OFFICIAL DOCUMENTS

Loan Agreement

(Additional Financing for the Irrigation System Enhancement Project)

between

REPUBLIC OF ARMENIA

and

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
AGREEMENT dated as of the Signature Date between REPUBLIC OF ARMENIA ("Borrower") and INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT ("Bank") for the purpose of providing additional financing for activities related to the Original Project (as defined in the Appendix to this Agreement). The Borrower and the Bank hereby agree as follows:

ARTICLE I — GENERAL CONDITIONS; DEFINITIONS

1.01. The General Conditions (as defined in the Appendix to this Agreement) apply to and form part of this Agreement.

1.02. Unless the context requires otherwise, the capitalized terms used in this Agreement have the meanings ascribed to them in the General Conditions or in the Appendix to this Agreement.

ARTICLE II — LOAN

2.01. The Bank agrees to lend to the Borrower the amount of two million Dollars ($2,000,000), as such amount may be converted from time to time through a Currency Conversion ("Loan"), to assist in financing the Project described in Schedule 1 to this Agreement ("Project").

2.02. The Borrower may withdraw the proceeds of the Loan in accordance with Section III of Schedule 2 to this Agreement.

2.03. The Front-end Fee is one quarter of one percent (0.25%) of the Loan amount.

2.04. The Commitment Charge is one quarter of one percent (0.25%) per annum on the Unwithdrawn Loan Balance.

2.05. The interest rate is the Reference Rate plus the Variable Spread or such rate as may apply following a Conversion; subject to Section 3.02(c) of the General Conditions.

2.06. The Payment Dates are May 15 and November 15 in each year.

2.07. The principal amount of the Loan shall be repaid in accordance with Schedule 3 to this Agreement.
ARTICLE III — PROJECT

3.01. The Borrower declares its commitment to the objectives of the Project. To this end, the Borrower shall carry out the Project in accordance with the provisions of Article V of the General Conditions and Schedule 2 to this Agreement.

ARTICLE IV — EFFECTIVENESS

4.01. The Additional Condition of Effectiveness consists of the following, namely that the Operations Manual shall have been amended and adopted in form and substance satisfactory to the Bank.

4.02. The Effectiveness Deadline is the date one hundred and eighty (180) days after the Signature Date.

ARTICLE V — REPRESENTATIVE; ADDRESSES

5.01. The Borrower’s Representative is its Minister of Finance.

5.02. For purposes of Section 10.01 of the General Conditions:

(a) the Borrower’s address is:

Ministry of Finance
1 Melik-Adamyan Street
Yerevan 0010
Republic of Armenia;

and

(b) the Borrower’s Electronic Address is:

Facsimile:

374 11 800132

5.03. For purposes of Section 10.01 of the General Conditions:

(a) the Bank’s address is:

International Bank for Reconstruction and Development
1818 H Street, N.W.
Washington, D.C. 20433
United States of America;
and

(b) the Bank’s Electronic Address is:

Telex: 248423(MCI) or 64145(MCI)
Facsimile: 1-202-477-6391

AGREED as of the Signature Date.

REPUBLIC OF ARMENIA

By

Authorized Representative

Name: Vardan Aranyan
Title: Minister of Finance
Date: November 20, 2017

INTERNATIONAL BANK FOR
RECONSTRUCTION AND DEVELOPMENT

By

Authorized Representative

Name: Sylvie Bossoutrot
Title: Country Manager
Date: November 20, 2017
SCHEDULE 1

Project Description

The objectives of the Project are to: (i) reduce the amount of energy used and improve irrigation conveyance efficiency in targeted irrigation schemes; and (ii) improve the availability and reliability of important sector data and information for decision-makers and other stakeholders.

The Project consists of the following parts:

Part A: Irrigation System Enhancement

1. (a) Conversion of pump-based irrigation to gravity through the construction of the gravity systems in Gegardalich, Meghri, Baghramyan-Norakert and Kaghtsrashen; and

   (b) construction of the tertiary canal system for the gravity system in Baghramyan-Norakert.

2. Upgrading of outlet and other canals conveying pumped water through the rehabilitation of about 52km of outlet canals in thirteen (13) selected pumping schemes.

