

**Virginia Resources Authority
Board Meeting
Minutes of the Regular Meeting
Held December 10, 2019**

The Board of Directors of the Virginia Resources Authority met on Tuesday, December 10, 2019 in the William G. O'Brien Boardroom, Bank of America Building, 19th Floor, Suite 1920, 1111 E. Main Street, Richmond, Virginia.

The following Board members were present and acting throughout the meeting: Mr. Thomas L. Hasty, III, Ms. Mary Bunting, Mr. Mark Flynn, Mr. Reginald E. Gordon, Ms. Manju Ganeriwala, Mr. Cecil R. Harris, Jr., Mr. Dwayne Roadcap, Ms. Valerie Thomas. Ms. Cynthia Bailey and Ms. Jennifer Bowles were absent from the meeting. Also present were: Mr. Anderson from McGuireWoods LLP, Mr. Wellford from Davenport & Company LLC, Zach Lucanie from Davenport & Company LLC, Ms. Ward and Mr. Eckstein from the Virginia Department of Health Office of Drinking Water, and Jim Burke and Linda Pierce from the Virginia Commonwealth University's Performance Management Group. VRA Staff present included: Ms. Hamlett, Ms. Adams, Ms. Bass, Mr. Bergeron, Mr. Crumlish, Mr. D'Alema, Mr. Doughtie, Mr. Farmer, Ms. Gordon, Ms. Jones, Ms. Maistros, Mr. Murray, Ms. O'Brien and Mr. Panos.

Mr. Hasty served as Chair of the Meeting and Ms. Hamlett as Secretary.

The Chair called the meeting to order at 9:01 a.m. and upon motion duly made by Ms. Donnellan and seconded by Mr. Harris the agenda as presented was approved.

The Board considered the next item on the agenda, which was approval of the minutes. Upon motion duly made, seconded and carried by affirmation votes of all the Directors noted above as being present, the minutes of Personnel Committee, Budget Committee, and the Portfolio Risk Management Committee held on September 9, 2019 and a regular meeting of the Board of Directors held on September 10, 2019, were approved as previously distributed. Motion by Mr. Gordon and seconded by Ms. Bunting to approve the agenda. Motion carried.

Executive Director's Report

Chairman Hasty called on Ms. Hamlett, Executive Director, to present the Executive Director's Report to the Board. In giving the report, Ms. Hamlett highlighted matters including:

Ms. Hamlett informed the Board that Goochland County has been in discussion with VRA in recent weeks regarding the potential refinancing of the County's loans issued in 2002 and 2012 related to the Tuckahoe Creek Service District (TCSD). Goochland is currently reviewing the potential refunding opportunity and plans to present VRA with a formal proposal in early 2020. Ms. Hamlett indicated that based on analysis completed by VRA staff to date, Goochland has shown significant improvement in their financial profile since the last restructuring of the TCSD debt in 2012. As such, the Goochland TCSD refunding may potentially be considered for inclusion in the spring 2020 VPFP issuance or as a stand-alone VRA issuance.

Ms. Hamlett informed the Board that the Virginia Conservation Legacy Fund (VCLF, owners of Natural Bridge) made the most recent scheduled payment and that there will be a significant increase in the principal payment due in 2020. Given the VCLF history, VRA is not optimistic that payments will be made as agreed with a higher amount due.

Ms. Hamlett announced to the Board that Mr. Harris has agreed to chair the Budget Committee, which is vacant due to Mr. Branscome's term ending. She further announced that Ms. Donnellan has agreed to serve as the Board's liaison to the Strategic planning efforts. Ms. Hamlett thanked both Board members.

Brief discussion ensued about an economic development inquiry from the Virginia Port Authority.

Ms. Hamlett introduced Mr. Jim Burke and Ms. Linda Pierce from Virginia Commonwealth University's Performance Management Group. VRA has engaged Mr. Burke and Ms. Pierce to work with the Authority to update the 2015 Strategic Plan. Ms. Hamlett invited the two to speak briefly about their process and what to expect in the coming months. Mr. Burke and Ms. Pierce indicated their enthusiasm for working with VRA again, and explained some of the methodology they use to gather perspectives from stakeholders in a strategic planning process.

Ms. Hamlett indicated to the Board that due to increased volume of loans and the resulting increase in compliance work, the upcoming budget may include a request for one or two additional FTEs to keep up with the increased workload.

Ms. Hamlett called on Mr. Bergeron to inform the Board that the first Investment Advisory Committee meeting is scheduled for January 7 at 3:00 p.m. Any interested Board member is invited to attend.

Committee Reports

Portfolio Risk Management Committee (PRMC)

Ms. Donnellan, on behalf of the PRMC, asked Mr. Crumlish, Director of Financial Services, to present to the Board matters discussed in the PRMC meeting.

Virginia State Revolving Fund Revenue Bonds

Mr. Crumlish, Director of Financial Services, presented a resolution to the Committee that would authorize amendments to the existing master trust indenture (MTI) for the Virginia Water Facilities Revolving Fund Program. The amendments add the Drinking Water State Revolving Fund program to the indenture, which currently only includes the Clean Water Revolving Loan Fund. The resolution further authorizes the issuance of up to \$350 million to fund Clean Water and Drinking Water loans or reimbursement for previously closed loans or both. \$260 million is anticipated in the Clean Water program, and \$90 million is anticipated in

the Drinking Water program. The proposed bonds will be known as the Virginia State Revolving Fund Revenue Bonds.

