This resolution is effective immediately.

Linda K. Manley Secretary to the Board of Directors Presented and Adopted: December 6, 2012
SUBJECT: Approval to Execute Option Year Two of Contract No.
WAS-10-074-AI-MB, Softworld, Inc.

#12-114 RESOLUTION OF THE BOARD OF DIRECTORS OF THE DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

The Board of Directors ("Board") of the District of Columbia Water and Sewer Authority, ("the Authority"), at the Board meeting held on December 6, 2012 upon consideration of a joint use matter decided by a vote of ten (10) in favor and none (0) oppose to execute Option Year Two of Contract No. WAS-10-074-AI-MB, Softworld, Inc.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Option Year Two of Contract No. WAS-10-074-AI-MB, Softworld, Inc. The purpose of the option is to provide personnel to support various systems and applications, e.g., SCADA for the Department of Information Technology. The option amount is \$600,000.

This resolution is effective immediately.

Linda K. Marley
Secretary to the Board of Directors

Presented and Adopted: December 6, 2012
SUBJECT: Approval to Execute Option Year Two of Contract No.
WAS-10-074-AH-MB, TieBridge

#12-115
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

The Board of Directors ("Board") of the District of Columbia Water and Sewer Authority, ("the Authority"), at the Board meeting held on December 6, 2012 upon consideration of a joint use matter decided by a vote of ten (10) in favor and none (0) oppose to execute Option Year Two of Contract No. WAS-10-074-AH-MB, TieBridge.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Option Year Two of Contract No. WAS-10-074-AH-MB, TieBridge. The purpose of the option is to provide personnel to support various systems and applications, e.g.. Asset Management System for the Department of Information Technology. The option amount is \$1,000,000.

This resolution is effective immediately.

Linda R. Maully Secretary to the Board of Directors Presented and Adopted: December 6, 2012
SUBJECT: Approval to Execute a Modification of Contract No. RQ09997736-42B (Riding Fairfax County's contract), Insight
Public Sector, Inc.

#12-116
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

The Board of Directors ("Board") of the District of Columbia Water and Sewer Authority, ("the Authority"), at the Board meeting held on December 6, 2012 upon consideration of a joint use matter decided by a vote of ten (10) in favor and none (0) oppose to execute a modification of Contract No. RQ09-997736-42B (Riding Fairfax County's contract), Insight Public Sector, Inc.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute a modification of Contract No. RQ09-997736-42B (Riding Fairfax County's contract). Insight Public Sector, Inc. The purpose of the modification is to contract for Microsoft software products and licensing for the District of Columbia Water and Sewer Authority's (DC Water) Department of Information Technology. The modification amount is \$585,706.39.

This resolution is effective immediately.

Linda R. Manley Secretary to the Board of Directors Presented and Adopted: December 6, 2012 SUBJECT: Approval to Execute Contract No. WAS-12-066-AA-RE, Polydyne, Inc.

#12-117 RESOLUTION OF THE BOARD OF DIRECTORS OF THE DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

The Board of Directors ("Board") of the District of Columbia Water and Sewer Authority, ("the Authority"), at the Board meeting held on December 6, 2012 upon consideration of a joint use matter decided by a vote of ten (10) in favor and none (0) oppose to execute Contract No. WAS-12-066-AA-RE, Polydyne, Inc.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Contract No. WAS-12-066-AA-RE, Polydyne, Inc. The purpose of the contract is to provide polymer to the Blue Plains Advanced Wastewater Treatment Facility for solids dewatering for the Department of Wastewater Treatment. The contract amount is \$1,803,739.

This resolution is effective immediately.

Linda R. Manley
Secretary to the Board of Directors

Presented and Adopted: December 6, 2012
SUBJECT: Approval to Execute Contract No. WAS-12-066-AB-RE,
BASF Corporation

#12-118 RESOLUTION OF THE BOARD OF DIRECTORS OF THE DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

The Board of Directors ("Board") of the District of Columbia Water and Sewer Authority, ("the Authority"), at the Board meeting held on December 6, 2012 upon consideration of a joint use matter decided by a vote of ten (10) in favor and none (0) oppose to execute Contract No. WAS-12-066-AB-RE, BASF Corporation.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Contract No. WAS-12-066-AB-RE, BASF Corporation. The purpose of the contract is to provide polymer to the Blue Plains Advanced Wastewater Treatment Facility for solids dewatering for the Department of Wastewater Treatment. The contract amount is \$1,877,540.

This resolution is effective immediately.

Linda R. Mully Secretary to the Board of Directors Presented and Adopted: December 6, 2012
SUBJECT: Approval to Execute Contract No. WAS-12-063-AA-RA,
Allied Barton Security Services

#12-119
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

The Board of Directors ("Board") of the District of Columbia Water and Sewer Authority, ("the Authority"), at the Board meeting held on December 6, 2012 upon consideration of a joint use matter decided by a vote of ten (10) in favor and none (0) oppose to execute Contract No. WAS-12-063-AA-RA, Allied Barton Security Services.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Contract No. WAS-12-063-AA-RA, Allied Barton Security Services. The purposes of this contract is to provide Protective Services for the District of Columbia Water and Sewer Authority (DC Water). The contract amount is \$4,934,348.

This resolution is effective immediately.

Secretary to the Board of Directors

Presented and Adopted: December 6, 2012

SUBJECT: Approval to Execute Supplemental Agreement No. 03 of Contract No. DCFA #423, Black & Veatch Corporation

#12-120
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

The Board of Directors ("Board") of the District of Columbia Water and Sewer Authority, ("the Authority"), at the Board meeting held on December 6, 2012 upon consideration of a joint use matter decided by a vote of ten (10) in favor and none (0) oppose to execute Supplemental Agreement No. 03 of Contract No. DCFA #423, Black & Veatch Corporation.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Supplemental Agreement No. 03 of Contract No. DCFA #423, Black & Veatch Corporation. The purpose of the supplemental agreement is to provide additional field verification of equipment, valves, and piping; develop an hydraulic model and evaluate the Nitrification RAS system. The supplemental agreement amount is \$1,320,000.

This resolution is effective immediately.

Linda K. Munley Secretary to the Board of Directors Presented and Adopted: December 6, 2012
SUBJECT: Approval to Execute Change order No. 13 of Contract No. 090190, Corinthian Contractors, Inc.

#12-121
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

The Board of Directors ("Board") of the District of Columbia Water and Sewer Authority, ("the Authority"), at the Board meeting held on December 6, 2012 upon consideration of a joint use matter decided by a vote of ten (10) in favor and none (0) oppose to execute Change Order No. 13 of Contract No. 090190, Corinthian Contractors, Inc.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Change Order No. 13 of Contract No. 090190, Corinthian Contractors, Inc. The purpose of the change order is to install a handrail on two sides of the porch leading to the public restrooms at Site 1995 as requested by NPS. The change amount is \$11,550.

This resolution is effective immediately.

Linda K. Mauley
Secretary to the Board of Directors

Presented and Adopted: December 6, 2012

SUBJECT: Approval to Execute a Contract No. 120010

Ulliman Schutte Construction, LLC

#12-122
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

The Board of Directors ("Board") of the District of Columbia Water and Sewer Authority, ("the Authority"), at the Board meeting held on December 6, 2012 upon consideration of a joint use matter decided by a vote of ten (10) in favor and none (0) oppose to execute Contract No. 120010, Ulliman Schutte Construction, LLC.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Contract No. 120010, Ulliman Schutte Construction, LLC. The purpose of the contract is to obtain additional occupancy and steel plate permits due to new DDOT regulations. The contract amount is \$57,960,000.

This resolution is effective immediately.

Linda R. Manley
Secretary to the Board of Directors

Presented and Adopted: December 6, 2012
Subject: Approval of Debt Policy and Guidelines

#12-123 RESOLUTION OF THE BOARD OF DIRECTORS OF THE DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

The Board of Directors (the "Board") of the District of Columbia Water and Sewer Authority, (the "Authority") at its meeting on December 6, 2012, upon consideration of a joint-use matter, decided by a vote of ten (10) in favor and none (0) opposed, to take the following action with respect to the approval of the Debt Policy and Guidelines.

WHEREAS, the Board of Directors desires to enhance and document the decisions made regarding debt issuance; and

WHEREAS, the Board of Directors desires to demonstrate its commitment to long-term financial planning objectives; and

WHEREAS, the Board of Directors wishes to enhance the positive assessment of credit quality by the bond rating agencies to maintain and improve DC Water's high credit ratings; and

WHEREAS, the Board of Directors wishes to integrate a Debt Policy with the budget development of the Capital Improvement Program, multi-year financial plan and other financial policies; and

WHEREAS, the Government Finance Officers Association recommends the adoption of a formal debt policy for any governmental entity authorized to issue debt; and

WHEREAS, the Finance and Budget Committee met on November 29, 2012, and recommended that the Board adopt the attached Debt Policy and Guidelines.

NOW THEREFORE BE IT RESOLVED THAT:

The Board hereby approves the attached Debt Policy and Guidelines and authorizes the General Manager to implement the policy.

This resolution is effective immediately.

Secretary to the Board of Directors

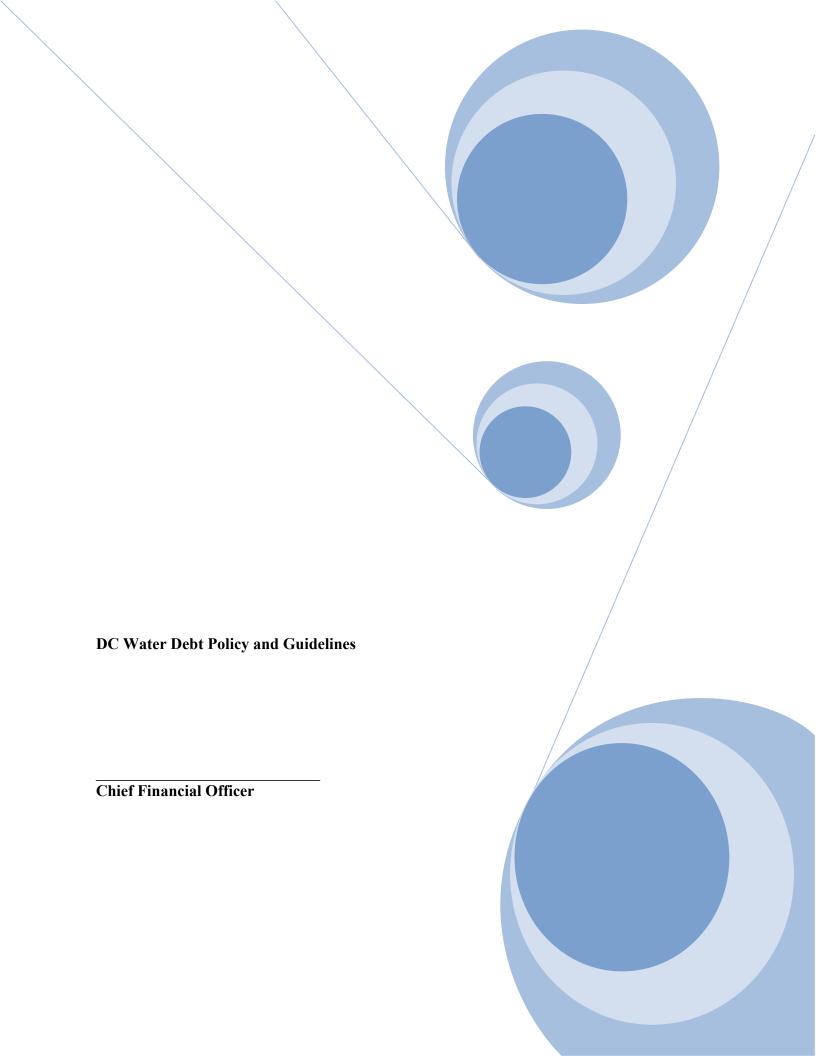


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SECTION I: INTRODUCTION

The District of Columbia Water and Sewer Authority ("DC Water") is an independent Authority of the District of Columbia (the "District"). DC Water was created in April 1996 and began operating on October 1, 1996, under and pursuant to an act of the Council of the District (the "Council") entitled the "Water and Sewer Authority Establishment and Department of Public Works Reorganization Act of 1996" (D.C. Law 11-111) (D.C. Code §§ 34-2201.01 et seq.), as amended and supplemented (the "Act"), and an act of the United States Congress entitled the "District of Columbia Water and Sewer Authority Act of 1996" (Public Law 104-184) (the "Federal Act"). The same legislation (§§ 34-2201.01) that created DC Water in 1996 also delegated to DC Water the authority to issue debt.