Part B: Management Information

1. Conducting technical investigations to: (a) analyze the operation and maintenance needs and the extra-ordinary maintenance needs of irrigation institutions; (b) carry out a technical audit of the Water Supply Agencies and the WUAs.

2. Installation of a supervisory control and data acquisition (SCADA) system at about seventy (70) observation points on the main canals and at selected intakes.

Part C: Project Management and WUAs Support

1. Provision of support to the PIU in Project management, implementation, monitoring and evaluation through the provision of goods, consultants’ services including audit, and Operating Costs.

2. Provision of support to the WUAs management, personnel, and members to improve their technical, operational, financial and organizational capacity and performance through the provision of consultants’ services, and Training.
SCHEDULE 2

Project Execution

Section I. Implementation Arrangements

A. Institutional Arrangements

1. The Borrower, through SCWE, shall designate the PIU with the responsibility for procurement planning, monitoring and reporting, financial management and disbursement, maintenance of Project accounts and preparation of Project reports, and shall ensure that PIU at all times shall have adequate staff and resources to fulfill its responsibilities with respect to Project implementation and management.

2. The Borrower shall ensure that the PIU shall carry out the Project in accordance with the Operations Manual and, except as the Bank shall otherwise agree, shall not amend or waive any provision of the Operations Manual if, in the opinion of the Bank, such amendment or waiver may materially and adversely affect the carrying out of the Project or the achievement of the objective thereof.

3. The Borrower shall maintain the WUAs’ Support Group within the PIU until completion of the Project which shall assist in the implementation of Part C.2 of the Project.

4. The Borrower shall ensure that necessary budgetary resources are made available to the irrigation sector for maintenance of irrigation systems in the Borrower’s annual budget.

B. Safeguards

1. Except as the Bank shall otherwise agree, the Borrower, through SCWE, shall: (a) apply for the activities under Part A of the Project the criteria, policies, procedures and arrangements set out in the Pest Management Plan, EMF, EMPs, EIA, RPF and RAPs as required; and (b) not amend or waive, or permit to be amended or waived the EMF, EMPs, EIA, RPF and RAPs, or any provision thereof, in a manner which, in the opinion of the Bank, may materially and adversely affect the implementation of the Project.

2. The Borrower, through SCWE, shall:

(a) ensure that: (i) civil works on any particular irrigation scheme or section of a scheme selected under Part A of the Project will not start, unless an EMP for that scheme or a selected section, satisfactory to the Bank, has been prepared by the Borrower and disclosed locally, and on the SCWE website; and (ii) the arrangements are made for public review and
comment of said EMP, any comments received have been responded to in a manner acceptable to the Bank, and the final approved version of the EMP has been disclosed locally; and (iii) any provision of the respective EMP is not assigned, amended, abrogated or waived without prior review and approval of the Bank;

(b) ensure that all activities undertaken for the purpose of carrying out of Part A of the Project, comply with environmental standards and guidelines satisfactory to the Bank;

(c) ensure that the selection of any irrigation scheme or section of a scheme under Part A of the Project is carried out in accordance with the provisions of its respective EMP;

(d) ensure the complete implementation of the EMPs in a manner acceptable to the Bank, including all necessary measures to minimize and to mitigate any adverse environmental impacts caused by the implementation of Part A of the Project; and

(e) maintain the SCWE, and ensure that it has appointed competent staff in adequate numbers and with such responsibilities and functions acceptable to the Bank as shall enable the SCWE to manage, coordinate and monitor the implementation of the EMPs.

3. Where the need to acquire land along a specific irrigation scheme or section of a scheme arises, the Borrower, through SCWE, shall:

(a) prepare and disclose to the public, an RAP acceptable to the Bank, not later than thirty (30) days before the begin of civil works on the respective irrigation scheme or section of a scheme;

(b) maintain or cause to be maintained and publicize or cause to be publicized, the availability of, grievance procedures to hear and determine fairly and in good faith, in accordance with the RPF, all complaints raised in relation to the implementation of the RAPs by those being affected and/or resettled (as that term is defined in the RAP) or by those communities who are adversely affected by the implementation of the RPF, as the case may be, and take all measures necessary to implement the determinations made under such grievance procedures; and

(c) take all such other actions as the Bank may consider necessary or desirable, including, without limitations: (i) employ a resettlement expert, satisfactory to the Bank, to conduct an ex post review of the implementation of the RAPs; (ii) furnish promptly to the Bank the findings and recommendations for follow up action resulting from each such
review; and (iii) implement all such recommendations for follow up action as are agreed with the Bank.