Mr. Crumlish summarized the status of the Clean Water Revolving Loan Fund, indicating that the Department of Environmental Quality (DEQ) had received 25 applications for the 2020 solicitation. The applications totaled over \$665 million. The State Water Control Board (SWCB) meets December 13 to consider the project list and authorize loan funding recipients, rates and terms. DEQ is recommending approval of the applications to SWCB. Mr. Crumlish noted that two applications represent three-quarters of the requested funds: Alexandria Renew Enterprises applied for \$315 million, and the Hampton Roads Sanitation District (HRSD) applied for \$178.7 million. These two applicants have also been invited by the U.S. Environmental Protection Agency (EPA) to apply for funds from the Water Infrastructure Finance and Innovation Act program. Mr. Crumlish indicated that Alexandria Renew Enterprises and HRSD will need funds other than those borrowed through VRA and other such funds are available.

Mr. Crumlish continued with an update to the Board on the status of the Drinking Water State Revolving Fund. Mr. Crumlish explained that demand exceeds capacity in Drinking Water without leveraging that program.

The resolution before the Board would allow the existing MTI to be amended to cross-collateralize both the Clean Water and Drinking Water programs. Mr. Crumlish noted that 21 states currently cross-collateralize these programs, and it is permitted under federal regulations. Cross-collateralization through a single indenture by utilizing the existing MTI is efficient and cost effective, and takes advantage of the excellent bond ratings in the Clean Water program. The increased diversification of borrowers would also be beneficial to both the Clean Water and Drinking Water programs. Also, the joint leverage allows for shared cost of issuing bonds. Mr. Crumlish explained that the action would not result in any operational changes, and the programs would remain separate in all ways other than going to market for bond sales.

Approval of the resolution would allow VRA and agency partners to meet program demand in both programs. Given the benefits and minimal risk involved, VRA staff recommends approval of the resolution.

Motion by Ms. Donnellan, seconded by Ms. Ganeriwala, to approve the up to \$350 million State Revolving Fund Revenue Bond Resolution as presented. The vote was unanimous.

Ag BMP Program Update

Mr. Crumlish next reported to the Board on the Ag BMP program, which was relaunched in June. Since that time, DEQ has received 71 applications, with a total of \$11.7 million requested. The average project cost among these applications is approximately \$165,000. However, it is anticipated that applicants would receive \$7.3 million in cost-share (other

anticipated state and federal funds), which lowers the average loan amount to nearly \$62,000 after the cost-share is applied.

Mr. Crumlish went on to explain the tremendous support for the Ag BMP loan program, indicating that the Administration has announced \$73 million available in state cost-share, and the SWCB may make an additional \$10 million available to increase program capacity. The program is featured as a part of the Commonwealth's Watershed Implementation Plan Phase III, which has been submitted to the EPA to demonstrate Virginia's plan for reducing pollutants entering the Chesapeake Bay. Nitrogen is one of the main nutrients polluting the Chesapeake Bay, and it has been determined that 60% is coming from agriculture. The investments in the Ag BMP program will therefore make a significant positive impact on the Commonwealth's environmental goals.

Mr. Crumlish informed the Board that while the SWCB established a maximum \$500,000 loan amount in the program guidelines, a few applicants had submitted two applications for projects that would total more than \$500,000 per borrower. DEQ has authorized these applications. He noted that VRA's exposure may be higher than \$500,000 per borrower, but also indicated that with anticipated cost-share, generally the long-term permanent loan would be less than \$500,000.

Mr. Harris inquired regarding collateral that may be required for the Ag BMP loans. Mr. Crumlish indicated that all of the loans have a personal guaranty of the borrower, and that for loans above \$100,000, equipment and real estate may be collateral, as recommended by Farm Credit during their credit analysis.

Hampton Roads Sanitation District

Mr. Crumlish then updated the Board on the Hampton Roads Sanitation District, which issued over \$205 million in Subordinate Wastewater Revenue bonds in August, resulting in nearly \$30 million in net present value savings. As a part of that transaction, Standard & Poor's upgraded the subordinate lien rating from "AA" to "AA+". The senior lien indenture was closed, and VRA-held senior lien loans totaling \$45.6 million migrated to subordinate status, which was approved by the VRA Board of Directors at its December 8, 2015 meeting. Consistent with the 2015 approval, VRA-held senior debt to remaining HRSD senior lien outstanding debt is 16.5%.

VFPF 2019C Transaction Summary

Ms. Donnellan next called on Mr. D'Alema, Director of Program Management, who provided the Board with the results of the 2019C VFPF pool. According to Mr. D'Alema, the fall transaction was the largest transaction in VRA's history, with \$383.57 million in VFPF bonds sold on October 29/30, funding 22 loans on behalf of 20 localities. This amount is higher

than all of VRA's prior VPFP bond sales. As a part of the fall pool rating process, Moody's upgraded the VPFP State Moral Obligation Revenue Bonds from 'Aa2' to 'Aa1'.