SECTION II: PURPOSE

The purpose of DC Water's Debt Policy and Guidelines (the "Debt Policy") is to provide DC Water officials and staff a comprehensive guide to DC Water's issuance and use of debt to fund capital projects or to refund/refinance/restructure outstanding debt. The advantages of adopting and adhering to a clear, concise and comprehensive debt policy are:

- Enhancing the quality of decisions
- Documenting the decision-making process
- Identifying objectives clearly to facilitate staff implementation
- Demonstrating a commitment to Long-Term financial planning objectives that result in a sound financial position
- Enhancing the positive assessment of credit quality by the bond Rating Agencies in order to maintain and improve DC Water's high credit ratings
- Integrating the Debt Policy with the operating and capital budgets, the multi-year Capital Improvement Program (CIP), Multi-Year Financial Plan and other financial policies

The financial policies outlined in this document, in most cases, impose higher standards than the legal requirements contained in DC Water's Master Indenture of Trust dated as of April 1, 1998 as amended and supplemented from time to time (the "Indenture") and other legal requirements.

SECTION III: SCOPE

This Debt Policy applies to all debt issued by DC Water and debt issued on behalf of DC Water.

SECTION IV: DEBT POLICY OBJECTIVES

DC Water's Debt Policy objectives are:

- 1. Compliance: Ensure compliance with all laws, legal agreements, contracts, best practices and adopted policies related to debt issuance and management, including:
 - Enabling Legislation, Master Indenture of Trust and Supplemental Indentures
 - Policies adopted by DC Water's Board of Directors (the "Board")
 - Government Finance Officers Association (GFOA) Best Practices
 - Federal, State and local laws and regulations, as applicable
- 2. Efficiency: Promote cooperation and coordination with all stakeholders in the financing and delivery of services by:
 - Seeking the lowest cost of capital reasonably available and minimizing financing costs for capital projects and other debt issuances.
 - Establishing criteria to determine use of financing sources (Long and Short-Term debt, Pay-As-You-Go (PAYGO) financing, grants and other Alternative Forms of Financing).
 - Evaluating debt issuance options including the amount and type of debt.
 - Minimizing the use of unplanned, Short-Term cash flow borrowings by maintaining adequate working capital and authorizing the minimum amount required to offset mismatches between available cash and cash outflows determined by cash flow analysis.
- **3. Effectiveness:** Promote sound financial management to maximize and best utilize future debt capacity by:
 - Maximizing administrative and operating flexibility.
 - Minimizing Legal and Financial Risk to current and future budgets.
 - Protecting DC Water's credit ratings in order to maintain access, on the best available terms, to local, regional and national credit markets.
 - Maintaining an appropriate level of operating cash reserves.
 - Maintaining reasonable and justifiable levels of rates and fees that address the current and future needs of stakeholders.
 - Improving the quality of decisions and parameters for justification on debt structure.
- **4. Accountability and Transparency:** Ensure that the duties and responsibilities of those charged with the implementation of the Debt Policy are clearly conveyed and understood, and that the Debt Policy is implemented in accordance with the following tenets:
 - Providing the Board and all of DC Water's stakeholders with the required information, in sufficient detail and with ample time to allow for assessment and guidance. For example, for DC Water's SIFMA-Index Floating Rate Notes, the Board will review potential options and provide feedback to address a mandatory tender of the bonds 9 months prior to the mandatory tender date.
 - Addressing and mitigating debt portfolio risks to DC Water's Short and Long-Term operations.

- Avoiding conflicts of interest.
- Fully disclosing all proposed and actual costs in a timely manner, to include the selection of and payment for professional services associated with the issuance of debt.
- Reviewing the debt financing decision, implementation, and maintenance plans with the Board.
- Timely providing all disclosures required by law.

SECTION V: USE OF DEBT

Debt is a financing tool which should be used judiciously. Generally, DC Water will issue debt for two purposes:

- 1. Finance the costs associated with the CIP.
- 2. Refund existing debt to obtain Debt Service savings and/or restructure certain terms of existing debt, (See the attached checklist, "Refunding Guidelines").

SECTION VI: RESPONSIBLE PARTIES

Several DC Water officials and staff, District officials and outside advisors are critical in the debt issuance process. This includes but is not limited to:

- DC Water's Board is responsible for authorizing all debt (including Refunding Bonds, notes or other obligations) issuance via a Board resolution. The Board is also responsible for approving the Debt Policy and any material changes to it.
- DC Water's Board Chairman, General Manager and/or the Chief Financial Officer, by delegation through a Board resolution, are responsible for executing all documents related to debt issuance.
- DC Water's Chief Financial Officer (the "CFO"), through the Office of Treasury and Debt Management, is responsible for the administration and issuance of debt including the completion of specific tasks and responsibilities included in this Debt Policy.
- DC Water's General Counsel is responsible for providing an opinion on certain legal matters associated with the debt transaction.
- The DC Auditor, pursuant to the Act, must certify that the revenues of DC Water are sufficient to pay its costs (including the principal and interest on the proposed new debt issuance) prior to any new debt issuance.
- Bond Counsel will be retained by DC Water to issue an opinion as to the legality and tax status of all debt obligations. DC Water also may seek the advice of Bond Counsel on other types of financing and on any other questions involving local, state or federal law. Bond Counsel is also is responsible for the preparation of the resolution authorizing issuance of obligations, certain bond and Closing documents necessary for the execution of the debt issuance, and the performance of other services as defined by contract approved by the Authority.

- Disclosure Counsel will be retained by DC Water to assist with development of the Official Statement and Continuing Disclosure agreements. Disclosure Counsel will advise DC Water on matters pertaining to Continuing Disclosure needs and requirements. Disclosure Counsel will also provide a Due Diligence Opinion ("Rule 10(b)(5) opinion") at Closing to DC Water. Disclosure Counsel may also be Bond Counsel.
- Financial Advisor(s) will be retained by DC Water to provide DC Water with a comprehensive analysis of options available to DC Water. The Financial Advisor(s) will advise on the structuring and execution of all debt and debt-related transactions and provide other services as defined by approved contracts.
- Feasibility Consultant(s) will be retained by DC Water to provide an engineering feasibility report as well as a financial feasibility opinion. The engineering feasibility report will have findings and recommendations regarding the maintenance of DC Water's system and the adequacy of the CIP. The financial feasibility opinion addresses DC Water's ability to effectively execute its mission, operate its system to provide uninterrupted service, maintain regulatory compliance and finance and implement the current CIP within the parameters established in the indenture as well as Board policies. Both can be incorporated into the bond offering documents.

SECTION VII: FINANCING TEAM

DC Water must assemble a Financing Team that will provide advice and support for the best execution of each debt financing. The following applies to members of the Financing Team:

- 1. May consist of multiple parties with distinct responsibilities and is generally comprised of both DC Water staff and outside professional consultants. These outside professional consultants include the Financial Advisor; Bond, Disclosure and Tax Counsel; feasibility consultant; Independent Consulting Engineer; Underwriters; Underwriter's Counsel; printer; Trustee; Verification Agent; escrow agent; and others as deemed necessary by the CFO.
- **2.** DC Water will select the members of the Financing Team through a competitive process. However, DC Water may also directly engage consultants on a case-by-case basis, if it is determined to be in the best interest of DC Water.
- **3.** DC Water requires that its consultants and advisors provide objective advice and analysis, maintain the confidentiality of DC Water's financial plans, and be free from any conflicts of interest.
- **4.** All Financing Team Members will be required to provide full and complete disclosure, relative to agreements with other Financing Team members and outside parties. The extent of disclosure may vary depending on the nature of the transaction. However, in general terms, no agreements shall be permitted which could compromise the firm's ability to provide independent advice which is solely in the Authority's best interests or which could reasonably be perceived as a conflict of interest.

VIII: GUIDELINES FOR A DEBT TRANSACTION

The following section discusses several of the decisions that must be made for each debt issuance. Each and every debt transaction is unique. DC Water's Chief Financial Officer, when making these decisions, will confer with the Financial Advisors and other members of the Financing Team to evaluate the relative costs and benefits of each decision individually and collectively. DC Water's Chief Financial Officer will review these options with the Board and provide a recommendation on the preferred option, to be specified in the Board's resolution, authorizing that Series of debt. The following areas must be addressed to successfully close a transaction:

1. **Debt Capacity Limits:** DC Water's is authorized to issue additional debt only to the extent that it can satisfy the Debt Service Coverage (annual net revenues as a percent of annual Debt Service) requirements established in the Indenture and certain Board polices as set forth below:

Debt Service Coverage Requirements								
Debt Security Level	Master Indenture	Board Resolution	Management Practice					
Senior	120%	140%	140%					
Subordinate	100%	100%	100%					
Combined	Not Applicable	Not Applicable	120%					

- 2. Size of the Bond Transaction: DC Water shall use a variety of tools for determining the size of the debt issuance. The CIP is the primary driver of funding requirements. Debt will be issued to fund that portion of the CIP which will not be financed through other sources such as PAYGO, wholesale customer contributions and grants. Additional factors that may impact the size of the bond transaction include the amount of Costs of Issuance/Underwriter's Discount, the use of a Debt Service Reserve Fund and/or Capitalized Interest for the transaction.
 - Costs of Issuance/Underwriter's Discount: Costs of Issuance are those fees and expenses incurred by DC Water during, or associated with, the sale of debt. Underwriter's Discount represents the fees and expenses of the Underwriters payable by DC Water. These costs are typically funded through the issuance of Additional Bonds and are capped by the Board via the Authorizing Resolution.
 - All the agreed upon Costs of Issuance/Underwriter's Discount, will be communicated to all parties by the Chief Financial Officer prior to the sale date.
 - Debt Service Reserve Fund (the "DSRF"): DC Water may consider providing a DSRF as market conditions dictate. A DSRF can be established to support each individual series of bonds or as a common reserve that can support more than one series of bond's Debt Service. The DSRF is typically funded in its entirety with bond proceeds at the time of issuance but can also be funded through a Letter of Credit or a Surety Bond.

- Capitalized Interest: DC Water may choose to issue bonds to pay interest on all or a portion of that bond issue for a specified time after issuance and during the construction period.
- **3. Timing of the Debt Issuance:** The scheduling and timing of the sale of debt will be determined by:
 - Multi-Year Financial Plan and CIP Needs: Represent the primary drivers of the timing of the bond transaction.
 - Refunding Timeline: When economic conditions are advantageous and/or other considerations demand, DC Water may refund existing debt. The nature of the Refunding Current Refunding or Advance Refunding will impact the timing of the Refunding transaction. See the Attached checklist, "Refunding Guidelines". Additionally, see DC Water's "Multi-Modal (SIFMA Index) Bonds Policy" and the attached checklist, "Timing and Considerations for Variable Rate Debt".
 - Market Access and Conditions: DC Water, with advice of its Finance Team, prefers to issue debt in favorable market conditions. However, in the event of debt market stress, it might be difficult to issue debt in a cost effective manner. If this situation arises, DC Water may choose to initially fund project costs with cash on hand and to reimburse these expenditures from a future debt financing.
- **4. Method of Sale:** The method of sale determines the process by which debt will be sold, the purchasers of the debt, and how the purchase price will be established. There are three primary options for each debt transaction:
 - Negotiated Sale: DC Water can sell its bonds to the Underwriter(s) selected by DC Water at a price to be determined pursuant to negotiation. Bonds with complex security structures (e.g. revenue bonds), certain structural characteristics (e.g. Variable Rate bonds), and/or certain credit ratings (e.g. lower) frequently achieve best Pricing execution via a Negotiated Sale process.
 - Competitive Sale: DC Water can sell its bonds to the bidder providing the lowest true interest cost as long as the bid adheres to the requirements set forth in the official Notice of Sale. Competitive Sales lend themselves most readily to very highly rated, simple security structures (e.g. general obligation bonds).
 - **Private Placement:** From time to time, DC Water may elect to privately place its debt. Such placement shall only be considered if this method is demonstrated to result in a cost savings or other benefit to DC Water relative to other methods of debt issuance.
- 5. Security Provisions: DC Water's Bond Indenture pledges the net operating revenues (generally, the revenues net of operating expenses) to secure the debt obligations that DC Water issues under the Bond Indenture. In connection with each particular bond issue, DC Water must determine whether to issue the proposed bonds with a Senior or Subordinate pledge of net revenues. In addition, DC Water also has the ability to use a third lien, when appropriate and approved by the Board.
- **6. Debt Structure**: In addition to making the decisions detailed previously, DC Water must also make several significant structural choices regarding the proposed bonds. These

structural decisions directly impact the associated Debt Service and, consequently, the Multi-Year Financial Plan, DC Water's operations and ratepayers. These structural decisions address:

- Term: When determining the final maturity of proposed bonds, DC Water must consider the average life of the assets being financed, the beneficial use of the assets, the relative level of interest rates, the year-to-year differential in interest rates, and the Marketability of the longer Term Bonds. Generally, the term of the bonds shall not exceed the useful life of the assets being financed. The most basic decision DC Water must make regarding term is whether to use Long-Term or Short-Term debt:
 - <u>Long-Term Debt</u> is generally structured where the Amortization of the debt matches the expected useful life of the project. Long-Term debt is generally considered to be debt with a maturity greater than 15 years.
 - Short-Term Debt may take several forms, including commercial paper and bond anticipation notes with either Fixed or Variable Rates. DC Water will consider using Short-Term debt to finance shorter-term assets, obtain lower interest costs, and/or provide interim financing for certain projects.
- Fixed versus Variable Rate: When determining the balance between Fixed and Variable Rate debt, the goal is to provide DC Water with a balanced debt portfolio that manages the desire for the certainty of known quantity of future Debt Service payments provided by Fixed Rate debt versus the historically lower interest costs provided by Variable Rate debt. The Fixed and/or Variable Rate decision will be influenced and guided by several factors:
 - o <u>Market Conditions</u>: In certain market conditions, Variable Rate issuance may provide DC Water with a material cost advantage.
 - Ocash and Investment Balances: The amount of cash and short term assets DC Water has on hand provides a "natural hedge" for Variable Rate debt. While changes in interest rates impact both assets and liabilities, the change is in opposite directions. For example, an increase in interest rates results in increased Debt Service on Variable Rate debt. However, this increased Debt Service is offset by the increased interest earnings on the short term investments.
 - <u>Credit Considerations</u>: In general, Rating Agencies prefer a prudent balance between Fixed and Variable Rate debt. This preference is to insulate issuers from sudden, sharp increases in interest rates and Debt Service costs. In general, Rating Agencies prefer the percentage of variable-rate debt outstanding shall not exceed 20-25%. For calculation purposes, this ratio will exclude both Variable Rate debt which has been converted through a hedging transaction to synthetically Fixed Rate debt and debt that is "naturally hedged" by cash and investment balances.
- Debt Service Payments (Level, Wrapped or Loaded): DC Water has to determine the Amortization Schedule of the bonds. This is a significant decision that will directly influence the amount of Debt Service required each year and, as a result, will

have a significant impact on the amount of revenue which must be raised each year. In general, there are three primary options available:

- <u>Level Debt Service</u>: Creates equal annual Debt Service payments (i.e., principal plus interest) over the life of the issued bonds. The debt will be structured while still matching Debt Service to the useful life of the financed facilities (discussed previously).
- Wrapped Debt Service: Conforms the Debt Service on the new debt to DC Water's existing Debt Service burden, projected cash flows and other circumstances to create an overall Debt Service schedule that meets the objectives and parameters of DC Water.
- <u>Loaded Debt Service</u>: Creates a principal maturity structure to achieve a desired goal for DC Water. Generally, principal is either "front-loaded" or "back-loaded".
- **Serial versus Term Bonds:** To achieve desired Debt Service levels while balancing the Marketability of the bonds, DC Water may issue a combination of Serial and Term Bonds and can, if appropriate, incorporate Sinking Funds.
- **Redemption Provisions:** In some circumstances, DC Water may redeem (repurchase bonds from the bond holder) outstanding debt prior to its stated maturity. The most common redemption provisions are:
 - Optional Redemption (Call option): Allows DC Water the ability, at its option and subject to certain conditions, to re-purchase selected bonds prior to their stated maturity. Pursuant to the Act, all bonds issued by DC Water shall be callable not more than 11 years from the date of the issuance of the respective bond.
 - Mandatory Redemption: Requires DC Water to re-purchase outstanding debt prior to its stated maturity according to a Sinking Fund schedule established in the authorizing documents. Usually, Mandatory Redemption provisions allow issuer's to structure the annual Debt Service to match projected repayment sources. In other instances, a Mandatory Redemption can be triggered by the occurrence of certain one-time or extraordinary events.
- Couponing of Bonds: The Coupons associated with bonds compared to the Yield determine if the bonds will sell at a Premium, Discount or at Par. DC Water will consider the relative benefits and costs of Couponing each maturity based on specific structuring requirements, prevailing market conditions and the Marketability of the bonds.
- 7. Credit Enhancement: DC Water may consider the use of credit enhancement such as letter-of-credit or bond insurance in order to reduce the cost of borrowing. The use of credit enhancement will be made on a case-by-case basis whereby the cost of the credit enhancement will be weighed against the reduction in Debt Service resulting from improved Marketability of the bonds and lower interest cost.
- **8. Derivative Instruments:** DC Water recognizes that, in certain circumstances, a derivatives transaction (e.g., Swaps, Swaptions and interest rate collars) can manage risk exposures

and produce a lower cost of financing. However, each Derivative instrument can raise complex risk and credit issues. DC Water's over-arching goals for a derivatives transaction address the following:

- DC Water shall not enter into a derivatives transaction for the purpose of speculation.
- When compared to conventional market transactions, DC Water will achieve more savings or more flexibility in meeting its overall financial objectives.
- Achieve diversification of a bond offering or achieve a debt management goal through the Derivative instrument.
- Reduce or hedge exposure (to changes in interest rates, commodity prices, etc) in relation to the overall asset/liability portfolio management of DC Water.
- Take advantage of market opportunities to produce a lower net cost of borrowing with respect to debt obligations.

By recommendation of the CFO, the Board is responsible for the approval to execute a derivatives transaction. The authorizing derivatives resolution will approve the derivatives transaction and its details, including notional amount, security, payment, risks and other conditions relating to the transaction. In the Authorizing Resolution, DC Water must state the goals of the derivatives transaction and each resolution will identify the appropriate official to execute and make changes, within limits, to the derivatives transaction being considered.

DC Water must receive an evaluation from its Financial Advisor(s) stating that the proposed Derivative transaction is in DC Water's best interest. DC Water must also receive an opinion from Bond Counsel that the approved Derivative transaction is a legal and valid obligation of DC Water. Actions approved by the Board must comply with applicable law and not violate existing Indenture and other contracts.

IX: DOCUMENTATION

The completion of a debt transaction requires the Financing Team to develop, review, and adopt/execute several documents. While not exhaustive, the following represents the key documents in a debt transaction:

- 1. Authorizing Resolution: A document, approved by the Board, that authorizes DC Water to issue the bonds subject to several financial and other parameters as set forth in Authorizing Resolution as well as the Indenture and other Board Resolutions. Bond Counsel is the primary drafter of this document.
- **2. Supplemental Indenture:** A document, approved by the Board, that amends the terms of the Indenture to incorporate the provisions of the additional debt being issued. Bond Counsel is the primary drafter of this document.
- **3. Official Statement:** The offering document that is used to disclose details about the transaction as well as DC Water's financial and operating information. The document, in preliminary form (the Preliminary Official Statement), is used to assist in marketing the

transaction Investors prior to Pricing. Disclosure Counsel is the primary drafter of this document.

4. Bond Purchase Agreement (BPA): The contract between the Underwriter and DC Water sets forth the final terms, prices and conditions upon which the Underwriter purchases a new issue of municipal securities in a Negotiated Sale. Underwriter's Counsel is the primary drafter of this document.

X: MARKETING

The goals of a marketing plan are to achieve the lowest cost of finance for a transaction and to have a diversified investor base. This is achieved by clearly developing and delivering the requisite message and information to key DC Water stakeholders, Investors and the Rating Agencies. Marketing involves different channels of communication:

- 1. Investors: Retail and Institutional Investors purchase DC Water's bonds. While both classes of investors rely on the formal credit ratings, Institutional investors generally do an independent review and approval of DC Water's credit before making an investment decision. Information is critical for both of these investor classes and, in addition to providing a Preliminary Official Statement to the Underwriters, DC Water will endeavor to maintain timely financial and operational data on the DC Water's web site and Investor Relations web page. DC Water can target these investors through different channels:
 - **Retail Investors.** Retail marketing plans typically include print and online advertising and radio ads. Retail proxies (investment managers, trust departments, etc.) also can be reached via internet road show.
 - Institutional Investors. To reach these investors, DC Water can conduct an Institutional investor outreach program for each transaction. This program might include face-to-face meetings, calls with investors (individually or in groups) or an Internet-based presentation (NetRoadShow). All of these can inform investors and brokers of the upcoming sale and provide other salient updates. In addition, print and internet advertising is also an available marketing channel. DC Water can also engage Institutional Investors throughout the year to keep them informed of DC Water's current financial and operational position and the status of the CIP.

At the end of each sale, certain metrics will be used to assess the most suitable and successful means of marketing the new issue of bonds to investors. This information will inform the next transaction and improve future marketing efforts.

2. Rating Agencies: The Rating Agencies evaluate the credit quality of DC Water by measuring the probability of the timely repayment of principal and interest on the bonds. To help achieve the lowest cost of debt, DC Water will strive to achieve the highest, most cost-effective credit Ratings. DC Water's debt management activities will be conducted to maintain its strong credit Ratings, consistent with DC Water's financing objectives. Generally, DC Water obtains at least one credit rating for each debt issuance.

XI. PRICING THE TRANSACTION

Pricing represents the process by which DC Water, with assistance from the Financial Advisor(s) and Underwriters, determines the interest rates and prices at which the new issue will be offered to the public. The goal of Pricing is to sell the bonds to a wide variety of investors at the lowest rate through the development of:

- **1. Syndicate Policies:** Syndicate policies describe the Priority of Orders, designation policy, definition of "Retail Order", and Underwriters' Liability governing the upcoming sale.
- **2. Priority of Orders:** The agreed upon Priority of Orders will establish the sequence in which Orders are honored or "filled" during the allocation process.
- **3. Designation Policies:** Establishes the rules that will govern the allocation of the takedown or sales commission among the Underwriting Syndicate in the case of a Net Designated order.

XII: POST-PRICING AND CLOSING ACTIVITIES

Immediately following the Pricing of the bond transaction, several events occur:

- 1. Bond Purchase Agreement: DC Water and the Senior Manager are the signatories to the BPA. Prior to signing the BPA, the Senior Manager will review the orders and allocations of the Bonds with DC Water. The purpose of this review is to ensure an equitable distribution of the bonds across investor classes and Underwriters.
- **2. Posting the Official Statement:** The Official Statement is required to be delivered to investors within business 7 days of signing the BPA.
- 3. Closing and Bond Transcript: Typically 1-2 weeks after Pricing, the transaction is Closed. This is the formal signing of all of the required legal documentation for the bond transaction. Once all Closing documents are executed, DC Water will deliver the securities in exchange for the Purchase Price of the bonds from the Underwriter. The Purchase Price will be wired to the designated accounts in the pre-determined amounts to achieve the purpose of the transaction as detailed in the Closing memorandum. Closing involves the participation of DC Water, Bond Counsel, Disclosure Counsel, the Underwriter(s), Underwriter's Counsel, the Trustee and the Financial Advisor. Subsequent to Closing, Bond Counsel will deliver the Closing transcript. The Closing transcript includes all of the legal and financial documents, including Bond Counsel's opinion and other legal opinions (e.g. Disclosure Counsel's Rule 10(b)(5) Opinion), associated with the transaction. DC Water will incorporate the Closing transcript into their official records.
- **4.** Evaluation: Determining the efficiency and effectiveness of the transaction and the performance of the Finance Team is an important activity. DC Water, through both formal and informal means, will review the bond transaction purpose, process and timing and compare this to the goals that were established for the transaction. The performance of all members of the Finance Team will be reviewed and evaluated for future reference. In addition, the Financial Advisor will provide a written report to DC Water of the transaction and how the Pricing of the bonds compared to similar transactions

- concurrently in the market. This comparison will illustrate the borrowing costs of DC Water's new issue compared to similarly-rated entities. A review of investor's orders and allotments will also be provided.
- **5. Reports:** The CFO, the Financial Advisor and Underwriter will provide the evaluation to the Board. This will be done no later than 30 days after the transaction and will also address market conditions, Pricing results, investor response and a review of the Cost of Issuance and Underwriter's Discount (and applicable expenses) associated with the transaction.