4. The Borrower, through SCWE, shall:

(a) continue to implement the Dam Safety Plan in a manner satisfactory to the Bank. The Borrower shall not amend, revise or waive the Dam Safety Plan without the prior written consent of the Bank.

(b) continue to maintain at all times, throughout Project implementation, a Dam Safety Panel comprising environmental and social experts, under terms of reference, composition and resources satisfactory to the Bank, for the purpose of reviewing and advising the Borrower on safety and other critical aspects of the design, construction and operations of dams; and

(c) thereafter, ensure that the recommendations of the panel of experts described in (a) above are properly followed and implemented in a manner satisfactory to the Bank, and for said purpose the Borrower shall take and/or cause to be taken all action necessary or appropriate to comply with said recommendations.

Section II. Project Monitoring Reporting and Evaluation

The Borrower shall furnish to the Bank each Project Report not later than one month after the end of each calendar semester, covering the calendar semester.

Section III. Withdrawal of Loan Proceeds

1. Without limitation upon the provisions of Article II of the General Conditions and in accordance with the Disbursement and Financial Information Letter, the Borrower may withdraw the proceeds of the Loan to: (a) finance Eligible Expenditures; and (b) pay the Front-end Fee; in the amount allocated and, if applicable, up to the percentage set forth against each Category of the following table

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount of the Loan Allocated (expressed in USD)</th>
<th>Percentage of Expenditures to be financed (inclusive of Taxes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Goods, works, non-consulting services, and consulting services, Training and Operating Costs for the Project</td>
<td>1,995,000</td>
<td>80%</td>
</tr>
</tbody>
</table>
2. Notwithstanding the provisions of paragraph 1 above, no withdrawal shall be made for payments made prior to the Signature Date.

3. The Closing Date is June 30, 2019.

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount of the Loan Allocated (expressed in USD)</th>
<th>Percentage of Expenditures to be financed (inclusive of Taxes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2) Front-end Fee</td>
<td>5,000</td>
<td>Amount payable pursuant to Section 2.03 of this Agreement in accordance with Section 2.07 (b) of the General Conditions</td>
</tr>
<tr>
<td>TOTAL AMOUNT</td>
<td><strong>2,000,000</strong></td>
<td></td>
</tr>
</tbody>
</table>
SCHEDULE 3

The following table sets forth the Principal Payment Dates of the Loan and the percentage of the total principal amount of the Loan payable on each Principal Payment Date ("Installment Share").

<table>
<thead>
<tr>
<th>Principal Payment Date</th>
<th>Installment Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>On each May 15 and November 15</td>
<td></td>
</tr>
<tr>
<td>Beginning May 15, 2032 through May 15, 2042</td>
<td>4.55%</td>
</tr>
<tr>
<td>On November 15, 2042</td>
<td>4.45%</td>
</tr>
</tbody>
</table>
APPENDIX

Definitions

1. “Anti-Corruption Guidelines” means, for purposes of paragraph 5 of the Appendix to the General Conditions, the “Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants”, dated October 15, 2006 and revised in January 2011 and as of July 1, 2016.

2. “Dam Safety Panel” means a group established by the Borrower with composition and under terms of reference acceptable to the Bank consisting of national and international experts to review the design of, and oversee implementation of safety measures for the reconstruction of the Geghardalich dam under Part A.1 (a) of the Project.

3. “Dam Safety Plan” means the plan approved by the Borrower on February 12, 2003 and referred to in Section I.B.4 (a) of Schedule 2 to this Agreement.