Mr. D'Alema explained the four separate tranches associated with the fall pooled issuance: Infrastructure Revenue Bonds (Taxable), State M.O. Bonds (Taxable), Infrastructure Revenue Bonds (Tax-Exempt) and State M.O. Bonds (Tax-Exempt), and reported the underwriters and bid winners associated with each.

Mr. D'Alema continued his remarks with the list of 22 borrower loans, highlighting certain projects. In all, the local refunding borrowers refunded a total par amount of \$261.46 million of prior VRA debt obligations for total net present value savings of over \$23.6 million.

Ms. Donnellan reiterated the congratulations expressed during the PRMC meeting, noting that the transaction was a huge accomplishment.

VPFP Portfolio Update

Mr. D'Alema next provided the Board with a brief update on the VPFP portfolio, which now includes 137 local government borrowers and 325 loans, with \$2.43 billion in total local loans outstanding. He also indicated that borrower credit remains strong, and the concentration of the top ten VPFP borrowers in the portfolio has continued to decline. Mr. Wellford added that Standard & Poor's expressed approval of the State Aid Intercept procedures that have been documented by VRA.

Series 2020A VPFP Financing Schedule

Mr. D'Alema next provided the Board with the upcoming 2020A tentative financing schedule, with applications anticipated to be due in February and the Spring Series bond sale occurring in May. He anticipates conducting Spring, Summer and Fall issuances.

Continuing Disclosure Update

Mr. D'Alema reported that VRA's continuing disclosure documents for FY19 have been posted as required to the Municipal Securities Rulemaking Board (MSRB) EMMA website.

Old Business

No old business was discussed.

New Business

Ms. Hamlett reminded Board members that in January, each member of the Board must file a Financial Disclosure Statement with the Commonwealth's Conflict of Interest and Ethics Advisory Committee. She called on Mr. Doughtie, who indicated that filing begins in January, and statements are due by February 3.

The next order of new business was discussion of 2020 meeting dates, which were identified as March 9 & 10, June 8 & 9, September 14 & 15, and December 6 & 7 (in coordination with the Governor's Infrastructure Financing Conference at the Hotel Roanoke).

Adjournment

There were no new items or any further business to come before the meeting. No public comment. The meeting adjourned at 10:07 a.m.



Stephanie L. Hamlett, Executive Director
Board Secretary

APPROVED:



Mr. Thomas L. Hasty, III, Chairman of the Board

**Virginia Resources Authority
Portfolio Risk Management Committee Meeting
Minutes of the Regular Meeting
Held December 9, 2019**

The Portfolio Risk Management Committee Meeting of the Virginia Resources Authority (VRA) met on Monday, September 9, 2019 in VRA William G. O'Brien Boardroom, Bank of America Building 19th Floor, Suite 1920, 1111 E. Main Street, Richmond, VA.

The following Committee members were present and acting throughout the meeting: Ms. Barbara Donnellan, Ms. Manju Ganeriwala, Ms. Valerie Thomson. Mr. Tom Hasty was absent from the Committee meeting. The other Board member present was Mr. Mark Flynn. Also present were: Ms. Kelly Ward from the Virginia Department of Health, Arthur Anderson from McGuireWoods LLP, Ty Wellford from Davenport & Company LLC, Megan Gilliland from Kaufman & Canoles, P.C., Karen Doran from the Department of Environmental Quality, David Gustin from McGuireWoods LLP, Zach Lucanie from Davenport & Company LLC and Ron Tillett from Raymond James. VRA Staff present included: Ms. Hamlett, Ms. Adams, Mr. Crumlish, Mr. D'Alema, Mr. Doughtie, Ms. Jones, Ms. Gordon, Ms. Maistros, Mr. Murray, Ms. O'Brien, Ms. Pearson.

Ms. Donnellan served as Chair of the Meeting and Ms. Hamlett as Secretary.

The meeting was called to order by Ms. Donnellan at 3:02 p.m. and upon motion duly made by Ms. Donnellan and seconded by Ms. Thomson, the agenda as presented was approved.

Virginia State Revolving Fund Revenue Bonds

Mr. Crumlish, Director of Financial Services, began with a discussion of a proposed resolution authorizing amendments to the existing master trust indenture (MTI) for the Virginia Water Facilities Revolving Fund Program. The amendments add the Drinking Water State Revolving Fund program to the indenture, which currently only includes the Clean Water Revolving Loan Fund. The resolution further authorizes the issuance of up to \$350 million to fund Clean Water and Drinking Water loans or reimbursement for previously closed loans or both. Of this amount, \$260 million is anticipated in the Clean Water program, and \$90 million is anticipated in the Drinking Water program. The proposed bonds will be known as the Virginia State Revolving Fund Revenue Bonds.

Mr. Crumlish summarized the status of the Clean Water Revolving Loan Fund, indicating that the Department of Environmental Quality (DEQ) had received 25 applications for the 2020 solicitation. The applications totaled over \$665 million. The State Water Control Board (SWCB) meets December 13 to consider the project list and authorize loan funding recipients, rates and terms. DEQ is recommending approval of the applications to SWCB. Mr. Crumlish noted that two applications represent three-quarters of the requested funds: Alexandria Renew

Enterprises applied for \$315 million, and the Hampton Roads Sanitation District (HRSD) applied for \$178.7 million. These two applicants have also been invited by the U.S. Environmental Protection Agency (EPA) to apply for funds from the Water Infrastructure Finance and Innovation Act program. Mr. Crumlish indicated that Alexandria Renew Enterprises and HRSD will need funds other than those borrowed through VRA and other such funds are available.