XIII. INVESTMENT OF PROCEEDS, POST ISSUANCE COMPLIANCE AND MONITORING

The Treasury and Debt Management department under the CFO is responsible for the investment of proceeds, as well as all post issuance and compliance activities.

- 1. Investment of Bond Proceeds. The Treasury and Debt Management department, after receipt of Bond proceeds, will invest the funds based on the Bond Indenture, DC Water's Investment Policy and Federal regulations.
- 2. Project Compliance (See attached "Use of Proceeds Checklist" and "Private Use Checklist")
 - Arbitrage: DC Water does not pay federal income tax and generally DC Water's bond holders do not pay federal income tax on interest earned from bonds issued by DC Water. With the investment of Bond proceeds, the treatment of interest earned on the permitted investments during this period is governed by IRS Arbitrage rules designed to eliminate any Arbitrage incentive to:
 - o Issue more bonds than needed.
 - o Issue bonds earlier than needed, and
 - Leave bonds outstanding longer than needed

To accomplish the purpose of the bond issuance, DC Water must follow IRS rules governing the Yield restriction (when you may legally earn the Arbitrage Yield from investing bond proceeds) and Arbitrage rebate (when you must return the invested earnings above the Arbitrage Yield back to the IRS). The following guidelines apply:

- o The Tax Certificate for the transaction provides the relevant information.
- DC Water may retain the services of a qualified Arbitrage rebate agent to calculate any Arbitrage due to the IRS on outstanding bond issuances with proceeds remaining.
- o Arbitrage consultant selected by a RFP or RFQ will be used to determine compliance and rebates (see attached flowcharts).
- Annual Review: DC Water will review expenditures and reimbursements to determine if any private business use in facilities that were constructed using taxexempt debt, except as specifically disclosed prior to sale of debt or as subsequently

- opined by nationally recognized Bond Counsel, do not impact the tax-exempt status of the debt
- Bond Proceeds: DC Water will track Bond proceeds, ensuring expenditures are within the legally allowable construction period and other parameters to comply with legal requirements.
- **Document Retention:** DC Water will retain documents related to the debt issue for the life of an issue or the life of the Refunding of the issue plus three years.
- **3.** Continuing Disclosure Compliance. The Official Statement and the Continuing Disclosure Agreement for the transaction will detail what information is required to be disclosed and on what timeline. To meet these disclosure requirements:
 - DC Water will use a Dissemination / Disclosure Agent whom shall be named as responsible for the required reporting for each debt issue requiring Continuing Disclosure under Securities and Exchange Commission Rule 15(c)(2)(12).
 - Dissemination of the required information is accomplished through the Electronic Municipal Market Access system (EMMA).
 - Treasury and Debt staff will monitor required reporting dates to ensure annual and periodic reporting requirements are satisfied.
 - Disclosure Counsel shall be consulted to determine compliance and updates in Continuing Disclosure.
 - Compliance status shall be reported annually to the Board at a public meeting.

4. Refunding Opportunities Monitoring

- The CFO through the Office of Treasury and Debt Management staff and in conjunction with the Financial Advisor(s), will periodically monitor Refunding opportunities.
- As Refunding opportunities are more further defined and achieve financial targets, this information shall be reported to the Board.
- See the Attached checklist, "Refunding Guidelines."

DC Water Debt Policy and Guidelines

Glossary¹

For additional information see http://www.dcwater.com/about/board.cfm

ADDITIONAL BONDS – An issue of bonds having a lien on the revenues or other security pledged to outstanding bonds issued under the same bond contract. Additional bonds typically are issued on a parity with the outstanding bonds, although in some cases additional bonds can have either a junior lien or a senior lien on pledged revenues or other security.

ADDITIONAL BONDS TEST – The financial test, sometimes referred to as a "parity test," that must be satisfied under the bond contract securing outstanding revenue bonds as a condition to issuing additional bonds. Typically, the test would require that historical revenues (plus, in some cases, future estimated revenues) exceed projected debt service requirements for both the outstanding issue and the proposed issue by a certain ratio.

ADVANCE REFUNDING – For purposes of certain tax and securities laws and regulations, a refunding in which the refunded issue remains outstanding for a period of more than 90 days after the issuance of the refunding issue. The proceeds of the refunding issue are generally invested in Treasury securities or federal agency securities (although other instruments are sometimes used), with principal and interest from these investments being used (with limited exceptions) to pay principal and interest on the refunded issue. Bonds are "escrowed to maturity" when the proceeds of the refunding issue are deposited in an escrow account for investment in an amount sufficient to pay the principal of and interest on the issue being refunded on the original interest payment and maturity dates, although in some cases an issuer may expressly reserve its right (pursuant to certain procedures delineated by the SEC) to exercise an early call of bonds that have been escrowed to maturity. Bonds are considered "prerefunded" when the refunded issue redeemed at that time. The Internal Revenue Code and regulations thereunder restrict the yield that may be earned on investment of the proceeds of a refunding issue.

ALTERNATIVE FORMS OF FINANCING AND FINANCING PRODUCTS – As the economic and political landscape changes, new forms of debt and debt instruments may become available as an alternative to traditional debt financing through a bond transaction. Some of the more common types are listed below:

Inter-fund Transfers – Under some circumstances, one fund, often the general fund, will provide financial resources to another fund to support its operations. This support can take place either as a transfer payment of a loan. Board approval is generally required for the Inter-fund transfers.

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¹ Adapted from the Municipal Securities Rulemaking Board (www.msrb.org) glossary.

Leases – Lease debt encompasses a wide-range of instruments (lease-purchase agreements, lease revenue bonds and certificates of participation) whose most common characteristic is usually the lower cost of issuance and whose payment is specified in the multi-year annual financial plan. Leasing is usually appropriate for smaller borrowings where the interest rate disadvantage of a lease (compared to traditional borrowing) do not have as big of an impact.

Other Forms of Debt – As the municipal market adapts to legislative, regulatory and economic change, new products will avail themselves to potential use as a means to issue debt. DC Water will consider each product on a case by case basis with a thorough examination of the risks associated with each product. An example of this was the establishment in 2009 of Build America Bonds program which provided a federal subsidy on the taxable interest expense associated with the bonds issued under this program.

AMORTIZATION – The process of paying the principal amount of an issue of securities by periodic payments either directly to holders of the securities or to a sinking fund for the benefit of security holders.

AMORTIZATION SCHEDULE – A table showing the periodic repayment of an amount of indebtedness, such as a mortgage or bond. This table is often set up to show interest payments in addition to principal repayments.

ARBITRAGE – (1) With respect to the issuance of municipal securities, arbitrage usually refers to the difference between the interest paid on tax-exempt bonds and the interest earned by investing the proceeds of the bonds in higher-yielding taxable securities. Federal income tax laws generally restrict the ability to earn arbitrage in connection with tax-exempt bonds.

AUTHORIZING RESOLUTION – With respect to an issue of municipal securities, the document adopted by the issuer that implements its power to issue the securities. The legal grant of such authority may be found in the enabling provisions of the constitution, statutes, charters and ordinances applicable to the issuer. Adoption of an authorizing resolution by the issuer's governing body is a condition precedent to the issuance of the proposed securities. Typically, an issuer will be required to adopt a final "award" or "sale" resolution setting forth the specific terms of the offering. In certain jurisdictions, the governing body will act by means of an ordinance ("authorizing ordinance") rather than by resolution.

BOND – A security evidencing the issuer's obligation to repay a specified principal amount on a date certain (maturity date), together with interest either at a stated rate or according to a formula for determining that rate. Bonds are distinguishable from notes, which usually mature in a much shorter period of time. Bonds may be classified according to, among other characteristics, maturity structure (serial vs. term), source of payment (general obligation vs. revenue), issuer (state vs. municipality vs. special district), price (discount vs. premium), rating (rated vs. unrated, or among different categories of ratings) or purpose of financing (transportation vs. health care).

BOND COUNSEL – An attorney or law firm, typically retained by the issuer, to give a legal opinion that the issuer is authorized to issue proposed municipal securities, the issuer has met all

legal requirements necessary for issuance and interest on the proposed securities (if they are intended to be tax-exempt bonds) will be excluded from gross income of the holders thereof for federal income tax purposes and, where applicable, from state and local taxation. Typically, bond counsel may prepare, or review and advise the issuer regarding, authorizing resolutions, trust indentures, official statements, validation proceedings and litigation.

BOND PURCHASE AGREEMENT (BPA) – The contract between the underwriter and the issuer setting forth the final terms, prices and conditions upon which the underwriter purchases a new issue of municipal securities in a negotiated sale. A conduit borrower also is frequently a party to the bond purchase agreement in a conduit financing. The bond purchase agreement is sometimes referred to as the "purchase contract" or, less commonly, the "underwriting agreement."

BOND RESOLUTION – The document or documents in which the issuer authorizes the issuance and sale of municipal securities. Issuance of the securities is usually approved in the authorizing resolution, and sale is usually authorized in a separate document known as the "sale" or "award" resolution. All such resolutions, read together, constitute the bond resolution, which describes the nature of the obligation, the issuer's duties to the bondholders and the issuer's rights with respect to the obligations and the security for the obligations. In certain jurisdictions, the governing body will act by means of an ordinance ("bond ordinance") rather than by resolution.

CALLABLE BOND – A bond that the issuer is permitted or required to redeem before the stated maturity at a specified price, usually at or above par, by giving notice of redemption in a manner specified in the bond contract. Bond is said to have a "Call Option" as part of an Optional Redemption at the discretion of the issuer. Optional redemptions often can be exercised only on or after a specified date, typically beginning approximately ten years after the issue date.

CAPITAL IMPROVEMENT PROGRAM (CIP) – The CIP represents a 10 year plan of major capital asset investments. These investments address programs and projects that will improve and enhance the operation of the system. The CIP normally includes all mandated projects as well as rehabilitation of assets required to meet permit and other regulatory requirements and all service needs. The CIP development process includes a review of major accomplishments, priorities, status of major projects and emerging regulatory and related issues impacting the capital program. The CIP is integrated into the Multi-Year Financial Plan. Due to the size of the CIP, it is the primary driver of rate changes as well as the timing and size of debt transactions.

CAPITALIZED INTEREST – A portion of the proceeds of an issue that is set aside to pay interest on the securities for a specified period of time. Interest is commonly capitalized for the construction period of a revenue-producing project, and sometimes for a period thereafter, so that debt service expense does not begin until the project is expected to be operational and producing revenues. Capitalized interest is sometimes referred to as "funded interest."

CLOSING – The exchange of securities for payment in a new issue. This generally involves participation of representatives of the issuer, bond counsel, the underwriter and other relevant parties on the date of delivery of a new issue of municipal securities. On the closing date, the issuer delivers the securities and the requisite legal documents in exchange for the purchase price. In the case of book-entry securities, global certificates typically are delivered to a

registered clearing agency in advance of closing, with the registered clearing agency effecting final delivery of the securities to the underwriter on the closing date by means of book entries. Sometimes a "pre-closing" is held before delivery, typically on the day preceding closing, to review the adequacy of the closing procedures and documents.

COMPETITIVE SALE – A method of sale where underwriters submit proposals for the purchase of a new issue of municipal securities and the securities are awarded to the underwriter or underwriting syndicate presenting the best bid according to stipulated criteria set forth in the notice of sale. The underwriting of securities in this manner is also referred to as a "public sale" or "competitive bid."

CONSULTING ENGINEER – An industry-recognized expert who assists in the preparation of feasibility studies for proposed construction projects and whose products and analysis may be included in the offering document.

CONTINUING DISCLOSURE – Disclosure of material information relating to municipal securities provided to the marketplace from time to time by the issuer of the securities or any other entity obligated with respect to the securities. Such disclosures include, but are not necessarily limited to, annual financial information and material event notices provided by the issuer or obligor to various information repositories for the benefit of holders of the issuer's securities under Rule 15c2-12.

COSTS OF ISSUANCE – The expenses associated with the sale of a new issue of municipal securities, including such items as printing, legal and rating agency fees and others. In certain cases, the underwriter's discount may be considered one of the costs of issuance. The Internal Revenue Code restricts the use of bond proceeds to pay costs of issuance for certain types of taxexempt bonds, such as private activity bonds.

COUPON – A colloquial term for a bond's interest rate.

COUPON RATE – The annual rate of interest payable on a security expressed as a percentage of the principal amount. The coupon rate, sometimes referred to as the "nominal interest rate," does not take into account any discount (or premium) in the purchase price of the security.