4. “EIA” means the Borrower’s environmental impact assessment reports prepared for Meghri (dated April 2015); Baghramyan-Norakert (dated September 2016); Kaghtsrashen (dated March 2017) and Geghardalich (dated April 2017), schemes prepared under Part A.1 (a) of the Project, all acceptable to the Bank, consisting of inter alia: (i) a description of the site where construction activities are to be carried out under the Project and the justification for said activities; (ii) the potential environmental impacts of the construction activities referred to under sub-paragraph (i) above; and (iii) an environmental management plan setting forth adequate mitigating measures and systems required to monitor the implementation of the construction activities referred to under sub-paragraph (i) above and to ensure compliance of such activities with said measures with a view to limiting any actual and potential adverse environmental impact.

5. “EMF” means the Borrower’s Environmental Management Framework, acceptable to the Bank, dated March 29, 2013 and as amended in January 2017, outlining the procedures for: (a) screening individual Project investments based on their expected impact on the natural and social environment; (b) evaluating their risks; (c) defining a need for environmental assessment as part of procedure for preparing EMPs and scope of environmental assessment as required; (d) disclosure; and (e) monitoring of EMP implementation.

6. “EMP” means site-specific environmental management plans, acceptable to the Bank, derived from the EMF and to be prepared during the implementation of the Project prior to the commencement of any civil works under the Project, describing the environmental mitigation, monitoring and institutional measures to be undertaken during the implementation of the Project.

8. “MOEINR” means the Ministry of Energy Infrastructures and Natural Resources of the Borrower or any successor or successors thereto.

9. “Operating Costs” means operating expenditures incurred by the PIU and the site supervisors on account of the Project implementation, management and monitoring, including operation and maintenance of vehicles, social charges, office equipment operation and supplies, communication costs, support for information systems, translation costs, bank charges, travel and per diem costs and other reasonable expenditures directly associated with the implementation of the Project activities, all based on an annual budget acceptable to the Bank.

10. “Operations Manual” means the Borrower’s manual describing procedures for the implementation of the Project, consistent with the provisions of this Agreement and with the national laws and regulations of the Borrower, including procedures governing administrative, procurement, accounting, financial management, monitoring and evaluation arrangements for the Project; as the same may be amended from time to time with the agreement of the Bank (including as required pursuant to Section 4.01 of this Agreement).

11. “Original Loan Agreement” means the Loan Agreement for an Irrigation System Enhancement Project between the Borrower and the Bank, dated May 29, 2013 as amended to the date of this Agreement (Loan No 8267-AM).

12. “Original Project” means the Project described in Schedule 1 to the Original Loan Agreement.

13. “Pest Management Plan” means the plan for the safe handling, use and disposal of pesticides used by the beneficiaries of the Project and awareness raising on the integrated pest management, which is to be included within the EMPs.

14. “PIU” means the Water Sector Project Implementation Unit operating within the SCWE under the MOEINR of the Borrower.

15. “Procurement Regulations” means, for purposes of paragraph 85 of the Appendix to the General Conditions, the “World Bank Procurement Regulations for Borrowers under Investment Project Financing”, dated July 1, 2016.

16. “RAP/s” means the resettlement action plan/s to be prepared and approved by the Borrower pursuant to Section B.3 (a) of Schedule 2 to this Agreement as implementing recommendation of the RPF for selected canal section/s under the Project.
17. "RPF" means the resettlement policy framework, prepared and approved by the Borrower on March 29, 2013 and as amended in January 2017, defining the modalities for land acquisition, resettlement and rehabilitation of displaced persons under Part A of the Project.

18. "SCWE" means the State Committee of Water Economy under the MOEINR of the Borrower which will be responsible for overall implementation of the Project.

19. "Signature Date" means the later of the two dates on which the Borrower and the Bank signed this Agreement and such definition applies to all references to "the date of the Loan Agreement" in the General Conditions.

20. "Training" means expenditures incurred on account of Project related study tours, training courses, seminars, workshops and other training activities, including travel and *per diem* costs of trainees and trainers.

21. "Water Supply Agency" means a state owned closed joint stock company responsible for maintaining and operating the upper level irrigation systems, established pursuant to the Borrower's Government Decree No. 1301, dated December 29, 2001, or any legal successor thereto.


23. "WUAs' Support Group" means the PIU staff responsible for carrying out Part C.2 of the Project.