Mr. Crumlish continued with an update to the Committee on the status of the Drinking Water State Revolving Fund. Mr. Crumlish explained that demand exceeds capacity in Drinking Water without leveraging the program.

The resolution before the Committee would allow the existing MTI to be amended to cross-collateralize both the Clean Water and Drinking Water programs. Mr. Crumlish noted that 21 states currently cross-collateralize these programs, and it is permitted under federal regulations. Cross-collateralization through a single indenture by utilizing the existing MTI is efficient and cost effective, and takes advantage of the excellent bond ratings in the Clean Water program. The increased diversification of borrowers would also be beneficial to both the Clean Water and Drinking Water programs. Also, the joint leverage allows for shared cost of issuing bonds. Mr. Crumlish explained that the action would not result in any operational changes, and the programs would remain separate in all ways other than going to market for bond sales.

Approval of the resolution would allow VRA and agency partners to meet program demand in both programs. Given the benefits and minimal risk involved, VRA staff recommends approval of the resolution.

Ms. Ganeriwala inquired about the “downside” of such action. Mr. Wellford indicated that cross-collateralization is low-risk, and Mr. Anderson reiterated that the accounts for each program would remain separate, and only the bond sales would be combined. Ms. Ganeriwala further inquired why this action had not been taken earlier, given the benefits. Mr. Crumlish explained that given the historic use of the program (typically assisting disadvantaged areas of the Commonwealth), it would have been hard to leverage. Over time, however, the program has evolved to include “principal forgiveness” with zero-percent loans, and has attracted borrowers from across the Commonwealth.

Motion by Ms. Ganeriwala, seconded by Ms. Donnellan, recommending action by VRA Board to approve the up to \$350 million State Revolving Fund Revenue Bond Resolution as presented. The vote was unanimous.

Ag BMP Program Update

Mr. Crumlish next reported to the Committee on the Ag BMP program, which was relaunched in June. Since that time, DEQ has received 71 applications, with a total of \$11.7 million requested. The average project cost among these applications is approximately \$165,000. However, it is anticipated that applicants would receive \$7.3 million in cost-share

(other anticipated state and federal funds), which lowers the average loan amount to nearly \$62,000 after the cost-share is applied.

Mr. Crumlish went on to explain the tremendous support for the Ag BMP loan program, indicating that the Administration has announced \$73 million available in state cost-share, and the possibility that the SWCB may make an additional \$10 million available to increase program capacity. The program is featured as a part of the Commonwealth's Watershed Implementation Plan Phase III, which has been submitted to the EPA to demonstrate Virginia's plan for reducing pollutants entering the Chesapeake Bay. Nitrogen is one of the main nutrients polluting the Chesapeake Bay, and it has been determined that 60% is coming from agriculture. The investments in the Ag BMP program will therefore make a significant positive impact on the Commonwealth's environmental goals.

Mr. Crumlish informed the Committee that while the SWCB established a maximum \$500,000 loan amount in the program guidelines, in some instances the program received two applications for projects that would total more than \$500,000 per borrower. DEQ has authorized these applications. He noted that VRA's exposure may be higher than \$500,000 per borrower, but also indicated that with anticipated cost-share, generally the long-term permanent loan would be less than \$500,000.

Ms. Donnellan noted that the best management practices are done voluntarily by agricultural producers, and the Ag BMP loan program incentivizes the producers to make the improvements. Ms. Donnellan asked for further explanation of why Ag BMPs are such an important part of the Commonwealth's pollution reduction strategy. Mr. Crumlish and Ms. Thomson explained that in previous decades, Virginia's Watershed Implementation Plans focused heavily on point-source pollution, which is typically handled at the local level (wastewater). While infrastructure to improve water quality was expensive, the state could mandate the improvements. Now that most of the point-source pollution has been addressed, non-point-source pollution remains to be addressed. Ms. Ganeriwala asked for examples of the best management practices implemented by the agricultural producers. Ms. Thomson shared examples such as fencing, waste management structures and riparian buffers.

Hampton Roads Sanitation District

Mr. Crumlish then updated the Committee on the Hampton Roads Sanitation District, which issued over \$205 million in Subordinate Wastewater Revenue bonds in August, resulting in nearly \$30 million in net present value savings. As a part of that transaction, Standard & Poor's upgraded the subordinate lien rating from "AA" to "AA+". The senior lien indenture was closed, and VRA-held senior lien loans totaling \$45.6 million migrated to subordinate status, which was approved by the VRA Board of Directors at its December 8, 2015 meeting. Consistent with the 2015 approval, VRA-held senior debt to remaining HRSD senior lien outstanding debt is 16.5%.

VPFP 2019C Transaction Summary

Ms. Donnellan next called on Mr. D'Alema, Director of Program Management, who provided the Committee with the results of the 2019C VPFP pool. According to Mr. D'Alema, the fall transaction was the largest transaction in VRA's history, with \$383.57 million in VPFP bonds sold on October 29/30, funding 22 loans on behalf of 20 localities. This amount is higher than all of VRA's prior VPFP bond sales. As a part of the fall pool rating process, Moody's upgraded the VPFP State Moral Obligation Revenue Bonds from 'Aa2' to 'Aa1'.