COVENANT or BOND COVENANT – The issuer's enforceable promise to perform or refrain from performing certain actions. With respect to municipal securities, covenants are generally stated in the bond contract. Covenants commonly made in connection with a bond issue may include covenants to charge fees sufficient to provide required pledged revenues (called a "rate covenant"); to maintain casualty insurance on the project; to complete, maintain and operate the project; not to sell or encumber the project; not to issue parity bonds unless certain tests are met (called an "additional bonds covenant"); and not to take actions that would cause the bonds to be arbitrage bonds. A covenant whereby the issuer is affirmatively obligated to undertake a duty in order to protect the interests of bondholders (e.g., to maintain insurance) is called a "protective covenant." A covenant whereby the issuer obligates itself to refrain from performing certain actions (e.g., not to sell the project) is called a "negative covenant."

COVERAGE – The ratio of pledged revenues available annually to pay debt service to the annual debt service requirement. This ratio is one indication of the availability of revenues for payment

of debt service. The formula for determining coverage, often referred to as "debt service coverage" or the "coverage ratio," is as follows:

			Pledged Revenues		
	Coverage	= [Debt Service	Requ	<u>irement</u>
XAMPL.	E:				
	Coverage	=	\$2,000,000	=	1.66
			\$1,200,000		

CURRENT REFUNDING – A refunding transaction where the municipal securities being refunded will all mature or be redeemed within 90 days or less from the date of issuance of the refunding issue. Certain federal income tax rules relating to permitted yields of invested proceeds of the refunding issue, rebate of arbitrage earnings and the ability to refund certain types of municipal securities are significantly less restrictive in the case of current refundings as contrasted with advance refundings. In addition, underwriters are not obligated to submit refunding documents to the MSRB under Rule G-36 in the case of current refundings.

DEBT SERVICE – The amount of money necessary to pay interest on outstanding bonds, the principal of maturing bonds and the required contributions to a sinking fund for term bonds. This amount is also known as the "debt service requirement." "Annual debt service" refers to the total principal and interest paid in a calendar year, fiscal year, or bond fiscal year. "Total debt service" refers to the total principal and interest paid throughout the life of a bond issue. "Average annual debt service" refers to the average debt service payable each year on an issue.

DEBT SERVICE RESERVE FUND (DSRF) — The amount required by the bond contract to be maintained in the debt service reserve fund. A typical debt service reserve fund requirement (sometimes referred to as the "reserve fund requirement" or "reserve requirement") might be 10% of the par value of the issue, although the size and investment of the debt service reserve fund generally is subject to arbitrage regulations. Other options for sizing include maximum annual debt service or average annual debt service.

DEBT SERVICE SCHEDULE – A table listing the periodic payments necessary to meet principal and interest requirements over the period of time securities are to be outstanding.

DEFEASANCE – Termination of the rights and interests of the bondholders and of their lien on the pledged revenues or other security in accordance with the terms of the bond contract for an issue of securities. This is sometimes referred to as a "legal defeasance." Defeasance usually occurs in connection with the refunding of an outstanding issue after provision has been made for future payment of all obligations under the outstanding bonds through funds provided by the issuance of a new series of bonds. In some cases, particularly where the bond contract does not provide a procedure for termination of these rights, interests and lien other than through payment of all outstanding debt in full, funds deposited for future payment of the debt may make the pledged revenues available for other purposes without effecting a legal defeasance. This is sometimes referred to as an "economic defeasance" or "financial defeasance." If for some

reason the funds deposited in an economic or financial defeasance prove insufficient to make future payment of the outstanding debt, the issuer would continue to be legally obligated to make payment on such debt from the pledged revenues.

DERIVATIVE or DERIVATIVE INSTRUMENT— A product, whose value is derived from an underlying security, structured to deliver varying benefits to different market segments and participants. The term encompasses a wide range of products offered in the marketplace including interest rate swaps, caps, floors, collars and other synthetic variable rate or synthetic fixed rate products.

DISCLOSURE COUNSEL – An attorney or law firm retained by the issuer to provide advice on issuer disclosure obligations and to prepare the official statement and continuing disclosure agreement.

DISSEMINATION / **DISCLOSURE AGENT** — Acts on behalf of the issuer or obligated person to provide timely and accurate disclosure information to meet regulatory and other mandates.

DUE DILIGENCE OPINION – A letter of counsel, often referred to as a "10b-5 opinion," generally based upon an investigation of specified facts, and addressing the accuracy and completeness of the official statement. A due diligence opinion customarily states that, based on certain specified inquiries, nothing has come to such counsel's attention indicating that the official statement contains any misstatements of material facts or any material omissions. A due diligence opinion may or may not be issued, depending on the nature and complexities of the new issue of municipal securities.

ENABLING LEGISLATION – a piece of legislation by which a legislative body grants an entity, which depends on it for authorization or legitimacy, the power to take certain actions.

ESCROW ACCOUNT – A fund established to hold monies pledged and to be used solely for a designated purpose, typically to pay debt service on an outstanding issue in an advance refunding.

ESCROWED SECURITIES – Securities that are held, typically in an escrow account, to be used solely for a designated purpose.

FINANCING TEAM – A team of internal staff and outside consultants that will provide advice and support for the execution of each debt financing. Outside professional consultants that may include Financial Advisor, Bond and Tax Counsel, Feasibility Consultant, Independent Consulting Engineer, Underwriters, Underwriter's Counsel, Printer, Trustee, Verification Agent, Escrow Agent, and others as deemed necessary by the CFO.

FINANCIAL ADVISOR – With respect to an issue of municipal securities, a consultant who advises the issuer on matters pertinent to the issue, such as structure, timing, marketing, fairness of pricing, terms and bond ratings. A financial advisor may also be employed to provide advice on subjects unrelated to an issue of municipal securities, such as advising on cash flow and investment matters. The financial advisor is sometimes referred to as a "fiscal consultant" or "fiscal agent." A broker-dealer that acts as a financial advisor is subject to MSRB rules.

FIXED RATE – An interest rate on a security that does not change for the remaining life of the security

FLOW OF FUNDS – The order and priority of handling, depositing and disbursing pledged revenues, as set forth in the bond indenture and documents. Generally, the revenues are deposited, as received, into a general collection account or revenue fund for disbursement into the other accounts established by the bond contract. Such other accounts generally provide for payment of the costs of debt service, debt service reserve deposits, operation and maintenance costs, renewal and replacement and other requirements. Described below are funds and accounts commonly used in the bond indenture and documents. Not all such funds and accounts may exist in every bond contract and other funds and accounts not described below may be created under a particular bond contract:

Debt Service Fund – A fund into which the issuer makes periodic deposits to assure the timely availability of sufficient moneys for the payment of debt service requirements. Typically, the amounts of the revenues to be deposited into the debt service fund and the timing of such deposits are structured to ensure a proper matching between debt service fund deposits and debt service payments becoming due. For many issues, the debt service fund may contain a separate "principal account" and "interest account" in which moneys for such respective purposes are held. In addition, the debt service fund for many variable rate securities may contain a "letter of credit account" or "reimbursement account" in which moneys are held to reimburse the issuer of a liquidity facility for draws made to pay amounts owing on the securities.

Debt Service Reserve Fund or Reserve Fund – A fund in which moneys are placed in reserve to be used to pay debt service if pledged revenues are insufficient to satisfy the debt service requirements. The debt service reserve fund may be entirely funded with bond proceeds at the time of issuance, may be funded over time through the accumulation of pledged revenues, or may be funded only upon the occurrence of a specified event (e.g., upon failure to comply with a covenant in the bond contract). In addition, issuers may sometimes authorize the provision of a surety bond or letter of credit to satisfy the debt service reserve fund requirement in lieu of cash. If the debt service reserve fund is used in whole or part to pay debt service, the issuer usually is required to replenish the fund from the first available revenues.

Sinking Fund – A fund into which moneys are placed to be used to redeem securities in accordance with a redemption schedule in the bond contract. This term is sometimes used interchangeably with the term "mandatory redemption fund."

INSTITUTIONAL CUSTOMER or INSTITUTIONAL INVESTOR – For purposes of MSRB rules, the account of (i) a bank, savings and loan association, insurance company, or registered investment company; (ii) an investment adviser registered either with the SEC under the Investment Advisers Act of 1940 or with a state securities commission (or any agency or office performing like functions); or (iii) any other entity (whether a natural person, corporation, partnership, trust, or otherwise) with total assets of at least \$50 million. The term is sometimes used more generally to refer to an institutional customer.

INSTITUTIONAL INVESTOR – A term that generally refers to banks, financial institutions, bond funds, insurance companies or other business organizations that possess or control considerable assets for large scale investing.

LETTER OF CREDIT (LOC) – A commitment, usually made by a commercial bank, to honor demands for payment of a debt upon compliance with conditions and/or the occurrence of certain events specified under the terms of the commitment. In municipal financings, bank letters of credit are sometimes used as additional sources of security for issues of municipal notes, commercial paper or bonds, with the bank issuing the letter of credit committing to pay principal of and interest on the securities in the event that the issuer is unable to do so. A letter of credit may also be used to provide liquidity for commercial paper, variable rate demand obligations and other types of securities.

LEVEL DEBT SERVICE – A debt service schedule in which the combined annual amount of principal and interest payments remains relatively constant over the life of the issue of bonds.

EXAMPLE:

Level Debt Service Assumptions: Size of issue: \$10,000,000

Interest rate: 7%

Maturity of issue: 5 years

Debt Service Schedule

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Years	<u>Principal</u>	<u>Interest</u>	Total*		
1	\$ 1,740,000	\$ 700,000	\$ 2,440,000		
2	1,860,000	578,200	2,438,200		
3	1,990,000	448,000	2,438,000		
4	2,130,000	308,700	2,438,700		
5	2,280,000	159,600	2,439,600		
Total	\$ 10,000,000	\$ 2,194,500	\$ 12,194,500		

^{*}Total of principal and interest remains substantially level throughout life of issue.

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EXAMPLE:

Level Principal Assumptions:
Size of issue: \$10,000,000

Interest rate: 7%

Maturity of issue: 5 years

+	<u>Debt Service Schedule</u>				
	Years	Principal*	<u>Interest</u>	Total*	
	1	\$ 2,000,000	\$ 700,000	\$ 2,700,000	
	2	2,000,000	560,000	2,560,000	
	3	2,000,000	420,000	2,420,000	
	4	2,000,000	280,000	2,280,000	
	5	2,000,000	140,000	2,140,000	
	Total	\$ 10,000,000	\$ 2,100,000	\$ 12,100,000	

^{*}Principal remains level and total debt service declines throughout life of issue.

LIQUIDITY FACILITY – A letter of credit, standby bond purchase agreement or other arrangement used to provide liquidity to purchase securities that have been tendered to the issuer or its agent but which cannot be immediately remarketed to new investors. The provider of the liquidity facility, typically a bank, purchases the securities (or provides funds to the issuer or its agent to purchase the securities) until such time as they can be remarketed.

LONG-TERM – A designation given to maturities of a serial issue and term bonds typically having maturities of more than 15 years from issuance.

MANAGEMENT FEE – (1) A component of the underwriter's discount. (2) A fee paid by an issuer of municipal fund securities to its investment advisor for management of the underlying investment portfolio and other services rendered. Typically, the management fee is based on a percentage of the portfolio's asset value and is paid from portfolio assets. Thus, the management fee ultimately is paid by the investor.

MANAGER – The member (or members) of an underwriting syndicate charged with primary responsibility for conducting the affairs of the syndicate. The manager generally takes the largest underwriting commitment.

Lead Manager, Senior Manager or Bookrunning Manager – The underwriter serving as head of the syndicate. The lead manager generally handles negotiations in a negotiated underwriting of a new issue of municipal securities or directs the processes by which a bid is determined for a competitive underwriting. The lead manager also is charged with allocating securities among the members of the syndicate according to the terms of the agreement among underwriters and the orders received.

Joint Manager or Co-Manager – Any member of the management group (although the term is often used to refer to a member other than the lead manager).

MARKETABILITY – The ease or difficulty with which securities can be sold in the market. An issue's marketability depends upon many factors, including its coupon, security provisions, maturity, credit quality and the existence of ratings. In the case of a new issue, marketability also depends upon the size of the issue, the timing of its issuance, and the volume of comparable issues being sold.

MASTER INDENTURE – The document stating the general terms and conditions under which an issuer can offer more than one series of bonds. Among the terms that generally must be satisfied in order for a new series of bonds to be issued is the "additional bonds" test. Typically, an issuer will enter into a supplemental indenture in connection with each series of bonds issued under a master indenture

MASTER RESOLUTION – The document stating the general terms and conditions under which an issuer can offer more than one series of bonds. Among the terms that generally must be satisfied in order for a new series of bonds to be issued is the "additional bonds" test. Typically, an issuer will adopt a series resolution in connection with each series of bonds issued under a master resolution.

MATURITY SCHEDULE – An amortization schedule listing the maturity dates and maturity values of each maturity of an issue of bonds.

MUNICIPAL SECURITIES RULEMAKING BOARD (MSRB) – The Municipal Securities Rulemaking Board is an independent self-regulatory organization, consisting of representatives of securities firms, dealer banks and the public, that is charged with primary rulemaking authority over dealers, dealer banks and brokers in connection with their municipal securities activities. MSRB rules are approved by the SEC and enforced by NASD for broker-dealers other than dealer banks and by the appropriate regulatory agencies for dealer banks.

MSRB Rule G-17. A rule published by the MSRB that details each broker, dealer, municipal securities dealer, and municipal advisor shall deal fairly with all persons and shall not engage in any deceptive, dishonest, or unfair practice. In particular, G-17 requires that underwriters disclose to municipal issuers (who must acknowledge) the risks associated with both fixed and variable rate bond offerings. Some of these risks are:

Financial Risk – Umbrella term for multiple types of risk associated with financing.

Issuer Default Risk – Funds pledges to secure bonds are not sufficient to pay the debt service or maintain specific financial ratios as detailed in the covenants of the Indenture. A default will likely negatively impact credit ratings as well as limit future access to capital borrowings at market rates.

Legislative (Legal) Risk – Decisions made by a legislative body can impact the operations of issuers. Laws that made a given debt instrument permissible or attractive to employ (such as tax laws) can change.

Political Risk—Broadly refers to the complications issuers may face as a result of political decisions that may change or alter the expected outcome and value of a given economic action by changing the probability of achieving the issuer desired objectives. Political Risk exists at all levels of government, from local to national, as governing bodies are asked to vote on issuer plans or legislation that might impact the issuer. In most instances, political risk can be understood and managed with reasoned foresight, planning and communication.

Redemption Risk – Depending on the optional redemption terms in the offering documents of a bond issue, the ability to redeem bonds at the specified call date may be limited. In the events that market rates increase, there would be no incentive to redeem outstanding bonds for a higher rate compared to the existing bonds.

Refinancing Risk – If the financing plan contemplates the refinancing of some or all bonds when those bonds reach maturity, there is a risk that market conditions or changes in law could limit or prevent this refinancing. For example, limitations in the federal tax rules on advance refunding of bonds may restrict the ability to refund bonds to take advantage of lower interest rates.

Reinvestment Risk – Proceeds from bonds can be invested for a period of time prior to their intended use. Based on market conditions, the rate of interest actually earned on these invested proceeds can be lower than the forecasted and anticipated rate.

Tax Compliance Risk – The issuance of tax-exempt bonds is subject to a number of requirements under the U.S. Internal Revenue Code, as enforced by the Internal Revenue Service. Prior to the issuance of tax-exempt bonds, certain steps and representations are required. Additionally, issuers must covenant to take certain actions after the issuance of the tax-exempt bonds. A breach of these representations and covenants may cause the interest of the bonds in question to be retroactively taxed to the date of issuance. This change in tax status could cause a higher rate of interest to be paid on the bonds or require a mandatory tender of the bonds. Additionally, the IRS may also elect to do an audit of the bonds and issuer. If the bonds are declared taxable or the IRS is conducting an audit, the market price of the bonds may be impacted and the future ability to issue tax-exempt debt may come into question.

Interest Rate Risk – Reflects the risk that the debt service costs associated with variable rate debt increase and negatively impact coverage ratios and liquidity. Overall market rates can increase due to broader economic conditions or to specific concerns about the region/sector or issuer.

Liquidity Risk – Some debt issues carry an imbedded option, where the investor can "put" the bond to the issuer and demand payment. For Floating Rate Notes (FRNs), this is typically a pre-determined date. For other variable rate debt, such as Variable Rate Demand Obligations (VRDO), this put option can be as often as weekly or even daily. If these "put" bonds cannot be remarketed and resold to another investor or refinanced, the issuer must have sufficient liquidity or liquidity support to purchase these tendered bonds on the day in question.

MULTI-YEAR FINANCIAL PLAN – The Multi-Year Financial represents a strategic budget that uses a 10 year planning horizon to address regulatory requirements, infrastructure needs, Board-determined priorities, general operations as well as funding and rate impacts on customers. A component of the Multi-Year Financial Plan is the Capital Improvement Program.

NEGATIVE ARBITRAGE – Investment of bond proceeds and other related funds at a rate below the bond yield.

NEGOTIATED SALE – The sale of an issue of municipal securities by an issuer directly to an underwriter or underwriting syndicate selected by the issuer. A negotiated sale is distinguished from a sale by competitive bid, which requires public bidding by the underwriters. Among the primary points of negotiation for an issuer are the interest rate, call features and purchase price of the issue. The sale of a new issue of securities in this manner is also known as a negotiated underwriting.

OFFICIAL STATEMENT (O.S.) – A document or documents prepared by or on behalf of the issuer of municipal securities in connection with a primary offering that discloses material information on the offering of such securities. For primary offerings subject to Rule 15c2-12, the "final official statement" must include, at a minimum, information on the terms of the securities, financial information or operating data concerning the issuer and other entities, enterprises, funds, accounts or other persons material to an evaluation of the offering, and a description of the continuing disclosure undertaking made in connection with the offering (including an indication of any failures to comply with such undertaking during the past 5 years). Official statements typically also include information regarding the purposes of the issue, how the securities will be repaid, and the financial and economic characteristics of the issuer or obligor with respect to the offered securities. Investors may use this information to evaluate the credit quality of the securities. Although functionally equivalent to the prospectus used in connection with registered securities, an official statement for municipal securities is exempt from the prospectus requirements of the Securities Act of 1933.

ORIGINAL ISSUE DISCOUNT (O.I.D. or Discount) – An amount by which the par value of a security exceeded its public offering price at the time of its original issuance. The original issue discount is amortized over the life of the security and, on a municipal security, is generally treated as tax-exempt interest. When the investor sells the security before maturity, any profit realized on such sale is calculated (for tax purposes) on the adjusted book value, which is calculated for each year the security is outstanding by adding the accretion value to the original offering price. The amount of the accretion value (and the existence and total amount of original issue discount) is determined in accordance with the provisions of the Internal Revenue Code and the rules and regulations of the Internal Revenue Service.

ORIGINAL ISSUE DISCOUNT BOND or O.I.D. BOND – A bond that was sold at the time of issue at a price that included an original issue discount.

ORIGINAL ISSUE PREMIUM (O.I.P. or Premium) – The amount by which the public offering price of a security at the time of its original issuance exceeded its par value. The original issue premium is amortized over the life of the security and results in an adjustment to the basis of the security. Original issue premium generally is not deductible for federal income tax purposes.

The amount of original issue premium received by the issuer in a primary offering, also known as the "bond premium," is generally treated as proceeds of the issue.

PARITY BONDS – Two or more issues of bonds that have the same priority of claim or lien against pledged revenues or other security. Parity bonds are also referred to as "pari passu bonds."

PRELIMINARY OFFICIAL STATEMENT (P.O.S.) – A preliminary version of the official statement, which is used to describe the proposed new issue of municipal securities prior to the determination of the interest rate(s) and offering price(s). The preliminary official statement may be used to gauge interest in an issue and is often relied upon by potential purchasers in making their investment decisions. Normally, offers for the sale of or acceptance of securities are not made on the basis of the preliminary official statement and a statement to that effect appears on the face of the document generally in red print, which gives the document its nickname, "red herring."

PREMIUM – The amount by which the price paid for a security exceeds the security's par value. For tax purposes, the actual amount of premium with respect to a particular security may be affected by the existence of any original issue premium or original issue discount.

PRESENT VALUE – The current value of a lump sum of funds or a stream of funds over time that are expected to be received (or disbursed) in the future discounted at a given interest rate or rates.

PRESENT VALUE SAVINGS – Difference expressed in terms of current dollars between the debt service on an refunded bond issue and the debt service on a refunding bond issue for an issuer. It is calculated by discounting the difference in the future debt service payments on the two issues at a given rate.

PRICING – In a negotiated offering of an issue of municipal securities, the process by which the issuer and underwriters determine the interest rates and prices at which the issue will be offered to the public. The pricing of an issue typically occurs immediately before, or the day preceding, the execution of the bond purchase agreement between the issuer and the underwriters.

PRIORITY OF ORDERS (PRIORITY PROVISIONS AND DESIGNATION) – The rules adopted by an underwriting syndicate specifying the priority to be given different types of orders received by the syndicate. MSRB rules require syndicates to adopt priority provisions in writing and to make them available to all interested parties. For competitive underwritings, orders received prior to the sale ("pre-sale orders") generally are given top priority. In some negotiated offerings, retail orders or other restrictions designated by the issuer are given priority. Once the order period begins for either negotiated or competitive underwritings, the most common priority provision gives group net orders top priority, followed by designated orders and member orders. These types of orders are described below:

Designated Order – An order submitted by a syndicate member on behalf of a buyer on which all or a portion of the takedown is to be credited to certain members of the syndicate. The buyer directs the percentage of the total designation each member will receive. Generally two or more syndicate members will be designated to receive a portion of the takedown.

Group Net Order – An order that, if allocated, is allocated at the public offering price without deducting the concession or takedown. A group net order benefits all syndicate members according to their percentage participation in the account and consequently is normally accorded the highest priority of all orders received during the order period.

Member Order – An order submitted by a syndicate member where the securities would be confirmed to that member at syndicate terms (e.g., less the total takedown). Other priorities, such as retail orders or orders from local residents, may supercede those noted above.

PROFESSIONAL RETAIL CUSTOMER or PROFESSIONAL RETAIL INVESTOR – A customer other than an institutional customer that typically purchases large blocks of bonds for centrally managed individual accounts or for municipal bond funds.

RATING AGENCY – A company that provides ratings that indicate the relative credit quality or liquidity characteristics of securities.

RATINGS – Evaluations of the credit quality of notes and bonds made by rating agencies. Ratings are intended to measure the probability of the timely repayment of principal of and interest on municipal securities. Ratings often are assigned upon issuance and are periodically reviewed and may be amended to reflect changes in the issuer's credit position. Ratings also are sometimes assigned after the initial issuance, often on bonds that have been advance refunded. The factors upon which the rating agencies base their credit ratings vary with each type of issue. The ratings may derive from the credit worthiness of the issuer itself or from a credit enhancement feature of the security (e.g. guarantor, letter of credit provider, bond insurer, etc.). In the case of short term obligations, liquidity generally is a significant factor in determining a short term rating. Some rating agencies provide both long term and short term ratings on variable rate demand obligations.

The principal rating agencies in the municipal securities market use the following system of ratings as of the date of this publication – ratings from different rating agencies with the same or similar designation do not necessarily represent equivalent ratings – explanations of the significance of each rating classification are available from the rating agencies at the websites indicated:

Fitch Ratings	Moody's Investors Service	Standard & Poor's
(www.fitchratings.com)	(www.moodys.com)	(www.standardandpoors.com)

Long Term Ratings:

AAA	A44	AAA
AA+, AA, AA-	Aa1, Aa2, Aa3	AA+, AA, AA-
A+, A, A-	A1, A2, A3	A+, A, A-
BBB+, BBB, BBB-	Baa1, Baa2, Baa3	BBB+, BBB, BBB-
BB+, BB, BB-	Ba1, Ba2, Ba3	BB+, BB, BB-
B+, B, B-	B1, B2, B3	B+, B, B-
CCC+, CCC, CCC-	Caal, Caa2, Caa3	CCC+, CCC, CCC-
CC	Ca	cc
C	C	C
DDD		D
DD		
D		

Short Term Ratings:

F1+, F1	MIG 1/VMIG 1	SP-1+, SP-1
F2	MIG 2/VMIG 2	SP-2
F3	MIG 3/VMIG 3	SP-3
В	SG	
C		
D		

REFUNDING – A procedure whereby an issuer refinances outstanding bonds by issuing new bonds. There are generally two major reasons for refunding: to reduce the issuer's interest costs or to remove a burdensome or restrictive covenant imposed by the terms of the bonds being refinanced. The proceeds of the new bonds are either deposited in escrow to pay the debt service on the outstanding bonds when due or used to promptly (typically within 90 days) retire the outstanding bonds. The new bonds are referred to as the "refunding bonds," and the outstanding bonds being refinanced are referred to as the "refunded bonds" or the "prior issue." Generally, refunded bonds are not considered a part of the issuer's debt because the lien of the holders of the refunded bonds, in the first instance, is on the escrowed funds, not on the originally pledged source of revenues.