Mr. D'Alema explained the four separate debt tranches included in the fall pool: Infrastructure Revenue Bonds (Taxable), State M.O. Bonds (Taxable), Infrastructure Revenue Bonds (Tax-Exempt) and State M.O. Bonds (Tax-Exempt), and reported the negotiated underwriters and competitive bid winners associated with each. Raymond James served as senior manager for the negotiated sale of the Infrastructure Revenue Bonds (Taxable), and Mr. D'Alema invited Mr. Tillett to provide the Committee with a post-sale report.

Mr. Tillett indicated that 49 investors were involved in the sale, and that nearly a third of the investors were smaller than is typical and included some local governments. He further remarked that the sale was more than three times over-subscribed, demonstrating the strong interest in VRA's debt.

Mr. D'Alema continued his remarks with the list of 22 borrower loans, highlighting certain projects included in the transaction. In all, the local refunding borrowers refunded a total par amount of \$261.46 million of prior VRA debt obligations for total net present value savings of over \$23.6 million.

Ms. Donnellan congratulated everyone involved, noting that the interest rates associated with the refunding taxable bonds were very competitive with tax-exempt rates in recent years. Ms. Hamlett recognized the work of all the members of the team that contributed to the success of the sale.

Mr. D'Alema recognized Mr. Wellford, who provided the Committee with a brief summary of the market conditions throughout the year that contributed to the low rates and increased volume of VPFP transactions.

VPFP Portfolio Update

Mr. D'Alema next provided the Committee with a brief update on the VPFP portfolio, which now includes 137 local government borrowers and 325 loans, with \$2.43 billion in total local loans outstanding. He also indicated that borrower credit remains strong, and the concentration of the top ten VPFP borrowers in the portfolio has continued to decline.

Series 2020A VPFP Financing Schedule

Mr. D'Alema next provided the Committee with the upcoming 2020A tentative financing schedule, with applications anticipated to be due in February 2020 and the Spring Series bond sale occurring in May 2020.

Continuing Disclosure Update

Mr. D'Alema reported that VRA's continuing disclosure documents for FY19 have been posted as required to the Municipal Securities Rulemaking Board (MSRB) EMMA website.

Adjournment

There were no new items or any further business to come before the meeting. Motion by Ms. Donnellan and seconded by Ms. Ganeriwala that the meeting be adjourned. Motion carried, and the meeting adjourned at 4:13 p.m.



Stephanie L. Hamlett, Executive Director
Board Secretary

APPROVED:



Ms. Barbara McCarthy Donnellan, Chair

VIRGINIA RESOURCES AUTHORITY

-RESOLUTION-

AUTHORIZING THE ISSUANCE AND SALE OF UP TO \$350,000,000 IN STATE REVOLVING FUND REVENUE BONDS FOR THE PERIOD ENDING SEPTEMBER 30, 2020

December 10, 2019

A. The Federal Water Quality Act of 1987, which amended the Clean Water Act of 1972 (the “Clean Water Act”), provides for the establishment of state revolving fund loan programs. The funds in these state revolving fund loan programs are to be used to provide financial assistance to various entities in connection with the construction of systems for the storage, treatment, recycling and reclamation of sewage, and certain other qualified water pollution control projects. The Clean Water Act requires, as a condition for the receipt of certain federal financial assistance, that each state establish a state revolving loan fund to receive grant proceeds. As part of the Clean Water Act, states are also required to provide state matching funds equal to twenty percent of each federal capitalization grant.

B. The Federal Safe Drinking Water Act Amendments of 1996, which amended the Safe Drinking Water Act (the “Drinking Water Act”), also provide for the establishment of state revolving fund loan programs. The funds in these state revolving fund loan programs are to be used to provide financial assistance to various community water systems (including for-profit companies) and nonprofit non-community water systems in connection with the construction of qualified drinking water projects. Under each state revolving fund loan program, a state revolving loan fund is created to receive federal capitalization grants and states are required to provide state matching funds equal to at least twenty percent of each federal capitalization grant.

C. The 1986 Virginia General Assembly created the Virginia Water Facilities Revolving Fund (the “Clean Water RLF”) pursuant to Chapter 22, Title 62.1, Code of Virginia of 1950, as amended (the “VWFRF Act”), to provide a long-term renewing source of funding for water quality improvements in the Commonwealth of Virginia (the “Commonwealth”).

D. The 1987 Virginia General Assembly created the Virginia Water Supply Revolving Fund (the “Drinking Water RLF”) pursuant to Chapter 23, Title 62.1, Code of Virginia of 1950, as amended (the “VWSRF Act”), to provide a long-term renewing source of funding for drinking water improvements in the Commonwealth.