REFUNDING BONDS – Bonds issued to refund outstanding bonds.

REQUEST FOR PROPOSALS (RFP) – A formal process by which an issuer gathers written information from professionals for the purpose of selecting underwriters, financial advisors, attorneys and providers of other services.

RETAIL CUSTOMER or RETAIL INVESTOR – Any customer other than an institutional customer. Retail customers generally include individual investors and small organizations.

RULE 10(b)(5) – An SEC rule that makes it unlawful for any person, in connection with the purchase or sale of any security, to employ any device, scheme, or artifice to defraud; to make any untrue statement of a material fact or to omit to state a material fact necessary in order to make the statements made, in the light of the circumstances under which they were made, not misleading; or to engage in any act, practice, or course of business which operates or would operate as a fraud or deceit upon any person. Normally pertains to Disclosure and the information contained in the Official Statement.

RULE 15(c)(2)(12) – An SEC rule setting forth certain obligations of (i) underwriters to receive, review and disseminate official statements prepared by issuers of most primary offerings of municipal securities, (ii) underwriters to obtain continuing disclosure agreements from issuers and other obligated persons to provide material event disclosures and annual financial information on a continuing basis, and (iii) broker-dealers to have access to such continuing disclosure in order to make recommendations of municipal securities in the secondary market.

SERIAL BONDS – Bonds of an issue that mature in consecutive years.

SERIES OF BONDS – Bonds of an issue sharing the same lien on revenues and other basic characteristics. A series of bonds may consist of serial bonds, term bonds or both. An issue of bonds can consist of one or more series of bonds. Typically, where a single issue consists of more than one series of bonds, the series are distinguished from one another based on one or more key characteristics. For example, one series may be senior lien bonds and the other may be junior lien bonds; two series may have liens on different revenue sources; one series may consist of capital appreciation bonds and the other may consist of current interest paying bonds; one series may be tax-exempt bonds and the other may be taxable municipal securities; one series may bear interest at a fixed rate and the other may bear interest at a variable rate.

SHORT-TERM – Generally have a maturity of less than 15 years. A designation given to maturities of a serial issue typically having maturities of shorter than three years from issuance. However, depending upon the context, a shorter period to maturity may be intended (e.g., nine or thirteen months).

SLGS – An acronym (pronounced "slugs") for "State and Local Government Series." SLGS are special Treasury securities sold by the United States Treasury Department to states, municipalities and other local government bodies. The interest rates and maturities of SLGS can be subscribed for by an issuer of municipal securities in such a manner as to comply with arbitrage restrictions imposed under the Internal Revenue Code. SLGS are most commonly used for deposit in an escrow account in connection with the issuance of refunding bonds.

SUPPLEMENTAL INDENTURE – An agreement entered into by an issuer that supplements the issuer's master indenture or trust indenture. Often, a supplemental indenture is executed in

connection with the issuance of one or more series of additional bonds under the master or trust indenture. In some cases, a supplemental indenture merely amends terms of the master or trust indenture without providing for the issuance of additional bonds.

SURETY BOND – An instrument that provides security against a default in payment. Surety bonds are sometimes used in lieu of a cash deposit in a debt service reserve fund.

SWAP – A derivative transaction involving the sale of a security and the simultaneous purchase of another security for purposes of enhancing the investor's holdings. The swap may be used to achieve desired tax results, to gain income or principal, or to alter various features of a bond portfolio, including call protection, diversification or consolidation, and marketability of holdings.

SWAPTION – An option held by one party that provides that party the right to require that a counter-party enter into a swap contract on certain specified terms.

SYNDICATE – A group of underwriters formed to purchase an issue of municipal securities from the issuer and offer it for resale to the general public. The syndicate is organized for the purposes of sharing the risks of underwriting the issue, obtaining sufficient capital to purchase an issue and broadening the distribution channels of the issue to the investing public. One of the underwriting firms will be designated as the syndicate, senior or lead manager to administer the operations of the syndicate.

SYNDICATE POLICIES - Syndicate policies describe, among other things, the priority of orders, designation policy, definition of "Retail Order", and Underwriters' Liability governing the upcoming sale.

TERM BONDS – Bonds comprising a part or all of a particular issue that come due in a single maturity, typically due more than one year after the final amortization of the serial bonds. The issuer agrees to make periodic payments into a sinking fund for mandatory redemption of term bonds before maturity or for payment at maturity.

TRUSTEE – A financial institution with trust powers that acts in a fiduciary capacity for the benefit of the bondholders in enforcing the terms of the trust indenture. In many cases, the trustee also acts as paying agent, registrar and/or transfer agent for the bonds.

TRUST INDENTURE – A contract between the issuer of municipal securities and a trustee for the benefit of the bondholders. The trustee administers the funds or property specified in the indenture in a fiduciary capacity on behalf of the bondholders. The trust indenture, which is generally part of the bond contract, establishes the rights, duties, responsibilities and remedies of the issuer and trustee and determines the exact nature of the security for the bonds. The trustee is generally empowered to enforce the terms of the trust indenture on behalf of the bondholders. In many governmental issues (particularly for general obligation bonds and some types of limited tax bonds and revenue bonds), the issuer may forego using a trust indenture and set forth the duties of the issuer and the rights of bondholders in the bond resolution.

UNDERWRITER – A broker-dealer that purchases an issue of municipal securities from the issuer for resale in a primary offering. The underwriter may acquire the securities either by negotiation with the issuer or by award on the basis of competitive bidding.

UNDERWRITER'S COUNSEL – An attorney or law firm retained to represent the interests of an underwriter in connection with the purchase of a new issue of municipal securities. The duties of underwriter's counsel may include review of the issuer's bond resolution and documentation on behalf of the underwriter; review of the accuracy and adequacy of disclosure in the official statement; preparation of the agreement among underwriters, purchase contract and/or the official statement; assisting the underwriter in meeting the underwriter's due diligence obligation; and delivery of a due diligence opinion.

UNDERWRITER'S DISCOUNT – The costs incurred/charged by the underwriter and the underwriting syndicate. It normally includes several cost categories. The costs of operating the syndicate for which the senior manager may be reimbursed is Underwriter Expense. The Management Fee is the amount paid to the senior manager and/or co-managers for handling the affairs of the syndicate and providing guidance on the transaction. Takedown is normally the largest component of the Underwriter's Discount, similar to a commission, and represents the income derived from the sale of the securities by syndicate members. The senior manager shall submit an itemized list of expenses charged to members of the underwriting group. Any additional expenses must be substantiated

VARIABLE RATE – An interest rate, sometimes referred to as a "floating rate," on a security that changes at intervals according to market conditions or a predetermined index or formula.

VERIFICATION AGENT – A certified public accountant or other independent third party that provides the Verification Report.

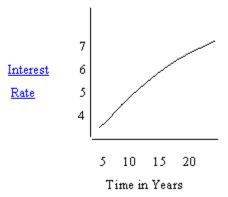
VERIFICATION REPORT – In a refunding, a report, prepared by a certified public accountant or other independent third party, that demonstrates that the cash flow from investments purchased with the proceeds of the refunding bonds and other moneys are sufficient to pay the principal of and interest on the refunded bonds that are being defeased.

YIELD – The annual rate of return on an investment, based on the purchase price of the investment, its coupon rate and the length of time the investment is held.

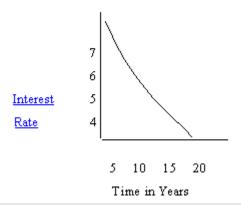
YIELD CURVE – A graph that plots market yields on securities of equivalent quality but different maturities at a given point in time. The vertical axis represents the yields, while the horizontal axis depicts time to maturity. The relationship of interest rates over time, as reflected by the yield curve, will vary according to market conditions, resulting in a variety of yield curve configurations,

as follows:

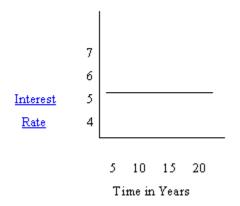
Normal or Positive Yield Curve — Indicates that short-term securities have a lower interest rate than longterm securities.



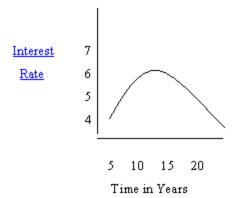
Inverted or Negative Field Curve - Reflects the situation of short-term rates exceeding long-term rates.



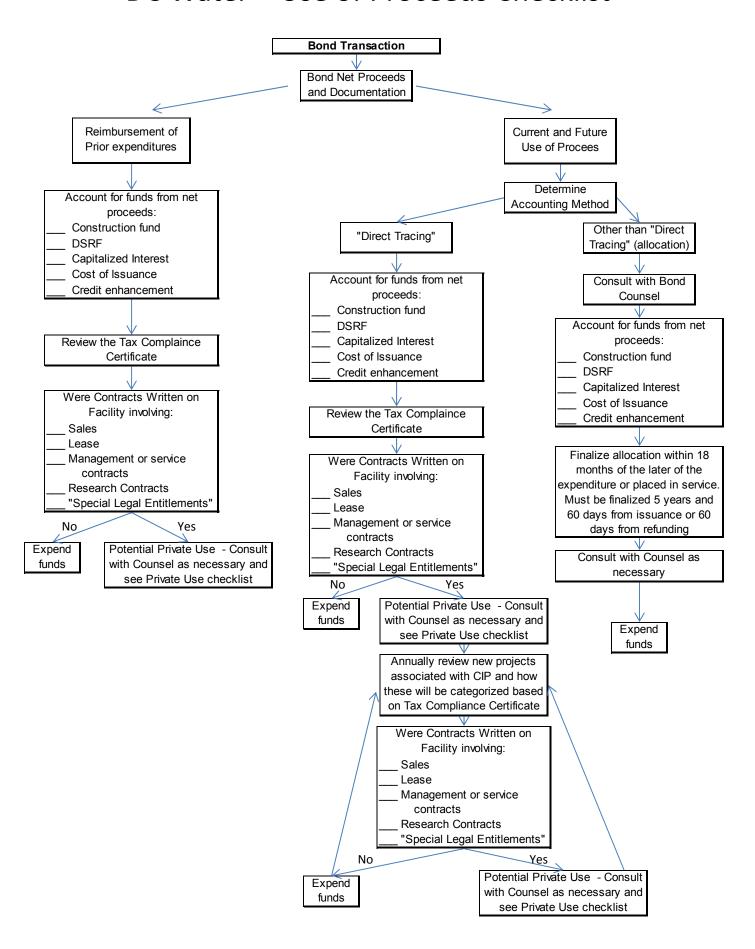
Flat Field Curve - Reflects the situation when short- and long-term rates are approximately the same.



Humpbacked or Bell-Shaped Field Curve – An unusual shape, indicating that rates are low in the early years, peak in the middle years and decline in later years.

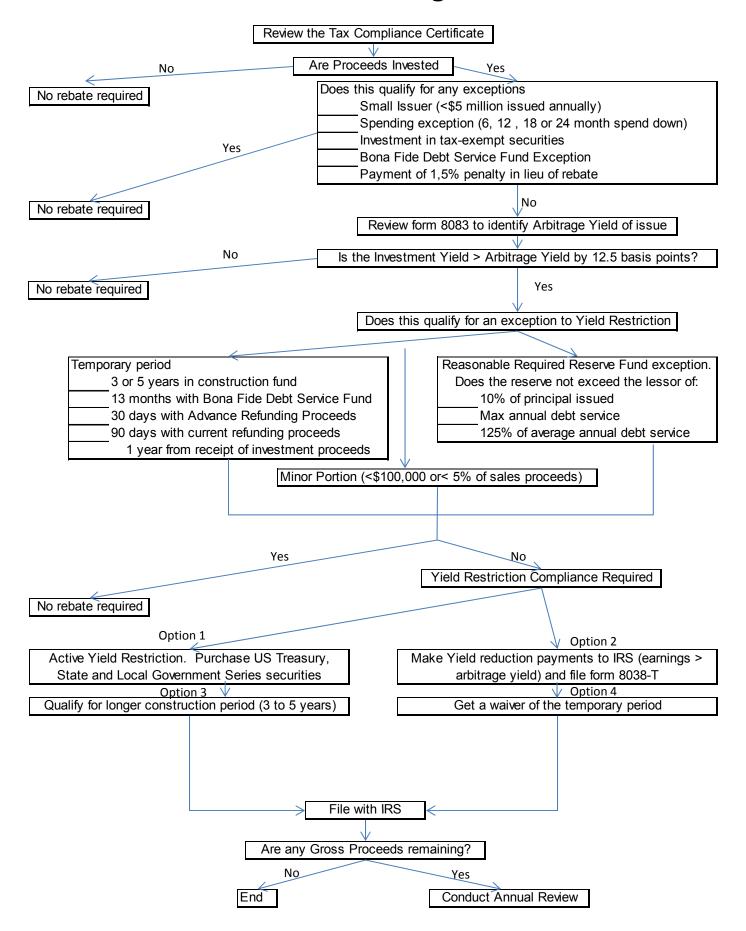


DC Water – Use of Proceeds Checklist



DC Water – Private Use Checklist Were Contracts Written on Facility involving: Sales Lease Management or service Research Contracts "Special Legal Entitlements" No Yes Bonds are "Non-Bonds are Qualified" "Qualified" Was the action Expend No "Deliberate" funds Confirm with Counsel Bonds are "Qualified" Did the action cause either: 5% or 10% of the proceeds to be used by a Private Business Expend and more then 5% or 10% of the principal and/or interest on the funds No issuance secured by the Private Security or Payments? Did a portion of the proceeds make or finance loans to any Private person to exceed the lesser of 5% of proceeds or \$5 million Bonds are Remedial Action Required "Qualified" Are the following 5 conditions present (must answer Yes)? At issuance, did DC Water not reasonable expect the Private Business Expend Use Limit of the Private Loan Limit to be exceeded at any time? funds Yes At issuance, did the weighted average maturity not exceed 120% of the weighted average project asset lives? Did the new user or any/all of the project pay fair market value? Are proceeds from the sale, transfer or disposition of the project considered Gross Proceeds for arbitrage purposes? Prior to the action, were the proceeds used for a governmental purpose? Option 1 Redeem the Non-Qualified Bonds (within Alternative Use of Project No 90 days of the deliberate action) Could the transferred or disposed Option 3 Redeem through cash itembeen financed with another type of tax-Legal defeasance (escrow/redeem at exempt bond? earliest redemption date. Notify IRS No Did the action not involve a purchase If earliest redemption date is > 10.5 years Option 2 financed by another issue of tax-exempt develop closing agreement with IRS bonds Alternative Disposition of proceeds The proceeds from the deliberate action Disposition proceeds are 100% cash must pay debt service on the issue on the next available payment date or are deposited Spend proceeds within 2 years into a yield-restricted escrow to pay debt Proceeds are below the thresholds (5/10%) of "Private Business Use Limit" or \$5 million "Private Loan Limit" Unspent proceeds must be used to redeem all or a portion of the issue If the disposition proceeds are used by a tax-exempt entity (501(c)(3)) from the date of the deliberate action, the non-qualified bonds must constitute qualified 501©(3) bonds and be treated as such for that purpose Confirm with Counsel Non-Qualified bonds are now treated as re-issued as of the date of the deliberate action and are considered tax-exepmt throughout term.

DC Water – Arbitrage Rebate



DC Water – Refunding Guidelines (1 of 2)

The CFO (or designee), with assistance from DC Water's Financial Advisor, has the responsibility to analyze outstanding bond issues for refunding opportunities. Normally, DC Water will refinance bonds to accomplish a Current Refunding, an Advanced Refunding or a Restructuring of existing debt. Such refunding will be limited to restructuring to meet unanticipated revenue expectations, achieve cost savings, mitigate irregular debt service payments, release reserve funds, and/or remove unduly restrictive bond covenants or administrative requirements.

DC Water will consider the following criteria when analyzing possible Refunding and Restructuring opportunities:

Cash Flow Savings: by maturity or by total issue, the newly issued bonds' (the refunding bonds) debt service to the current debt service of the proposed refunded bonds. **Net Present Value Savings**: by maturity or by total issue, the newly issued bonds' (the refunding bonds) debt service to the current debt service of the proposed refunded bonds and discounts the debt service difference back to the proposed closing date. This can be viewed in the aggregate or, as preferred, the present value savings for that maturity is calculated as a percentage of the par value of the refunded bonds.

DC Water has minimum present value savings threshold target of 3% based on the entire transaction.

However, other factors may be considered.

Option Value: Refunded bonds have an imbedded call option and this call option has value based on several variables (e.g. prevailing rates, market volatility, yield curve environment, time to exercise option). This value can be calculated and compared to the present value savings of the refunded bonds. DC Water has a goal of capturing 70% of the option value. However, other factors will also be considered.

Negative Arbitrage: For bonds that are advanced refunded, an escrow will normally be established to legally defease the bonds debt service over time. An escrow, as detailed previously, is normally invested in low yielding, SLGS or Treasury securities. The difference between the yield of the escrow and the yield of the refunded bonds represents the negative arbitrage for that maturity. DC Water has a goal of minimizing the negative arbitrage in the escrow. However, other factors will also be considered.

DC Water – Refunding Guidelines (2 of 2)

Holistically, DC Water will review all of the above criteria for each refunded maturity. While DC Water will strive to achieve the applicable thresholds, other circumstances and considerations may warrant refunding bonds that do not meet these thresholds. For example, the Board will normally delegate to the CFO or his designee for the transaction, the ability to complete a refunding if it is determined that there will be limited opportunities in the future to achieve the necessary savings. The decision to take savings on an upfront or deferred basis must be explicitly approved by DC Water. For debt restructuring, the Board can waive the present value savings goal if it is in the best interest of DC Water to complete the restructure without achieving the refinancing savings. DC Water will refund bonds within the term of the originally issued debt. However, DC Water may consider maturity extension, when necessary to achieve a desired outcome, provided that such extension is legally permissible based on remaining asset life. DC Water may also consider shortening the term of the originally issued debt to realize greater savings.

Criteria for Current Refundings: For bonds redeemed within 90 days of their respective redemption date, the following criteria will be used to determine which bonds to be current refunded: Cash Flow Savings, Net Present Value Savings, and Option Value.

Criteria for Advanced Refunding: For bonds redeemed more than 90 days of their respective redemption date, the following criteria will be used to determine which bonds to be advanced refunded: Cash Flow Savings, Net Present Value Savings, Option Value and Negative Arbitrage.

DC Water – Timing and Considerations for variable Rate Debt (i.e. Floating Rate Notes (FRNs))

DC Water recognizes that variable rate debt can be prudently issued in order to lower the effective cost of borrowing to DC Water and its ratepayers.

Currently, DC Water's Series 2012B are Floating Rate Notes that provide variable rate exposure. The interest rate for these bonds is based on a set spread to the floating SIFMA index. One of the unique features of the 2012 Series B notes is that they have a "hard put" date (called the "Initial Index Rate Bonds Purchase Date") where the bondholders will tender their bonds to purchase prior to the stated final maturity. Specifically:

		Initial Index Rate			
Sub-Series	Par	Maturity	Bonds Purchase Date	Rate	
2012B-1	52,690,000	10/1/2044	6/1/2015	SIFMA Index + .48%	
2012B-2	47,310,000	10/1/2040	6/1/2016	SIFMA Index + .58%	

One of the risks associated with FRNs is refinancing risk. In this case, as the Initial Index Rate Bonds Purchase Date approaches, DC Water must have a comprehensive plan that addresses the upcoming tender of the bonds. The following actions will assist DC Water in addressing this risk:

When *planning* a FRN transaction: Limit the amount subject to a mandatory tender in any one year. Compare the planned transaction size with DC Water's planned cash balance and/or CP capacity to ensure the tender amount can be addressed if there are market access problems. Make adjustments to the cash balance / CP as needed. Include 6 month call option on FRNs in the documentation, allowing for additional time to remarket tendered bonds. Incorporate provisions into documentation that allow DC Water to purchase tendered bonds. Once FRNs are issued (for financial planning): Determine the years in which there is a hard put for the bonds. Incorporate the hard put date and call date into the multi-year financial plan. Review timing of planned bond transactions to ensure alignment with call date and hard put date. _____ Determine if FRN's should be refinanced with fixed-rate or variable rate debt Incorporate necessary tender amount into planned bond offering Review cash balance and CP capacity to address tender in the event of market access problems.

D.C. Water and Sewer Authority Multi-modal (SIFMA Index) Bonds Policy

SUBJECT	9		
	Multi-modal (SIFMA Inde	x) Bonds	

This policy sets-forth the methodologies and procedures that DC Water will undertake in structuring and utilizing SIFMA-Indexed Bonds.

The purpose of this policy is to provide more than adequate time to effect the remarketing or refunding of SIFMA Indexed Bonds well in advance of any mandatory tender or maturity date and, in addition, provides significant redundancy to safeguard against any liquidity risk to the Authority of the hard put/hard maturity feature of SIFMA Index Bonds.

In order to prudently manage its debt portfolio and ensure the orderly and timely remarketing or refunding of such securities prior to any mandatory tender dates or hard maturity dates, DC Water will:

- 1. Structure any SIFMA-Indexed or similar bonds with an optional redemption feature of at least six months prior to any mandatory tender or maturity date which affords the Authority an extended window to remarket or refund the SIFMA Index Bonds and not be subject to limited periods of no market access.
- 2. Throughout the three months preceding any Purchase Date, maintain sufficient liquidity (either in cash or cash equivalents) to cover the full amount of the Purchase Price payable on that Purchase Date; and
- 3. Maintain strong credit ratings to ensure market access.

The Authority will adhere to the schedule set-forth below to ensure timely and orderly remarketing or refunding of such securities:

- 1. The Authority will begin its review, preparation and strategy for remarketing/refunding approximately nine (9) months prior to each mandatory or stated maturity date for the SIFMA Index Bonds. During this period, the Authority will:
 - a. Assess and evaluate its options, taking into consideration the current market conditions;
 - b. Decide upon a preferred option and remarketing /refinancing strategy; and
 - c. Develop a formal plan of action with a timeline and details for completion, (including initiating the transactional dialogue with the rating agencies)
- 2. No later than 180 days (6-months) prior to the mandatory tender or stated maturity, the Authority will have determined the plan of finance, made the appropriate notifications as required by the Indenture, obtained, or be in the process of obtaining, all legal authorizations and will proceed with the bond issuance activities:

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D.C. Water and Sewer Authority Multi-modal (SIFMA Index) Bonds Policy

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Multi-modal (SIFMA Index) Bonds

To the extent that the Authority determines to Refund the bonds:

- a. 180-120 days prior to mandatory tender or stated maturity: complete near-final drafts of financing documents; circulate credit package to rating agencies.
- b. No later than required: send required notices to trustee, bondholders and other notice parties. Finalize financing documents.
- c. Approximately 100 days prior to mandatory tender or stated maturity: receive credit ratings; mail offering documents; price refinancing bonds; prepare for closing:
- d. No later than 30 days prior to mandatory tender date or stated maturity: close on the refunding transaction for the outstanding SIFMA Index Bonds.

To the extent that the Authority determines to remarket the mandatory tender bonds:

- a. No later than 90 days, make all necessary arrangement to meet Indenture liquidity requirements, by ensuring availability of:
 - 1. Sufficient cash and/or cash equivalents; or
 - 2. Commercial Paper capacity;
- b. 120-90 days prior to mandatory tender: complete near-final drafts of financing documents; circulate credit package to rating agencies.
- c. No later than required, send required notices to trustee, bondholders and other notice parties. Finalize financing documents.

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Presented and Adopted: December 6, 2012

SUBJECT: Approval to Execute Change Order No. 03

of Contract No. 090160, Liberty Mutual Insurance Co

#12-124
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

The Board of Directors ("Board") of the District of Columbia Water and Sewer Authority, ("the Authority"), at the Board meeting held on December 6, 2012 upon consideration of a non-joint use matter decided by a vote of five (5) in favor and none (0) oppose to execute Change Order No. 03 of Contract No. 090160, Liberty Mutual Insurance Co.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Change Order No. 03 of Contract No. 090160, Liberty Mutual Insurance Co. The purpose of the contract is to obtain additional occupancy and steel plate permits due to new DDOT regulations. The change amount is \$19,970.

This resolution is effective immediately.

Secretary to the Board of Directors