E. Section 62.1-225 of the VWFRF Act and Section 62.1-234 of the VWSRF Act provide that the Clean Water RLF and the Drinking Water RLF are separate, permanent, and perpetual funds, each of which is dedicated with limited exceptions to the making of loans to local governments and other eligible entities (“Borrowers”) for qualifying clean water projects (“Clean Water Projects”) and drinking water projects (“Drinking Water Projects” and, together with Clean Water Projects, “Projects”). Both the Clean Water RLF and the Drinking Water RLF are administered and managed by the Virginia Resources Authority (“VRA”), which is a public body corporate and a political subdivision of the Commonwealth created by the Virginia Resources

Authority Act, Chapter 21, Title 62.1, Code of Virginia of 1950, as amended (the “VRA Act”), subject to the right of the State Water Control Board (in the case of the Clean Water RLF) and the Board of Health (in the case of the Drinking Water RLF), following consultation with VRA, to direct the distribution of loans to particular Borrowers and to establish the interest rates and repayment terms of such loans.

F. The programs for the application of the assets of the Clean Water RLF (the “Clean Water Program”) and the Drinking Water RLF (the “Drinking Water Program”) established by VRA, the State Water Control Board and the Board of Health, respectively, satisfy the criteria of the Clean Water Act and the Drinking Water Act and entitle the Commonwealth to receive the above-described capitalization grants to finance Projects. In addition, federal law allows for the cross-collateralization of the assets of the Clean Water Program and Drinking Water Program. However, in the past the Commonwealth has not taken advantage of the cross-collateralization authorization.

G. The VRA Act authorizes and empowers VRA, among other things, to borrow money and issue its bonds to provide funds to carry out VRA's purposes and powers, including making loans to Local Governments to finance or refinance the cost of any Projects from the proceeds of such bonds, and to pay all costs and expenses incurred in connection with the issuance of such bonds.

H. Pursuant to Section 62.1-231 of the VWFRF Act and Section 62.1-240 of the VWSRF Act, VRA may, among other things, at any time or from time to time transfer from the Clean Water RLF and the Drinking Water RLF to banks or trust companies designated by VRA any or all of the assets of such RLFs to be held in trust as security for the payment of the principal of and premium, if any, and interest on any or all of the bonds of VRA and Section 62.1-203 of the VRA Act authorizes VRA to pledge such assets as security for such bonds.

I. VRA has entered into an Amended and Restated Master Indenture of Trust dated as of April 1, 2010, as previously supplemented and amended (the “Master Indenture”), between VRA and U.S. Bank National Association, as trustee (the “Trustee”), under which VRA has provided for the issuance from time to time of bonds of VRA (as more particularly described in the Master Indenture, the “Bonds”) for the purpose of purchasing and acquiring obligations (“Local Obligations”) of certain Borrowers to finance and refinance certain Clean Water Projects (including for purposes of evidencing the provision of the state matching funds for the federal capitalization grants), and for such other purposes as may be authorized under and pursuant to the VRA Act.

J. To further the purposes of the VRA Act, VRA has determined to issue one or more Series of Bonds under the Master Indenture in an aggregate principal amount of up to \$350,000,000 (the “2020 Bonds”) at one time or from time to time and to use the proceeds of the 2020 Bonds to purchase or acquire Local Obligations (including for purposes of evidencing the provision of the state matching funds for the federal capitalization grants) to finance certain Clean Water Projects and, additionally, Drinking Water Projects and to pay the cost of issuance of the 2020 Bonds.

K. The Master Indenture provides that, as a condition to the issuance and authentication of any Series of Bonds, VRA shall deliver to the Trustee a Supplemental Series Indenture, which Supplemental Series Indenture shall set forth the terms of such Series. As provided in the Master Indenture and the form of the model Supplemental Series Indenture presented to this meeting (the “2020 Model Supplement”), the debt service payments on the 2020 Bonds are expected to be made from revenues derived from the Local Obligations, certain pledged Direct Loans (as defined in the Master Indenture) and the investment earnings on the Reserve Fund (as defined in the Master Indenture and to be funded as described in the 2020 Model Supplement) and certain other funds and accounts established pursuant to the Master Indenture.

L. In addition to providing for the issuance of additional Series of Bonds, a Supplemental Series Indenture also may make amendments to the Master Indenture without the consent of the any of the owners of the Bonds provided the amendments (i) are permitted by applicable federal and Virginia law and (ii) will not adversely affect the ratings then assigned to the Bonds outstanding under the Master Indenture.

M. After consultation with the Department of Environmental Quality regarding the Clean Water Program and the Department of Health regarding the Drinking Water Program, VRA staff is proposing a number of amendments to the Master Indenture to enhance both the Clean Water Program and the Drinking Water Program. Such amendments will be set forth in one or more Supplemental Series Indentures for the 2020 Bonds and include provisions (i) to permit the proceeds of the Bonds to be used to finance and refinance Drinking Water Projects as well as Clean Water Projects, (ii) to simplify the provisions for issuance of Bonds to provide state matching funds, (iii) to cross-collateralize the 2020 Bonds and all other Bonds currently Outstanding and to be issued under the Master Indenture by assets in the Clean Water and Drinking Water Programs and (iv) to clarify VRA’s ability to pledge and de-pledge Direct Loans as security for the Bonds.

WHEREAS, unless otherwise defined, each capitalized term used in this Resolution shall have the meaning given it in the Master Indenture.

After careful consideration and to further the public purposes for which VRA was created, NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF VRA AS FOLLOWS:

1. Authorization of 2020 Bonds. The Board of Directors of VRA (the “Board”) determines that it is in the best interest of VRA to authorize the issuance of the 2020 Bonds at one time or from time to time in one or more Series under the Master Indenture to purchase or acquire Local Obligations to finance or refinance both Clean Water Projects and Drinking Water Projects (including for purposes of evidencing the provision of the state matching funds for the federal capitalization grants), and to pay the cost of issuance of the 2020 Bonds. The Board authorizes the issuance and sale of the 2020 Bonds, pursuant to the following terms and conditions: (i) the original aggregate principal amount of the 2020 Bonds shall not exceed \$350,000,000; (ii) no Series of the 2020 Bonds shall have a true interest cost in excess of 5.0%; and (iii) the final maturity any of the 2020 Bonds of any Series shall be no later than December 31, 2052. It is hereby found and determined that the debt service payments on the 2020 Bonds are not expected to be made, in whole or in part, directly or indirectly, from appropriations of the

Commonwealth of Virginia within the meaning of Section 2.2-2416(7) of the Code of Virginia of 1950, as amended.

2. Details of the 2020 Bonds. Subject to the limitations outlined in paragraph 1 above, VRA's Chairman and Executive Director, either of whom may act, are authorized to determine and approve the final details of the 2020 Bonds of each Series, including without limitation, their series designation, dated date, original aggregate principal amount, interest rates, maturity dates, redemption provisions, sale prices and the principal amount of each maturity, the sale date, the sale price and the reoffering prices and whether the 2020 Bonds of such Series are sold as senior or subordinate bonds or a combination thereof. The approval of the Chairman and Executive Director of such details shall be evidenced conclusively by their execution and delivery of the 2020 Bonds of the Series on VRA's behalf.

3. Approval of Supplemental Series Indentures. Each Series of 2020 Bonds shall be issued pursuant to the Master Indenture and a Supplemental Series Indenture in substantially the same form as the 2020 Model Supplement. With respect to each Series of 2020 Bonds authorized under this Resolution, the Chairman and Executive Director, either whom may act, are authorized to execute and deliver on VRA's behalf, and, if required, to affix and attest VRA's seal on the Supplemental Series Indenture in substantially the form of the 2020 Model Supplement, with such changes, insertions or omissions, including the establishment of additional reserve funds for all or any portion of the 2020 Bonds, as may be approved by the Chairman and Executive Director. Such approval shall be evidenced conclusively by the execution and delivery of each respective Supplemental Series Indenture on VRA's behalf.

4. Preparation, Execution, Authentication and Delivery of 2020 Bonds. The Executive Director is authorized and directed to have the 2020 Bonds of each Series prepared in substantially the form attached to the 2020 Model Supplement submitted to this meeting, to have such 2020 Bonds executed pursuant to the terms of the Master Indenture and the related Supplemental Series Indenture, to deliver such 2020 Bonds to the Trustee for authentication, and to cause such 2020 Bonds so executed and authenticated to be delivered to or for the account of the initial purchasers thereof upon payment of the purchase price thereof as provided in the related Supplemental Series Indenture.

5. Sale of 2020 Bonds. Each Series of 2020 Bonds may be sold to an underwriter or group of underwriters with demonstrated experience in underwriting municipal securities ("Underwriter") to be selected by the Executive Director in accordance with VRA's previously adopted underwriter selection procedures or, if the Executive Director so elects, by competitive bidding to the qualified bidder with the lowest true interest cost to VRA. With respect to each Series of 2020 Bonds, the Executive Director is authorized to execute and deliver a bond purchase agreement with the Underwriter, or, if sold by competitive bidding, other appropriate documents with the successful bidder (the "Bid Documents") providing for the sale and delivery of the 2020 Bonds upon terms and conditions to be approved by the Chairman and Executive Director within the parameters set forth in paragraph 1 above.

6. Preliminary Official Statement. VRA authorizes the preparation of a preliminary official statement, in such form as the Executive Director may approve (a "Preliminary Official Statement"), in connection with a public offering of any Series of 2020 Bonds authorized

hereunder. The Executive Director is authorized to deem final each Preliminary Official Statement as of its date for purposes of Securities and Exchange Commission Rule 15c2-12 (the “Rule”) and to approve distribution thereof. Distribution of a Preliminary Official Statement shall constitute conclusive evidence that it has been deemed final as of its date, except for the omission of such pricing and other information permitted to be omitted, for purposes of the Rule.

7. Official Statement. Upon the public sale of any Series of the 2020 Bonds, the Executive Director is authorized and directed to complete the Preliminary Official Statement therefore as an official statement in final form (the “Official Statement”) to reflect the final terms and details of the related Series of 2020 Bonds and the sale thereof. The Executive Director is authorized to execute each Official Statement, which execution shall constitute conclusive evidence of approval of the Official Statement on behalf of VRA and that it has been deemed final within the meaning of the Rule. The Executive Director is authorized to prepare, execute, publish and distribute any other disclosure or sale documents as the Executive Director deems necessary or appropriate to effect the sale of the 2020 Bonds.

8. Credit Enhancement. The Executive Director is authorized to procure bond insurance for all or any portion of the 2020 Bonds or a surety bond, liquidity facility or similar instrument to provide for the funding of all or any portion of the Reserve Fund or any other reserve fund or account established pursuant to the Master Indenture, if the Executive Director determines such procurement to be in the best interests of VRA.

9. Tax Matters. The Executive Director is authorized and directed to (i) conduct public hearings in connection with the issuance of 2020 Bonds, if applicable, (ii) seek the approval of the Governor of the issuance of 2020 Bonds, if applicable, and (iii) execute and deliver on VRA's behalf simultaneously with the issuance of each Series of the 2020 Bonds a Tax Regulatory Agreement and/or similar agreements or certificates. The Tax Regulatory Agreement and/or similar agreements or certificates shall set forth the expected use of and investment of all or any portion of the proceeds of each Series of the 2020 Bonds and include such covenants as may be necessary to qualify the interest on all or any portion of each Series of the 2020 Bonds for exemption from gross income for federal income tax purposes or any 2020 Bonds of a Series for tax-advantaged status under the Internal Revenue Code of 1986, as amended, and the applicable Treasury Regulations (the “Tax Code”), and to maintain such exemption or status. The Executive Director is further authorized to make on behalf of VRA such elections under the Tax Code with respect to any Series of the 2020 Bonds as she may deem to be in the best interests of VRA after consultation with VRA's bond counsel. The calculation of “true interest cost” of any 2020 Bonds or Notes (as defined in paragraph 13 below) for purposes of paragraphs 1 and 13 hereof may take into account the net benefit expected to be received by VRA from the issuance of 2020 Bonds with tax-advantaged status in any reasonable manner approved by the Executive Director.

10. Investment of Proceeds. Notwithstanding anything to the contrary contained in VRA's Investment Policy, the investment of all monies deposited in any of the funds or accounts established by the Master Indenture and any Supplemental Series Indenture related to a Series of the 2020 Bonds will be governed by the sections of the Master Indenture and such Supplemental Series Indenture related to permitted investments. In addition, the Executive Director is authorized to contract with the Virginia State Non-Arbitrage Program and/or an

arbitrage rebate consulting firm to provide investment and/or arbitrage compliance services with respect to the 2020 Bonds.

11. Approval of Local Obligation Documents. The model Financing Agreement previously submitted to the Board is hereby approved for use in providing for the purchase or acquisition of Local Obligations related to the 2020 Bonds or the making of the Direct Loans; provided, however, that the provisions therein may be altered to accommodate different terms agreed to by VRA and the various participating Borrowers.

12. Agreement between the Department of Environmental Quality (DEQ) and the Department of Health (VDH). Prior to the issuance of any of the 2020 Bonds pursuant to this Resolution there shall be a written agreement between DEQ and VDH or reflected in the respective Intended Use Plans submitted to the U.S. Environmental Protection Agency outlining the understanding of each party related to the combining assets through cross-collateralization of the Clean Water RLF and Drinking Water RLF as security for the Bonds and the provisions for any repayment in the unlikely event of a shortfall from either the Clean Water RLF or the Drinking Water RLF.

13. Interim Financing. Prior to the offering of any Series of 2020 Bonds, if market or other conditions are such that the Chairman, in consultation with the Executive Director, determines that it is not advisable to enter into a long-term financing for all or any portion of the purchasing and acquiring of Local Obligations to finance or refinance the cost of any Project, the Executive Director, without further approval of the Board as to documentation or otherwise, may execute, deliver and issue short-term notes of VRA (“Notes”) at public or private sale in anticipation of the issuance of any or all series of 2020 Bonds; provided that the aggregate principal amount of the Notes shall not exceed \$350,000,000 (less the aggregate principal amount of any previously issued series of 2020 Bonds), the term to maturity thereof shall not exceed five years and the true interest cost thereon shall not exceed 5.0% and the Notes shall be subject to such other terms and conditions contained in this Resolution to the extent not inconsistent with this paragraph 13. Any of the Notes may be extended or refinanced from time to time by or at the direction of the Executive Director, provided that no extension or refinancing matures later than five years from the date of the original issuance of such Note. The Executive Director is authorized and directed to affix the seal of VRA to such Notes and to attest the seal. The Notes may be secured in the same manner as the corresponding Series of 2020 Bonds and may be retired, in the discretion of the Board, from the proceeds of the corresponding Series of 2020 Bonds or by means of current revenues or other funds, provided that the maximum amount of the series of 2020 Bonds authorized will be reduced by the amount of Notes retired by means of such current revenues or other funds.

14. Authorization of Further Actions. Each officer of VRA is authorized to execute and deliver on VRA's behalf such other instruments, documents or certificates, and to do and perform such things and acts as he or she shall deem necessary or appropriate to carry out the transactions authorized by this Resolution or contemplated by the Master Indenture and any Supplemental Series Indenture related to the 2020 Bonds, the Notes, the Local Obligations, or the Direct Loans, including without limitation applying for and obtaining rating confirmations from the Rating Agencies regarding the amendments to the Master Indenture set forth in the 2020 Model Supplement. The foregoing authorization is deemed to include the execution and delivery of an amended and restated Master Indenture to incorporate the amendments described in Recital M

above and all previous amendments to the Master Indenture if the Executive Director determines that amending and restating the Master Indenture will facilitate the administration of the document and disclosure about the document in any offering materials. Any of the foregoing previously done or performed by any officer of VRA is in all respects approved, ratified and confirmed.

15. Effective Date; Termination. This Resolution shall be immediately effective. The authority to issue 2020 Bonds and Notes pursuant to this Resolution shall terminate on September 30, 2020.